1424, 1424C, 1433, 1433C, 1434, and 1434C Large Square Balers

(Serial No. 000127 -)

OPERATOR'S MANUAL

1424, 1424C, 1433, 1433C, 1434, and 1434C Large Square Balers

OMFH322794 ISSUE A7 (ENGLISH)

John Deere Ottumwa Works

European Edition

PRINTED IN U.S.A.

Introduction

Foreword

1433 Model Shown

READ THIS MANUAL carefully to learn how to operate and service your machine correctly. Failure to do so could result in personal injury or equipment damage. This manual and safety signs on your machine may also be available in other languages. (See your John Deere dealer to order.)

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your machine and should remain with the machine when you sell it.

MEASUREMENTS in this manual are given in both metric and customary U.S. unit equivalents. Use only correct replacement parts and fasteners. Metric and inch fasteners may require a specific metric or inch wrench.

RIGHT-HAND AND LEFT-HAND sides are determined by facing in the direction the implement will travel when going forward.

WRITE PRODUCT IDENTIFICATION NUMBERS (P.I.N.) in the Specification section. Accurately record all the numbers to help in tracing the machine should it be stolen. Your dealer also needs these numbers when you order parts. File the identification numbers in a secure place off the machine.

WARRANTY is provided as part of John Deere's support program for customers who operate and maintain their equipment as described in this manual. The warranty is explained on the warranty certificate which you should have received from your dealer.

This warranty provides you the assurance that John Deere will back its products where defects appear within the warranty period. In some circumstances, John Deere also provides field improvements, often without charge to the customer, even if the product is out of warranty. Should the equipment be abused, or modified to change its performance beyond the original factory specifications, the warranty will become void and field improvements may be denied.

THE TIRE MANUFACTURER'S warranty applicable to your machine may not apply outside the U.S.

OUCC002,0003E53 -19-03NOV13-1/1

Trademarks

List of trademarks used through out this Operator's Manual.

Trademarks	
GreenStar™ 2 2600 Display	Trademark of Deere and Company
GreenStar™ 3 2630 Display	Trademark of Deere and Company

OUCC002,00038FB -19-03JAN12-1/1

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Original Instructions. All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

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Recognize Safety Information

This is a safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.

T81389 —UN—28JUN13

DX,ALERT -19-29SEP98-1/1

Understand Signal Words

DANGER; The signal word DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING; The signal word WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION; The signal word CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. CAUTION may also be used to alert against unsafe practices associated with events which could lead to personal injury.

TS187 —19—30SEP88

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards. DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

DX,SIGNAL -19-05OCT16-1/1

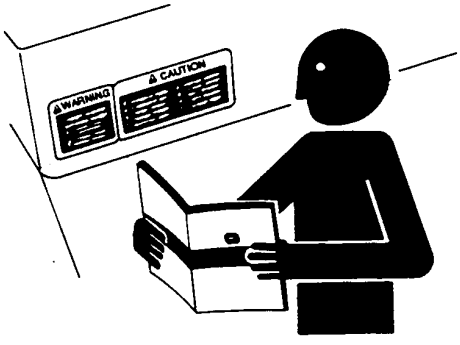
Follow Safety Instructions

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your John Deere dealer.

There can be additional safety information contained on parts and components sourced from suppliers that is not reproduced in this operator's manual.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.



TS201 —UN—15APR13

If you do not understand any part of this manual and need assistance, contact your John Deere dealer.

DX,READ -19-16JUN09-1/1

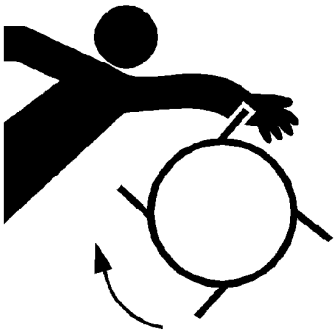
Operate Baler Safely

To avoid injury or death by being pulled into the machine:

DO NOT attempt to feed crop or twine into baler or unplug feed area WHILE BALER IS RUNNING. The baler feeds material faster than you can release it.

Disengage PTO and shut off engine.

Stand clear of baler at all times when machine is operating.



E41296 —UN—21JAN97

EX,100C,A -19-04MAR98-1/1

Use Handholds and Steps

Falling is a major cause of personal injury.

When you get on and off machine, always maintain a three point contact with steps and handrails and face the machine. Do not use any controls as handholds.

Never jump on or off the machine. Never mount or dismount a moving machine.

Be careful of slippery conditions on platforms, steps, and handrails when leaving the machine.

T6981AN —UN—15JUN89

TX,05,RR,A6 -19-20MAY96-1/1

Keep Riders Off Machine

Keep riders off.

Riders are subject to injury such as being struck by foreign objects and being thrown off of the machine. Riders also obstruct the operator's view resulting in the machine being operated in an unsafe manner.

E41255 —UN—31JAN97

EX,100C,J -19-04MAR98-1/1

Observe Road Traffic Regulations

Always observe local road traffic regulations when using public roads.

H28930 —UN—30JUN89

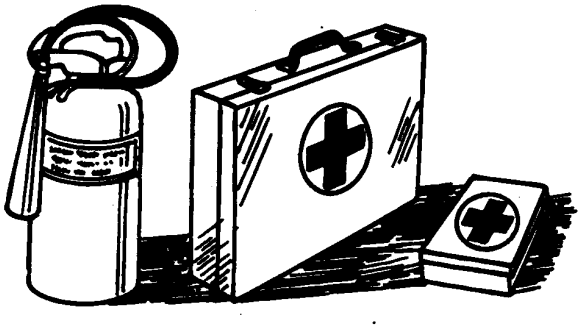
FX,ROAD -19-01MAY91-1/1

Prepare for Emergencies

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



TS291 —UN—15APR13

DX,FIRE2 -19-03MAR93-1/1

Fire Extinguisher Recommendations

A 10 kg (22 lb) general purpose fire extinguisher complying with legal regulations must be installed on the baler.

Make sure that the fire extinguisher is always ready for operation. Read the manual provided with the extinguisher for operating instructions. Once the extinguisher is discharged, no matter for how long, it must be recharged.

OUCC002,0003670 -19-28OCT11-1/1

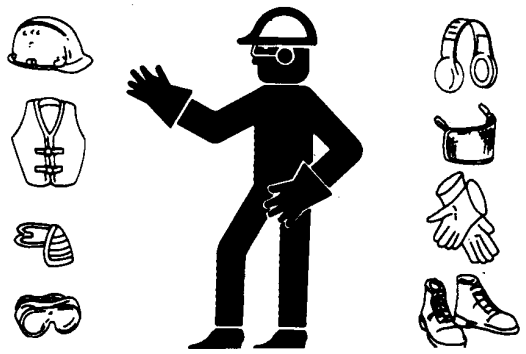
Wear Protective Clothing

Wear close fitting clothing and safety equipment appropriate to the job.

Prolonged exposure to loud noise can cause impairment or loss of hearing.

Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.

Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating machine.



TS206 —UN—15APR13

DX,WEAR -19-10SEP90-1/1

Handle Agricultural Chemicals Safely

Chemicals used in agricultural applications such as fungicides, herbicides, insecticides, pesticides, rodenticides, and fertilizers can be harmful to your health or the environment if not used carefully.

Always follow all label directions for effective, safe, and legal use of agricultural chemicals.

Reduce risk of exposure and injury:

- Wear appropriate personal protective equipment as recommended by the manufacturer. In the absence of manufacturer's instructions, follow these general guidelines:
  - Chemicals labeled **'Danger'**: Most toxic. Generally require use of goggles, respirator, gloves, and skin protection.
  - Chemicals labeled **'Warning'**: Less toxic. Generally require use of goggles, gloves, and skin protections.
  - Chemicals labeled **'Caution'**: Least toxic. Generally require use of gloves and skin protection.
- Avoid inhaling vapor, aerosol or dust.
- Always have soap, water, and towel available when working with chemicals. If chemical contacts skin, hands, or face, wash immediately with soap and water. If chemical gets into eyes, flush immediately with water.
- Wash hands and face after using chemicals and before eating, drinking, smoking, or urination.
- Do not smoke or eat while applying chemicals.
- After handling chemicals, always bathe or shower and change clothes. Wash clothing before wearing again.
- Seek medical attention immediately if illness occurs during or shortly after use of chemicals.
- Keep chemicals in original containers. Do not transfer chemicals to unmarked containers or to containers used for food or drink.

TS220 —UN—15APR13

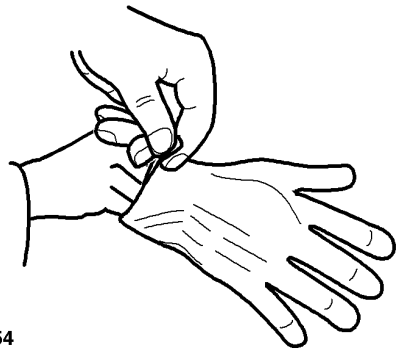
A34471 —UN—11OCT88

- Store chemicals in a secure, locked area away from human or livestock food. Keep children away.
- Always dispose of containers properly. Triple rinse empty containers and puncture or crush containers and dispose of properly.

DX,WW,CHEM01 -19-24AUG10-1/1

Handling of Knives

Prevent personal injury by wearing safety gloves to handle knives.



CC1026928 —UN—26JAN05

OUCC002,0003667 -19-27OCT11-1/1

Check Machine Safety

Always check the road and general operating safety of the machine before using.

FX,READY -19-28FEB91-1/1

Stay Clear of Rotating Drivelines

Entanglement in rotating driveline can cause serious injury or death.

Keep tractor master shield and driveline shields in place at all times. Make sure rotating shields turn freely.

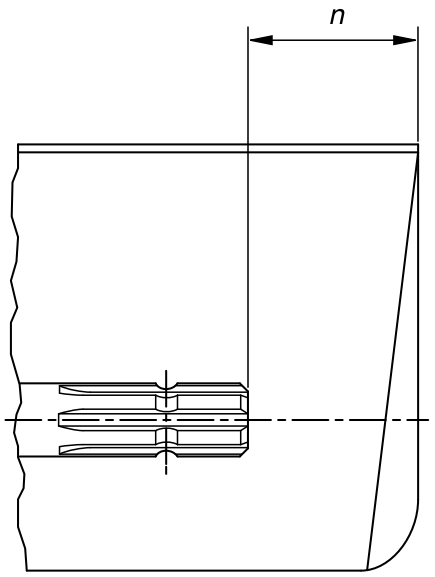
Wear close fitting clothing. Stop the engine and be sure that PTO driveline is stopped before making adjustments, connections, or cleaning out PTO driven equipment.

Do not install any adapter device between the tractor and the primary implement PTO drive shaft that will allow a 1000 rpm tractor shaft to power a 540 rpm implement at speeds higher than 540 rpm.

Do not install any adapter device that results in a portion of the rotating implement shaft, tractor shaft, or the adapter to be unguarded. The tractor master shield shall overlap the end of the splined shaft and the added adaptor device as outlined in the table.

PTO Type	Diameter	Splines	n ± 5 mm (0.20 in.)
1	35 mm (1.378 in.)	6	85 mm (3.35 in.)
2	35 mm (1.378 in.)	21	85 mm (3.35 in.)
3	45 mm (1.772 in.)	20	100 mm (4.00 in.)

TS1644 —UN—22AUG95



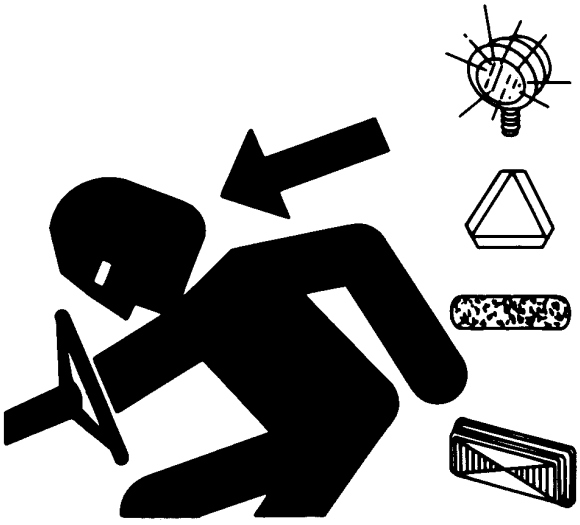
H96219 —UN—29APR10

DX,PTO -19-30JUN10-1/1

Use Safety Lights and Devices

Prevent collisions between other road users, slow moving tractors with attachments or towed equipment, and self-propelled machines on public roads. Frequently check for traffic from the rear, especially in turns, and use turn signal lights.

Use headlights, flashing warning lights, and turn signals day and night. Follow local regulations for equipment lighting and marking. Keep lighting and marking visible, clean, and in good working order. Replace or repair lighting and marking that has been damaged or lost. An implement safety lighting kit is available from your John Deere dealer.



TS951 —UN—12APR90

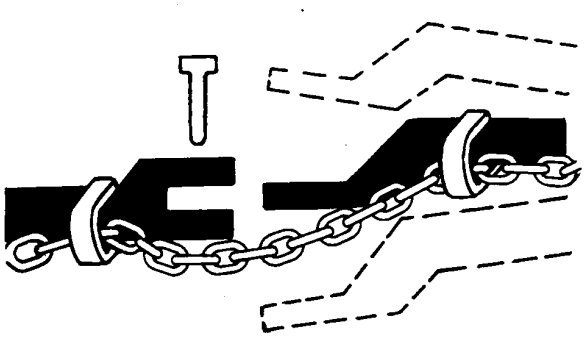
DX,FLASH -19-07JUL99-1/1

Use a Safety Chain

A safety chain will help control drawn equipment should it accidentally separate from the drawbar.

Using the appropriate adapter parts, attach the chain to the tractor drawbar support or other specified anchor location. Provide only enough slack in the chain to permit turning.

See your John Deere dealer for a chain with a strength rating equal to or greater than the gross weight of the towed machine. Do not use safety chain for towing.



TS217 —UN—23AUG88

DX,CHAIN -19-03MAR93-1/1

Observe Maximum Transport Speed

IMPORTANT: Maximum transport speed is determined by local road traffic regulations and speed capability of this implement.

Always observe local road traffic regulations when driving on public roads.

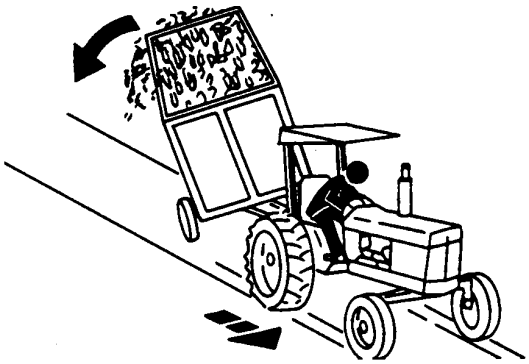
NOTE: See your John Deere dealer for more information.

Do not exceed implement gross weight (PTAC) when towing this implement at transport speed.

Some tractors are capable of operating at speeds that exceed the maximum transport speed capability of this implement. Regardless of the maximum speed capability of the tractor being used to tow this implement, do not exceed the implement's maximum transport speed.

Exceeding the implement's maximum transport speed can result in:

- Loss of control of the tractor/implement combination



TS216 —UN—23AUG88

- Reduced or no braking ability
- Implement tire failure
- Damage to the implement structure or its components

Use additional caution and reduce speed when towing under adverse surface conditions, when turning, and when on inclines.

OUCC002,000366A -19-27OCT11-1/1

Check Ballast, Wheel Spacing and Tire Inflation

Make sure ballast, wheel spacing and tire inflation are sufficient to ensure tractor and machine stability in all conditions, especially when operating on hilly fields or in other adverse conditions. Refer to the tractor operator's manual.

CC1031622 —UN—29MAY09

OUCC002,0003668 -19-27OCT11-1/1

Service Machine Safely

To aid in servicing the baler, rotate the baler flywheel by hand in the normal direction of operation.

Tie long hair behind your head. Do not wear a necktie, scarf, loose clothing, or necklace when you work near machine tools or moving parts. If these items were to get caught, severe injury could result.

Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.

OUCC002,000366B -19-24JAN12-1/1

Maximum Hydraulic Operating Pressure

Do not connect baler to a tractor with a maximum hydraulic operating pressure over 20685 kPa (207 bar, 3000 psi).

OUCC020,0002775 -19-12SEP12-1/1

Practice Safe Maintenance

Understand service procedure before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is moving. Keep hands, feet , and clothing from power-driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool.

Securely support any machine elements that must be raised for service work.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

On self-propelled equipment, disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.

On towed implements, disconnect wiring harnesses from tractor before servicing electrical system components or welding on machine.

TS218 —UN—23AUG88

DX,SERV -19-17FEB99-1/1

Remove Paint Before Welding or Heating

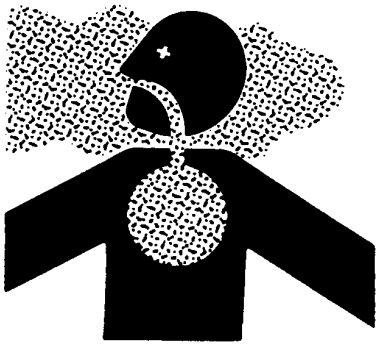
Avoid potentially toxic fumes and dust.

Hazardous fumes can be generated when paint is heated by welding, soldering, or using a torch.

Remove paint before heating:

- Remove paint a minimum of 100 mm (4 in.) from area to be affected by heating. If paint cannot be removed, wear an approved respirator before heating or welding.
- If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.
- If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.

Do not use a chlorinated solvent in areas where welding will take place.



TS220 —UN—15APR13

Do all work in an area that is well ventilated to carry toxic fumes and dust away.

Dispose of paint and solvent properly.

DX,PAINT -19-24JUL02-1/1

Avoid Heating Near Pressurized Fluid Lines

Flammable spray can be generated by heating near pressurized fluid lines, resulting in severe burns to yourself and bystanders. Do not heat by welding, soldering, or using a torch near pressurized fluid lines or other flammable materials. Pressurized lines can accidentally burst when heat goes beyond the immediate flame area.

TS953 —UN—15MAY90

DX,TORCH -19-10DEC04-1/1

Avoid High-Pressure Fluids

Inspect hydraulic hoses periodically – at least once per year – for leakage, kinking, cuts, cracks, abrasion, blisters, corrosion, exposed wire braid or any other signs of wear or damage.

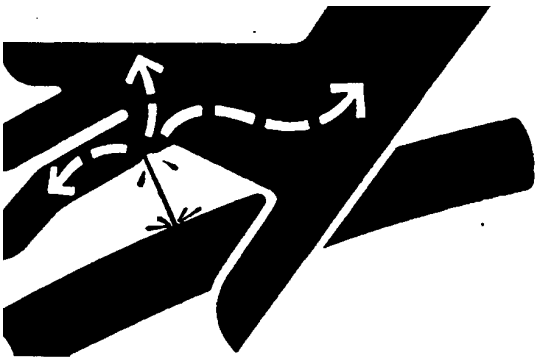
Replace worn or damaged hose assemblies immediately with John Deere approved replacement parts.

Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high-pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available in English from Deere & Company Medical Department in Moline, Illinois, U.S.A., by calling 1-800-822-8262 or +1 309-748-5636.



X9811 —UN—23AUG88

DX,FLUID -19-12OCT11-1/1

Service Accumulator Systems Safely

Escaping fluid or gas from pressurized hydraulic accumulator systems can cause serious injury. Extreme heat can cause the accumulator to burst, and pressurized lines can be accidentally cut. Do not weld or use a torch near a pressurized accumulator or pressurized line.

Relieve pressure from the hydraulic system before removing accumulator. Never attempt to relieve hydraulic system or accumulator pressure by loosening a fitting.

Accumulators cannot be repaired.

TS281 —UN—15APR13

DX,WW,ACCLA -19-15APR03-1/1

Service Tires Safely

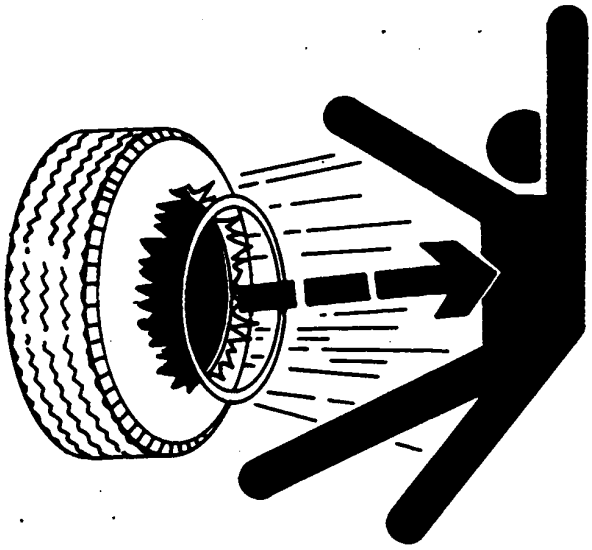
Explosive separation of a tire and rim parts can cause serious injury or death.

Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job.

Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.

When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.

Check wheels for low pressure, cuts, bubbles, damaged rims or missing lug bolts and nuts.



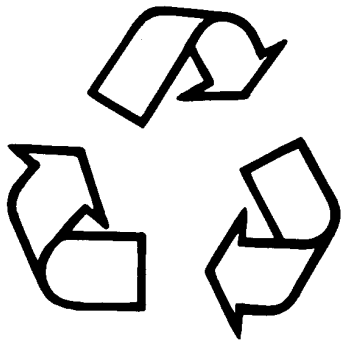
TS211 —UN—15APR13

DX,RIM -19-24AUG90-1/1

Decommissioning — Proper Recycling and Disposal of Fluids and Components

Safety and environmental stewardship measures must be taken into account when decommissioning a machine and/or component. These measures include the following:

- Use appropriate tools and personal protective equipment such as clothing, gloves, face shields or glasses, during the removal or handling of objects and materials.
- Follow instructions for specialized components.
- Release stored energy by lowering suspended machine elements, relaxing springs, disconnecting the battery or other electrical power, and releasing pressure in hydraulic components, accumulators, and other similar systems.
- Minimize exposure to components which may have residue from agricultural chemicals, such as fertilizers and pesticides. Handle and dispose of these components appropriately.
- Carefully drain engines, fuel tanks, radiators, hydraulic cylinders, reservoirs, and lines before recycling components. Use leak-proof containers when draining fluids. Do not use food or beverage containers.
- Do not pour waste fluids onto the ground, down a drain, or into any water source.
- Observe all national, state, and local laws, regulations, or ordinances governing the handling or disposal of waste fluids (example: oil, fuel, coolant, brake fluid);



TS1133 —UN—15APR13

filters; batteries; and, other substances or parts. Burning of flammable fluids or components in other than specially designed incinerators may be prohibited by law and could result in exposure to harmful fumes or ashes.

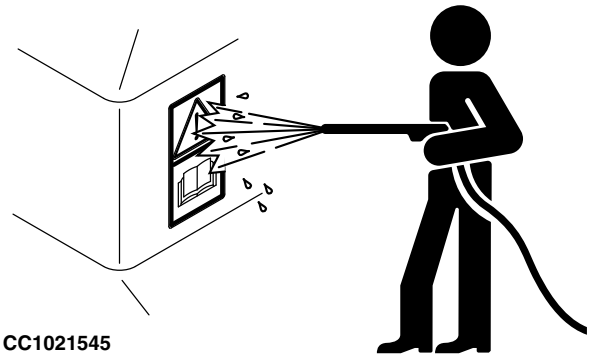
- Service and dispose of air conditioning systems appropriately. Government regulations may require a certified service center to recover and recycle air conditioning refrigerants which could damage the atmosphere if allowed to escape.
- Evaluate recycling options for tires, metal, plastic, glass, rubber, and electronic components which may be recyclable, in part or completely.
- Contact your local environmental or recycling center, or your John Deere dealer for information on the proper way to recycle or dispose of waste.

DX,DRAIN -19-01JUN15-1/1

Avoid High-Pressure Jet on Safety Decals

Pressurized water can remove or damage safety decals. Avoid to direct high-pressure jet on safety decals.

Immediately replace missing or damaged safety decals. Replacement safety decals are available from your John Deere dealer.



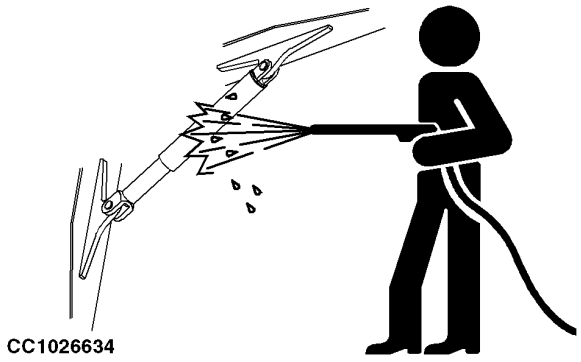
CC1021545

CC1021545 —UN—23APR02

OUCC002,000366D -19-27OCT11-1/1

Avoid High-Pressure Jet on Cylinders

Pressurized water can damage cylinders. Avoid to direct high-pressure jet on cylinders.



OUCC002,000366E -19-27OCT11-1/1

Safety Signs

Pictorial Safety Signs

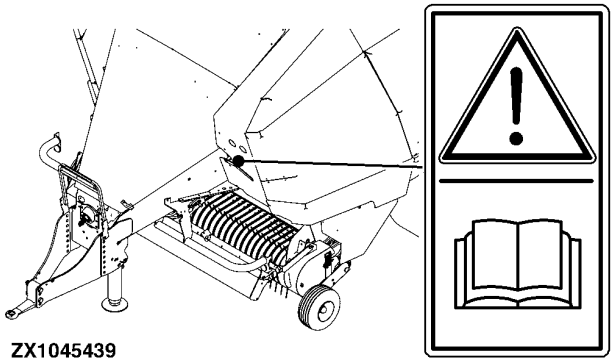
At several important places of this machine safety signs are affixed intended to signify potential danger. The hazard is identified by a pictorial in a warning triangle. An adjacent pictorial provides information how to avoid personal injury. These safety signs, their placement on the machine and a brief explanatory text are shown below.

TS231 —19—07OCT88

SF04007,0000918 -19-29OCT15-1/1

Operator's Manual

This Operator's Manual contains all important information necessary for safe machine operation. Carefully observe all safety rules to avoid accidents.



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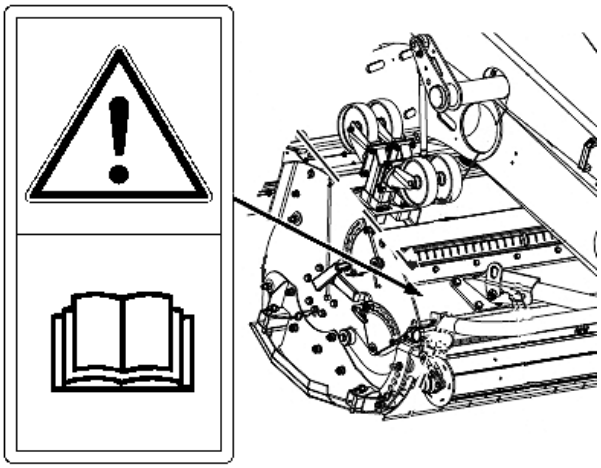
ZX1045439 —UN—04JAN12



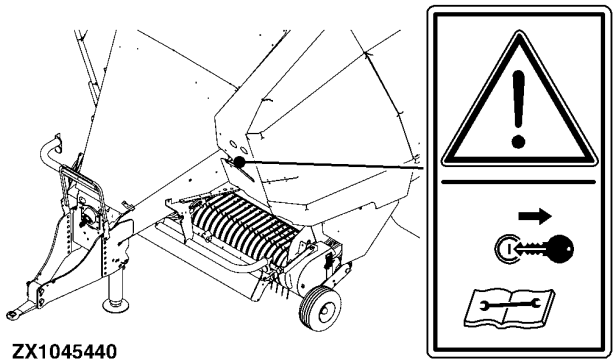
E80480 —UN—17DEC15

Prechopper (If Equipped)

SF04007,0000919 -19-11NOV15-1/1

Repair and Maintenance

Before carrying out repair and maintenance work, shut off engine and remove key.



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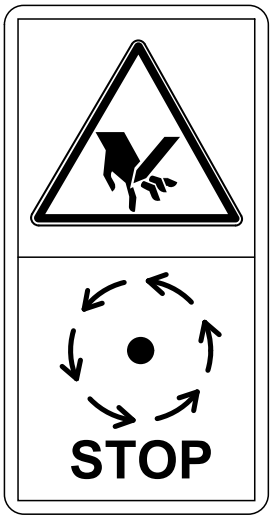
ZX1045440 —UN—04JAN12



E80481 —UN—17DEC15

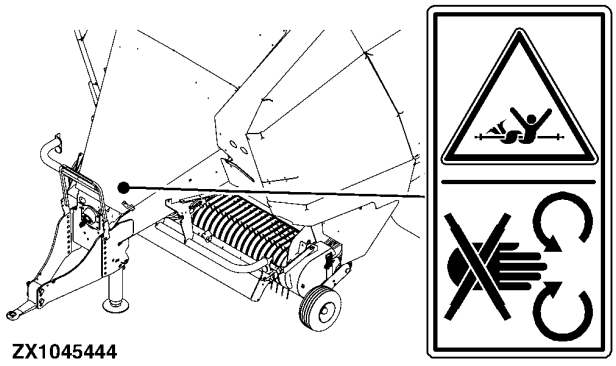
Prechopper (If Equipped)

SF04007,000091A -19-10NOV15-1/1

Baler Telescoping Driveline

Stay clear of rotating driveline to avoid personal injury.

Turn off tractor when connecting, disconnecting, or servicing driveline. Be sure all shields are in place and functioning properly.



ZX1045444

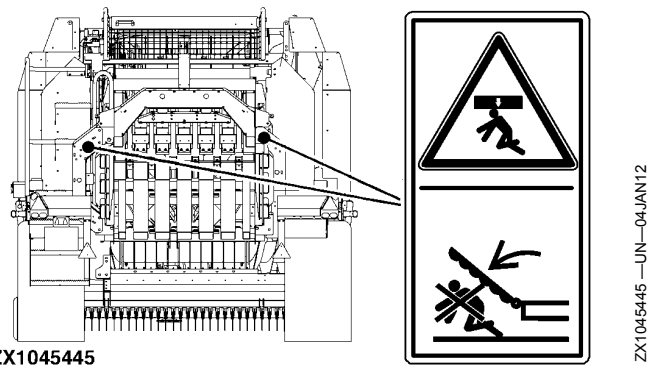
ZX1045444 —UN—04JAN12

SF04007,000091B -19-29OCT15-1/1

Raised Bale Chute

Do not allow anyone to walk or work under a raised bale chute.

Stay clear of raised bale chute as it could close faster than you can move away and may result in death or serious injury.



ZX1045445

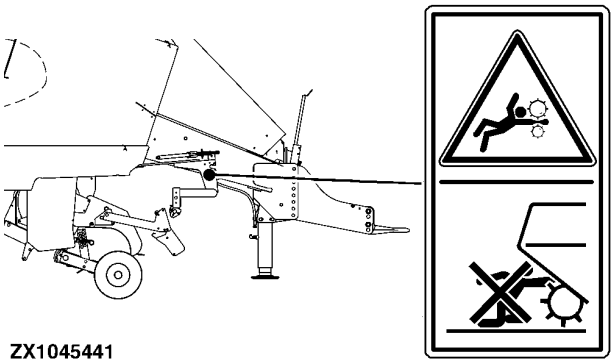
ZX1045445 —UN—04JAN12

SF04007,000091C -19-29OCT15-1/1

Pickup

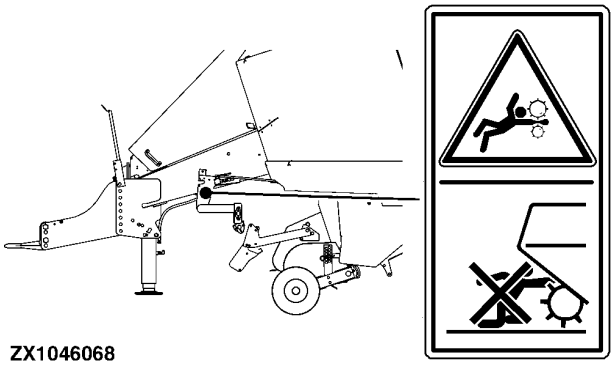
Rotating pickup can catch you faster than you can move away.

Stay clear of rotating pickup as it may result in death or serious injury.



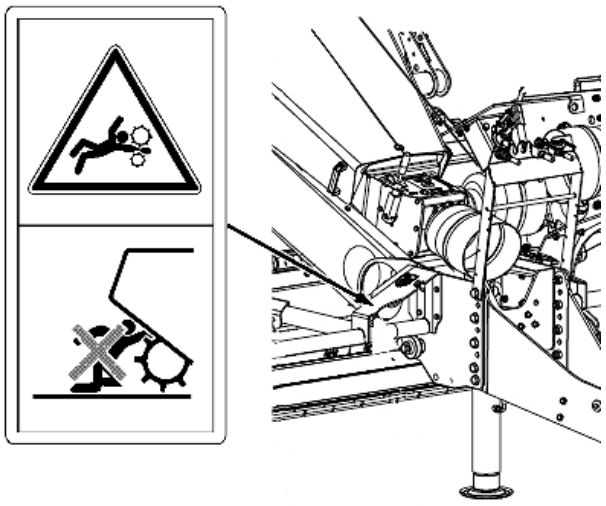
ZX1045441

ZX1045441 —UN—04JAN12



ZX1046068

ZX1046068 —UN—04JAN12



E80490 —UN—10NOV15

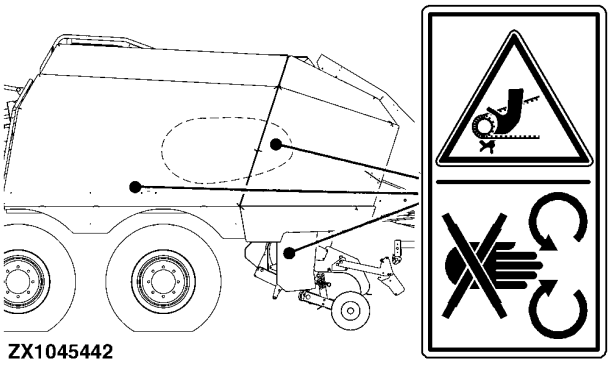
Prechopper (If Equipped)

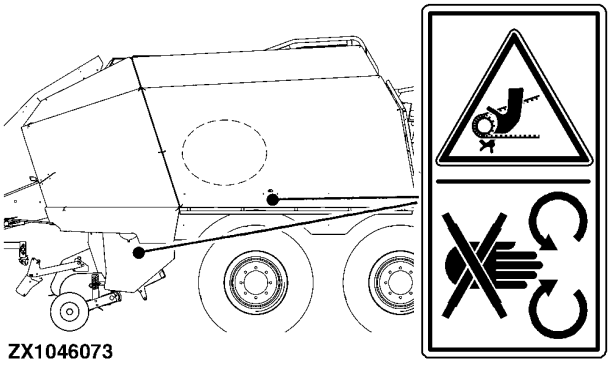
SF04007,000091D -19-10NOV15-1/1

Drive Chains

Do not open or remove guard when the baler is running.

Turn off tractor before accessing or servicing chains.

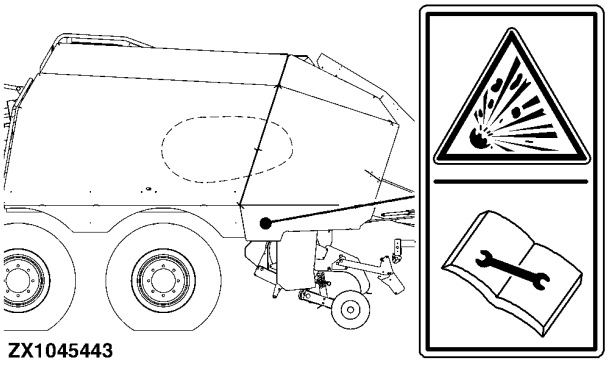




SF04007,000091E -19-29OCT15-1/1

Precutter Hydraulic Accumulators

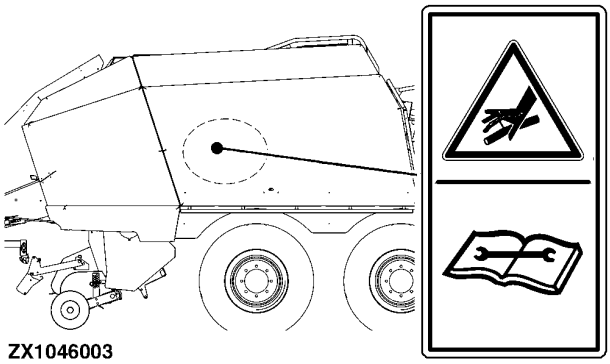
The hydraulic accumulators are under pressure. Have the accumulators removed and maintained by your John Deere dealer only. The dealer must follow the instructions in the Technical Manual.



SF04007,000091F -19-29OCT15-1/1

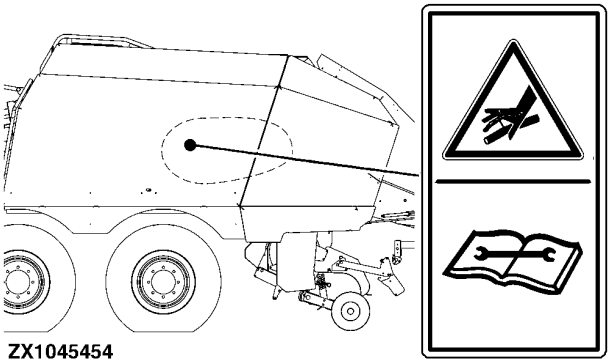
Working with High Pressure

Be careful with high outlet pressure. Consult the technical instructions first.



ZX1046003

ZX1046003 —UN—04JAN12



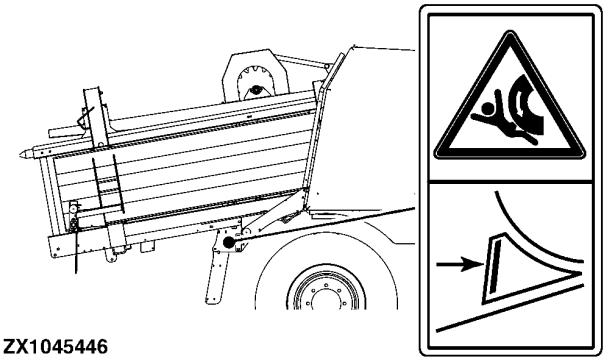
ZX1045454

ZX1045454 —UN—04JAN12

SF04007,0000920 -19-29OCT15-1/1

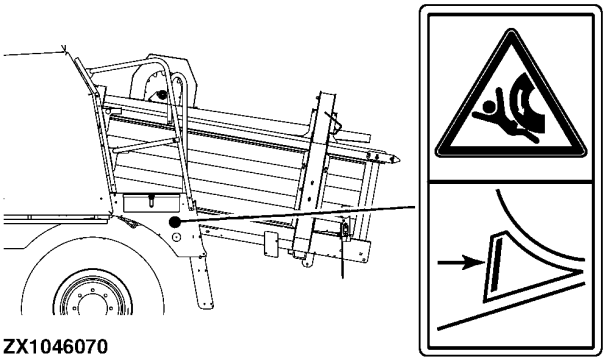
Chocks

Chock the wheels to stop the machine from rolling, when coupling, uncoupling or parking.



ZX1045446

ZX1045446 —UN—04JAN12



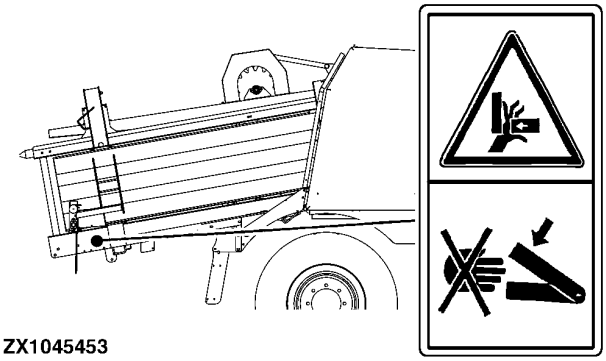
ZX1046070

ZX1046070 —UN—04JAN12

SF04007,0000921 -19-29OCT15-1/1

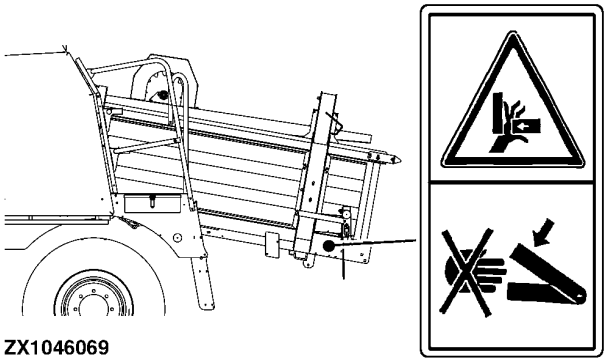
Bale Chute Pivoting

Keep out of the hazard area while parts are moving.



ZX1045453

ZX1045453 —UN—04JAN12



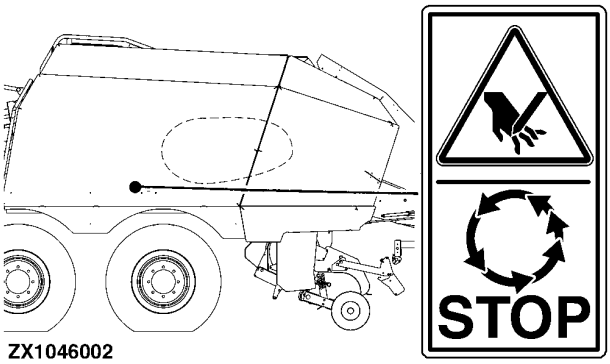
ZX1046069

ZX1046069 —UN—04JAN12

SF04007,0000922 -19-29OCT15-1/1

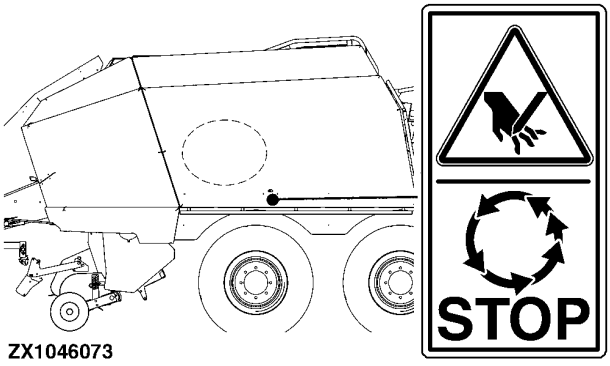
Packer and Needle Frame

Do not touch any moving machine parts. Wait until all moving parts have stopped and turn tractor off.



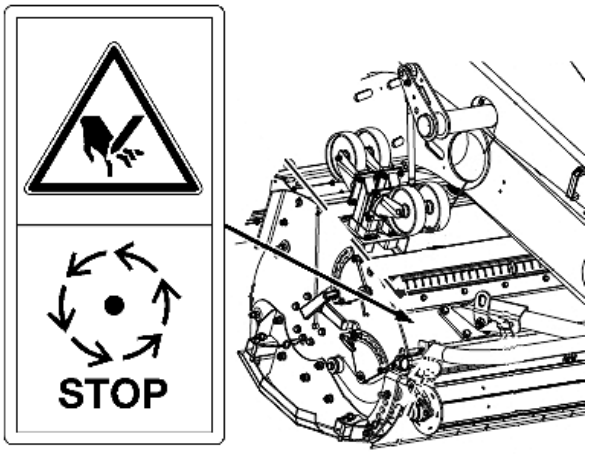
ZX1046002

ZX1046002 —UN—04JAN12



ZX1046073

ZX1046074 —UN—04JAN12



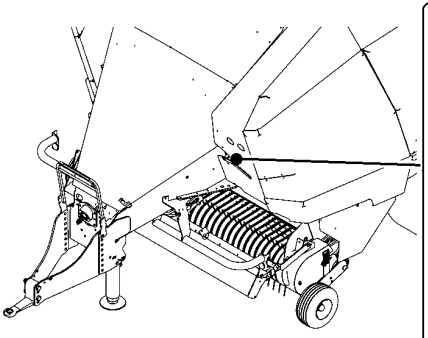
E80482 —UN—17DEC15

Prechopper (If Equipped)

SF04007,0000923 -19-10NOV15-1/1

Rotor

Do not touch any moving machine parts. Wait until all moving parts have stopped and turn off tractor.



ZX1046071

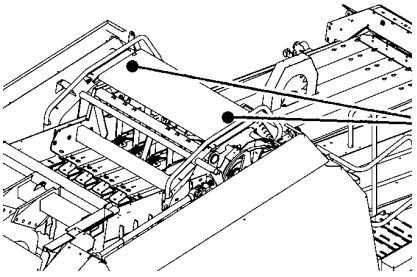
ZX1046071 —UN—04JAN12

SF04007,0000924 -19-29OCT15-1/1

Knotters

Keep out of the hazard area while parts are moving.

Turn off tractor before servicing, system can be automatically tripped initiating knotter movement.



ZX1046072

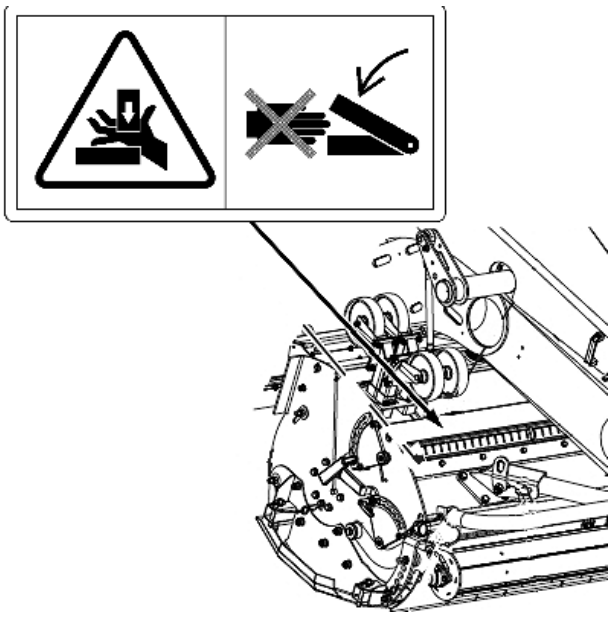
ZX1046072 —UN—04JAN12

SF04007,0000925 -19-29OCT15-1/1

Prechopper (If Equipped)

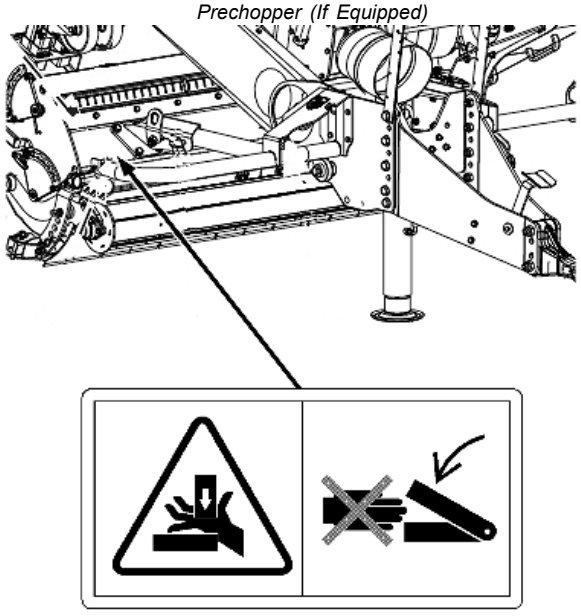
Danger of Crushing

Never reach into the crushing danger area, as long as parts may move.



E80483 —UN—17DEC15

Prechopper (If Equipped)



E80488 —UN—10NOV15

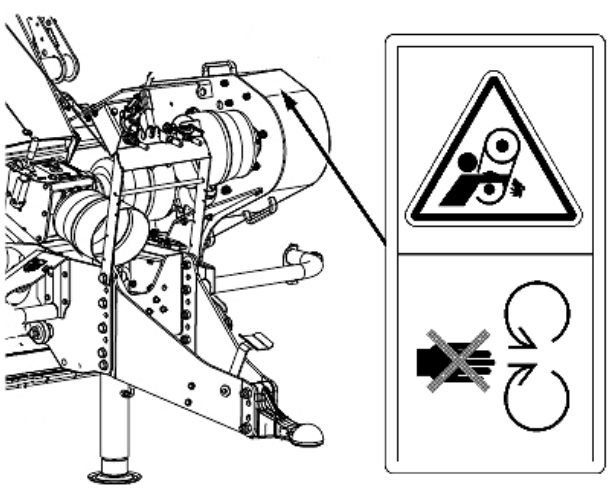
Prechopper (If Equipped)

Continued on next page

SF04007,0000989 -19-10NOV15-1/5

Moving Elements

Do not open or remove any shield or guard until machine comes to a complete standstill.



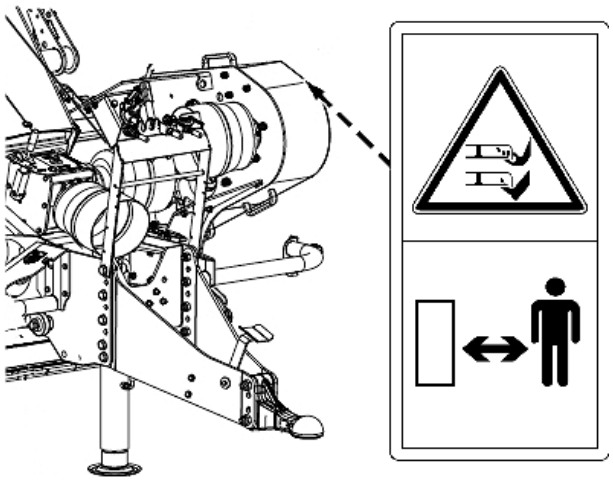
E80484 —UN—10NOV15

Prechopper (If Equipped)

SF04007,0000989 -19-10NOV15-2/5

Rotating Cutting Tools

Keep away from mower knives while engine is running, PTO drive is engaged, and moving parts have not come to a complete stop.



E80485 —UN—10NOV15

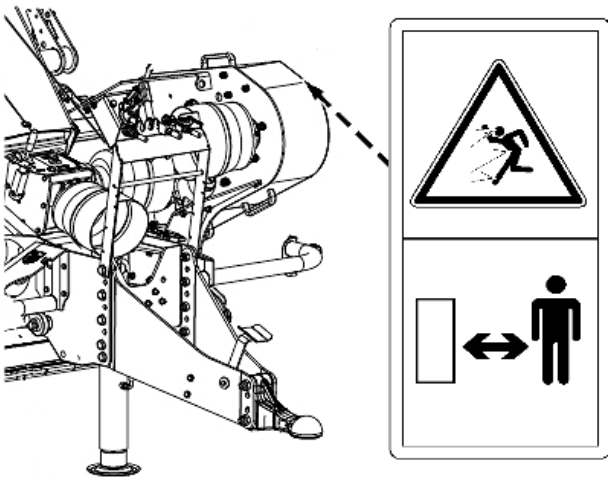
Prechopper (IF Equipped)

Continued on next page

SF04007,0000989 -19-10NOV15-3/5

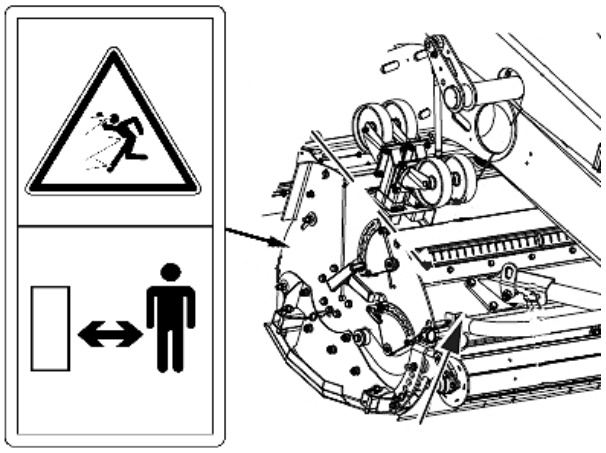
Projections

Stones and other debris projected by moving parts can travel long distances. Protection covers must always be in position and in good condition. Always stay a safe distance from the machine.



E80486 —UN—10NOV15

Prechopper (IF Equipped)



E80487 —UN—10NOV15

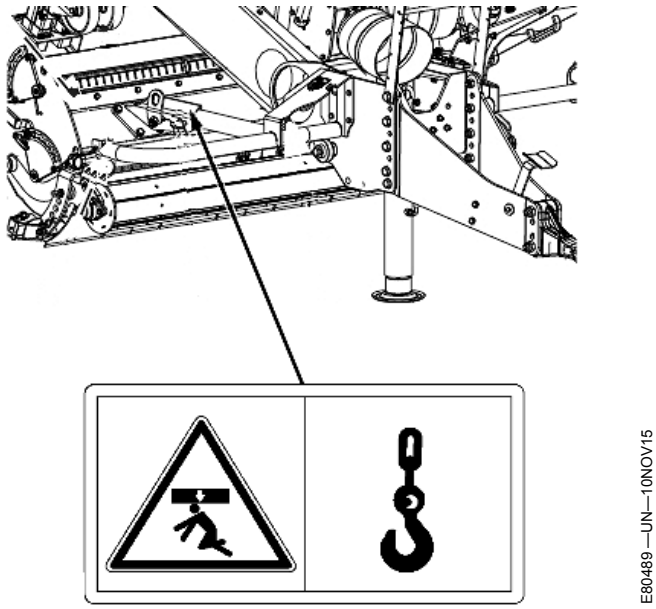
Prechopper (IF Equipped)

Continued on next page

SF04007,0000989 -19-10NOV15-4/5

Hoisting Area

Hoist machine only by using the hoist-eyes. Never get under a hoisted machine.



E80489 —UN—10NOV15

Prechopper (IF Equipped)

SF04007,0000989 -19-10NOV15-5/5

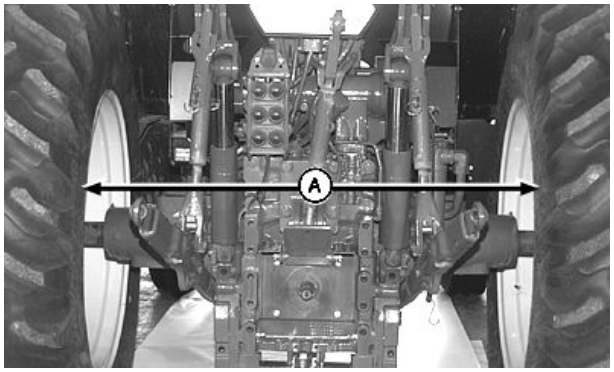
Adjust Tractor Wheels

NOTE: Refer to your tractor Operator's Manual for procedures to adjust wheel spacing and proper inflation pressures for tractor tires.

Adjust front and rear tractor wheels to provide a minimum inside tire-to-tire dimension according to specifications.

	Specification
Inside Tire-to-Tire—Distance	1524 mm (60 in)

A—Distance



E44031 —UN—20AUG97

SF04007,000098E -19-01DEC15-1/1

Three-Point Hitch and Lower Links Position

CAUTION: Remove tractor lower links to avoid them from touching baler drawbar. During a turn, lower links can touch drawbar and the machine can tip over. Personal injuries or damages to the machine can occur.

Before attaching baler to tractor:

- Remove tractor lower links (refer to tractor Technical Manual).

SF04007,000098F -19-01DEC15-1/1

Check Ballast, Wheel Spacing, and Tire Inflation

Provide sufficient weight to stabilize tractor when operating on hilly land or other adverse conditions. (See your tractor Operator's Manual).

To insure proper stability, adjust ballast, wheel spacing, and tire inflation according to tractor Operator's Manual.

SF04007,0000990 -19-01DEC15-1/1

Adjust Tractor Towing Device

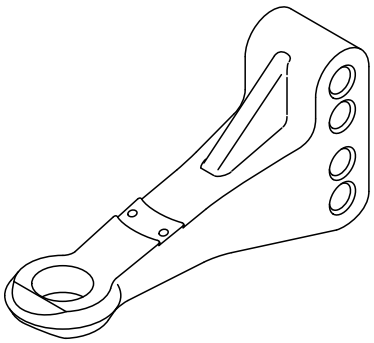
CAUTION: To avoid personal injury, use locking device to hold tractor hitch stationary when operating PTO-driven implements.

IMPORTANT: Before attaching baler, be sure to adjust towing device in its final position. Install all shields back in place.

Failure to conform to the following setup instructions can result in serious drive line damage.

To prevent damage to the hitch assembly, only compatible tractor and baler hitch shall be used. Allow clearance between tractor hitch pin and implement tow eye to give adequate pitch and roll ranges.

Select the appropriate tractor towing device to hitch the baler. Check the vertical and horizontal load capacity of tractor towing device. See your John Deere dealer.



E80016 —UN—25SEP15

Fixed Hitch (ISO 5692-2)

Fixed Hitch (ISO 5692-2)

Hitch hole is 40 mm.

Preferred hitch used in combination with a turnable tractor-towing device like a wagon hitch.

Continued on next page

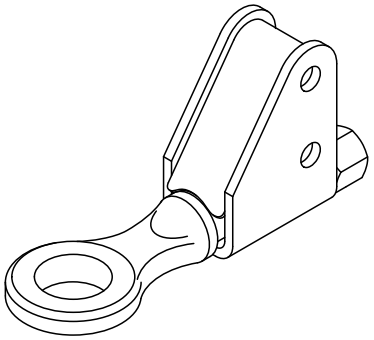
SF04007,00009BC -19-07DEC15-1/4

Turnable Hitch (ISO 5692-1)

CAUTION: Never use a turnable hitch eye on the baler in combination with a turnable tractor-towing device. Personal injuries and damage to the machine can occur.

Hitch hole is 50 mm.

Preferred hitch used in combination with a non-rotating tractor-towing device like a Drawbar or Piton fix hitch or Pick-up hitch.



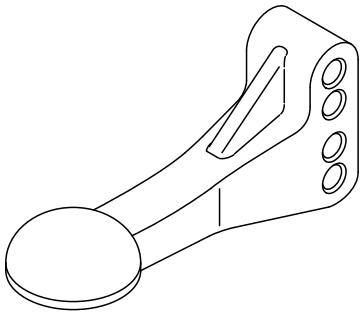
E80017 —UN—25SEP15

Turnable Hitch (ISO 5692-1)

SF04007,00009BC -19-07DEC15-2/4

Ball Hitch (ISO 24347)

Ball hitch on the tractor has to be 80 mm in diameter according to ISO 24347.



E80018 —UN—25SEP15

Ball Hitch (ISO 24347)

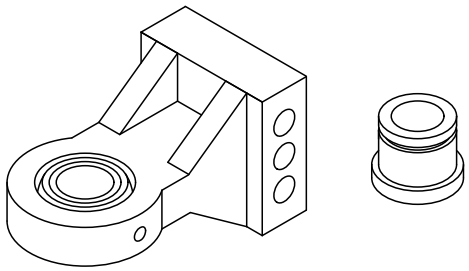
SF04007,00009BC -19-07DEC15-3/4

Ball Joint Towing Eye

Hitch hole is 52 mm.

Hitch allows minimum clearance between pin and hitch eye.

Inserts are available to reduce the hole size. See your John Deere dealer for more information.



E80029 —UN—30SEP15

Ball Joint Towing Eye

SF04007,00009BC -19-07DEC15-4/4

Adjust Tractor Drawbar

CAUTION: To avoid personal injury, use locking pins to hold drawbar stationary when operating PTO-driven implements.

IMPORTANT: Before attaching baler, be sure to adjust drawbar. Install all shields back in place.

IMPORTANT: Failure to conform to the following setup instructions can result in serious drive line damage.

The tractor tire inflation pressures specified in the tractor Operator's Manual will apply.

Baler must be hitched using tractor drawbar and hammer strap (see Tractor Operator's Manual). Always comply with your local road regulations.

Use only recommended size hitch pin for drawbar size equipped on tractor and baler. Use of oversized pins will result in damage or inadequate hitching strength.

Before the machine can be attached, the correct height of the hitch eye (A) to the tractor drawbar (B) must be determined.

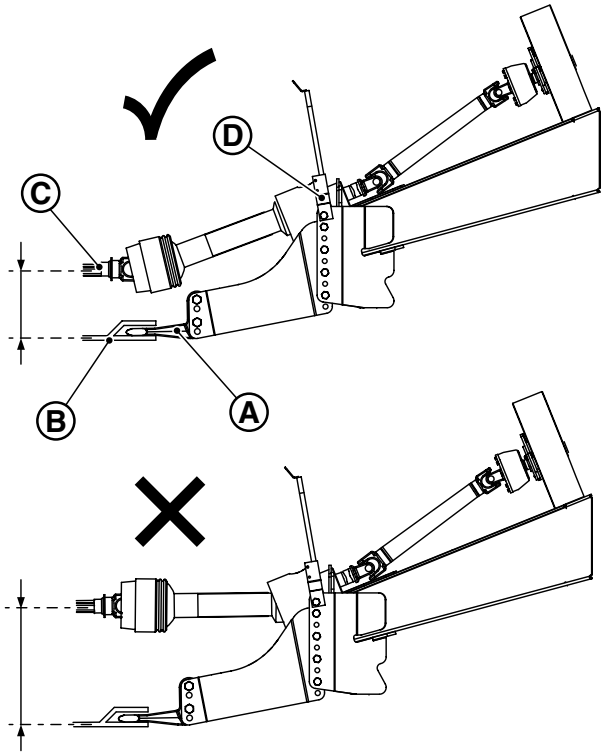
Set tractor drawbar (B) position as follows:

- Vertically align drawbar hitch pin hole with centerline of tractor PTO shaft (C).
- Set tractor drawbar (B) as close as possible to the PTO joint.

NOTE: Tractors using standard drawbar attachment may not be able to achieve alignment between the hitch pin hole and center of the wide-angle joint as shown.

The horizontal position of the hitch eye (A) should be as close as possible to the wide-angle joint to reduce vibrations and extend the telescoping driveline lifetime.

For optimal telescoping driveline angle, move intermediate bearing to a position that allows primary and secondary drivelines to have as small of an angle as possible (see illustration):



ZX1046005

ZX1046005 —UN—04JAN12

A—Hitch Eye
B—Drawbar
C—PTO Shaft
D—Intermediate Bearing

- If tractor PTO is mounted in a high position, move intermediate bearing (D) to the highest setting.
- If tractor PTO is mounted in a low position, move intermediate bearing (D) to lowest setting.

To set hitch eye (A) and intermediate bearing (D) position, refer to Preparing the Baler section.

SF04007,00009BD -19-07DEC15-1/1

Adjust Tractor Selective Control Valves

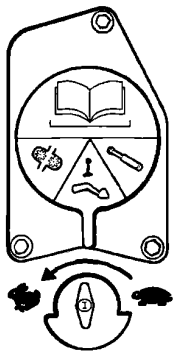
Tractor must have:

- One single acting control valve for pickup - jackstand lift circuit.
- One double acting control valve for bale chute - last bale ejector circuit.
- One single acting control valve for steerable tandem axle circuit.

IMPORTANT: Adjust tractor SCV to float position to activate pickup float or damage to pickup may occur.

Adjust tractor SCV for pickup float, as follows:

For 6000/7000 Series John Deere tractors; Adjust SCV lever for continuous detent. *Lever must be manually returned to neutral.* Move SCV lever lockout to full left position.



CC000833

CC000833 —UN—05APR95

For 8000 Series John Deere tractors, set detent time to 0.

Set tractor selective control valves at maximum flow. See tractor Operator's Manual for adjustments.

SF04007,0000993 -19-02DEC15-1/1

Select Tractor PTO Speed

IMPORTANT: Under no circumstances, should a baler equipped for 1000 rpm PTO drive be operated with a tractor at 540 or 750 rpm PTO speed. Always run tractor at rated PTO speed. Overspeed damages baler.

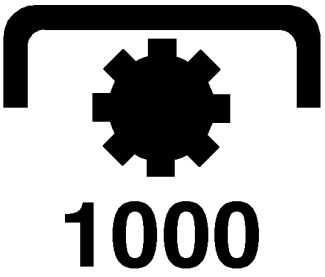
NOTE: Refer to tag on front of baler to select tractor PTO speed.

Baler is shipped with a telescoping driveline for a 1-3/8 in. (6 or 21 splines) or 1-3/4 in. (20 splines) diameter PTO shaft.

Always operate baler with tractor PTO speed at 1000 rpm.

Refer to tractor Operator's Manual to install appropriate PTO shaft and set PTO speed.

Tractor must have a minimum PTO output of:



CC007602

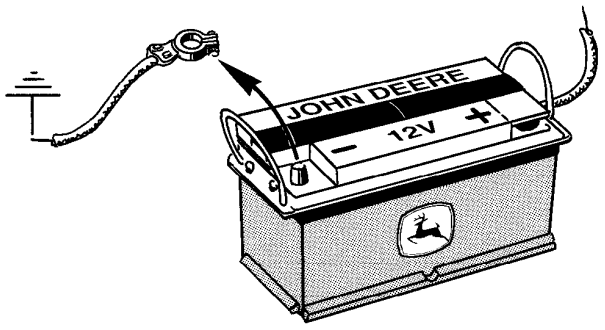
CC007602 —UN—02OCT96

- 74 kW (100 hp) on 1433 baler.
- 87 kW (115 hp) on 1433C baler.
- 98 kW (130 hp) on 1424 and 1434 baler.
- 109 kW (145 hp) on 1424C and 1434C baler.

SF04007,0000994 -19-01DEC15-1/1

Baler Electrical Circuit and Control Power Supply Requirement

Baler electrical circuit and control are designed for use on 12 V electrical systems with negative ground.



CC1020363

CC1020363 —UN—23AUG01

SF04007,0000995 -19-01DEC15-1/1

Install Monitor

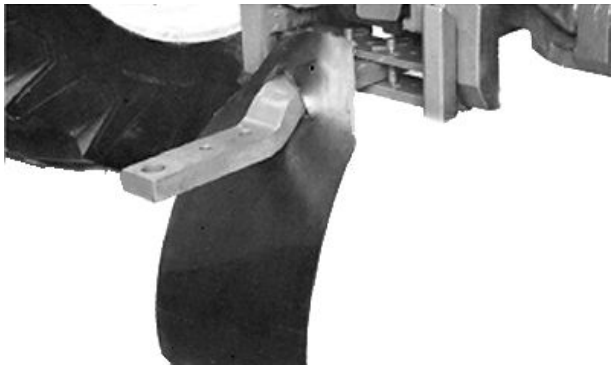
Mounting brackets (if required), for monitor, are available for all John Deere Series Tractors. Specific mounting kits and parts are available through your John Deere Dealer.

SF04007,0000996 -19-01DEC15-1/1

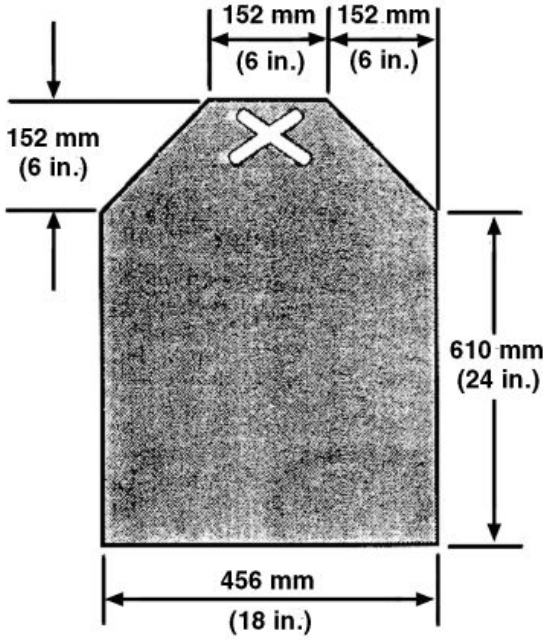
Use Drawbar Shield

If a tractor drawbar catches and disturbs the windrow under the tractor, a drawbar shield can be used.

Order drawbar shield from your John Deere dealer or make shield using 2 or 4 ply belting, as shown.



E26220 —UN—20FEB96



E39660 —UN—02FEB96

SF04007,0000997 -19-01DEC15-1/1

Use Extended Rear-View Mirror

Install an extended rear-view mirror on tractor to improve visibility of traffic behind baler when towing on public roads. See your John Deere dealer.

SF04007,0000998 -19-01DEC15-1/1

Open Side Doors

CAUTION: Be careful when pulling down bracket to close the lateral door. The doors are spring loaded to close on the last part of the stroke. Personal injuries can occur.

Use a 13 mm ring spanner or socket wrench to unlock front (A) and lateral (B) doors.

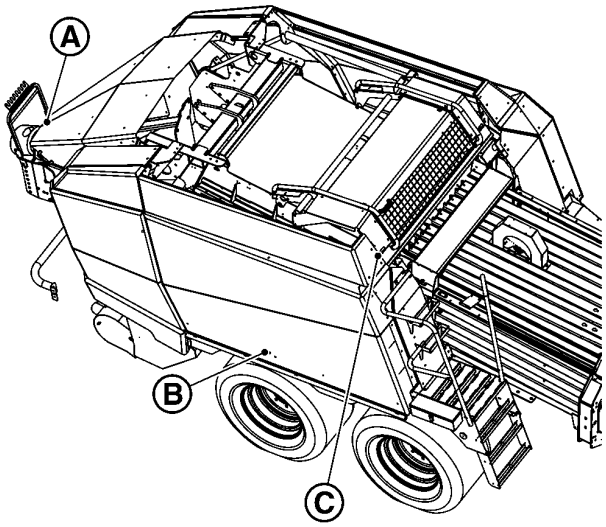
Use a 13 mm wrench to unlock top door (C).

Pull up bracket to open lateral door.

Carefully pull down doors.

NOTE: Lateral door (B) locks automatically when pushed firmly.

A—Front door
B—Lateral door
C—Top door



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ZX1046060 —UN—03JAN12

SF04007,0000999 -19-01DEC15-1/1

Telescoping Driveline

IMPORTANT: Do not use a hammer. Do not connect the telescoping driveline with use of a hammer or other equivalent tools. By using these tools, telescoping driveline can get seriously damaged. A damaged telescoping shaft can cause both machine and tractor damages.

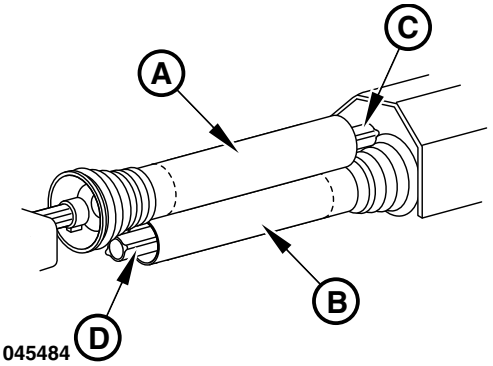
If telescoping driveline is too long, it can seriously damage drive bearings of both tractor and machine.

Following points must be checked before installing telescoping driveline:

- Check, before coupling telescoping driveline, if telescopic members have to be shortened.
- Make sure that the tractor PTO shaft is clean and greased.
- Couple telescoping driveline at both tractor and machine side.
- Make sure that shaft sliding ring catches with the slot of the PTO.
- Make sure that PTO protection is fitted correctly at the machine side to prevent protection covers from turning with telescoping driveline.
- Shorten telescoping driveline if necessary.

Check telescoping driveline length as follows:

1. Make sure that tractor drawbar length is set correctly for PTO (refer to Adjust Tractor Drawbar in Preparing the Tractor section).
2. Connect baler to the tractor drawbar (see Attaching and Detaching section).
3. Park baler and tractor on a flat level surface in a straight line (not turning).
4. Place both telescoping driveline halves as shown (not connected).



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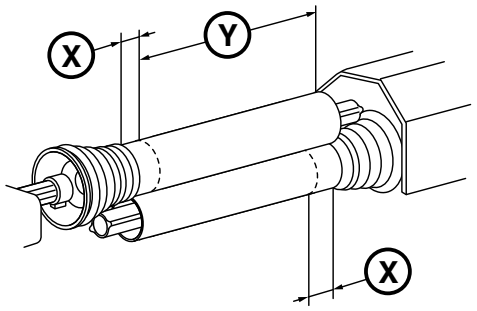

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A—Protection tube
B—Protection tube
C—Drive tube
D—Drive tube
X—50 mm (1.96 in)
Y—370 mm (1 ft 2.56 in)

5. Hold both telescoping driveline halves together, make sure that protection tubes (A and B) are at least 50 mm (1.96 in) shorter (X). Make sure overlap of profiled drive tubes (C and D) is at least 370 mm (1 ft 2.56 in) (Y).
6. If dimensions (X and Y) are not achieved, then shorten telescoping driveline.

Continued on next page

SF04007,0000D19 -19-13JAN17-1/2

Shorten telescoping driveline as follows:

1. Determine the desired length of the driveline.
2. Remove the driveline from the protection tubes.
3. Place the protection tube in a vise and tighten until snug.
4. Shorten both protection tubes.

IMPORTANT: Length of material removed from both ends (A and B) must be identical.

IMPORTANT: To avoid damaging the driveline coating, cover the driveline before clamping in a vise.

5. Clamp the driveline in a vise (using protective material).
6. Shorten both driveline tubes using a blade saw or similar tool. Do not use a grinder or similar tool.

IMPORTANT: It is important not to overheat the tube during the cutting operation. Do not damage the tube coating.

7. Verify that the grease lines were not damaged during the driveshaft shortening.
8. Remove burrs and sharp edges of both the protection tubes and the driveline tubes until they are smooth and clean.

NOTE: After shortening driveline protection tube, slotted hole (C) must be reworked.

Distance (X) is length of driveline after shortening.

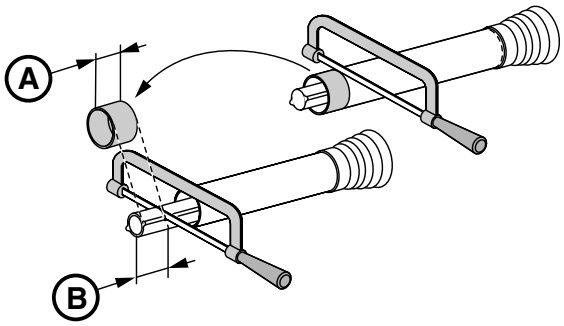
Distance (Y) is distance of greasing point in relation to the bearing groove.

Slotted hole (C) must be 75 mm (2.95 in) long and 25 mm (0.98 in) wide.

9. Place the PTO telescoping members side by side in nominal working length (X) and mark the location of the slotted hole (C).
10. Drill and saw or mill slot (C) into the protection tube.
11. Place protection cover (D) over the slotted hole (C), so dirt cannot enter.

IMPORTANT: Install telescoping driveline with correct orientation. Rear yoke (E) of the front driveline (F) must be aligned with the front yoke (G) of rear driveline (H) for proper operation. Failure to align yokes results in reduced life of driveline.

A—Protection Tube Material
B—Profiled Drive Tube
C—Slotted Hole Dimension, 75 mm (2.95 in)
D—Protective Cover
E—Rear Yoke
F—Front Driveline
G—Front Yoke
H—Rear Driveline
X—Driveline Length
Y—Greasing Point Location



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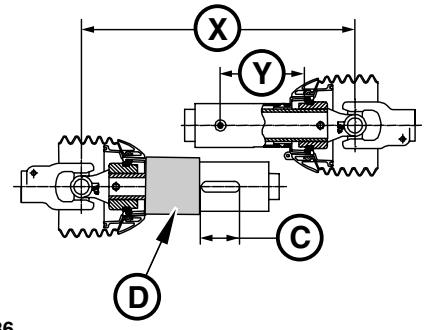

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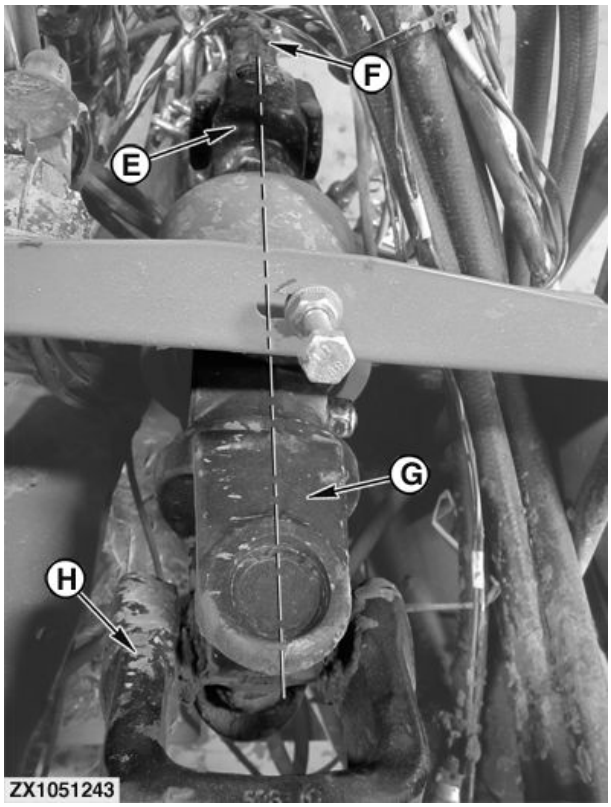

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SF04007,0000D19 -19-13JAN17-2/2

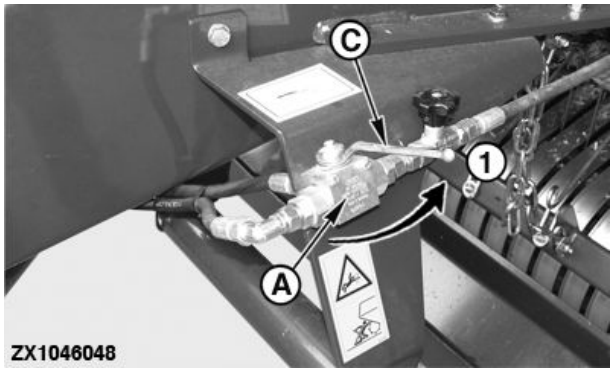
Adjust Baler Drawbar

IMPORTANT: Before attaching baler, be sure to adjust the baler drawbar and hitch eye position.

Machine has to be placed in a horizontal position:

1. Connect hydraulic hose leading to valve (A) to the relevant tractor selective control valve.
2. Open valve (B) at end of hose at the tractor side.
3. Place valve lever (C) to jackstand position (1) as shown.
4. Raise or lower the jackstand to set the baler drawbar horizontal. Take measurements at the pickup drive shield with a standard spirit level (D) as shown.

A—Valve—Baler side
B—Valve—Tractor side
C—Lever
D—Spirit level
1— Jackstand position



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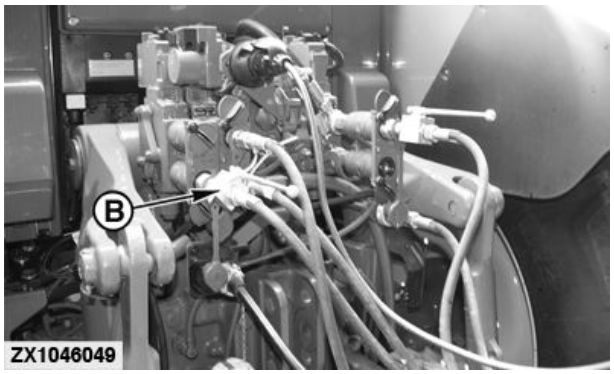

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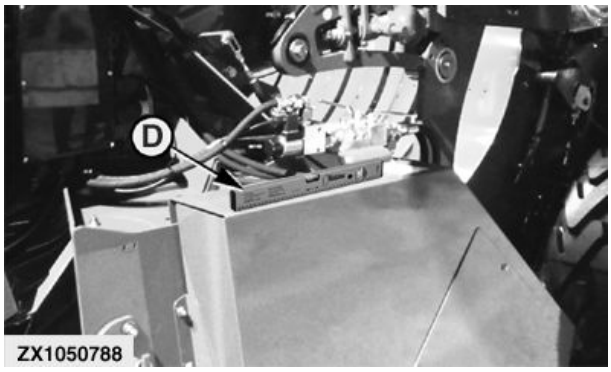

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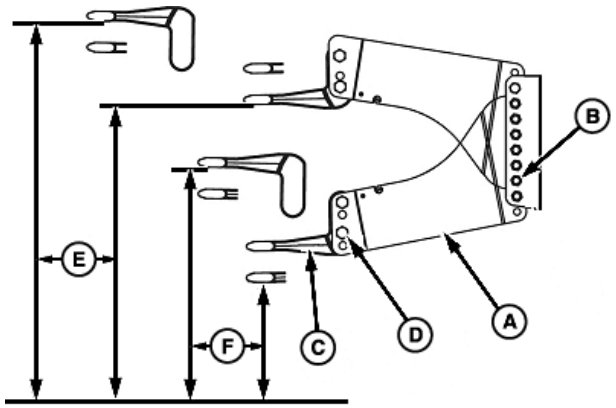
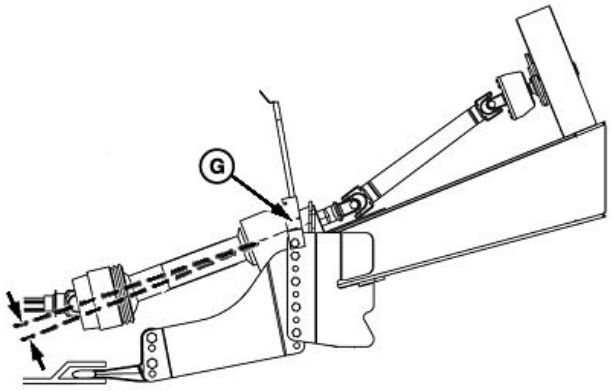
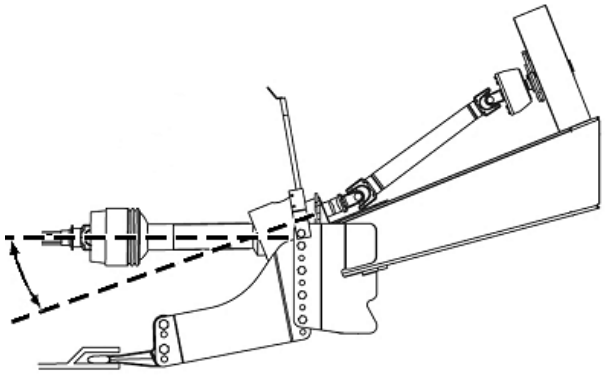


E81972 —UN—13JAN17



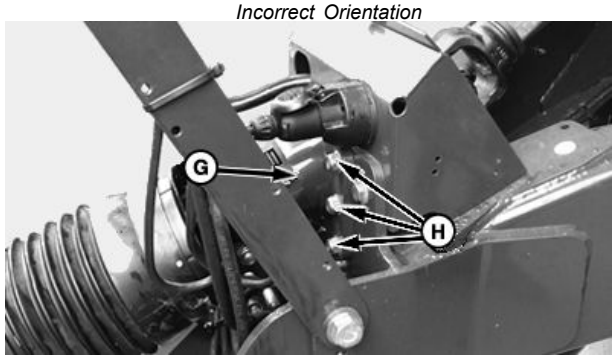
E81970 —UN—13JAN17

Correct Orientation



E81971 —UN—13JAN17

Incorrect Orientation



E81973 —UN—13JAN17

A—Drawbar
B—Cap Screw and Nut, M20 x 70 (3 used)
C—Hitch Eye
D—Cap Screw and Nut, M24 x 240 (5 each side)
E—High Hitch, 0.84—1.15 m (2 ft 9.07 in— 3 ft 9.27 in)
F—Low Hitch, 0.38—0.70 m (1 ft 2.96 in—2 ft 3.56 in)
G—Intermediate Bearing
H—Cap Screw and Nut, M16 x 60 (3 each side)

5. **Adjust Drawbar (A) Position:**

   In order to have the tractor and machine line up correctly, select the correct position in accordance with your tractor (see Preparing the Tractor section).

   It is possible to adjust the drawbar (A) and hitch eye (C) by turning them up-side-down for high or low hitching.

   The drawbar (A) can be adjusted to both a high hitch (E) or a low hitch (F).

   a. Secure drawbar (A) using suitable hoist.

   b. Loosen cap screws and nuts (B).

   c. Place drawbar (A) to required position using hoist.

IMPORTANT: Fit the drawbar (A) always using a minimum of four bolts and nuts (B) on each side. The distance of the bolts and nuts must be as far from each other as possible, with a minimum overlap of five holes.

   d. Tighten cap screws and nuts (B). Tighten to specification.

Specification

Cap Screw and Nut (B)—Torque ..... 400 N•m (295 lb·ft)

   e. Remove hoist.

6. **Adjust Hitch Eye (C) Position:**

   a. Loosen cap screws and nuts (D).

   b. Move hitch eye (C) to required position.

   c. Tighten cap screws and nuts (D). Tighten to specification.

Specification

Cap Screw and Nut (D)—Torque ..... 700 N•m (517 lb·ft)

7. **Adjust Intermediate Bearing Position:**

To achieve an optimal telescoping driveline angle, intermediate bearing (E) can be placed in two positions, standard is the highest position. The angle of the telescoping driveline in respect to the axle of the intermediate bearing (E) must be kept as small as possible.

Continued on next page

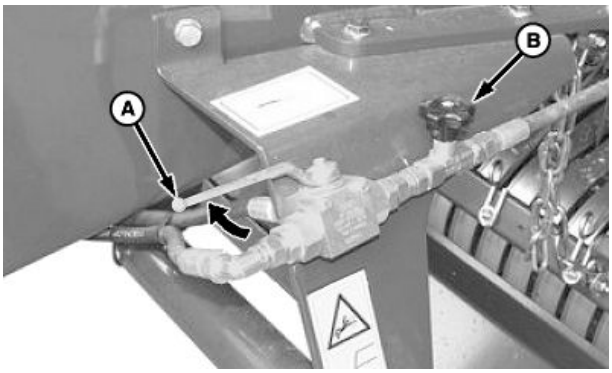
Tighten cap screws and nuts (F). Tighten to specification.

Specification	
Cap Screw and Nut (H)—Torque	85 N•m (63 lb·ft)

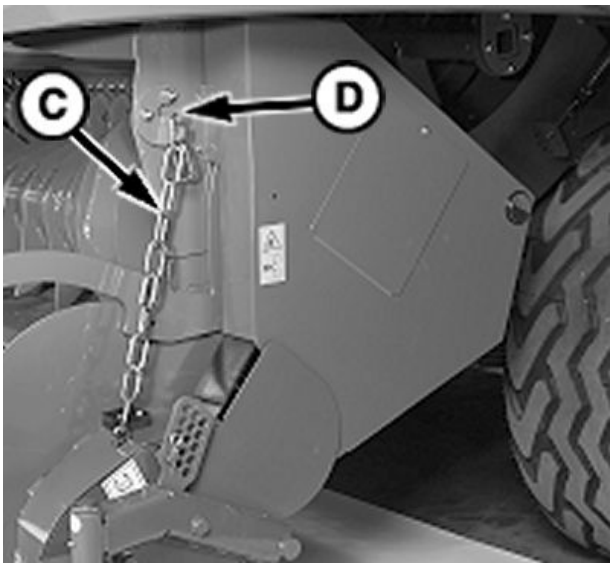
8. Attach baler to the tractor (see Attaching and Detaching section).

SF04007,0000D17 -19-17JAN17-3/3

Adjust Pickup Working Height



E81908 —UN—04JAN17



E81957 —UN—05JAN17

IMPORTANT: Operating pickup too close to ground can cause excessive tooth breakage.

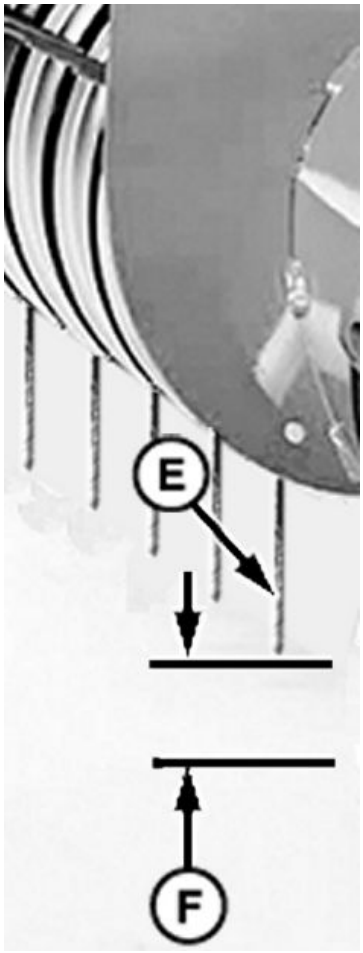
Adjust pickup working height as follows:

1. Place valve lever (A) to OPEN position as shown.
2. Fully raise the pickup with the relevant selective control valve lever.
3. Detach the chain (C) from the hook (D) on both sides.
4. Lower pickup and check that the tip of the pickup tooth (E) is 20—30 mm (0.78—1.18 in) (F) above ground.

NOTE: Ensure that the chains are not twisted and are hooked at the same hook position on both sides.

5. Attach the chain (C) to the hook (D). Repeat on the opposite side.
6. Adjust the hydraulic restrictor (B) for slow motion of the pickup.
7. Repeat as necessary.

A—Lever
B—Hydraulic Restrictor
C—Chain (1 each side)
D—Hook (1 each side)
E—Pickup Tooth
1— Distance, 20—30 mm (0.78—1.18 in)



E81969 —UN—06JAN17

SF04007,0000D18 -19-16JAN17-1/1

Install and Adjust Pickup Gauge Wheels

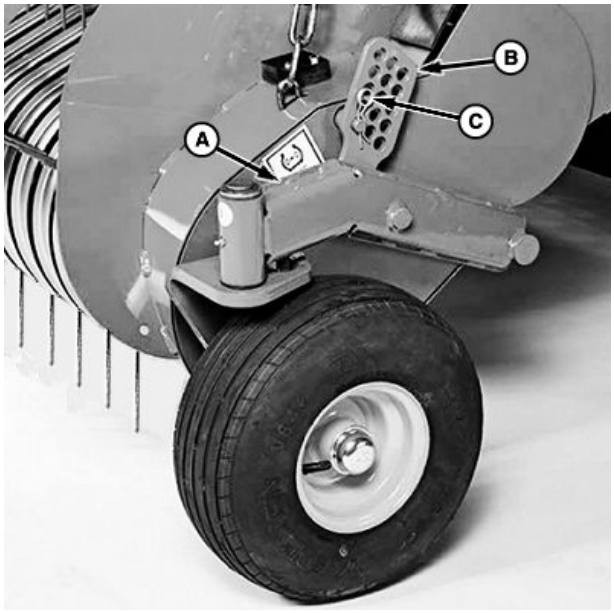
IMPORTANT: Operating pickup too close to the ground can cause excessive tooth breakage.

NOTE: Pickup gauge wheels must not be in permanent contact with the ground.

Install gauge wheel assembly (A) on each side of the pickup frame as follows:

1. Position gauge wheel assembly (A) as shown.
2. Lift gauge wheel until the notch is over the sleeve.
3. Move bracket (B) over pin.
4. Install the spring locking pin (C) on pin.

A—Gauge Wheel Assembly
B—Bracket
C—Spring Lock Pin

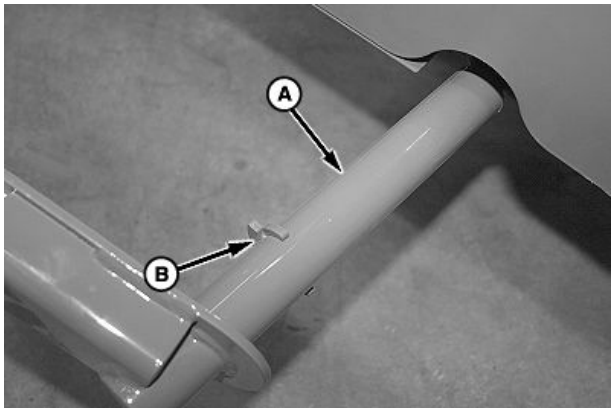


E81967 —UN—05JAN17

SF04007,0000D1A -19-16JAN17-1/2

NOTE: Ensure that the main tube (A) plate (B) locks into the notch (C) on both sides of the machine.

A—Main Tube
B—Plate (1 each side)
C—Notch (1 each side)



E81910 —UN—04JAN17

E81956 —UN—04JAN17

SF04007,0000D1A -19-16JAN17-2/2

Adjust Pickup Floating

Two springs, on the pickup hydraulic cylinders, ensure floating of the pickup.

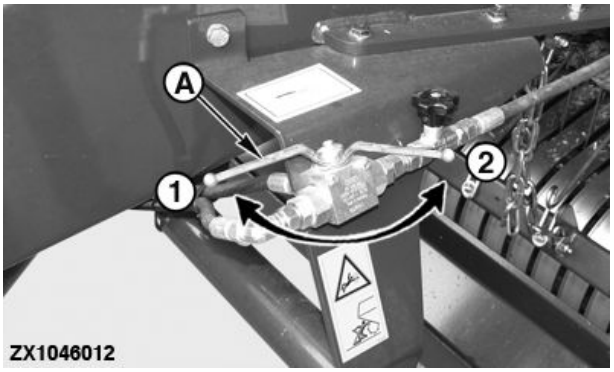
Adjust spring tension on sides of the pickup as follows:

1. Place valve lever (A) to pickup (open) position (1) as shown.
2. Fully raise pickup with relevant selective control valve lever.
3. Place valve lever (A) to jackstand (closed) position (2).
4. Move locking plate (B) toward cylinder rod to increase spring tension.

   Move locking plate (B) toward cylinder barrel to decrease spring tension.

IMPORTANT: Pickup floating is correctly adjusted when it can be lifted by hand. Make sure that the spring tension is same on both sides of the pickup.

A—Valve lever
B—Locking plate
1— Pickup position
2— Closed position



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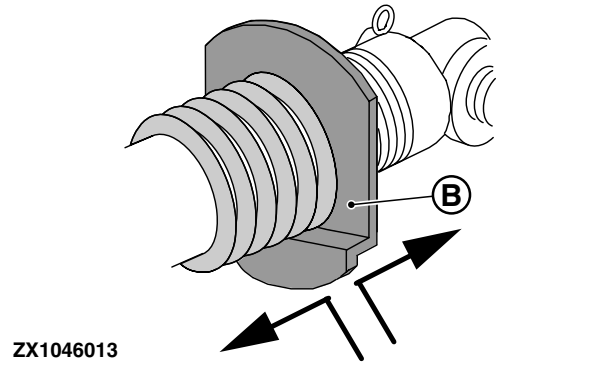


ZX1046013 —UN—03JAN12

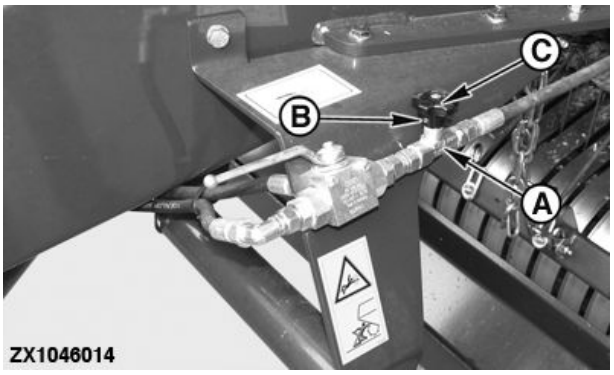
SF04007,000099D -19-02DEC15-1/1

Adjust Pickup Raising Speed

To adjust raise speed of the pickup, set flow limiter (A) as follows:

1. Loosen locking screw (B).
2. Turn knob (C) to get required speed. Counterclockwise to increase speed, and clockwise to decrease.
3. Tighten locking screw (B).

A—Flow limiter
B—Locking screw
C—Knob



ZX1046014 —UN—03JAN12

SF04007,000099E -19-02DEC15-1/1

Remove or Install Precutter Knives (1433C Only)

CAUTION: DO NOT TAKE CHANCES. To avoid injury or death by being cut by a knife, always wear gloves to handle knives.

IMPORTANT: Refer to Electronic Control System section to operate the control monitor.

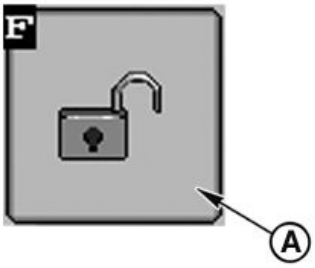
Knives can be removed to change cutting length or for sharpening.

Remove The Knives:

1. Engage tractor PTO.
2. Press unlock button (A) to switch from basic to operating display (see Electronic Control System section).
3. Press disengage knives button (B) to move out knives.
4. Wait until knife symbol disappears.
5. Disengage tractor PTO.
6. Stop tractor engine.
7. Remove ignition key.
8. Apply flywheel brake (see Operating the Baler section).
9. Close valve (C) of hydraulic block (D) on right-hand side.
10. Lift leaf spring (E) and pull down lever (F) until it bottoms.
11. Seize knife by its end and take it out towards rear.

IMPORTANT: Always keep precutter knives sharp. Sharp knives save power and provide a higher capacity. See Service section.

A—Unlock button
B—Disengage knives button
C—Valve
D—Hydraulic block
E—Leaf spring
F—Handle



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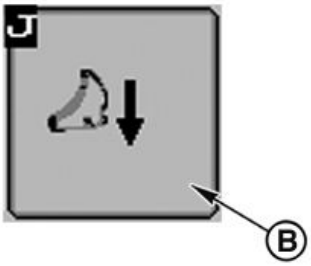

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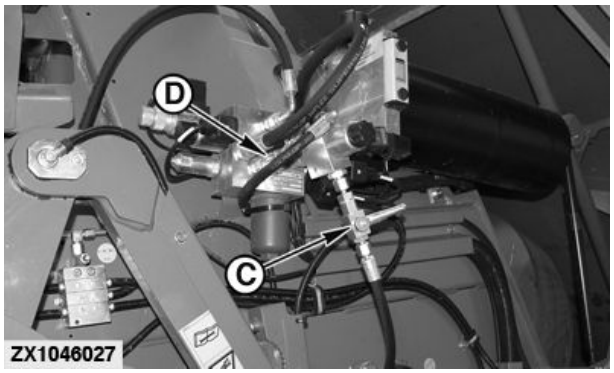

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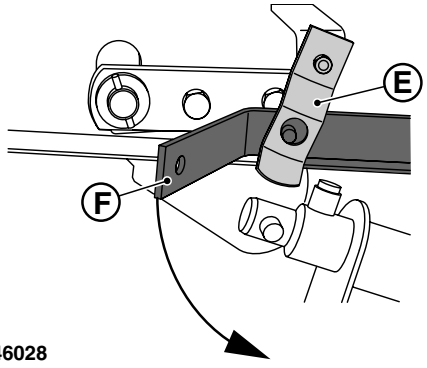

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SF04007,000099F -19-02DEC15-1/2

Install The Knives:

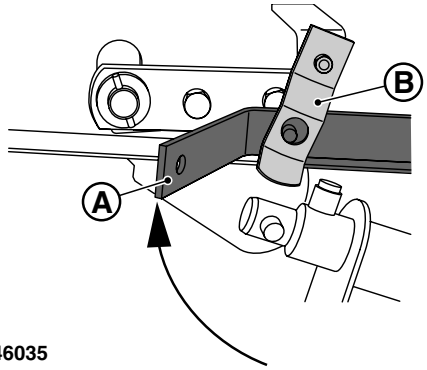
Cutting length can be chosen as required, by varying the amount and the position of the knives.

NOTE: Minimum cutting length of about 75 mm (2.95 in) can be reached by using 10 knives only.

The number of knives, and thus the cutting length, can be chosen as desired. All variations from 0 through 10 knives are possible.

1. Slide knives at slotted holes over knife carrier shaft.
2. Seize knives by their ends and push towards front to install.
3. Turn handle (A) upwards, and lock using leaf spring (B).
4. Release flywheel brake (see Operating the Baler section).
5. Start tractor engine.
6. Open valve (C) at hydraulic block (D) on right side.
7. Press unlock button (E) to switch from basic to operating display (see Electronic Control System section).
8. Engage tractor PTO.
9. Press engage knives button (F) to move knives in. Wait until knife symbol appears.

A—Handle
B—Leaf spring
C—Valve
D—Hydraulic block
E—Unlock button
F—Engage knives button



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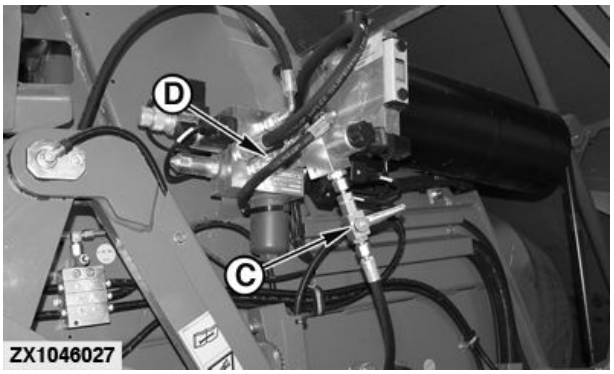

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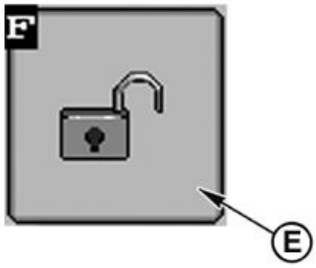

ZX1046036

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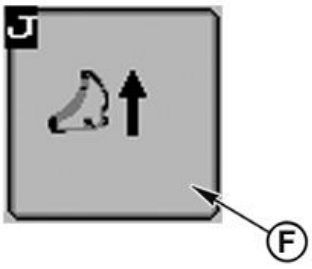

ZX1046037

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SF04007,000099F -19-02DEC15-2/2

Remove or Install Precutter Knives (1424C and 1434C Only)

CAUTION: DO NOT TAKE CHANCES. To avoid injury or death by being cut by a knife, always wear gloves to handle knives.

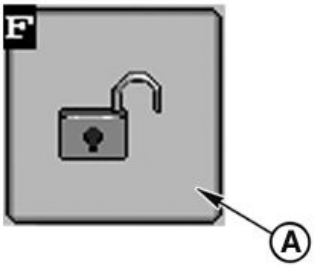
IMPORTANT: Refer to Electronic Control System section to operate the control monitor.

Knives can be removed to change cutting length or for sharpening. Knives can easily be removed by sliding out knife cassette to right-hand side of machine.

Remove The Knives:

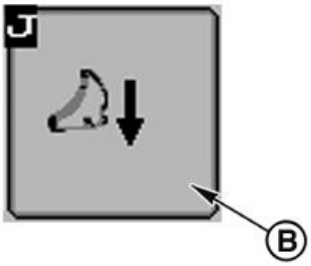
1. Engage tractor PTO.
2. Press unlock button (A) to switch from basic to operating display (see Electronic Control System section).
3. Press disengage knives button (B) to move out knives.
4. Wait until knife symbol has disappeared.
5. Close both valves (place lever into position 1) of hydraulic block (C) on left-hand side.

A—Unlock button
B—Disengage knives button
C—Hydraulic block
1— Lever in closed position



ZX1046015

ZX1046015 —UN—03JAN12



ZX1046016

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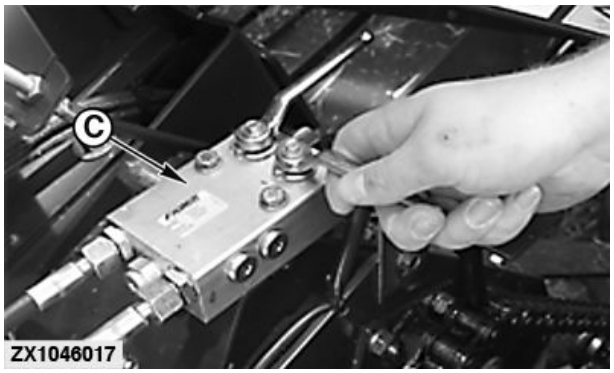

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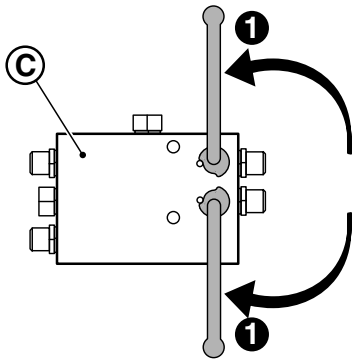

ZX1046018

ZX1046018 —UN—03JAN12

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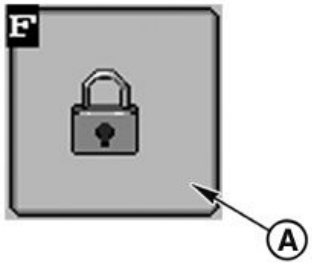
SF04007,00009A0 -19-02DEC15-1/7

6. Press lock button (A) to switch from operating to basic (Lock) display (see Electronic Control System section).
7. Fully lift pickup (see Operating the Baler section).
8. Disengage tractor PTO.
9. Apply flywheel brake (see Operating the Baler section).
10. Put hydraulic pressure for bale ejector – bale chute – knife cassette with relevant selective control valve lever.
11. Go to right-hand side of machine to open knife cassette.
12. Lift leaf spring (B) and pull down lever (C) until it bottoms.
13. Swing lever (C) towards rear of machine.
14. Push lever (D) on hydraulic block down to lower knife cassette.
15. Lift leaf spring (E) and pull cassette out using handle (F) until it bottoms.

A—Lock button
B—Leaf spring
C—Lever
D—Lever
E—Leaf spring
F—Handle



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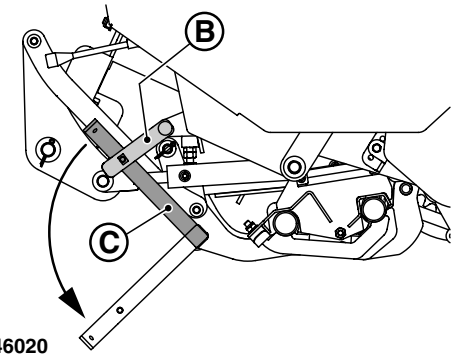

ZX1046020

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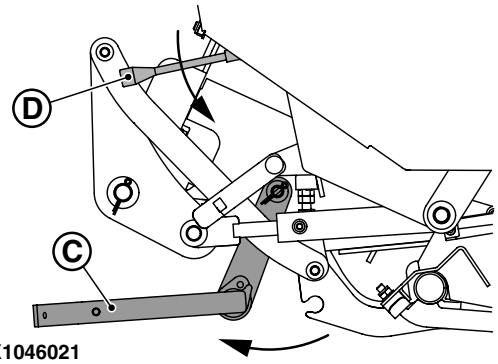

ZX1046021

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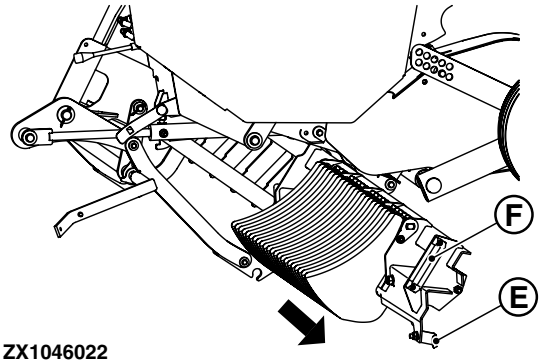

ZX1046022

ZX1046022 —UN—03JAN12

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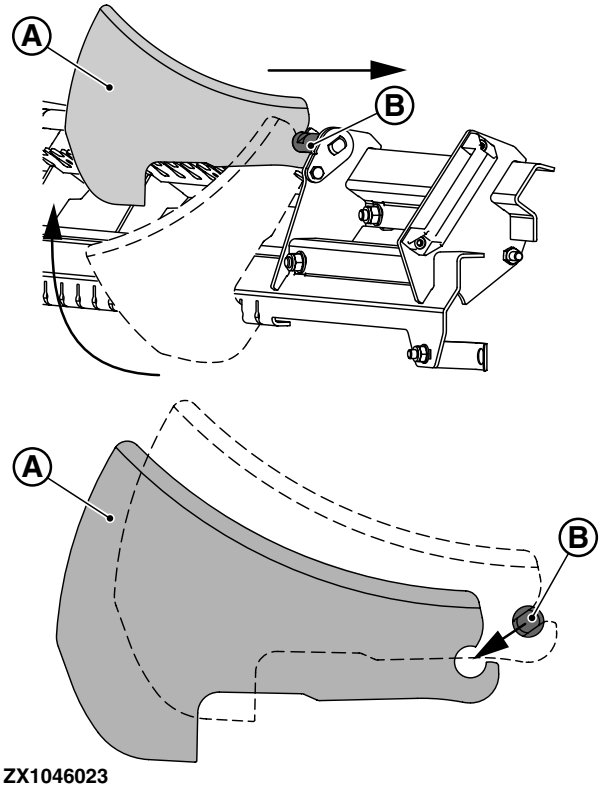
16. Lift back of knife (A).
17. Slide knife (A) sideways over rod (B) towards nearest flat surface on rod (B).
18. Slide knife (A) backwards over flat surface to take it out.

Install The Knives:

To mount a knife on cassette, proceed in reverse order.

IMPORTANT: Always keep precutter knives sharp. Sharp knives save power and provide a higher capacity. See Service section.

A—Knife **B—Rod**



ZX1046023

ZX1046023 —UN—03JAN12

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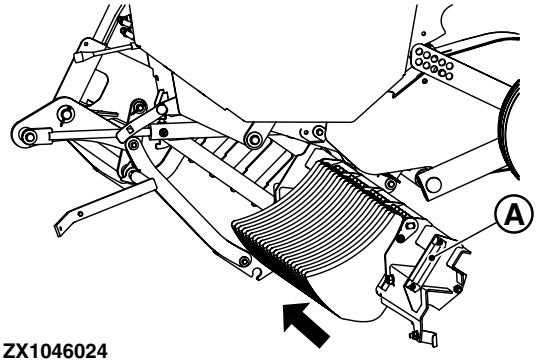
SF04007,00009A0 -19-02DEC15-3/7

19. Push cassette (A) in by its handle until it bottoms.

IMPORTANT: Clean the cassette. Make sure that all knives are down when cleaning the cassette. Make sure that knives are in slots of the cassette, before closing the cassette.

20. Push up lever (B) on hydraulic block to move cassette up.
21. Swing lever (C) towards front of machine until rod falls into hole in cassette.
22. Turn lever (C) upwards until leaf spring (D) catches it.
23. Remove hydraulic pressure for bale ejector – bale chute – knife cassette with relevant selective control valve lever.

A—Cassette
B—Lever
C—Lever
D—Leaf spring



ZX1046024

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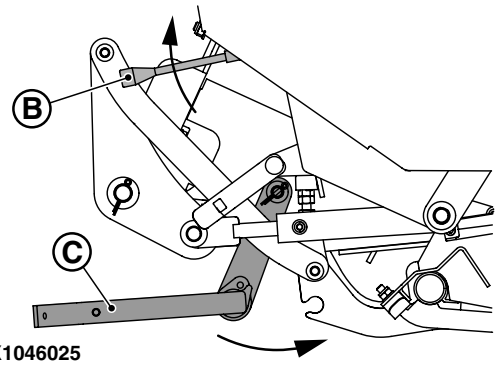

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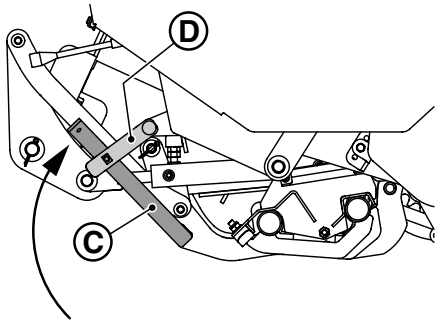

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ZX1046026 —UN—03JAN12

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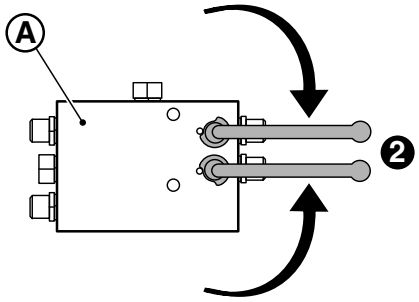
Set Cutting Length:

Cutting length can be chosen, by varying the amount and position of knives.

NOTE: Minimum cutting length of about 45 mm (1.77 in) can be reached by using 23 knives only.

Number of knives, and thus the cutting length, can be chosen as desired. All variations from 0 through 23 knives are possible.

When using 11 or fewer knives at once, quick-change of knives is possible by changing between 2 main bars with each 11, 12 or less knives.

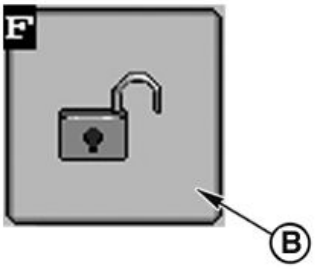


ZX1046029

ZX1046029 —UN—03JAN12

IMPORTANT: Selecting knives is only possible if

- **Knives are selected,**
- **Concerning hydraulic valve is operated,**
- **Machine is in operation, and**
- **Density system has reached preset pressure value.**

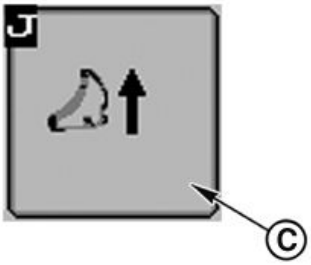


ZX1046030

ZX1046030 —UN—03JAN12

For a use of 23 knives, proceed as follows:

1. Make sure that all 23 knives are installed.
2. Open both valves (place lever into position 2) at hydraulic block (A) on left-hand side.
3. Engage tractor PTO.
4. Press unlock button (B) to switch from basic to operating display (see Electronic Control System section).
5. Press engage knives button (C) to move knives in. Wait until knife symbol appears.



ZX1046031

ZX1046031 —UN—03JAN12

A—Hydraulic block
B—Unlock button
C—Engage knives button
2— Lever in open position

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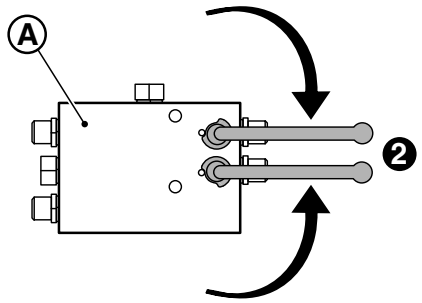
SF04007,00009A0 -19-02DEC15-5/7



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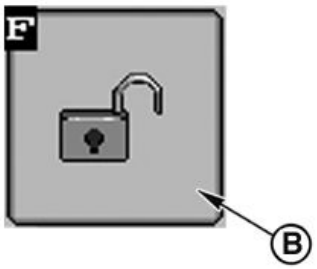
ZX1046029 —UN—03JAN12



ZX1046030

ZX1046030 —UN—03JAN12

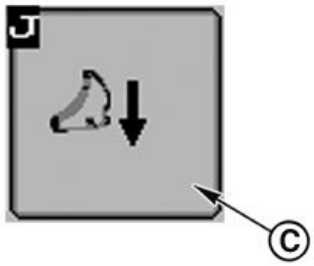
For a use of 12 or 11 knives, proceed as follows:

1. Open both valves (place lever into position 2) at hydraulic block (A) on left-hand side.
2. Engage tractor PTO.
3. Press unlock button (B) to switch from basic to operating display (see Electronic Control System section).
4. Press disengage knives button (C) to move out knives.
5. Wait until knife symbol disappears.
6. Disengage tractor PTO.
7. Close one of both valves (place lever into position 1) of hydraulic block (A) on left-hand side.
8. Engage tractor PTO.
9. Press engage knives button (D) to move knives in. Wait until knife symbol appears.

   Half of knives are used.

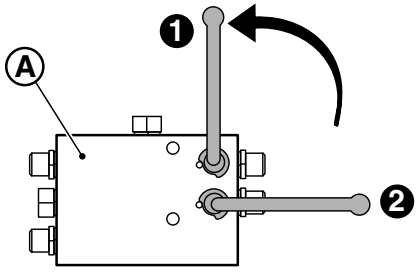
NOTE: When other half of knives have to be used, repeat procedure but close the other valve.

A—Hydraulic block
B—Unlock button
C—Disengage knives button
D—Engage knives button
1— Lever in closed position
2— Lever in open position



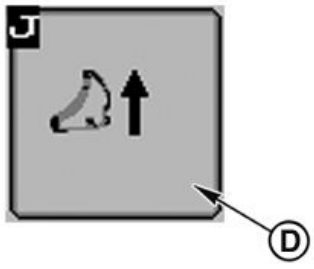
ZX1046032

ZX1046032 —UN—03JAN12



ZX1046033

ZX1046033 —UN—03JAN12



ZX1046034

ZX1046034 —UN—03JAN12

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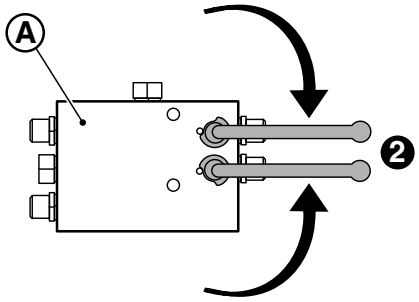
SF04007,00009A0 -19-02DEC15-6/7

For a use without knives, proceed as follows:

1. Open both valves (place lever into position 2) at hydraulic block (A) on left-hand side.
2. Engage tractor PTO.
3. Press unlock button (B) to switch from basic to operating display (see Electronic Control System section).
4. Press disengage knives button (C) to move out knives.
5. Wait until knife symbol disappears.
6. Disengage tractor PTO. Knives are not in use.

A—Hydraulic block
B—Unlock button
C—Disengage knives button
2— Lever in open position



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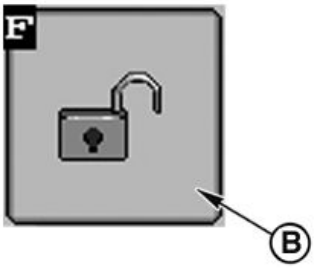
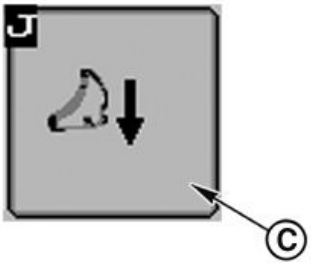
ZX1046029 —UN—03JAN12



ZX1046030

ZX1046030 —UN—03JAN12



ZX1046032

ZX1046032 —UN—03JAN12

SF04007,00009A0 -19-02DEC15-7/7

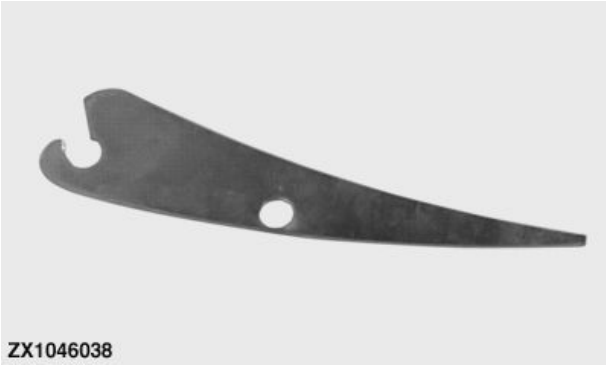
Replace Precutter Knives With Knife Slot Filler

IMPORTANT: When a knife is no longer required, install knife slot filler instead.

When precutter knives are removed, knife slot fillers can be installed instead.

Knife slot fillers help to keep knife slots clean, and ensure a uniform crop flow over cutting unit floor.

To install knife slot fillers, first switch off knife guide cleaning process (see Electronic Control System section). Next install knife slot fillers in same way as precutter knives (see Remove or Install Precutter Knives (1433C Only or Remove or Install Precutter Knives (1424C and 1434C Only) in this section).



ZX1046038

ZX1046038 —UN—03JAN12

SF04007,00009A1 -19-02DEC15-1/1

Select Twine

A good quality twine plays an important part in proper baler operation.

Select twine of good tensile strength and uniformity in size for proper baling operation. This helps prevent twine from breaking during handling and transporting of bales.

Twine range of 130 to 150 m/kg (193 to 223 ft/lb) is recommended.

SF04007,00009A2 -19-02DEC15-1/1

Install Twine (1433 and 1433C Only)

CAUTION: Before routing twine or carrying out any work on knotters:

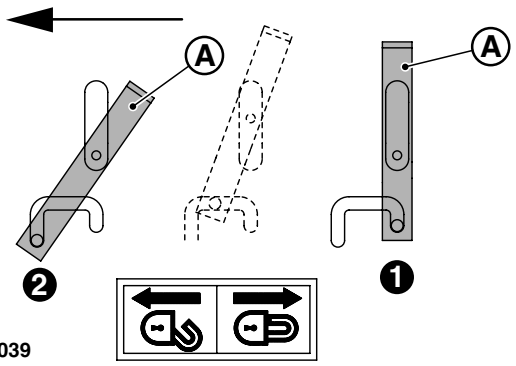
- **Disengage tractor PTO.**
- **Stop tractor engine.**
- **Remove ignition key.**
- **Apply flywheel brake.**
- **Place locking lever of trip mechanism at needle drive in stop position.**

To work safely on knotters, use locking lever to lock or unlock trip mechanism at needle drive.

NOTE: Trip mechanism lock is located near the star-wheel.

Arrow indicates drive direction.

- Move locking lever (A) to right to lock trip mechanism (position 1).
- Move locking lever (A) to left to unlock trip mechanism (position 2).



ZX1046039

ZX1046039 —UN—03JAN12

A—Locking lever
1— Trip mechanism in locked position
2— Trip mechanism in unlocked position

IMPORTANT: Make sure that trip mechanism is unlocked before operating machine.

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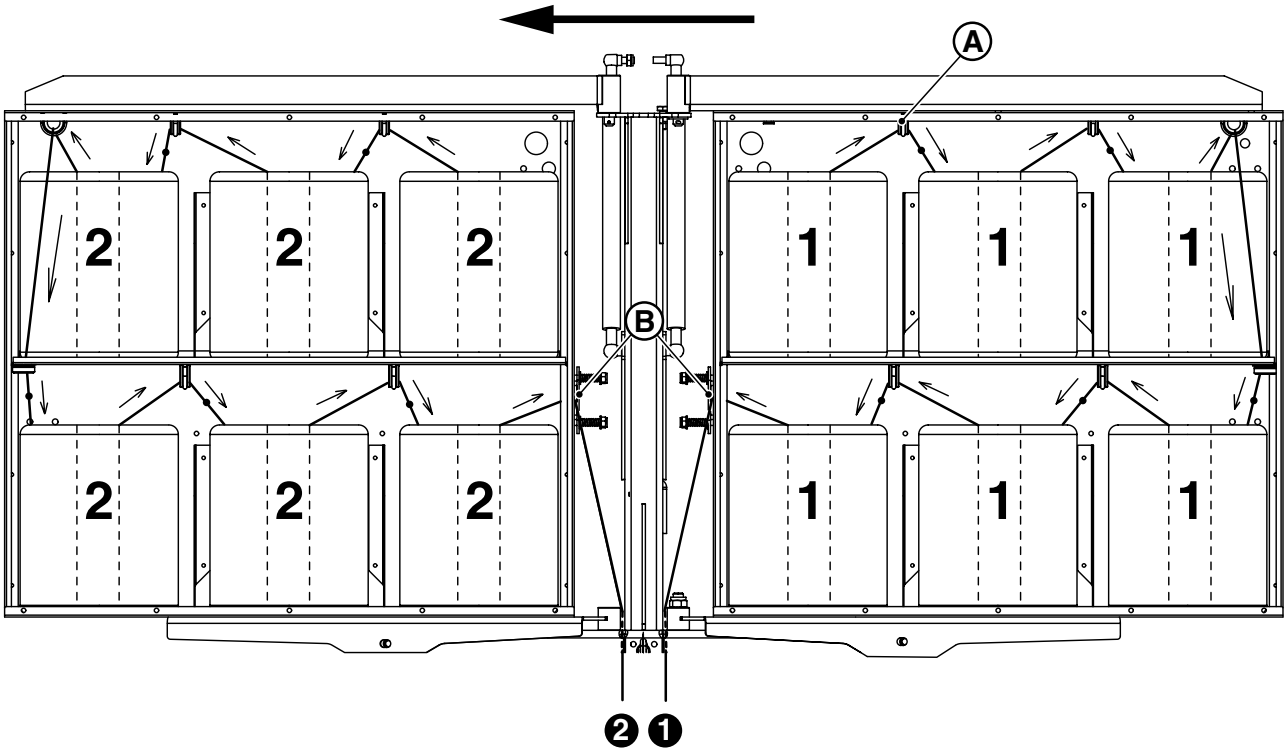
SF04007,00009A3 -19-02DEC15-1/4



ZX1046040

ZX1046040 —UN—03JAN12

Load the Twine Boxes:

Baler holds up to 12 balls of twine on each side of machine. Six balls of twine are joined to provide twine to a single knotter.

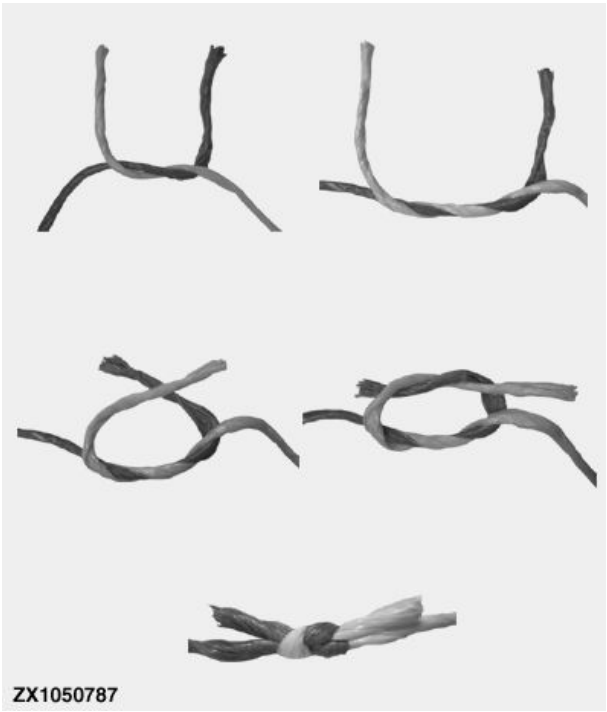
- With 1 x 9 kg (19.8 lb) ball (130—150 m/kg [193—223 ft lb]), for bales of 2.5 m (8 ft 2 in) long; approximately 200 bales.
- With 6 x 9 kg (19.8 lb) ball (130—150 m/kg [193—223 ft lb]), for bales of 2.5 m (8 ft 2 in) long; approximately 1200 bales.

NOTE: Twine loading procedure is the same on BOTH sides of the machine. Right-hand side of machine shown.

1. Open side door.
2. Place one ball of good quality twine in each twine box section with loose twine ends exposed, facing upward.

IMPORTANT: Twine knot must be small enough to pass through guides.

3. Tie center twine of roll to outside twine of next roll (see arrows), as shown.
   - Surgeon's Knot can be used on Plastic or Sisal twine, although with Large Square Balers only plastic twine is used.
4. Trim loose ends of twine as close to knot as possible.



ZX1050787 —UN—17SEP12

Plastic Twine (Surgeon's Knot)

A—Twine guide
B—Tension plate
1—Twine balls to needle 1
2—Twine balls to needle 2

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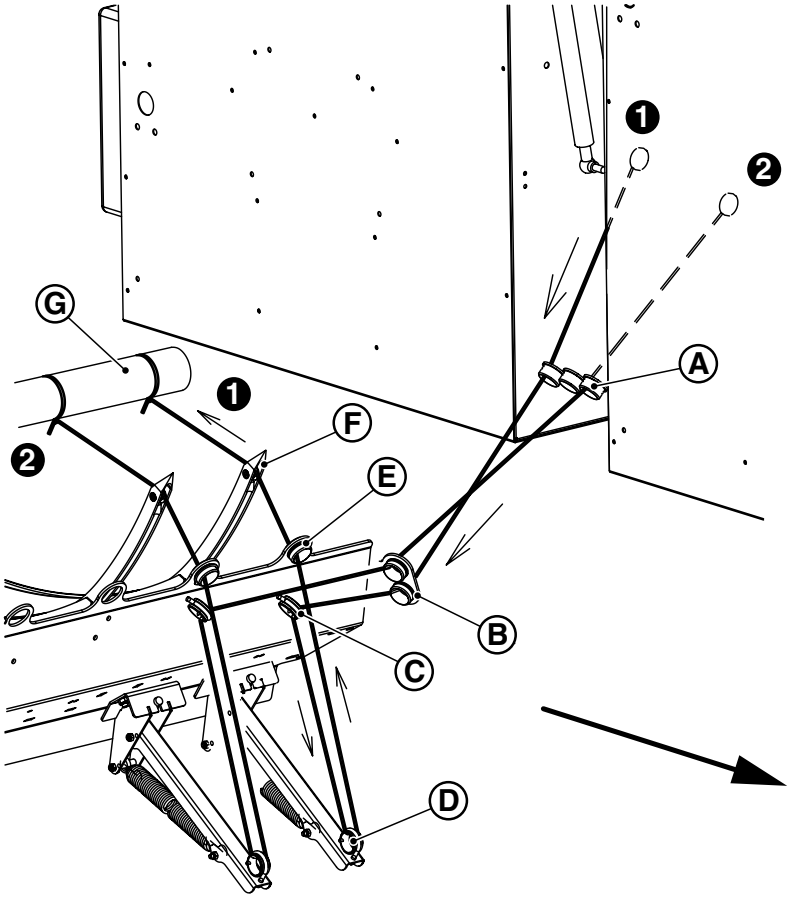
SF04007,00009A3 -19-02DEC15-2/4

5. Insert and pull twine through twine guides (A) and then through tension plates (B), as shown.

SF04007,00009A3 -19-02DEC15-3/4



ZX1046041

ZX1046041 —UN—03JAN12

A—Support twine guide
B—Middle twine guide
C—Lower twine guide
D—Tension arm
E—Upper twine guide
F—Needle eye
G—Chamber beam

Route the Twine:

NOTE: Twine routing procedure is same on BOTH sides of machine. Left-hand side of machine shown.

1. Pass twine 1 through support twine guide (A)
2. Pass twine through middle twine guides (B).
3. Pass twine through lower twine guides (C).
4. Pass twine through tensioning arms (D).
5. Pass twine through upper small twine guides (E).
6. Pass twine through eye of needle (F), (top side).
7. Attach end of twine to lower press chamber beam (G) and not under any circumstances to needle frame.
8. Repeat steps 1 to 8 for twine 2.
9. Engage tractor PTO and run machine at 1000 rpm.
10. Turn trip mechanism lock to left (unlocked position).
11. Trip knotting mechanism by rotating star-wheel.
12. Disengage tractor PTO as soon as tying cycle is finished.
13. Check for presence of twine at knotter twine disc holders.
14. Remove any twine attached to beam (G).

SF04007,00009A3 -19-02DEC15-4/4

Install Twine (1424, 1424C, 1434, and 1434C Only)

CAUTION: Before routing twine or carrying out any work on knotters:

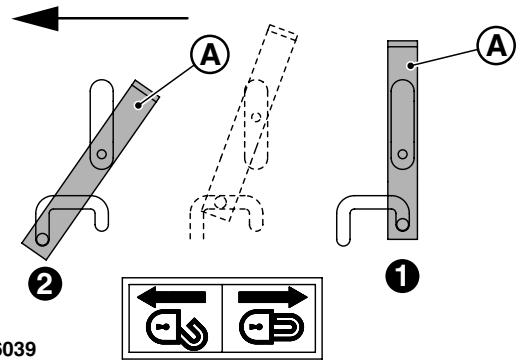
- **Disengage tractor PTO.**
- **Stop tractor engine.**
- **Remove ignition key.**
- **Apply flywheel brake.**
- **Place locking lever of trip mechanism at the needle drive in the stop position.**

To work safely on knotters, use locking lever to lock or unlock trip mechanism at the needle drive.

NOTE: Trip mechanism lock is located near the star-wheel.

Arrow indicates drive direction.

- Move locking lever (A) to right to lock trip mechanism (position 1).
- Move locking lever (A) to left to unlock trip mechanism (position 2).



ZX1046039

ZX1046039 —UN—03JAN12

A—Locking lever
1—Trip mechanism in locked position
2—Trip mechanism in unlocked position

IMPORTANT: Make sure that trip mechanism is unlocked before operating machine.

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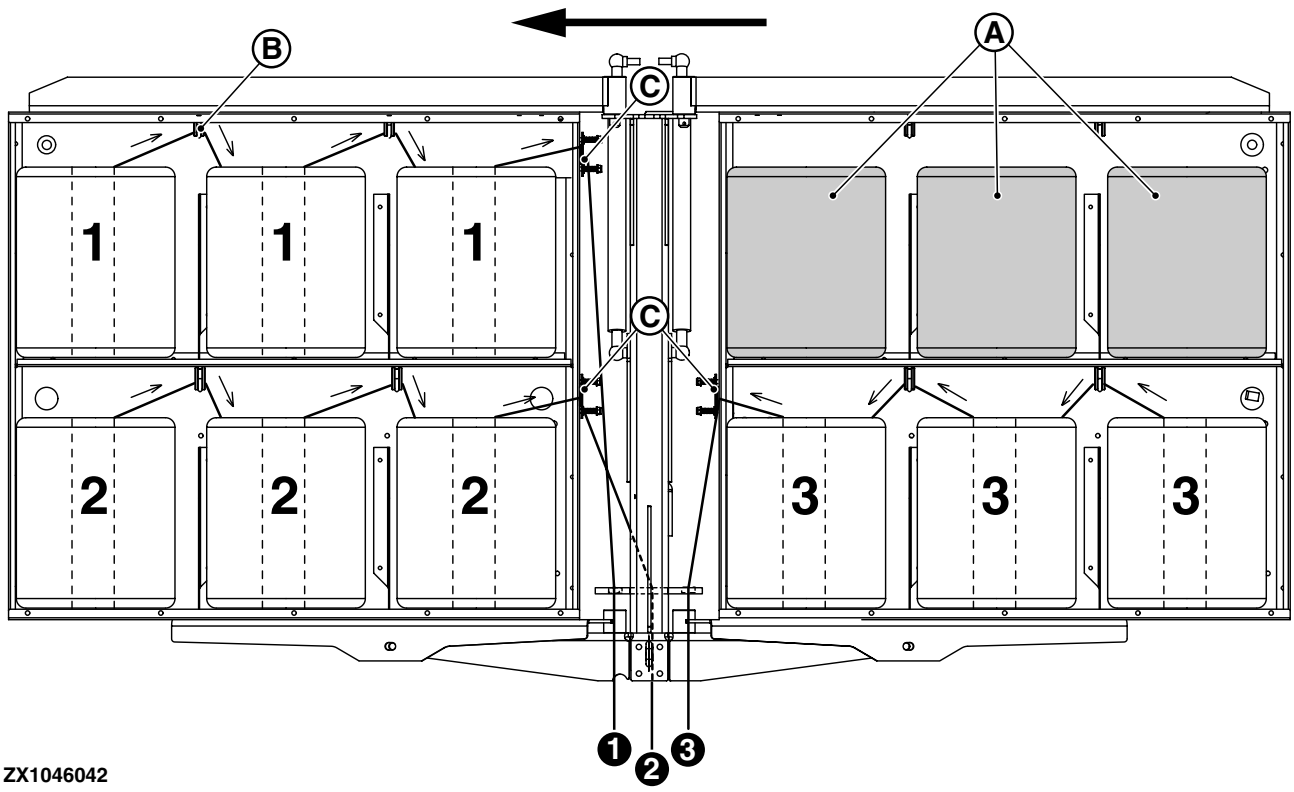
SF04007,00009A4 -19-02DEC15-1/4



ZX1046042

ZX1046042 —UN—03JAN12

Load the Twine Boxes:

Baler holds up to 12 balls of twine on each side of machine. Three balls of twine are joined to provide twine to a single knotter. Three other balls (A) can be stored as spare.

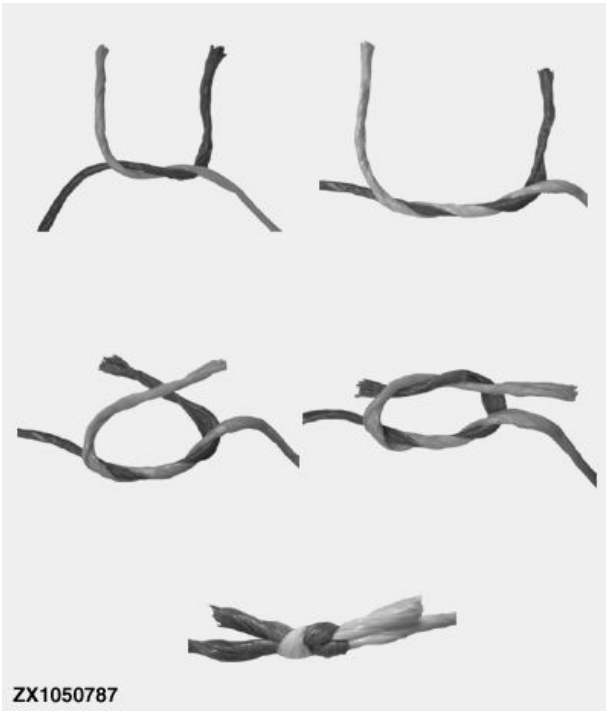
- With 1 x 9 kg (19.8 lb) ball (130—150 m/kg [193—223 ft lb]), for bales of 2.5 m (8 ft.2 in) long; approximately 200 bales.
- With 6 x 9 kg (19.8 lb) ball (130—150 m/kg [193—223 ft lb]), for bales of 2.5 m (8 ft.2 in) long; approximately 1200 bales.

NOTE: Twine loading procedure is same on BOTH sides of machine. Right-hand side of machine shown.

1. Open side door.
2. Place one ball of good quality twine in each twine box section with loose twine ends exposed, facing upward.

IMPORTANT: Twine knot must be small enough to pass through guides.

3. Tie center twine of roll to the outside twine of next roll (see arrows), as shown.
   - Surgeon's Knot can be used on Plastic or Sisal twine, although with Large Square Balers only plastic twine are used.
4. Trim loose ends of twine as close to knot as possible.
5. Insert and pull twine through twine guides (B) and then through tension plates (C), as shown.



ZX1050787

ZX1050787 —UN—17SEP12

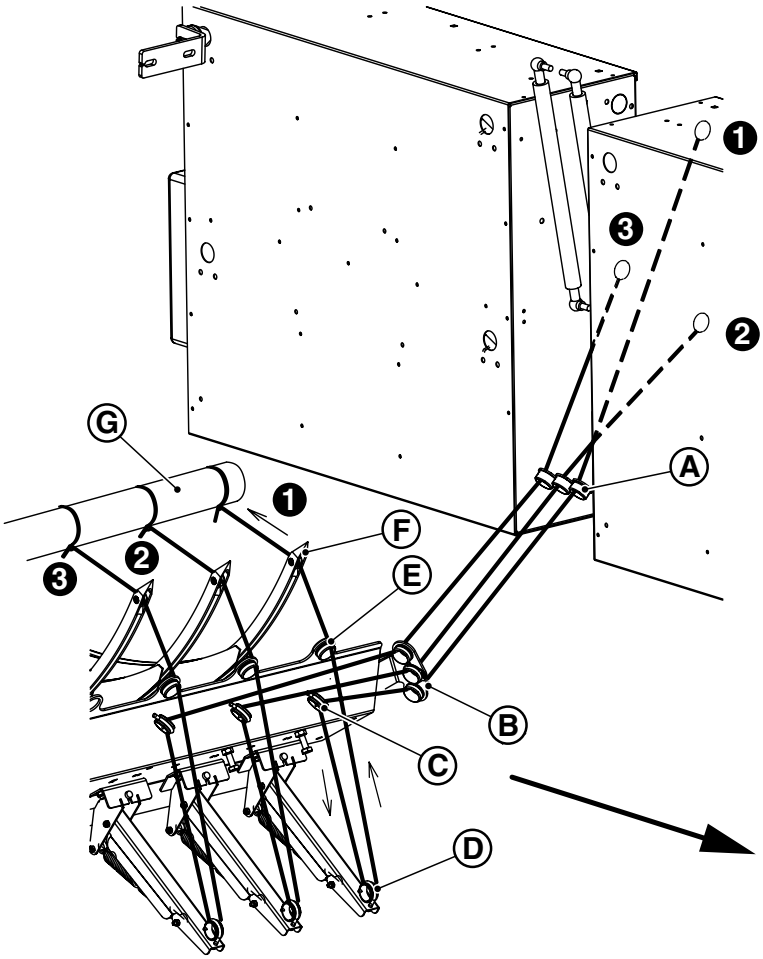
Plastic Twine (Surgeon's Knot)

A—Spare balls
B—Twine guide
C—Tension plate
1— Twine balls to needle 1
2— Twine balls to needle 2
2— Twine balls to needle 3

Continued on next page

SF04007,00009A4 -19-02DEC15-2/4

SF04007,00009A4 -19-02DEC15-3/4



ZX1046043

ZX1046043 —UN—03JAN12

A—Support twine guide
B—Middle twine guide
C—Lower twine guide
D—Tension arm
E—Upper twine guide
F—Needle eye
G—Chamber beam

Route the Twine:

NOTE: Twine routing procedure is same on BOTH sides of machine. Left-hand side of machine shown.

1. Pass twine 1 through support twine guide (A)
2. Pass twine through middle twine guides (B).
3. Pass twine through lower twine guides (C).
4. Pass twine through tensioning arms (D).
5. Pass twine through upper small twine guides (E).
6. Pass twine through eye of needle (F), (top side).
7. Attach end of twine to lower press chamber beam (G) and not under any circumstances to the needle frame.
8. Repeat steps 1 to 8 for twines 2 and 3.
9. Engage tractor PTO and run machine at 1000 rpm.
10. Turn trip mechanism lock to left (unlocked position).
11. Trip knotting mechanism by rotating the star-wheel.
12. Disengage tractor PTO as soon as tying cycle is finished.
13. Check for the presence of twine at knotter twine disc holders.
14. Remove any twine attached to beam (G).

SF04007,00009A4 -19-02DEC15-4/4

Adjust Twine Tension

IMPORTANT: Adjust twine tension for each needle.

Adjust twine tension as follows:

1. **Basic Adjustment:**

   Adjust basic spring length (A) of twine tension plates (B) to 30 ± 5 mm (1.18 ± 0.2 in)—only if there is twine between tension plates.

2. Adjust spring length according to twine used.
3. Turn nuts (C) counterclockwise to increase spring length.

   Turn nuts (C) clockwise to decrease spring length.

4. **Check Twine Tension Force:**

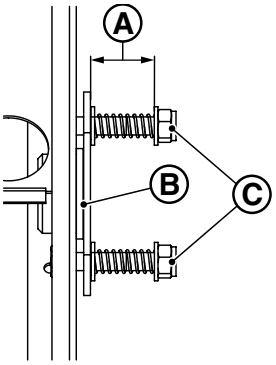
   Twine tension force must be between 60—80 N (6—8 kgf [13.5—18 lbf]). To check twine tension force, proceed as follows:

   a. Attach a spring balance (D) to end of twine (E) at one needle (F).

   b. Pull spring balance (D) until tension arm (G) is up.

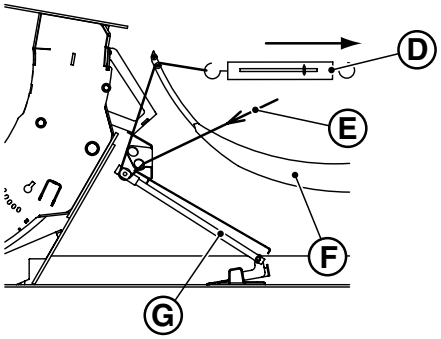
   c. Twine tension force must now be 60—80 N (6—8 kgf [13.5—18 lbf]).

   d. If necessary, adjust twine tension force by adjusting twine tension plates (B).



ZX1046044

ZX1046044 —UN—03JAN12



ZX1046045

ZX1046045 —UN—03JAN12

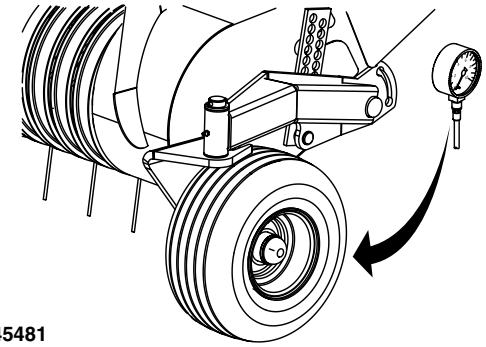
A—30 ± 5 mm (1.18 ± 0.2 in)
B—Tension plates
C—Nut
D—Spring balance
E—Twine
F—Needle
G—Tension arm

SF04007,00009A5 -19-02DEC15-1/1

Check Tire Pressure

Tire pressure depends on tire size and drive speed. Refer to the table to check tire pressure accordingly:

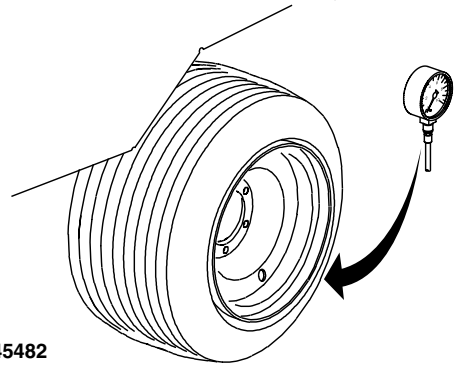
Gauge Wheel Tire Pressure	
15X6.00-6	175 kPa (1.75 bar)(25.4 psi)



ZX1045481

Check Tire Pressure—Gauge Wheels

ZX1045481 —UN—03JAN12



ZX1045482

Check Tire Pressure—Axle Wheels

ZX1045482 —UN—03JAN12

Axle Wheel Tire Pressure				
Tire Type	Speed			
	25 km/h (16 mph)	40 km/h (25 mph)	50 km/h (31 mph)	60 km/h (38 mph)
600/50-22.5 156A8 (Single axle)	200 kPa (2.0 bar)(29 psi)	Not Allowed	Not Allowed	Not Allowed
710/40-22.5 158A8 (Single axle)	170 kPa (1.7 bar)(25 psi)	200 kPa (2.0 bar)(29 psi)	Not Allowed	Not Allowed
400/70-20 150A8 (Tandem axle)	190 kPa (1.9 bar)(28 psi)	230 kPa (2.3 bar)(34 psi)	270 kPa (2.7 bar)(39 psi)	Not Allowed
500/55-20 150A8 (Tandem axle)	160 kPa (1.6 bar)(23 psi)	200 kPa (2.0 bar)(29 psi)	230 kPa (2.3 bar)(34 psi)	Not Allowed
560/45-22.5 146D (Tandem axle)	170 kPa (1.7 bar)(25 psi)	210 kPa (2.1 bar)(30 psi)	240 kPa (2.4 bar)(35 psi)	280 kPa (2.8 bar)(41 psi)
620/50-22.5 154D (Tandem axle)	120 kPa (1.2 bar)(17 psi)	150 kPa (1.5 bar)(22 psi)	180 kPa (1.8 bar)(26 psi)	190 kPa (1.9 bar)(28 psi)

Axle Wheel Tire Pressure If Equipped with Prechopper				
Tire Type	Speed			
	25 km/h (16 mph)	40 km/h (25 mph)	50 km/h (31 mph)	60 km/h (38 mph)
560/45-22.5	180 kPa (1.8 bar)(26 psi)	200 kPa (2.0 bar)(29 psi)	230 kPa (2.3 bar)(34 psi)	290 kPa (2.9 bar)(42 psi)
620/50-22.5	140 kPa (1.4 bar)(20 psi)	170 kPa (1.7 bar)(25 psi)	170 kPa (1.7 bar)(25 psi)	220 kPa (2.2 bar)(32 psi)

SF04007,0000D1C -19-17JAN17-1/1

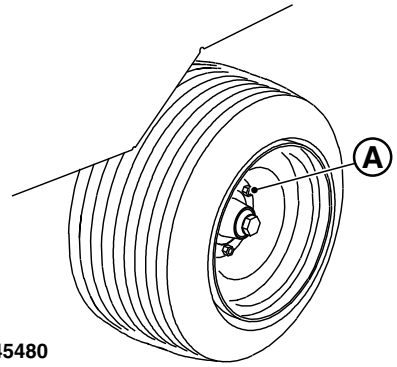
Check Wheel Nut Torque

IMPORTANT: Check wheel nut torque after first 10 hours of use.

Whenever a wheel has been removed and installed, check torque after 10 hours of operation. Tighten wheel nuts (A) to specified torque.

Specification	
(8) M18 Wheel Nuts—Torque	270 N·m (200 lb·ft)
(10) M22 Wheel Nuts—Torque	510 N·m (376 lb·ft)

A—Wheel nut



ZX1045480

ZX1045480 —UN—03JAN12

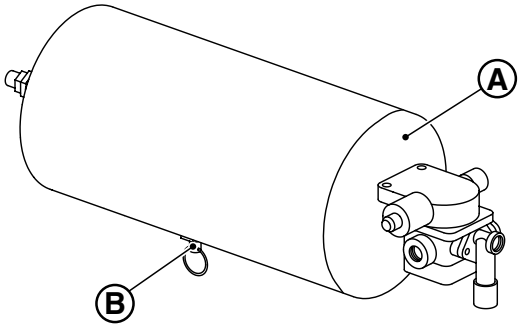
SF04007,00009A7 -19-02DEC15-1/1

Drain Water from Air Compressor Tank (if Equipped)

Air tank (A) for pneumatic brakes can be drained from water.

Pull on poppet at water evacuation valve (B), to drain condensed water from tank.

A—Tank **B—Valve**



ZX1045479

ZX1045479 —UN—03JAN12

SF04007,00009A8 -19-02DEC15-1/1

Check Hydraulic System Oil Level—Machine Without Hydraulic Knotter Cleaning Fan Only

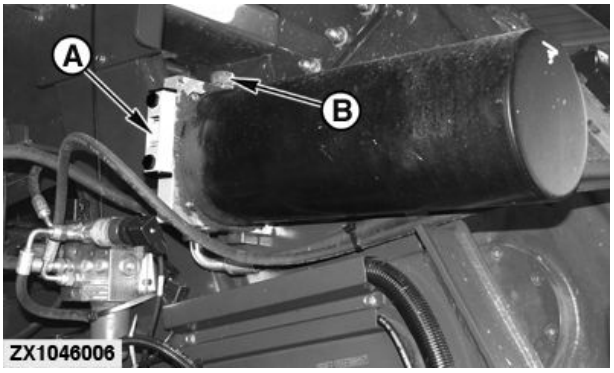
Check level of hydraulic oil at sight glass (A).

- At a pressure of 0 bar (0 kPa; 0 psi),
- With press chamber cylinders retracted.

Hydraulic oil level is correct when top of oil is at top of sight glass (A).

If necessary, refill at filler plug (B) with specified hydraulic oil (see Lubricants and Capacities section).

A—Sight Glass **B—Filler Plug**



ZX1046006

ZX1046006 —UN—03JAN12

SF04007,00009A9 -19-02DEC15-1/1

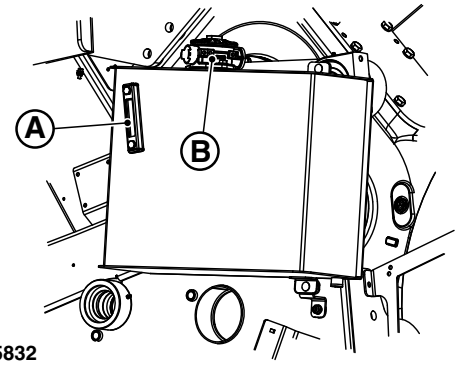
Check Hydraulic System Oil Level—Machine With Hydraulic Knotter Cleaning Fan Only

Check level of hydraulic oil at sight glass (A).

- At a pressure of 0 bar (0 kPa; 0 psi),
- With press chamber cylinders retracted,
- After machine ran for 5 minutes.

Hydraulic oil level is correct when top of oil is at top of sight glass (A).

If necessary, refill at filter element (B) with specified hydraulic oil (see Lubricants and Capacities section).



ZX205832

ZX205832 —UN—03NOV13

A—Sight Glass **B—Filter Element**

SF04007,00009AA -19-02DEC15-1/1

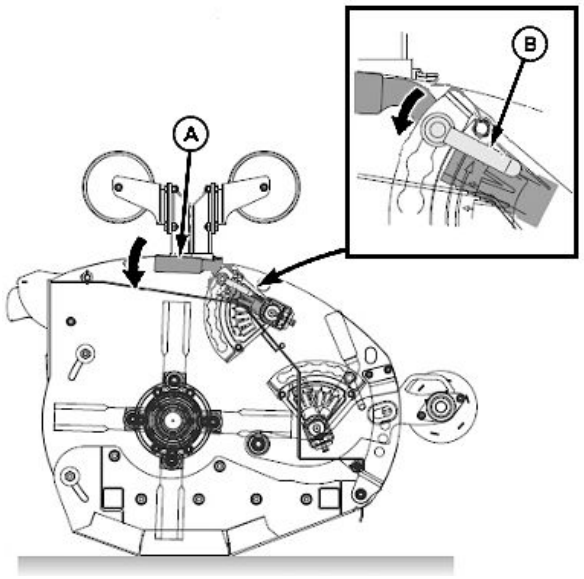
Adjust Upper Counter-Knife

1. Turn lever (B) counterclockwise until the washer is released from guide.

NOTE: Moving lever (A) clockwise to position 1 allows longer shredding of material. Moving lever (A) counterclockwise to position 6 allows shorter shredding of material.

2. Turn lever (B) clockwise until the washer is inside the circular housing of the guide and then tighten.

A—Lever **B—Lever**



E80555 —UN—12NOV15

SF04007,0000CCD -19-30NOV16-1/1

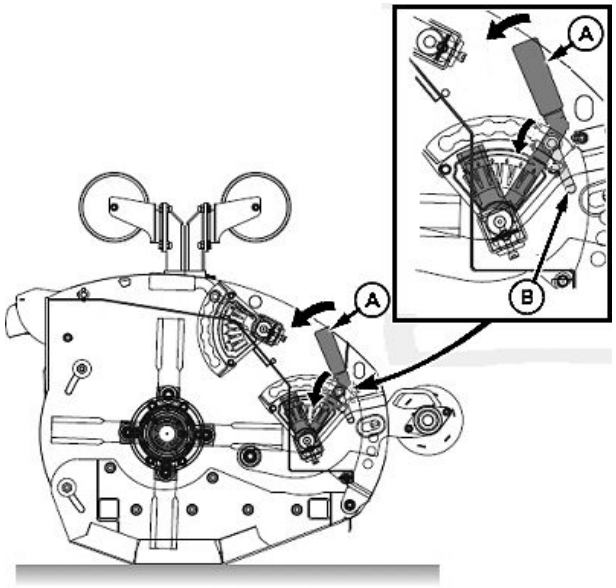
Adjust Lower Counter-Knife

1. Turn lever (B) counterclockwise until the washer is released from guide.

NOTE: Moving lever (A) clockwise to position 1 allows longer shredding of material. Moving lever (A) counterclockwise to position 6 allows shorter shredding of material.

2. Turn lever (B) clockwise until the washer is inside circular housing of the guide.

A—Lever **B—Lever**



E80556 —UN—12NOV15

SF04007,0000CCE -19-30NOV16-1/1

Adjust Front Roller

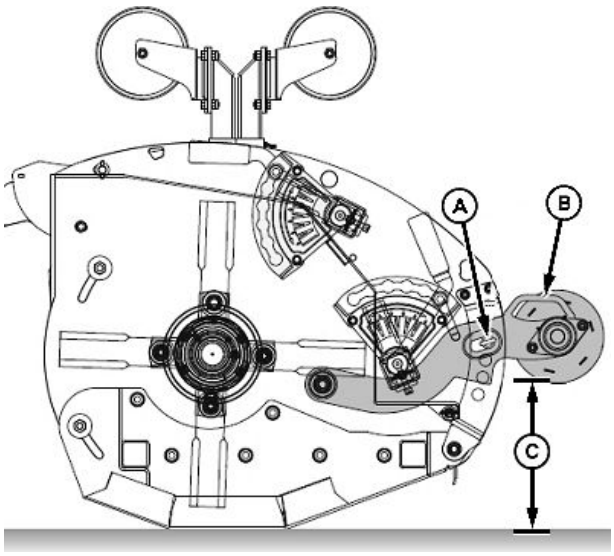
NOTE: To keep the front roller raised hold handle (B).

1. Remove and retain the pin (A).
2. Position roller to desired height (C).

Hole	Height (C)
1	153 mm (6 in)
2	209 mm (8-7/32 in)
3	263 mm (10-11/32 in)
4	316 mm (12-14/32 in)

3. Install previously removed pin (A).
4. Repeat steps on the opposite side.

A—Pin
B—Handle
C—Height



E80557 —UN—12NOV15

SF04007,0000CCF -19-30NOV16-1/1

Adjust Prechopper Height

1. Fully raise the prechopper.
2. Open the front door.
3. Remove and retain the spring pin (A) and pin (B).

NOTE: The position of pin (B) determines height between rotor knives and the ground.

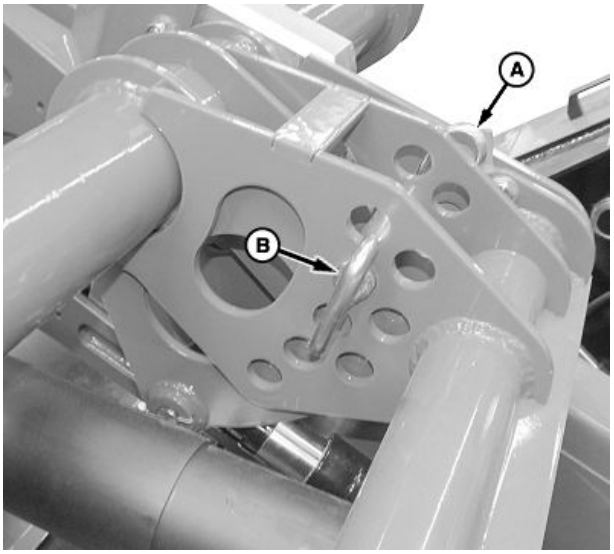
NOTE: A minimum ground clearance of 150 mm (C) from the end of the rotor blade to the ground is recommended.

4. Place pin in desired position.

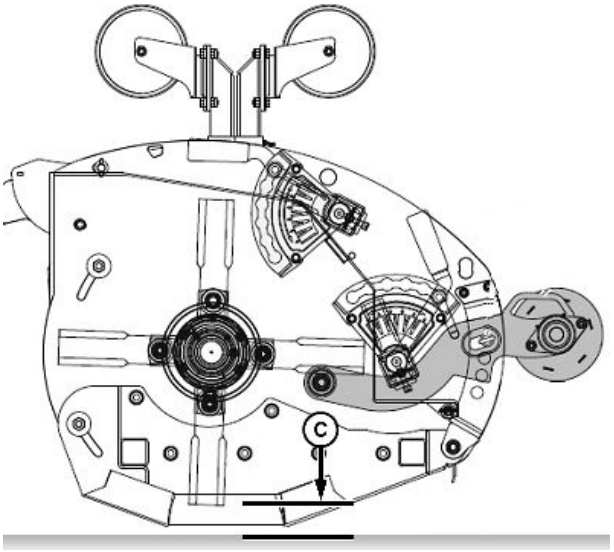
NOTE: Rotor is closest to soil when pin (A) is in the upper hole.

5. Install previously removed spring pin (A) and close front door.

A—Spring Pin
B—Pin
C—Ground Clearance, 150 mm (



E81495 —UN—09JUN16



E81731 —UN—25OCT16

SF04007,0000CD0 -19-13JAN17-1/1

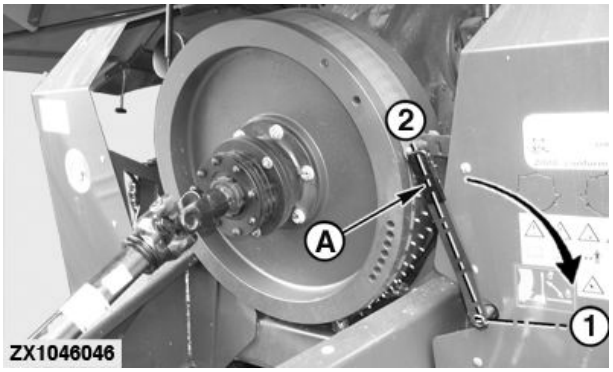
Using Flywheel Brake

CAUTION: To avoid personal injury, engage flywheel brake BEFORE performing the following procedures:

- **Attaching and Detaching Baler**
- **Lubrication and Maintenance**
- **Service**

To engage flywheel brake, move lever (A) to position (1).

To disengage flywheel brake, move lever (A) to position (2).



ZX1046046 —UN—03JAN12

A—Lever
1— Lever Position (Engaged)
2— Lever Position (Disengaged)

SF04007,000097F -19-02DEC15-1/1

Attach Baler to Tractor

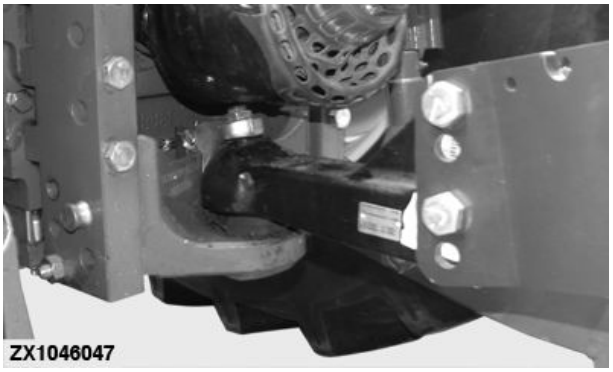
CAUTION: Secure tractor drawbar clevis or wagon hitch with retaining strap or compressor rod (see Tractor Operator's Manual). In some countries, it is mandatory to attach a safety chain between baler and tractor drawbar structure. Always comply with your local road regulations.

IMPORTANT: On tractor drawbar, do not use hitch pin with a diameter larger than 40 mm (1-5/8 in.) or damage may occur.

Make sure that tractor and baler drawbars are correctly adjusted (see Preparing the Tractor and Preparing the Baler sections).

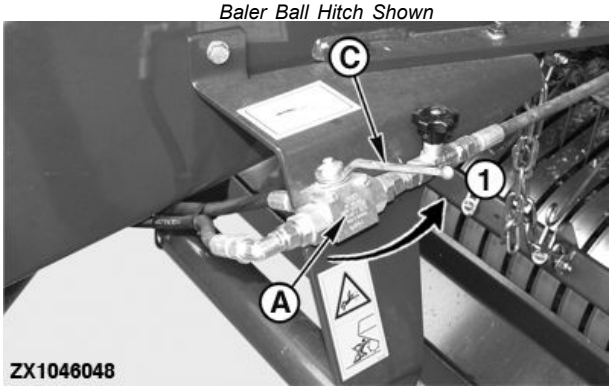
- On tractor with drawbar, remove hitch pin and retaining strap.
- On tractor with wagon hitch, release compressor rod.

1. Back tractor up to baler hitch eye, aligning baler tongue with drawbar or wagon hitch.
2. Engage tractor parking brake or place transmission in "Park".
3. Shut off tractor engine and remove key.
4. Connect hydraulic hose leading to valve (A) to relevant tractor selective control valve.
5. Open valve (B) at end of hose at tractor side.
6. Place valve lever (C) to jackstand position (1) as shown.
7. Raise or lower jackstand to attach baler.

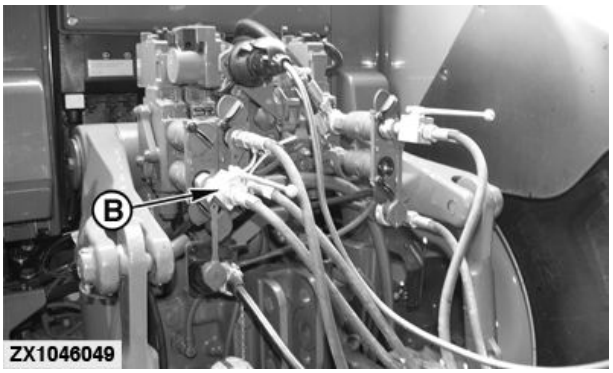


ZX1046047 —UN—03JAN12

Baler Ball Hitch Shown



ZX1046048 —UN—03JAN12



ZX1046049 —UN—03JAN12

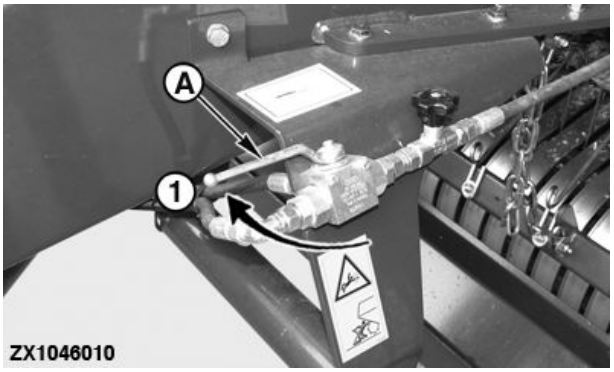
A—Valve—Baler side
B—Valve—Tractor side
C—Lever
1— Jackstand position

Continued on next page

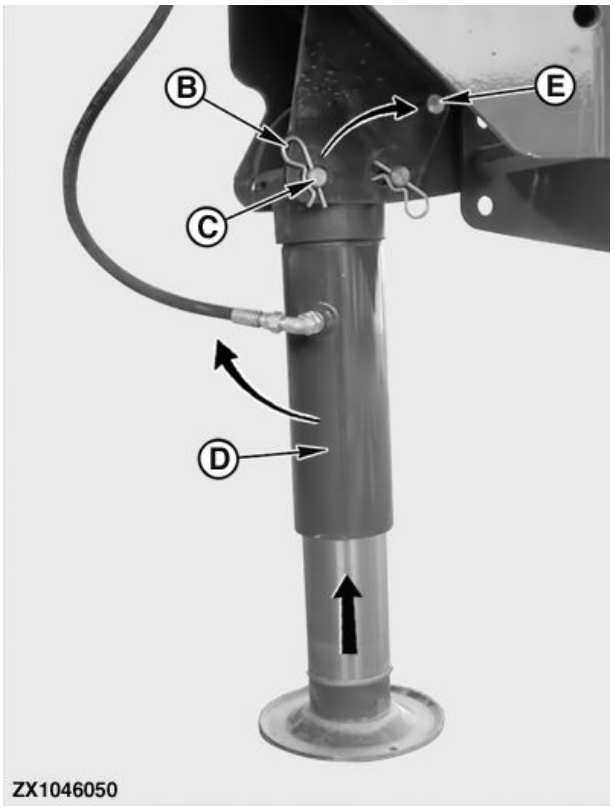
SF04007,0000980 -19-02DEC15-1/2

8. Once attached, fully raise jackstand.
9. Place valve lever (A) in pickup position (1) as shown.
10. Remove quick lock pin (B) from jackstand pin (C).
11. Remove jackstand pin (C).
12. Fold up jackstand (D) completely.
13. Install jackstand pin (C) in upper storing hole (E).
14. Secure jackstand pin (C) with quick lock pin (B).
15. Check height of tractor drawbar.

A—Lever
B—Quick lock pin
C—Jackstand pin
D—Jackstand
E—Storing hole
1—Pickup position



ZX1046010 —UN—03JAN12



ZX1046050 —UN—03JAN12

SF04007,0000980 -19-02DEC15-2/2

Install Telescoping Driveline

IMPORTANT: Do not use a hammer. Do not connect telescoping driveline with use of a hammer or other equivalent tools. By using these tools, telescoping driveline can get seriously damaged. A damaged telescoping shaft can cause both machine and tractor damages.

If telescoping driveline is too long it can seriously damage drive bearings of both tractor and machine.

Turn off tractor.

Following points must be checked before installing telescoping driveline:

- Check, before coupling telescoping driveline, if telescopic members has to be shortened.
- Make sure that tractor PTO shaft is clean and greased.
- Couple telescoping driveline at both tractor and machine side.
- Make sure that shaft sliding ring catches with slot of PTO.
- Make sure that PTO protection is fitted correctly at machine side to prevent protection covers from turning with telescoping driveline.
- Shorten telescoping driveline if necessary (see Preparing the Baler section).

SF04007,0000981 -19-02DEC15-1/1

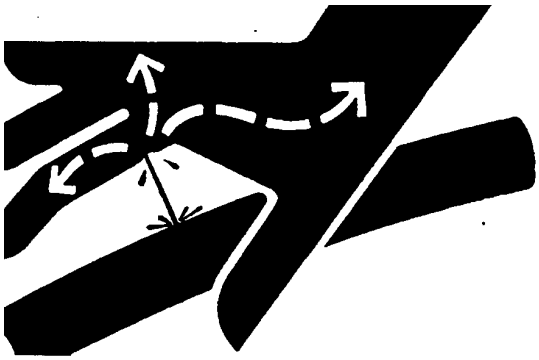
Attach to Tractor Hydraulic System

CAUTION: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before connecting or disconnecting hydraulic lines. Tighten all connections before applying pressure. Search for leaks with a piece of cardboard. Protect hands and body from high-pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A.

CAUTION: Hydraulic hoses can fail due to physical damage, kinks, age, and exposure. Check hoses regularly. Replace damaged hoses.

IMPORTANT: All hydraulic couplers must be clear of debris, dust, and sand. Use protective caps on fluid openings until ready to make connection. Foreign material can damage hydraulic system.



X9811 —UN—23AUG88

Always refer to tractor Operator's Manual to operate selective control valves and their relevant SCV levers.

NOTE: ISO hydraulic couplers are standard with baler. If they do not fit tractor, see your John Deere dealer.

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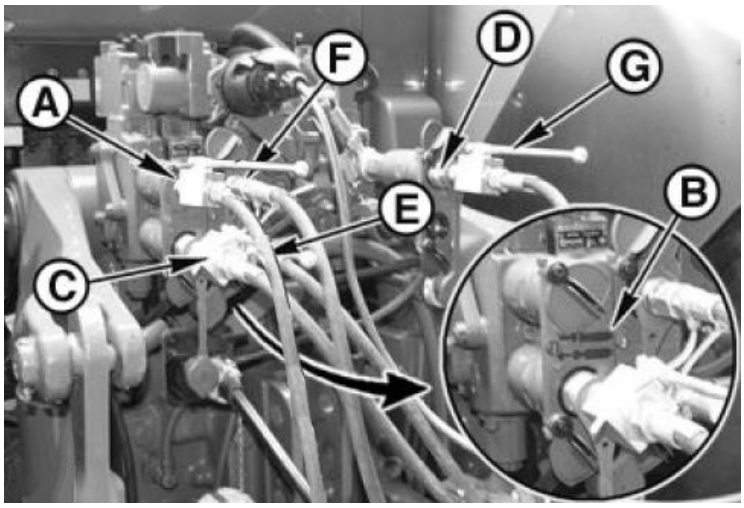
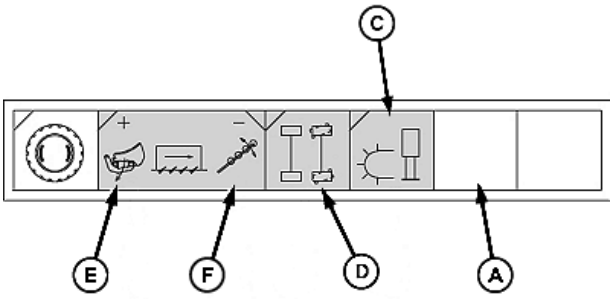
SF04007,0000982 -19-02DEC15-1/2



E80582 —UN—24NOV15

John Deere 6000 Series Tractor Shown

All hydraulic hoses with connection to tractor are marked with colored rings. The meaning of the colors is indicated on the decal, placed at the support at the drawbar.



E80583 —UN—24NOV15

A—Prechopper Lift (If Equipped)
B—Symbols
C—Pickup—Yellow ring
D—Steered axle—Green ring
E—Bale ejector – Bale chute – Precutter—Blue ring
F—Bale ejector – Bale chute – Precutter—White ring

1. Open dust covers.
2. Check to be sure symbols (B) on receptacle identification plate, indicating cylinder movement, match cylinder travel direction.
3. Insert pickup lift hydraulic hose (C) with YELLOW ring into Single Acting SCV receptacle.

NOTE: On tractor with Double Acting SCV: Insert pickup lift hydraulic hose (C) with YELLOW ring into "extended side" receptacle (Operate with control lever in float position).

4. Insert steered axle hydraulic hose (D) with GREEN ring into Single Acting SCV receptacle.

IMPORTANT: Keep shut off valve (G) open during field operation. Close shut off valve (G) for road transport. Refer to Transporting the Baler section.

NOTE: On tractor with Double Acting SCV: Insert steered axle hydraulic hose (D) with GREEN ring into "retracted or extended side" receptacle (Operate with control lever in float position).

5. Insert prechopper lift hose (A) into Single Acting SCV receptacle.
6. Insert bale ejector – Bale chute – Precutter hydraulic hose (E) with BLUE ring into "extended side" receptacle of a double acting SCV.

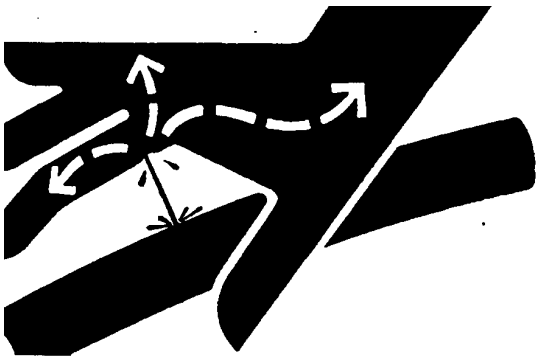
   Insert bale ejector – Bale chute – Precutter hydraulic hose (F) with WHITE ring into "retracted side" receptacle of the same double acting SCV.
7. Push hoses firmly into tractor receptacles.

SF04007,0000982 -19-02DEC15-2/2

Connect to Tractor Brake System

CAUTION: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before connecting or disconnecting hydraulic lines. Tighten all connections before applying pressure. Search for leaks with a piece of cardboard. Protect hands and body from high-pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A.

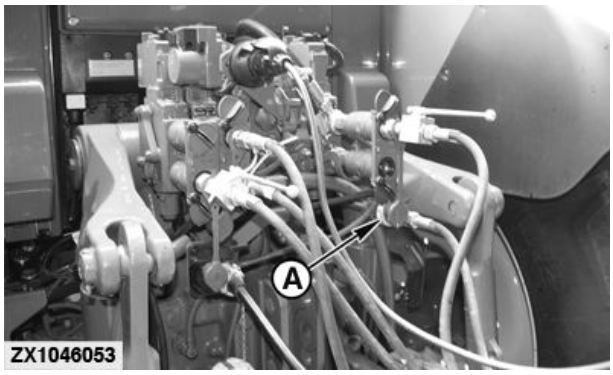


X9811 —UN—23AUG88

CAUTION: Hydraulic hoses can fail due to physical damage, kinks, age, and exposure. Check hoses regularly. Replace damaged hoses.

IMPORTANT: All hydraulic couplers must be clear of debris, dust, and sand. Use protective caps on fluid openings until ready to make connection. Foreign material can damage hydraulic system.

Always refer to tractor Operator's Manual to operate selective control valves and their relevant SCV levers.



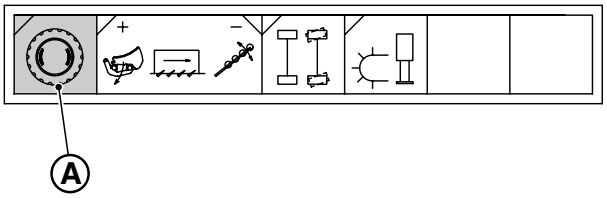
ZX1046053 —UN—03JAN12

NOTE: ISO hydraulic couplers are standard with baler. If they do not fit tractor, see your John Deere dealer.

On Baler With Hydraulic Brake Option:

All hydraulic hoses with connection to tractor are marked with colored rings. The meaning of the colors is indicated on the decal, placed at the support at the drawbar.

Insert brake hose (A) with RED ring into trailer brake valve of tractor.



ZX1046054 —UN—03JAN12

ZX1046054

A—Hydraulic Brakes—Red ring

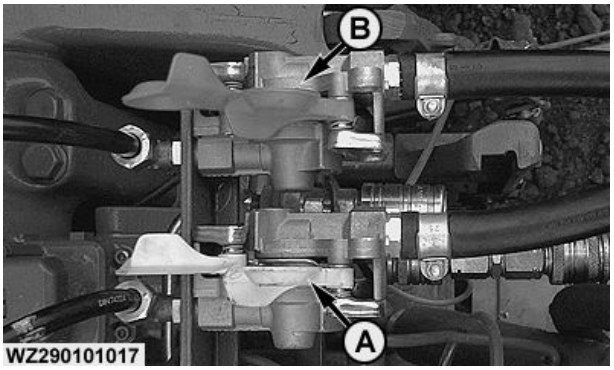
Continued on next page

On Baler With Pneumatic Brake Option:

IMPORTANT: Before connecting hoses of pneumatic brake system, verify that couplings are clean. Immediately following disconnection of hoses, dust caps must be mounted onto couplings. Tractor must be fitted with a 2-line air pressure system. When attaching air pressure hoses, do not use black connection option.

IMPORTANT: When traveling on public roads, release valve control knob (C) must always be in down position.

- When connecting air pressure hoses to tractor, first attach command line with yellow coupling (A) and next supply line with red coupling (B), see also tractor Operator's Manual.
- When disconnecting air pressure hoses from tractor, first detach supply line (red coupling) and then command line (yellow coupling).
- When machine is detached, it can be braked by pulling down release valve control knob (C). Pushing control knob upward vents brake system, enabling movement of machine. On a detached machine, this procedure can be repeated up to eight times before pressure in compressed air storage tank becomes too low to operate brake system.



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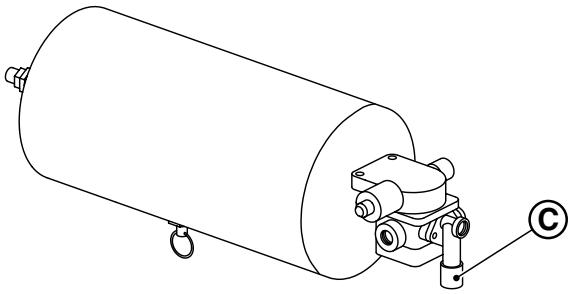


ZX1046055

ZX1046055 —UN—03JAN12

A—Command line with yellow coupling
B—Air supply line with red coupling
C—Release valve control knob

SF04007,0000983 -19-02DEC15-2/2

Connect to Tractor Electrical System

CAUTION: Check cables and connections. Before connecting check all electrical cables for damages. After connecting check electrical cables for tight connection. Damaged or incorrect connected plugs can cause unpredictable movements of machine which may result in serious damage and injuries.

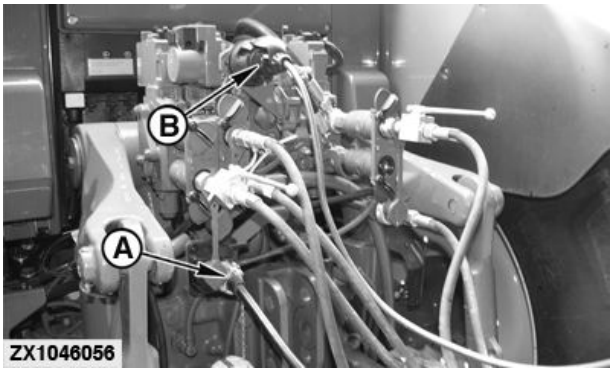
IMPORTANT: Connect plug to a 12 V system only.

Check cable routing. Take care of enough free space to avoid cables from getting stretched, twisted, or torn. Stretched, twisted, and torn cables can lead to unpredictable movements of t machine that may cause serious damage and injuries.

Connect 9-pole ISO 11783 plug (A) of baler control box wiring harness to tractor ISOBUS implement breakaway connector.

If your tractor is not equipped with a 9-pole ISO 11783 plug see your John Deere dealer for additional equipment needed to install ISO 11783 compliant plug and communication system.

Connect 7-pole ISO 1724 plug (B) of baler road light wiring harness to tractor seven-terminal socket.



ZX1046056 —UN—03JAN12

A—9-pole plug **B—7-pole plug**

SF04007,0000984 -19-02DEC15-1/1

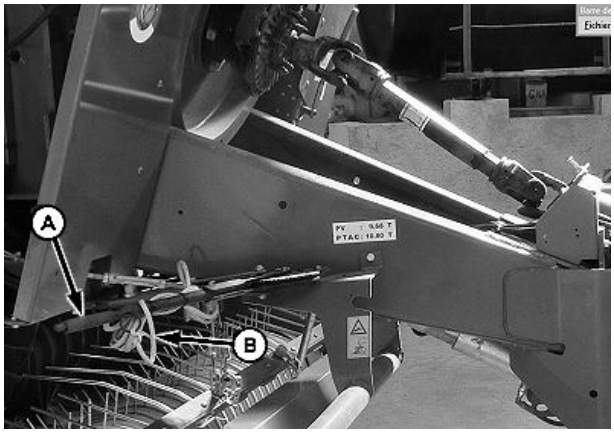
Attach Emergency Brake

IMPORTANT: Baler is equipped with an emergency brake device. Always attach emergency brake trip rope to tractor structure before operating baler.

If unhitching occurs during field operation or road transport, cable pulls lever. Machine comes to a standstill.

Attach rope (B) from lever (A) to a fixed point at tractor.

A—Lever **B—Rope**



E80585 —UN—07DEC15

SF04007,0000985 -19-07DEC15-1/1

Detach Baler from Tractor

CAUTION: To prevent personal injury caused by unexpected movement:

1. **Park machine on a level surface.**
2. **Engage tractor parking brake or place transmission in "Park".**
3. **Engage baler flywheel brake.**

1. Park baler on a level surface, or block baler wheels so machine cannot roll after detaching from tractor.
2. Disconnect wiring harnesses.

TS198 —UN—23AUG88

CAUTION: Shut off tractor engine before detaching telescoping driveline. Entanglement in rotating driveline can cause serious injury or death.

3. Disconnect driveline from tractor PTO shaft.
4. Remove jackstand from its storage location and lower it to ground.
5. Disconnect safety chain from tractor.
6. Disconnect emergency brake rope from tractor.

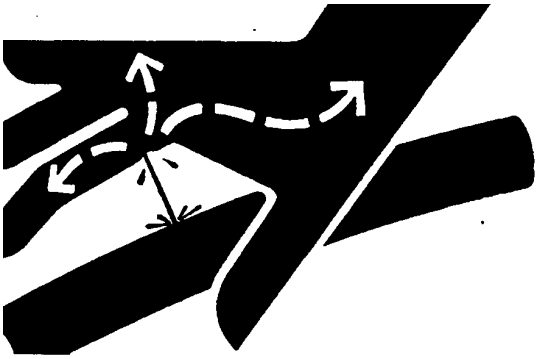
Continued on next page

SF04007,0000986 -19-02DEC15-1/2

CAUTION: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Search for leaks with a piece of cardboard. Protect hands and body from high-pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A.

7. Disconnect hydraulic hoses from tractor receptacles.
8. Disconnect hydraulic brake hose or pneumatic brake hoses.
9. Disconnect baler from tractor drawbar, wagon, or trailer hitch.



X9811 —UN—23AUG88

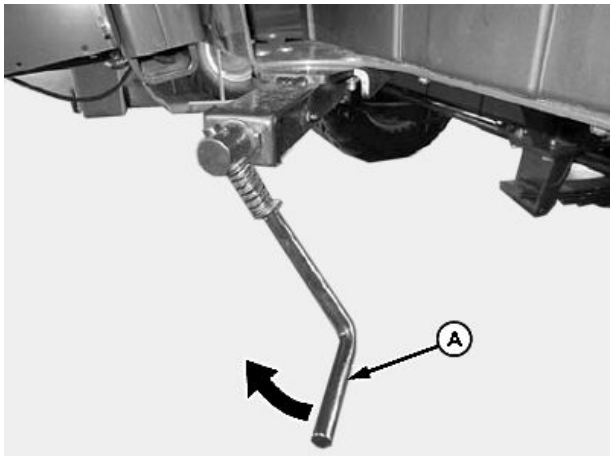
10. Carefully drive tractor away from baler.
11. Store all hoses and wiring harnesses on tongue support.

SF04007,0000986 -19-02DEC15-2/2

Attaching and Detaching Prechopper from Baler

1. Place tractor and baler on a hard level surface.
2. Turn crank (A) clockwise to activate parking brake.

A—Crank



E80558 —UN—13NOV15

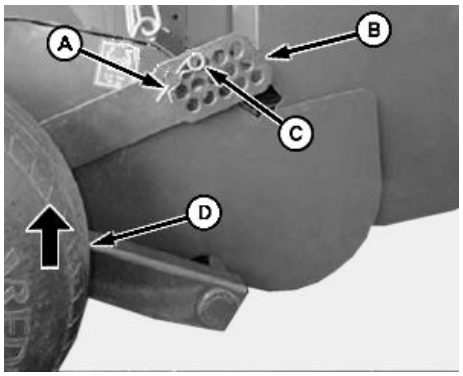
SF04007,0000CD1 -19-30NOV16-1/17

3. Remove spring clip (C).
4. Remove pin (A) from bracket (B) and move up gauge wheel (D) totally.
5. Reinstall pin (A) into bracket (B).
6. Repeat on the opposite side.

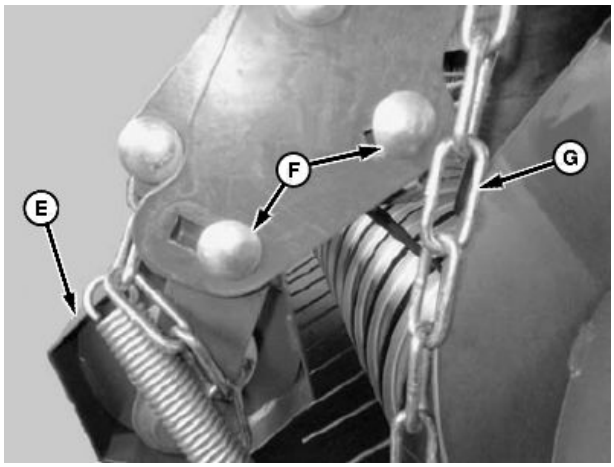
NOTE: Perform following steps on both sides.

7. Lower crop guard roller (E) using chains (G).
8. Loosen round head bolts (F) and lower crop guard roller (E) to lowest position possible.

A—Pin
B—Bracket
C—Spring Clip
D—Gauge Wheel (1 each side)
E—Crop Guard Roller (1 each side)
F—Round Head Bolt (2 each)
G—Chain (Both Sides)



E80559 —UN—13NOV15



E80560 —UN—13NOV15

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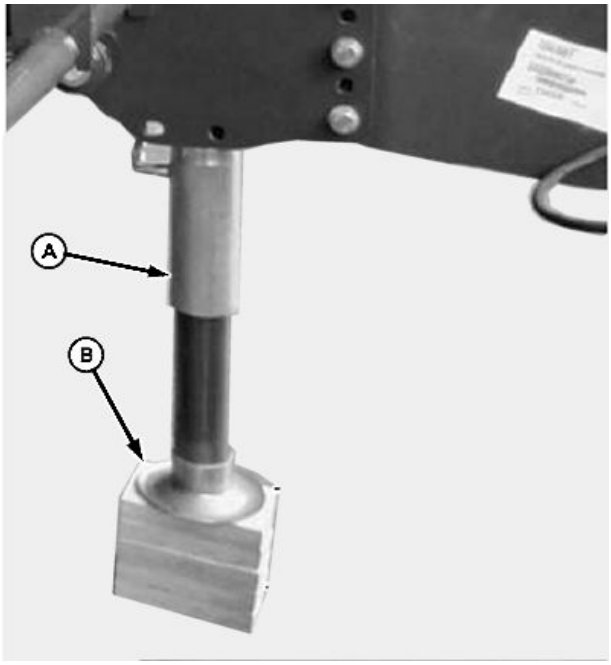
SF04007,0000CD1 -19-30NOV16-2/17

9. Move support jack (A) to vertical position.

NOTE: Place wood block (B) underneath the support jack.

A—Parking Stand **B—Wood Block**

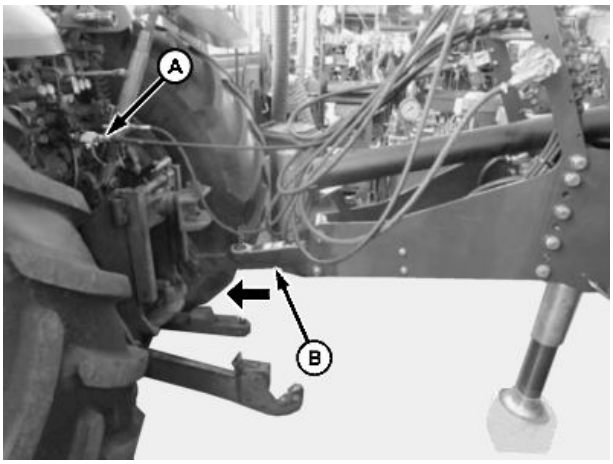


E80561 —UN—13NOV15

SF04007,0000CD1 -19-30NOV16-3/17

10. Disconnect hitch (B) of the baler from tractor, leave hydraulic hoses (A) connected.
11. Lift drawbar using the hydraulic support jack.

A—Hydraulic Hose **B—Hitch**



E80562 —UN—13NOV15

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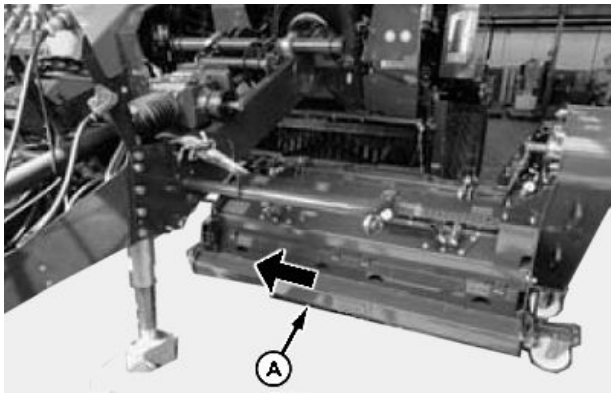
SF04007,0000CD1 -19-30NOV16-4/17

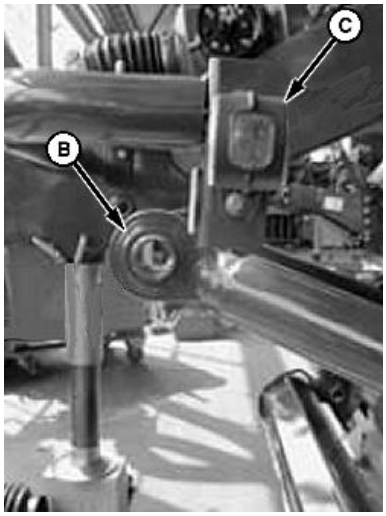
12. Move prechopper (A) under the drawbar from the left-hand side to the right-hand side.

NOTE: Avoid connection arms (B) coming in contact with safety bar (C).

A—Prechopper
B—Connection Arm (1 each side)
C—Safety Bar



E80563 —UN—16NOV15



E80564 —UN—16NOV15

SF04007,0000CD1 -19-30NOV16-5/17

13. Lower drawbar so connection arms (A) align with connection holes in drawbar.

A—Connection Arm (1 each side)

E80565 —UN—16NOV15

Continued on next page

SF04007,0000CD1 -19-30NOV16-6/17

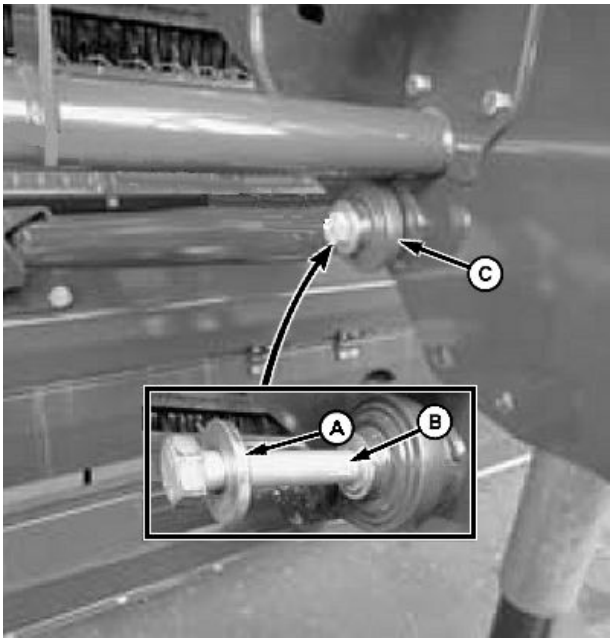
14. Install washers (A) pivot pins (B) of the chopper connection arms (C) on both sides. Tighten to specification.

Specification

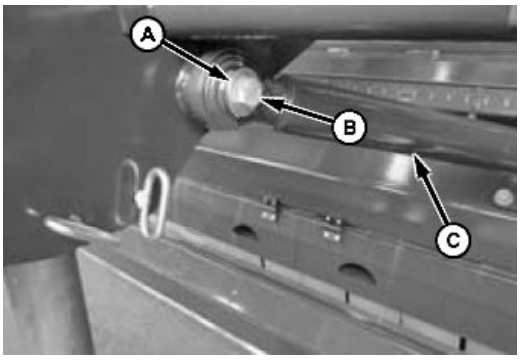
Pivot Pin—Torque.....714 N·m (527 lb·ft)

15. Lift drawbar to the maximum setting.

A—Washer (1 each side)
B—Pivot Pin (1 each side)
C—Chopper Connection Arm (1 each side)



E80566 —UN—16NOV15

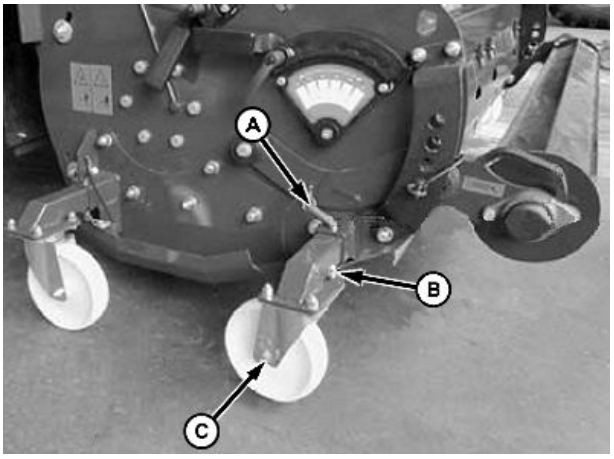


E80567 —UN—16NOV15

SF04007,0000CD1 -19-30NOV16-7/17

16. Remove and retain the spring clip (B).
17. Remove and retain the pin (A).
18. Remove wheel assembly (C) at the front of prechopper.

A—Pin
B—Spring Clip
C—Wheel Assembly (Front)



E80568 —UN—16NOV15

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SF04007,0000CD1 -19-30NOV16-8/17

19. Install two-wheel assembly (A) on the top right-hand side of prechopper.

A—Two-Wheel Assembly

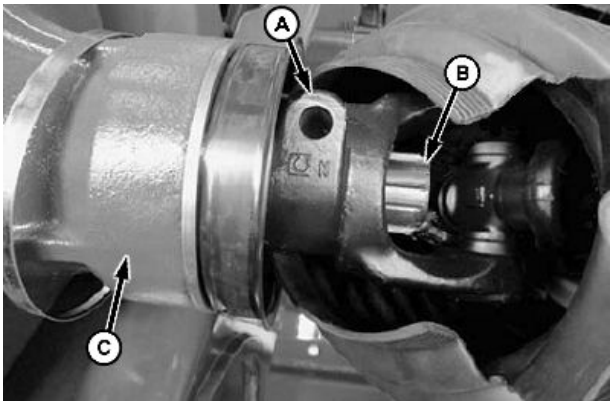
E80569 —UN—16NOV15

Continued on next page

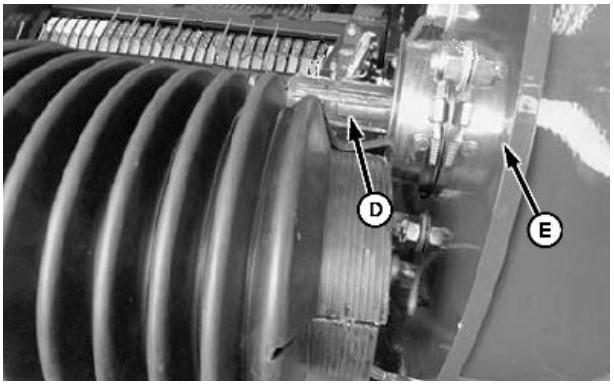
SF04007,0000CD1 -19-30NOV16-9/17

20. Slide one end of PTO shaft (A) fully onto spline-shaft (B) of gear case (C).
21. Slide opposite end of PTO onto prechopper (E) spline-shaft (D).

A—PTO Shaft
B—Spline-Shaft
C—Gear Case
D—Spline-Shaft
E—Prechopper



E80570 —UN—18NOV15

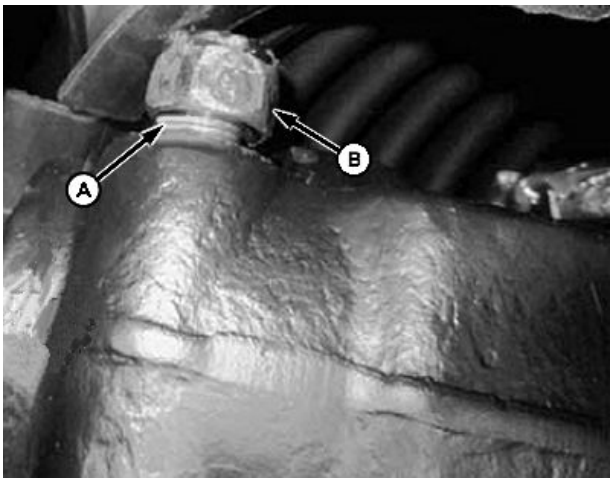


E80571 —UN—18NOV15

SF04007,0000CD1 -19-30NOV16-10/17

22. Install cap screw and nut (A and B) into PTO shaft on the gear case side. Repeat on the prechopper side.
23. Tighten hose clamps.
24. Slowly lower drawbar, using hydraulic support jack.

A—Cap Screw
B—Nut



E80572 —UN—18NOV15

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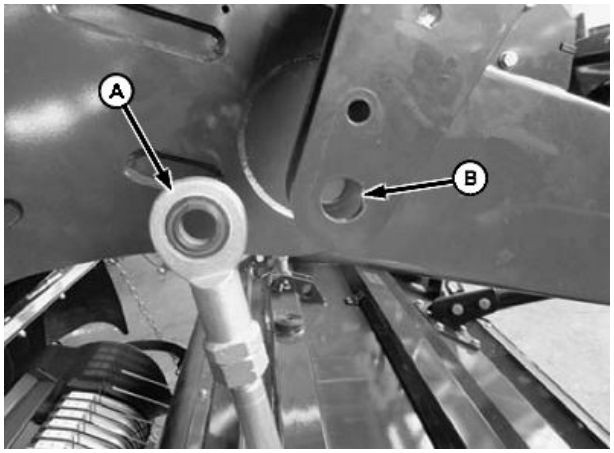
SF04007,0000CD1 -19-30NOV16-11/17

25. Align prechopper lifting arms (A) with the lifting mechanism hole (B) on each side.

A—Lifting Arm (1 each side)
B—Drawbar Lifting Mechanism Hole (1 each side)

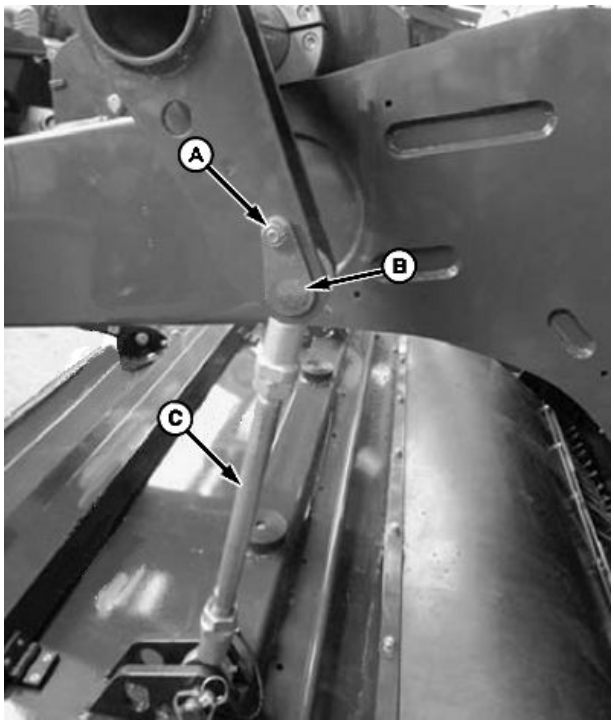


E80573 —UN—18NOV15

SF04007,0000CD1 -19-30NOV16-12/17

26. Connect lifting arm (1) to lifting mechanism using pin (B).
27. Install cap screw and nut (A). Repeat on the opposite side.
28. Lift prechopper off ground using lifting mechanism.

A—Cap Screw and Nut
B—Pin
C—Lifting Arm (1 each side)



E80574 —UN—18NOV15

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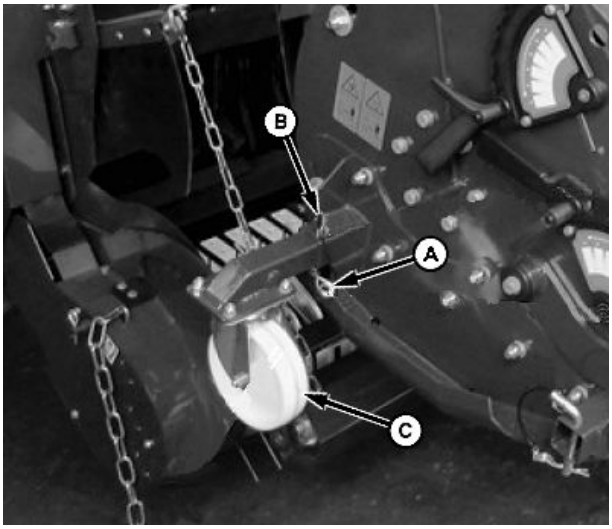
SF04007,0000CD1 -19-30NOV16-13/17

29. Remove and retain the spring clip and pin (A and B).
30. Remove rear wheel assembly (C).
31. Install two-wheel assembly (D) on the top right-hand side of prechopper.
32. Install previously removed spring clip and pin (A and B). Repeat on the opposite side.
33. Lower prechopper.

A—Spring Clip
B—Pin
C—Rear Wheel Assembly
D—Two-Wheel Assembly



E80575 —UN—18NOV15

E80576 —UN—18NOV15

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SF04007,0000CD1 -19-30NOV16-14/17

34. Install rubber plate (A) of the prechopper to baler at locations shown.

NOTE: Ensure that bending of the rubber plate is facing upwards.

A—Rubber Plate

E80577 —UN—18NOV15

E80578 —UN—18NOV15

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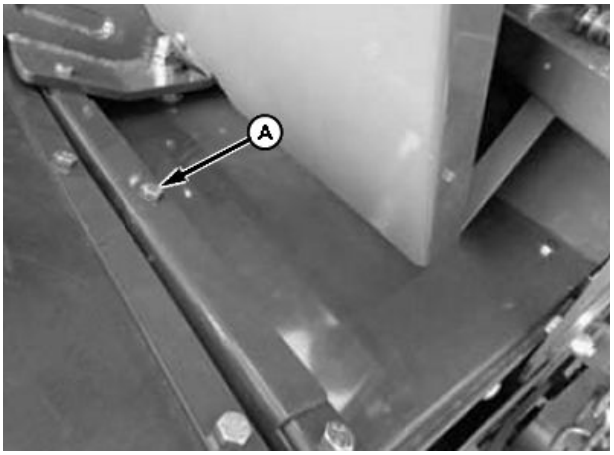
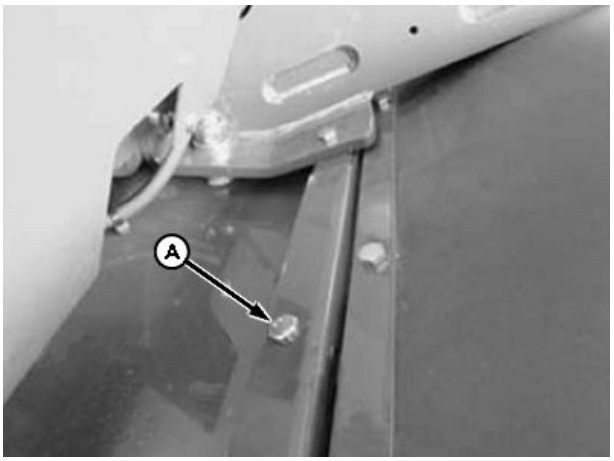
SF04007,0000CD1 -19-30NOV16-15/17

35. Install cap screw and nut (A) at locations shown.

A—Cap Screw and Nut (1 each side)



E80579 —UN—19NOV15

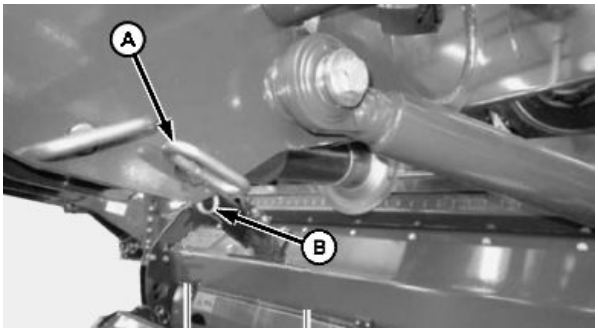


E80580 —UN—19NOV15

SF04007,0000CD1 -19-30NOV16-16/17

36. Lower drawbar using hydraulic support jack.
37. Attach drawbar to tractor.
38. Place hydraulic jack in horizontal position.
39. Secure pin (A) with spring clip (B).

A—Pin **B—Spring Clip**



E80581 —UN—23NOV15

SF04007,0000CD1 -19-30NOV16-17/17

Transport Safely

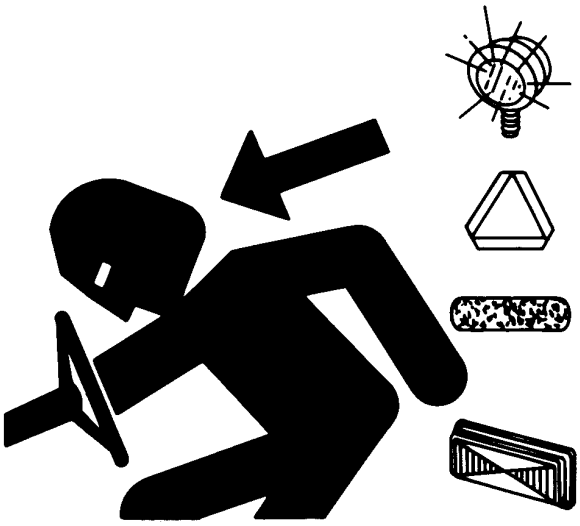
CAUTION: Prevent collisions between other road users, slow moving tractors with attachments or towed equipment, and self-propelled machines on public roads. Frequently check for traffic from the rear, especially in turns, and use hand signals or turn signal lights.

Use headlights, flashing warning lights, and turn signals day and night. Follow local regulations for equipment lighting and marking. Keep lighting and marking visible and in good working order. Replace or repair lighting and marking that has been damaged or lost.

CAUTION: A safety chain will help control drawn equipment should it accidentally separate from the drawbar. Using the appropriate adapter parts, attach the chain to the tractor drawbar support or other specified anchor location. Provide only enough slack in the chain to permit turning. Do not use safety chain for towing.

Before road transport takes place, read the following safety instructions.

- Disengage tractor PTO.
- Fold up bale chute. Secure with chains on both sides.
- Be sure that warning lights, tail lights, and reflectors are clean and visible.



TS951 —UN—12APR90

- Block all hydraulic valves.
- Install and close all protective covers and doors.
- Pay extreme attention in tight turning that tractor rear wheel does not come in contact with baler drawbar.
- Carrying people and objects on machine is prohibited.
- If prechopper is equipped, be sure that maximum height setting is used during transport.

SF04007,00009AB -19-10DEC15-1/1

Prepare Baler for Transport

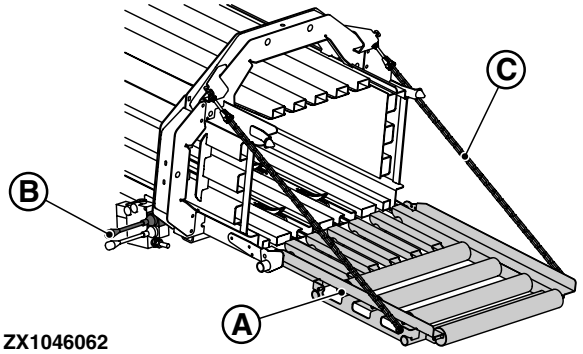
Bring baler in transport position as follows:

1. Lift pickup to maximum height.
   a. Close isolating valve on hydraulic hose at tractor side.
   b. Secure pickup in highest position by holding chains tight in retainer on each side of machine.
2. Eject last bale to clear bale chute.
3. Fully lift and lock bale chute.

CAUTION: Bale chute is heavy. To prevent personal injury to you or others, make sure that bystanders stand clear of chute when raising.

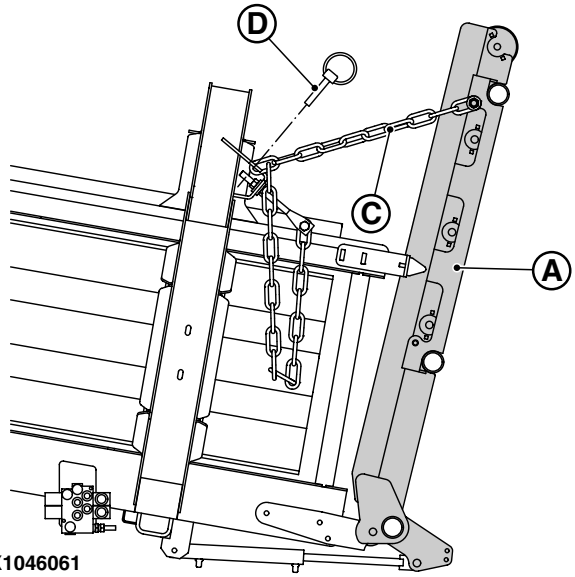
   a. Fold up bale chute (A). Use lever (B) to move up bale chute.
   b. Secure bale chute (A) with chains (C) on both sides.
   c. Secure chains (C) on both sides with lock pins (D).

A—Bale chute
B—Lever
C—Chain
D—Lock pin



ZX1046062

ZX1046062 —UN—14JAN12



ZX1046061

ZX1046061 —UN—03JAN12

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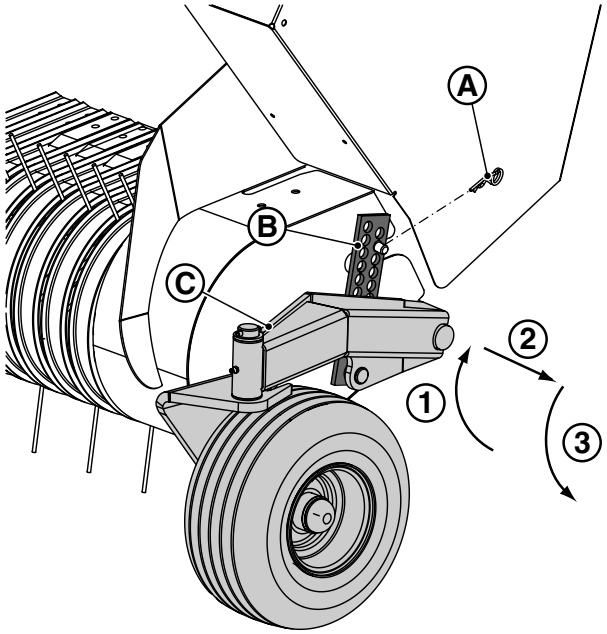
SF04007,00009AC -19-02DEC15-1/5

4. Pickup gauge wheels can be removed.
   a. Remove spring pin (A) from pin.
   b. Move bracket (B) forwards.
   c. Lift gauge wheel (C) until notch is out of sleeve.
   d. Pull out gauge wheel (C).
   e. Put spring pin (A) back on pin.
   f. Place gauge wheel (C) inside press chamber.

A—Spring pin
B—Bracket
C—Gauge wheel



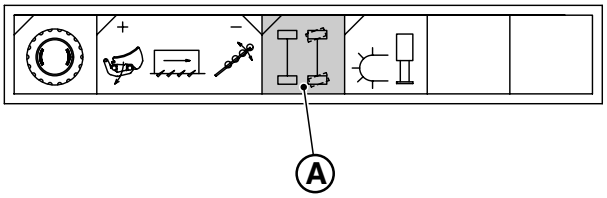
ZX1046063

ZX1046063 —UN—03JAN12

SF04007,00009AC -19-02DEC15-2/5

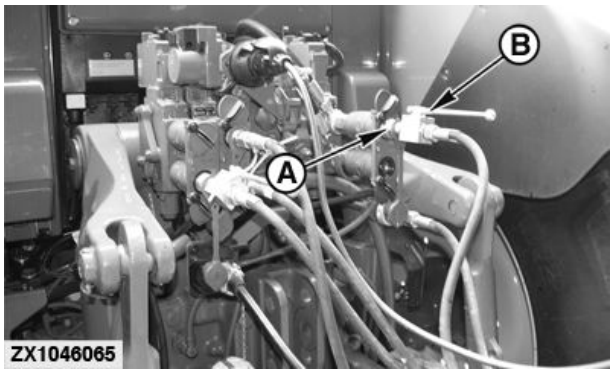
5. Lock steered tandem axle.
   a. Connect hydraulic hose, marked green (A) to a single acting selective control valve on tractor or to “extended” receptacle of a double acting selective control valve (see Attaching and Detaching section).
   b. Open shut off valve (B).
   c. Activate relevant selective control valve control lever.
   d. Close shut off valve (B).
   e. Release selective control valve control lever.

A—Hydraulic hose—Green ring
B—Shut off valve



ZX1046064

ZX1046064 —UN—03JAN12



ZX1046065 —UN—03JAN12

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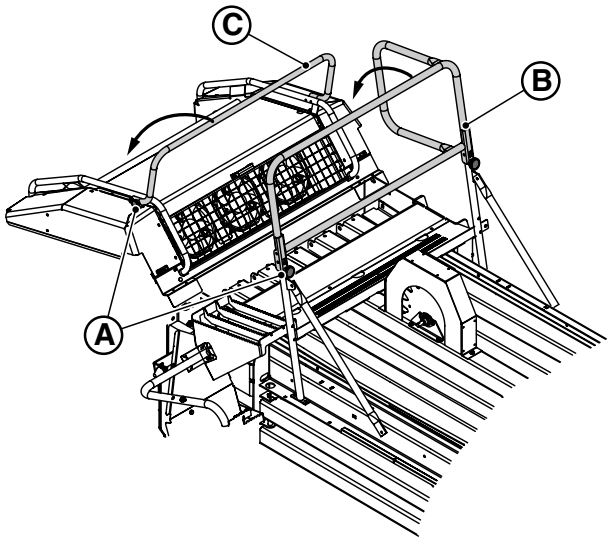
SF04007,00009AC -19-02DEC15-3/5

6. Lower guard rail at knotter hood and at platform.
   a. Loosen and remove curled nuts (A) on both sides of machine.
   b. Lower guard rails (B and C).
   c. Replace curled nuts (A).

A—Curled nuts
B—Guard rail
C—Guard rail



ZX1046066

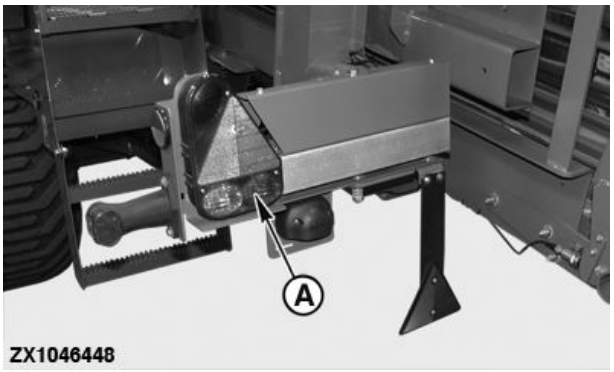
ZX1046066 —UN—03JAN12

SF04007,00009AC -19-02DEC15-4/5

7. Road lighting must be connected properly to tractor (see Attaching and Detaching section).

IMPORTANT: When traveling on public road, warning light brackets (A) on both sides must be swung out to comply with legal regulations.

8. Braking system must be connected properly to tractor (see Attaching and Detaching section).
9. Check tire pressure (see Preparing the Baler section).
10. Check wheel nuts torque (see Preparing the Baler section).
11. Remove crop residue and heavy dirt.



A—Warning light bracket

ZX1046448 —UN—17JAN12

SF04007,00009AC -19-02DEC15-5/5

Use an Extended Rear-View Mirror

CAUTION: When towing baler on public roads, an extended mirror to improve visibility of traffic behind baler is recommended. See your John Deere dealer.

SF04007,00009AD -19-02DEC15-1/1

Follow Safe Transport Procedures

CAUTION: To help prevent severe injury or death to you or someone else, follow recommended transport procedures:

- **Transport with bale chute folded.**
- **Raise pickup fully.**
- **Travel at a reasonable and safe speed. Do not exceed weight and speed guidelines shown in Tow Loads Safely found in the Safety section. Reduce speed considerably when traveling over rough ground.**
- **Stop slowly.**
- **Avoid possible loss of control or tractor overturn. Tow only with correctly ballasted tractor.**
- **Sound tractor horn before backing up baler.**

If necessary, add ballast as described in your tractor Operator's Manual. Add ballast to tractor as required to maintain stability.

SF04007,00009AE -19-02DEC15-1/1

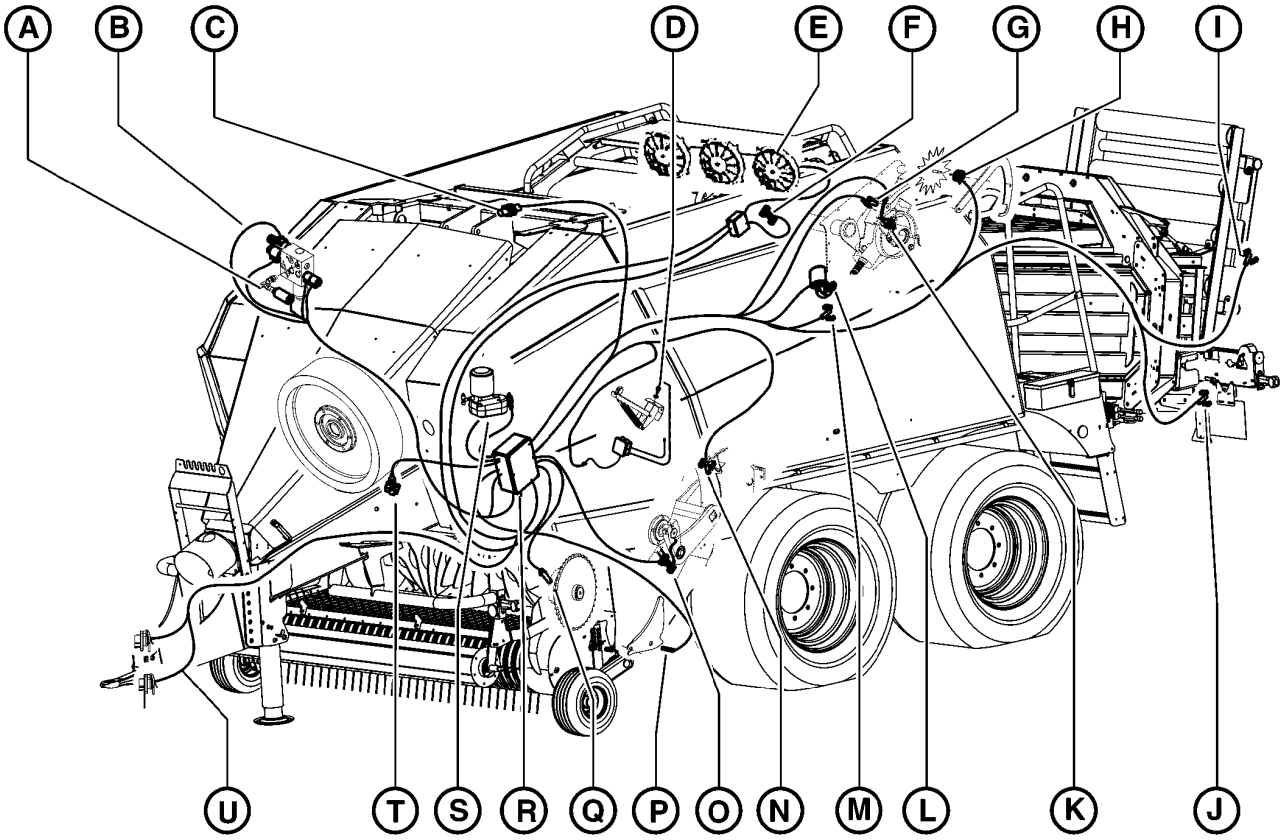
Keep Riders off Machine

CAUTION: Keep riders off. Riders are subject to injury such as being struck by foreign objects and being thrown off machine. Riders also obstruct operator's view resulting in machine being operated in an unsafe manner.

E41255 —UN—31JAN97

SF04007,0000CD2 -19-30NOV16-1/1

Electronic Control System Components and Functions



ZX1046332

ZX1046332 —UN—25JAN12

Electronic Control System Components

A—Pressure sensor
B—Hydraulic block
C—Machine load sensor (ML)
D—Twine detection sensor
E—Knotter fans
F—Knotter hood sensor
G—Needle frame shearbolt sensor
H—Bale length sensor
I— Bale drop sensor
J— Bale chute sensor
K—Bind sensor
L—Electric binding motor (If equipped)
M—Electric binding sensor (If equipped)
N—Fill sensor
O—Feeder fork sensor
P—Knife position sensor (1424C, 1433C, and 1434C Only)
Q—Rotor sensor
R—Machine controller
S—Grease sensor
T—Flywheel brake sensor
U—Wiring harnesses

Baler is equipped with an electronic control system that controls and monitors the growing bale, the tying, and clearing out of the bale. Furthermore the system also provides error indicating functions.

Baler is equipped with several kinds of sensors that are monitored by the electronic system.

The monitor enables supervision of total baling procedure from tractor cab, such as:

- Bale length indication.
- Plungerhead load.
- Density pressure.
- Overload packer.
- Twine (tension) detection and tying system functioning.
- Relation of filling strokes to plungerhead strokes.
- Bale counters.
- Knife position indication of Precutter.

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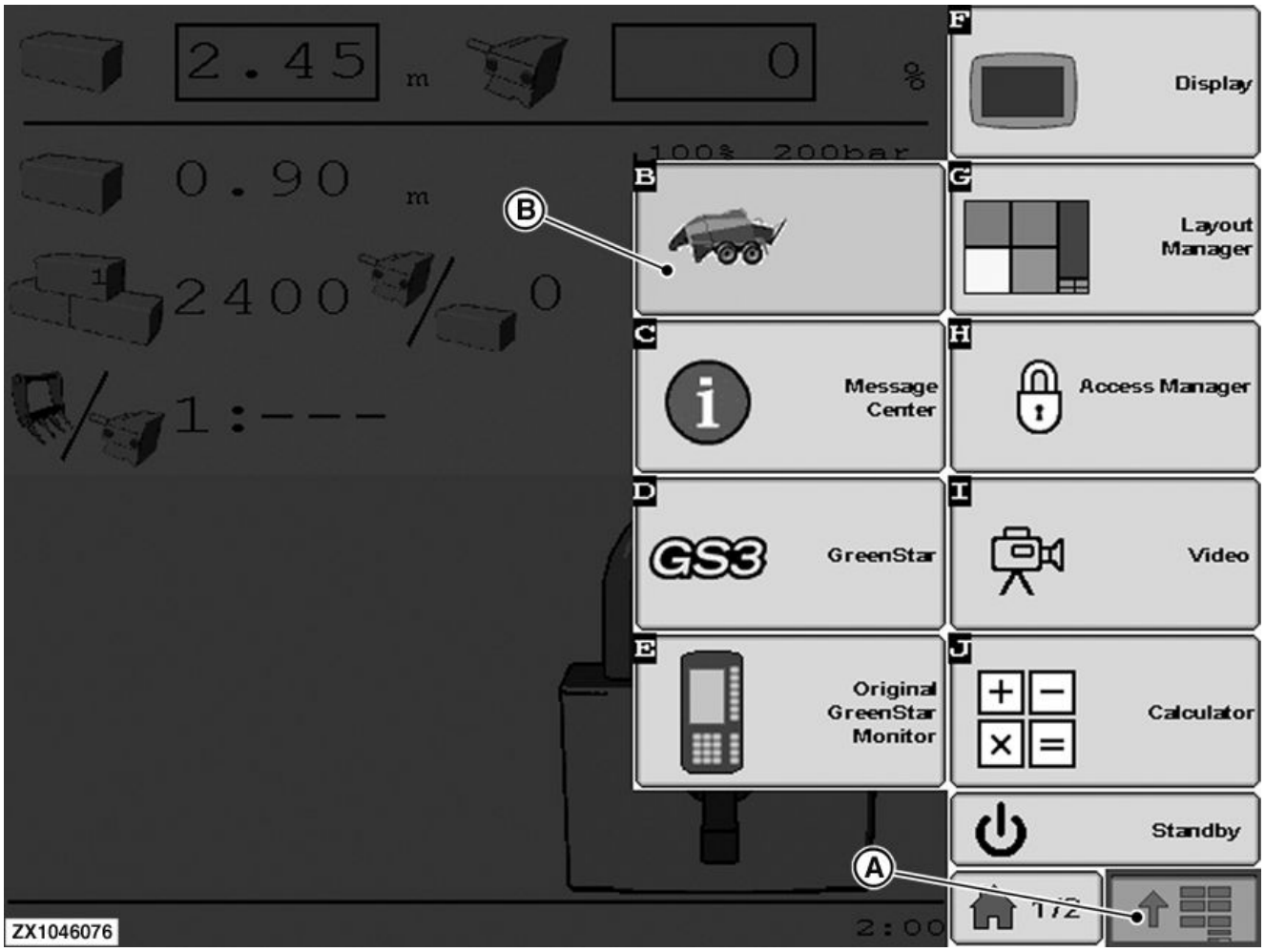


Green Star™ 2 2600 display shown

A—Display menu button **B—Baler application button**

GreenStar Display

Baler is ISOBUS 11783 compliant and must be connected to an ISOBUS-compliant monitor.

IMPORTANT: Illustrations and information provided in this section belong to a baler connected to a John Deere GreenStar™ 2 2600 or GreenStar™ 3 2630 Display.

If baler is connected to any other ISOBUS-compliant monitor brand, function symbols location and their activation may differ. Always refer to relevant monitor Operator's Manual to operate baler electronic system.

NOTE: For more information about GreenStar™ 2 2600 or GreenStar™ 3 2630 Display, refer to relevant GreenStar Display Operator's Manual.

NOTE: John Deere displays are automatically switched ON when ignition key is turned ON.

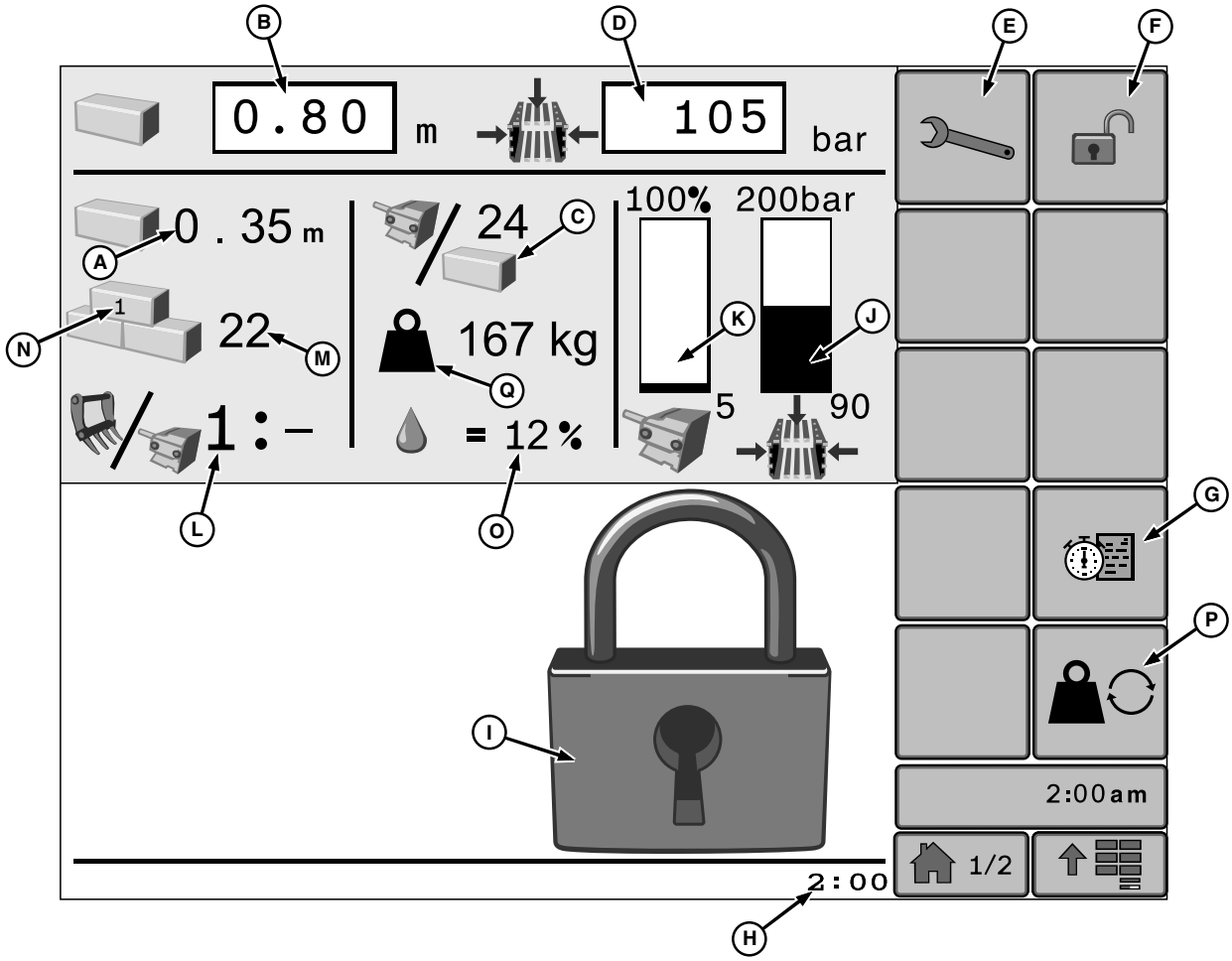
First time baler is connected to the monitor or after a software update, it is necessary to wait until baler application is loaded (2 to 4 minutes).

If baler application is not automatically displayed, press display menu button (A), then press baler application button (B). Basic page appears (see Baler Basic Display Description in this section).

NOTE: For more information about the display menu access, see your monitor Operator's Manual.

SF04007,00009B0 -19-02DEC15-2/2

Baler Basic Display Description



A—Actual Bale Length
B—Set Bale Length
C—Plungerhead Stroke Per Bale
D—Set Bale Chamber Pressure
E—User Function Access Button
F—Operating Display Access Button
G—Field Record Access Button
H—Actual Time
I— System Lock Symbol
J—Actual Bale Chamber Pressure
K—Actual Plungerhead Load
L—Feeder Fork - Plungerhead Ratio
M—Number of Bales Made
N—Active Field Counter
O—Bale Moisture Level
P—Bale Weighing System Button
Q—Bale Weight

Basic Display page allows operator to control and monitor main baler functions during field operation. On this page, no values or settings can be entered. If necessary, user settings, operating mode, or specific function activations can be reached as follows:

- To access the user function page (see User Function Page in this section), press the User Function button (E).

  NOTE: User functions are only available when corresponding options are installed on baler and activated in the Dealer Menu (see Dealer Menu Page in this section).

- To place the system into operating mode (see Operating Mode Page in this section), press the Operating Display access button (F).

  NOTE: Under this mode, machine operation settings are accessible.

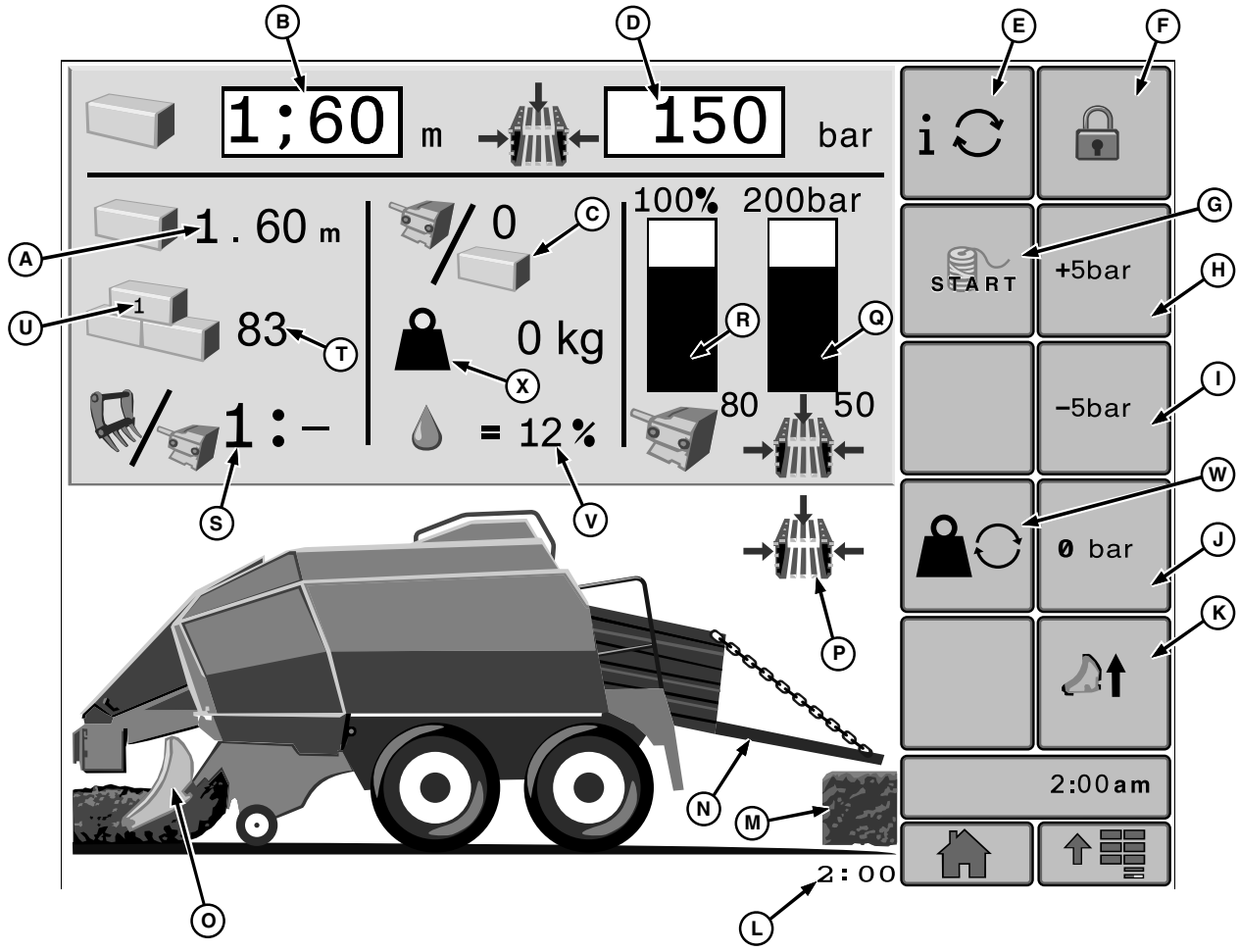
- To access the field records page (see Field Record Page in this section), press the Field Record access button (G).

  NOTE: Use Field Record page to store work statistics, for example, per field or per customer.

- To toggle between the actual bale weight of the current bale, weight of the last bale, and the bale weight average, press the Bale Weighing System button (P).

SF04007,0000C99 -19-02NOV16-1/1

Operating Mode Page



E81654 —UN—26OCT16

A—Actual Bale Length
B—Set Bale Length
C—Plungerhead Stroke per Bale or Bale Per Hour[1]
D—Set Bale Chamber Pressure or Set Machine Load [2]
E—Bale Per Hour - Plungerhead Stroke per Bale Display Toggle Button
F—Basic Display Access Button
G—Electric Binding Start Button (If Equipped)
H—Increase Bale Chamber Pressure or Machine Load Button[3]
I— Decrease Bale Chamber Pressure or Machine Load Button[4]
J— Set Bale Chamber Pressure or Set Machine Load to 0 Button[5]
K—Engage - Retract Precutter Knives Button (1424C, 1433C, and 1434C only)
L—Actual Time
M—Bale Drop Indicator (If Equipped)
N—Bale Chute Position Indicator
O—Precutter Knives Engaged Indicator (1424C, 1433C, and 1434C only)
P—Actual Bale Density Control Mode Indicator[6]
Q—Actual Bale Chamber Pressure
R—Actual Machine Load
S—Feeder Fork - Plungerhead Ratio
T—Number of Bales Made
U—Active Field Counter
V—Bale Moisture Level Indicator
W—Bale Weighing System Button
X—Bale Weight

IMPORTANT: To use the monitor and prepare the machine for field operations, see the Operating the Baler section.

NOTE: Set bale chamber pressure is default bale density control mode (P). To toggle between set bale chamber pressure and machine load input field (D) display, refer to User Function Page in this section.

From **Operating Mode Page**, the following settings or functions can be performed:

[1]Plungerhead stroke per bale illustrated.
[2]Set bale chamber pressure illustrated.
[3]Increase bale chamber pressure illustrated.
[4]Decrease bale chamber pressure illustrated.
[5]Set bale chamber pressure to 0 illustrated.
[6]Bale chamber pressure illustrated.

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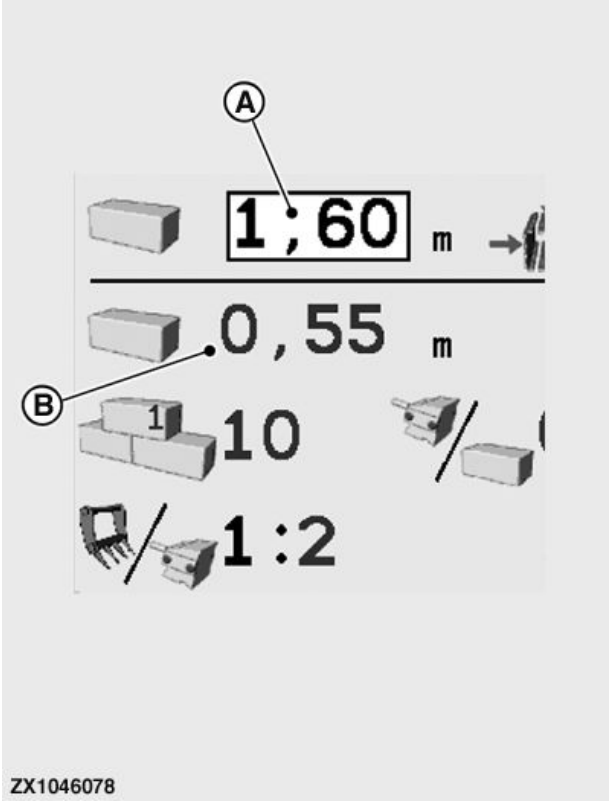
SF04007,0000C9A -19-16JAN17-1/10

Set Bale Length:

- On Baler without Electric Binding Function:
  First, set bale length manually as described under Adjust Bale Length in Operating The Baler section.
  Next, press input field (A) to enter the same length value.
  Setting range: 60—300 cm (1 ft 11.62 in—9 ft 10 in).
  Actual (monitored) bale length (B) is displayed during baler operation.
- On Baler with Electric Binding Function:
  To enter the desired bale length value, press input field (A).
  Setting range: 60—300 cm (1 ft 11.62 in—9 ft 10 in).
  The system and actual (monitored) bale length (B) displayed during baler operation, controls, and monitors the desired bale length.

A—Bale Length Input Field **B—Actual Bale Length**



ZX1046078 —UN—07JAN12

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SF04007,0000C9A -19-16JAN17-2/10

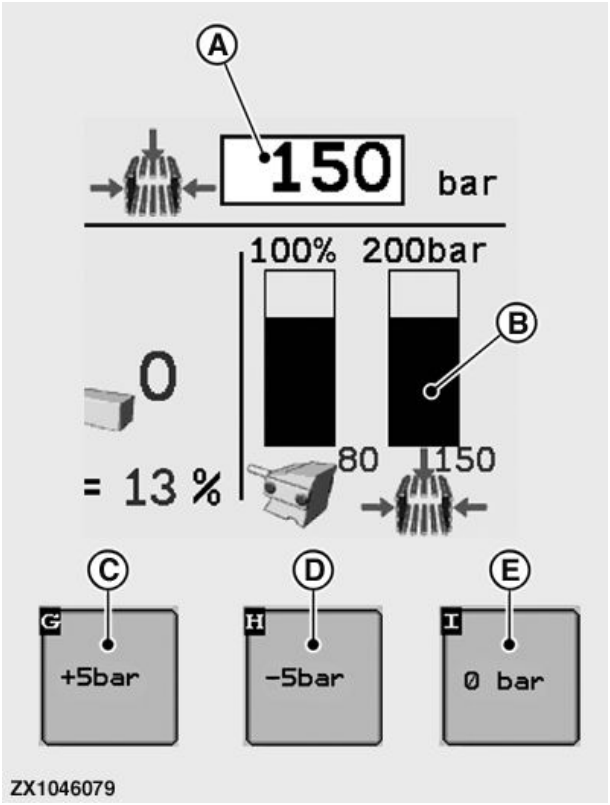
Set Bale Chamber Pressure:

IMPORTANT: Setting bale chamber pressure is part of the Density Regulation described under Operating the Baler section.

NOTE: Make sure that set bale chamber pressure input field (A) is displayed. If not, refer to the User Function Page in this section to activate the set bale chamber pressure input field (A).

- To enter the desired bale chamber pressure value, press input field (A).
  Setting range: 0—18 000 kPa (0—180 bar) (0—2610 psi).
  Desired bale chamber pressure value (A) can be set to + or - 50 kPa (+ or - 5 bar) (+ or - 72.5 psi) increments or quickly set to zero.
  - To increase the preset bale chamber pressure value (A), press button (C).
  - To decrease the preset bale chamber pressure value (A), press button (D).
  - To reset the preset bale chamber pressure value (A) to 0 bar, press zero pressure button (E).

A—Bale Chamber Pressure Input Field
B—Actual Bale Chamber Pressure
C—Increase Pressure Button
D—Decrease Pressure Button
E—Set Pressure to Zero Button



ZX1046079 —UN—07JAN12

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SF04007,0000C9A -19-16JAN17-3/10

Set Machine Load:

IMPORTANT: Setting machine load is part of the Density Regulation described under Operating the Baler section.

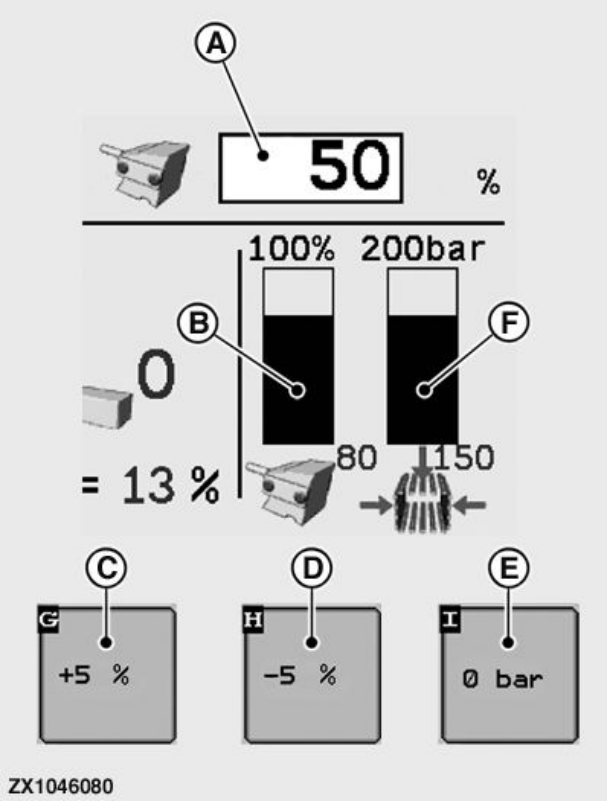
NOTE: Make sure that set machine load input field (A) is displayed. If not, refer to the User Function Page in this section to activate the set machine load input field (A).

To enter the desired machine load value, press the input field (A).

Setting range: 0—100%.

Desired machine load value (A) can be set per + or - 5% increments or quickly set to zero.

- To increase the preset machine load value (A), press button (C).
- To decrease the preset machine load value (A), press button (D).
- To reset the preset bale chamber pressure value to 0 bar, press the zero pressure button (E). Bale machine load value (A) is then reset to 0% (see Operating the Baler section).



ZX1046080 —UN—07JAN12

A—Machine Load Input Field/Machine Load Value
B—Actual Machine Load
C—Increase Load Button
D—Decrease Load Button
E—Set Pressure to Zero Button
F—Actual Bale Chamber Pressure

Continued on next page

SF04007,0000C9A -19-16JAN17-4/10

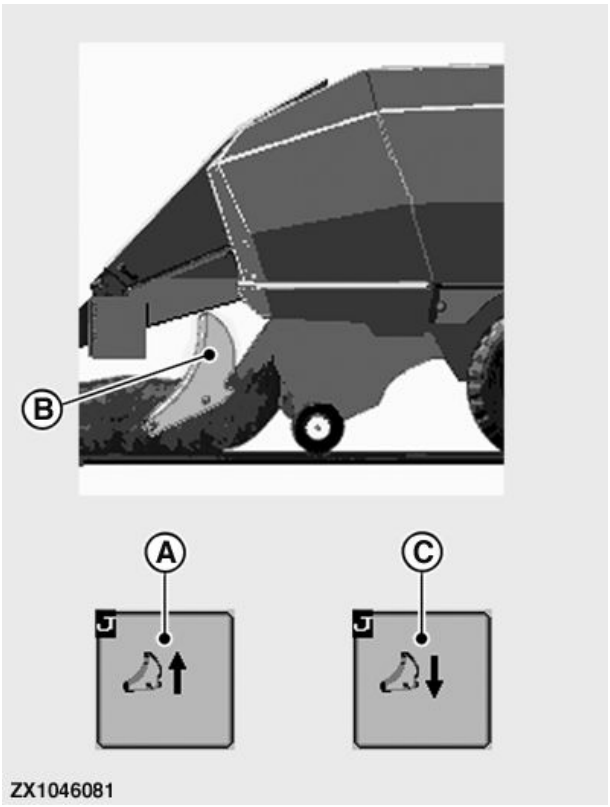
Engage-Retract Precutter Knives— 1424C, 1433C, and 1434C Only:

IMPORTANT: Set the amount of knives used as described under Remove or Install Precutter Knives (1433C Only) or Remove or Install Precutter Knives (1424C and 1434C Only) in the Preparing the Baler section.

- To move the knives in, press the Engage Knives button (A). Precutter knives engaged indicator (B) appears on-screen.
- To move out the knives, press the Retract knives button (C). Precutter knives engaged indicator (B) disappears.

NOTE: Retract Knives button (C) appears only if knives have been previously engaged.

A—Engage Precutter Knives Button
B—Precutter Knives Engaged Indicator
C—Retract Precutter Knives Button



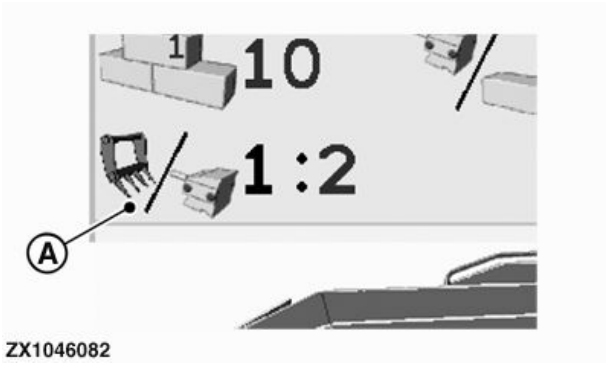
ZX1046081 —UN—07JAN12

SF04007,0000C9A -19-16JAN17-5/10

Feeder Fork - Plungerhead Ratio Display:

Feeder Fork - Plungerhead Ratio (A) indicates the number of plungerhead strokes required for one filling stroke.

A—Feeder Fork - Plungerhead Ratio



ZX1046082 —UN—07JAN12

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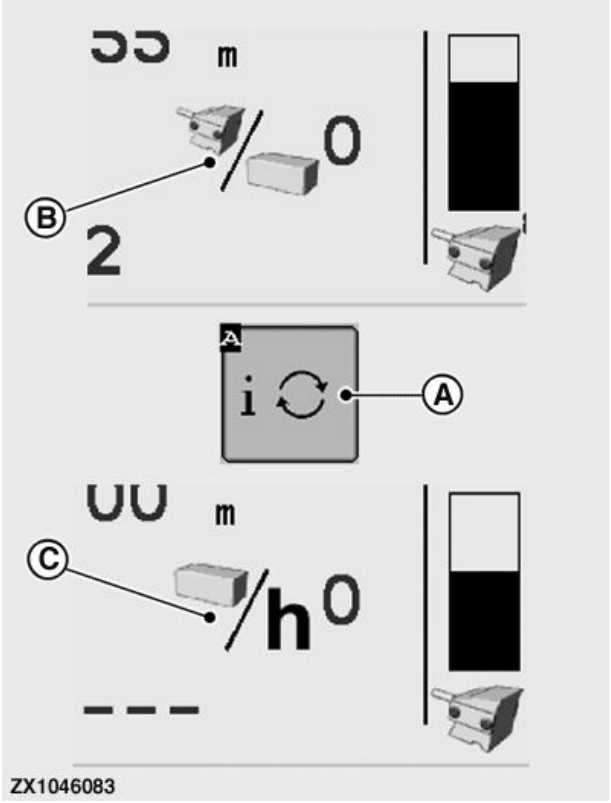
SF04007,0000C9A -19-16JAN17-6/10

Plungerhead Stroke per Bale or Bale per Hour Display:

To toggle between the Plungerhead Stroke per Bale (B) and the Bale per Hour (C) display, press button (A).

Plungerhead Stroke per Bale (B)						
Bale Length	0.80 m (2 ft 8 in)	1.20 m (3 ft 11 in)	1.60 m (5 ft 3 in)	1.80 m (5 ft 11 in)	2.20 m (4 ft 4 in)	2.60 m (8 ft 7 in)
Number of strokes/bale	16	24	32	36	44	52

A—Toggle Button
B—Plungerhead Stroke per Bale
C—Bale per Hour



ZX1046083 —UN—07JAN12

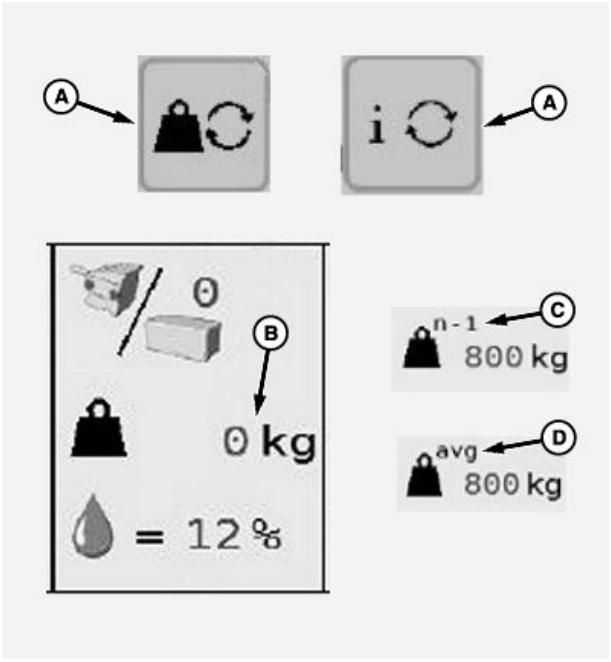
SF04007,0000C9A -19-16JAN17-7/10

Bale Weighing System Display:

Bale Weighing System—To toggle between the following bale weighing data options, press buttons (A):

- Current Bale Weight—The actual value (B) of the weight is continuously updated and represents the weight currently detected on the weighing platform.
- Last Bale Weight—The weight of the last bale (C), indicated by the **n-1** next to the weight symbol.
- Average Bale Weight—The average bale weight (D), indicated by **avg** next to the weight symbol. The average value is the mean value over the last three bales since powering up. A power-up resets the mean value.

A—Toggle Buttons
B—Current Bale Weight
C—Last Bale Weight
D—Average Bale Weight



E81600 —UN—05OCT16

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SF04007,0000C9A -19-16JAN17-8/10

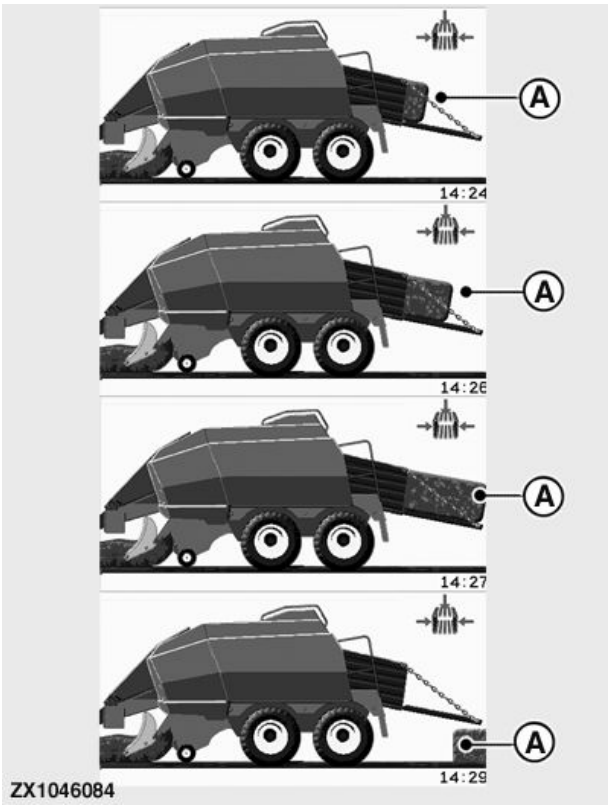
Bale Drop Indicator Display (if Equipped):

NOTE: If the bale weighing system is installed on the machine, then the bale drop is detected using the decline of the weight on the weighing platform.

When the bale drop sensor is installed and activated in the Dealer Menu, the display (A) indicates the position of the bale on bale chute. It also indicates when the bale has been dropped off the bale chute.

Refer to Operating the Baler section and to Dealer Menu Page in this section.

A—Bale drop indicator



ZX1046084 —UN—07JAN12

SF04007,0000C9A -19-16JAN17-9/10

Bale Moisture Level Indicator Display (if Equipped):

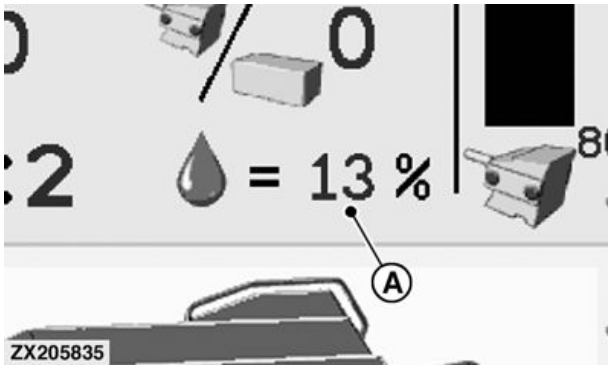
When the bale moisture sensor is installed and activated in the Dealer Menu, display (A) indicates bale moisture level.

Value (A) displayed is an estimation from 11 through 34% of moisture.

*NOTE: When "**<11%**" is displayed, it indicates a moisture level below 11%.*

*When "**>34%**" is displayed, it indicates a moisture level above 34%.*

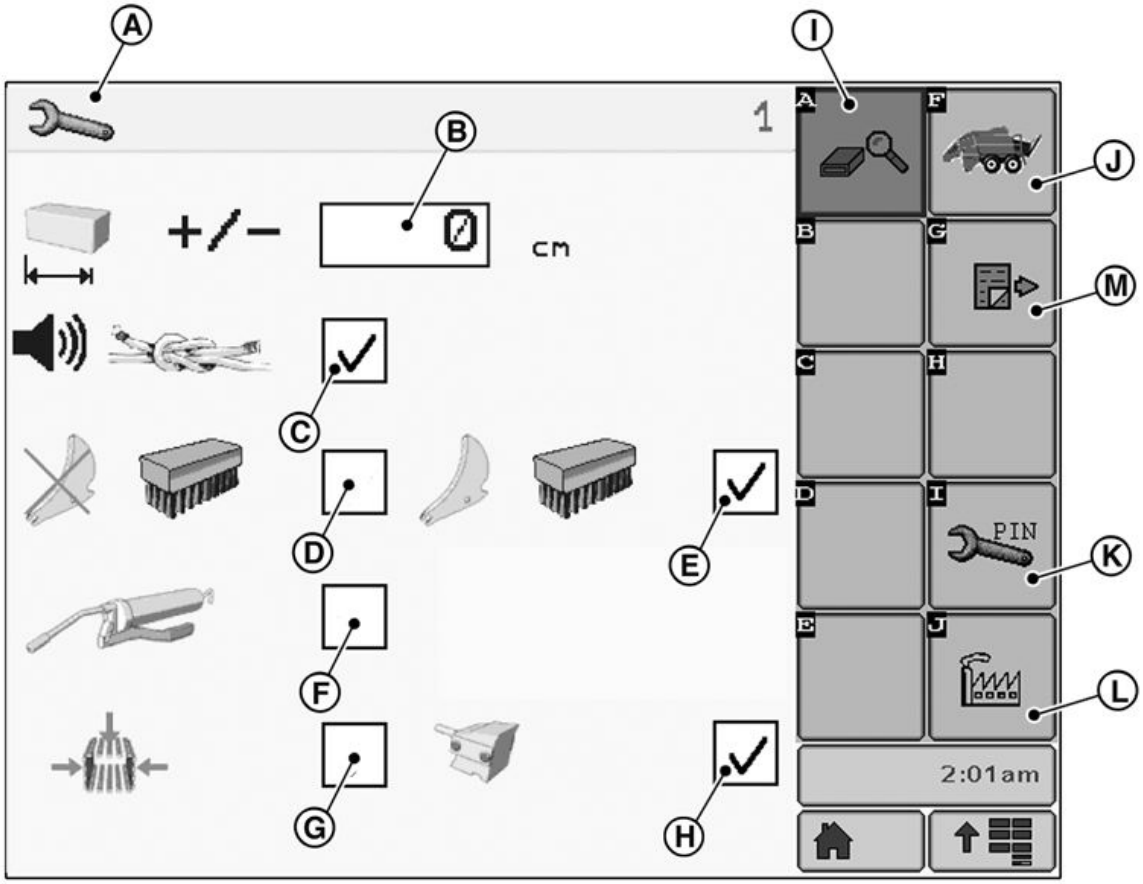
A—Bale Moisture Level Indicator



ZX205835 —UN—03NOV13

SF04007,0000C9A -19-16JAN17-10/10

User Function Page



ZX206196 —UN—03NOV13

ZX206196

A—User Function Page
B—Bale Length Correction
C—Beep at the Start of Binding
D—Knife Guide Cleaning
E—Knife Cleaning
F—Automatic Greasing System
G—Density Pressure
H—Machine Load
I— Diagnostics Button
J— Basic Display Access Button
K—Dealer Menu Page Button
L—Service Menu Page Button
M—Next Page Button

User functions are only available when corresponding options are installed on baler and activated in the Dealer menu (see Dealer Menu Page in this section).

Depending on the baler model, the following functions or options can be activated:

- Bale Length Correction (B).
- Beep Emission at Start of Binding Process (C).
- Knife Guide Cleaning (D)—1424C, 1433C, and 1434C only.
- Knife Cleaning (E)—1424C, 1433C, and 1434C only.
- Automatic Greasing System (F) (if equipped).
- Density Pressure (G).
- Machine Load (H).

To display the component information pages for diagnostic purposes (see Diagnostic Menu Page in this section), press the Diagnostics button (I).

To go back to the Basic Display (see Basic Display in this section), press the Basic Display return button (J).

To access the Dealer Menu pages (see Dealer Menu Page in this section), press the Dealer Menu button (K).

To access the Service Menu pages (see Service Menu Page in this section), press the Service Menu button (L).

IMPORTANT: Dealer Menu and Service Menu page access require a code PIN. Contact your John Deere dealer.

Depending on the function / option box checked, Next Page button (M) appears. To reach the User Function Page 2, press the Next Page button (M).

Continued on next page

SF04007,0000C9C -19-16JAN17-1/8

Bale Length Correction:

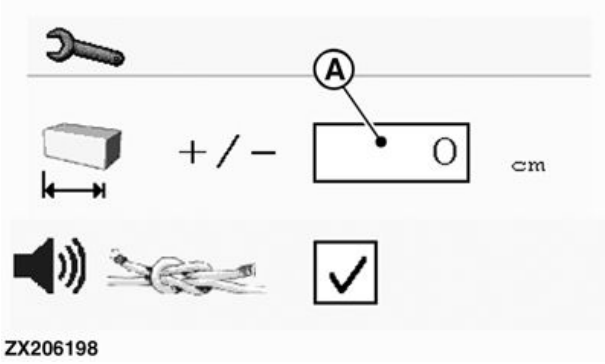
Bale length sensor gives pulses for a certain bale growth, and measures actual bale length.

If actual electronic bale length differs from set bale length (see Operating Mode Page in this section), the bale growth per pulse can be corrected.

NOTE: Bale length correction (A) setting range is -25 cm to +25 cm (-10 to +10 in).

1. Measure a number of bales and calculate average value.
2. Compare average value with set bale length.
3. If necessary, change Bale Length Correction (A) value to value of the calculated difference.

   NOTE: For example: If the actual bale length is 2.6 m (8 ft 6 in) and set bale length is 2.4 m (7 ft 11 in), then change bale length correction to + 20 cm (+8 in).



ZX206198

ZX206198 —UN—03NOV13

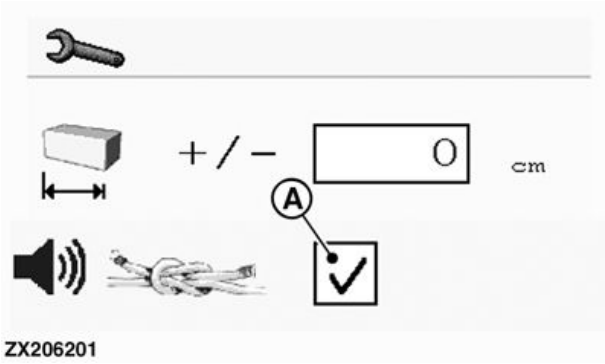
A—Bale Length Correction

SF04007,0000C9C -19-16JAN17-2/8

Beep Emission:

To activate emission of a double beep at start of the binding cycle, check the Beep Emission box (A).

A—Beep Emission



ZX206201

ZX206201 —UN—03NOV13

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SF04007,0000C9C -19-16JAN17-3/8

Knife Guide Cleaning (1424C, 1433C, and 1434C Only):

When knives are not used (locked in lower position) for too long of a time, knife guide slots can get dirty. Clean knife guide slots regularly.

Cleaning process takes place by engaging knives momentarily into cutting and then retracting.

Time between cleanings can be adjusted.

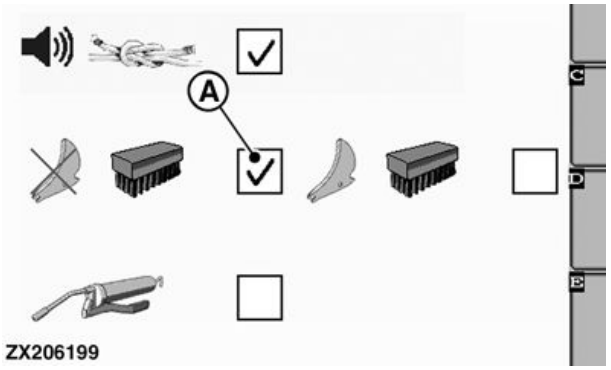
To adjust cleaning interval, proceed as follows:

1. Check Knife Guide Cleaning box (A).
2. To access the User Function Page 2, press the Next Page button (B).
3. Change the Cleaning Interval setting (C) to the desired value 0—99 minutes, if necessary.

   NOTE: Default setting is 30 minutes.

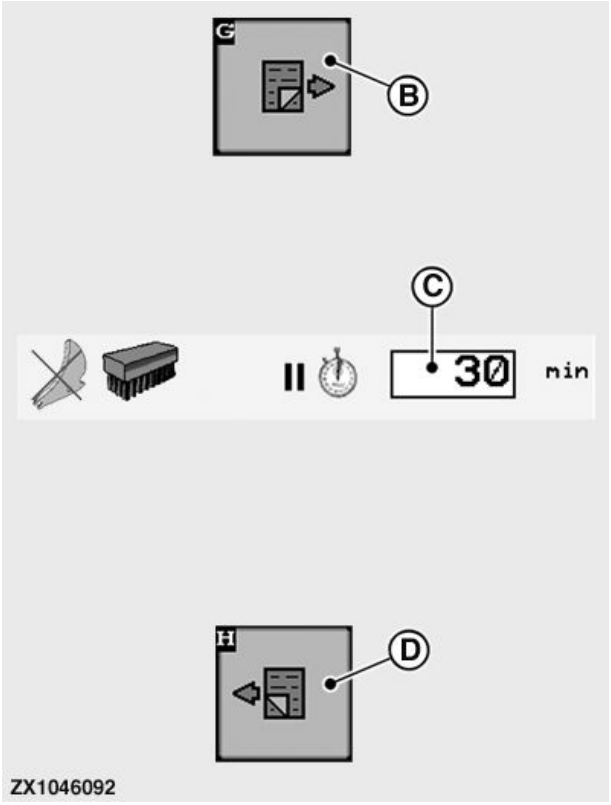
4. To go back to the User Function Page 1, press the Previous Page button (D).

A—Knife Guide Cleaning
B—Next Page Button
C—Cleaning Interval Setting
D—Previous Page Button



ZX206199

ZX206199 —UN—03NOV13



ZX1046092

ZX1046092 —UN—07JAN12

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SF04007,0000C9C -19-16JAN17-4/8

Knife Cleaning (1424C, 1433C, and 1434C Only):

When knives are used (locked in upper position) for too long of a time, knives can get dirty. Clean knife guide slots regularly.

Cleaning process takes place by retracting knives momentarily into rest position and then extending.

Time between cleanings can be adjusted.

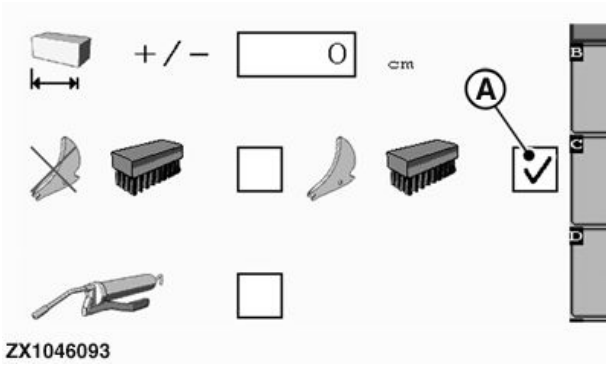
To adjust cleaning interval, proceed as follows:

1. Check Knife Cleaning box (A).
2. To access the User Function Page 2, press the Next Page button (B).
3. Change the Cleaning Interval setting (C) to the desired value 0—99 minutes, if necessary.

   NOTE: Default setting is 30 minutes.

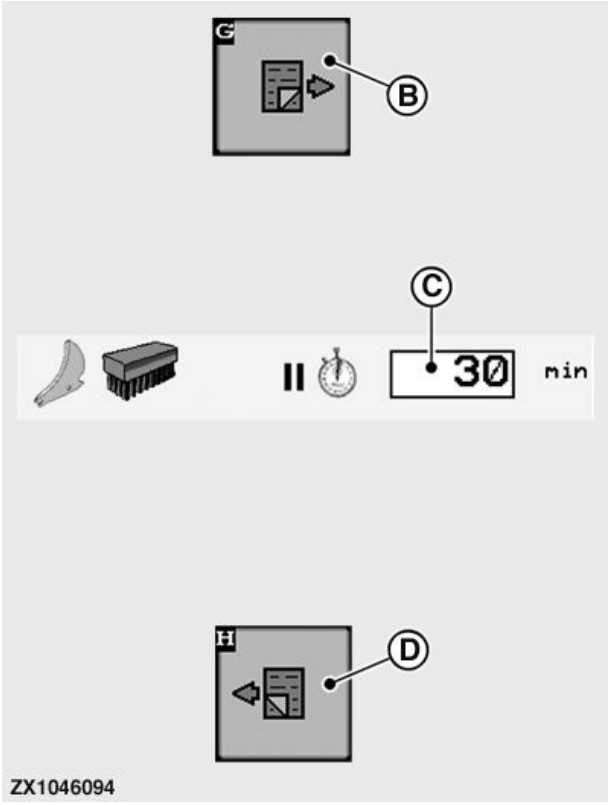
4. To go back to the User Function Page 1, press the Previous Page button (D).

A—Knife Cleaning
B—Next Page Button
C—Cleaning Interval Setting
D—Previous Page Button



ZX1046093

ZX1046093 —UN—07JAN12



ZX1046094

ZX1046094 —UN—07JAN12

Continued on next page

Automatic Greasing System (If Equipped):

NOTE: Lubrication Time (C) cannot be modified. Default setting is 15 minutes.

To activate and adjust Automatic Greasing System, proceed as follows:

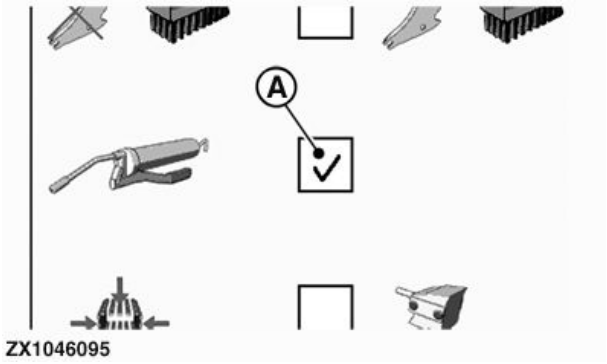
1. Check Automatic Greasing System box (A).
2. To access the User Function Page 2, press the Next Page button (B).
3. Press Lubrication Pause Time input box (D) then enter desired value 0—60 minutes.

   NOTE: Default setting is 15 minutes.

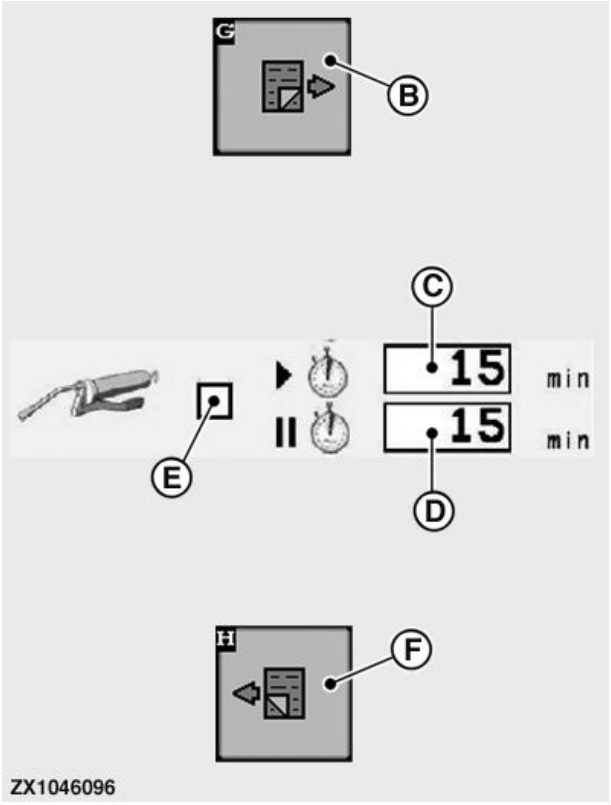
4. To run the pump for troubleshooting or for bleeding the circuit after grease refilling, check the Pump Selection box (E).
5. To go back to the User Function Page 1, press the Previous Page button (F).

IMPORTANT: By leaving User Function Page 2, Pump Selection box (E) is automatically deactivated and the pump stops running.

A—Automatic Greasing System
B—Next Page Button
C—Lubrication Time
D—Lubrication Pause Time
E—Run Pump Selection Box
F—Previous Page Button



ZX1046095 —UN—07JAN12



ZX1046096 —UN—07JAN12

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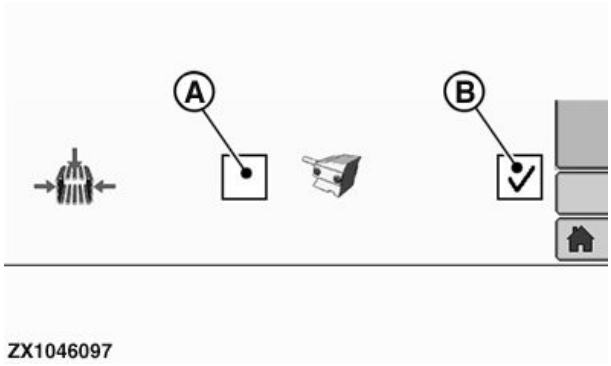
SF04007,0000C9C -19-16JAN17-6/8

Bale Chamber Pressure or Machine Load:

To control the density regulation (see Operating the Baler section) during baling, it is possible to use one of two methods:

- To activate this setting on the Operating Mode display (see Operating Mode Page in this section), check the Bale Chamber Pressure box (A).
- To activate this setting on the Operating Mode display (see Operating Mode Page in this section), check the Machine Load box (B).

A—Bale Chamber Pressure **B—Machine Load**



ZX1046097 —UN—07JAN12

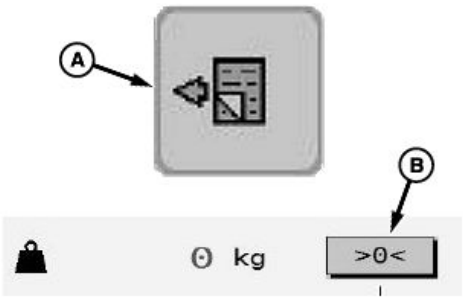
SF04007,0000C9C -19-16JAN17-7/8

Bale Weighing System and Platform Zeroing:

The weighing platform needs zeroing when the actual weight of the empty weighing platform is not zero.

- To access the User Function Page 2, press Next Page button (A).
- To zero out the platform weight, press the Platform Zeroing button (B).

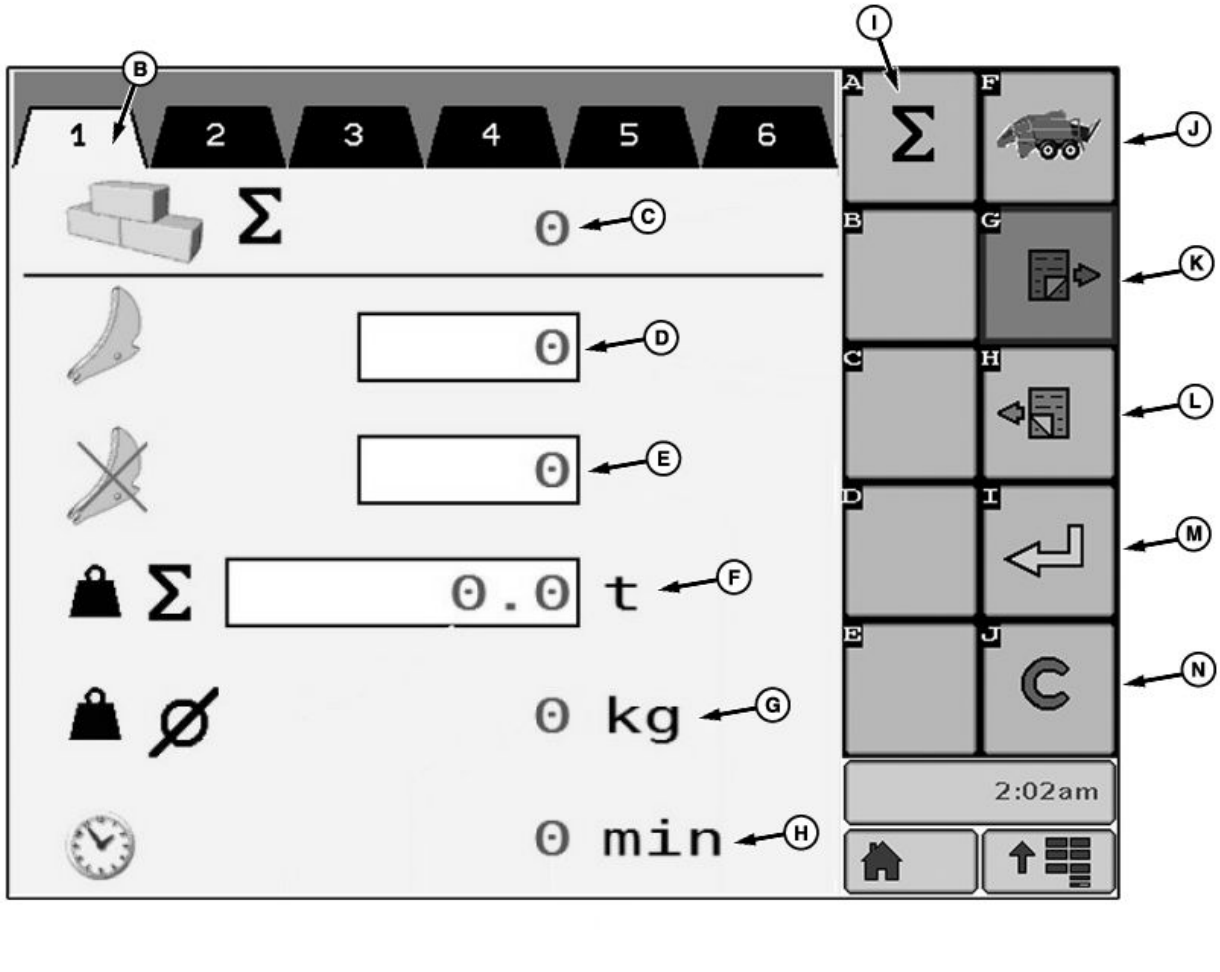
A—Next Page Button **B—Platform Zeroing Button**



E81602 —UN—05OCT16

SF04007,0000C9C -19-16JAN17-8/8

Field Record Page



A—Active Field Record
B—Field Record Tab
C—Counter—Total Number of Bales
D—Counter—Bale made with Knives Engaged
E—Counter—Bale made with Knives Retracted
F—Total Weight of the Bales of the Field (excluding the bales in the chamber)
G—Average Weight of the Bales of the Field
H—Counter—Total Baling Time
I—Total Bale Counter Access Button
J—Basic Display Return Button
K—Next Page Button
L—Previous Page Button
M—Activate Button
N—Cancel Button (Reset)

Field record page can be used to store work statistics, for example, per field or per customer. Active Field Record number (A) is displayed on the Basic and Operation Displays.

NOTE: When Field Record Page appears, the Field Record tab (B) relevant to the Active Field Record (A) is activated.

Up to 40 field record tabs (B) are available. Each Field Record tab (B) contains the following counters:

- Bales made, knives not activated (E).
- Bales made, knives activated (D)—1424C, 1433C, and 1434C only.
- Total number of bales made (C).
- Total baling time in minutes (H).

On each field record tab, bale counters (C, D, and E) can be manually changed or reset to 0.

- Press relevant input field (C, D, and E) to be changed, then enter a new counter value.
- To reset the counters (C, D, and E) to 0, press the cancel button (N).

IMPORTANT: This action cannot be undone.

- To go back to the Basic Display (see Basic Display in this section), press the Basic Display return button (J).
- To select the desired tab (B) to display, press the Next Page button (K) or the Previous Page button (L).
- To set the desired tab (B) as the Active Field Record number (A) displayed on Basic and Operation Displays, press the activate button (K).

Continued on next page

SF04007,0000C9D -19-16JAN17-1/4

- To access the resettable and non-resettable total bale counters, press the Total Bale Counter button (I).

SF04007,0000C9D -19-16JAN17-2/4

Resettable Total Bale Counters:

Resettable Total Bale counter (A) displays:

- Total bale made counter, knives not activated (B).
- Total bale made counter, knives activated (C)—1424C, 1433C, and 1434C only.
- Total number of the bales made counter (D).
- Total baling time counter in hours (E).

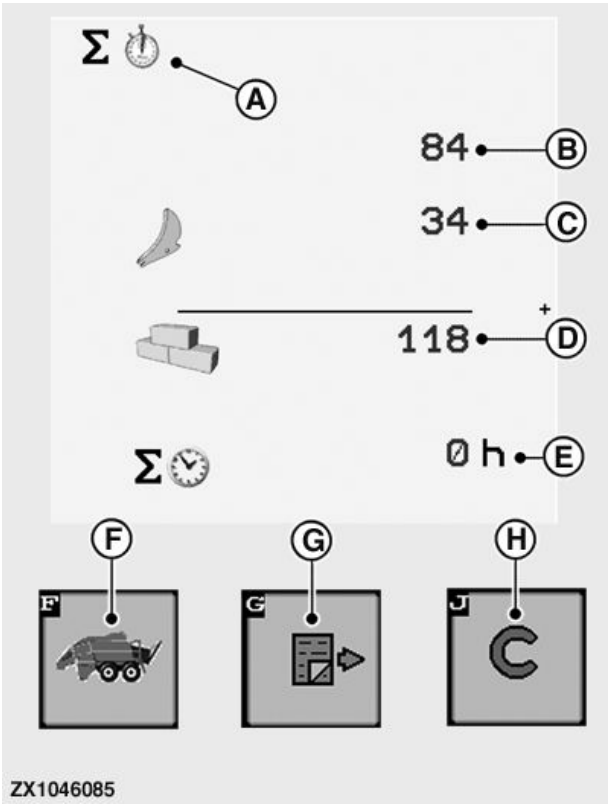
To go back to then Basic Display (see Basic Display in this section), press the Basic Display return button (F).

To reset all the counter values, press the Cancel button (H).

IMPORTANT: This action cannot be undone.

To access the non-resettable total bale counters page, press the Next Page button (G).

A—Resettable Bale Counter
B—Counter—Bale made with Knives Retracted
C—Counter—Bale made with Knives Engaged
D—Counter—Total Number of Bales
E—Counter—Total Baling Time
F—Basic Display Return Button
G—Next Page Button
H—Cancel Button (Reset)



ZX1046085 —UN—07JAN12

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SF04007,0000C9D -19-16JAN17-3/4

Non-Resettable Total Bale Counters:

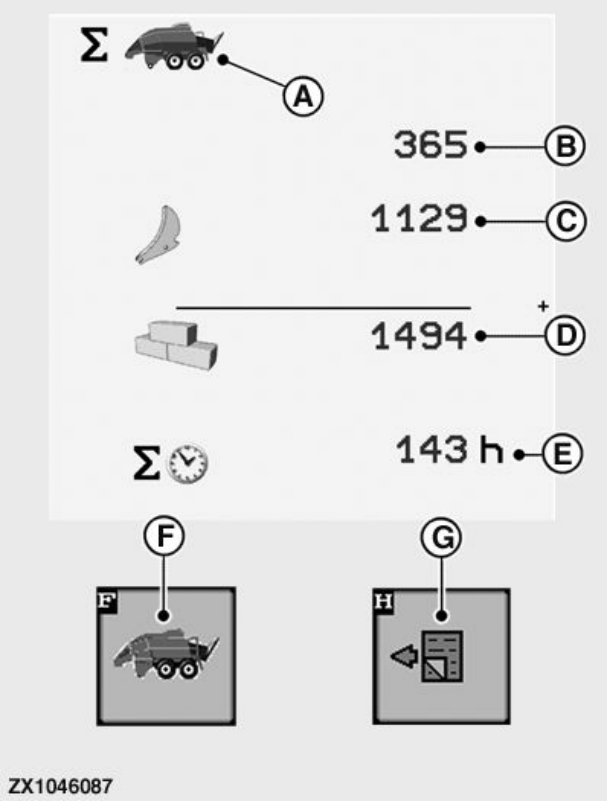
Non-resettable Total Bale counter (A) displays:

- Total bale made counter, knives not activated (B).
- Total bale made counter, knives activated (C)—1424C, 1433C, and 1434C only.
- Total number of the bales made counter (D).
- Total baling time counter in hours (E).

To go back to the Basic Display (see Basic Display in this section), press the Basic Display return button (F).

To go back to the Resettable Total Bale counters page, press the Previous Page button (G).

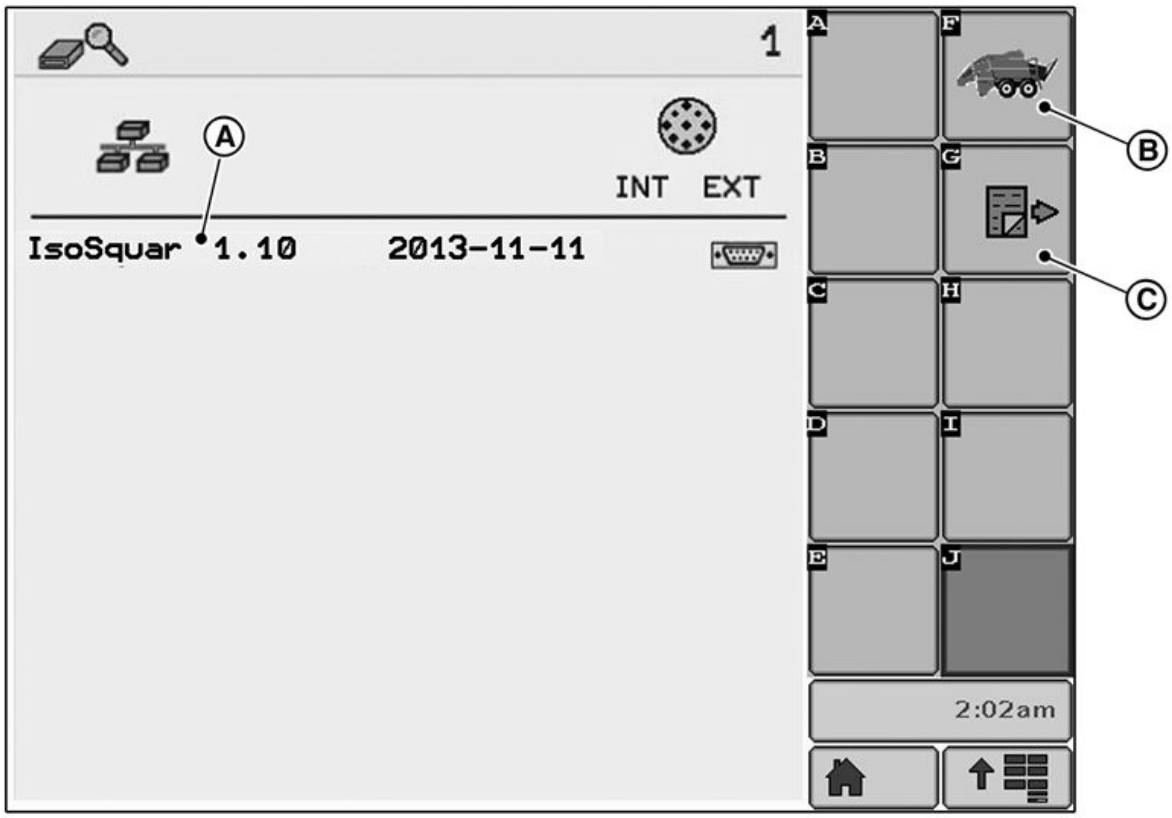
A—Non-Resettable Bale Counter
B—Counter—Bale made with Knives Retracted
C—Counter—Bale made with Knives Engaged
D—Counter—Total Number of Bales
E—Counter—Total Baling Time
F—Basic Display Return Button
G—Previous Page Button



ZX1046087 —UN—07JAN12

SF04007,0000C9D -19-16JAN17-4/4

Diagnostic Menu Page



ZX205836

ZX205836 —UN—03NOV13

Diagnostic Menu Page 1

A—Software Version **B—Basic Display Button** **C—Next Page Button**

Diagnostic Menu Pages display information that helps to troubleshoot the baler, such as:

- Software version (A).
- Read out functions.
- Event - error logs.

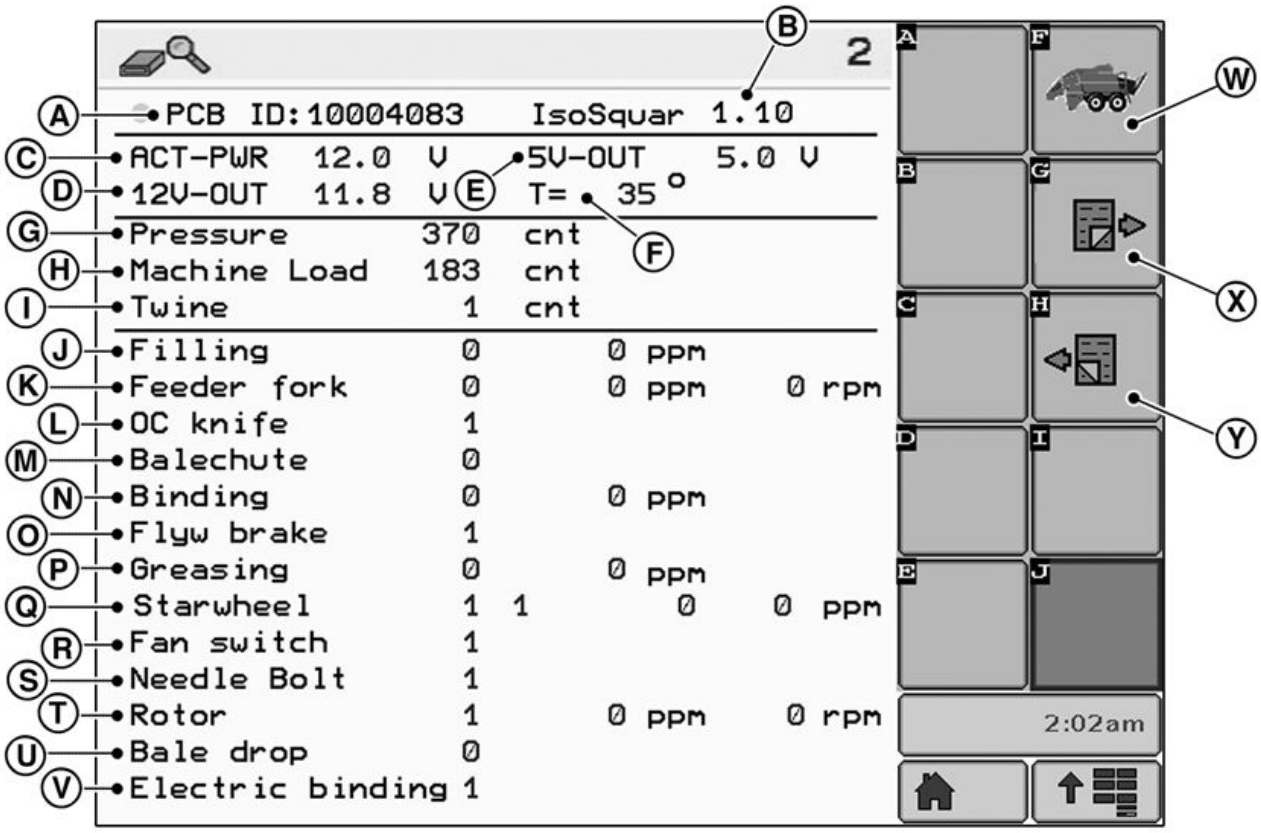
Use Diagnostic Menu Page when contacting your John Deere dealer.

To go back to the Basic Display (see Basic Display in this section), press the Basic Display button (B).

To access the next Diagnostics Page, press the Next Page button (C).

Continued on next page

SF04007,0000C9E -19-16JAN17-1/7



ZX205837

ZX205837 —UN—03NOV13

Diagnostics Page 2

A—PCB ID
B—IsoSquar 1.10
C—ACT-PWR
D—12V-out
E—5V-Out
F—T=
G—Pressure
H—Machine Load
I— Twine
J—Filling
K—Feeding Fork
L—OC Knife
M—Bale Chute
N—Binding
O—Flywheel Brake
P—Grease Sensor
Q—Starwheel
R—Fan Switch
S—Needle Bolt
T—Rotor
U—Bale Drop
V—Electric Binding
W—Basic Display Button
X—Next page Button
Y—Previous page Button

Diagnostics Page 2:

Read out functions are meant for use especially by an authorized service technician.

NOTE: ppm = pulses per minute

rpm = rotations per minute

cnt = count

The following functions can be read out:

- **PCB ID** (A): Print circuit board identification number
- **IsoSquar 1.10** (B): Software version
- **ACT-PWR** (C): Voltage for the hydraulic valve
- **12V-out** (D): Voltage for analog and digital 12 V sensors
- **5V-out** (E): Voltage for analog 5 V sensors
- **T=** (F): Temperature inside the controller housing
- **Pressure** (G): Actual value of the bale chamber pressure sensor
- **Machine Load** (H): Actual value of the plungerhead load sensor
- **Twine** (I): Actual value of twine sensor
- **Filling** (J): 0= no signal, 1= signal
- **Feeding fork** (K): 0= no signal, 1= signal
- **OC knife** (Precutter) (L): 0= no signal, 1= signal
- **Bale chute** (M): 0= no signal, 1= signal
- **Binding** (N): 0= no signal, 1= signal
- **Flywheel brake** (O): 0= no signal, 1= signal
- **Grease sensor** (P): 0= no signal, 1= signal
- **Starwheel** (Q): 0= no signal, 1= signal
- **Fan switch** (R): 0= no signal, 1= signal
- **Needle bolt** (S): 0= no signal, 1= signal
- **Rotor** (T): 0= no signal, 1= signal
- **Bale drop** (U): 0= no signal, 1= signal

Continued on next page

SF04007,0000C9E -19-16JAN17-2/7

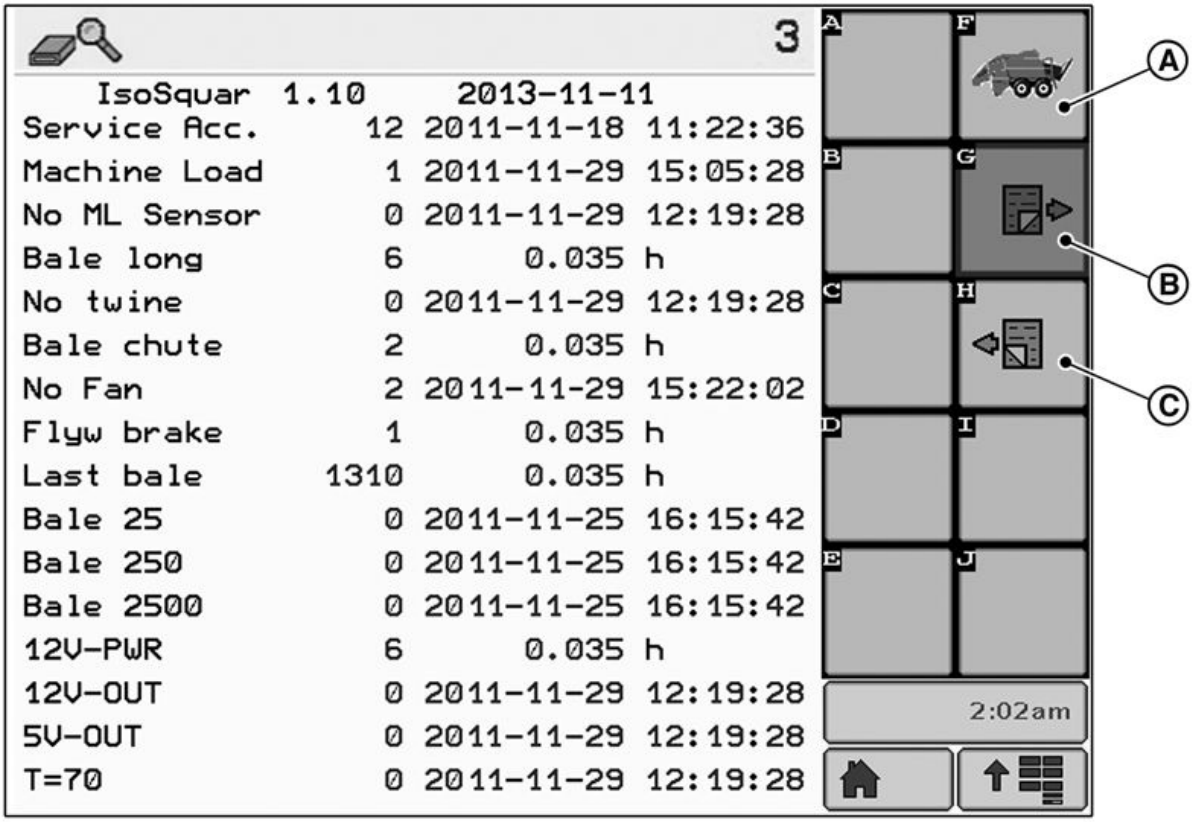
- **Electric binding** (V): 0= no signal, 1= signal

To go back to the Basic Display (see Basic Display in this section), press the Basic Display button (W).

To access the next Diagnostics Page, press the Next Page button (X).

To go back to the previous Diagnostics Page, press the Previous Page button (Y).

SF04007,0000C9E -19-16JAN17-3/7



ZX205838

ZX205838 —UN—03NOV13

Diagnostics Page 3

A—Basic Display Button **B—Next Page Button** **C—Previous Page Button**

Diagnostics Page 3:

Error - event logs are meant for use especially by an authorized service technician. Contact your John Deere dealer.

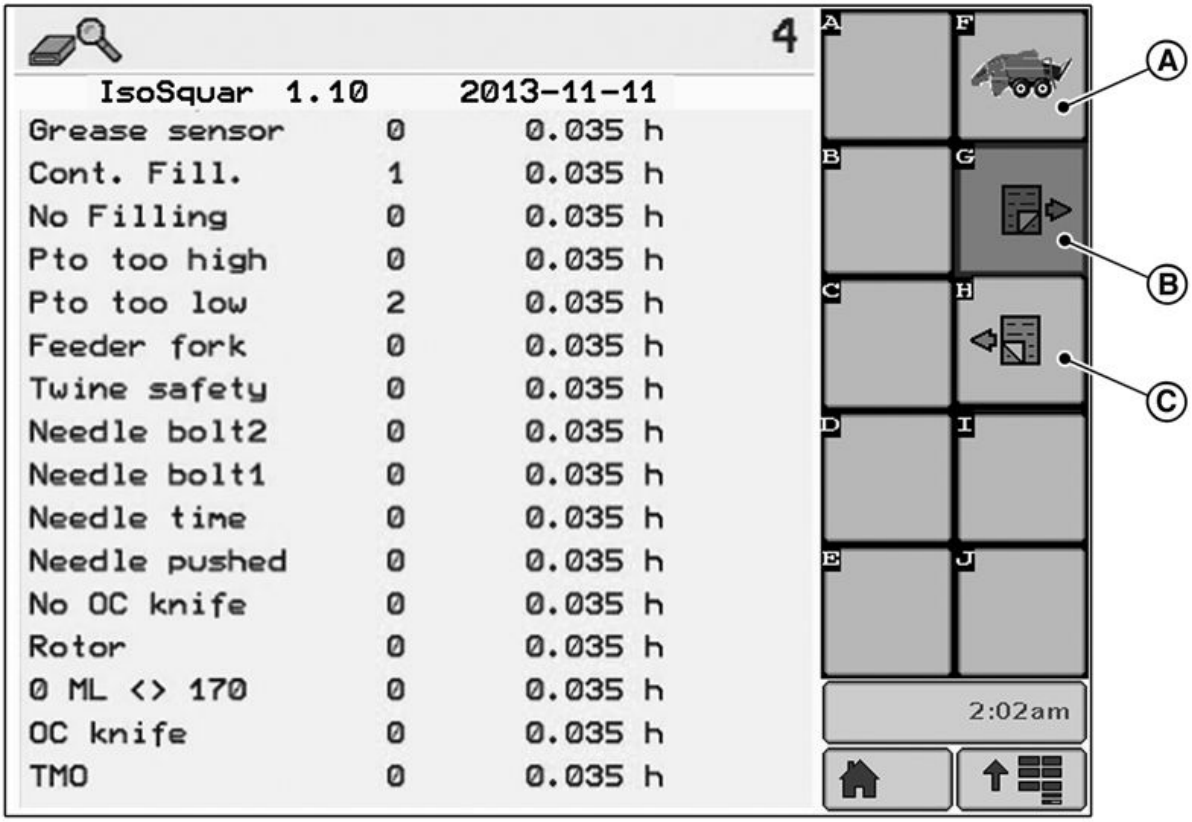
To go back to the Basic Display (see Basic Display in this section), press the Basic Display button (A).

To go to the next Diagnostics Page, press the Next Page button (B).

To go to the previous Diagnostics Page, press the Previous Page button (C).

Continued on next page

SF04007,0000C9E -19-16JAN17-4/7



ZX205839

Diagnostics Page 4

A—Basic Display Button **B—Next Page Button** **C—Previous Page Button**

Diagnostics Page 4:

Error - event logs are meant for use especially by an authorized service technician. Contact your John Deere dealer.

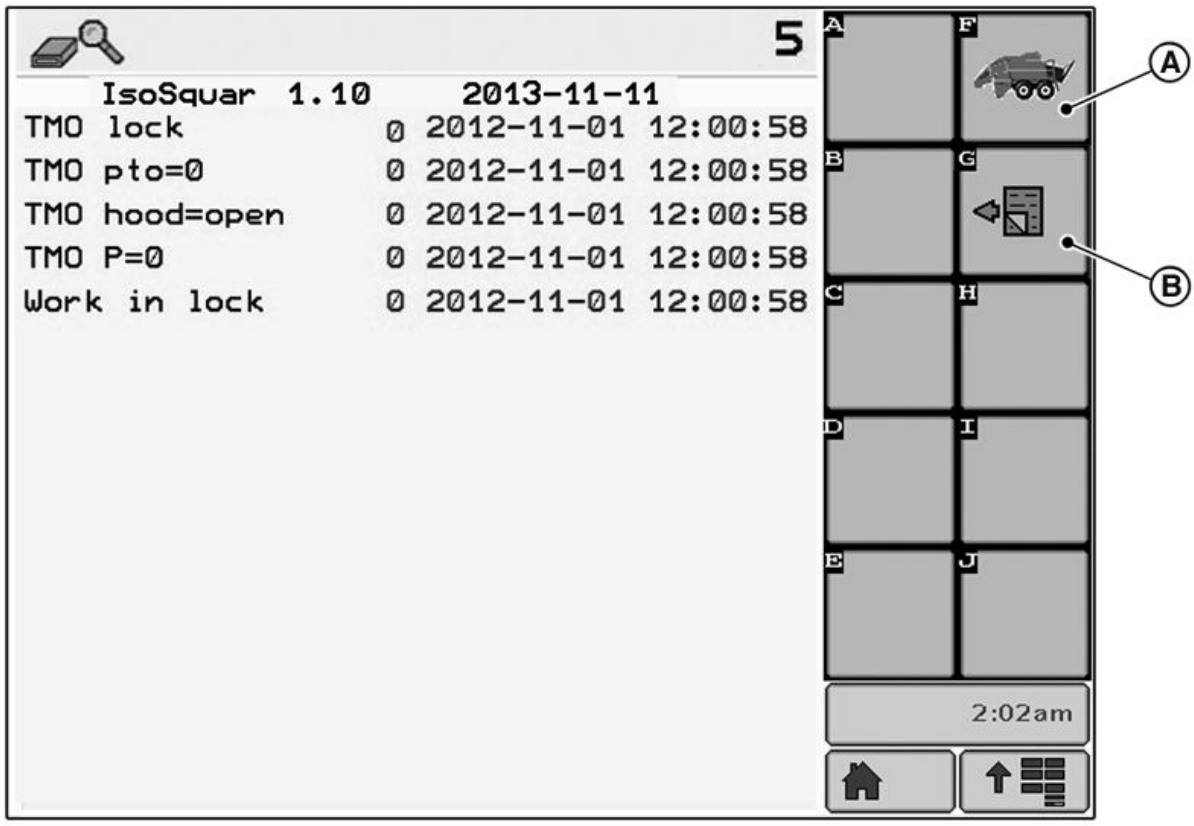
To go back to the Basic Display (see Basic Display in this section), press the Basic Display button (A).

To go to the next Diagnostics Page, press the Next Page button (B).

To go to previous the Diagnostics Page, press the Previous Page button (C).

Continued on next page

SF04007,0000C9E -19-16JAN17-5/7



ZX205840

ZX205840 —UN—04NOV13

Diagnostics Page 5

A—Basic Display Button **B—Previous Page Button**

Diagnostics Page 5:

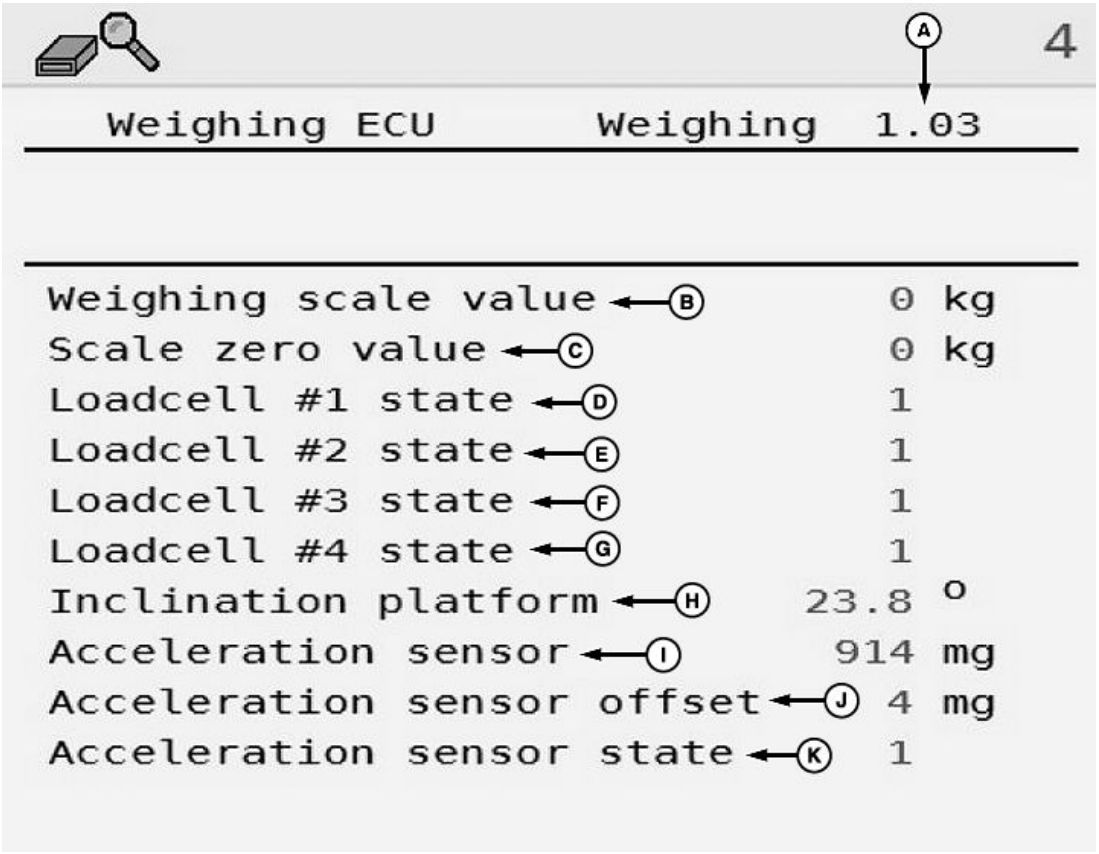
Error - event logs are meant for use especially by an authorized service technician. Contact your John Deere dealer.

To go back to the Basic Display (see Basic Display in this section), press the Basic Display button (A).

To go to the previous Diagnostics Page, press the Previous Page button (B).

Continued on next page

SF04007,0000C9E -19-16JAN17-6/7



E81604 —UN—05OCT16

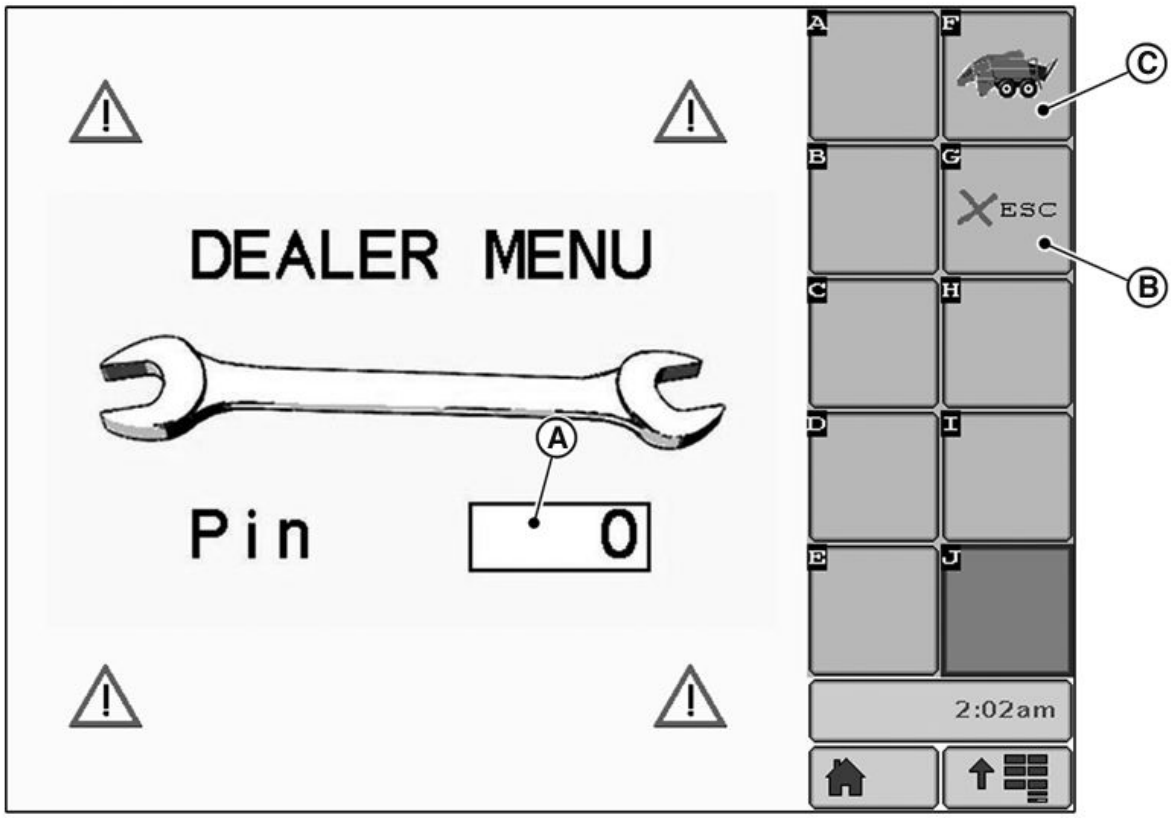
A—Software Version
B—Weighing Scale Value
C—Scale Zero Value
D—Load Cell 1 State
E—Load Cell 2 State
F—Load Cell 3 State
G—Load Cell 4 State
H—Inclination Platform
I— Acceleration Sensor
J— Acceleration Sensor Offset
K—Acceleration Sensor State

The following readings are available:

- Software Version (A): Displays the current software version in use.
- Weighing Scale Value (B): The actual weight on the weighing platform.
- Scale Zero Value (C): The weight of the weighing platform when empty, normally between 110 kg (242.5 lb) and 120 kg (264.6 lb).
- Load Cell 1 State (D): The actual state of the load cell, 1 is OK and 0 is fail.
- Load Cell 2 State (E): The actual state of the load cell, 2 is OK and 0 is fail.
- Load Cell 3 State (F): The actual state of the load cell, 3 is OK and 0 is fail.
- Load Cell 4 State (G): The actual state of the load cell, 4 is OK and 0 is fail.
- Inclination Platform (H): The inclination of the weighing platform.
- Acceleration Sensor (I): The actual acceleration sensor value in mg.
- Acceleration Sensor Offset (J): The compensation in mg of the acceleration sensor.
- Acceleration Sensor State (K): The actual state of the acceleration sensor, 1 is OK and 0 is fail.

SF04007,0000C9E -19-16JAN17-7/7

Dealer Menu Page



ZX1046099 —UN—07JAN12

ZX1046099

A—PIN code input field **B—Escape button** **C—Basic Display button**

Functions in Dealer Menu are meant for use (reading and adjustment) by experienced service technicians only. Contact your John Deere dealer.

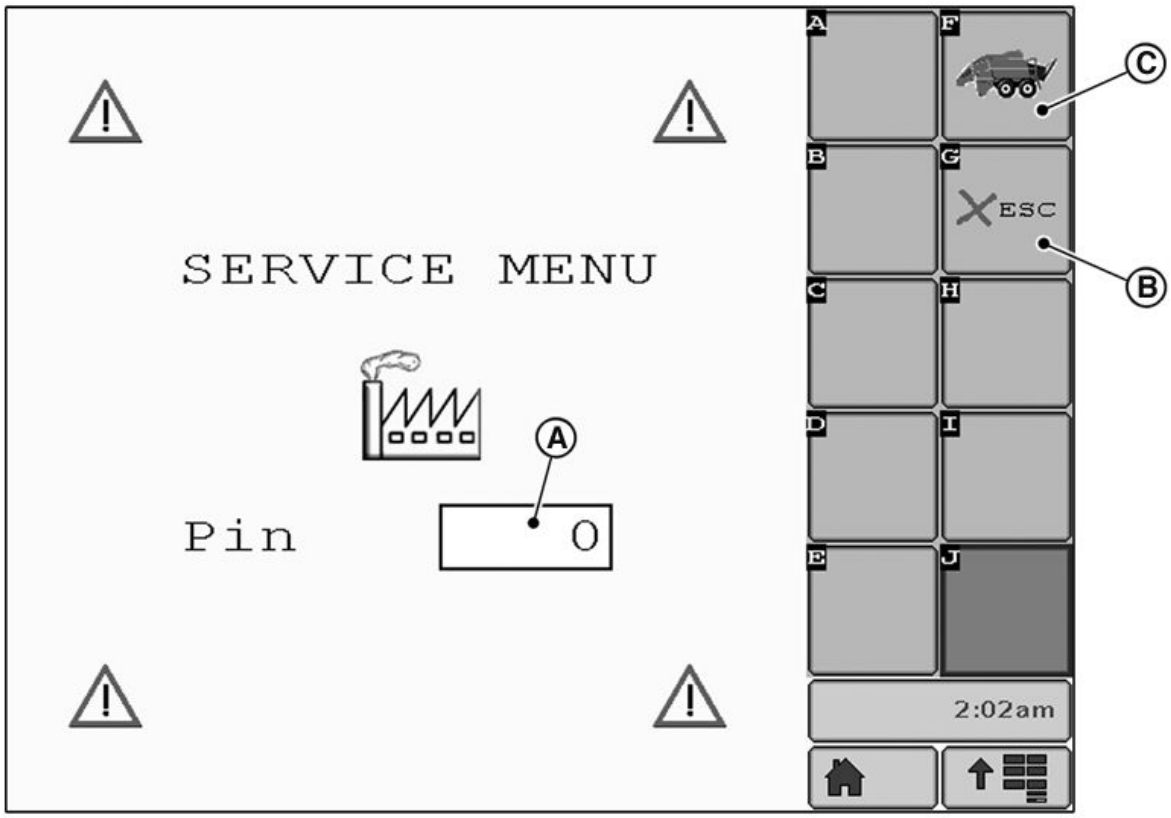
IMPORTANT: Dealer Menu page access requires a code PIN (A). Contact your John Deere dealer.

Press **Escape** button (B) to go back to User Function Page display (see User Function Page in this section).

Press **Basic Display** button (C) to go back to Basic Display (see Basic Display in this section).

SF04007,00009B6 -19-02DEC15-1/1

Service Menu Page



ZX1046098 —UN—07JAN12

ZX1046098

A—PIN code input field **B—Escape button** **C—Basic Display button**

Functions in Service Menu are meant for use (reading and adjustment) by experienced service technicians only. Contact your John Deere dealer.

IMPORTANT: Service Menu page access requires a code PIN (A). Contact your John Deere dealer.

Press **Escape** button (B) to go back to User Function Page display (see User Function Page in this section).

Press **Basic Display** button (C) to go back to Basic Display (see Basic Display in this section).

SF04007,00009B7 -19-02DEC15-1/1

Operating the Baler

Prepare the Baler for Field Operation

Before field operation, make sure that following settings have been performed:

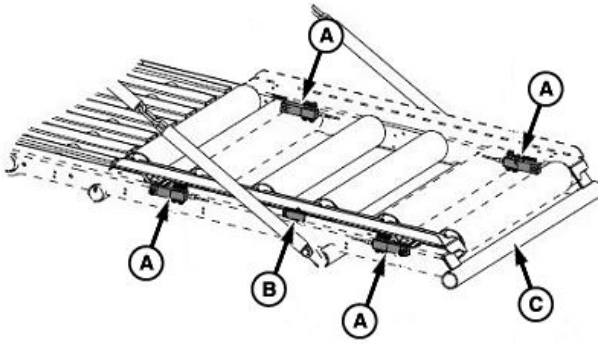
- Twine loading and routing (see the Preparing the Baler section).
- Bale length adjustment (see the Adjust Bale Length in this section).
- Pickup compressor roll adjustment (See the Adjust Pickup Compressor Roll in this section).
- Pickup working height (see the Adjust Pickup Working Height in this section).
- Pre-chamber density control setting (see the Set Pre-Chamber Destiny Control in this section).
- Bale density adjustment (see the Destiny Regulation in this section).
- Bale chute in lower position (see the Operate Bale Chute in this section).
- Check the weighing platform, making sure that it is empty and then zeroing out the bale weight (see the Zero the Weighing Platform in this section).
- Last bale ejector in rest position (see the Operate Last Bale Ejector in this section).
- Precutter knives engagement (see the Operate Precutter Knives (1424C, 1433C, and 1434C Only) in this section).
- Baler attached to tractor (Refer to the Attaching and Detaching section).
- Baler hydraulic and electrical circuits connected (Refer to the Attaching and Detaching section).
- Release flywheel brake (Refer to the Attaching and Detaching section).
- Tractor PTO running at 1000 rpm (Refer to the Tractor's Operator's Manual).

SF04007,0000C9F -19-28OCT16-1/1

Weighing System

The weighing system measures the weight of the bale using four load cells (A). The acceleration sensor (B) measures the movement of the baler in the field. The load cells (A) and the acceleration sensor (B) together give the weight of the bale on the weighing platform (C) during baling. This weight is then shown on the display.

A—Load Cell (4 used)
B—Acceleration Sensor
C—Weighing Platform



E81733 —UN—27OCT16

SF04007,0000CA0 -19-30NOV16-1/1

Break In Baler

Consider the period necessary to form approximately the first fifty bales as the break-in period, i.e. until paint inside bale chamber has worn off.

IMPORTANT: If slippage occurs during action on clutches, disengage PTO and re-engage at low idle, then operate again at rated PTO speed.

SF04007,000092D -19-03DEC15-1/1

Operating the Baler—General Instructions

Comply with the following instructions to operate baler

IMPORTANT: Never stop PTO during tying process. Needles and knotters can get damaged.

Re-Baling Bales

When rebaling bales, make sure:

- Bales are clear of all twine.
- Material has been spread to avoid an overload of pickup or feeder fork.
- If knives are used, knives are retracted.

Environment

Binding materials and its packaging can be harmful to animals. Collect all wasted binding materials and its packaging from the field and dispose of, according to your local waste disposal regulations.

Driving

IMPORTANT: Never disengage PTO during feeding process. It is essential to keep machine running at 1000 rpm while operating. Damage to feeding and binding system may occur.

Depending on field conditions and crop type, use a working speed from 4 through 15 km/h (2.5 to 9.3 mph).

Choose a drive speed that ensures a uniform and constant crop feeding to the bale chamber.

To achieve maximum bale density, separate wads in the bale may not be thicker than 50 mm (1.96 in).

Adapt drive speed to the number of filling strokes per bale.

NOTE: Number of plungerhead strokes per bale is displayed on monitor (see Operating Mode Page in Electronic Control System section).

Start slowly straight on windrow.

In light or narrow windrows it may be necessary to weave machine from side to side for complete filling of bale chamber, as follows:

1. Position baler so windrow is near outside edge of pickup on right-hand side.
2. Weave tractor gradually across windrow while driving forward until windrow is near outside edge of pickup on left-hand side.
3. Continue this gradual back-and-forth pattern to maintain quality bale shape in lighter or narrow windrows.

End of baling

At the end of the job:

- Execute a tying cycle to the last bale.
- Put monitor under Basic Display (see Basic Display in Electronic Control System section).
- Disengage tractor PTO.
- Fold up bale chute (see Operate the Bale Chute in this section).

SF04007,000092E -19-03DEC15-1/1

Bale Growth and Bale Drop Indicator

While baling with the monitor under Operating Display mode, actual bale length (A) is displayed.

NOTE: During tying process, actual bale length (A) on display is set to 0.00 m (0").

If the bale weighing system is installed on the machine, then the bale drop is detected using the decline of the weight on the weighing platform.

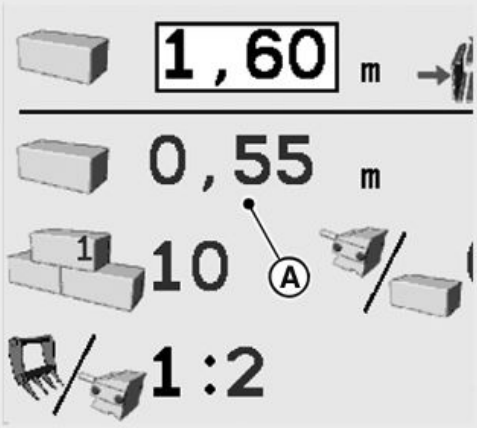
When the bale drop sensor is installed and activated in Dealer Menu (see Electronic Control System section), bale growth is displayed. It indicates when a bale falls down from the bale chute behind machine.

During field operation, display shows four different positions of bale on bale chute as follows:

1. When a previous bale has been dropped off the bale chute and a bale growth of about 0.25 m (10 in) has been detected. A short bale out of the baler is shown.
2. After an extra bale growth of approximately 0.5 m (20 in), a bale halfway on bale chute is shown.
3. When a bale is at the end of the bale chute, a spring plate activates the bale drop sensor. The shape of a full bale is shown on the bale chute.
4. When a bale is dropped off the bale chute, a bale behind the bale chute is shown on screen.

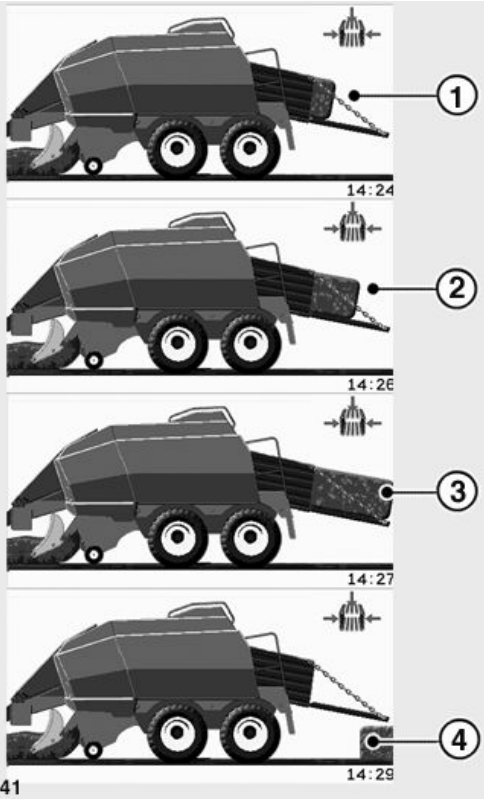
After 0.25 m (10 in) bale growth, bale growth indicator (1) is shown again.

A—Bale Length **1-4— Bale Growth Indicators**



ZX1046440

ZX1046440 —UN—17JAN12



ZX1046441

ZX1046441 —UN—17JAN12

SF04007,0000CA5 -19-02NOV16-1/1

Adjust Bale Length

CAUTION: Disengage PTO, engage parking brake or place transmission in PARK, shut off the tractor engine, remove key and apply flywheel brake before adjusting bale length.

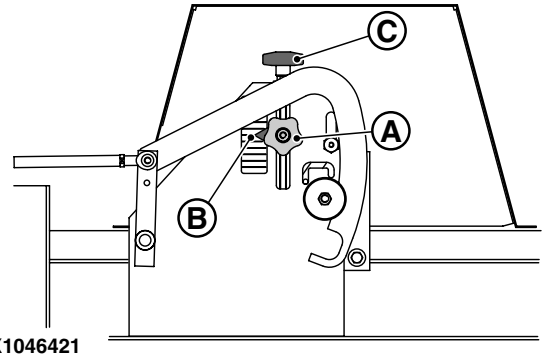
Baler Without Electrical Binding Option: Bale length must be set mechanically (on machine) and electronically (via the monitor) to allow tying cycle monitoring.

NOTE: Bale length setting range: 60—300 cm (1 ft 11.62 in—9 ft 10 in).

Adjust desired bale length as follows:

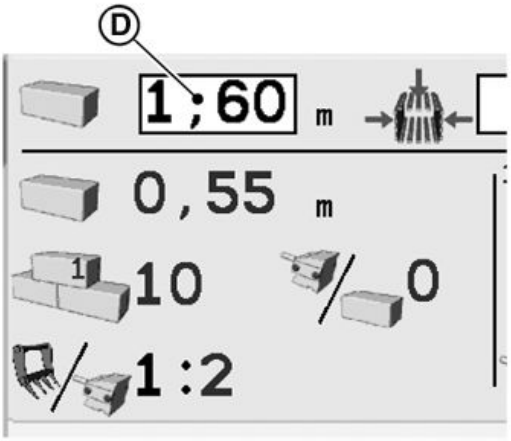
1. Set **mechanical** bale length:
   a. Release locking knob (A).
   b. To move the cursor (B), turn adjusting knob (C) until required bale length is reached.
      - Move cursor (B) up to decrease bale length.
      - Move cursor (B) down to increase bale length.
   c. Tighten locking knob (A).
2. Set **electronic** bale length:
   a. Put display under Operating Mode (see Basic Display in Electronic Control System section).
   b. Input bale length mechanically, set value into the input field (D). See Operating Mode Page in Electronic Control System section.

A—Locking Knob
B—Cursor
C—Adjusting Knob
D—Bale Length Input Field



ZX1046421

ZX1046421 —UN—11JAN12



ZX1046422

ZX1046422 —UN—11JAN12

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SF04007,0000CA1 -19-02NOV16-1/2

Baler With Electrical Binding Option: Bale length must be set electronically (via the monitor) to allow tying cycle monitoring.

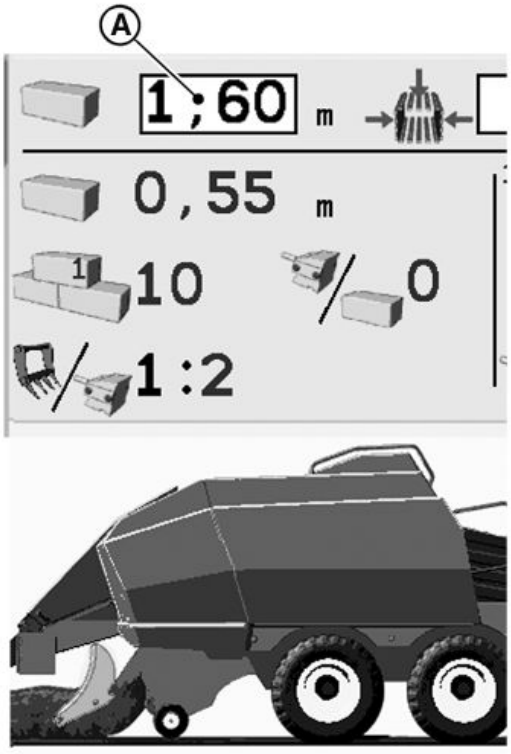
NOTE: Bale length setting range: 60—300 cm (1 ft 11.62 in—9 ft 10 in).

Adjust desired bale length as follows:

1. Put display under Operating Mode (see Basic Display in Electronic Control System section).
2. Input desired bale length into the input field (A). See Operating Mode Page in Electronic Control System section.
3. Make sure that mechanical binding locking plate (B), trip lever (C), and spring (D) are in their electrical binding positions, as shown.

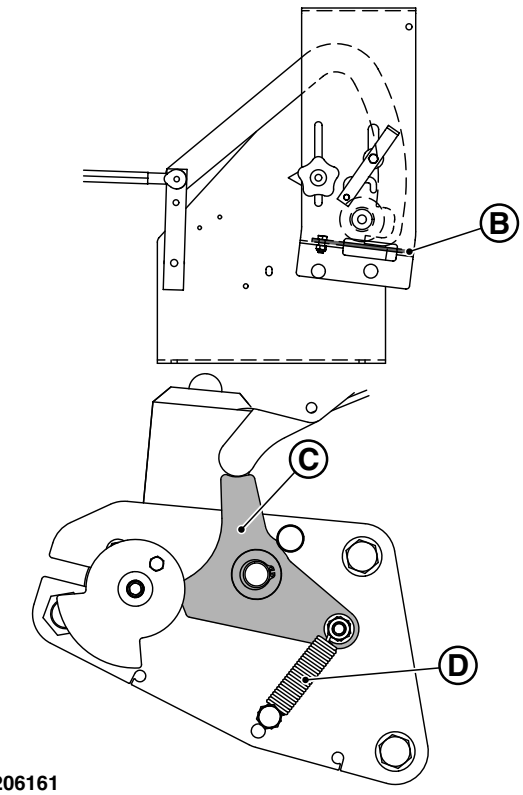
IMPORTANT: Mechanical binding trip device must be disabled.

A—Bale Length Input Field
B—Locking Plate
C—Trip Lever
D—Spring



ZX1046423

ZX1046423 —UN—11JAN12



ZX206161

ZX206161 —UN—03NOV13

SF04007,0000CA1 -19-02NOV16-2/2

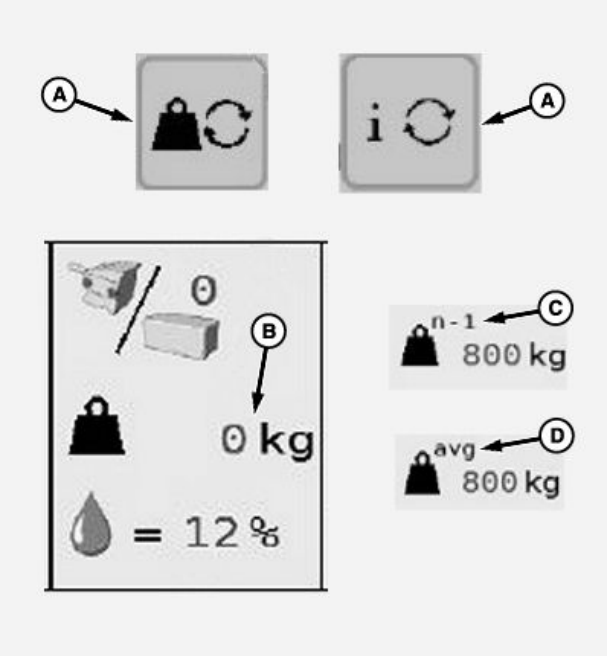
Bale Weighing System

When the weighing system is installed and adjusted in the dealer menu 2, the weight (B) of the bale on the weighing platform is displayed. The weight is shown on both the basic display and the operating display.

Use buttons (A) for toggling between the following:

- The weight of the last bale (C).
- The average bale weight (D).
- The actual weight of the bale (B) on the weighing platform.

A—Toggle Buttons
B—Actual Weight
C—Last Bale Weight
D—Average Bale Weight



E81600 —UN—05OCT16

SF04007,0000CA2 -19-30NOV16-1/1

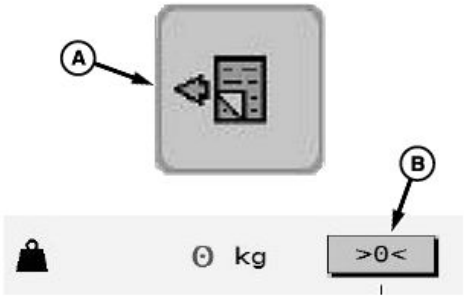
Zero the Weighing Platform

Make sure that the platform is in the working position.

Make sure that the platform is empty.

1. To enter the dealer menu 2, press the next page button (A).
2. Push the 0-weight button (B). The value changes to 0. If the value does not change, then retry after 10 seconds.
3. The weighing system is now ready for use.

A—Next Page Button
B—0-Weight Button



E81602 —UN—05OCT16

SF04007,0000CA3 -19-30NOV16-1/1

Operate Electrical Binding (If Equipped)

To start electric binding the following conditions must be met:

- Knotter hood closed.
- Knotter hood sensor active (see Service section).
- Fan switch reading set to 1 (see readout functions on Diagnostic Menu Page 1 in Electronic Control System section).
- PTO running above 100 rpm.
- Bale chamber pressure setting above 5 bar (5000 kPa; 72.5 psi).
- Electric binding sensor reading set to 1 (see readout functions on Diagnostic Menu Page 1 in Electronic Control System section)

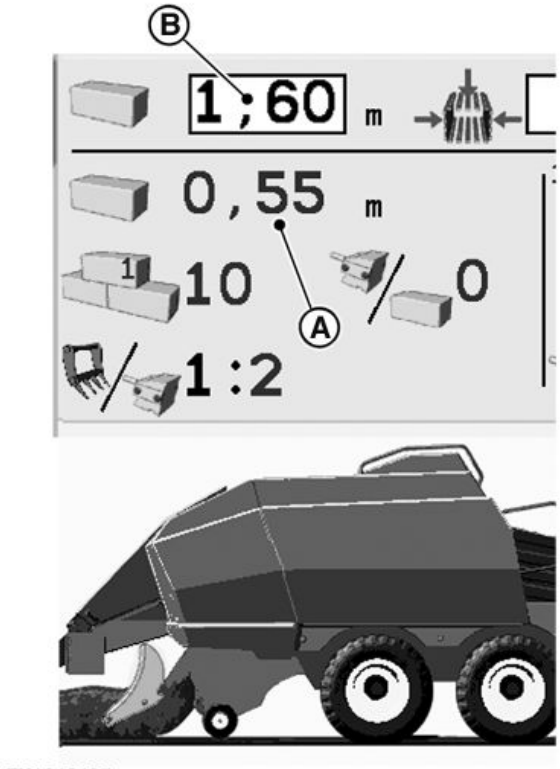
When all above mentioned conditions are met and actual bale length (A) has reached desired bale length setting (B), then electric binding starts.

NOTE: A double beep is emitted when binding cycle has started.

If necessary, and if all above mentioned conditions are met, electric binding can be started immediately. With display under Operating Mode, press **Electric Binding Start** button (C) to immediately trip a tying cycle (i.e. to put twine in knotters (first time), or to finish last bale of the field).

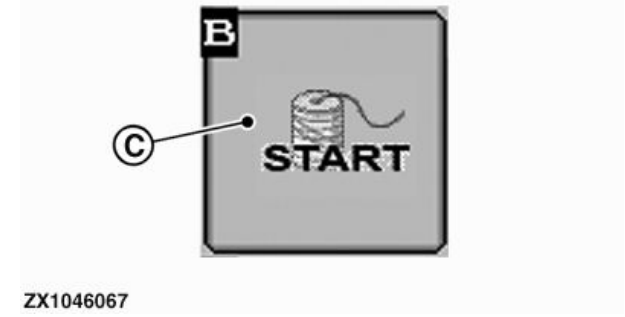
IMPORTANT: If necessary, electrical binding can be deactivated. Contact your John Deere dealer to proceed.

A—Actual bale length
B—Desired bale length



ZX1046425

ZX1046425 —UN—11JAN12



ZX1046067

ZX1046067 —UN—11JAN12

C—Electric binding start button

SF04007,0000931 -19-02DEC15-1/1

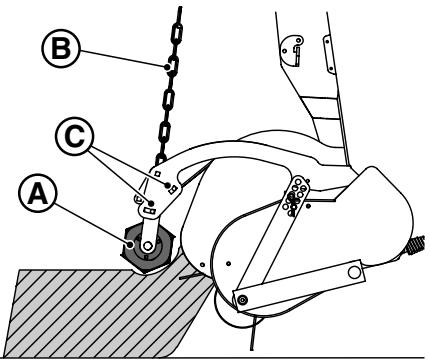
Adjust Pickup Compressor Roll

For an optimum performance, adjust the roll (A) position so that it just touches the top of the windrow. Use the chain (B) to set the roller height.

For an optimum crop flow, adjust the roll (A) angle. Use adjusting bolts (C).

Set pickup compressor roll (A) closer to pickup reel in shorter, slippery crop.

Set pickup compressor roll (A) farther from pickup reel in longer crops and crops that rope together.



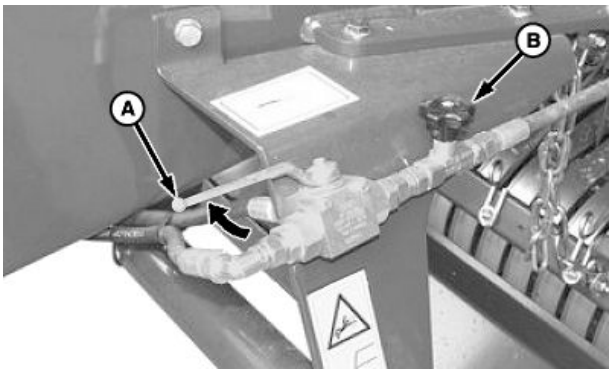
ZX1046426

ZX1046426 —UN—11JAN12

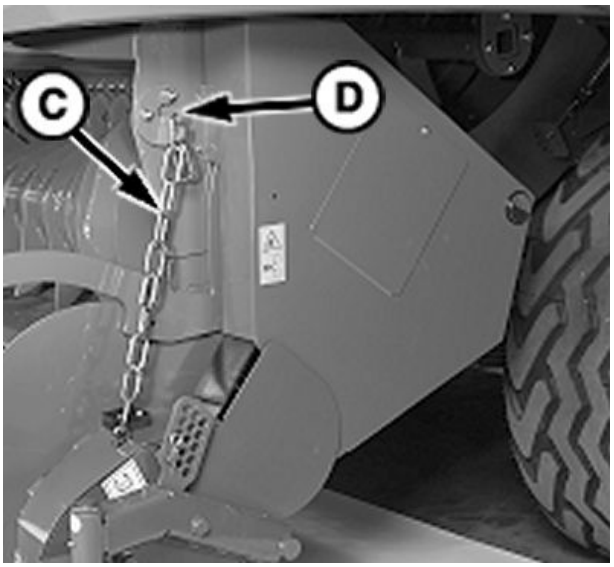
A—Compressor roll
B—Chain
C—Bolts

SF04007,0000932 -19-29OCT15-1/1

Adjust Pickup Working Height



E81908 —UN—04JAN17



E81957 —UN—05JAN17

IMPORTANT: Operating pickup too close to ground can cause excessive tooth breakage.

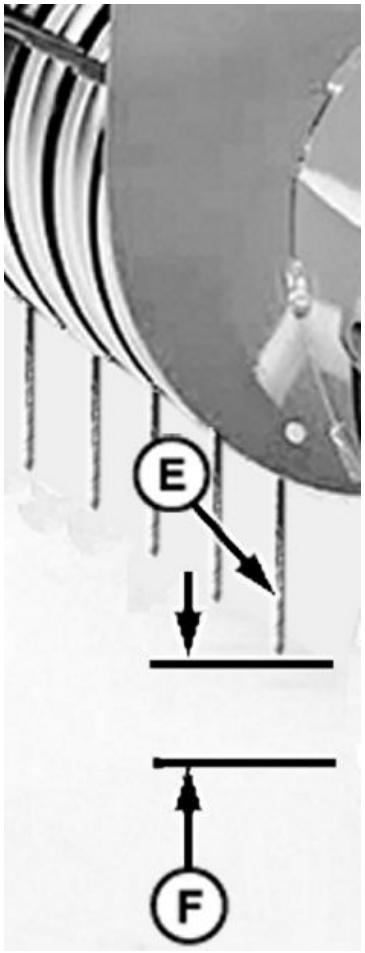
Adjust pickup working height as follows:

1. Place valve lever (A) to OPEN position as shown.
2. Fully raise the pickup with the relevant selective control valve lever (A).
3. Detach the chain (C) from the hook (D) on both sides.
4. Lower pickup and check that tip of pickup teeth (E) is about 20—30 mm (0.78—1.18 in) above ground.

NOTE: Ensure that the chains are not twisted and are hooked at the same hook position on both sides.

5. Attach the chain (C) to the hook (D). Repeat on the opposite side.
6. Adjust the hydraulic restrictor (B) for slow motion of the pickup.
7. Repeat as necessary.

A—Valve Lever
B—Hydraulic Restrictor
C—Chain (1 each side)
D—Hook (1 each side)
E—Pickup Tooth
F—Distance, 20—30 mm (0.78—1.18 in)

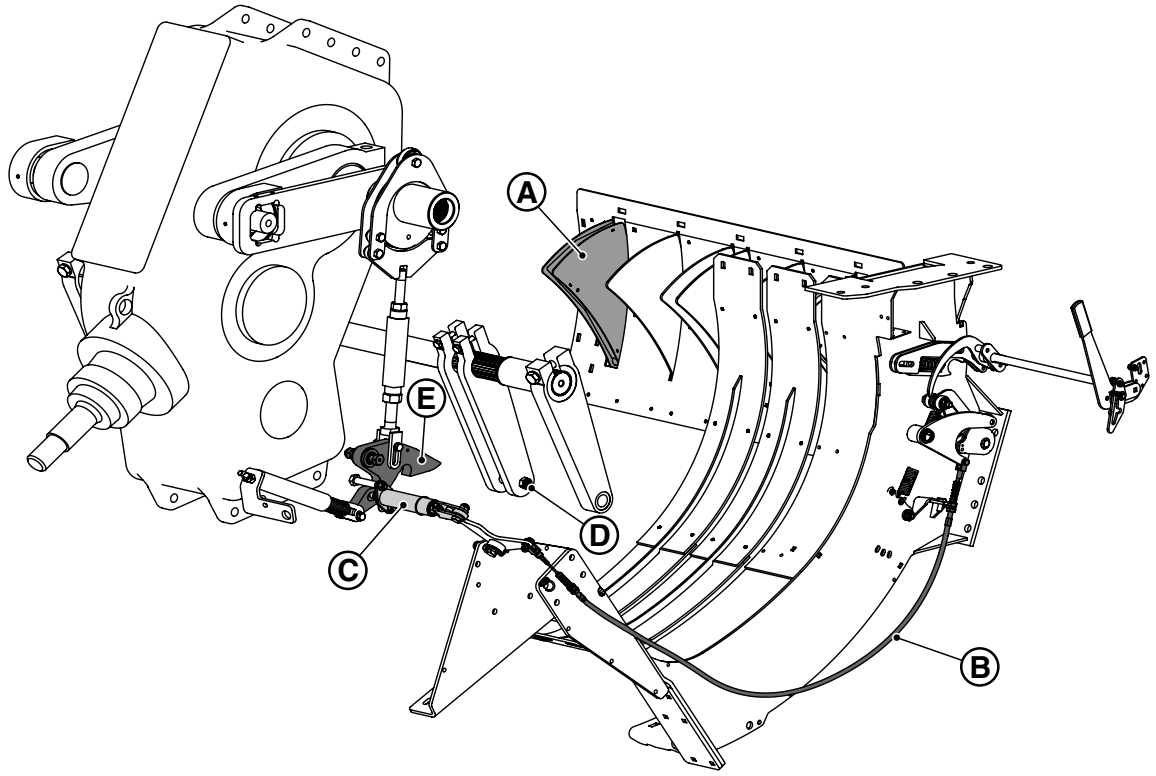


E81969 —UN—06JAN17

SF04007,0000D1B -19-16JAN17-1/1

Set Pre-chamber Density Control

Packer System



ZX206162 —UN—03NOV13

ZX206162

Packer System

A—Measuring Plates
B—Cable
C—Lock Pin
D—Pin
E—Hook

Position of measuring plates (A) is controlled by cable (B). When lock pin (C) is activated, pin (D) is caught by hook (E). Transport movement of packer is converted into an input movement.

Continued on next page

SF04007,0000934 -19-02DEC15-1/3

Depending on crop conditions and required bale density, crop density can be set in pre-chamber (A). Changing pressure of measuring plates (B) influences crop density. The level and density in pre-chamber (A) determine when packer forks (C) will feed crop before the plungerhead (D) in the press chamber. That way the crop package (E) fed in front of plungerhead (D) always have a constant required volume for a regular bale shape.

Adjusting lever (G) can be set in two positions by means of spanner (G):

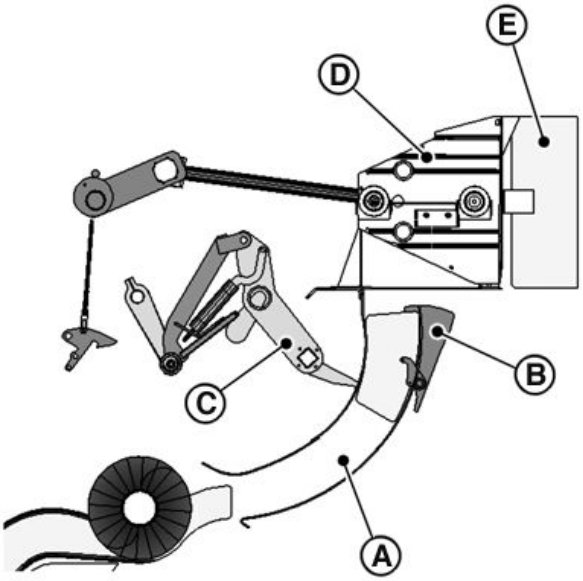
- In **Automatic Position** (I), measuring plates (B) move backwards until required density and volume is reached. Then crop is fed into press chamber. Use this position to adjust pre-chamber density.

  NOTE: Automatic Position (I) is standard setting.

- In **1:1 Position** (II), measuring plates (B) are moved backwards and are locked in this position. Now, at every plungerhead stroke a filling stroke takes place.

  NOTE: Pre-chamber density cannot be set with lever (F) in position (II).

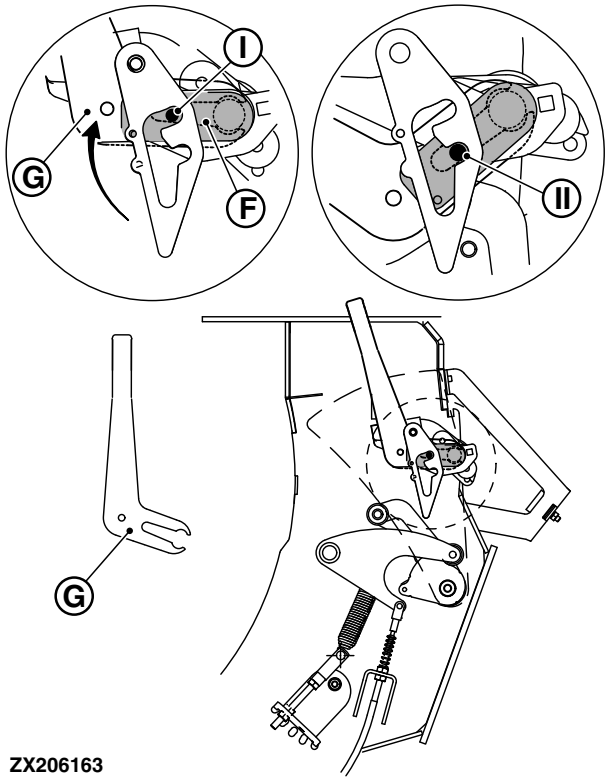
NOTE: Spanner (G) is stored at front of left-hand twine box.



ZX1046428 —UN—11JAN12

A—Pre-chamber
B—Measuring plate
C—Packer fork
D—Plungerhead
E—Crop package
F—Adjusting lever
G—Spanner
I— Automatic position
II— 1:1 position

ZX1046428



ZX206163 —UN—03NOV13

ZX206163

Continued on next page

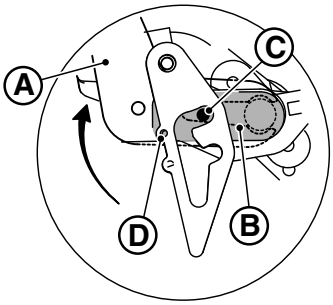
To adjust pre-chamber density, proceed as follows:

1. Disengage PTO.
2. Insert spanner (A) on lever (B) then move lever (B) upwards, in horizontal position (Automatic Position). Set screw must be engaged in upper groove (C).
3. Lock lever (B) with quick-lock pin in hole (D).
4. Recommended adjustment pre-chamber density: Adjust dimension (X) to 120 mm (4.72 in).

IMPORTANT: If packer overload clutch is activated, the pre-chamber density is set too high. Increase dimension (X) to reduce density.

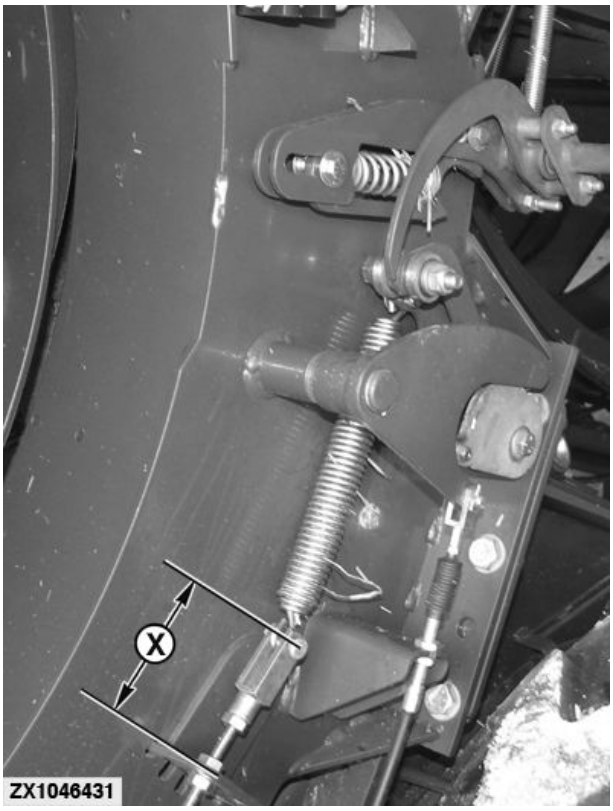
NOTE: If necessary, shorten dimension (X) to increase crop density.

A—Spanner
B—Lever
C—Upper groove
D—Hole
X—120 mm (4.72 in)



ZX206164

ZX206164 —UN—03NOV13



ZX1046431 —UN—11JAN12

SF04007,0000934 -19-02DEC15-3/3

Density Regulation

IMPORTANT: Maximum permissible density pressure is 180 bar (18 000 kPa; 2610 psi).

Never exceed maximum pressure value.

NOTE: Refer to Operating Mode Page in Electronic Control System section.

Make sure that set bale chamber pressure input field (A) is displayed. If not, refer to the User Function Page in Electronic Control System section to activate the set bale chamber pressure input field (A).

Bale density is controlled through bale chamber pressure (density) or through plungerhead load (machine) regulation.

Pressure Regulation: When PTO is running and electronic system is in Operating Display mode, pressure builds up to preset density setting (A).

During baling pressure in bale chamber cylinders (B) is constantly measured and adjusted to stay within 5 bar (500 kPa; 72.5 psi) of preset value (A).

In the event of a plungerhead overload (C), hydraulic pressure in bale chamber cylinders is automatically reduced. Once load on plungerhead is reduced, pressure is automatically built up to preset value (A).

Density pressure (A) must be adapted to the working conditions such as crop type, crop humidity, and twine resistance.

Crop Type-Recommended Pressures:

- **Silage:** 5 - 40 bar (500 - 4000 kPa; 72.5 - 580 psi)
- **Straw:** 100 - 180 bar (10000 - 18 000 kPa; 1450 - 2610 psi)
- **Hay:** 60 - 150 bar (6000 - 15 000 kPa; 870 - 2175 psi)

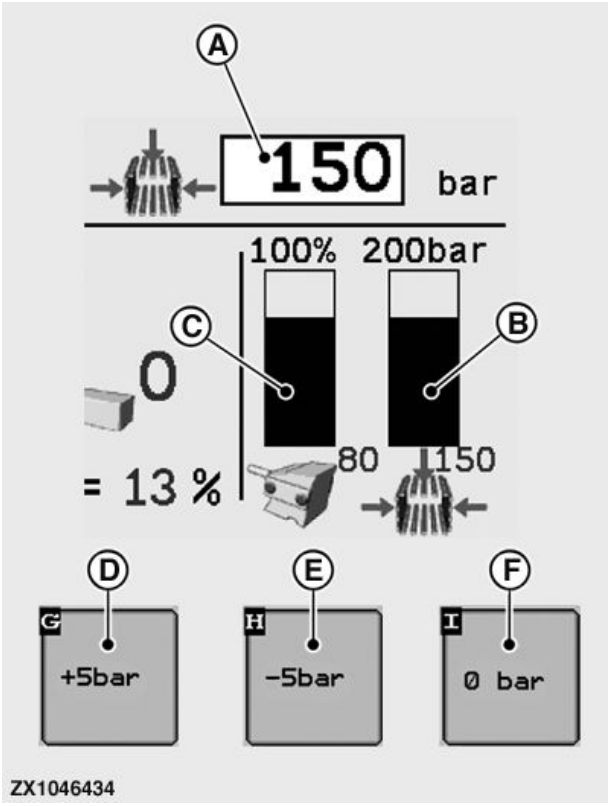
Set Bale Chamber Pressure:

1. Baler is empty. Put monitor under Operating Display Mode (see Electronic Control System section).
2. Press input field (A) to enter desired bale chamber pressure value.

   Setting range: 0 - 180 bar (0 - 18 000 kPa; 0 - 2610 psi).
3. Desired bale chamber pressure value (A) can be set per + or - 5 bar (50 kPa; 72.5 psi) increments or quickly set to zero.
   - Press button (D) to increase preset bale chamber pressure value (A).
   - Press button (E) to decrease preset bale chamber pressure value (A).
   - Press zero pressure button (F) once to reset preset bale chamber pressure value (A) to 0 bar.

IMPORTANT: If during baling process it is necessary to relieve press chamber guide cylinder hydraulic pressure, press zero pressure button (F) twice or press and hold button (E). Cylinder pressure will drop to zero but preset value (A) will be kept. To recall preset bale chamber pressure value (A) press zero pressure button (F) again. Pressure build up starts when tractor PTO is engaged.

4. Engage tractor PTO and run for a few minutes without baling until required density pressure (A) is reached.
5. Start baling.



ZX1046434 —UN—12JAN12

A—Bale chamber pressure input field
B—Actual bale chamber pressure
C—Plungerhead load
D—Increase pressure button
E—Decrease pressure button
F—Set pressure to zero button

Continued on next page

Machine Load Regulation:

IMPORTANT: Pressure (F) is automatically controlled and depends on measured machine load (B).

Machine load must be set between 30% and 100% of maximum machine load.

NOTE: Make sure that set machine load input field (A) is displayed. If not, refer to the User Function Page in this section to activate set machine load input field (A).

At first activation of machine load regulation, default setting is 50 % (A) of maximum machine load with a start pressure of 20 bar (2000 kPa; 290 psi) (B).

Changing machine load setting (A) has no influence on preset start pressure.

Machine Load Regulation: When there is no or a low machine load measured (B) and there is bale growth, regulated bale chamber pressure (F) increases automatically. This is done to reach the right density in the bale as fast as possible (maximum regulated pressure can go up to 180 bar (18 000 kPa; 2610 psi)).

As soon as machine load (B) exceeds preset machine load (A), pressure (F) decreases until measured machine load (B) is within limits of preset machine load (A) ± 5%.

Depending on measured machine load (that is, due to a windrow thickness variation, a variation of the crop or change in (weather conditions) pressure (F) can vary after this.

Machine load setting (A) must be adapted to the working conditions such as crop type, crop humidity, and twine resistance.

Crop Type-Recommended Machine Loads:

- **Silage:**30 - 60 %
- **Straw:** 60 - 100 %
- **Hay:** 50 - 80 %

Set Machine Load:

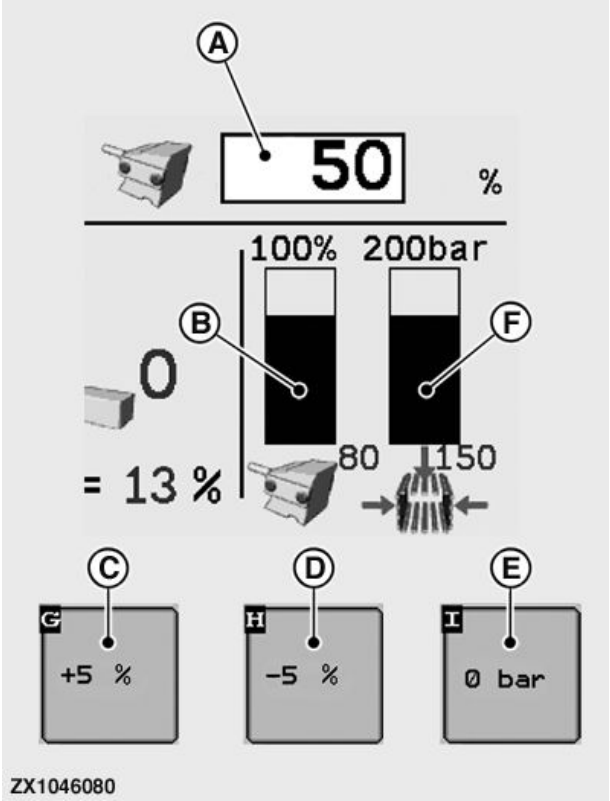
1. Baler is empty. Put monitor under Operating Display Mode (see Electronic Control System section).

NOTE: Make sure that set machine load input field (A) is displayed. If not, refer to the User Function Page in Electronic Control System section to activate the set machine load input field (A).

2. Press input field (A) to enter desired machine load value.

   Setting range: 0 - 100 %.

3. Desired machine load value (A) can be set per + or - 5 % increments or quickly set to zero.



ZX1046080 —UN—07JAN12

A—Machine load input field
B—Actual machine load
C—Increase load button
D—Decrease load button
E—Set pressure to zero button
F—Actual bale chamber pressure

- Press button (C) to increase preset machine load value (A).
- Press button (D) to decrease preset machine load value (A).
- Press zero pressure button (E) once to reset preset bale chamber pressure value to 0 bar. Bale machine load value (A) is then reset to 0 %.

IMPORTANT: If during baling process it is necessary to relieve press chamber guide cylinder hydraulic pressure, press zero pressure button (E) twice or press and hold button (D). Cylinder pressure drops to zero, and machine load (B) reset to 0 %, but preset value (A) is kept. To recall preset machine load value (A) press zero pressure button (E) again. Pressure build up starts when tractor PTO is engaged.

4. Engage tractor PTO and run for a few minutes without baling until the default or previously input density pressure (F) is reached.
5. Start baling.

SF04007,0000935 -19-02DEC15-2/2

Operate Last Bale Ejector

When finished, last bale can be cleared out. Proceed as follows:

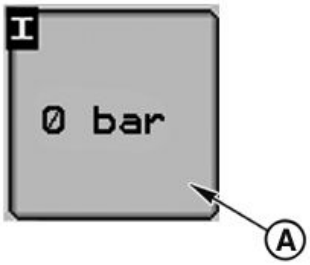
1. Engage PTO and run at 1000 rpm.
2. Start tying process.
3. Decrease PTO speed to 500 rpm.
4. Press set pressure to zero button (A) twice to relieve press chamber guide cylinder hydraulic pressure.
5. Disengage PTO.

IMPORTANT: Wait until top and side press chamber guides have been moved out.

6. Activate relevant tractor Selective Control Valve (see Attaching and Detaching section).
7. Alternately move lower lever (B) back and forth to eject bale.

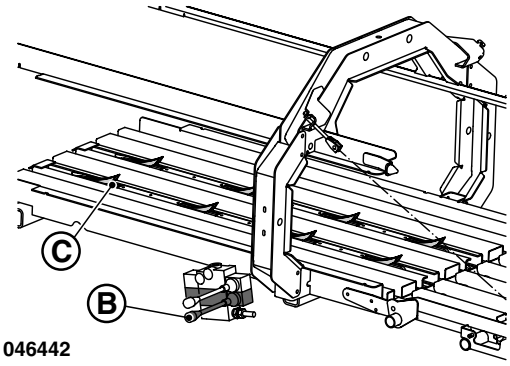
IMPORTANT: Move bale ejector hooks (C) to their most forward position every stroke.

8. After bale ejection, place ejector hooks (C) in their most forward position.
9. If necessary, fold up bale chute (see Operate Bale Chute in this section).



ZX1046443

ZX1046443 —UN—14JAN12



ZX1046442

ZX1046442 —UN—14JAN12

A—Set pressure to zero button
B—Lever
C—Hooks

SF04007,0000936 -19-02DEC15-1/1

Operate Bale Chute

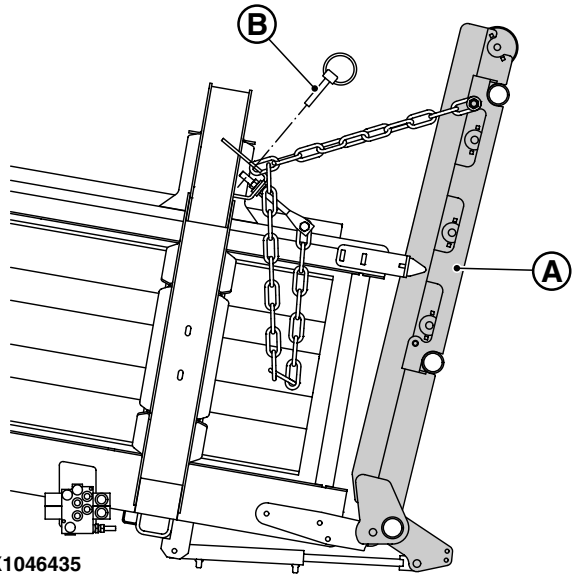
For field operation, fully lower and set bale chute (A) horizontally.

CAUTION: Bale chute is heavy. To prevent personal injury to you or others, make sure that bystanders stand clear of chute when lowering.

IMPORTANT: If bale chute is not lowered, the monitor is under Operating Display mode, and PTO is running above 100 rpm then error message E121 (E) appears on screen. Lower bale chute.

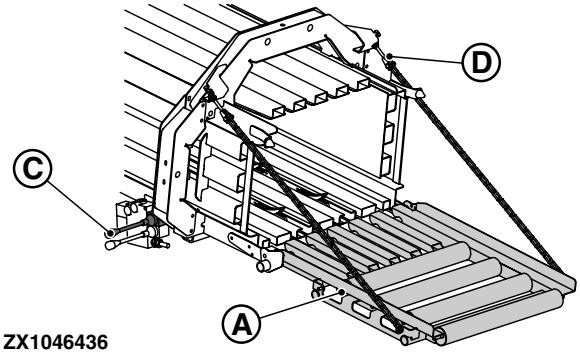
1. On both sides, remove lock pins (B).
2. Activate relevant tractor Selective Control Valve, see Attaching and Detaching section.
3. Fold down bale chute (A). Use lever (C) to lower bale chute.
4. If necessary, align bale chute with bale chamber bottom using chain adjusting yokes (D).

A—Bale chute
B—Lock pin
C—Lever
D—Yoke
E—E121 Message (bale chute up)



ZX1046435

ZX1046435 —UN—12JAN12



ZX1046436

ZX1046436 —UN—14JAN12

ZX1046439

ZX1046439 —UN—12JAN12

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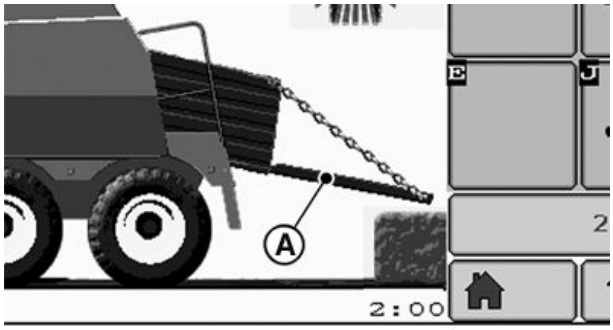
SF04007,0000937 -19-02DEC15-1/2

5. With monitor under Operating Display mode (see Operating Mode Page in Electronic Control System section), check that bale chute indicator in lower position (A) is displayed.

   If this is not the case, check bale chute sensor (B).

A—Bale chute indicator **B—Sensor**



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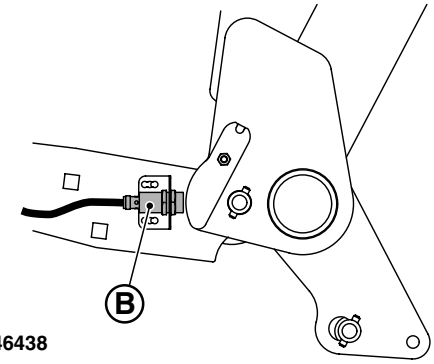

ZX1046438

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SF04007,0000937 -19-02DEC15-2/2

Operate Precutter Knives (1424C, 1433C, and 1434C Only)

IMPORTANT: Set the amount of knives used as described under Remove or Install Precutter Knives (1433C Only) or Remove or Install Precutter Knives (1424C and 1434C Only) in Preparing the Baler section.

NOTE: On 1424C and 1434C cutting length depends on the number of knives engaged. When all (23) knives are engaged, crop is cut at a length of 45 mm (1.77 in).

Engage-Retract Precutter Knives:

1. Engage and run PTO at 1000 rpm.
2. Wait until hydraulic circuit pressure has built up.
   - Press Engage knives button (A) to move knives in. Precutter knives engaged indicator (B) appears on screen.
   - Press Retract knives button (C) to move knives out. Precutter knives engaged indicator (B) disappears.

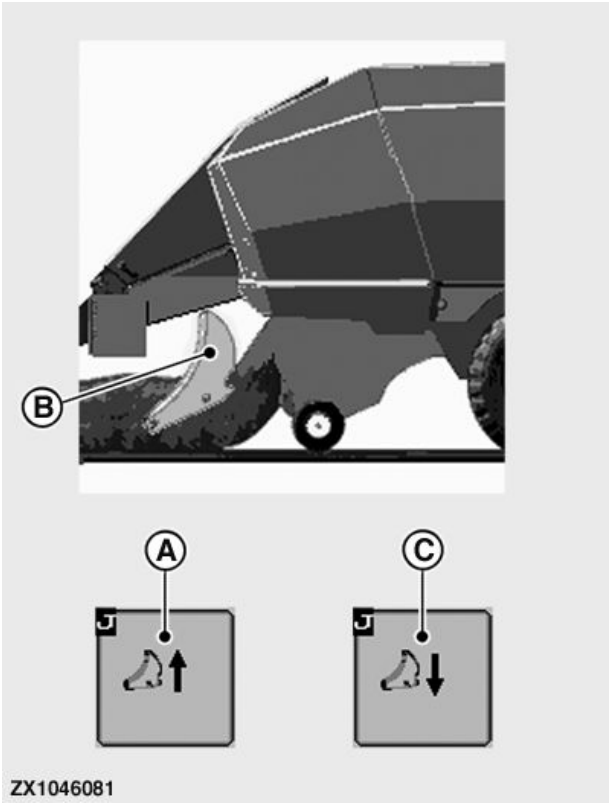
NOTE: Retract knives button (C) appears only if knives have been previously engaged.

3. **On 1424C and 1434C Only:**

   Check at pressure gauges (D or E) that requested group of knives is engaged.

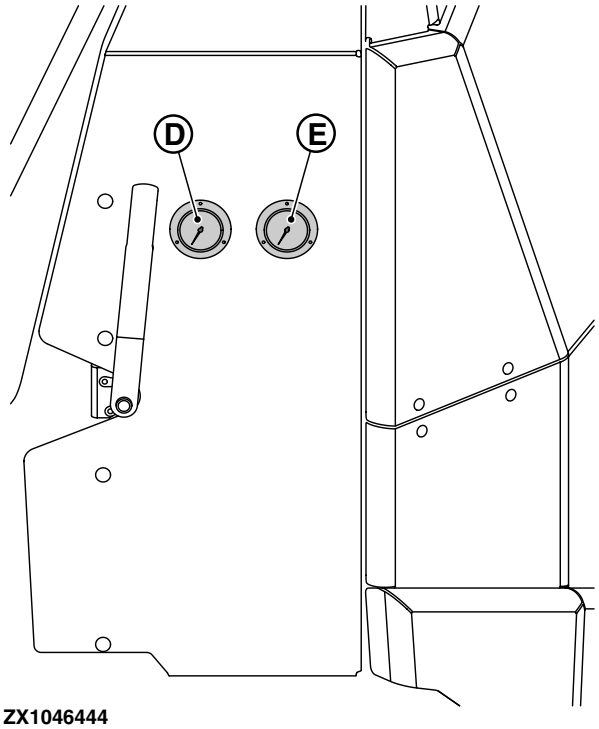
   - A pressure of about 125 bar (12 500 kPa; 1958 psi) at gauge (D) indicates that the group of 12 knives is engaged.
   - A pressure of about 125 bar (12 500 kPa; 1958 psi) at gauge (E) indicates that the group of 11 knives is engaged.
   - A pressure of about 125 bar (12 500 kPa; 1958 psi) at both gauges (D and E) indicates that 23 knives are engaged.

A—Engage Precutter knives button
B—Retract Precutter knives button
C—Precutter knives engaged indicator
D—12 Knives group pressure gauge
E—11 Knives group pressure gauge



ZX1046081

ZX1046081 —UN—07JAN12



ZX1046444

ZX1046444 —UN—14JAN12

SF04007,0000938 -19-02DEC15-1/1

After Field Operation

CAUTION: Do not take a chance. Never work on a machine while it is running.

Due to its inertia, baler continues to rotate after PTO disengaging. Stay clear of machine until it has come to a complete standstill. Apply flywheel brake.

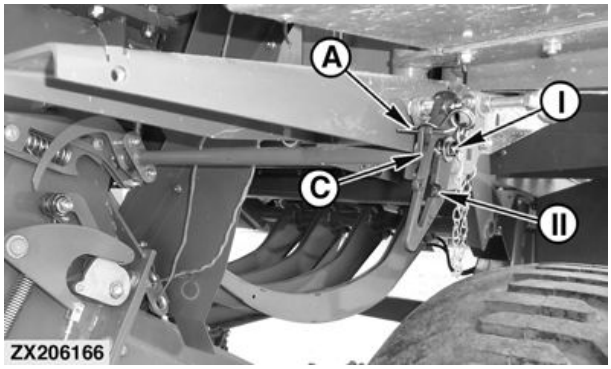
Before machine can be transported on the road or before changing field or crop, both pre-chamber and press chamber must be cleaned.

Clean Pre-Chamber:

Clean pre-chamber as follows:

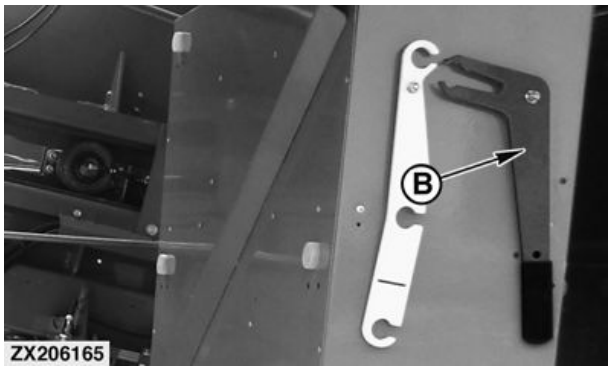
1. Remove quick-lock pin (A).
2. Insert spanner (B) then move the lever (C) downwards to position (II).
3. Disengage flywheel brake.
4. Engage tractor PTO. Packer will now empty pre-chamber.
5. Disengage PTO.
6. Move lever (C) back to its position (I) and secure with quick-lock pin (A).

A—Quick-Lock Pin
B—Spanner
C—Lever
I— Automatic Position
II— 1:1 Position



ZX206166

ZX206166 —UN—03NOV13



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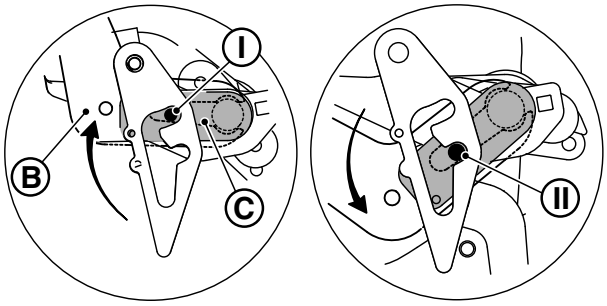

ZX206167

ZX206167 —UN—03NOV13

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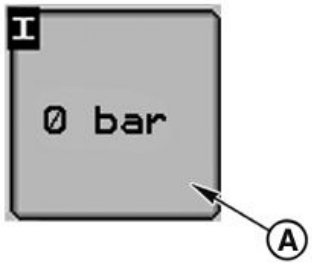
SF04007,0000CA6 -19-02NOV16-1/2

Clean Press Chamber:

When pre-chamber has been cleaned, press chamber can also be cleaned as follows:

1. Engage tractor PTO.
2. When there is no more crop to bale, tie last bale.
3. Press set pressure to zero button (A) once to relieve the guide cylinder hydraulic pressure.
4. Eject last bale with the bale ejector (see Operate Last Bale Ejector in this section).
5. Disengage PTO and stop tractor engine.
6. Remove ignition key and wait until the baler has come to a complete standstill.
7. Place the trip mechanism lever in locked position. (See Install Twine (1433 and 1433C Only) or Install Twine (1424, 1424C, 1434 and 1434C Only) in Preparing the Baler section).



ZX1046443

ZX1046443 —UN—14JAN12

A—Set Pressure to Zero Button

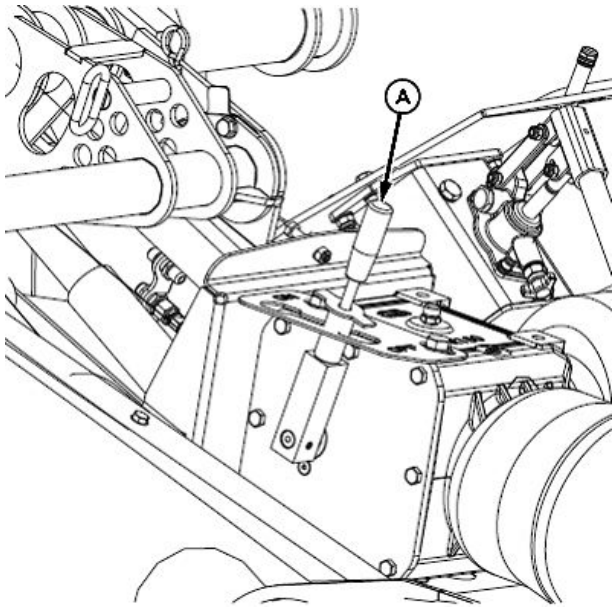
8. Clean the bale press chamber.

SF04007,0000CA6 -19-02NOV16-2/2

Prechopper Operation (If Equipped)

1. Switch off PTO.
2. Move lever to ON or OFF position.

A—On-Off Lever



E80478 —UN—09NOV15

SF04007,0000CA7 -19-30NOV16-1/1

Grease

Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval.

John Deere SD Polyurea Grease is preferred.

The following greases are also recommended:

- John Deere HD Lithium Complex Grease
- John Deere HD Water Resistant Grease
- John DeereGREASE-GARD™

Other greases may be used if they meet the following:

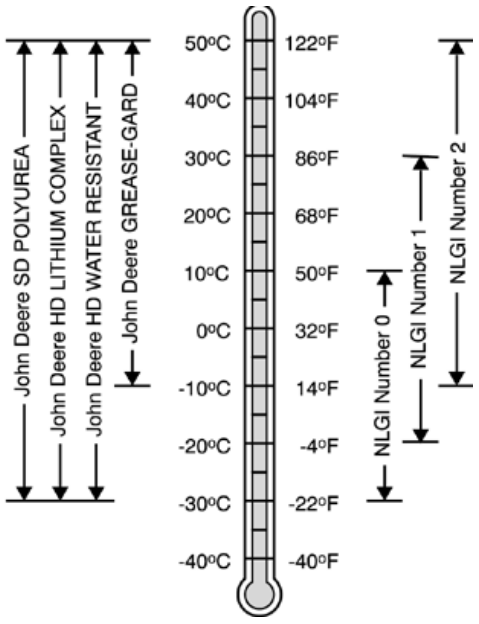
- NLGI Performance Classification GC-LB

Rear Binding Gear Case Grease

Rear binding gear case is filled with grease rather than oil. John Deere Cornhead grease is recommended. Other greases meeting NLGI consistency “0” can be used.

IMPORTANT: Some types of grease thickeners are not compatible with others. Consult your grease supplier before mixing different types of grease.

GREASE-GARD is a trademark of Deere & Company



Greases for Air Temperature Ranges

SF04007,000093B -19-19NOV15-1/1

Multiluber Grease

John Deere Multiluber Grease is recommended.

The system is designed for commercially available multi-purpose grease lubricants up to NLGI Class 2 for use in summer and wintertime.

Use grease with high-pressure additives (EP greases).

Use only greases of same specification.

NOTE: Grease lubricants containing solid lubricants must not be used. Moly and graphite grease will plug the distributors and must not be used!

The grease specifications for the automatic lubrication system are shown in the following schedule:

- Grease and Oil Specification

Automatic Lubrication System	
Content	Specification
Grease	NLGI 1-2, DIN 51818 Lithium

- Brand and Type

Brand	Type
BP	Energrease LS EP 2
Castrol	Speerol EPL 2
Elf	Epexelf 2
Esso	Beacon 2
Fina	Marson L2A
Igol	Roulement EP2
Mobil	Mobilux 2
Motul	Top Cut
Shell	Alvania EP (LF) 2
Total	Multis 2

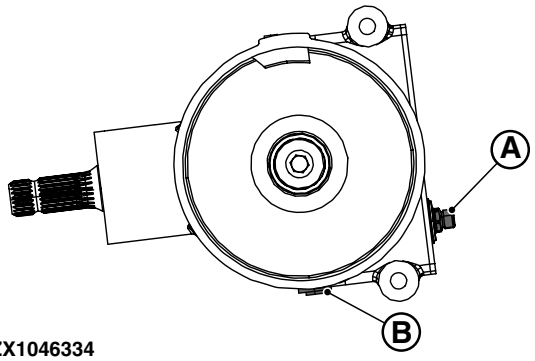
SF04007,000093C -19-29OCT15-1/1

Use of Grease

In Rear Binding Gear Case

Capacity: 0.8 kg (28.2 oz)

A—Check / Filler Plug **B—Oil Drain Plug**



ZX1046334

ZX1046334 —UN—12JAN12

SF04007,000093D -19-19NOV15-1/2

Packer Clutch

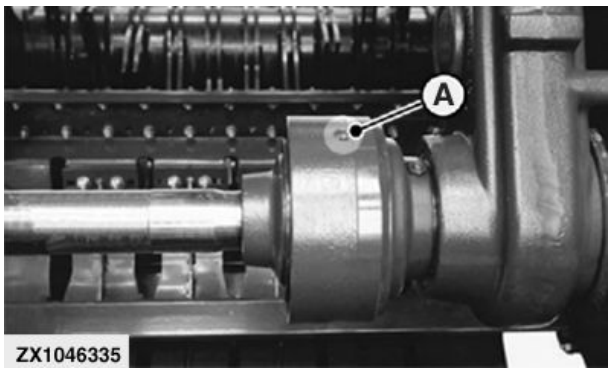
Capacity: 0.2 kg (7.05 oz)

Lithium grease is recommended for the packer clutch.

Apply grease at grease fitting (A).

NOTE: Lubricate only this clutch if it is used. If the clutch never slips, do not lubricate it.

A—Grease Fitting



ZX1046335 —UN—12JAN12

SF04007,000093D -19-19NOV15-2/2

Gear Oil

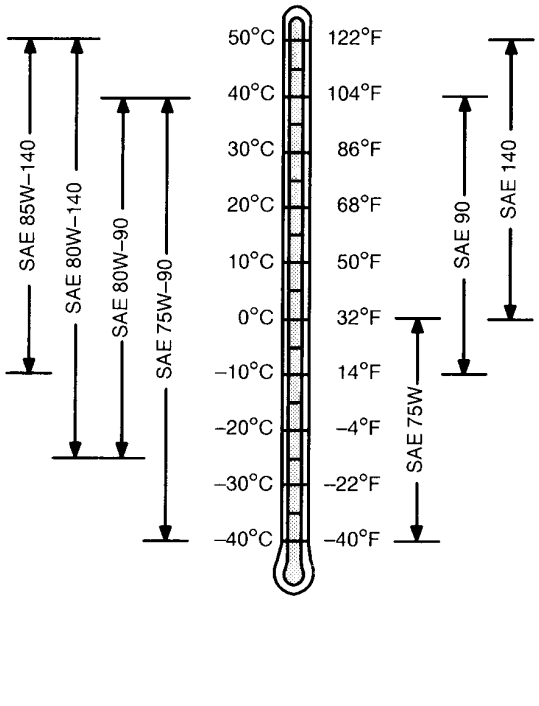
Use oil viscosity based on the expected air temperature range during the period between oil changes.

The following oils are preferred:

- John Deere GL-5 Gear Lubricant
- John Deere EXTREME-GARD™

Other oils may be used if they meet the following:

- API Service Category GL-5



Oil Viscosities for Air Temperature Ranges

EXTREME-GARD is a trademark of Deere & Company

SF04007,000093E -19-29OCT15-1/1

Use of Gear Oil

Main Gear Case

1424/1424C and 1433/1433C Large Square Baler—Capacity:

25 L (6.6 gal)

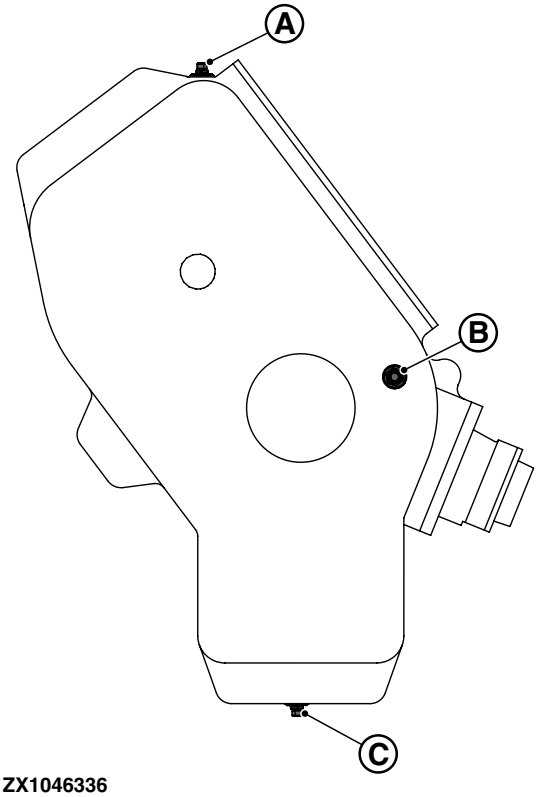
1434/1434C Large Square Baler—Capacity:

37 L (9.8 gal)

Oil level in main gear case:

Oil level must be at least flush with bottom of sight glass (B).

A—Filler Plug
B—Sight Glass
C—Oil Drain Plug



ZX1046336

ZX1046336 —UN—12JAN12

SF04007,000093F -19-19NOV15-1/3

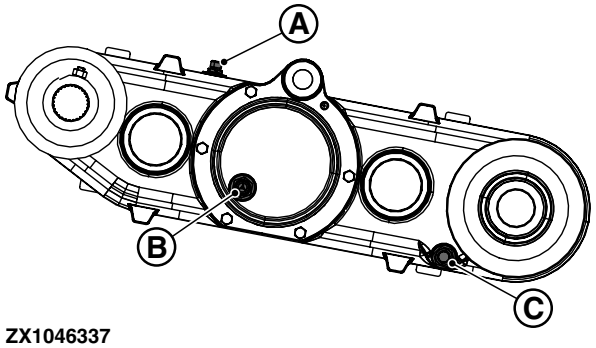
Packer Gear Case

Capacity: 4 L (1.06 gal)

Oil level in packer gear case:

Oil level must be at least flush with bottom of sight glass (B).

A—Filler Plug
B—Sight Glass
C—Oil Drain Plug



ZX1046337

ZX1046337 —UN—12JAN12

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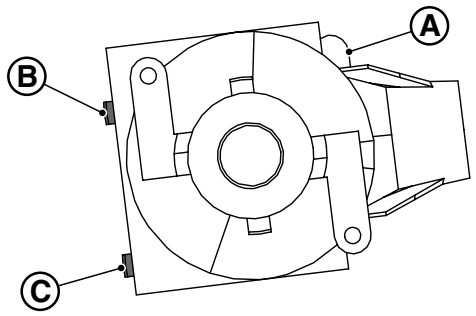
SF04007,000093F -19-19NOV15-2/3

Front Binding Gear Case

Capacity: 3.3 L (0.87 gal)

Fill oil at filler plug (A) up to the bottom of hole at check plug (B).

A—Filler Plug
B—Check Plug
C—Oil Drain Plug



ZX1046338

ZX1046338 —UN—17JAN12

SF04007,000093F -19-19NOV15-3/3

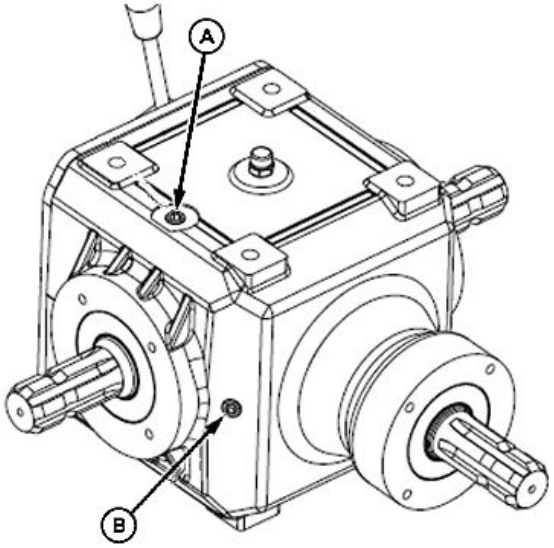
Prechopper Gear Drive (If Equipped)

1. Check oil level.
   1. Remove and retain check level plug (B).

NOTE: If oil comes out of gap level is okay, reinstall plug. If no oil comes out of gap, fill gear case. (See next step.)

2. Fill gear case with oil.
   1. Remove and retain fill plug (A).
   2. Remove and retain check level plug (B).
   3. Replenish oil until a little comes out of gap.
   4. Reinstall check level plug (B).
   5. Reinstall fill plug (A).

A—Fill Plug
B—Check Level Plug



E80292 —UN—02NOV15

SF04007,0000CD3 -19-30NOV16-1/1

Transmission and Hydraulic Oil

Use oil viscosity based on the expected air temperature range during the period between oil changes.

The following oils are preferred:

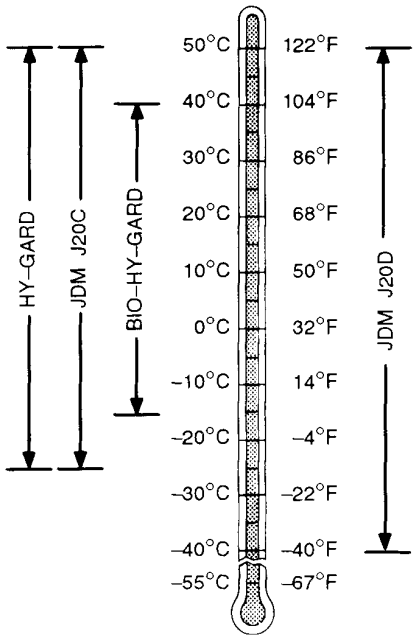
- John Deere HY-GARD™

John Deere BIO-HY-GARD™ oil is also recommended.

Other oils may be used if they meet one of the following:

- John Deere Standard JDM J20C
- John Deere Standard JDM J20D

Arctic oils (such as Military Specification MIL-L-46167B) may be used at temperatures below -30°C (-22°F).



ZX1050789 —UN—17SEP12

HY-GARD is a registered trademark of Deere & Company.
BIO-HY-GARD is a trademark of Deere & Company.

SF04007,0000940 -19-29OCT15-1/1

Use of Transmission and Hydraulic Oil

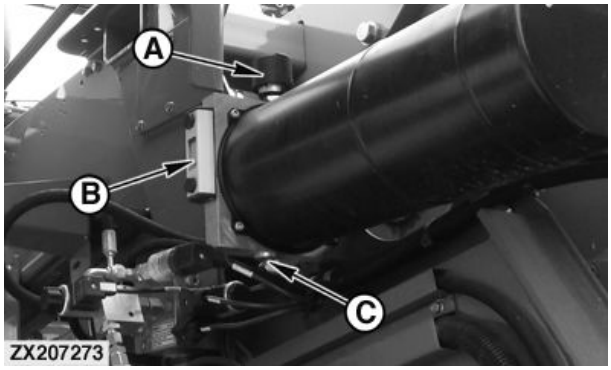
On Machine Without Hydraulic Knotter Cleaning Fan Only

Capacity: 9 L (2.38 U.S. gal)

Check the level of the hydraulic oil via the sight glass (B):

- At a pressure of 0 bar (0 psi).
- With the press chamber cylinders in.

Oil level must be up to upper sight glass (B).



ZX207273 —UN—04NOV13

A—Filler Plug with Filter
B—Sight Glass
C—Oil Drain Plug

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SF04007,0000941 -19-29OCT15-1/2

On Machine With Hydraulic Knotter Cleaning Fan Only

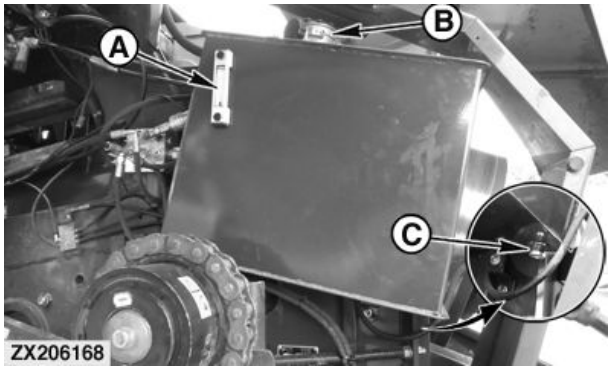
Capacity: 60 L (15.85 U.S. gal)

Check the level of the hydraulic oil via the sight glass (A):

- At a pressure of 0 bar (0 psi).
- With the press chamber cylinders in.
- after the machine ran for 5 minutes.

Oil level must be up to upper sight glass (A).

A—Sight Glass
B—Filter
C—Oil Drain Plug



ZX206168 —UN—06NOV13

SF04007,0000941 -19-29OCT15-2/2

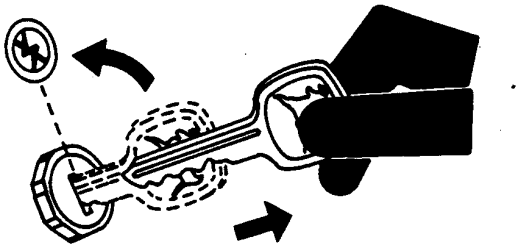
Lubricating and Maintaining Machine Safely

CAUTION: To help prevent personal injury caused by unexpected movement, be sure to service machine on a level surface.

Do not lubricate or maintain the machine while it is in motion.

If machine is connected to tractor, engage tractor parking brake and place transmission in Park, shut off engine, and remove key.

If machine is detached from tractor, block wheels to prevent movement.



TS230 —UN—24MAY89

SF04007,0000943 -19-30OCT15-1/1

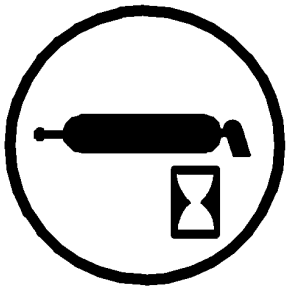
Observe Service Intervals

Using tractor hour meter as a guide, perform services at the hourly intervals indicated on following pages.

IMPORTANT: Recommended service intervals are for average conditions. Service MORE OFTEN if baler is operated in adverse conditions.

Before performing any maintenance, the following must be obtained:

- Never work on a machine while it is running.
- PTO must be switched off.
- Electronic control system must be switched off.
- Tractor engine must be switched off and ignition key must be removed.



CC 000934

CC000934 —UN—05APR95

- Apply flywheel brake.
- Clean machine with an air jet.

SF04007,0000944 -19-07DEC15-1/1

Performing Lubrication and Maintenance

Clean lubrication fittings before using grease gun. Replace any lost or broken fittings immediately. If a fitting fails to take grease, remove and check for failure of adjoining parts.

SF04007,0000945 -19-30OCT15-1/1

Alternative and Synthetic Lubricants

Conditions in certain geographical areas may require lubricant recommendations different from those printed in this manual.

Some John Deere brand coolants and lubricants may not be available in your location.

Consult your John Deere dealer to obtain information and recommendations.

Synthetic lubricants may be used if they meet the performance requirements as shown in this manual.

The temperature limits and service intervals shown in this manual apply to both conventional and synthetic lubricants.

Re-refined base stock products may be used if the finished lubricant meets the performance requirements.

SF04007,0000946 -19-07DEC15-1/1

Lubricant Storage

Your equipment can operate at top efficiency only when clean lubricants are used.

Use clean containers to handle all lubricants.

Store lubricants and containers in an area protected from dust, moisture, and other contamination. Store containers on their side to avoid water and dirt accumulation.

Make certain that all containers are properly marked to identify their contents.

Properly dispose of all old containers and any residual lubricant they may contain.

SF04007,0000947 -19-30OCT15-1/1

Mixing of Lubricants

In general, avoid mixing different brands or types of oil. Oil manufacturers blend additives in their oils to meet certain specifications and performance requirements.

Mixing different oils can interfere with the proper functioning of these additives and degrade lubricant performance.

Consult your John Deere dealer to obtain specific information and recommendations.

SF04007,0000948 -19-07DEC15-1/1

Automatic Greasing System (If Equipped)

IMPORTANT: Depending on the machine equipment, some greasing points are not connected to the automatic greasing system. See this section to know which greasing points are connected or not to the automatic greasing system.

Automatic greasing function

The system provides a grease pump driven by an electric motor, greasing lines, grease distributors, and an electronic timer controlled with the monitor. Once the system is enabled, the grease pump turns at regular ON and OFF intervals according to the operator settings. To enable, disable, or set the automatic greasing system, see USER FUNCTION PAGE in Electronic Control System section.

E60599 —UN—16JAN12

Continued on next page

SF04007,0000949 -19-07DEC15-1/3

Checking system for proper operation

Manually initiate automatic greasing cycle with monitor during 2 minutes to determine whether grease is supplied to all greasing points. See USER FUNCTION PAGE in Electronic Control System section to manually activate automatic greasing system.

If blockage occurs at a lube fitting or in a lube line, grease escapes from relieve valve (A). This valve is a safety feature which allows system checks.

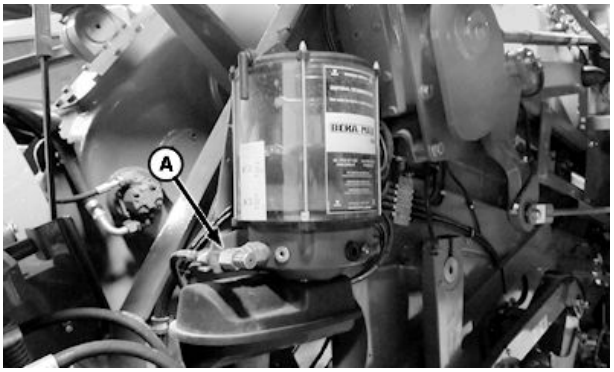
Intermediate greasing

Manually initiate automatic greasing cycle with monitor:

- During first 2 minutes at start of each harvesting season.
- During first 2 minutes after cleaning with a high-pressure washer, steam cleaning, or cleaning with compressed air.
- During last 3 minutes at end of the season.

Service

NOTE: All system components are maintenance-free.



E60600 —UN—16JAN12

A—Relief Valve

During first few weeks of operation, periodically check the system and following points:

- Sufficient grease at bearing points.
- Broken or leaking lines.

SF04007,0000949 -19-07DEC15-2/3

Automatic Grease Lubrication System

The machine can be equipped with an automatic grease lubrication system, which consist of a central pump pressure release valve (A), main block divider (B), grease sensor (C), and a grease pump (D). Additional left and right side divider blocks and chain greasing.

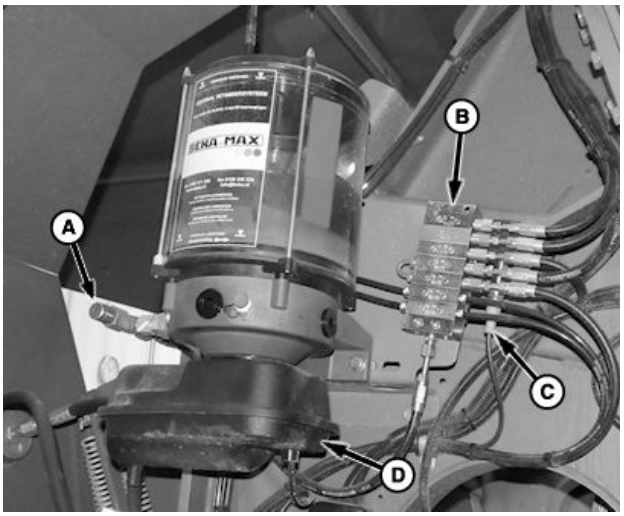
The automatic lubrication system is controlled by the electronic control system.

Many greasing points of the machine are lubricated fully automatically.

The system can be refilled using:

- A standard manual grease gun.
- A grease gun or volume filler (air driven) via different connectors.
- A standard cartridge using a refill press.

Fill grease container of pump to a maximum as indicated on outside of grease container.



E60840 —UN—25JAN12

A—Pressure Release Valve
B—Main Divider Block
C—Grease Sensor
D—Grease Pump

SF04007,0000949 -19-07DEC15-3/3

As Required—Refill Automatic Greasing System Reservoir (If Equipped)

IMPORTANT: Cleanliness is a must when filling the system.

Depending on the automatic greasing system settings, refill reservoir as required. Use only grease specified in Lubricant and Capacities section.

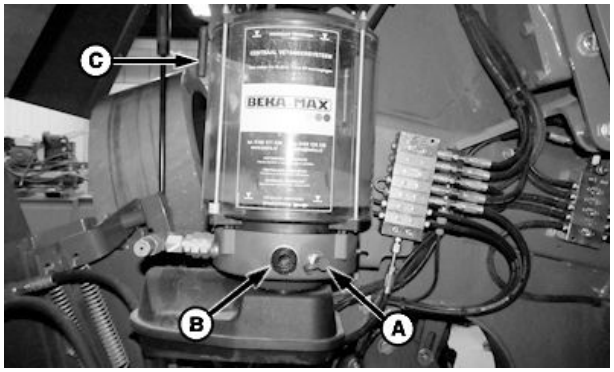
Specification	
Greasing Reservoir—Capacity	1.9 kg (4.2 lb)

E60599 —UN—16JAN12

SF04007,000094A -19-07DEC15-1/4

Standard filling using lubrication nipple with manual or pneumatic grease gun

1. Remove filling nipple (A) cover.
2. Fill the system using manual or pneumatic grease gun. Do not fill reservoir beyond maximum fullness level.
3. Make sure vent tube (C) on outside of reservoir is not plugged.
4. Dispose of greasy cleaning rags according to local and national regulations.



E60601 —UN—17JAN12

A—Filling Nipple
B—Filling Plug
C—Vent Tube

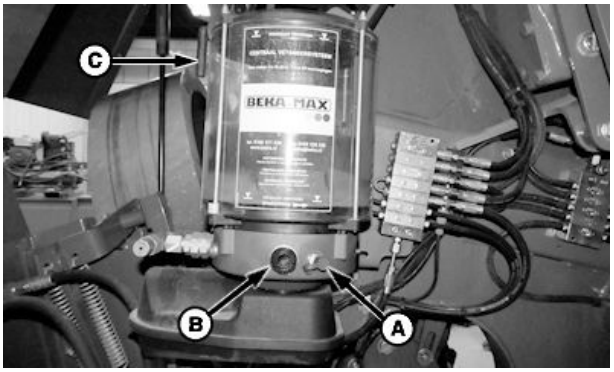
Continued on next page

SF04007,000094A -19-07DEC15-2/4

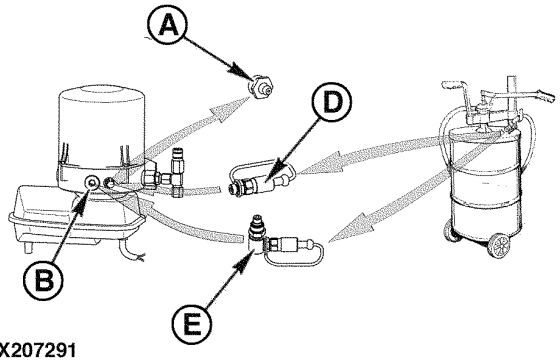
Filling using filling socket and high-flow filling press

1. Remove filling nipple (A) and replace with filling socket (D) or remove filling plug (B) and replace with filling socket (E) for grease.
2. Fill system using a high-flow filling press. Do not fill reservoir beyond maximum fullness level.
3. Make sure vent tube (C) on outside of reservoir is not plugged.
4. Dispose of greasy cleaning rags according to local and national regulations.

A—Filling Nipple
B—Filling Plug
C—Vent Tube
D—Filling Socket
E—Filling Socket



E60601 —UN—17JAN12



ZX207291

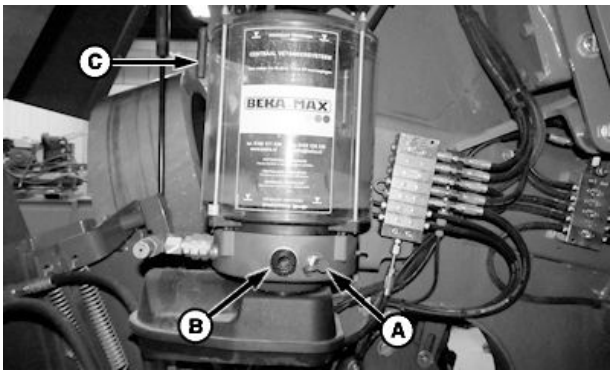
ZX207291 —UN—08NOV13

SF04007,000094A -19-07DEC15-3/4

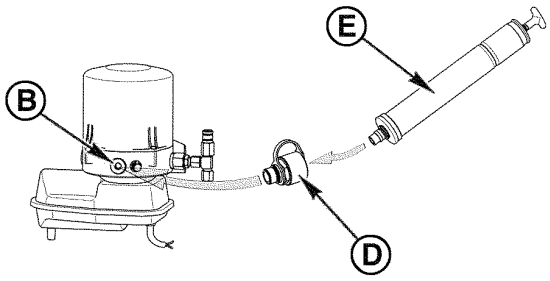
Filling using a quick refill kit

1. Remove filling plug (B) and replace with a straight filling joint (D).
2. Fill system using a quick refill kit (E). Do not fill reservoir beyond maximum fullness level.
3. Make sure vent tube (C) on outside of reservoir is not plugged.
4. Dispose of greasy cleaning rags according to local and national regulations.

A—Filling Nipple
B—Filling Plug
C—Vent Tube
D—Straight Filling Joint
E—Quick Refill Kit



E60601 —UN—17JAN12



ZX207292

ZX207292 —UN—08NOV13

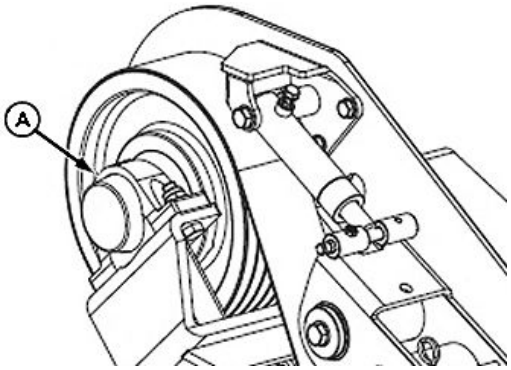
SF04007,000094A -19-07DEC15-4/4

Start of Each Season (Prechopper If Equipped)

Lubricate Upper Pulley Bearing

Lubricate with recommended grease at the grease point (A).

A—Grease Point



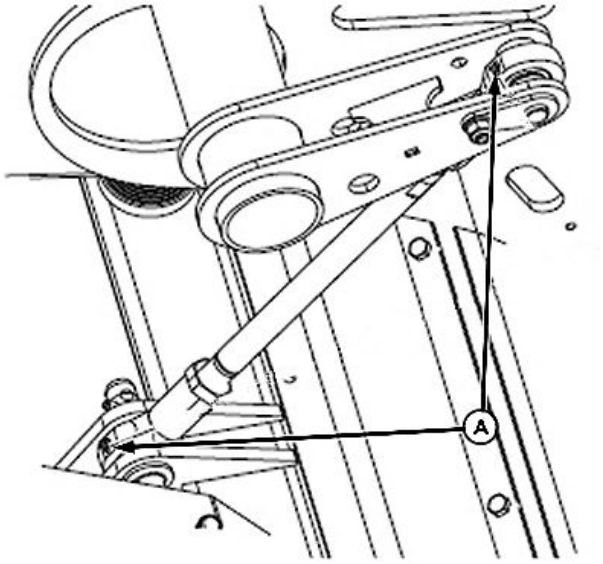
E80491 —UN—10NOV15

SF04007,0000CD4 -19-30NOV16-1/2

Lubricate Left and Right Lift Arm Bearings

Lubricate with recommended grease at the grease point (A).

A—Grease Point



E80554 —UN—10NOV15

SF04007,0000CD4 -19-30NOV16-2/2

Daily (Prechopper If Equipped)

Check Prechopper Knives

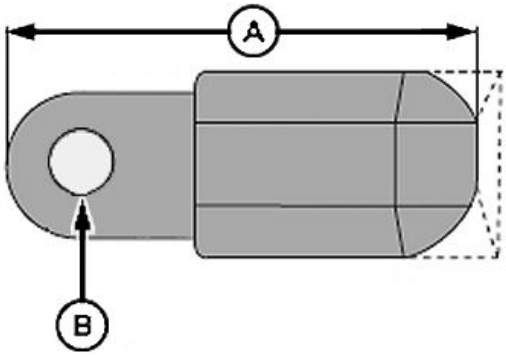
IMPORTANT: Check cutting tools before each use ensuring shredding quality, safety in use, and avoiding risk of damaging fixed elements. Replace damaged cutting tools.

1. Check knife length (A).

NOTE: Length must exceed 220 mm (8-21/32 in).

2. Check mounting hole (B).

NOTE: Make sure that the ovality of mounting hole does not exceed 27 mm (1-2/32 in).



E80291 —UN—02NOV15

A—Length **B—Mounting Hole**

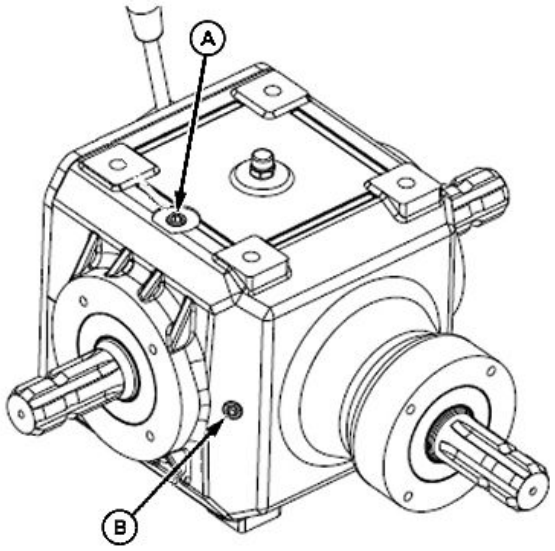
Continued on next page

SF04007,0000CD5 -19-30NOV16-1/3

Check Prechopper Gear Case

1. Remove check level plug (B), if oil comes out of gap, oil level is okay.
2. If no oil comes out, remove fill plug (A) and replenish oil until a little oil comes out of gap.

A—Fill Plug **B—Check Level Plug**

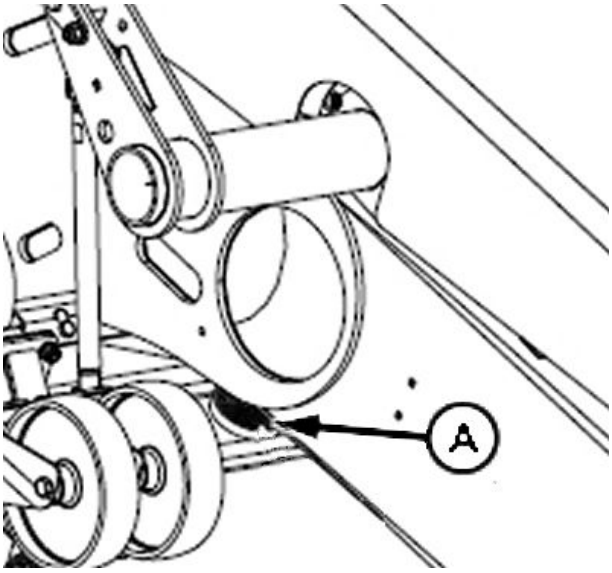


E80292 —UN—02NOV15

SF04007,0000CD5 -19-30NOV16-2/3

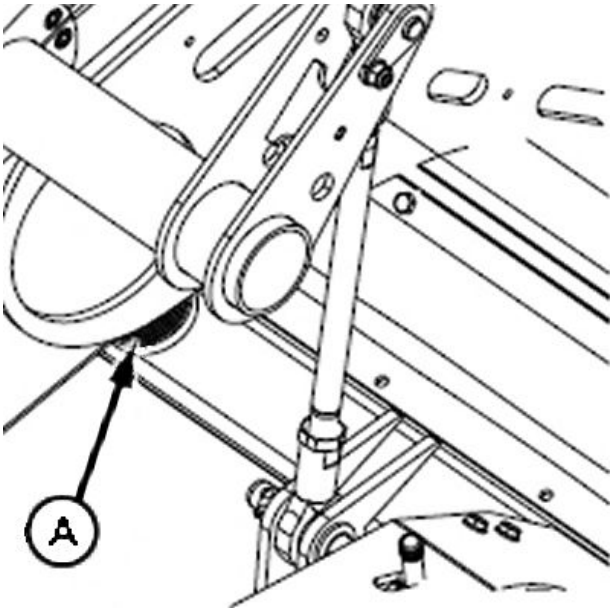
Check Length of Lifting Arms

Check lifting arm length.



E80293 —UN—02NOV15

Left-Hand Side



E80294 —UN—02NOV15

Right-Hand Side

NOTE: The two rubber buffers (A) should touch the drawbar at the same time and be slightly pressed in.

SF04007,0000CD5 -19-30NOV16-3/3

After First 3 Working Hours (Prechopper If Equipped)

Check prechopper (if equipped) belt tension by reading pressure on manometer (A).

NOTE: Also check at end of season.

NOTE: Optimum pressure is 4000 ± 200 kPa (40 ± 2 bar) (580 ± 29 psi).

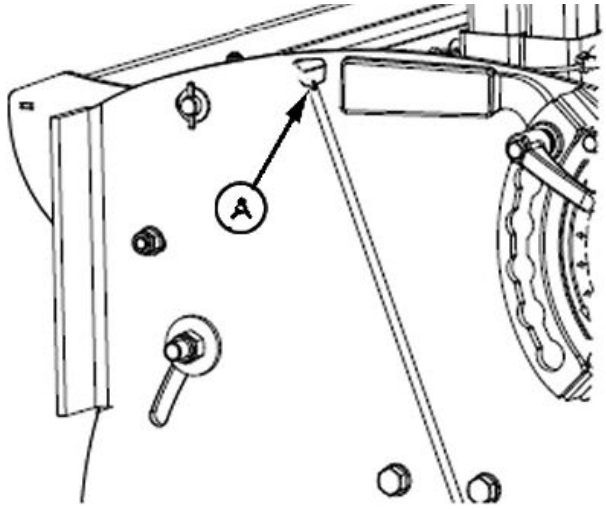
A—Manometer

E80290 —UN—02NOV15

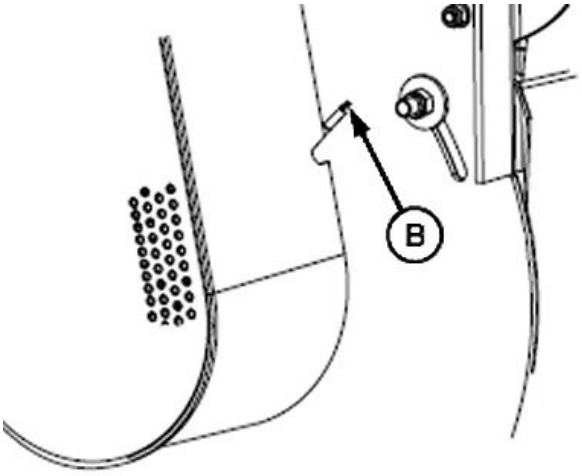
Manometer

SF04007,0000CD6 -19-30NOV16-1/1

Every Four Working Hours



E80288 —UN—02NOV15



E80289 —UN—02NOV15

A—Grease Point **B—Grease Point**

Lubricate right and left rotor bearings at grease points (A and B).

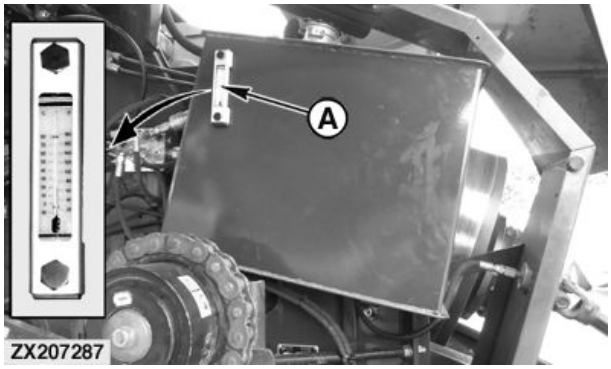
SF04007,0000CD7 -19-30NOV16-1/1

Every 10 Working Hours

Hydraulic Knotter Cleaning Fan Environment (if equipped)

Make sure that cleaning fan hydraulic reservoir oil temperature at thermometer (A) stays under 80 °C (176 °F).

A—Sight Glass—Thermometer



ZX207287 —UN—06NOV13

SF04007,000094B -19-11DEC15-1/29

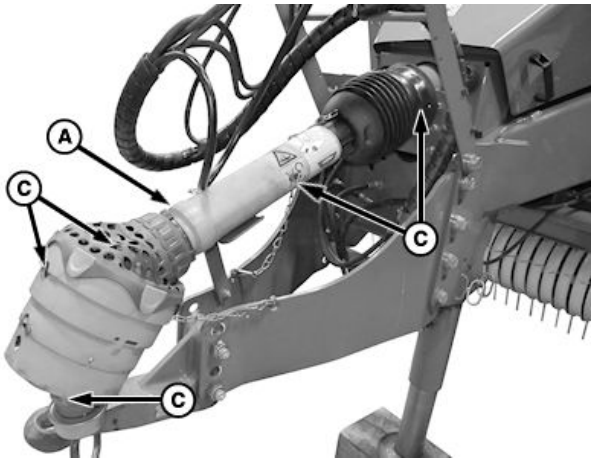
PTO Drive Shafts

PTO drive shaft (A) is equipped with five lubrication points (C).

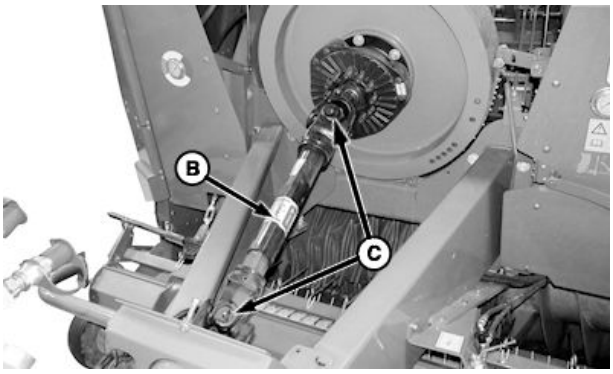
PTO drive shaft (B) is equipped with two lubrications points (C).

Lubricate with recommended grease.

A—PTO Drive Shaft (Tractor Side)
B—PTO Drive Shaft (Machine Side)
C—Lubrication Points



E60602 —UN—17JAN12



E60603 —UN—17JAN12

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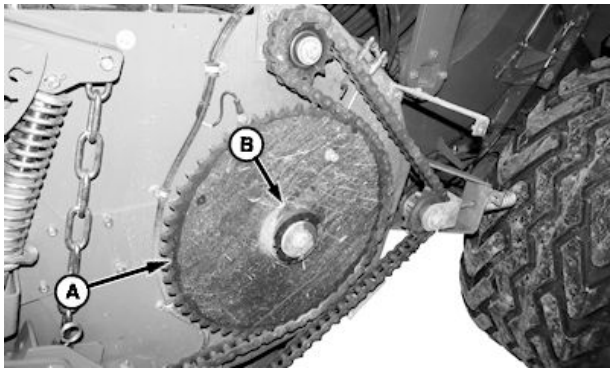
SF04007,000094B -19-11DEC15-2/29

Pickup Freewheel Clutch

Pickup Freewheel Clutch (A) has one lubrication point (B).

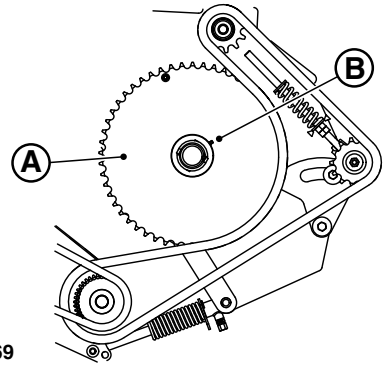
Lubricate with recommended grease.

A—Pickup Freewheel Clutch **B—Lubrication Point**



E60625 —UN—19JAN12

Left-Hand Side (1433 and 1433C)



ZX206169 —UN—03NOV13

ZX206169

Left-Hand Side (1424, 1424C, 1434, and 1434C)

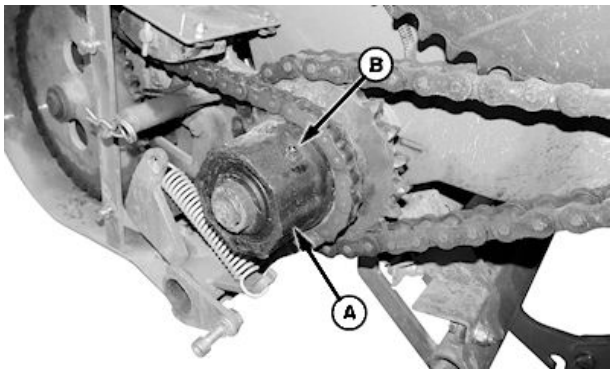
SF04007,000094B -19-11DEC15-3/29

Pickup Overload Clutch

Pickup overload clutch (A) has one lubrication point (B).

Lubricate with recommended grease.

A—Pickup Overload Clutch **B—Grease Point**



E60626 —UN—19JAN12

Left-Hand Side

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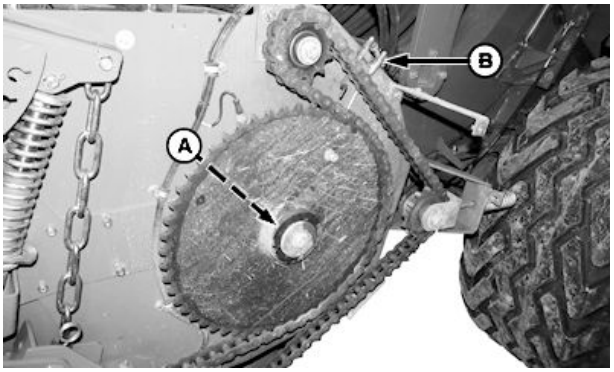
SF04007,000094B -19-11DEC15-4/29

Intake Rotor Bearing (Left and Right-Hand Side)

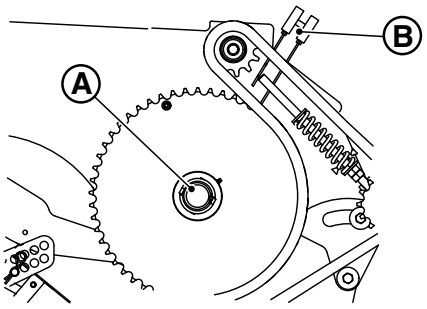
Intake rotor bearings (A and C) are lubricated automatically. Make sure grease lines (B) are functioning properly.

A—Rotor Bearing
B—Grease Lines
C—Rotor Bearing



E60624 —UN—18JAN12

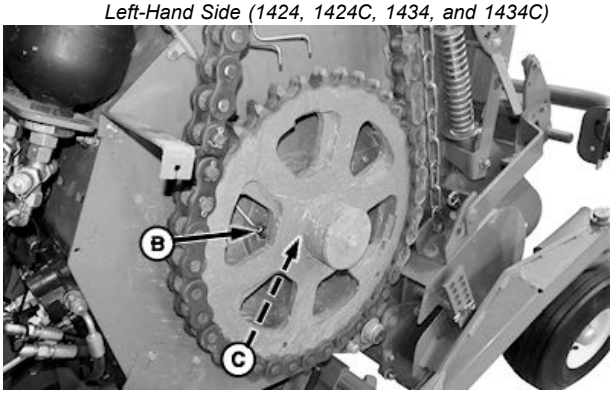
Left-Hand Side (1433 and 1433C)



ZX206170 —UN—03NOV13

ZX206170

Left-Hand Side (1424, 1424C, 1434, and 1434C)



E60605 —UN—17JAN12

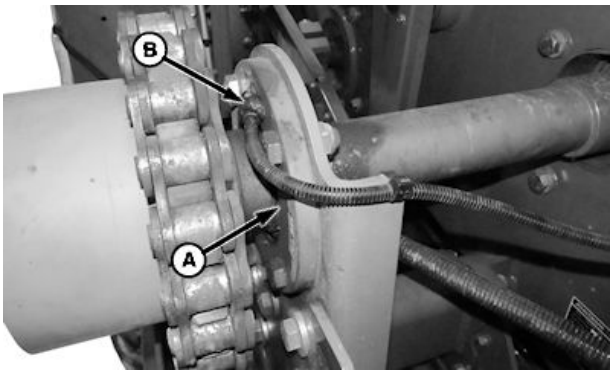
Right-Hand Side

SF04007,000094B -19-11DEC15-5/29

Drive Shaft Bearing Intake Rotor

Drive shaft bearing intake rotor (A) is lubricated automatically. Make sure grease line (B) is functioning properly.

A—Drive Shaft Bearing Intake Rotor
B—Grease Line



E60606 —UN—17JAN12

Right-Hand Side

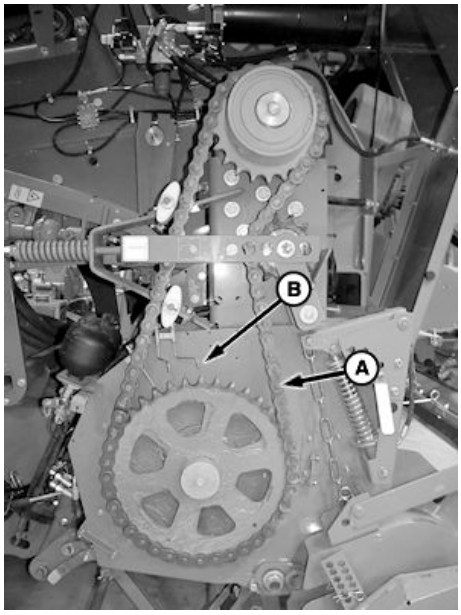
Continued on next page

SF04007,000094B -19-11DEC15-6/29

Rotor Drive Chain

Rotor drive chain (A) is lubricated automatically. Make sure grease line (B) is functioning properly.

A—Rotor Drive Chain **B—Grease Line**



E60607 —UN—17JAN12

Right-Hand Side

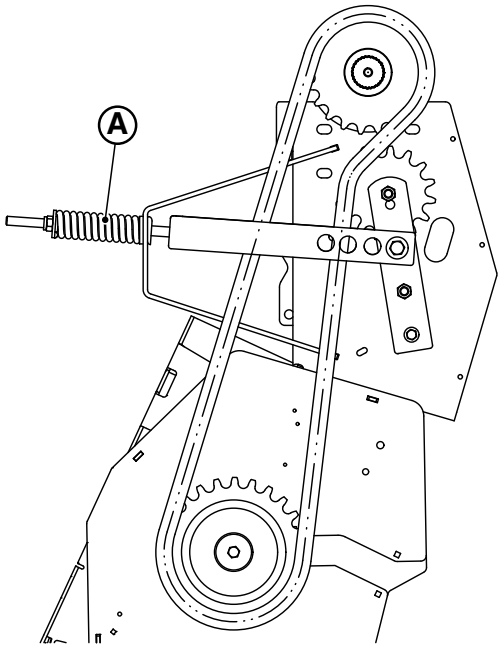
SF04007,000094B -19-11DEC15-7/29

Rotor Chain Tension

Make sure that rotor chain spring tension (A) is within specification.

Specification	
Rotor Chain Spring Tension—Length	160 mm (6.30 in)

A—Spring Tension



ZX206171

ZX206171 —UN—03NOV13

Right-Hand Side

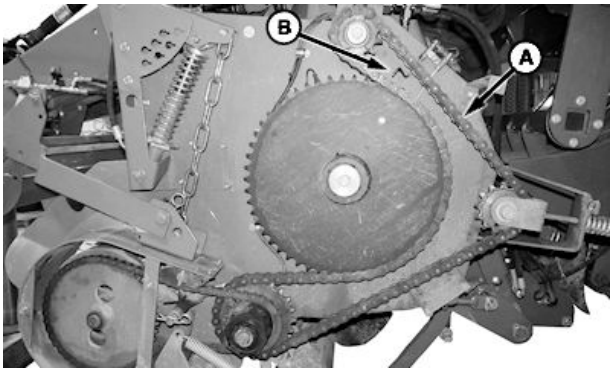
Continued on next page

SF04007,000094B -19-11DEC15-8/29

Pickup Drive Chain

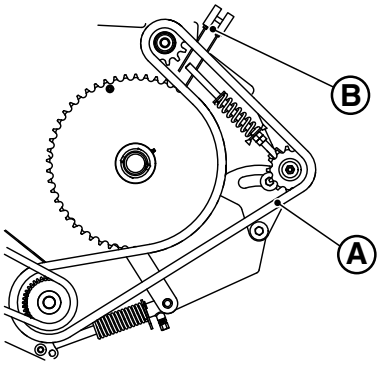
Pickup drive chain (A) is lubricated automatically. Make sure grease line (B) is functioning properly.

A—Pickup Drive Chain **B—Grease Line**



E60608 —UN—17JAN12

Left-Hand Side (1433 and 1433C)



ZX206172 —UN—03NOV13

ZX206172

Left-Hand Side (1424, 1424C, 1434, and 1434C)

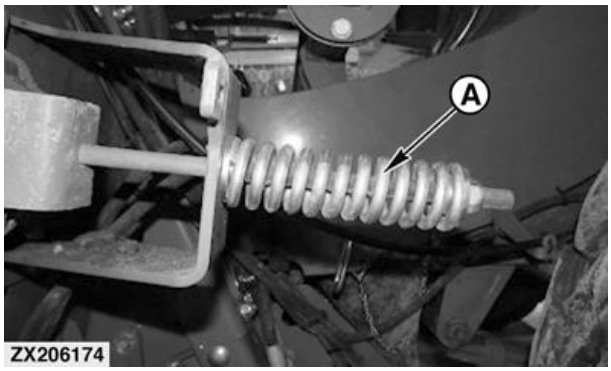
SF04007,000094B -19-11DEC15-9/29

Pickup Drive Chain Tension

On 1433, and 1433C Only: Make sure that pickup drive chain spring tension (A) is within specification.

	Specification
Pickup Drive Chain Tension—Length	135 mm (5-5/16 in)

A—Spring Tension



ZX206174 —UN—03NOV13

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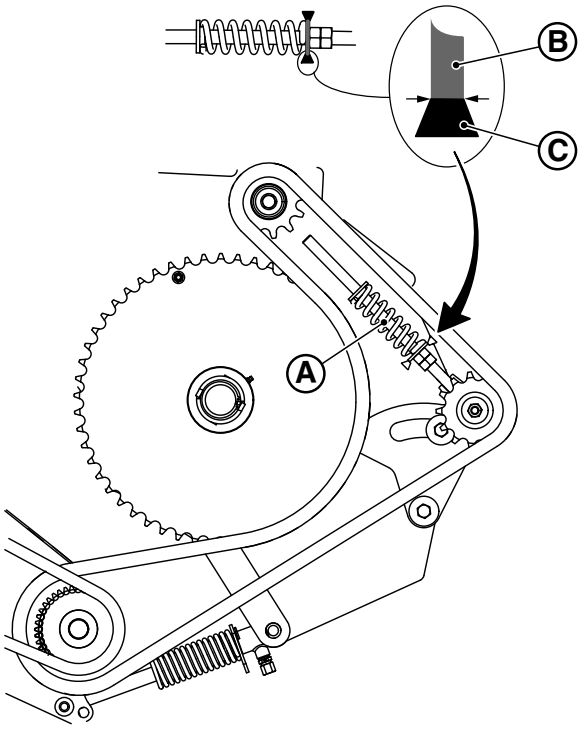
SF04007,000094B -19-11DEC15-10/29

On 1424, 1424C, 1434, and 1434C Only: Make sure that pickup drive chain spring tension (A) is within specification.

Specification	
Pickup Drive Chain Tension—Length	135 mm (5-5/16 in)

Spring (A) is correctly adjusted when washer (B) is aligned with the inside of marker (C) as illustrated.

A—Spring Tension
B—Washer
C—Marker



ZX206173

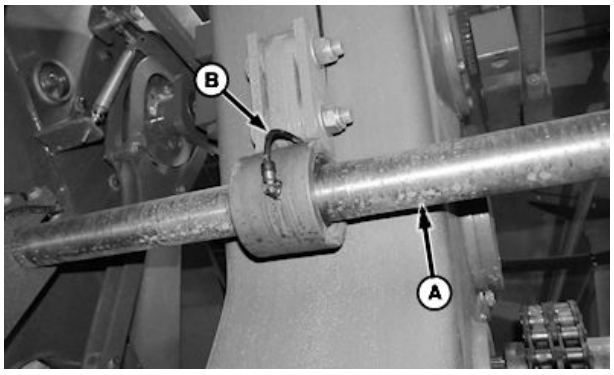
ZX206173 —UN—03NOV13

SF04007,000094B -19-11DEC15-11/29

Hinge Swing Shaft (1424, 1424C, 1434 and 1434C Only)

Hinge swing shaft (A) is lubricated automatically. Make sure grease line (B) is functioning properly.

A—Hinge Swing Shaft
B—Grease Line



E60609 —UN—17JAN12

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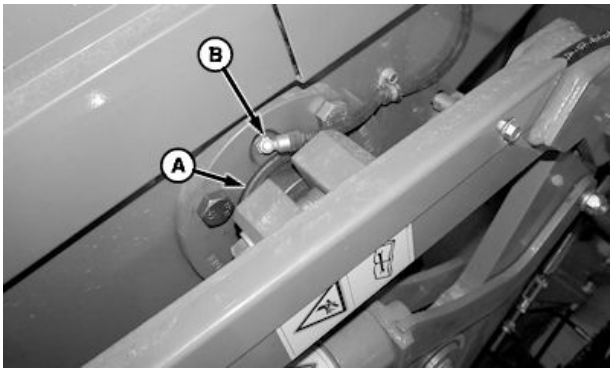
SF04007,000094B -19-11DEC15-12/29

Main Packer Shaft Bearing (Left and Right-Hand Side)

Main packer shaft bearing (A) is lubricated automatically. Make sure grease line (B) is functioning properly.

A—Main Packer Shaft Bearing **B—Grease Line**



E60610 —UN—18JAN12

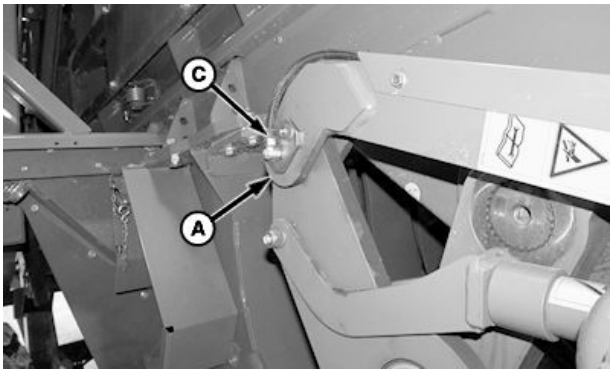
Left-Hand Side

SF04007,000094B -19-11DEC15-13/29

Top Hinge (Left and Right-Hand Side)

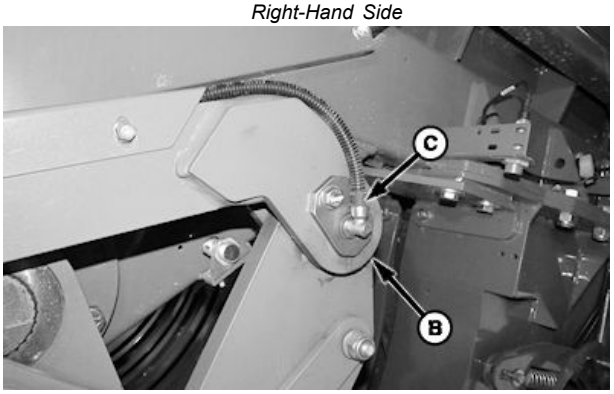
Top hinges (A and B) are lubricated automatically. Make sure grease lines (C) are functioning properly.

A—Top Hinge **C—Grease Line**
B—Top Hinge



E60611 —UN—18JAN12

Right-Hand Side



E60612 —UN—18JAN12

Left-Hand Side

Continued on next page

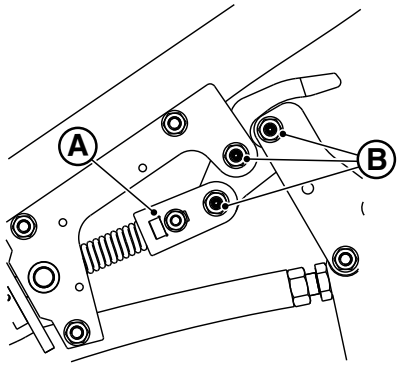
SF04007,000094B -19-11DEC15-14/29

Mechanical Lock (Left and Right-Hand Side)

Mechanical lock has three lubrication points (C).

Lubricate with recommended grease.

A—Mechanical Lock **B—Lubrication Point**



ZX206197

ZX206197 —UN—03NOV13

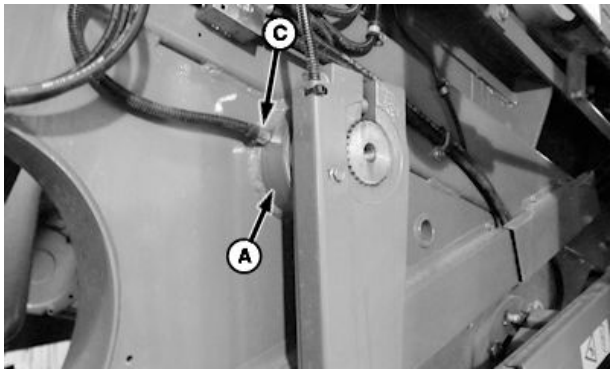
Left-Hand Side

SF04007,000094B -19-11DEC15-15/29

Swing Shaft Hinge (Left and Right-Hand Side)

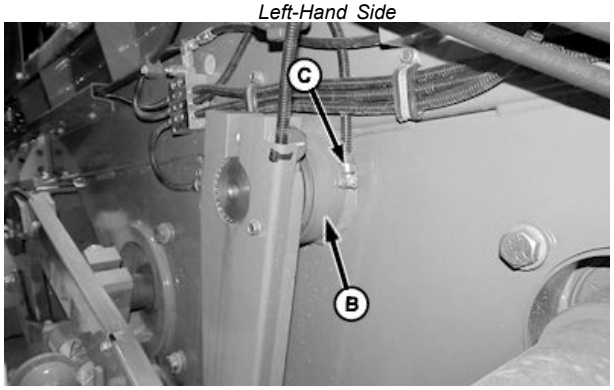
Swing shaft hinges (A and B) are lubricated automatically. Make sure grease lines (C) are functioning properly.

A—Swing Shaft Hinge **C—Grease Line**
B—Swing Shaft Hinge



E60615 —UN—18JAN12

Left-Hand Side



E60616 —UN—18JAN12

Right-Hand Side

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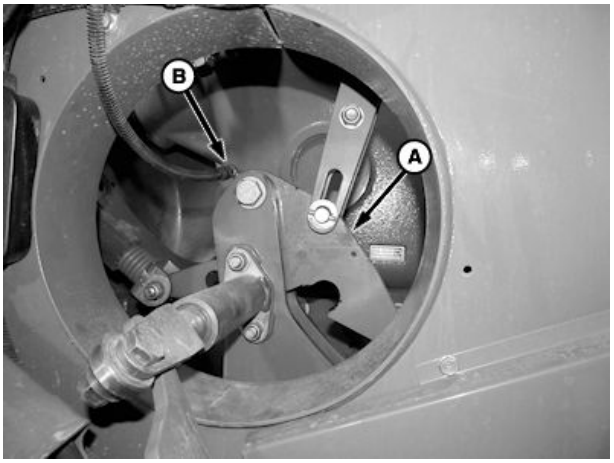
SF04007,000094B -19-11DEC15-16/29

Locking Mechanism

Locking mechanism (A) is lubricated automatically. Make sure grease line (B) is functioning properly.

A—Locking Mechanism **B—Grease Line**



E60617 —UN—18JAN12

Left-Hand Side

SF04007,000094B -19-11DEC15-17/29

Centralized Plunger Greasing

Plunger rollers and drive bars are greased via a central grease point or the automatic grease system, if equipped. The following points are greased:

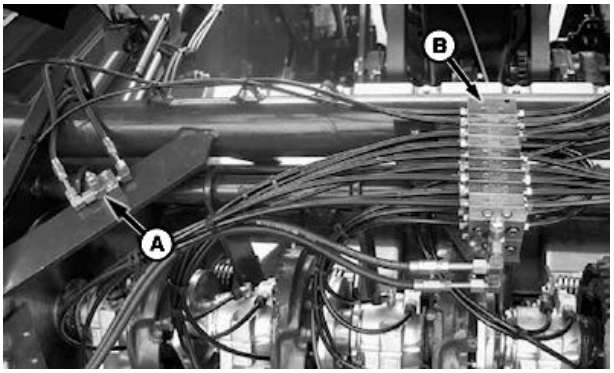
- Plunger drive rod.
- Plunger rollers.

Manual greasing is only required if machine is not equipped with automatic greasing or the automatic greasing system is not working.

1. Connect a grease pump to lubrication point (A), on left-hand side besides the knotter divider block (B).

NOTE: A fast pumping increases resistance of the system and does not save time.

2. Pump grease slowly into divider block to give grease enough time to get through tubes.
3. Regularly check grease lubrication system for cut or obstructed tubes.



E60839 —UN—25JAN12

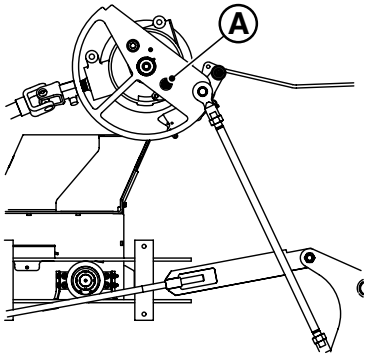
A—Lubrication Point **B—Divider Block**

SF04007,000094B -19-11DEC15-18/29

Ratching Pin

Lubricate with recommended grease.

A—Lubrication Point



ZX1050793

ZX1050793 —UN—13SEP12

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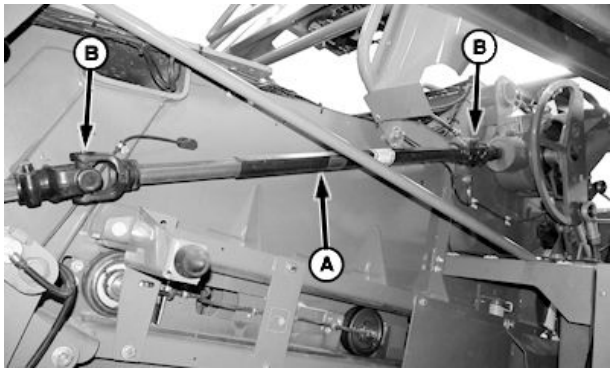
SF04007,000094B -19-11DEC15-19/29

Knotter Drive Shaft

Knotter drive shaft (A) has two lubrication points (B).

Lubricate with recommended grease.

A—Knotter Drive Shaft **B—Lubrication Points**



E60783 —UN—23JAN12

Left-Hand Side

SF04007,000094B -19-11DEC15-20/29

Centralized Greasing of the Knotter

Knotters are greased via a centralized grease point or the automatic grease system, if equipped. The following points are greased:

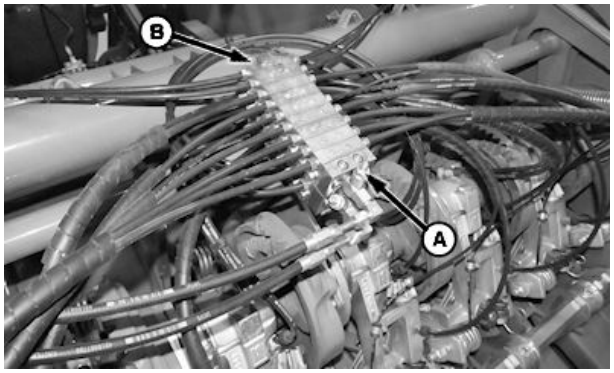
- Tucker finger shaft bearings on both sides.
- Knotters.
- Needle carrier pivots on both sides.

Manual greasing is only required if machine is not equipped with automatic greasing or automatic greasing system is not working.

1. Connect a grease pump to lubrication points (A) of divider block (B), which are located above knotters.

NOTE: A fast pumping increases resistance of the system and does not save time.

2. Pump grease slowly into divider block to give grease enough time to get through tubes.



E60838 —UN—25JAN12

A—Lubrication Point Knotters **B—Divider Block**

3. Regularly check lubrication system for cut or obstructed tubes.

Continued on next page

SF04007,000094B -19-11DEC15-21/29

Wheels

IMPORTANT: Repair work on wheels and tires must be carried out by technician with suitable tools and equipment. Serious personal injury or machine damage can occur.

When working on wheels make sure that machine has been placed on ground safely (use support jack) and is secured by chocks against unintentional rolling.

Do not fit other tire dimensions than prescribed. Fitting other tire dimensions can cause accidents. Personal or machine damage can occur.

Only use the prescribed tire pressure. Using other tire pressures can cause serious personal or machine damages or traffic accidents.

Check tire pressure daily and make sure that the pressure has the correct value. The right tire pressure is necessary to work safe and to prevent excessive wear.

Tire pressure depends on tire-size, speed, and load. The decal on the machine gives the advised pressure in relation to the permissible speed.

E60618 —UN—18JAN12

In regard to speed, always respect local legislations. By use in the field with a lower speed a lower pressure is permissible, see table.

Tire Type	Axle Wheel Tire Pressure			
	Speed			
	25 km/h (16 mph)	40 km/h (25 mph)	50 km/h (31 mph)	60 km/h (38 mph)
600/50-22.5 156A8 (Single axle)	2.0 bar (200 kPa; 29 psi)	Not Allowed	Not Allowed	Not Allowed
710/40-22.5 158A8 (Single axle)	1.7 bar (170 kPa; 25 psi)	2.0 bar (200 kPa; 29 psi)	Not Allowed	Not Allowed
400/70-20 150A8 (Tandem axle)	1.9 bar (190 kPa; 28 psi)	2.3 bar (230 kPa; 34 psi)	2.7 bar (270 kPa; 39 psi)	Not Allowed
500/55-20 150A8 (Tandem axle)	1.6 bar (160 kPa; 23 psi)	2.0 bar (200 kPa; 29 psi)	2.3 bar (230 kPa; 34 psi)	Not Allowed
560/45-22.5 146D (Tandem axle)	1.7 bar (170 kPa; 25 psi)	2.1 bar (210 kPa; 30 psi)	2.4 bar (240 kPa; 35 psi)	2.8 bar (280 kPa; 41 psi)
620/50-22.5 154D (Tandem axle)	1.2 bar (120 kPa; 17 psi)	1.5 bar (150 kPa; 22 psi)	1.8 bar (180 kPa; 26 psi)	1.9 bar (190 kPa; 28 psi)

SF04007,000094B -19-11DEC15-22/29

Check tire pressure of pickup gauge wheels.

Specification

Pickup Gauge Wheels—Pressure..... 175 kPa (1.75 bar) (25.4 psi)

Check tire pressure on a regular basis and make sure that the pressure has the correct value.

E60695 —UN—25JAN12

Continued on next page

SF04007,000094B -19-11DEC15-23/29

Knife Sharpening (After 500 Bales)

CAUTION: Always wear protective goggles when sharpening knives. Flying sparks can cause serious injury.

Never sharpen the undulated side of the cutting edge because of excessive wear.

Sharpen knives as follows:

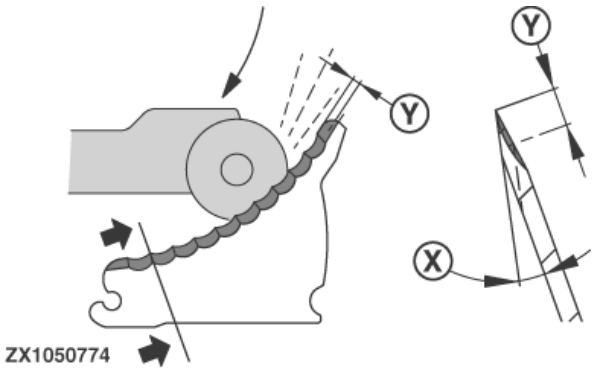
1. Remove knife.
2. Clamp knife in vice.

IMPORTANT: Make sure that knife does not get hot during sharpening, since that can weaken the steel. It is better to grind more frequently than a lot at once.

3. Use a grinder to sharpen knives every 10 working hours. Sharpen on the smooth side under a specified maximum angle (X), the maximum specified ground cutting edge (Y).

Specification

Knife—Angle..... 12° ± 2°



ZX1050774 —UN—10AUG12

X—12° ± 2° **Y—10 mm (0.39 in)**

Specification

Cutting Edge—Distance..... 10 mm (0.39 in)

4. Reinstall knife.

Continued on next page

SF04007,000094B -19-11DEC15-24/29

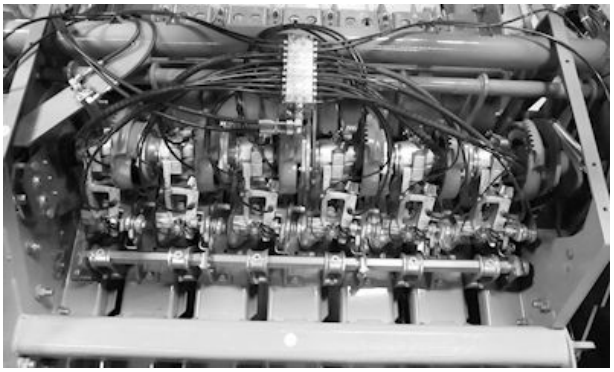
Knotter Environment

Make sure that knotter environment is free from all debris. Clean knotters if necessary.

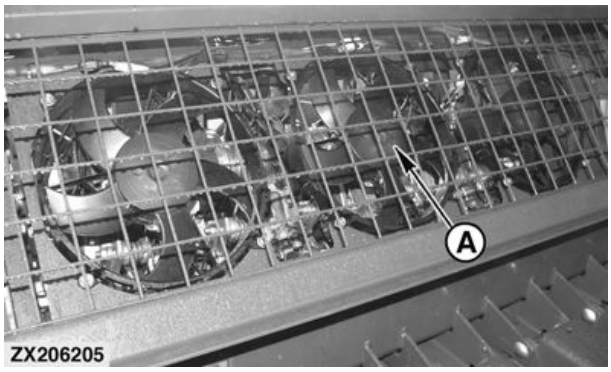
- **On Machine With Electrical Knotter Cleaning Fan:** Check blower fans (A) every 10 hours (or daily) for pollution and clean fans if necessary.
- **On Machine With Hydraulic Knotter Cleaning Fan:** Check blower filter (B) every 10 hours (or daily) for pollution and clean filter if necessary.

NOTE: Check blower air hose (C) for wear condition at start and end of the season.

A—Blower Fan
B—Blower Filter
C—Blower Air Hose

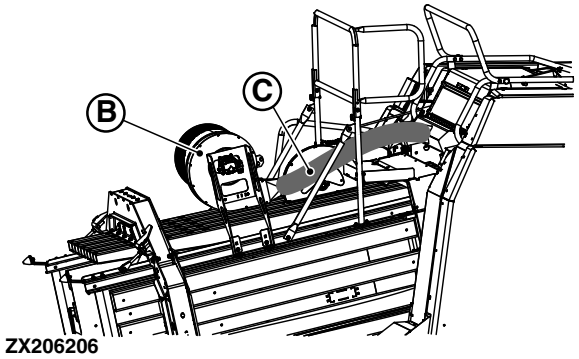


E60735 —UN—19JAN12



ZX206205 —UN—03NOV13

Machine With Electrical Knotter Cleaning Fan



ZX206206 —UN—03NOV13

Machine With Hydraulic Knotter Cleaning Fan

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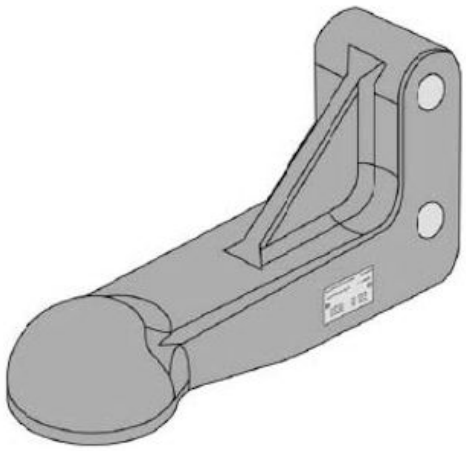
SF04007,000094B -19-11DEC15-25/29

Ball Eye (After 500 Bales)

Inject grease in ball hitch every 500 bales.



E60736 —UN—19JAN12

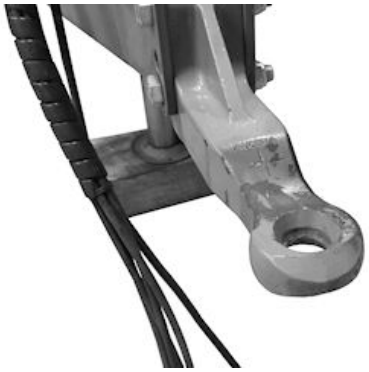
SF04007,000094B -19-11DEC15-26/29

Hitch Eye (After 500 Bales)

Lubricate with recommended grease.

Hitch ring in the hitch eye is fitted with a replaceable wearing sleeve. Replace sleeve as soon as wear appears.

Grease bottom part of hitch ring every 500 bales.

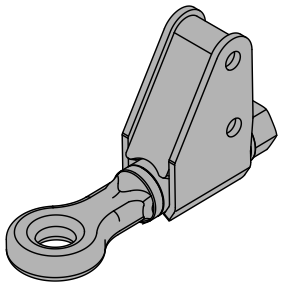


E60623 —UN—18JAN12

SF04007,000094B -19-11DEC15-27/29

Turnable Eye (After 500 Bales)—If Equipped

Inject grease in pivot shaft every 500 bales.



ZX207275

ZX207275 —UN—04NOV13

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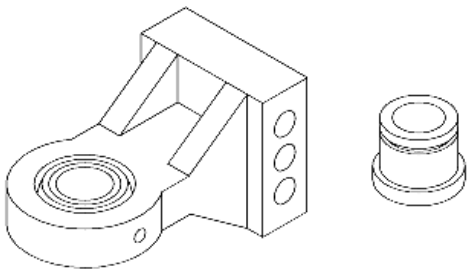
SF04007,000094B -19-11DEC15-28/29

Towing Eye (After 500 Bales)—If Equipped

Lubricate with recommended grease.



E80584 —UN—07DEC15

SF04007,000094B -19-11DEC15-29/29

Every 50 Working Hours

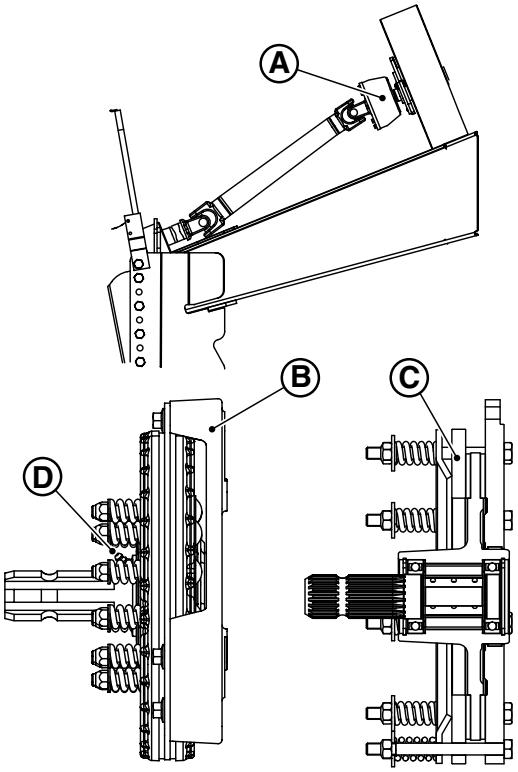
Slip and Freewheel Clutch

There are two types of slip and freewheel clutches (A) used on the machine:

- Weasler type (B), recognized by the fact that extra cooling ribs are present and two friction plates of a bigger diameter are used.
- Bondioli type (C), no maintenance necessary.

Insert grease in the lubrication point (D).

A—Slip and Freewheel Clutch
B—Slip Clutch—Weasler Type
C—Slip Clutch—Bondioli Type
D—Lubrication Point



ZX206202

ZX206202 —UN—03NOV13

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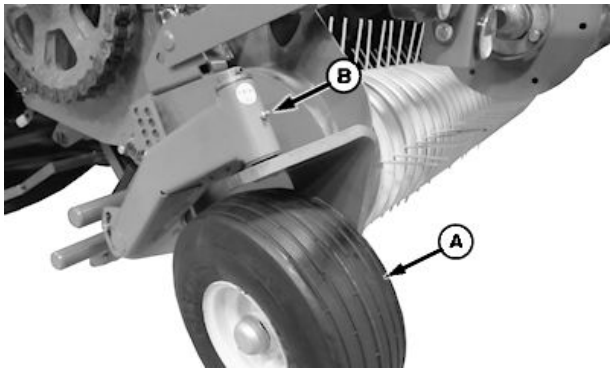
SF04007,000094C -19-07DEC15-1/22

Pickup Pivot Wheel (Left and Right-Hand Side)

Pickup pivot wheel (A) has one lubrication point (B). Lubricate left and right-hand side pickup pivot wheels.

Lubricate with recommended grease.

A—Pickup Pivot Wheel **B—Lubrication Point**



Right-Hand Side

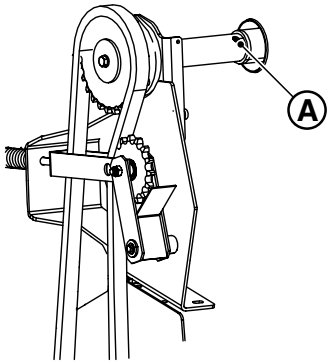
E60737 —UN—19JAN12

SF04007,000094C -19-07DEC15-2/22

Gear Case Coupling Shaft

Lubricate with recommended grease.

A—Lubrication Point



ZX1050790

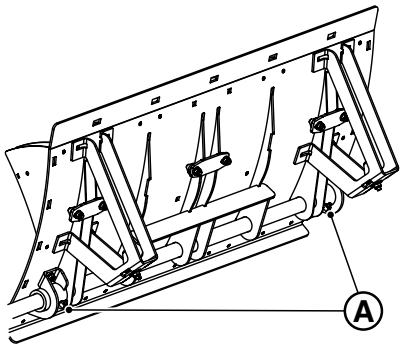
ZX1050790 —UN—13SEP12

SF04007,000094C -19-07DEC15-3/22

Measuring Plates

Measuring plates are lubricated automatically. Make sure that grease line is functioning properly.

A—Lubrication Points



ZX1050791

ZX1050791 —UN—13SEP12

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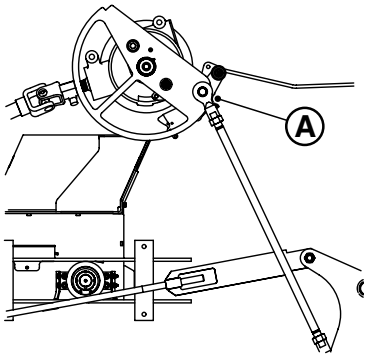
SF04007,000094C -19-07DEC15-4/22

Needle Frame Drive

Lubricate with recommended grease.

A—Lubrication Point



ZX1050792

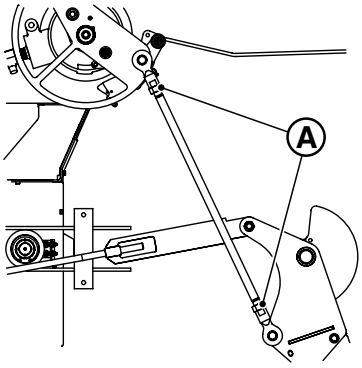
ZX1050792 —UN—13SEP12

SF04007,000094C -19-07DEC15-5/22

Needle Carrier Connecting Rods (Left and Right-Hand Side)

Lubricate with recommended grease.

A—Lubrication Points



ZX1050794

ZX1050794 —UN—13SEP12

SF04007,000094C -19-07DEC15-6/22

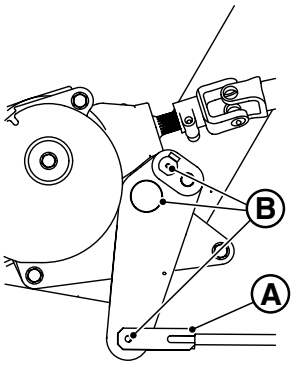
Needle Extractor Lever, Hub, and Rod

Disassemble the shearbolt hub (A) and lubricate the connection with grease.

Assemble shearbolt hub (A).

Lubricate with recommended grease.

A—Shearbolt Hub **B—Lubrication Points**



ZX1050795

ZX1050795 —UN—13SEP12

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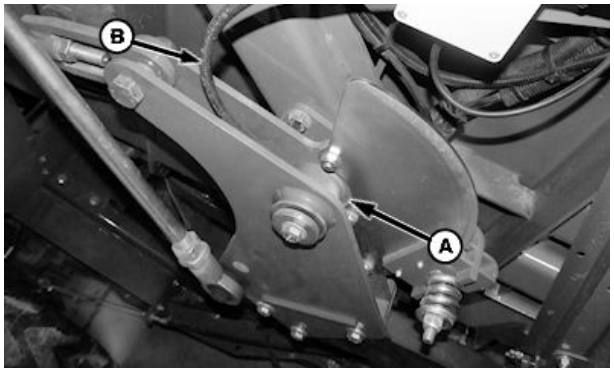
SF04007,000094C -19-07DEC15-7/22

Needle Carrier Pivots (Left and Right-Hand Side)

Needle carrier pivot (A) is lubricated automatically. Make sure grease line (B) is functioning properly.

A—Needle Carrier Pivot **B—Grease Line**



E60744 —UN—20JAN12

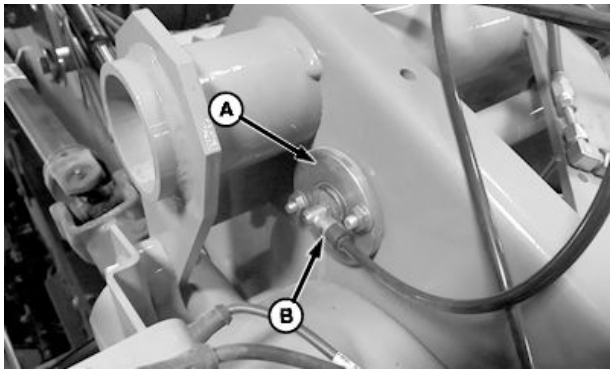
Left-Hand Side

SF04007,000094C -19-07DEC15-8/22

Tucker Finger Shaft Bearings

Tucker finger shaft bearing (A) is lubricated automatically. Make sure grease line (B) is functioning properly.

A—Tucker Finger Shaft Bearing **B—Grease Line**



E60745 —UN—20JAN12

Left-Hand Side

SF04007,000094C -19-07DEC15-9/22

Front Binding Gear Case

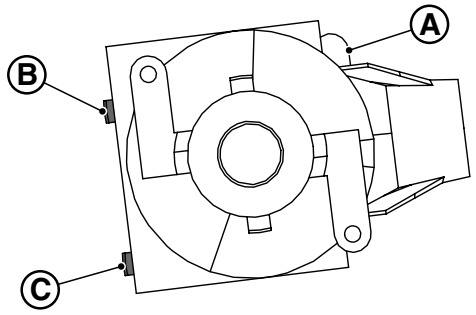
Remove check level plug (B). If oil comes out of the gap, level is OK.

Place check level plug back. If no oil comes out, gear case has to be filled.

Filling the front binding gear case:

1. Remove check level plug (B).
2. Remove fill plug (A).
3. Replenish oil via the opening of fill plug (A), until a little oil come out of the gap of check level plug (B).

   Use oil specified in the Lubricants and Capacities section.
4. Place check level plug (B) back.
5. Place fill plug back (A).



ZX1046338 —UN—17JAN12

ZX1046338

A—Fill Plug **C—Oil Drain Plug**
B—Check Level Plug

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SF04007,000094C -19-07DEC15-10/22

Packer Gear Case

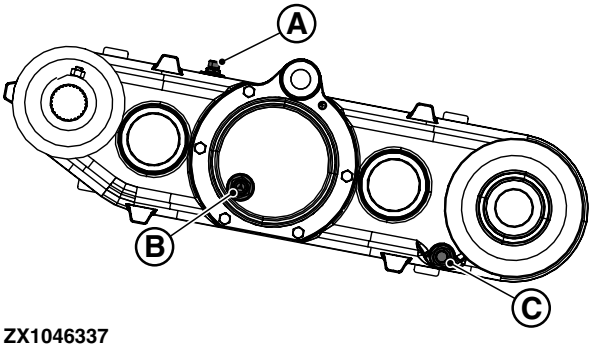
If oil is visible via the window of check level plug (B), level is OK.

If no oil is visible, gear case has to be filled.

Filling the packer gear case:

1. Remove fill plug (A).
2. Replenish oil via the opening of fill plug (A), until oil is visible via the window of check level plug (B).

   Use oil specified in the Lubricants and Capacities section.
3. Place fill plug (A) back.



ZX1046337 —UN—12JAN12

ZX1046337

A—Fill Plug
B—Check Level Plug
C—Oil Drain Plug

SF04007,000094C -19-07DEC15-11/22

Main Gear Case

If oil is visible via the window of check level plug (B), level is OK.

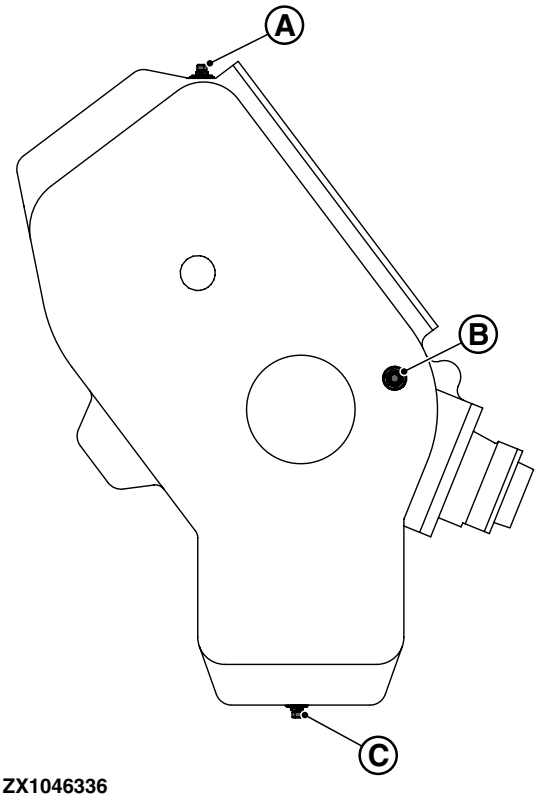
If no oil is visible, gear case has to be filled.

Filling the main gear case:

1. Remove fill plug (A).
2. Replenish oil via the opening of fill plug (A), until oil is visible via the window of check level plug (B).

   Use oil specified in the Lubricants and Capacities section.
3. Place fill plug back (A).

A—Fill Plug
B—Check Level Plug
C—Oil Drain Plug



ZX1046336 —UN—12JAN12

ZX1046336

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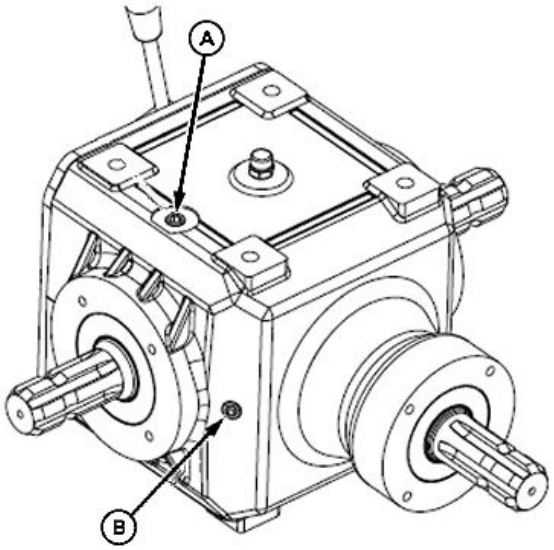
SF04007,000094C -19-07DEC15-12/22

Prechopper Gear Case (If Equipped)

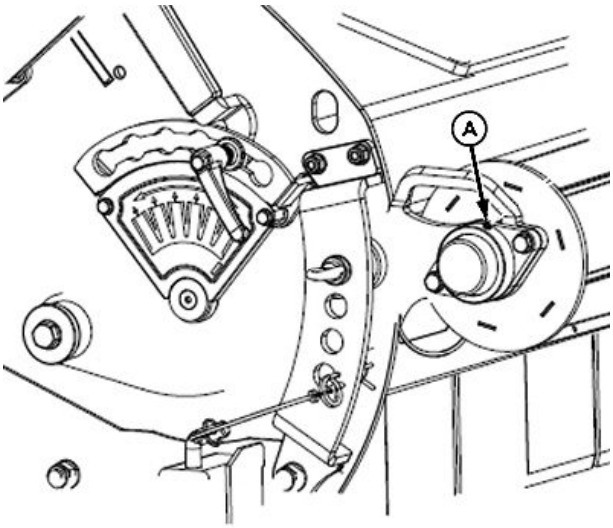
1. Change gear case oil by removing check level plug (B), draining oil, then replacing plug. Remove fill plug (A), replenish oil, then replace fill plug.

A—Fill Plug **B—Check Level Plug**



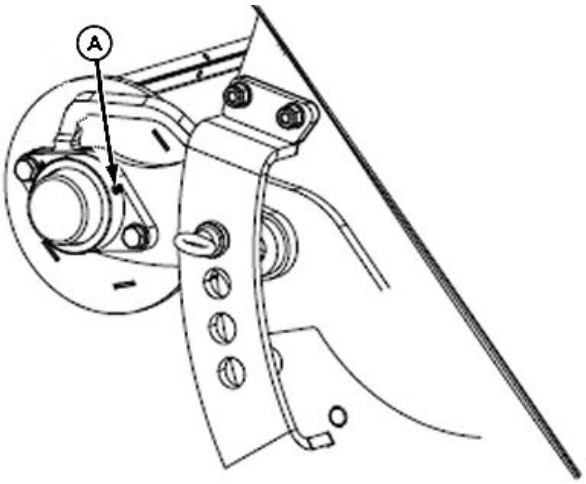
E80292 —UN—02NOV15

SF04007,000094C -19-07DEC15-13/22



E80295 —UN—02NOV15

Right-Hand Side



E80296 —UN—02NOV15

Left-Hand Side

A—Lubrication Point

2. Lubricate front right-hand side and left-hand side roller bearings at lubrication points (A).

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SF04007,000094C -19-07DEC15-14/22

Hydraulic System Oil

Check level of hydraulic oil via gauge-glass (B):

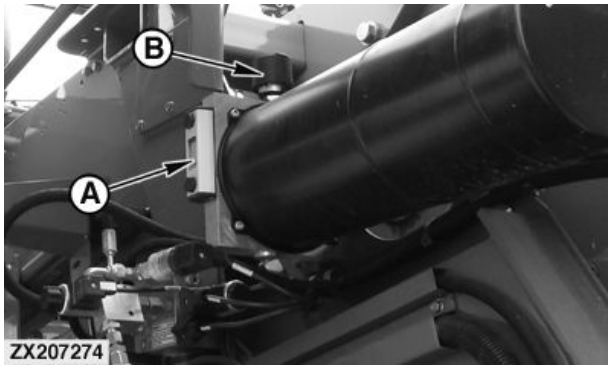
- With 0 bar (0 psi) pressure.
- With press chamber cylinders retracted.

Hydraulic oil level is correct when the top of oil is at top of the gauge-glass (A).

- **On Machine Without Hydraulic Knotter Cleaning Fan:** Change hydraulic oil and filler cap with filter (B) every 150 operating hours (or every year).
- **On Machine With Hydraulic Knotter Cleaning Fan:** Change hydraulic oil every 150 operating hours (or every year).

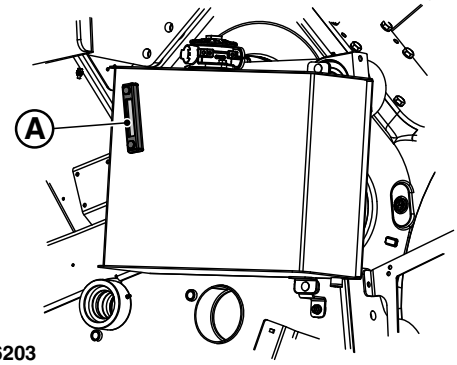
Use oil specified in the Lubricants and Capacities section.

A—Gauge-glass **B—Filler Plug with Filter**



ZX207274 —UN—04NOV13

Machine Without Hydraulic Knotter Cleaning Fan



ZX206203

ZX206203 —UN—03NOV13

Machine With Hydraulic Knotter Cleaning Fan

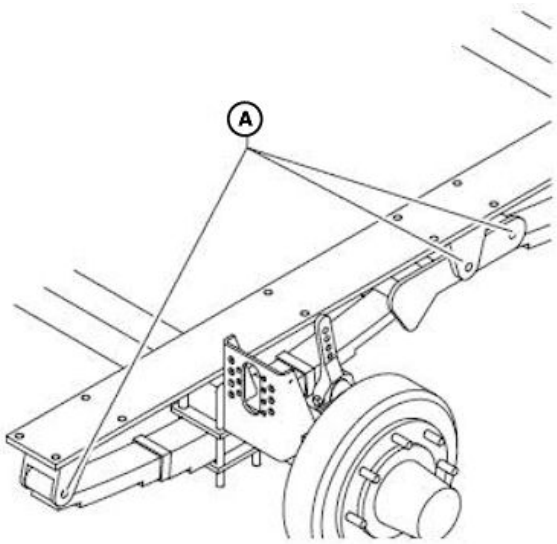
SF04007,000094C -19-07DEC15-15/22

Wheel Hinges (Left and Right-Hand Side)

Lubrication points (A) are on both sides of the machine.

Lubricate with recommended grease.

A—Lubrication Points



E60841 —UN—25JAN12

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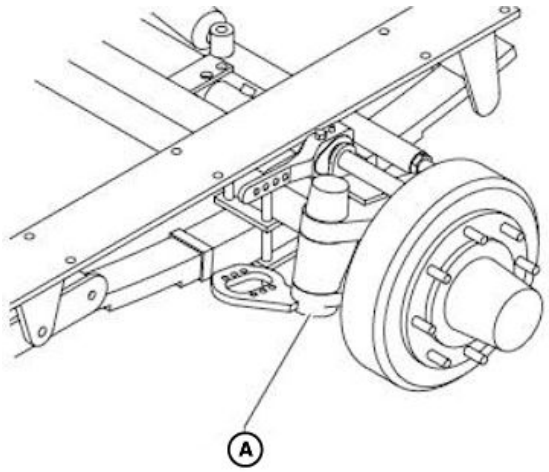
SF04007,000094C -19-07DEC15-16/22

Wheel Pivot Pin (Left-Hand and Right-Hand Side)

Lubrication points (A) are on both sides of the machine.

Lubricate with recommended grease.

A—Lubrication Point



E60842 —UN—25JAN12

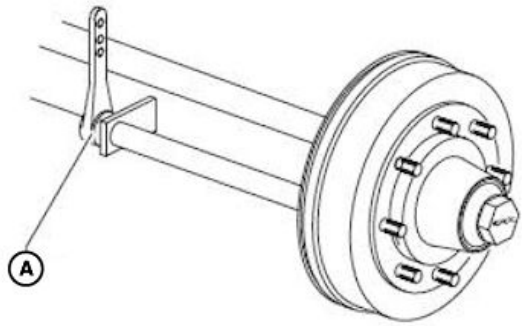
SF04007,000094C -19-07DEC15-17/22

Wheel Brake Lever (Single Axle)

Insert grease in lubrication point (A).

Lubricate with recommended grease.

A—Lubrication Point



E60843 —UN—25JAN12

Continued on next page

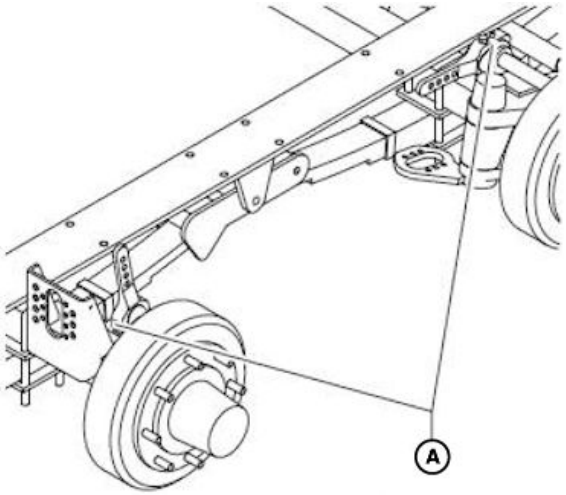
SF04007,000094C -19-07DEC15-18/22

Wheel Brake Lever (Tandem Axle)

Lubrication points (A) are on both sides of the machine.

Lubricate with recommended grease.

A—Lubrication Points



E60844 —UN—25JAN12

SF04007,000094C -19-07DEC15-19/22

Packer System

Make sure packer system (A) is functioning properly. Remove any debris and clean environment on both sides of the machine.

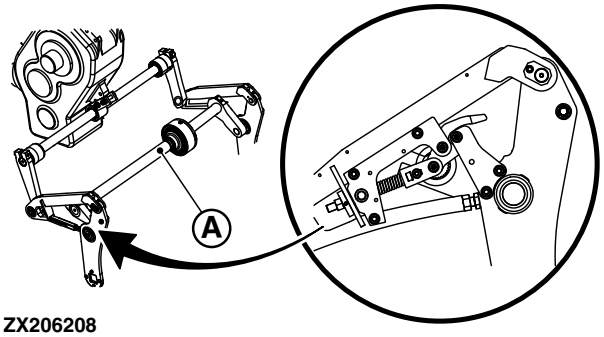
Checking the Packer System

Refer to Adjust Packer Timing, see Packer timing in Service section for procedure.

Refer to Synchronize Feeder Fork to Hook, see Packer timing in Service section for procedure.

Timing Rod Length

Refer to Checking Excenter Roller Position, see Packer timing in Service section for procedure.



ZX206208

ZX206208 —UN—03NOV13

SF04007,000094C -19-07DEC15-20/22

Adjustment of the Needle Frame Brake

Adjust needle frame brake, using nuts keeping the springs at an equal length. Length C is 44 mm (1.73 in) (measure without rings).

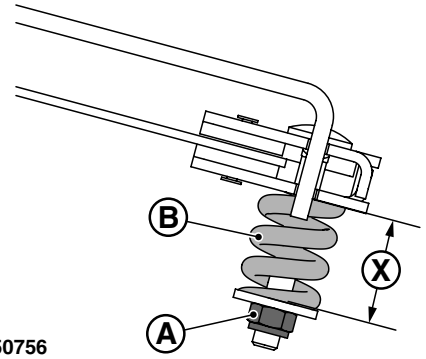
Check spring tension regularly.

Loosen or tighten nut to adjust spring tension.

Improper spring tension results in needle frame being out of place at end of knotting cycle.

Replace brake linings as soon as they are worn.

Never grease the brake discs.



ZX1050756

A—Nut
B—Spring

X—44 mm (1.73 in)

ZX1050756 —UN—06AUG12

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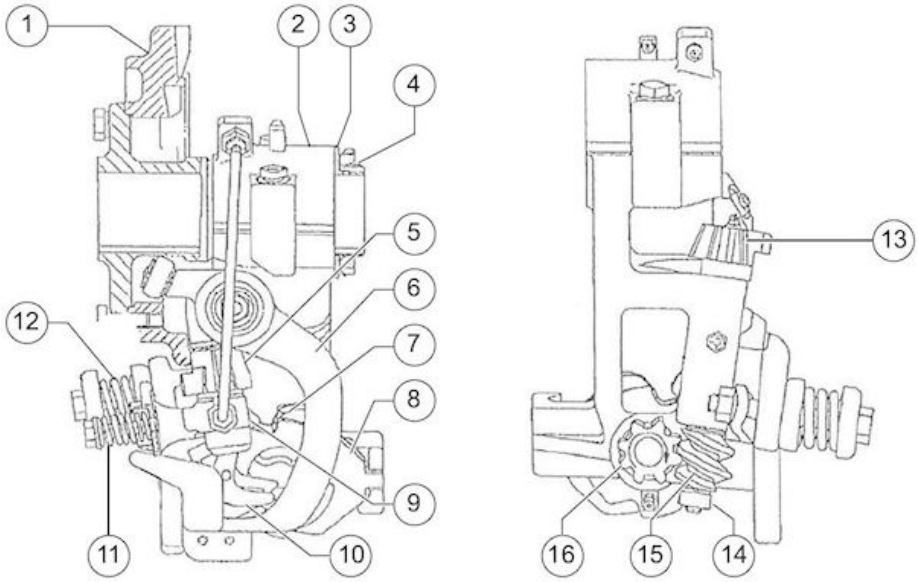
SF04007,000094C -19-07DEC15-21/22

Overview Knotters

CAUTION: Stop the knotter fans while carrying out maintenance in the knotter area.



E60846 —UN—25JAN12

1— Intermittent Gear
2— Knotter Body
3— Tap Washer
4— Nut, Hook Spanner
5— Bill Hook Gear
6— Stripper Arm
7— Twine Retainer
8— Stripper Plate
9— Clamping Segment
10— Bill Hook
11— Compression Spring (Bill Hook)
12— Compression Spring (Twine Retainer)
13— Twine Disc Gear
14— Nut, Hexagonal, 25 N·m (18.5 lb·ft)
15— Worm Gear
16— Twine Disc Gear

NOTE: All adjustment specifications are for knotters with NO TWINE in them.

Knotters adjustment specifications for checking.

Feature	Specification	Adjustment Procedure
Adjust Intermittent Gear Clearance to Knotter Frame	0.2 - 0.6 mm (0.0079 - 0.0236 in)	See Knotters in service section
Adjust Knotter Shaft Brake	45 ± 5 mm (1.75 ± 0.197 in)	See Knotters in service section
Adjust Billhook Compression Spring	20 mm (0.787 in)	See Knotters in service section
Billhook Opening	10 mm (0.393 in)	Replace if bent or worn. See Knotters in service section
Adjust Twine Retainer Disc Opening	7 mm (0.275 in)	See Knotters in service section
Adjust Twine Retainer Disc Spring length	38 mm (1.4965 in)	See Knotters in service section
Adjust Wiper Plate Clearance	Slight Contact	See Knotters in service section
Adjust the distance Between Needle and Knotter	12 mm (0.472 in)	See Adjust Needle Position in Knotter in service section
Adjust the Needle Throw	150 mm (5.9 in)	See Adjust Needle Position in Knotter in service section

SF04007,000094C -19-07DEC15-22/22

Every 150 Working Hours

Wheels

Tighten wheel nuts:

- After first 10 working hours.
- Every 150 work hours.
- After every tire and wheel change.

Check tire wheel nut torque and tire inflation pressure.

Specification	
(8) M18 Wheel Nuts—Torque	270 N·m (200 lb·ft)
(10) M22 Wheel Nuts—Torque	510 N·m (376 lb·ft)

E60618 —UN—18JAN12

SF04007,000094D -19-07DEC15-1/10

Hydraulic Oil and Filter Change—Machine Without Hydraulic Knotter Cleaning Fan

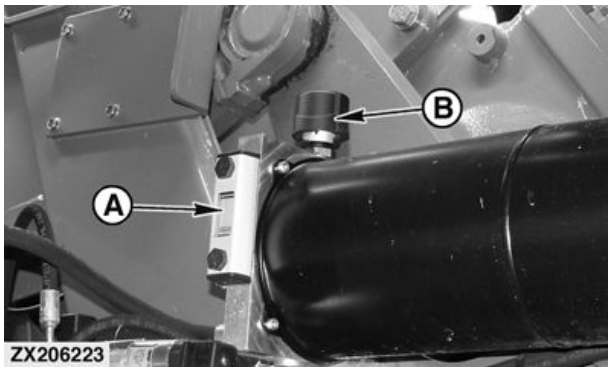
1. Place baler on a firm, level service, and block wheels.
2. Wipe area around hydraulic filler cap, hydraulic filter block, filter, and drain cap.
3. Slowly release hydraulic fill cap (B) but do not remove it. Leave it on but loose.
4. Remove hydraulic tank drain valve (C).
5. Place an acceptable container under hydraulic oil filter (D) and remove filter slowly.
6. After oil has drained smear a clean film of oil on the new hydraulic filter gasket.
7. Install new hydraulic filter by hand.
8. Fill hydraulic reservoir to the full line in sight gauge (A) with new oil.

   Capacity: 9 L (2.38 gal)

   Use hydraulic oil recommended in the Lubricants and Capacities section.
9. Close hydraulic reservoir fill cap.
10. Sound horn and after confirming area is clear. Start engine and run baler at 700-800 PTO rpm for several minutes. Check for leaks.

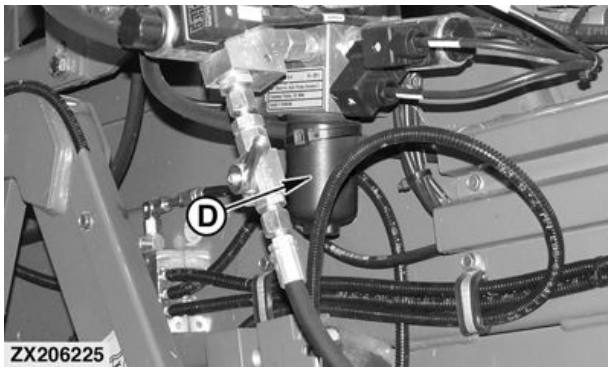
IMPORTANT: Dispose of waste oil and filters in accordance with local and regional environmental regulations.

A—Hydraulic Sight Gauge
B—Hydraulic Fill Cap
C—Hydraulic Drain Valve
D—Hydraulic Oil Filter



ZX206223 —UN—03NOV13

ZX206224 —UN—03NOV13



ZX206225 —UN—03NOV13

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SF04007,000094D -19-07DEC15-2/10

Hydraulic Oil and Filter Change—Machine With Hydraulic Knotter Cleaning Fan

1. Place baler on a firm, level service, and block wheels.
2. Wipe area around hydraulic filler cap, hydraulic filter block, filter, and drain cap.
3. Remove hydraulic fill cap (B).
4. Remove O-ring (C).
5. Remove hydraulic tank drain valve (D).
6. Remove hydraulic tank filter (E).
7. Place an acceptable container under hydraulic oil filter (F) and remove filter slowly.
8. After oil has drained smear a clean film of oil on the new hydraulic oil filter (F) gasket and O-ring (C).
9. Install new hydraulic filter (F) by hand.
10. Fill hydraulic reservoir to the full line in sight gauge (A) with new oil.

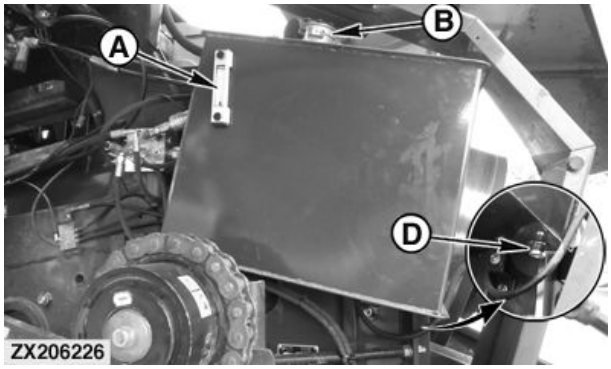
    Capacity: 60 L (15.85 gal)

    Use hydraulic oil recommended in the Lubricants and Capacities section.
11. Install new hydraulic tank filter (E) with O-ring (C).
12. Close hydraulic oil cap (B).
13. Sound horn and after confirming area is clear. Start engine and run baler at 700-800 PTO rpm for several minutes. Check for leaks.

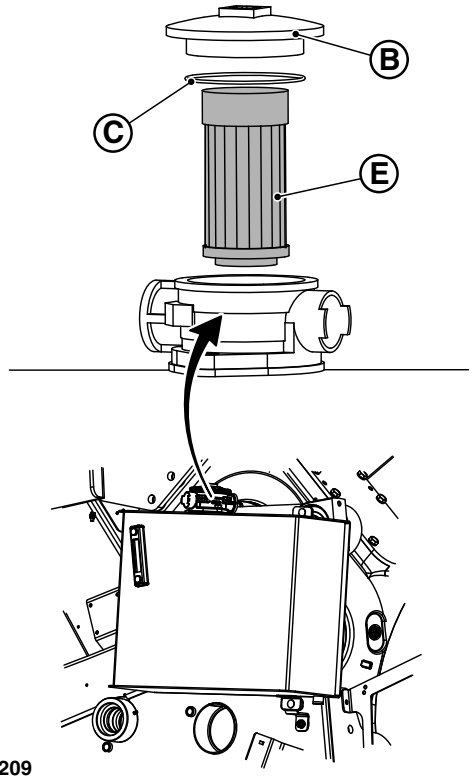
IMPORTANT: Dispose of waste oil and filters in accordance with local and regional environmental regulations.

NOTE: Sight gauge (A) includes a thermometer. Use this thermometer to daily check oil temperature (see Every 10 Working Hours in this section).

A—Hydraulic Sight Gauge
B—Hydraulic Fill Cap
C—O-ring
D—Hydraulic Drain Valve
E—Hydraulic Tank filter
F—Hydraulic Oil Filter

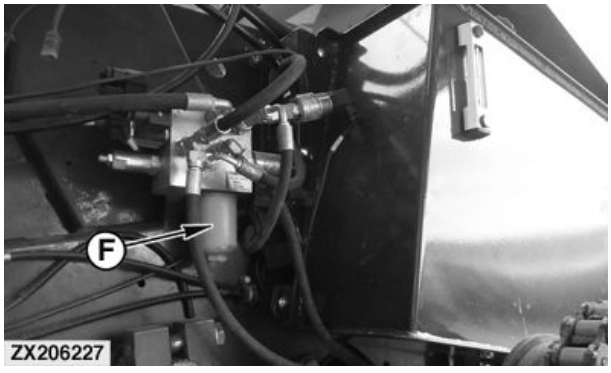


ZX206226 —UN—06NOV13



ZX206209

ZX206209 —UN—03NOV13



ZX206227 —UN—06NOV13

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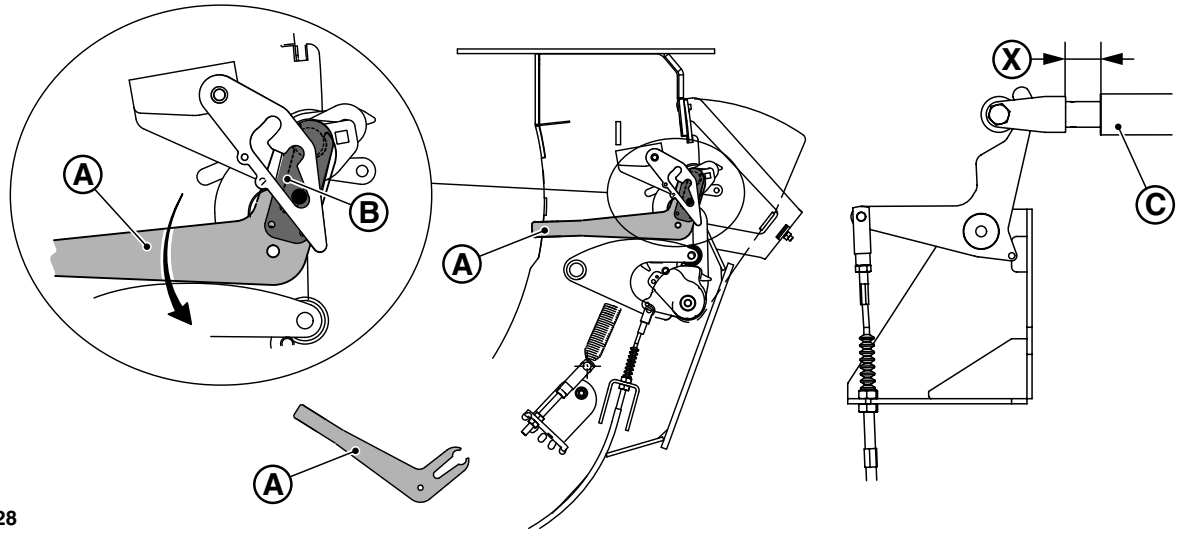
SF04007,000094D -19-07DEC15-3/10

Check Cable Measuring Plate

Movement of measuring plates is transferred to the locking pin through this cable.



ZX206228

ZX206228 —UN—03NOV13

A—Spanner
B—Lever
X—34 ± 1 mm (1.34 ± 0.04 in)

Use spanner (A) to move upper lever (B) to maximum down position.

Distance at (X) must be 34 ± 1 mm (1.34 ± 0.04 in).

If it is not refer to service section Adjust Measuring Plate Cable.

SF04007,000094D -19-07DEC15-4/10

Check Needle Anti-Return Strip

Check anti-return strip with needles in rest position.

Anti-return strip must be engaged in the notch on the back side of the knotter shaft cam.

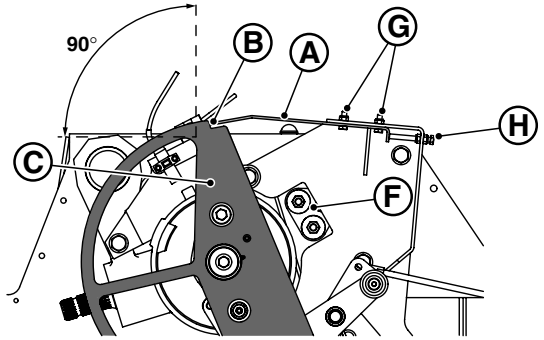
After each knotting cycle, anti-return strip (A) has to be in contact with gap (B) of crank (C).

Place crank (C) in the rest position, a 90° angle appears between crank (C) and knotter frame.

In rest position, crank (C), and rod (D) has centered, in reference to center line (E).

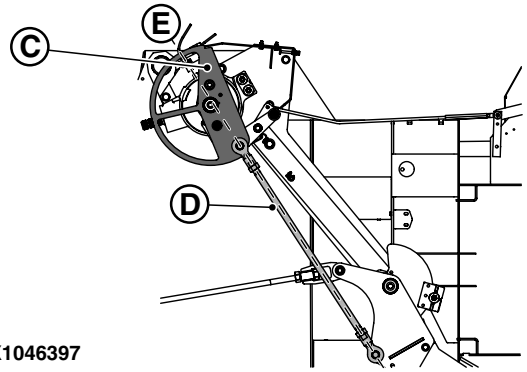
If it is not refer to Adjust Anti-Return Strip in service section.

A—Anti-return strip
B—Gap
C—Crank
D—Rod
E—Center line
F—Shaft brake
G—Bolts
H—Screw



ZX1046396

ZX1046396 —UN—02FEB12



ZX1046397

ZX1046397 —UN—02FEB12

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SF04007,000094D -19-07DEC15-5/10

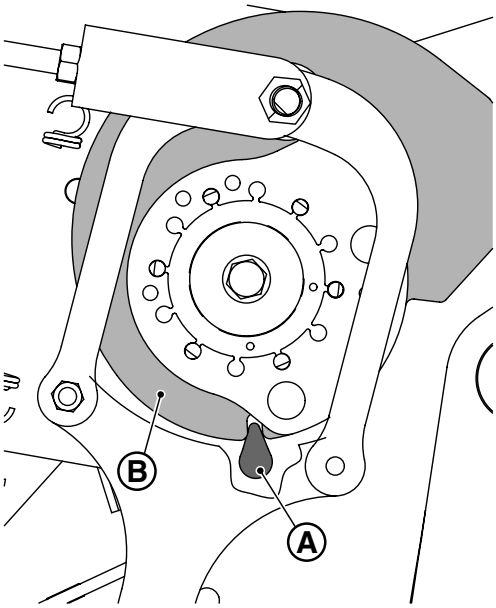
Check Timing of the Needle Extractor Curve on 1433 and 1433C

Turn flywheel clockwise until sign (A) is almost within notch of cam (B).

If it is not refer to Adjust Needle Extractor Curve on 1433 and 1433C in service section.

NOTE: Main crank must point downwards.

A—Sign **B—Cam**



ZX1050796 —UN—14SEP12

ZX1050796

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SF04007,000094D -19-07DEC15-6/10

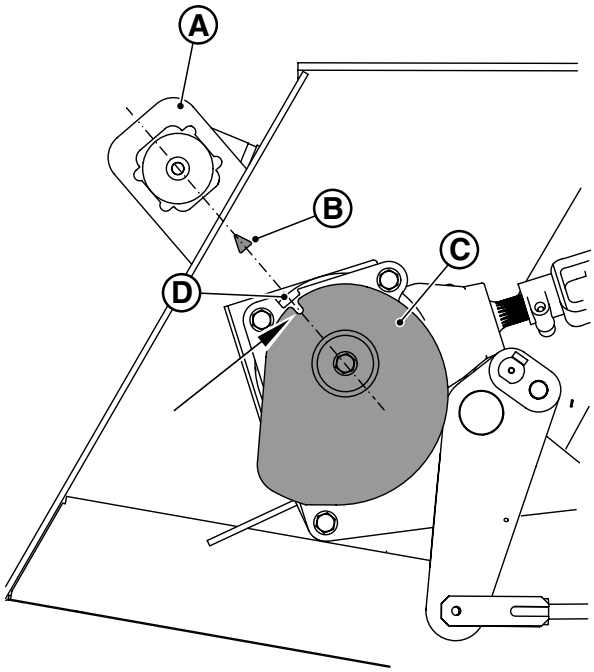
Check Timing of the Needle Extractor Curve on 1424, 1424C, 1434 and 1434C

Turn flywheel counterclockwise until main crank (A) is at height of sign (B) in reference to the center line.

Notch on cam (C) must be in line with notch (D) of plate behind cam. Ideally notches on cam (C and D), sign (B), and main crank (A) are in line.

If it is not refer to Adjust Needle Extractor Curve on 1424, 1424C, 1434 and 1434C in service section.

A—Main crank
B—Sign
C—Cam
D—Notch



ZX1046400

ZX1046400 —UN—01FEB12

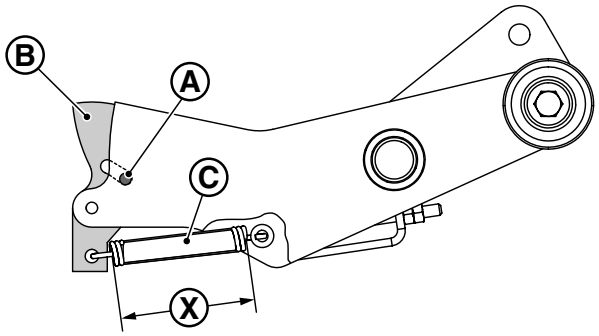
SF04007,000094D -19-07DEC15-7/10

Check Finger of Trip Arm Spring

Pin (A) must be at end of slot in finger (B). This corresponds with a spring length (X) of 58 mm ± 1 mm (2.28 in).

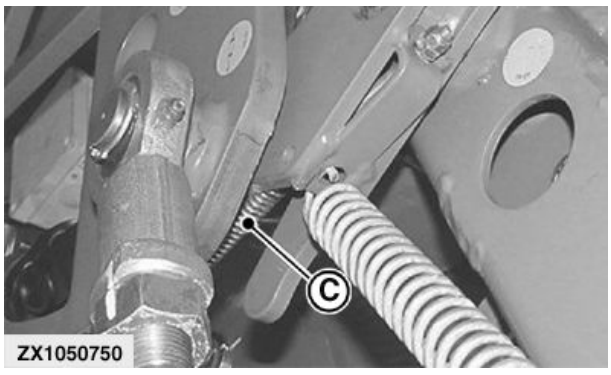
Adjust spring (C) length if necessary refer to Adjust Trip Arm Finger Spring in service section.

A—Pin
B—Finger
C—Spring
X—58 mm ± 1 mm (2.28 in)



ZX1050797

ZX1050797 —UN—17SEP12



ZX1050750

ZX1050750 —UN—17SEP12

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SF04007,000094D -19-07DEC15-8/10

Check Bale Length Mechanism

Every 150 hours of operation check adjustment of bale length measuring operation.

If this function is not checked bale length may not correspond to pointer on the machine.

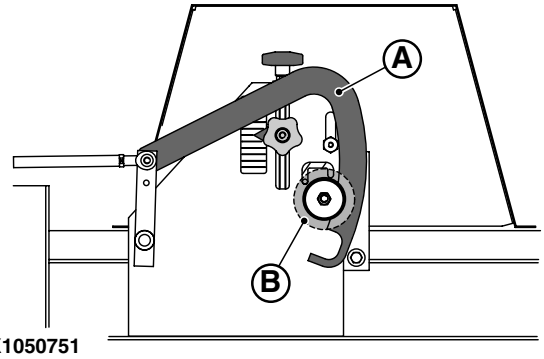
Distance between trip lever (A) and roller (B) must be between 3 -5 mm (0.11 - 0.19 in) when trip lever is being reset and drops.

If trip lever is not within this range refer to the service section Adjust Bale Length Trip Lever.

Check Slip Clutch Spring Length

At beginning of each season, and after every 5000 bales, check slip clutch for wear, debris, and that clutch moves freely.

See Service section Adjust the Main Drive Slip Clutch for adjustment procedure.



ZX1050751

ZX1050751 —UN—02AUG12

A—Trip Lever **B—Roller**

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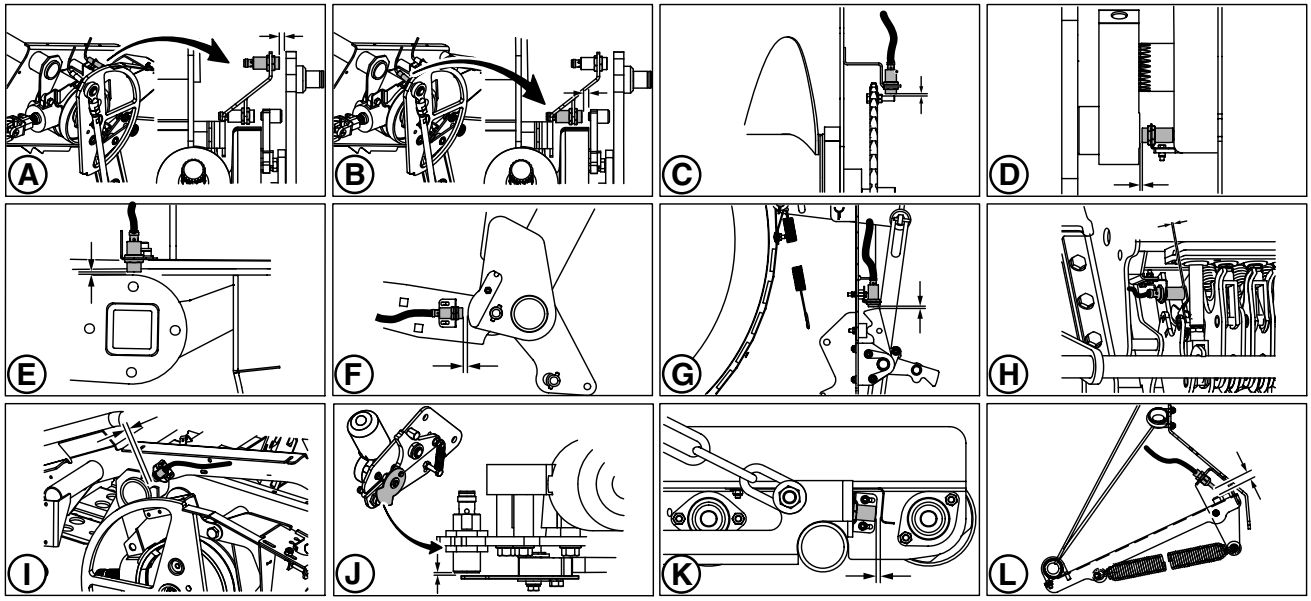
SF04007,000094D -19-07DEC15-9/10

Sensors



ZX206229

Sensors location and specification

Location	Specification	Function
(A) Needle Frame	2 mm (0.079 in)	Detects number of bales tied, resets bale length
(B) Bind Sensor	2 - 6 mm (0.079 - 0.236 in)	Detects needle position
(C) Rotor Sensor	2 - 6 mm (0.079 - 0.236 in)	Detects speed of main rotor
(D) Feeder Fork	2 - 6 mm (0.079 - 0.236 in)	Detects speed and position of feeder fork crank
(E) Fill Sensor	2 - 6 mm (0.079 - 0.236 in)	Detects when a full filling stroke takes place
(F) Bale Chute	2 - 6 mm (0.079 - 0.236 in)	Detects the position of the bale chute
(G) Flywheel Brake	2 - 6 mm (0.079 - 0.236 in)	Detects engagement of the flywheel brake system
(H) Knife Position	2 - 6 mm (0.079 - 0.236 in)	Detects knife engagement for control and recording
(I) Knotter Hood	2 - 6 mm (0.079 - 0.236 in)	Detects operator presence in knotter area
(J) Electric Bind Sensor (if equipped)	2 - 6 mm (0.079 - 0.236 in)	Detects position of knotter trip cam
(K) Bale Drop Sensor (if equipped)	2 - 6 mm (0.079 - 0.236 in)	Detects position of metal strip of bale drop indication
(L) Twine Detection	15 - 20 mm (0.59 - 0.78 in)	Detects when a twine string has been dropped or broken on the bale

SF04007,000094D -19-07DEC15-10/10

Every 250 Working Hours

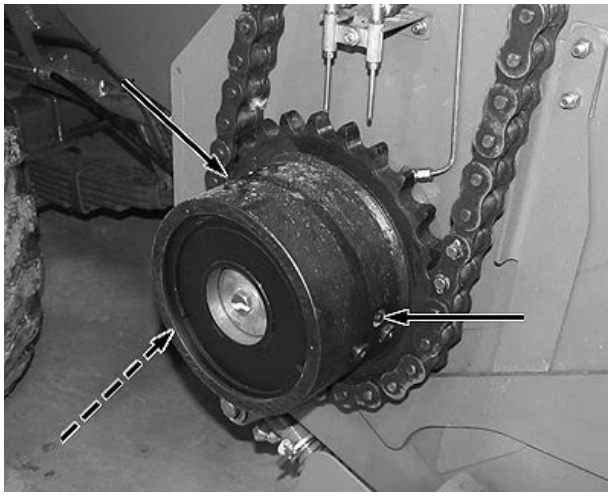
Grease Rotor Clutch If Necessary

Lubricate this clutch, if necessary, every 250 hours of service.

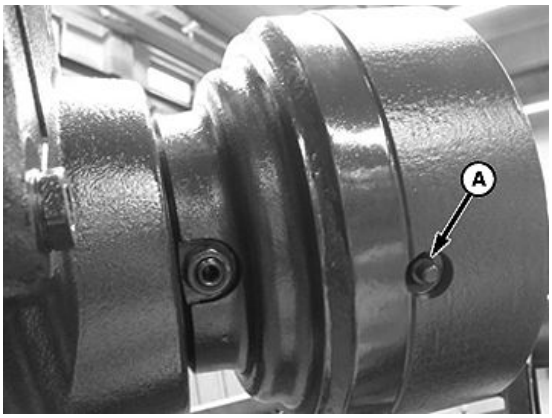
Lubricate this clutch if it is used. If the clutch never slips, do not lubricate.

Lubricate these three fittings (arrows) with a maximum of 2 cc (2 mL) of Lithium grease, type EP2 per 500 bales.

A—Grease Fitting



E60700 —UN—25JAN12



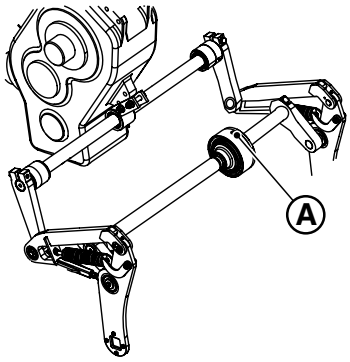
E60645 —UN—19JAN12

SF04007,000094E -19-07DEC15-1/6

Grease Packer Clutch

Grease packer clutch every 250 hours of service.

A—Grease Fitting



ZX1050773

ZX1050773 —UN—08AUG12

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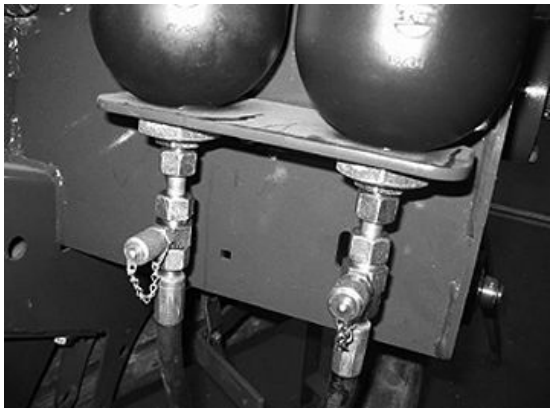
SF04007,000094E -19-07DEC15-2/6

Check and Bleed the Cutting System

Every 250 hours of operation check cutting system and bleed, if necessary. (C Models only)

Deaerate the system at each repair and before winter storage to prevent damage to the machine.

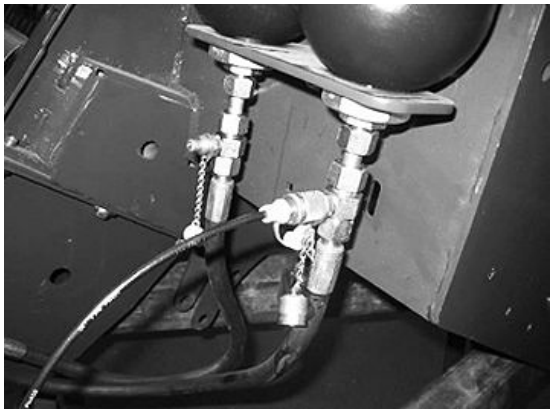
1. Depressurize cutting system.



E60646 —UN—19JAN12

SF04007,000094E -19-07DEC15-3/6

2. Connect bleeder hose that is supplied with machine.



E60647 —UN—19JAN12

SF04007,000094E -19-07DEC15-4/6

3. Lead the other end of the bleeding hose into a container.

IMPORTANT: Dispose of waste fluids and oils in accordance with local and regional environmental regulations.

E60648 —UN—19JAN12

Continued on next page

SF04007,000094E -19-07DEC15-5/6

4. Slowly open ball valve for deaeration.
5. Slowly add pressure to the cylinders until air at the bleeding hose stops and clean oil flows.
6. Remove bleeder hose.
7. Follow this same procedure for both knife groups.
8. Close and seal the measurement connection with cap. Precutter system is now ready for operation.

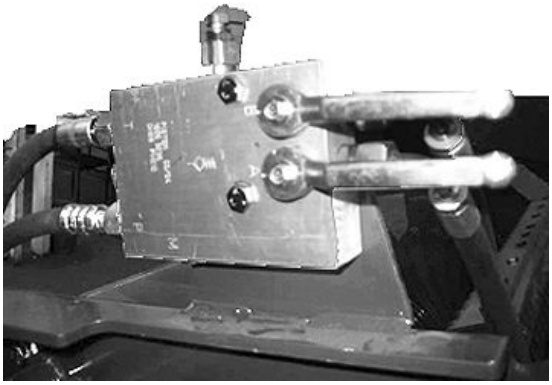
Plunger Adjustment

Every 250 hours of operation check adjustment of plunger.

Check the following procedures:

- Adjust Plunger Scrapers
- Adjust Plunger Guide Blocks
- Adjust Plunger Knives
- Adjust Plunger Crop Deflector

Refer to Adjust Plunger Roller Clearance in service section.



E60649 —UN—19JAN12

Knotters Twine Release Check

Every 250 hours of operation check the knotters twine release function.

Refer to Adjust Tension Relief System in service section.

SF04007,000094E -19-07DEC15-6/6

Every 500 Working Hours

Main Gear Case Oil Change

Replace main gear case oil every 500 hours of service.

Place baler on a firm, level surface with wheels blocked.

Check and monitor oil level by viewing sight glass (B). Oil should be visible in the glass.

1. Wipe area around gear case to remove debris and dirt that might contaminate the system. Area around fill plug (A) must be clean.
2. Place a suitable container under drain plug (C) and remove old oil.

IMPORTANT: Dispose of all waste oil in accordance with local and regional environmental regulations.

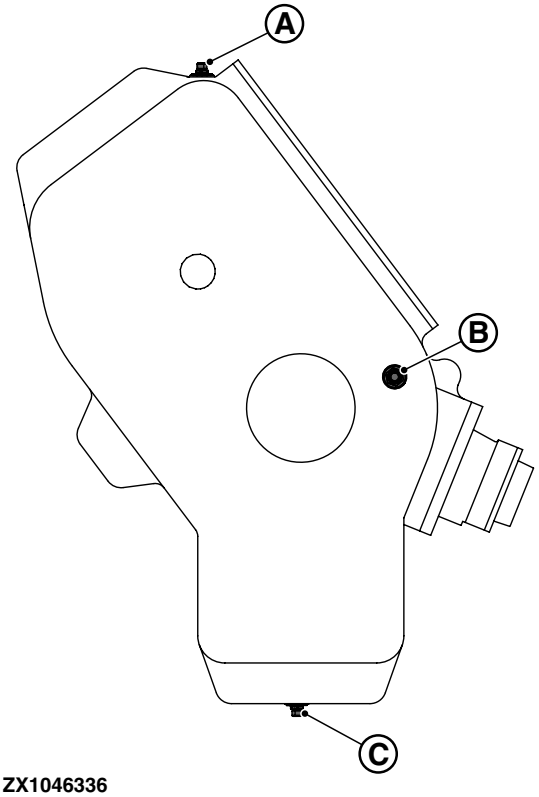
3. After oil is drained, clean drain plug and install it. Do not over torque.

NOTE: If the plugs in this procedure have an o ring - check the condition. If it is hard and brittle, replace it.

4. Slowly fill new oil into fill plug (A) until it is visible in the sight glass (B). Use oil specified in the Lubricants and Capacities section.
5. Replace fill plug (A). Do not over torque.

Specification	
1424, 1424C, 1433, 1433C, Main Gear Case—Capacity	25 L (6.6 gal)

Specification	
1434, 1434C, Main Gearbox—Capacity	37 L (9.8 gal)



ZX1046336

ZX1046336 —UN—12JAN12

A—Fill Plug
B—Sight Glass
C—Drain Plug

Continued on next page

SF04007,000094F -19-07DEC15-1/4

Packer Gear Case Oil Change

Replace packer gear case oil every 500 hours of service.

Place baler on a firm, level surface with wheels blocked.

Check and monitor oil level by viewing sight glass (B). Oil should just be visible at the glass.

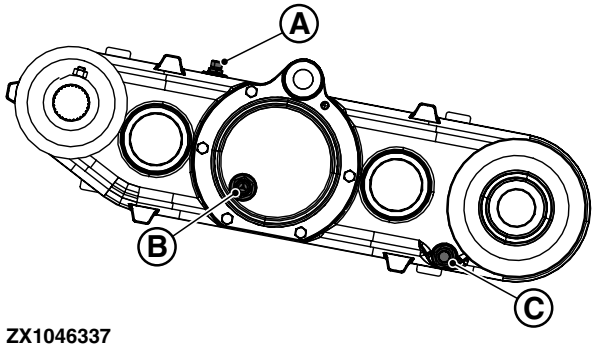
1. Wipe working area around plugs clean of debris and dirt that might contaminate the system. Area around fill plug must be clean.
2. Place a suitable container under drain plug (C) and remove old oil.

IMPORTANT: Dispose of all waste oil in accordance with local and regional environmental regulations.

3. After oil is drained, clean drain plug and install it. Do not over torque.

NOTE: If the plugs in this procedure have an o ring - check the condition. If it is hard and brittle, replace it.

4. Slowly fill new oil into fill plug (A) until it is visible in sight glass (B). Use oil specified in the Lubricants and Capacities section.



ZX1046337

ZX1046337 —UN—12JAN12

A—Fill Plug
B—Sight Glass
C—Drain Plug

5. Replace fill plug (A). Do not over torque.

Specification	
All Models, Packer Gear Case Oil—Capacity	4.0 L (1.06 gal)

SF04007,000094F -19-07DEC15-2/4

Front Binding Gear Case Oil Change

Replace front binding gear case oil every 500 hours of service.

Place baler on a firm, level surface with wheels blocked.

Check and monitor oil level by opening level plug (B). Oil should just flow out or be at the level of the orifice.

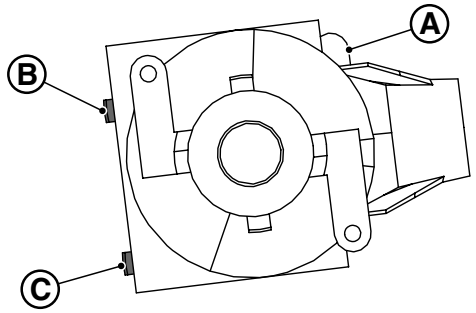
1. Wipe area around gear case to remove debris and dirt that might contaminate the system. Area around fill plug (A) must be clean.
2. Clean area around level plug (B) and remove it.
3. Place a suitable container under drain plug (C) and remove old oil.

IMPORTANT: Dispose of all waste oil in accordance with local and regional environmental regulations.

4. After oil is drained, clean drain plug and install it. Do not over torque.

NOTE: If the plugs in this procedure have an o ring - check the condition. If it is hard and brittle, replace it

5. Slowly fill new oil into fill plug (A) until it just begins to run out of the level orifice (B). Use oil specified in the Lubricants and Capacities section.



ZX1046338

ZX1046338 —UN—17JAN12

A—Fill Plug
B—Oil Level Plug
C—Drain Plug

6. Replace level plug (B). Do not over torque.
7. Replace fill plug (A). Do not over torque.

Specification	
All Models, Front Binding Gear Case—Capacity	3.3 L (3.4 gal)

Continued on next page

SF04007,000094F -19-07DEC15-3/4

Rear Binding Gear Case Grease Change

Replace rear binding gear case grease every 500 hours of service.

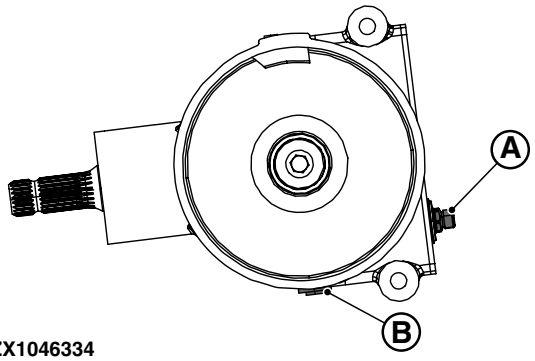
Place baler on a firm, level surface with wheels blocked.

Check and monitor grease level by opening level plug (A). Grease should be at the level of the orifice.

1. Wipe area around gear case to remove debris and dirt that might contaminate the system. Area around the check/fill plug must be clean.
2. Remove the check/fill plug.
3. Place a suitable container under drain plug (B) and remove old grease.

NOTE: Dispose of all waste in accordance with local and regional environmental regulations.

4. After grease is removed, clean drain plug and install it. Do not over torque.
5. Slowly fill new grease into the check/fill plug until grease just starts to come out of the fill orifice. Use grease specified in the Lubricants and Capacities section.



ZX1046334

ZX1046334 —UN—12JAN12

A—Check/Fill Plug **B—Drain Plug**

6. Install the check/fill plug. Do not over torque.

Specification	
All Models, Rear Binding Gear Case—Capacity	0.8 kg (28.2 oz)

SF04007,000094F -19-07DEC15-4/4

Electromagnetic Interference (EMI)

EMI can disrupt or overload the communication circuits of the computer/monitor system, causing erratic display activity, and in severe cases a complete system shutdown.

Common causes of EMI:

- Operating close to high tension wires and broadcast towers
- Noisy power supply
- Monitor too close to radio antenna
- Old radio cables used
- Poor system ground
- Monitor power not directly connected to battery
- Radio power not directly connected to battery
- Monitor wiring harness too close to radio wiring
- Monitor not connected to on-board computer with standard system cables

Check causes of EMI and take corrective measures to overcome problems before replacing monitor.

SF04007,0000954 -19-02NOV15-1/1

Electronic Component Check—General Instructions

IMPORTANT: Most of the malfunctions are caused by incorrect connections.

The machine electronic control box may only be opened by people with sufficient expertise.

Make sure that no dirt gets into an opened electronic control box.

Only restart the machine once the cause of the failure has been identified and repaired.

Electronic Component Check		
Problem	**Cause**	**Solution**
No message on monitor display.	No power supply to the control system.	Switch on the device. Check the system power. Check the fuses.
Internal control system problem.		Contact your John Deere dealer.
Bale length does not match preset value.	Incorrect setting increment size.	Calibrate sensor.
	Deviation due to different crop.	Correct the deviation. Adjust mechanical bale length or electrical bale length to correct for different crop.
Automatic density pressure control does not work.	Faulty operation pressure sensor.	Calibrate pressure sensor. Check pressure sensor.
	Rotor sensor without pulses.	Check Rotor sensor.
	Feeder fork sensor without pulses.	Check feeder fork sensor.
Proximity sensor is not reacting.	Wrong adjustment. Broken sensor.	Check connection. Check the adjustment. Replace sensor.
Machine load sensor set incorrectly.	Incorrect sensor setting.	Set machine load sensor.

SF04007,0000955 -19-02NOV15-1/1

Sensor Quick Test Procedure

CAUTION: Before approaching the machine:

Switch off the PTO.

Stop the tractor engine and remove the ignition key.

Apply the flywheel brake.

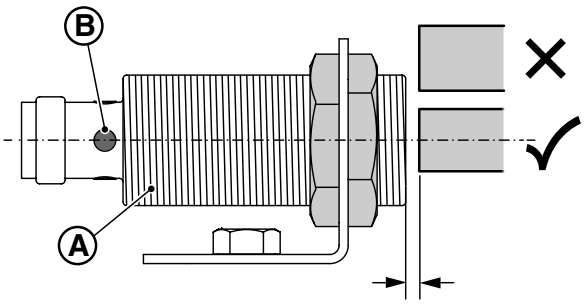
Disconnect hydraulic hoses from tractor.

NOTE: Leave monitor connected to the machine and turned on.

With help of the LED on the backside of the sensor and the diagnostics read out functions it is possible to check the status of each sensor.

To test a sensor, proceed as follows:

1. Select the read out functions in the diagnostics. See Diagnostic Menu Page in Electronic Control System section.
2. Hold a piece of metal 2 - 4 mm (0.08 - 0.16 in.) in front of the sensor (A).
3. Check that LED (B) illuminates. If not, change and adjust the new sensor.
4. Check that the value in the relevant read out function display changes from **0 to 1**.



ZX1046462

ZX1046462 —UN—18JAN12

A—Sensor **B—LED**

5. Move the piece of metal away from the front of the sensor.
6. Check that the LED (B) does not illuminate.
7. Check that the value in the relevant read out function display changes from **1 to 0**.

If the sensor LED (B) came on and off and there is no value change in the read out function display, contact your John Deere dealer.

SF04007,0000956 -19-02NOV15-1/1

Electronic Control System Error Messages

IMPORTANT: When an alarm occurs, a sounding alarm is emitted. In case there are more alarms, every alarm appears separately on the display in a priority order.

If an alarm occurs:

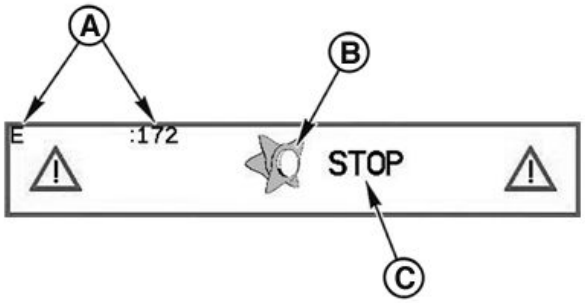
- **Stop baling immediately.**
- **Remedy the error before continuing work.**
- **Ignoring the alarm and continuing baling leads to baler damages.**

NOTE: To suppress the alarms, press the OK button.

The error messages display the following information:

- Error message number (A).
- Component or function concerned (B).
- Short instructions (C).

To help in component troubleshooting, the alarms are divided into two groups:



ZX1046450

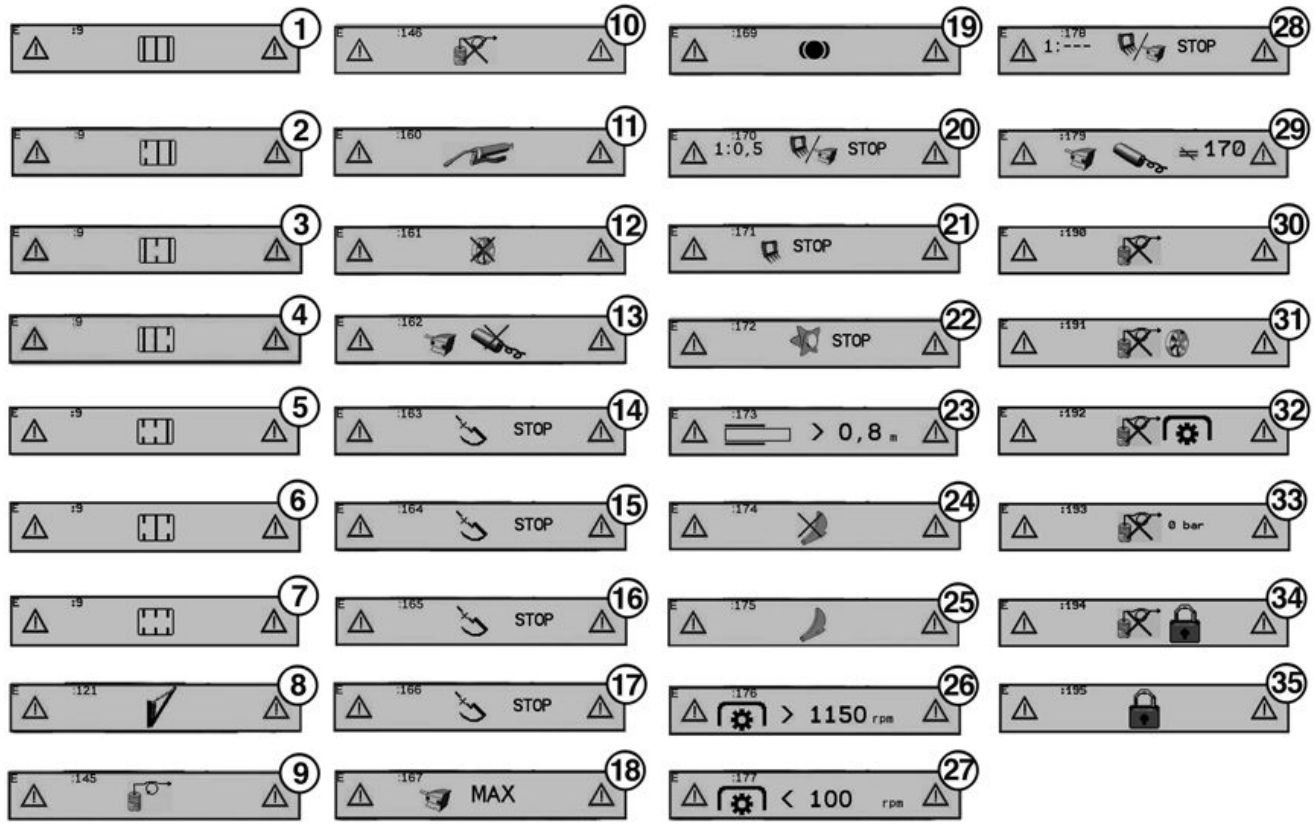
ZX1046450 —UN—17JAN12

A—Error code number
B—Component-function
C—Instructions

- Baler error codes: See Baler Error Codes in this section
- Technical error codes: See Technical Error Codes in this section.

SF04007,0000957 -19-02NOV15-1/1

Baler Error Codes



ZX206259

ZX206259 —UN—03NOV13

1— E9—Twine not fed
2— E9—Twine broken L.h. side
3— E9—Twine broken middle
4— E9—Twine broken R.h. side
5— E9—Twine broken
6— E9—Twine broken
7— E9—Twine broken
8— E121—Bale chute alarm
9— E145—Twine motor alarm
10— E146—Twine safety alarm
11— E160—Grease alarm
12— E161—Knotter fans alarm
13— E162—Machine load sensor not connected
14— E163—Needle sensor not active alarm
15— E164—Binding sensor not active alarm
16— E165—Needle sensor inactive while binding sensor is active alarm
17— E166—Needle and binding sensor simultaneously active alarm
18— E167—Machine load too high alarm
19— E169—Flywheel brake engaged
20— E170—Feeder fork feeds continuously alarm
21— E171—Feeder fork overload alarm
22— E172—Rotor overload alarm
23— E173—Incorrect bale length alarm
24— E174—Knives retracted alarm (1424C, 1433C, and 1434C only)
25— E175—Knives engaged alarm (1424C, 1433C, and 1434C only)
26— E176—PTO rpm too high alarm
27— E177—PTO rpm too low alarm
28— E178—Filling alarm
29— E179—Machine load out of range alarm
30— E190—Electric binding sensor alarm
31— E191—Electric binding hood open alarm
32— E192—Electric binding rpm 0 alarm
33— E193—Electric binding pressure 0 alarm
34— E194—Electric binding lock alarm
35— E195—Work in lock alarm

IMPORTANT: If one of the following alarms appears, stop baling immediately.

Continued on next page

Baler Error Codes		
Error Code	**Possible Fault**	**Possible Solution**
E9—Twine not fed (illustration 1) **E9**—Twine broken L.h. side (illustration 2) **E9**—Twine broken middle (illustration 3) **E9**—Twine broken R.h. side (illustration 4) **E9**—Twine broken (illustrations 5 to 7)	One or more knotters are nor fed with twine.	Check the twine routing. Correct the twine routing if necessary. See Preparing the Baler section.
	The twine tension is too low.	Adjust the twine brake (tension plates). See Preparing the Baler section.
	Twine spool empty.	Install new twine spools and route twine. See Preparing the Baler section.
	Position of twine detection sensor incorrect.	Adjust twine detection sensors. See service section.
	Twine broken due to damage.	Check twine routing for sharp edges.
	Twine broken due to too high bale pressure.	Reduce bale pressur. See operating the Baler section.
E121—Bale chute alarm (illustration 8)	The bale chute is closed while in the operating display and the PTO speed is above 100 rpm.	Lower the bale chute.
E145—Twine motor alarm (illustration 9)	Notch of the electric binding motor did not stop at the sensor but after the time limit exceeded.	Check if the sensor is moved or defective.
	No power supply to the electric motor.	Check the electric wires and/or the electric motor. Check the automotive fuse (10 A) in the power wire of the TMO inside the electronic control box. See Service section.
E146—Twine safety alarm (illustration 10)	**At start-up of the operating screen:** Actual bale length is higher than the bale length, the bale length has been increased due to ejecting the last bale during the last baling activity.	The first next tying cycle must be done by pressing the electrical tying start button for manual binding, check the bale inside the bale chamber for the desired bale length.
	During baling: One of the conditions for electric binding is not correct.	Check that required conditions for an electric binding are met. See Operating the Baler section.
	During last bale ejection: When ejecting the last bale and the set pressure is 0 bar (0 kPa; 0 psi), the binding action does not start automatically when the actual bale length has reached the set bale length (for safety).	The first next tying cycle must be done by pressing the electrical tying start button for manual binding, check the bale inside the bale chamber for the desired bale length.
E160—Grease alarm (illustration 11)	Greasing sensor is not active after the time that has been set.	Check the sensor, located in the primary divider block.
	Primary divider block does not function.	Check if the block is clogged. See Automatic Greasing System Difficulties in this section.
E161—Knotter fans alarm (illustration 12)	The hood above the fans is open.	Close the hood.
	Sensor under the hood not adjusted correctly.	Adjust the sensor under the hood.
E162—Machine load sensor not connected (illustration 13)	No machine load sensor, so no indication of the plungerhead load, probable cause: Machine load sensor broken.	Check the machine load sensor.
	Cable to machine load sensor broken.	Check the cable to the machine load sensor.
E163—Needle sensor not active for 3 or more seconds alarm (illustration 14)	The needle frame moves up and stops before the top position: The needle frame trip-dog has jumped of the notch in the curve.	Stop immediately. Switch off the PTO.
		Check the sensors. Check the needle frame shear bolt. See Service section.
	The needle extractor did not function or the needle extractor shear bolt is broken.	Replace the shear bolt if necessary. Remove the obstacles from the plungerhead and/or the knotter. (Re)activate the binding process.
	Wrong bale dimension activated in the dealer menu 2.	Contact your John Deere dealer.
E164—Binding sensor not active for 3 or more seconds alarm (illustration 15)	The needle frame moves up, stops before the top position and moves back to rest position: The needle frame trip-dog has jumped of the notch in the curve.	Stop immediately. Switch off the PTO.
		Check the sensors. Check the needle frame shear bolt. See Service section. Replace the shear bolt if necessary.
	The needle extractor has pushed the needle frame back.	Remove the obstacles from the plungerhead and/or the knotter. (Re)activate the binding process.
	Wrong bale dimension activated in the dealer menu 2.	Contact your John Deere dealer.

Continued on next page

Baler Error Codes		
E165—Needle sensor inactive while binding sensor is active alarm (illustration 16)	The needle frame moves up and the needle frame shear bolt breaks in top: The needle frame shear bolt is broken at top needle position.	Stop immediately. Switch off the PTO.
		Check the sensors. Check the needle frame shear bolt. See Service section. Replace the shear bolt if necessary.
	The needle extractor can push the needle frame back.	Remove the obstacles from the plungerhead and/or the knotter. (Re)activate the binding process.
	Wrong bale dimension activated in the dealer menu 2.	Contact your John Deere dealer.
E166—Needle and binding sensor simultaneously active alarm (illustration 17)	The needle frame moves up and the needle frame shear bolt breaks in top: The needle frame shear bolt is broken at top needle position.	Stop immediately. Switch off the PTO.
		Check the sensors. Check the needle frame shear bolt. See Service section. Replace the shear bolt if necessary.
	The needle extractor cannot push the needle frame back.	Remove the obstacles from the plungerhead and/or the knotter. (Re)activate the binding process.
	Wrong bale dimension activated in the dealer menu 2.	Contact your John Deere dealer.
E167—Machine load too high alarm (illustration 18) **IMPORTANT: Pressure drops automatically and increases when there is no Machine Load overload within a short period.**	The plunger load becomes too high, due to: Bale chamber pressure set too high.	> Press - 5 bar button to decrease the bale chamber pressure. If the alarm persists, reduce the preset pressure.
	Obstacles. Changed conditions (material, weather, etc.)	Take away the obstacles.
E169—Flywheel brake engaged (illustration 19)	Mechanical flywheel brake is in braking position.	Disengage the flywheel brake.
E170—Feeder fork feeds continuously alarm (illustration 20)	Per plunger stroke the feeder fork makes 2 filling strokes, due to: Wrong timing adjustment of the feeder fork mechanism. Mechanical fault at the timing mechanism of the feeder fork switching mechanism.	Check timing rod. Check excenter roller position. Check Locking Pin.
E171—Feeder fork overload, feeder fork is running to slow alarm (illustration 21) **IMPORTANT: During this alarm the bale pressure drops automatically to prevent start-up problems of the tractor. After bale growth the pressure increases automatically to the preset pressure.**	Due to: Disengaged feeder fork cam clutch.	Stop immediately. Decrease the rpm of the PTO until the blockage is removed.
	The feeder fork is blocked.	When the blockage cannot be removed: Switch off the PTO. Switch off the tractor engine. Remove the ignition key. Remove the blockage manually.
	Rotor speed set incorrectly in dealer menu 1.	Check and adjust the rotor speed.
E172—Rotor overload or running too slow alarm (illustration 22)	Due to: The rotor overload clutch is activated.	Stop immediately. Decrease the rpm of the PTO until the blockage is removed.
	The rotor is blocked.	When the blockage cannot be removed: Switch off the PTO. Switch off the tractor engine. Remove the ignition key. Remove the blockage manually. *NOTE: If a rotor blockage with the knives in use occurs, the knives goes immediately to the rest position. When the blockage is removed and the rotor and feeder fork speed is normal the knives come back automatically.*
	Rotor speed set incorrectly in dealer menu 1.	Check and adjust the rotor speed.

Continued on next page

Baler Error Codes		
E173—Incorrect bale length alarm (illustration 23)	The bale length is more than the length set +0.40 m (1 ft. 4 in.).	Check bale length settings.
	Needle frame shear bolt is broken.	Find the cause and solve it. Mount a new shear bolt if broken.
	In case of electric binding: In operation display, one of the conditions to start electric binding was not met.	Check conditions. See Operating the Baler section.
	The bale length reaches length set +0.40 m (1 ft. 4 in.).	
	At start-up of the operating screen the actual bale length is more than the set bale length.	Check the actual bale length in the bale chamber and start first binding using the button at required length.
	During the use of the bale pusher, the actual bale length has exceeded the set bale.	
E174—Knives retracted while they should be engaged alarm (illustration 24)	The knives are not coming in within 1 minute after the engage knives button has been activated or when the knives are out while they should be in, probable causes:	
	The shutoff valve is closed.	Open the shutoff valve.
	An obstruction in the cutting unit.	Take away the obstruction in the cutting unit.
	Pollution of the knives.	Clean the knives.
	Sensor fault.	Check the sensor.
E175—Knives engaged while they should be retracted alarm (illustration 25)	The knives are not coming out within 1 minute after the retract knives button has been activated or when the knives are in while they should be out, probable causes:	
	The knives are in and the shutoff valve is closed.	Open the shutoff valve.
	An obstruction in the cutting unit.	Take away the obstruction in the cutting unit.
	Pollution of the knives.	Clean the knives.
	Sensor fault.	Check the sensor.
E176—PTO rpm too high alarm (illustration 26)	PTO speed is above 1150 rpm. An increase of the risk of damaging the machine.	Decrease the tractor engine rpm. Check the rotor and-or the feeder fork sensor.
E177—PTO rpm too low alarm (illustration 27)	PTO speed is below 100 rpm. Some function of the machine do not respond quick enough.	Increase the tractor engine rpm. Check the rotor and-or the feeder fork sensor.
E178—Filling alarm (illustration 28)	The bale is growing without filling strokes of the feeder fork. Lost of crop between the feeding channel and the bale chamber.	Check stationary hay dogs. Check spring loaded hay dogs. Check hydraulic density system.
	Wrong adjusted or defective fill sensor.	Check the fill sensor.
	The feeder fork does not make a filling stroke due to a mechanical fault.	Check the feeding system.
E179—Machine load out of range alarm (illustration 29)	Machine load sensor has moved too far and is out of range.	Calibrate the machine load sensor.
E190—Electric binding sensor alarm (illustration 30)	Electric binding sensor is not active when the operating screen is activated.	Check the electric binding sensor. See Service section.
E191—Electric binding hood open alarm (illustration 31)	Electric binding cannot start because the fan hood sensor is inactive.	Close the fan hood or check the fan hood sensor. See Service section. *NOTE: When the problem is solved the manual bind softkey will blink.* *A manual bind action must be activated before electric binding can start automatically.*
E192—Electric binding rpm 0 alarm (illustration 32)	Electric binding cannot start because the PTO is off.	Start the PTO the run the baler.
	No signals from the rotor and feeder fork sensor.	check the rotor and feeder fork sensor. See Service section. *NOTE: When the problem is solved the manual bind softkey will blink.* *A manual bind action must be activated before electric binding can start automatically.*

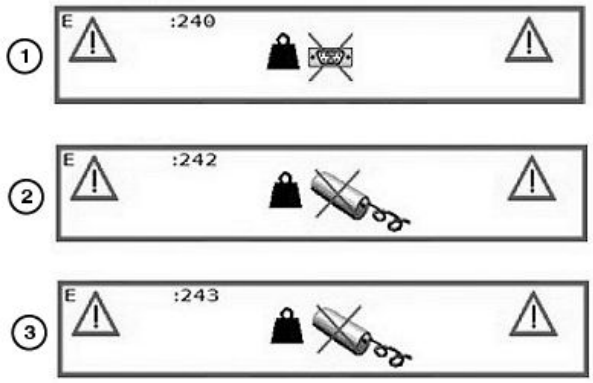
SF04007,0000958 -19-02NOV15-4/4

Baler Error Codes		
E193—Electric binding pressure 0 alarm (illustration 33)	Pressure is set to 0.	Increase the pressure or machine load setting. See Opertaing the Baler section. *NOTE: When the problem is solved the manual bind softkey will blink.* *A manual bind action must be activated before electric binding can start automatically.*
E194—Electric binding lock alarm (illustration 34)	Electric binding wants to start a binding process due to the actual bale length, but the display is not in the operating mode.	Activate the display operating mode. See Electronic Control System section.
E195—Work in lock alarm (illustration 35)	The baler is running (PTO) and bale growth is detected while the display is not in operating mode.	Activate the display operating mode. See Electronic Control System section.

SF04007,0000958 -19-02NOV15-5/4

Weighing System Error Codes (If Equipped)

IMPORTANT: If one of the following error code banners appear on the monitor, then stop the machine and correct the issue before baling is resumed.

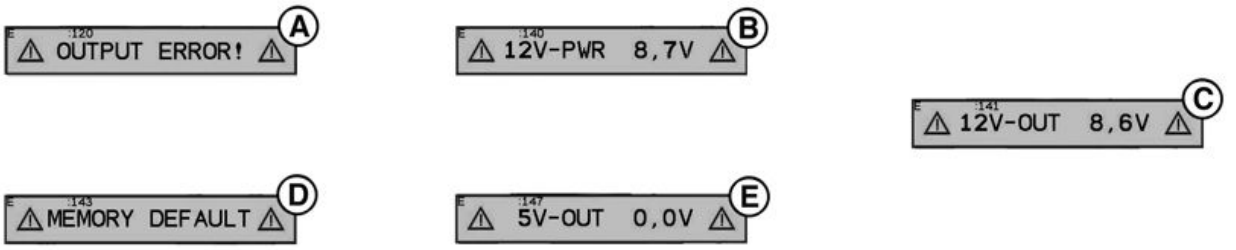


E81606 —UN—05OCT16

Problem	Cause	Remedy
(1) **E:240**—Communication Error	Connection with the weighing system is lost or interrupted.	Check the connections and the cables of the weighing system, repair, and replace if necessary.
(2) **E:242**—Load Cell Test Failed	After switching from the basic to operating display.	Check the load cells by using the diagnostic pages, replace if necessary.
	After each detected bale drop.	
(3) **E:243**—G-Sensor (Acceleration) Test Failed	After switching from the basic to the operating display.	Check the accelerator sensor by using the diagnostic pages, replace if necessary.
	After each detected bale drop.	

SF04007,0000CA4 -19-30NOV16-1/1

Technical Error Codes



ZX206260 —UN—03NOV13

ZX206260

A—E120—Output error
B—E140—Power supply low level
C—E141—Too low voltage to sensor
D—E143—Memory default
E—E147—5-V output low voltage

Technical Error Codes		
Error Code	**Possible Fault**	**Possible Solution**
E120—One or more outputs could not be activated (illustration A)	The following parts can cause the problem: Hydraulic pump (V1 pump). Knives-in actuator (V2 knives). Knives-out actuator (V3 knives). Proportional valve (V5 pump). Automatic grease lubrication system (greasing). Knotter cleaning fans (fan cable). Electric binding motor (TMO).	Cycle the power of the electronic control box. Test the functions individually.
E140—The voltage to the actuator or outputs is less than 8.9 V (illustration B)	The load on the alternator is too high, lights etc.	Lower the load on the alternator.
	Bad battery.	Measure the battery voltage.
	Bad cables or connections.	Check the cables and connections.
	Fuse Blown.	Check the fuse and replace if necessary.
	Short circuit in the coil of a hydraulic valve.	Check the coils of the hydraulic valves.
E141—The voltage to the sensor and micro control unit is less than 8.9 V (illustration C)	The load on the alternator is too high, lights etc.	Lower the load on the alternator.
	Bad battery.	Measure the battery voltage.
	Bad cables or connections.	Check the cables and connections.
	Fuse Blown.	Check the fuse and replace if necessary.
	Short circuit in the coil of a hydraulic valve.	Check the coils of the hydraulic valves.
	Short circuit in a sensor.	Check the sensor.
E143—Memory has been defaulted (illustration D)	When the system is set to the default settings (factory settings).	Set all specific settings of the machine. Contact your John Deere dealer.
E147—5-V output voltage is less than 4.5 V (illustration E)	Probable cause: Short circuit in a 5 V (analogue) sensor.	Sequential disconnect the analogue sensors until the error disappears.

SF04007,0000959 -19-02NOV15-1/1

Baler Component Overload Protections

CAUTION: Before approaching the machine:

Switch off the electronic control system.

Switch off the PTO.

Stop the tractor engine and remove the ignition key.

Apply the flywheel brake.

Do not start-up the baler again until the cause of the problem has been identified and solved.

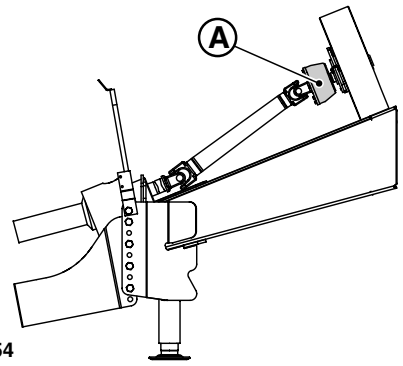
Secondary Driveline Protection:

CAUTION: Only restart the machine once the cause of the failure has been identified and solved. Working with a defect or unsafe machine may result in serious personal injuries or heavy material damage.

IMPORTANT: Refer to Service section to check and adjust slip clutch (A).

The secondary driveline is protected by a slip clutch (A).

Slip clutch activation can be caused by:



ZX1046454

ZX1046454 —UN—18JAN12

A—Slip clutch

- An active flywheel brake.
- A too high plungerhead load during starting.
- A too high PTO rpm during starting.

Solutions:

1. Release the flywheel brake.
2. Decrease the hydraulic density pressure.
3. Start at a low PTO rpm and slowly increase PTO rpm.

SF04007,000095A -19-02NOV15-1/8

Main Gear Case Protection—1433 and 1433C Only:

The main gear case is protected by a shear bolt clutch (A).

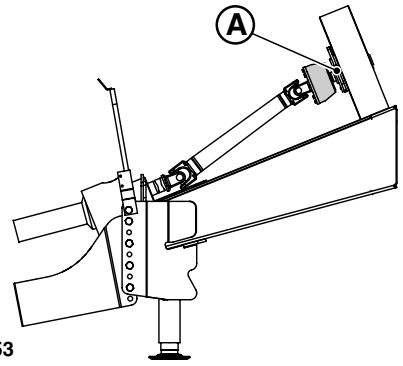
If the main drive has stopped due to an overload and the shear bolt is broken:

1. Stop the PTO.
2. Replace the shear bolt by a new genuine shear bolt.

   IMPORTANT: Do not use a substitute bolt higher than a grade 10.9 strength or damage to machine will occur. Only use genuine shear bolt (contact your John Deere dealer).

3. Clear the intake channel, rotor and bale chamber from crop or foreign objects.
4. Reduce the baler press chamber hydraulic pressure to 0 bar (0 kPa; 0 psi).
5. Check if the needles are in rest position. If not, run the machine at low rpm, and trip the needles.
6. Stop the machine.
7. Check the shear bolts of the needle extractor and of the needle frame drive rod, if necessary replace the relevant shear bolt.

   IMPORTANT: For the needle frame drive rod shear bolt, do not use a substitute bolt higher than a grade 10.9 strength or damage to machine will occur.



ZX1046453

ZX1046453 —UN—18JAN12

A—Shear bolt clutch

The needle extractor is protected by a special shear bolt. Do not use a substitute bolt or damage to machine will occur.

Only use genuine shear bolts (contact your John Deere dealer).

8. Start-up the machine.
9. Reset the hydraulic bale pressure.

Continued on next page

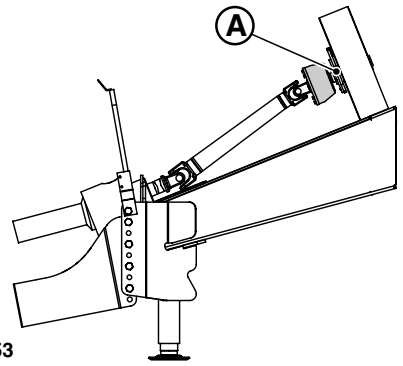
SF04007,000095A -19-02NOV15-2/8

Main Gear Case Protection—1424, 1424C, 1434 and 1434C Only:

The main gear case is protected by an automatic cam-type clutch (A). Automatic clutch activation can be caused by a too high of a preset bale density.

Decrease the PTO rpm to re-engage the automatic cam-type clutch.

- If no re-engagement takes place, decrease the hydraulic density pressure until restart.
- If no restart, stop the PTO.
- Clean the intake channel, rotor and bale chamber from crop or foreign objects.
- Start the machine.
- Reset the hydraulic bale pressure.



ZX1046453

ZX1046453 —UN—18JAN12

A—Automatic clutch

SF04007,000095A -19-02NOV15-3/8

Rotor Protection:

CAUTION: Only restart the machine once the cause of the failure has been identified and solved. Working with a defect or unsafe machine may result in serious personal injuries or heavy material damage.

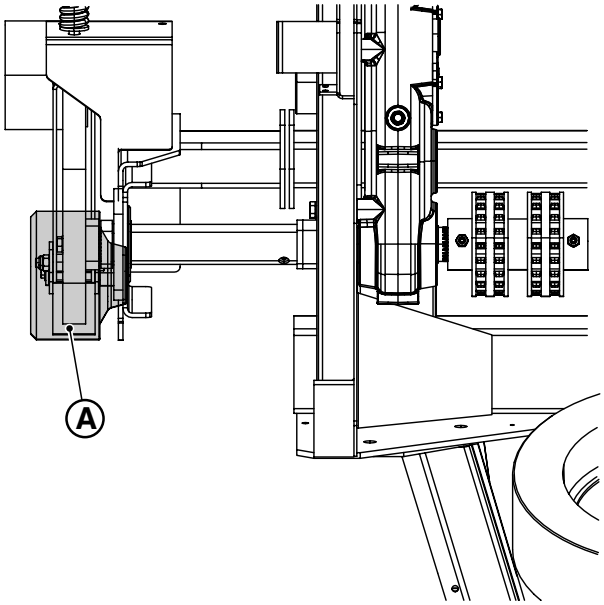
The intake rotor is protected by an automatic cam-type clutch (A).

Decrease the PTO rpm to re-engage the automatic cam-type clutch.

Move 1 - 2 m (3 - 6 ft.') backwards to stop the crop flow.

Slowly increase the PTO rpm.

A—Automatic clutch



ZX1046455

ZX1046455 —UN—18JAN12

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SF04007,000095A -19-02NOV15-4/8

Packer Protection:

CAUTION: The overload is the result of excessive stress on the packer (driving speed too high, presence of foreign objects, etc.).

Stay clear of the service cover during opening. Quick movement of the service cover caused by pressed material, can cause severe injuries.

CAUTION: Only restart the machine once the cause of the failure has been identified and solved. Working with a defect or unsafe machine may result in serious personal injuries or heavy material damage.

The packer is protected by an automatic and phased cam-type clutch (A).

Decrease the PTO rpm to re-engage the automatic cam-type clutch.

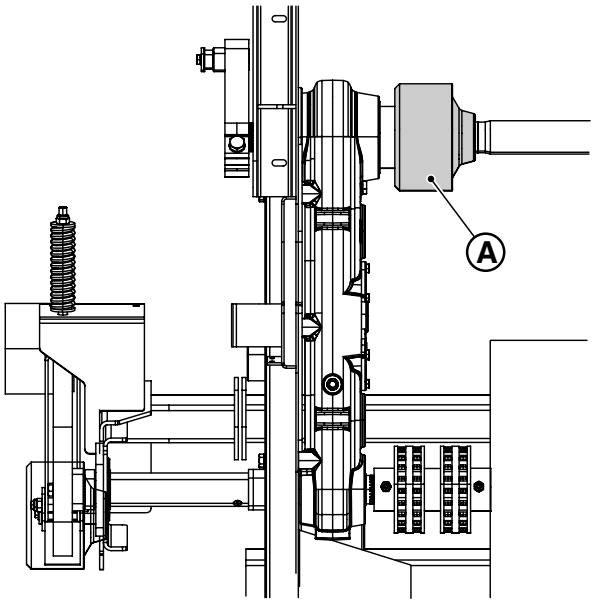
In case the overload persists despite forward speed has been reduced:

1. Stop the machine.
2. Stop the PTO.
3. To solve the problem, open the servcie cover (B) underneath the intake channel then clean intake channel.

NOTE: When the feeder fork overload alarm (E171—see Baler Error Codes section) appears, the pressure of the bale chamber drops automatically to 5 bar (500 kPa; 72.5 psi) to prevent problems at start-up of the baler.

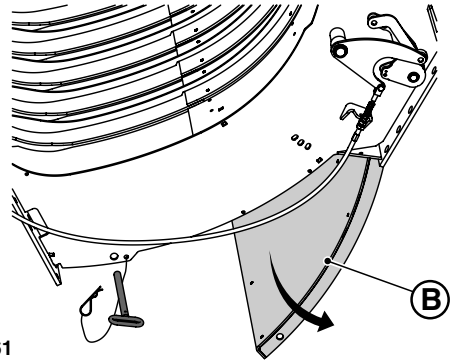
Once the cause of the blockage is found and solved and bale growth is detected, the pressure increases automatically to the preset pressure.

A—Automatic clutch **B—Service Cover**



ZX1046456

ZX1046456 —UN—18JAN12



ZX1046461

ZX1046461 —UN—18JAN12

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SF04007,000095A -19-02NOV15-5/8

Pickup Protection:

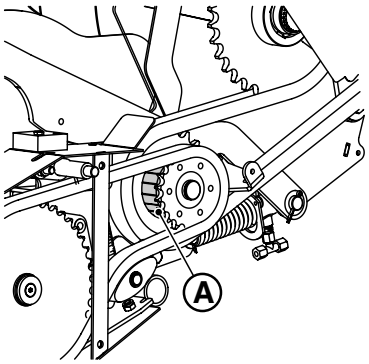
CAUTION: Only restart the machine once the cause of the failure has been identified and solved. Working with a defect or unsafe machine may result in serious personal injuries or heavy material damage.

The pickup drive is protected by an automatic cam-type clutch (A).

Automatic clutch activation can be caused by:

- An excessive load on the pickup.
- A too low pickup setting.
- A too high driving speed.

Decrease the PTO rpm to re-engage the automatic clutch (A).



ZX1046457

ZX1046457 —UN—18JAN12

A—Automatic clutch

SF04007,000095A -19-02NOV15-6/8

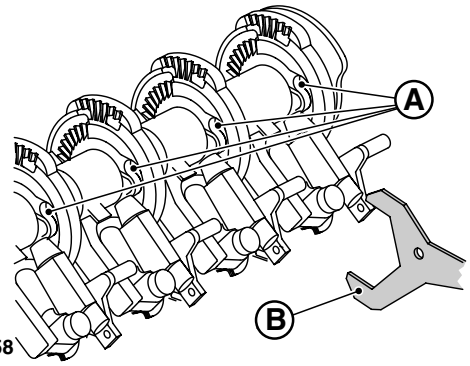
Knotter Protection:

IMPORTANT: Breakage of the knotter shear bolt is caused by a temporary overload of the relevant knotter. Clean the knotter if necessary or remove and repair the damaged parts. Do not start baling until the cause has been identified and solved.

Each knotter is protected by a shear bolt (A).

A special wrench (B) is provided with the machine to rotate the cam of the knotter before replacing the shear bolt (A).

NOTE: The wrench (B) is stored inside the left-hand door, behind the rear twine box.



ZX1046458

ZX1046458 —UN—18JAN12

A—Shear bolt **B—Wrench**

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SF04007,000095A -19-02NOV15-7/8

Needle Protection:

CAUTION: Only restart the machine once the cause of the failure has been identified and solved. Working with a defect or unsafe machine may result in serious personal injuries or heavy material damage.

In case of overload, the needles are protected by:

- One shear bolt (A) located in the needle frame drive system.
- One shear bolt (B) in front of the needle extractor rod (C).

IMPORTANT: For the needle frame drive rod shear bolt (A), do not use a substitute bolt higher than a grade 10.9 strength or damage to machine will occur.

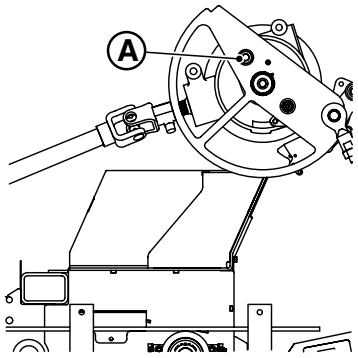
The needle extractor is protected by a special shear bolt (B). Do not use a substitute bolt or damage to machine will occur.

Only use genuine shear bolts (contact your John Deere dealer).

The needle extractor (C) makes sure that the needles return into rest position.

IMPORTANT: In case of a failure in the knotter drive, adjust the needle extractor curve. See Service section.

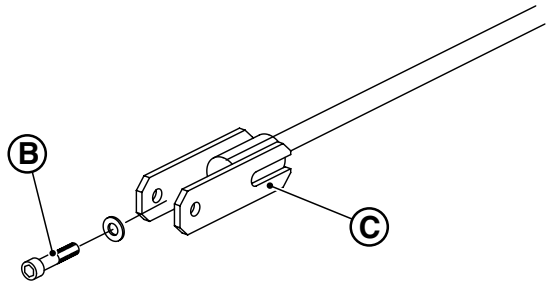
Check shear bolt (B) every 5 breakages of needles shear bolt (A).



ZX1046459

ZX1046459 —UN—18JAN12

Needle Protection—In needle frame drive



ZX1046460

ZX1046460 —UN—18JAN12

Needle Protection—In needle extractor rod

Replace the shear bolt (B) by a genuine part in case of excessive wear, contact your dealer. Tighten new shear bolt (B) to 18 N·m (13.3 lb.-ft.).

SF04007,000095A -19-02NOV15-8/8

Driveline Difficulties

Main Driveline		
Problem	**Cause**	**Solution**
Telescoping drive line vibration.	Flywheel bushing worn. Flywheel bearings worn.	Fit new bushings and bearings.
	Free play in the telescoping driveline shaft bottoming out when cornering.	Check the hitching to the tractor.
Driveline Friction Slip Clutch.	Incorrect adjustment.	Check clutch spring length (See Service section).
Automatic torque limiter of the flywheel runs too often (1424, 1424C, 1434, and 1434C only).	Bale density too high.	Reduce the hydraulic pressure.
	Accumulation of dirt in the press chamber.	Empty and clean the press chamber.
Shear bolt in flywheel shears too often (1433 and 1433C only).	Bale density too high.	Reduce the hydraulic pressure.
	Accumulation of dirt in the press chamber.	Empty and clean the press chamber.

SF04007,000095B -19-02NOV15-1/1

Crop Flow Difficulties

Crop Flow		
Problem	**Cause**	**Solution**
Breakage of pickup tines.	Pickup setting too low.	Adjust the pickup height.
	Suspension incorrectly adjusted.	Adjust the pickup suspension.
	Missing tine guards.	Replace them.
	Twine wrapped in the tine bars.	Clean the pickup.
Noisy pickup.	Cam roller broken or missing.	Replace with new one.
	Tine guards badly aligned or damaged.	Correct the tine guard alignment. Replace tine guard if necessary.
	Twine wrapped in the tine bars.	Clean the pickup.
Automatic torque limiter of the packer system and or rotor runs too often.	Too much crop coming into the machine.	Reduce forward speed.
	Uneven windrows.	Alter settings of rake making the windrows.
	Foreign object in the machine.	Clean out the machine and remove the object.
	Pre-chamber density or volume too high.	Reduce pre-chamber density or volume.
Noisy packer operation even when machine is empty.	Packer timing incorrect.	Check the packer timing and bolt adjustment.

SF04007,000095C -19-02NOV15-1/1

Plungerhead Difficulties

Plungerhead		
Problem	**Cause**	**Solution**
Plungerhead noisy.	Clearance between rail and plungerhead roller too large.	Adjust the clearance within the specified limits.
	Knives missing.	Fit new plungerhead knife sections.
	Knives dull.	Sharpen knives.
	Knife clearance to big.	Adjust knife clearance.
Heating of plungerhead rollers.	No clearance between the rails and the plungerhead rollers.	Adjust the clearance to within the specified limits.
	Accumulation of crop.	Clean the plungerhead rollers.
	Wear of the roller bearing.	Replace rollers.

SF04007,000095D -19-02NOV15-1/1

Hydraulics Difficulties

Hydraulics		
Problem	**Cause**	**Solution**
Hydraulic pressure not increasing.	Control box not connected.	Connect control box.
	PTO does not turn.	Engage PTO.
	Shortage of oil.	Fill up the system.
	Air in the hydraulic system.	Bleed the circuit.
	Air gets into the circuit (hot pump).	Verify the hose connections.
	Dirty oil.	Drain, clean out the circuit and refill with new oil and replace the filter.
	Proportional valve not working correctly.	Check the pressure gauge on front of baler and compare to electronic reading on monitor run screen.
	Pump not working correctly.	Check pump.
	Rotor sensor faulty.	Replace sensor.
Hydraulic pressure drops with each plungerhead stroke.	Plungerhead overload switch adjustment incorrect.	Reset to correct adjustment.
	Electrical circuit problem.	Contact your John Deere dealer.

SF04007,000095E -19-02NOV15-1/1

Baling Difficulties

Baling Difficulties		
Problem	**Cause**	**Solution**
"Banana" bales.	Crop flow into the machine not centralized.	Drive the tractor straddling the windrow and along the center of the windrow.
	Uneven hydraulic pressure on the press chamber shutters.	Make a few bales with 0 bar (0 kPa; psi) pressure. Then bleed the hydraulic system at the tension panel cylinders and resume baling at normal pressure.
Poor chamber filling (soft top bales).	Damp crop.	Adjust pre-chamber setting. See Operating the Baler section.
	Packer timing incorrect.	Adjust packer timing. See Service section.
	Build up of trapped material in the pre-chamber or press chamber.	Empty and clean out the bale chamber and pre-chamber.
	Loss of plunger skirt.	Solve the problem.
	Pre-chamber density too low.	Increase volume/density. See Operating the Baler section.
	PTO rpm not correct.	Run PTO at 1000 rpm only.
Bale does not come out of the bale chamber.	Hooks of the bale ejector not adjusted correctly.	Adjust the hooks of the bale ejector. See Service section
	Bale chamber pressure is > 0 bar (0 kPa; 0 psi).	Switch on the PTO. Push twice the 0 bar button to relieve the bale chamber pressure to 0 bar (0 kPa; 0 psi).
	The teeth do not go up.	Make sure to move the bale ejector during every stroke to the utmost forward position.

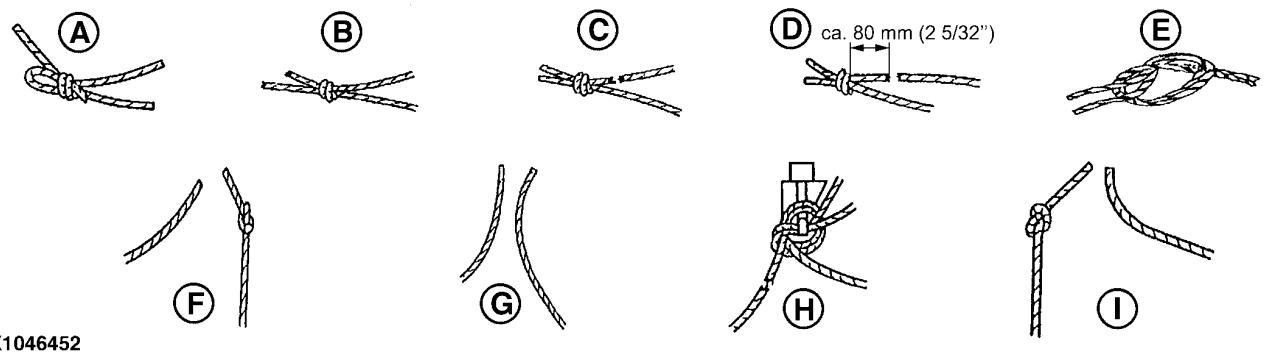
SF04007,000095F -19-02NOV15-1/1

Needles Difficulties

Needles and Knotters		
Problem	**Cause**	**Solution**
Frequent breakage of the needle frame shear bolt.	Wrong shear bolt used.	Install correct shear bolt. See Service section.
	Foreign object in the machine.	Clean out the machine to find the object.
	Needles badly adjusted.	Check the needle adjustments. See Service section.
	Needle frame brake badly adjusted.	Adjust needle frame brake. See Service section.
	Needle plungerhead overlap incorrect.	Check and adjust if necessary. See Service section.
	Twine spools tangled up.	Check the spools of twine and the twine tension plates. See Preparing the Baler section.
Erratic tripping of the binding system.	Trip lever is not dropping freely.	Check the clearance between the trip lever and the roller.
No tripping of the binding system.	Seized mechanism.	Clean and lubricate the trip mechanism.
	Trip mechanism locking lever in locked position.	Put lever in work position. See Preparing the Baler section.
	Wear of the teeth on the trip lever and/or roller.	Replace if necessary.
Needle breakage.	Needle overlap incorrect.	Check and adjust if necessary. See Service section.

SF04007,0000960 -19-02NOV15-1/1

Knotters Difficulties



ZX1046452

ZX1046452 —UN—17JAN12

A—Twine end looped into the knot
B—Frayed or different twine ends
C—Twine damaged or broken just behind knot
D—Knot made but the twine around the bale is broken
E—Knot loose

Knotters		
Problem	**Cause**	**Solution**
Twine breaks.	Density pressure too high.	Reduce density pressure. See Operating the Baler section.
	Twine inserted wrongly.	Check twine routing. See Preparing the Baler section.
	Bad twine quality.	Replace by better quality. See Preparing the Baler section.
	Contours along twine path not smooth.	Smooth and clean.
	Twine tension set too high.	Adjust correctly. See Preparing the Baler section.
	Twine tangled in twine box.	Check and disentangle.
The twine end is looped into the knot (illustration A).	Spring tension on hook too low.	Tighten set nut 1/2 turn.
	Twine retainer badly adjusted.	Correct adjustment. See Service section.
	Knotter knife dull or damaged.	Sharpen or replace knife. See Service section.
	Stroke of stripper arm too short.	Replace stripper arm; check cam of knotter disc for wear. See Service section.
Frayed or different twine ends (illustration B).	Clamping force of twine retainer too low.	Increase clamping force by tensioning the spring. See Service section.
	Knotter knife dull or damaged.	Sharpen or replace knife. See Service section.
Twine damaged or broken just behind knot (illustration C).	The twine may get too high a tension which increases probability of damages.	Decrease pressure and/or tension on the knotter disc in order to decrease twine tension.
	The fork-like opening of the stripper arm is rough.	Smoothed rough edges of stripper arm.
A knot has been made but the twine around the bale is broken (illustration D).	The tucker finger does not return to its idle position. When the needle returns the twine is positioned over the tucker finger.	Ensure the tucker finger moves freely. The spring must return the finger into its idle position.
The knot is loose (illustration E).	The billhook is worn or damaged.	Replace billhook.
	Too low a pressure on the billhook.	Adjust compression spring of the billhook accordingly. See Service section.
Frequent breakage of knotter shear bolts.	Incorrect bolt.	Install correct shear bolt.
	Twine trapped on the billhook or twine retainer disc.	Clear out the knotter.
	Shearing of the billhook roll pin.	Replace the roll pin.
	The stripper arm is not clearing the knot from the billhook.	Adjust the stripper arm. See Service section
A single knot in the needle side end of the knot (illustration F).	During baling the twine is pulled out of the twine retainer because of too low compression spring pressure, or bad adjustment of the twine retainer or worn twine retainer parts (although no frayed twine ends occur).	Check and correct adjustment or slightly increase tension of compression spring. See Service section.
	Twine breaks at twine retainer (twine end frayed).	Correct twine tension, decrease baling pressure. See Service section. Check twine.
	Twine brake set too strong.	Check twine tension. See Service section.

Continued on next page

SF04007,0000961 -19-02NOV15-1/2

Knotters		
No knot in either twine end (illustration G).	Bill hook does not open enough (none of the twine ends frayed).	Check twine tongue roller and cam race for wear. Replace damaged parts.
	Bill hook does not rotate because slotted pin in counter gear has been blocked.	Replace slotted pin.
	The twine finger does not return to its idle position (none of the twine ends frayed).	Check twine finger for light movement.
	The twine is clamped in the twine retainer (both ends frayed).	Check twine retainer adjustment. See Service section.
	A knot has been made but the twine ends have not been fully cut (because of dull knife) and removing action of the knot pulls it open.	Replace knife.
Twine has slipped off the back of the needle and the twine end is tied inside the previous knot.	Due to incorrect guidance the twine does not come in the correct position at the back of the needle. The twine is positioned aside the slot of the needle and is then caught by the billhook.	Check alignment of twine guide to needle.
	Twine tensioner not adjusted strong enough.	Adjust twine tensioner. See Preparing the Baler section.
The knot stays on billhook - twine breaks (illustration H)	Stroke of stripper arm too short.	Replace stripper arm; check cam on knotter disc for wear.
	Too high tension of the shutter compression spring.	Adjust spring tension. See Service section.
	The bill hook is rough or grooved.	Smooth or exchange knotter hook.
	Bale pressure too low causing the twine not being tensioned sufficiently to enable removal of knot.	Correct baling pressure. See Operating the Baler section.
	Dull knotter knife.	Replace knife. Twine retainer not adjusted correctly. Correct adjustment of knot remover mechanism. See Service section.
A single knot on the twine retainer end of the twine (illustration I).	The twine finger does not position the needle end of the twine adequately to make a knot.	Correct adjustment of twine finger.
	The needle end of the twine is not caught adequately by the twine retainer.	Correct adjustment of twine retainer and needle
	The twine retainer has not been adjusted strong enough.	Correct twine tension.
	The straw retainer at the channel top does not move into the baling channel.	Remove clogged contamination below straw retainer or replace spring.
	Twine retainer dirty.	Clean twine retainer.
	Twine retainer worn.	Replace worn parts.
	Too high a baling pressure.	Decrease baling pressure. See Operating the Baler section.
The billhook tongue hits the knot remover mechanism of knotter body.	There is no spring pressure on the roller of the billhook.	Check presence and free movement of all parts.
The twine is not fed, knots with 3 twines.	Needles badly adjusted.	Adjust needle stroke, check twine routing. See Service section.
Twine not caught (although not frayed).	Clamping discs do not catch the twine.	Adjust needle height. Adjust groove of retaining discs and removers.
After tying of bale: twine rupture upon ejection of the bale.	Too high a crop moisture.	Decrease baling density. See Operating the Baler section.
	Too high a baling pressure.	Decrease baling pressure. See Operating the Baler section.
	Too little a crop feed.	Drive over center of windrow.
	Twine quality bad.	Use better quality of twine. See Prepariing the Baler section.
	Retaining discs disc tension too high.	Decrease retaining discs tension. See Service section.
The twine retainer leaves correct setting.	The worm wheel slips on conical shaft seat; the hole is too wide.	Replace worm wheel.

SF04007,0000961 -19-02NOV15-2/2

Stripper Arm Difficulties

Stripper Arm		
Problem	**Cause**	**Solution**
Twine stays on billhook.	Wear of control roller and/or control comb. Bend stripper arm. Bearings in pivot point at stripper arm.	Exchange stripper arm.

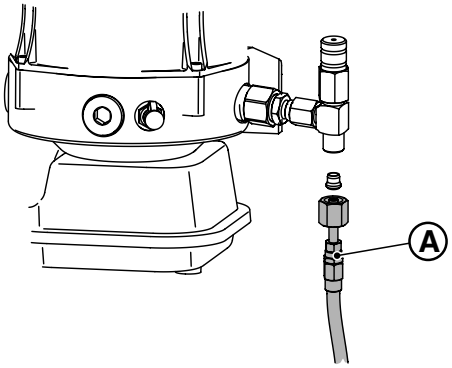
SF04007,0000962 -19-02NOV15-1/1

Automatic Greasing System Difficulties

Automatic Greasing System		
Problem	**Cause**	**Solution**
Pump does not work.	Electric cable broken.	Replace the electric cable.
	Electric motor broken.	Replace the motor.
	Fuse blown.	Find the cause and replace the fuse. See Service section.
Pump works, but no grease.	Air bubble in the pump plunger.	Bleed the pump. See Service section.
	Grease level in the container below minimum.	Refill grease. See Lubrication and Maintenance section.
	Pump element broken.	Replace pump element.
	Motor runs in the wrong direction (see the arrow on the container).	Change the polarity of the power lines to the pump motor.
No grease collar at all lubrication points.	Pump not working.	See pump does not work.
	Pause time too long or grease time not long enough.	Reduce the pause time or increase the grease time. See Electronic Control System section.
	System has a blockage.	See grease at pressure release valve.
No grease collar at several lubrication points.	Lines to sub dividers broken or leaking.	Repair the relevant lines.
	Compression couplings leaking.	Tighten or replace the compression couplings.
No grease collar at one lubrication point.	The applicable line is broken or leaking.	Repair the relevant line.
	Compression coupling leaking.	Tighten or replace the compression coupling.
Reduced pump rotation speed.	Too high of a system pressure or the environmental temperature too low.	Check system and bearing places. No damage, eventual grease one time in between.
Grease at the output of the pressure release valve.	System pressure too high.	Test the system.
	Divider blockage.	Replace the divider.
	System blockage.	Repair blocked or fixed bearings.
	Spring in the pressure release valve has been broken.	Replace the pressure release valve.

If the grease alarm (E160—see Baler Error Codes) appears, first check the following:

- Presence of grease in the container.
  - Fill the container with the correct grease (see Lubrication and Maintenance section).
  - Bleed the system when necessary.
- Is the pump running? (Visible in the transparent container).
  - Check the time settings.
  - Check power connections.
  - Check for the correct drive direction (arrow on the container).



ZX1046463

ZX1046463 —UN—18JAN12

Bleeding Automatic Grease System:

In case the grease container ran empty or the pump element got replaced, it is necessary to bleed the pump system to get it free of air. Proceed as follows:

1. Disconnect the main line (A) from the pump.
2. Power up the pump by selecting the pump selection box (B) in User Menu Page 2 (see User Menu Page in Electronic Control System section).
3. Let grease come out until there is no air in the pump system.
4. Power down the pump by deselecting the pump selection box (B) or by leaving the User Menu Page 2.
5. Reconnect the main line (A) to the pump.
6. Run an extra grease cycle.

ZX1046464

ZX1046464 —UN—18JAN12

A—Main line **B—Check box**

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Blockage of Automatic Grease System:

A pressure, which is higher than the normal pressure indicates a blockage of the automatic grease system.

Indications of a blockage are:

- The grease alarm E160 (A) appears on the display.
- There is grease coming out of the pressure release valve.

Probably causes of a blockage:

- A flattened or clogged grease line.
- A bearing that is overfilled with grease or blocked.
- Not the right kind of grease.
- A clogged divider block.

To find a blockage in the automatic grease system divider blocks, proceed as follows:

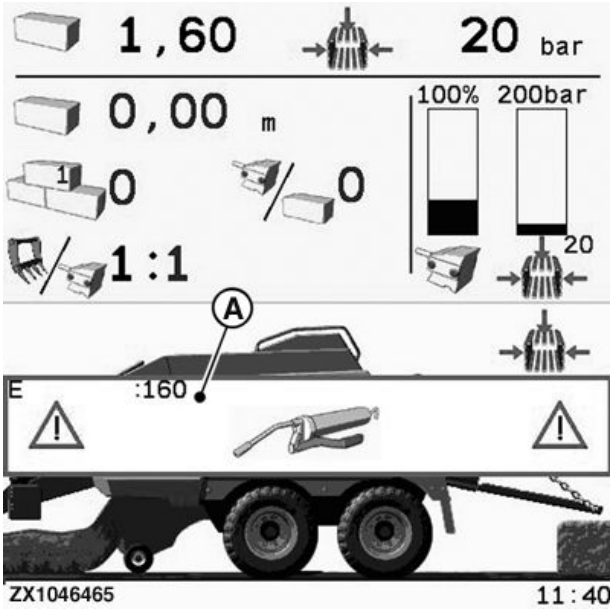
1. Connect a manual grease gun to the lubrication points on the different divider blocks, as shown..
2. Inject grease, by slowly operating the grease gun.
   - If it is not possible to inject grease in a particular divider block, it indicates that this divider block is clogged. Contact your John Deere dealer.
   - If it is possible to inject grease in the divider block but with resistance, it indicates that one of the outputs of the divider block is clogged. It can also be that the line connected to the particular output is clogged. Clean or replace the line.

If after checking the system divider blocks the blockage still persists, check the main divider for blockage as follows:

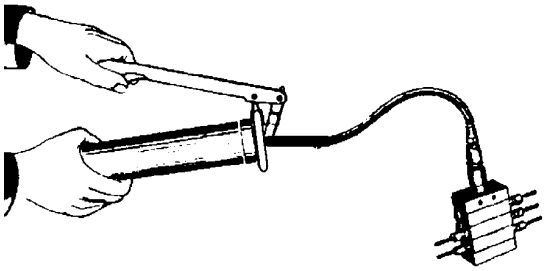
1. Disconnect the lines from the outputs of the main divider block.
2. Power up the pump by selecting the pump selection box (B) in User Menu Page 2 (see User Menu Page in Electronic Control System section).
3. Check if grease is coming out of all outputs of the main divider block.

   If no grease is coming out, it means that the main divider block is blocked. Contact your John Deere dealer.

After checking reconnect the lines back to the main divider block.



ZX1046465 —UN—18JAN12



ZX1046466

ZX1046466 —UN—18JAN12

ZX1046464

ZX1046464 —UN—18JAN12

A—E160—Error message **B—Check box**

SF04007,0000963 -19-02NOV15-3/3

Precutter Difficulties

Precutter		
Problem	**Cause**	**Solution**
Blockage in front of the rotor.	Too high ground speed.	Reduce ground speed.
	Too low PTO speed.	Increase the PTO speed.
	Machine is set too low.	Level the machine. See Attaching and Detaching section.
	Irregular crop flow.	Adjust the compressor roller. See Operating the Baler section.
Crop loss.	Crumbling crop.	Reduce the number of knives. See Preparing the Baler section.
Blockage behind the rotor.	Too short a cutting length.	Remove one or several knives. See Preparing the Baler section.
Crop wrapping around the rotor.	Cross scraper support poorly adjusted.	Adjust the rotor cross scraper support.
Excessive power requirement of the machine.	Blunt knives.	Sharpen knives.
	Too low PTO speed.	Increase the PTO speed.
	Too high ground speed.	Reduce ground speed.
	Cross scraper support clogged or dirty.	Remove one or several knives. Open the valves of the hydraulic system. Check oil level in the reservoir. Run the machine.
The knives cannot be engaged in the cutting position.	Dirt between or around knife mechanism, blocking knife movement.	Check the electric-hydraulic circuit and the free mobility of the knives. Perform a resetting procedure: engage and retract the knives or switch off the monitor and start it again.
	No oil or pressure in the density system.	Check shutoff valves of the hydraulic system. Check oil level in the reservoir. Run the machine.
	The density system does not reach the preset pressure.	Wait for the machine to reach the preset pressure.
The knives cannot be retracted in the lower position.	The oil cannot flow back.	Check shutoff valves of the hydraulic system. Run the machine.

SF04007,0000964 -19-02NOV15-1/1

Pickup Difficulties

Pickup		
Problem	**Cause**	**Solution**
Windrow is not picked up.	The pickup is up or set too high.	Lower the pickup or set the pickup gauge wheels or chains. See Operating the Baler section.
	Overload safety activated.	Check the chain, replace if necessary.
	Drive chain is broken. The sprocket is jumped off.	Remove the blockage.
	Too high ground speed.	Adapt the ground speed.
	Windrow too small and thin.	Make wider or thicker windrows.
	Pickup tines bent or broken.	Straighten the tines or replace the tines.
Crop wrapping around the rotor.	Cross scraper support poorly adjusted.	Adjust the rotor cross scraper support.
The pickup is blocked.		Switch off the PTO. Shutdown the tractor engine and remove the ignition key. Wait until the machine has come to a complete stand still. Remove the crop. **CAUTION: Do not attempt to push or pull the material into or out of the machine while it is operating! Regularly remove the accumulated materials to reduce fire hazard and interference with operating parts!**

SF04007,0000965 -19-02NOV15-1/1

Prechopper Difficulties (If Equipped)

Problem	Cause	Solution
Excessive vibrations.	Breakage or excessive wear of knives or counterknifes.	Replace worn or damaged parts.
	Knife or counterknife jamming on the pivot point.	Clean and grease pivot points.
	Incorrect rotor balance.	Check weight of knives and counterknifes.
Poor cutting quality due to drop in rotor speed.	Insufficient belt tension.	Adjust tension of belts.
	Excessive belt wear.	Replace belts.
Belt overheating.	Incorrect belt tension.	Check belt tension of belts.
	Angle gear case axle is no longer in line with the rotor axle.	Check alignment.
Fast knife or counterknife wear.	Working position too low, interference with soil.	Adjust working height.
Drive shaft oil loss on the belt side.	Wear or breakage of seal.	Replace seal.
Distortion of front pivoting safety flaps.	Prechopper has been lowered onto the residues to shred from the raised position (transport position).	Prechopper must be in working position before coming in contact with the residues to shred.
Rotor jamming during work.	Clogging due to foreign bodies. (Example: wire, plastic material)	Put on gloves and remove foreign bodies with adequate tools.

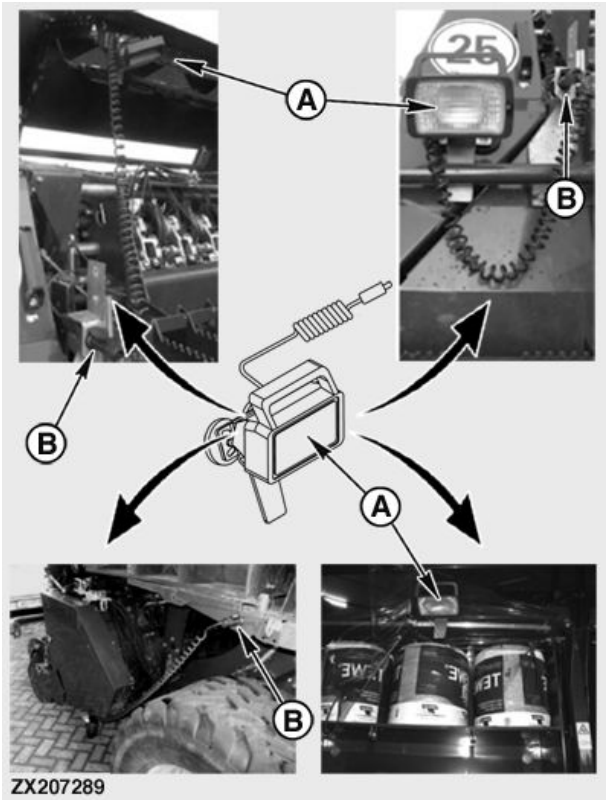
SF04007,0000CD8 -19-30NOV16-1/1

Service Work Light (If Equipped)

Plug in the service work light (A) at one of the three connection points (B) on the machine. Place the service work light (A) at a convenient location for servicing purposes only.

IMPORTANT: Always disconnect and remove work light (A) from the machine after servicing. Do not let the work light (A) installed when operating the machine.

NOTE: To keep the work light (A) in place the support features two magnets.



ZX207289 —UN—08NOV13

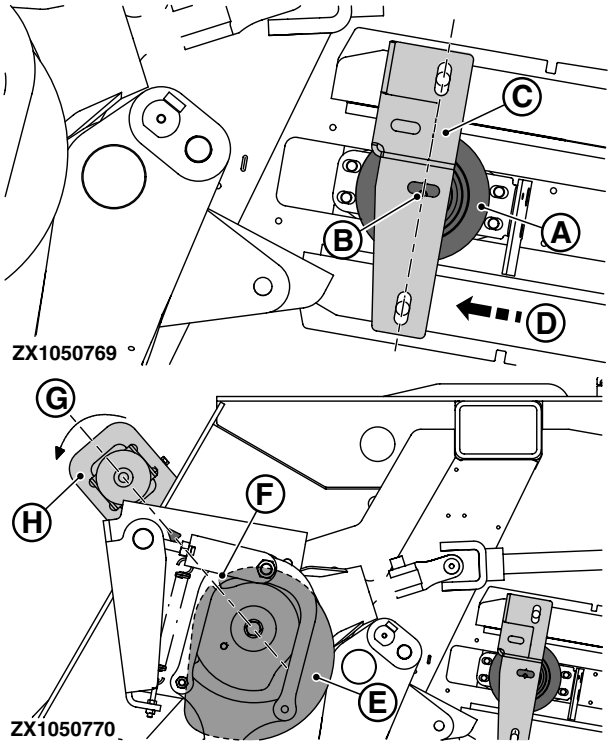
SF04007,0000CDC -19-30NOV16-1/1

Packer Timing

Adjust Packer Timing

1. Place plunger in position shown by turning flywheel to the right and noting the following:
   a. The center (B) of the front plunger roller (A) must be in the middle of the hole in the timing plate (C).
   b. Plunger must be traveling in direction (D), toward the front of the machine.
   c. Feeder fork should be in resting position with the crank facing downward.
   d. The notch (F) in the cam, the notch in the mounting plate behind the cam, the center of the main crank (H), and the arrow mark on the frame are in alignment as shown by line (G).

A—Plunger Roller
B—Center of Roller
C—Timing Plate
D—Direction of Travel
E—Needle Extractor Cam
F—Timing Mark
G—Line
H—Main Crank



ZX1050769 —UN—08AUG12

ZX1050770 —UN—08AUG12

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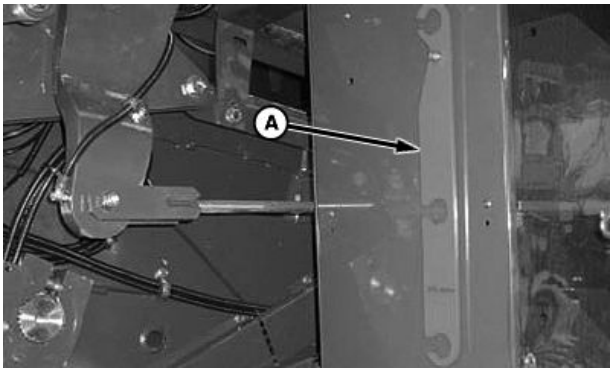
SF04007,0000CDD -19-30NOV16-1/7

2. Place timing tool (A) over the cap screw (B) and nut (C) as shown.
3. Recheck plunger roller position after timing tool has been installed. Center of roller should remain in same position as set in Step 1. If plunger roller position has changed, readjust position as follows:
   a. Block flywheel using brake.
   b. Disconnect and remove duplex chain (D).
   c. Release flywheel brake so that flywheel can be repositioned.
   d. Place plunger in proper position, as shown in Step 1, by turning flywheel (F) to the right.

NOTE: When the plunger roller is placed backed in proper position, it is necessary to reposition chain sprockets on splined shaft in order to realign sprocket teeth for chain installation.

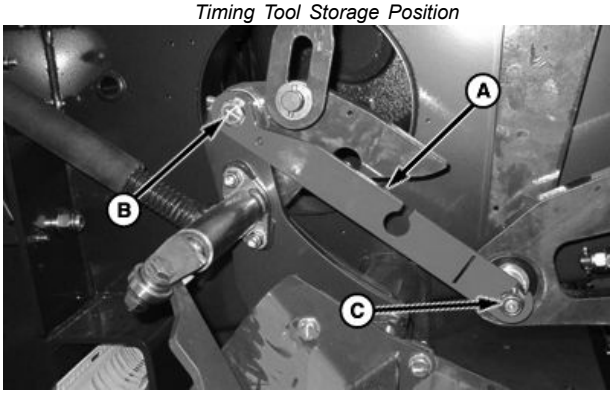
   e. Block flywheel using brake and reinstall duplex chain once front plunger roller has been moved back to proper position.
4. Return timing tool to storage position.

A — Timing Tool
B—Cap Screw
C—Nut
D—Duplex Chain
E—Main Gear Case
F—Flywheel



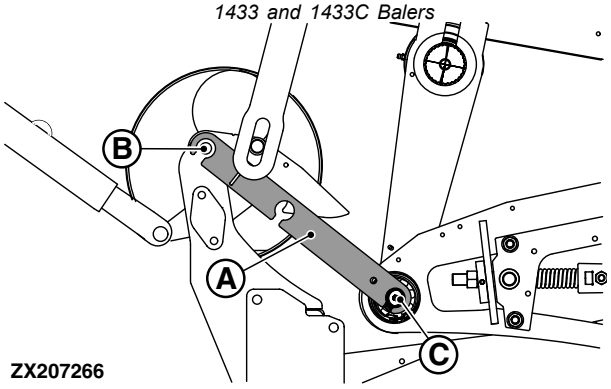
E60802 —UN—24JAN12

Timing Tool Storage Position



E60803 —UN—24JAN12

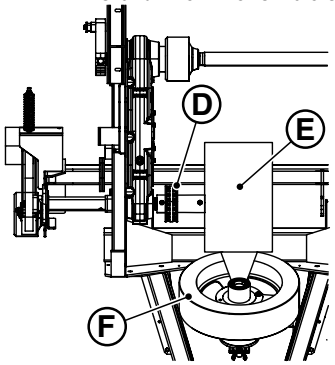
1433 and 1433C Balers



ZX207266 —UN—03NOV13

ZX207266

1424/1424C and 1434/1434C Balers



ZX1050771 —UN—08AUG12

ZX1050771

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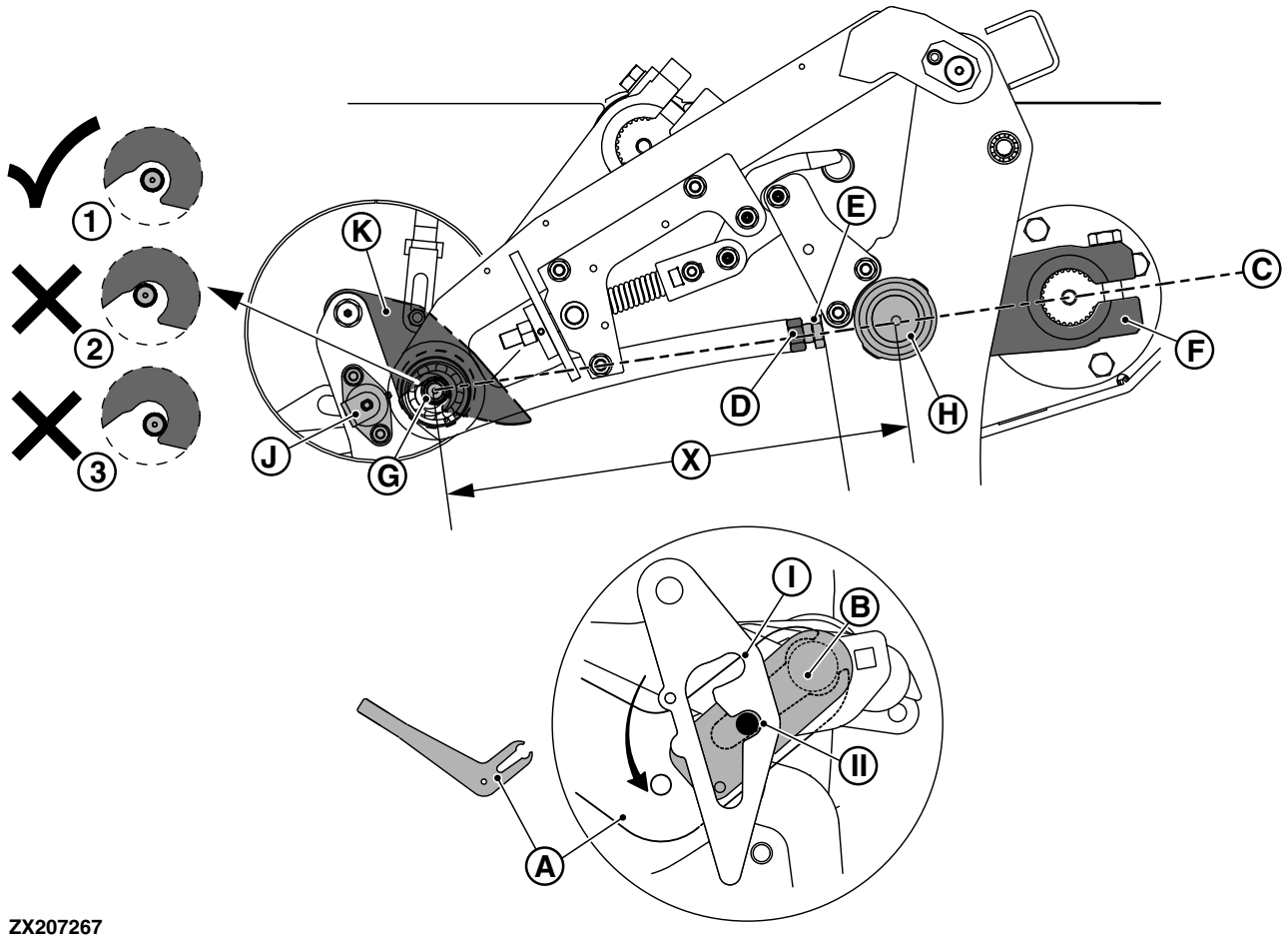
SF04007,0000CDD -19-30NOV16-2/7

Synchronize Feeder Fork to Hook



ZX207267

ZX207267 —UN—03NOV13

A—Lever
B—Spanner
C—Line
D—Lock Nut
E—Cap Screw
F—Arm
G—Pin
H—Bearing
J—Locking Pin
K—Hook
X—497 ± 5 mm (1 ft 7.5 in ± 0.19 in)
I— Lever Upper Position
II— Lever Lower Position
1—Correct Alignment
2—Incorrect Alignment (Hook Touches Left-Hand Side of Pin)
3—Incorrect Alignment (Hook Touches Right-Hand Side of Pin

IMPORTANT: Packer system must be checked every 3000 bales.

Check the packer system only when the system is at the beginning of the filling stroke. This is done when components are aligned along line (B).

When hook (K) moves down over pin (G), it must move in a smooth motion.

NOTE: To be able to move the hook, lock pin (J) must be pulled out by the cable.

1. Use a separate spanner (A) to move the lever (B) downwards in position (II). This extracts the lock pin (J) and allows the hook (K) to move.

NOTE: Spanner (A) is stored at the front of the left-hand twine box.

2. Rotate flywheel until the feeder fork rotation points are in alignment as shown by line (C).

IMPORTANT: Serious damage to mechanism can result from improper adjustment of distance (X).

3. Measure distance (X). Distance must be with specification.

Specification	
Pin to Bearing—Distance	497 ± 5 mm (1 ft 7.5 in ± 0.19 in)

Continued on next page

SF04007,0000CDD -19-30NOV16-3/7

4. Check hook (K) to pin contact when hook is over pin (G). Correct alignment (1) of hook is when hook touches each side of pin as shown. Adjust as follows:
   a. Loosen lock nut (D).
   b. Turn cap screw (E) to adjust distance (X) to specification.

Specification	
Pin to Bearing—Distance	497 ± 5 mm (1 ft 7.5 in ± 0.19 in)

   c. Apply a medium strength thread lock and tighten lock nut (D).
5. Move lever (B) upwards in position (I) and lock in place with spring clip.

IMPORTANT: Adjustment must be repeated on the opposite side of machine so that head of the cap screw is touching arm on each side of the machine.

NOTE: It is possible for there to be a small difference in dimension (X) between the left and right sides.

6. Repeat Steps 4 on the opposite side of machine.

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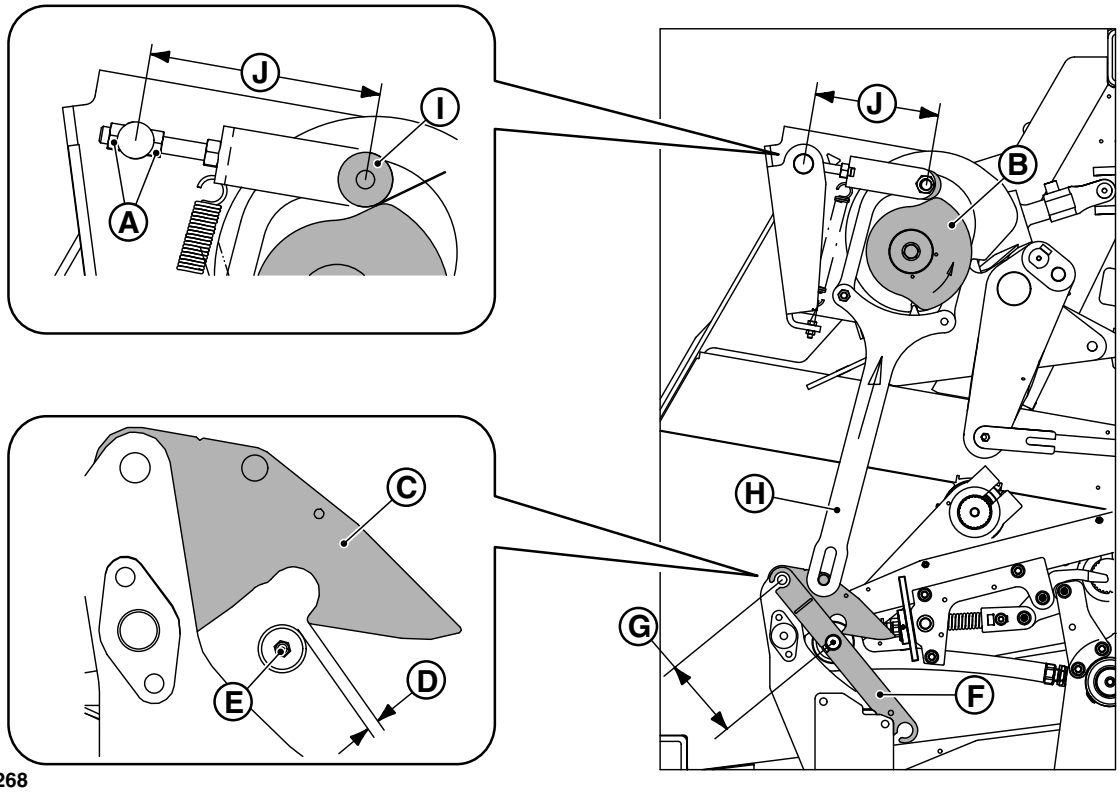
SF04007,0000CDD -19-30NOV16-4/7

Checking Excenter Roller Position



ZX207268

ZX207268 —UN—03NOV13

Excenter Roller Position—1424, 1424C Shown

A—Lock Nuts
B—Curve
C—Hook
D—Hook-to-Roller Spacing
E—Roller
F—Checking Plate
G—Dimension
H—Plate
I— Excenter Roller
J— Excenter Roller to Lock Nut Spacing

1. Turn flywheel by hand until filling stroke is complete and hook begins to lift.
2. Ensure proper dimension (G) using checking plate (F).

Specification	
Dimension—Distance	144 mm (5.67 in)

IMPORTANT: Serious damage to mechanism can result from improper hook to roller spacing (D).

3. Check that hook to roller spacing (D) is within specification.

Specification	
Hook-to-Roller Spacing—Distance	8 ± 1 mm (0.315 ± 0.04 in)

NOTE: 1433 model balers have the lock nuts (A) and the threaded rod facing forward instead of rearward as pictured, however adjustment procedure is the same.

Adjust the excenter roller as follows:

a. Loosen lock nuts (A).

b. Adjust excenter roller position to achieve correct hook-to-roller spacing (D).

c. Tighten lock nuts.

4. Remove the checking plate.
5. Turn flywheel by hand and complete an entire feeding cycle and observe hook (C) for smooth up and down motion.

Continued on next page

SF04007,0000CDD -19-30NOV16-5/7

6. **Adjust Hook Spring**

IMPORTANT: The upper part of the spring (C) must be completely against plate (E). Make sure that spring is not rotating while tightening nuts (A).

To spring the set hook, complete the following steps:

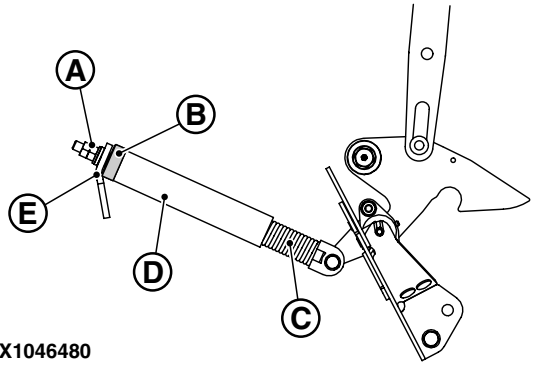
a. Loosen jamb nuts (A).

b. Tighten spring (C) against plate (E) being careful not to twist spring while tightening nut.

c. Tighten jamb nuts (A).

d. Fit hose (D) tightly at spring.

e. Tighten screw clip (B).



ZX1046480

ZX1046480 —UN—01FEB12

A—Nuts
B—Screw Clip
C—Spring
D—Hose
E—Plate

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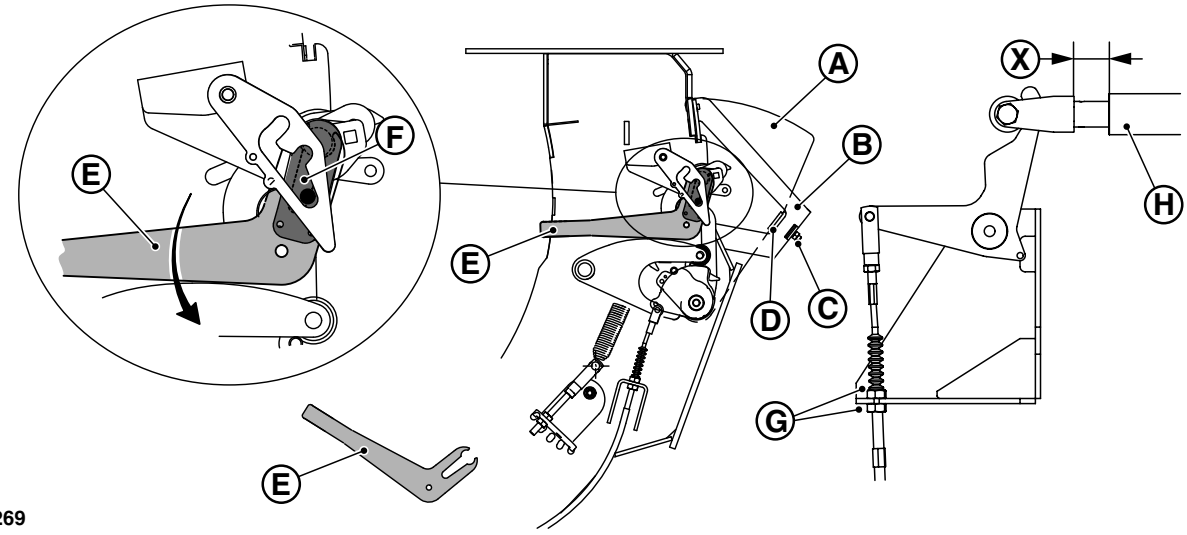
SF04007,0000CDD -19-30NOV16-6/7

Adjust Measuring Plate Cable



A—Measuring Plate
B—Support
C—Nut
D—Buffer
E—Spanner
F—Lever
G—Nuts
H—Lock Pin
X—34 ± 1 mm (1.34 ± 0.04 in)

NOTE: To stop measuring plates (A) in the rearmost position, two buffers (D) must touch measuring plates at same time.

1. To move the lever (F) fully down use a separate spanner (E).

NOTE: Spanner (E) is stored at the front of the left-hand twine box.

2. Pull measuring plates by hand against buffers. Buffers must be positioned against measuring plates at same time. If not, adjust buffers as follows:
   a. Pull measuring plates (A) by hand against buffers (D). When measuring plates are not against buffers at same time, one or more washers must be added between buffer and support.
   b. Loosen nut (C).
   c. Add or remove washers so that each buffer touches measuring plates at same time. A minimum of two washers must be mounted between buffer and support.
   d. Tighten nut (C).
3. Check for proper cable measurement by checking distance (X). Distance must be with specification. Adjust length of the cable as necessary using nuts (G).

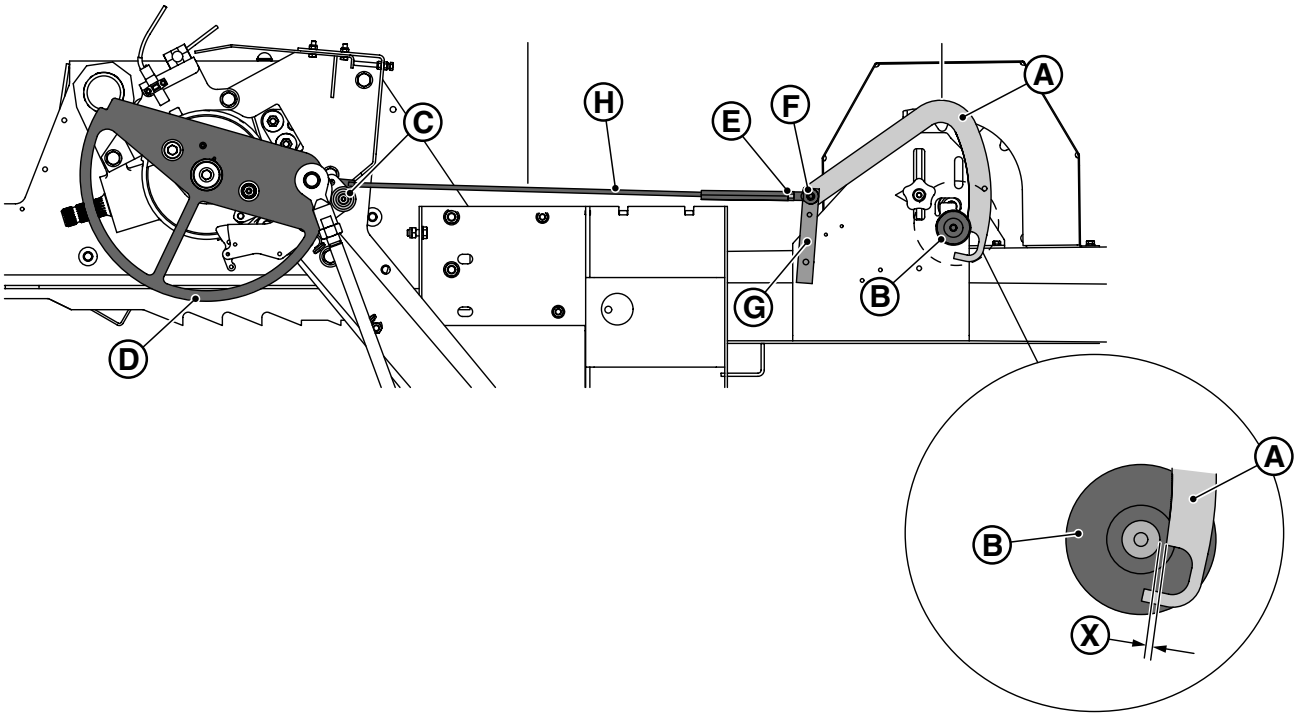
Specification

Lock Pin Spacing—Distance	34 ± 1 mm (1.34 ± 0.04 in)

4. Move lever (F) back into original position.

SF04007,0000CDD -19-30NOV16-7/7

Adjust Bale Length Trip Lever



ZX1046395

A—Trip lever
B—Roller
C—Roller
D—Wheel contour
E—Lock nut
F—Arm
G—Lever
H—Rod
X—3 - 5 mm (0.11 - 0.19 in)

Trip Mechanism Adjustment

Distance (X) between trip lever (A) and roller (B) must corresponding to the specified distance (X) when trip lever (A) is being reset and drops.

Specification	
Trip lever to the roller.—Distance	3 - 5 mm (0.11 - 0.19 in)

Proceed as follows:

1. Switch on the knotting mechanism by moving up the trip lever (A).
2. Turn the flywheel by hand clockwise until the arm with roller (C) is at the wheel contour (D).
3. Loosen the lock nut (E).
4. Remove the arm (F) from the lever (G).
5. Turn the arm (F) from the rod (H), counterclockwise or clockwise to adjust distance (X).
6. Install the arm (F) to the lever (G).
7. Tighten the lock nut (E).

IMPORTANT: An incorrect adjustment of the trip mechanism can lead to:

- **Variation in bale length.**
- **Unintended tying cycles.**

NOTE: When the electrical binding option is installed and activated, the trip lever is disabled by putting it in electrical binding position.

SF04007,0000CDE -19-30NOV16-1/1

Adjust Anti-Return Strip

After each knotting cycle, the anti-return strip (A) has to be in contact with the gap (B) of the crank (C).

Proceed as follows:

1. Place the crank (C) in the rest position, a 90° angle appears between the crank (C) and the knotter frame.

   In the rest position, the crank (C) and the rod (D) has centered, in reference to the center line (E).

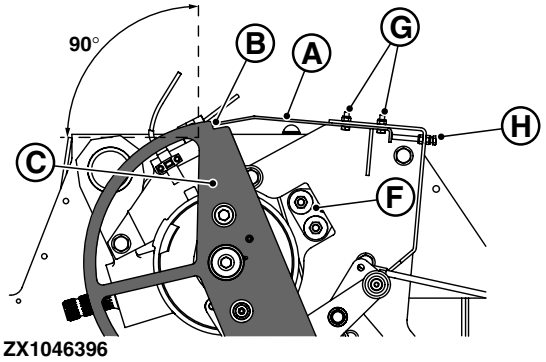
   Adjustment can be made by changing the knotter shaft brake (F) force. Refer to Adjust Knotter Shaft Brake see Knotters in service section.

2. Loosen the bolts (G).
3. Adjust the position of the anti-return strip (A).

   a. Turn the screw (H) in the required position.

   b. Tighten the bolts (G).

A—Anti-return strip
B—Gap
C—Crank
D—Rod
E—Center line
F—Shaft brake
G—Bolts
H—Screw



ZX1046396

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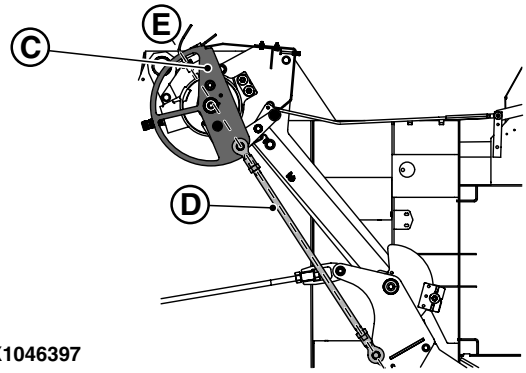

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ZX1046397 —UN—02FEB12

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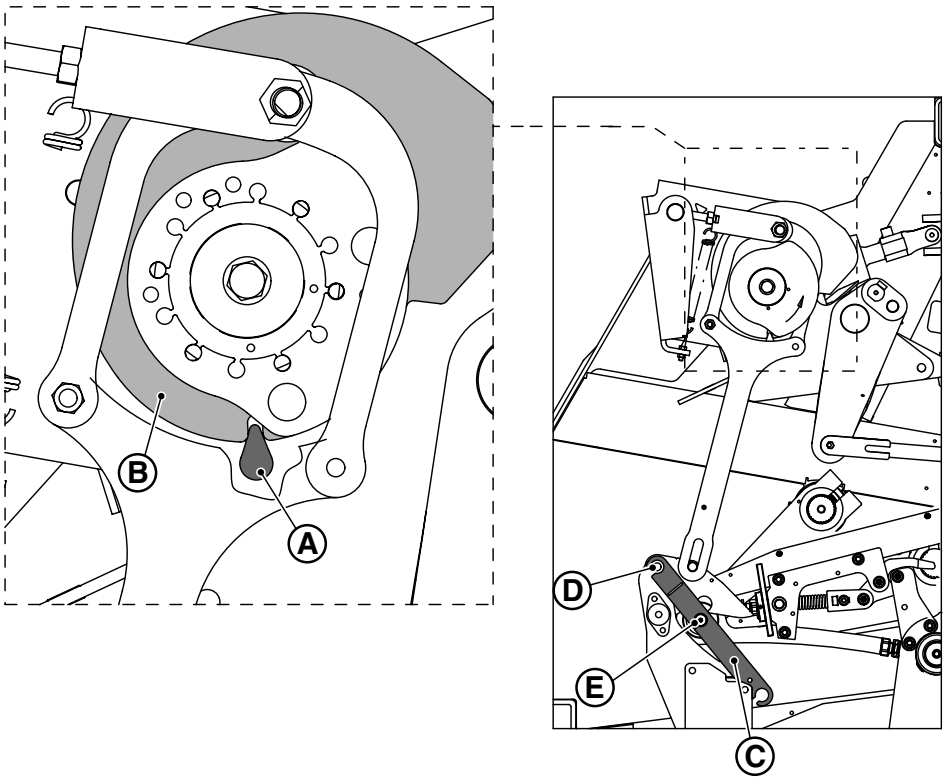
SF04007,0000CDF -19-30NOV16-1/5

Adjust Needle Extractor Curve on 1433 and 1433C



ZX207270 —UN—03NOV13

ZX207270

A—Sign
B—Cam
C—Checking plate
D—Bolt
E—Nut

Sign (A) must be within the notch of the cam (B). This can be checked at the same moment as the curve roller check. Checking Excenter Roller Position see Packer Timing in service section.

Proceed as follows:

1. Turn the flywheel clockwise until the sign (A) is almost within the notch of cam (B).
2. Place the checking plate (C) on the bolt (D) and nut (E).

NOTE: The main crank must point downwards.

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SF04007,0000CDF -19-30NOV16-2/5

If necessary, adjust timing of the needle extractor:

1. The Distance (X) between the peak of the cam (A) and the roller (B) on the crank lever must be adjusted to the specified distance.

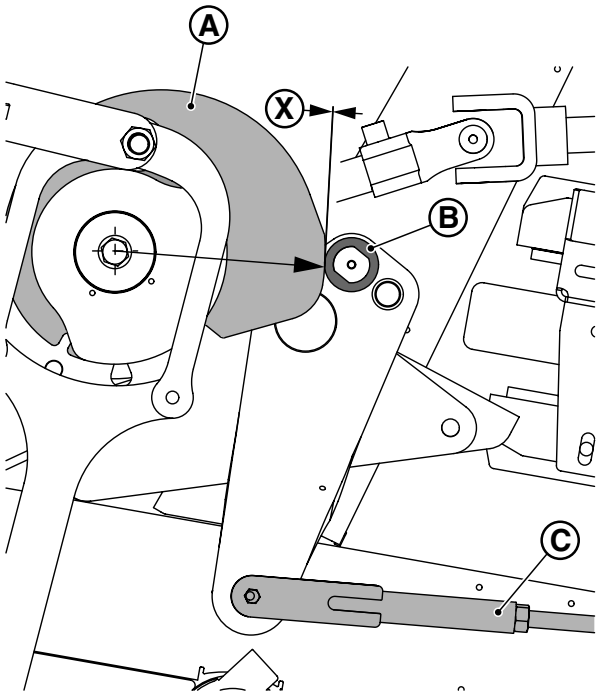
Specification

Peak of the cam to the roller on the crank lever.—Distance.....0.2 - 0.5 mm (0.007 - 0.019 in)

   At that moment, the needles must be in rest position.

2. Turn the flywheel clockwise until the highest point of the cam (A), is at it maximum on the roller (B).
3. Adjust the length of the rod (C) to specified distance (X).

A—Cam
B—Roller
C—Rod
D—0.2 - 0.5 mm (0.007 - 0.019 in)



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ZX1046399 —UN—02FEB12

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SF04007,0000CDF -19-30NOV16-3/5

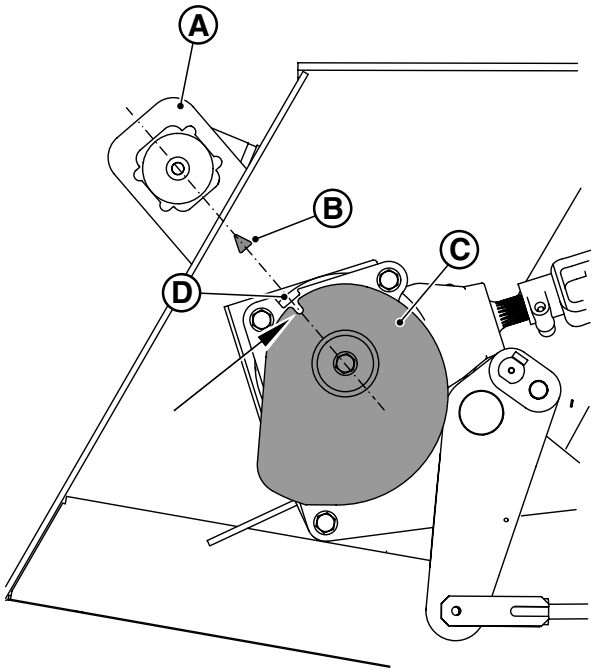
Adjust Needle Extractor Curve on 1424, 1424C, 1434 and 1434C

1. Turn the flywheel so that the notch in the cam (C), notch (D) in the mounting plate behind the cam, the center of the main crank (A), and the arrow mark (B) on the frame are in alignment as shown.
2. Check that spacing (X) between peak of cam and bearing (E) on crank lever is within specification.
3. Check that needles are in rest position.
4. Loosen nuts and adjust needle curve (F) spacing by increasing or decreasing length of link (G) until the spacing (X) is within specification.

Specification

Peak of Cam and Bearing Spacing—Distance.....0.2—0.5 mm (0.08—0.20 in)

A—Main Crank
B—Arrow
C—Cam
D—Notch
E—Bearing
F—Curve
G—Link
X—0.2 - 0.5 mm (0.08 - 0.20 in)



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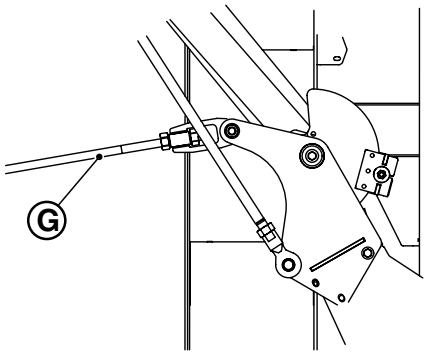

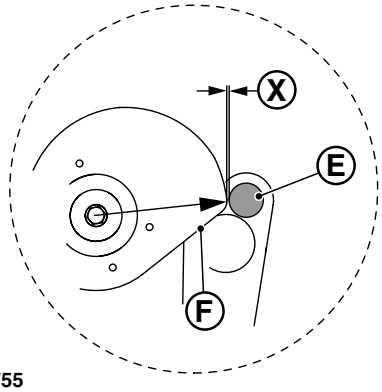

ZX1050755 —UN—03AUG12

ZX1050755

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SF04007,0000CDF -19-30NOV16-4/5

Adjust Trip Arm Finger Spring

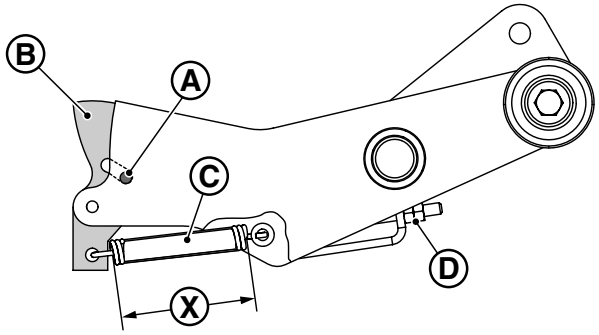
Check that pin (A) is at the end of the slot on finger (B) and that spring length (X) is within specified dimension.

Specification

Trip Arm Spring Length—Dimension.....57 - 59 mm (2.244 - 2.322 in)

Adjust spring (C) length (X) as follows:

1. Loosen the nuts (D).
2. Adjust the length of the spring (C) to specified dimension by turning the nuts (D).
3. Tighten lock nuts.



ZX1046487

ZX1046487 —UN—01FEB12

A—Pin
B—Finger
C—Spring
D—Nut
X—57 - 59 mm (2.244 - 2.322 in)

SF04007,0000CDF -19-30NOV16-5/5

Adjust Needle Position in Knotter

Adjusting the needles requires the following procedures:

- Center the needles.
- Adjust the distance between needle and knotter.
- Adjust the needle throw.

Proceed as follows:

1. Trip the tying mechanism.
2. To raise the needles (A) to the top dead center, turn the flywheel by hand counterclockwise.

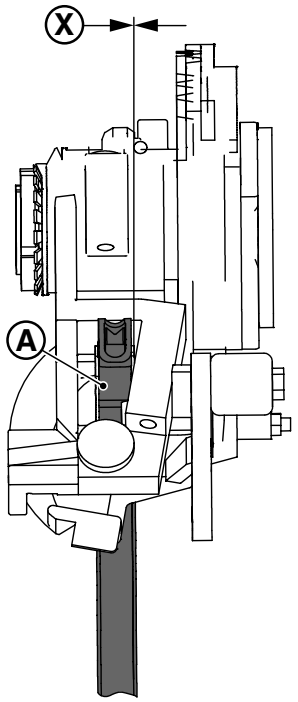
Center the Needles

1. Distance between the side of the needle (A) and the knotter frame must be set to specified distance (X), slightly touching.

Specification

Side of the needle to the knotter frame.—Distance.....0 mm (0 in)

A—Needle
X—0 mm (0 in)



ZX1046389

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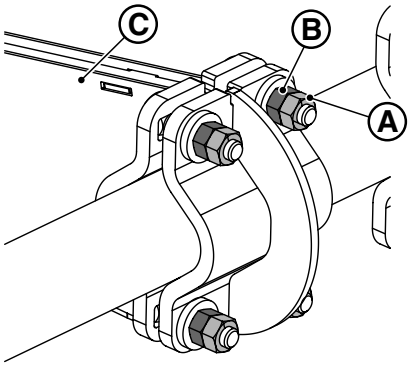
2. **On 1433, 1433C, 1434 and 1434C**
   a. Loosen all lock nuts (A).
   b. Loosen all nuts (B).
   c. Move the needle (C) to the left or to the right if necessary.
   d. Tighten all nuts (B) and lock nuts (A).

A—Lock Nut (4 used)
B—Nut (4 used)
C—Needle



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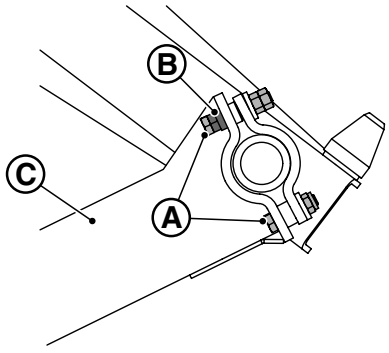
ZX1046390 —UN—31JAN12

On 1433, 1433C, 1434 and 1434C

SF04007,0000CE0 -19-30NOV16-2/8

3. **On 1424 and 1424C**
   a. Loosen all screws and nuts (A).
   b. To move the needle (C) to the left or to the right, turn the sleeve nuts (B).
   c. Tighten all screws and nuts (A).
4. Check if the needles are centered to its slot in the press chamber and the plungerhead.

A—Screw and Nut (4 each)
B—Sleeve Nut (4 used)
C—Needle



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ZX1046391 —UN—01FEB12

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SF04007,0000CE0 -19-30NOV16-3/8

Adjust the Distance Between Needle and Knotter

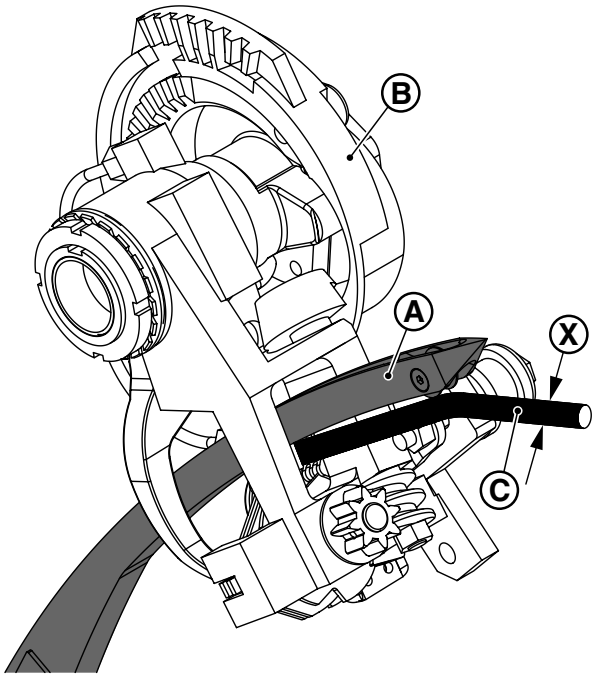
1. Check the specified distance (X) between the needle (A) and the twine retainer disc (B) proceed as follows.

Specification

Needle to the twine retainer disc.—Distance..... 12 ± 2 mm (0.47 ± 0.07 in)

2. Place a round bar (C), with a diameter of 12 mm (0.47 in), between the needle (A) and the twine retainer disc (B).

A—Needle
B—Twine Retainer Disc
C—Round Bar
X—12 ± 2 mm (0.47 ± 0.07 in)



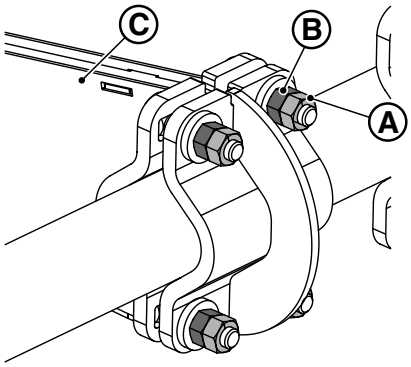
ZX1046392

ZX1046392 —UN—01FEB12

SF04007,0000CE0 -19-30NOV16-4/8

3. **On 1433, 1433C, 1434 and 1434C**
   a. Loosen all lock nuts (A).
   b. Loosen all nuts (B).
   c. Move the needle (C) up or down if necessary.
   d. Tighten all nuts (B) and lock nuts (A).

A—Lock Nut (4 used)
B—Nut (4 used)
C—Needle



ZX1046390

ZX1046390 —UN—31JAN12

On 1433, 1433C, 1434 and 1434C

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SF04007,0000CE0 -19-30NOV16-5/8

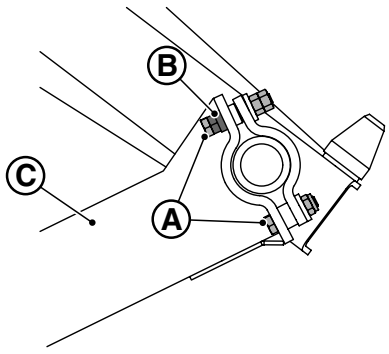
4. **On 1424 and 1424C**

   a. Loosen all screws and nuts (A).

   b. To move the needle (C) up or down, turn the sleeve nuts (B).

   c. Tighten all screws and nuts (A).

A—Screw and Nut (4 each)
B—Sleeve Nut (4 used)
C—Needle



ZX1046391

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SF04007,0000CE0 -19-30NOV16-6/8

Adjust the Needle Throw

IMPORTANT: Only adjust the needle throw when the crank (A) and the needle rod (B) are in line.

To place the needles (C) in the top position, proceed as follows:

1. Trip the tying mechanism.
2. Turn flywheel by hand to counterclockwise until crank (A) is in top position and in alignment with the needle rod (B), in reference to the center line (D).

NOTE: In rest position, the crank (A) and the rod (B) must be in line. For adjustment, release the needle frame brake.

3. Check the specified distance (X) between the twine retainer disc and the center of the needle roller, if necessary proceed as follows:

Specification	
Twine retainer disc to center of the needle roller.—Distance	150 ± 5 mm (5.50 ± 0.19 in)

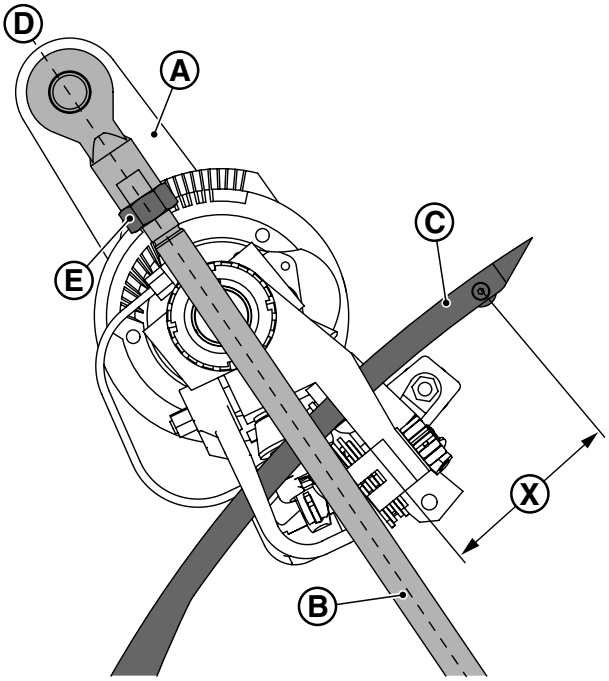
   a. Loosen the lock nut (E) at the needle rod (B) at both sides of the machine.

   b. To increase or decrease the length of the needle rod, turn the needle rod (B) equally at both sides.

   c. Check the specified distance (X).

   d. Tighten the lock nuts (E) at the needle rod (B) at both sides of the machine.

   e. Turn the flywheel till the needle frame is in its rest position.



ZX1046393

ZX1046393 —UN—01FEB12

A—Crank
B—Needle Rod
C—Needle
D—Center Line
E—Lock Nut

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SF04007,0000CE0 -19-30NOV16-7/8

4. Check the needle frame buffers (A) adjustment at both sides of the machine.

   Distance between the frame buffer (A) to the support (B) must be set to specified distance (X) proceed as follows.

Specification

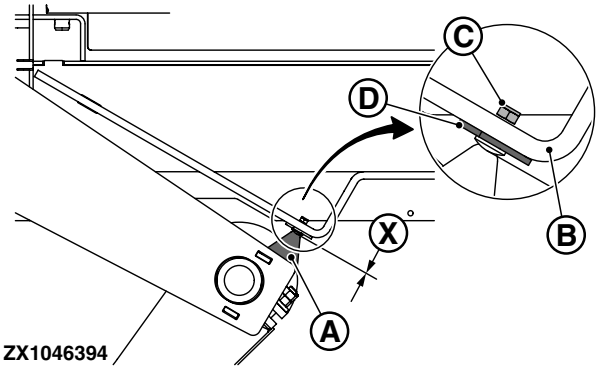
Needle frame buffer to the support.—Distance ..... 0 mm (0 in)

   a. Turn the flywheel by hand counterclockwise until the needle frame is in the lower dead position (rest position).

   b. Loosen the nuts (C).

   c. To decrease or increase the specified distance (X), add or remove shims (D) above the support (B) .

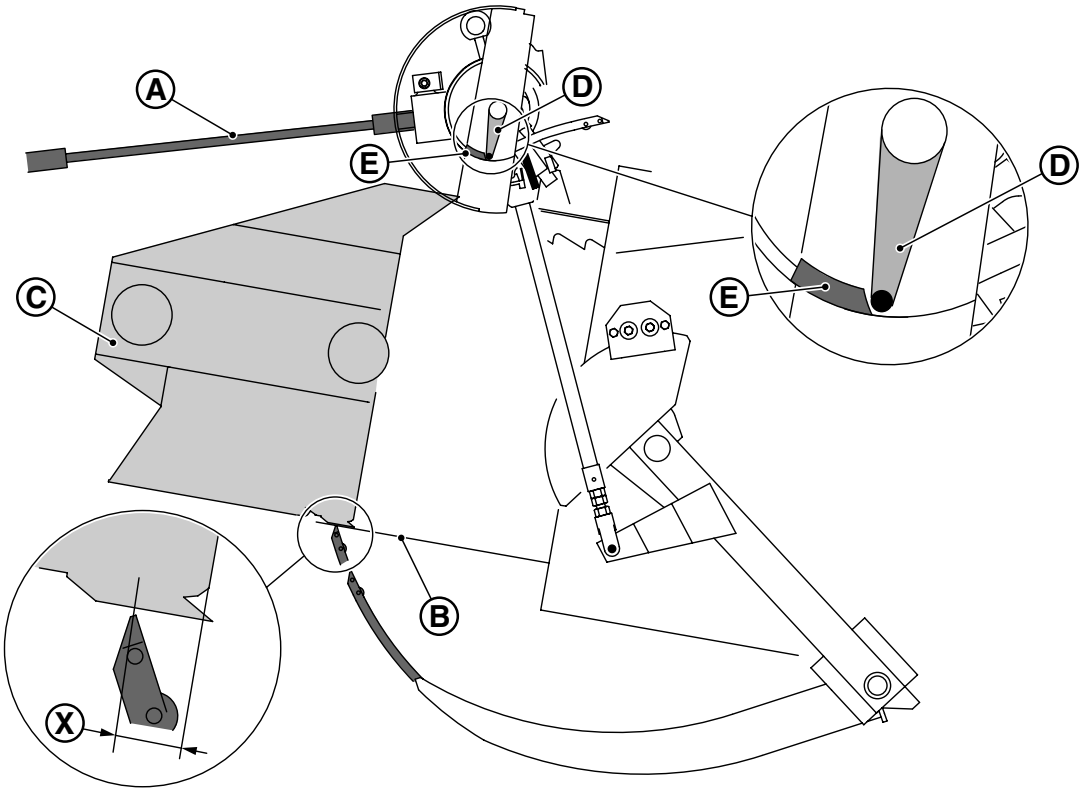
   d. Tighten the nuts (C).



A—Buffer
B—Support
C—Nut
D—Shim (as needed)
X—0 mm (0 in)

SF04007,0000CE0 -19-30NOV16-8/8

Needle to Plungerhead Timing



ZX1046388

ZX1046388 —UN—02FEB12

A—Drive Shaft
B—Bottom of the Press Chamber
C—Plungerhead
D—Pawl
E—Drive Pad

X—0 - 35 mm (0 - 1.37 in)

Adjust Timing

CAUTION: Before adjusting the needle to plungerhead timing:

- **PTO must be off.**
- **Tractor engine must be switched off and the ignition key must be removed.**
- **The needle throw must have been adjusted.**

Adjust the needle-to-plunger timing as follows:

1. Trip the tying mechanism.
2. Turn the flywheel counterclockwise until the needle tips are flush with the bottom of the press chamber (B).
3. Disconnect the knotter driveshaft (A) on the front of the machine.

   Check the specified distance (X).

Specification	
Front of the plungerhead passes the needle tips.—Distance	0 - 35 mm (0 - 1.37 in)

4. Turn the flywheel counterclockwise.
5. Stop turning the flywheel when the front of the plungerhead (C) passes the needle tips by the specified distance (X).
6. Apply the flywheel brake.
7. Connect the knotter driveshaft (A) and make sure that the pawl (D) is in contact with the drive pad (E).
8. Loosen the flywheel brake.

   Turn the flywheel clockwise until a complete plungerhead cycle has taken place.

SF04007,0000CE1 -19-30NOV16-1/1

Adjust Needle Frame Brake

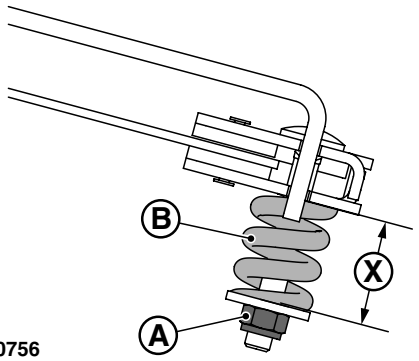
Loosen or tighten the nut (A) to adjust the spring (B) tension to the specified distance (X).

Specification

Spring Length (without washers)—Distance.....44 mm (1.73 in)

NOTE: Replace the brake linings as soon as they are worn.

Never grease the brake discs.



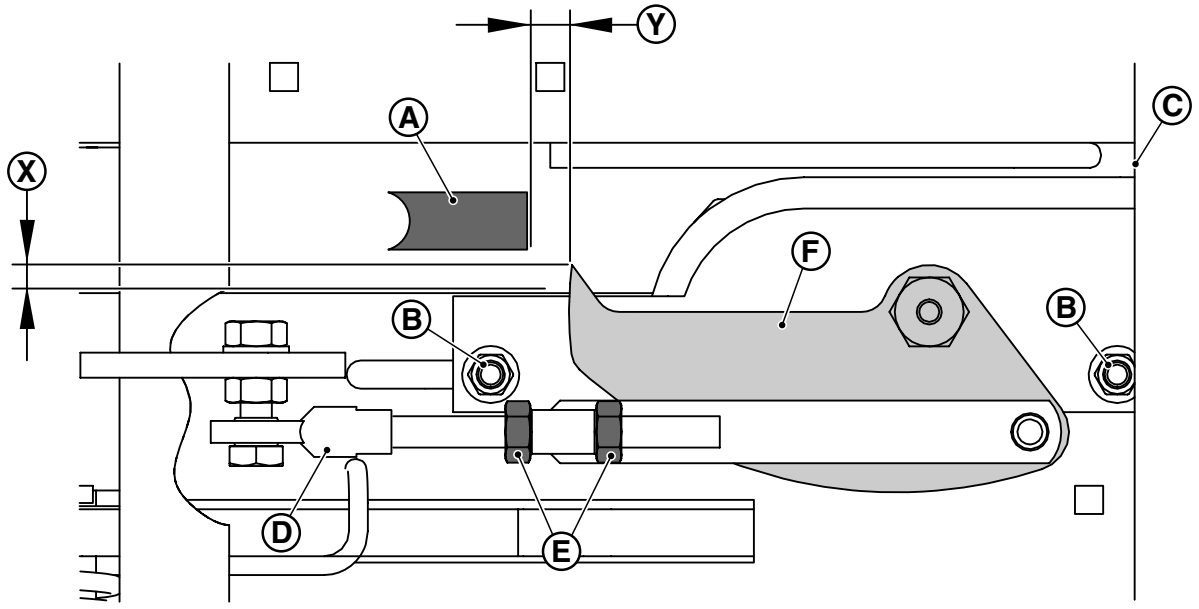
ZX1050756 —UN—06AUG12

A—Nut
B—Spring
X—44 mm (1.73 in)

ZX1050756

SF04007,0000CE2 -19-30NOV16-1/1

Adjust Tucker Finger Clearance



ZX1050764 —UN—06AUG12

ZX1050764

A—Needle
B—Nut (2 used)
C—Base Plate
D—Rod
E—Lock Nut (2 used)
F—Tucker Finger
X—0 - 5 mm (0 - 0.196 in)
Y—10 - 20 mm (0.393 - 0.787 in)

NOTE: This adjustment must be done after all needle adjustments are finished.

The needles must be in the up-going movement just in the front of the tucker finger-point.

Distance (Y) between the needle (A) and the tucker finger (F) must be 10 - 20 mm (0.393 - 0.787 in).

Adjust base plate position as follows:

1. Loosen the two nuts (B).
2. Move the base plate (C) until distance (Y) is within the specification.

Specification

Tucker finger tip to needle—Distance.....10 - 20 mm (0.393 - 0.787 in)

3. Tighten the two nuts (B).

Adjust tucker finger linkage as follows:

1. The needles (A) must be back in the rest position.

   Now the tucker finger (F) is in rest position, too (as shown in the figure).

   Distance (X) between the tip of the tucker finger (F) and the side of the base plate (C) must be 0 - 5 mm (0 - 0.196 in).

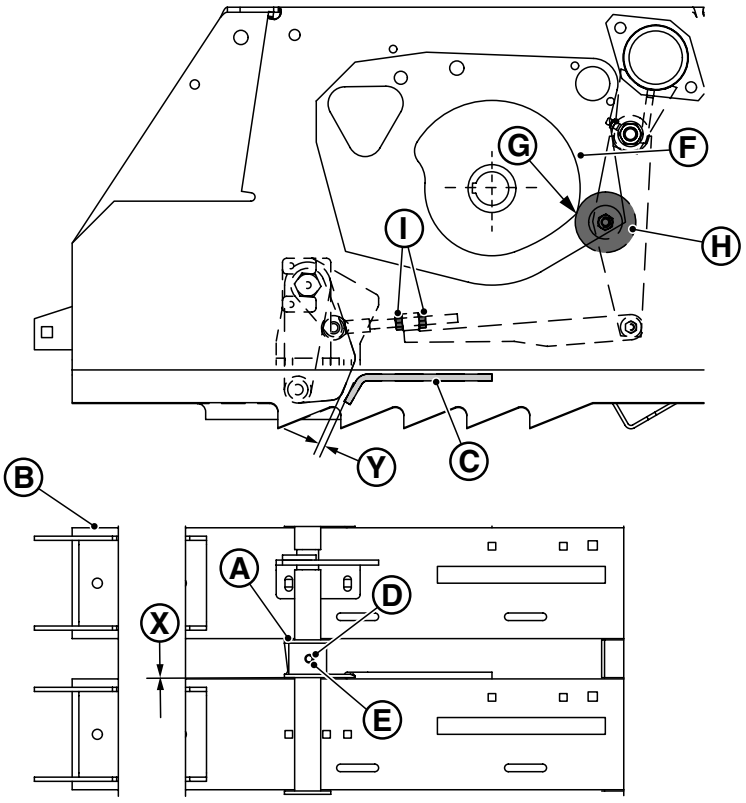
2. Change the length of the rod (D) by using the locknuts (E) to achieve the specification (X).

Specification

Tucker finger tip to the base plate—Distance.....0 - 5 mm (0 - 0.196 in)

SF04007,0000CE3 -19-30NOV16-1/1

Adjust Tension Relief System



ZX1050765

ZX1050765 —UN—06AUG12

A—Arm
B—Frame
C—Pin
D—Nut
E—Bolt
F—Curve
G—Highest Point
H—Roll
I— Nuts
X—0.5 - 1 mm (0.019 - 0.039 in)
Y—2 - 3 mm (0.078 - 0.118 in)

- Distance (X) between the side of the arm (A) and the right side of the frame (B) must be 0.5 - 1 mm (0.019 - 0.039 in).
- Distance (Y) between the arm (A) and the pin (C) must be 2 - 3 mm (0.078 - 0.118 in).

Adjust distance (X) as follows (per arm):

1. Loosen the nut (D).
2. Loosen the bolt (E).
3. Move the arm (A) laterally until distance (X) is within the specification.

Specification

Arm to Right Side of the Frame—Distance.....0.5 - 1 mm (0.019 - 0.039 in)

4. Tighten the bolt (E).
5. Tighten the nut (D).

Adjust distance (Y) as follows:

1. Before adjusting distance (Y), make sure the curve (F) is at the highest point (G) to the roll (H).
2. Turn the nuts (I) to adjust distance (Y) within the specification.

Specification

Arm to Pin—Distance.....2 - 3 mm (0.078 - 0.118 in)

SF04007,0000CE4 -19-30NOV16-1/1

Knotters

Adjust Intermittent Gear Clearance to Knotter Frame

Adjust intermittent gear (A) clearance as follows:

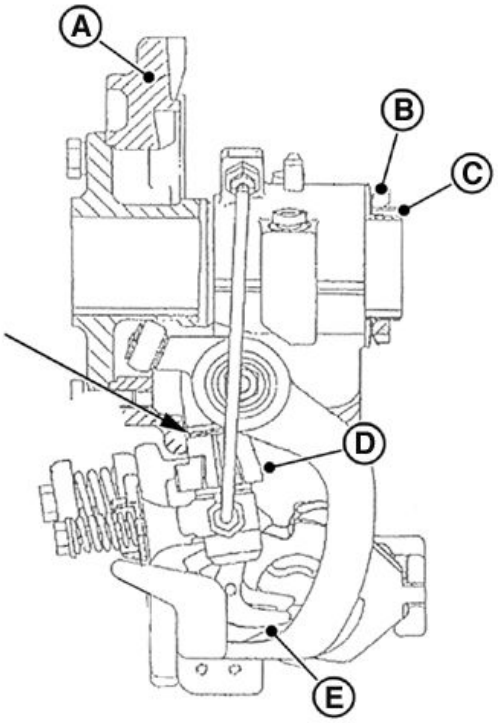
1. Push the knotter frame fully to the left on the knottershaft.
2. Check if the clearance between the intermittent gear (A) and the sliding surface of the billhook and twine retainer gears is within the specification.

Specification	
Billhook Gear—Clearance	Max 0.2 mm (0.0079 in)

Specification	
Twine Retainer Gear—Clearance	Max 0.2 mm (0.0079 in)

NOTE: Only one of the two gears must meet the specification. The other gear can have up to 0.6 mm (0.0236 in) of clearance. If second gear clearance is higher knotter frame can be twisted or cracked -see your John Deere dealer.

3. Unlock nut (C) by bending the tab on the locking washer (B) out of the locking slot.
4. Loosen or tighten the nut to achieve specified gear clearance.
5. Lock the nut (C) by bending the tab on the locking washer (B) back into the locking slot.



ZX1050757

ZX1050757 —UN—06AUG12

A—Intermittent Gear
B—Locking Washer
C—Nut, 25 N·m (18.5 lb·ft)
D—Bill Hook Gear
E—Bill Hook

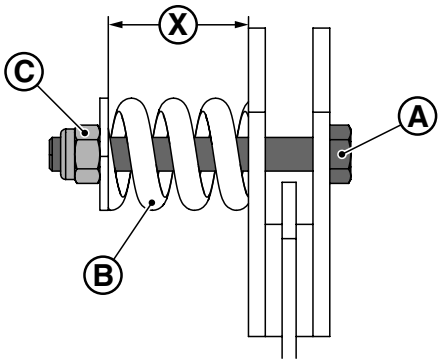
SF04007,0000CE5 -19-30NOV16-1/7

Adjust Knotter Shaft Brake

IMPORTANT: Check the spring tension regularly. Replace the brake linings as soon as they are worn. Never grease the brake discs.

To adjust, use the bolts (A) keeping the springs (B) at an equal length. (X) = 45 ± 0.5 mm (1.77 ± 0.019 in)

1. Loosen or tighten the nut (C) adjusting the tension of the spring (B).
2. Use set bolts making sure that linings are in line.



ZX1050759 —UN—06AUG12

A—Bolt
B—Spring
C—Nut
X—45 ± 0.5 mm (1.77 ± 0.019 in)

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SF04007,0000CE5 -19-30NOV16-2/7

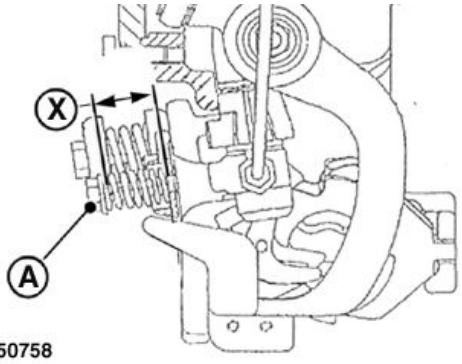
Adjust Billhook Compression Spring

Distance (X) of the billhook compression spring must be 20 mm (0.787 in)

Adjust as follows:

- Tighten or loosen the bolt (A) until distance (X) is 20 mm (0.787 in)

A—Bolt **X—20 mm (0.787 in)**



ZX1050758

ZX1050758 —UN—06AUG12

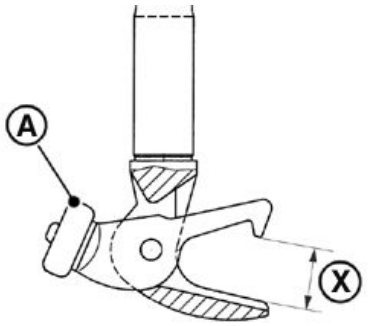
SF04007,0000CE5 -19-30NOV16-3/7

Billhook Opening

Distance (X) of the billhook (in the knotter) must be at least 10 mm (0.39 in).

Turn the knotter manually until the roll (A) at the billhook is at the highest point of the curve.

A—Roll **X—10 mm (0.39 in)**



ZX1050760

ZX1050760 —UN—06AUG12

SF04007,0000CE5 -19-30NOV16-4/7

Adjust Twine Retainer Disc Opening

Before the twine retainer disc can be adjusted, the following conditions must be complied with:

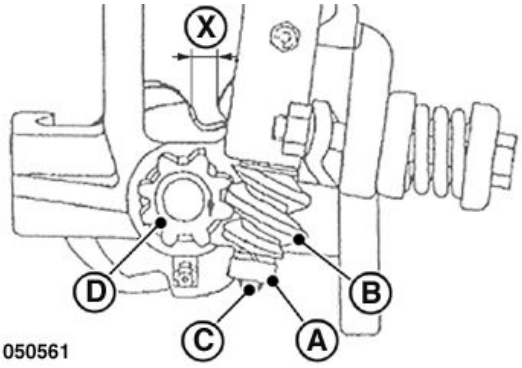
- No twine in the twine retainer disc.
- Clamping segment sits on the bottom of the twine retainer disc.
- Knotter must be in rest position.

Check distance (X). If distance (X) is not 7 mm (0.28 in), the twine retainer disc must be adjusted. Proceed as follows:

1. Loosen nut (A).
2. Release worm gear (B) from shaft cone by cautiously tapping at the shaft end (C).
3. Rotate twine disc gear (D) until distance (X) is 7 mm (0.28 in)
4. Tighten nut (A) to specification.

Specification

Nut—Torque.....25 N·m (18 lb·ft)



ZX1050561

ZX1050761 —UN—06AUG12

A—Nut **D—Twine Disc Gear**
B—Worm Gear **X—7 mm (0.28 in)**
C—Shaft End

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SF04007,0000CE5 -19-30NOV16-5/7

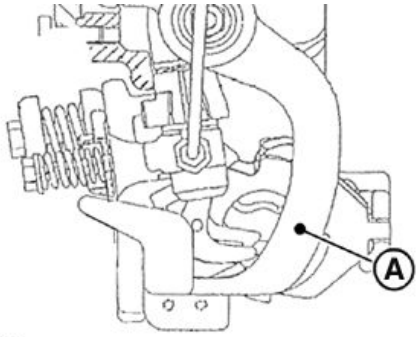
Adjust Wiper Plate Clearance

Check that comb of wiper plate (A) slides in middle along the billhook just touching it. If not, it can be seen as irregular wear of the wiper plate (A).

Bend the wiper plate (A) slightly to correct.

If the radius is worn, replace the wiper plate (including shaft).

A—Wiper Plate



ZX1050762

ZX1050762 —UN—06AUG12

SF04007,0000CE5 -19-30NOV16-6/7

Knotter Knife

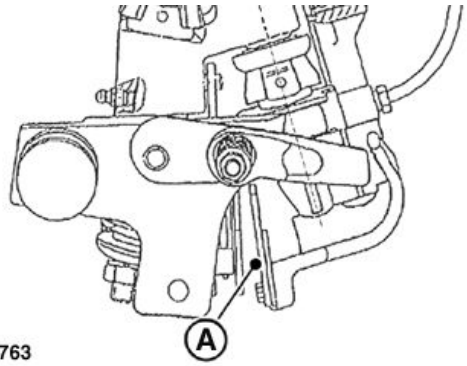
CAUTION: Carefully handle the knotter knife (A). It can cause severe physical injuries.

Make sure that the knotter knife (A) is sharp at all times.

Replace a dull or damaged knife.

Replacing Knotter Knife:

1. Un-Pin knotter from frame and rotate up slightly to expose knife bolts.
2. Remove the two bolts and the old knife.
3. Install new knife in the same direction as old knife.
4. Tighten bolts.



ZX1050763

ZX1050763 —UN—06AUG12

A—Knotter Knife

Adjustment of the Needles

Adjusting the needles requires a fixed procedure. This procedure is as follows:

- The needles must be centered.
- The distance between needle and knotter must be set.
- The needle throw must have been adjusted.

Before any adjustments to the needles can be done, they must be in the top dead center.

Adjust as follows:

- Trip the tying mechanism.
- Turn the flywheel by hand to the right raising the needles to the top dead center.

See Needle to Plungerhead Timing in service section for procedures.

SF04007,0000CE5 -19-30NOV16-7/7

Adjust Plunger Roller Clearance

Check and adjust plungerhead as follows:

1. Check spacing (I) between top of rollers and upper rail is within specification. Use shims to adjust for excess space.

Specification

Top of the rollers-to-upper rail —Distance.....0.2—0.5 mm (0.008—0.02 in)

2. Check spacing (K) between scrapers and inside of bale chamber measured over full length of plunger stroke is within specification.

Specification

Scrapers-to-Inside Bale Chamber—Distance.....2 ± 1 mm (0.079 ± 0.039 in)

3. **Adjust Plunger Scrapers**

   Adjust spacing by completing following steps:

   a. Loosen bolts of the side scrapers.

   b. Slide side scrapers sideways until distance is within specification.

   c. Tighten bolts of the side scrapers again.

   d. Check that plungerhead is not rubbing against retainers and scrapers.

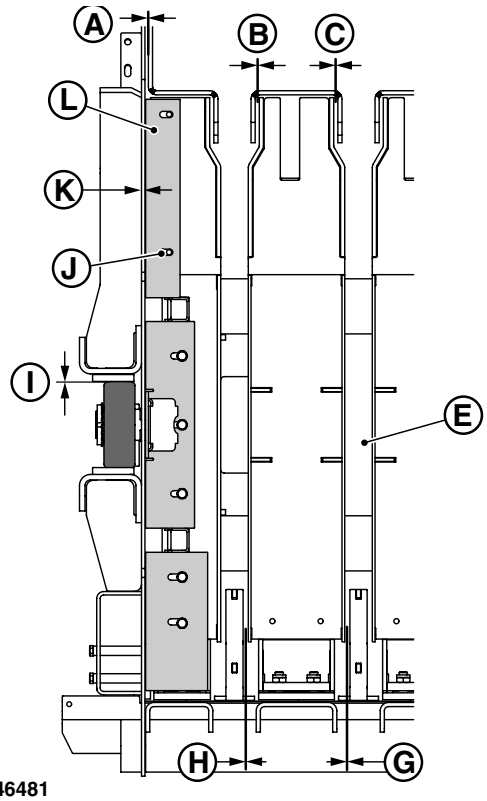
4. Check that top retainer and scraper spacing (B) is same as top retainer and scraper spacing (C).

5. Check that bottom retainer and scraper spacing (G) is same as bottom retainer and scraper spacing (H).

6. Check guiding block spacing (A) between plastic guiding blocks at plunger and inside of bale chamber are within specification on both left and right sides.

Specification

Guiding Blocks-to-Inside Bale Chamber —Distance.....1 ± 1 mm (0.039 ± 0.039 in)



ZX1046481

ZX1046481 —UN—01FEB12

A—Guiding Block Spacing
B—Top Retainer and Scraper Spacing 1
C—Top Retainer and Scraper Spacing 2
D—Retainer
E—Plungerhead
F—Scraper
G—Bottom Retainer and Scraper Spacing 1
H—Bottom Retainer and Scraper Spacing 2
I— Roller and Rail Spacing
J— Bolt
K—Scraper and Bale Chamber Spacing
L—Side Scrapers

Continued on next page

7. **Adjust Plunger Guide Blocks**

   Adjust guiding block spacing by completing following steps:

   a. Turn flywheel until bolts (B) of guiding blocks (A) are visible through holes in the side wall.

   b. Loosen both bolts inside the guiding block.

   c. Add or remove shims (C) until the guiding block spacing is within specification.

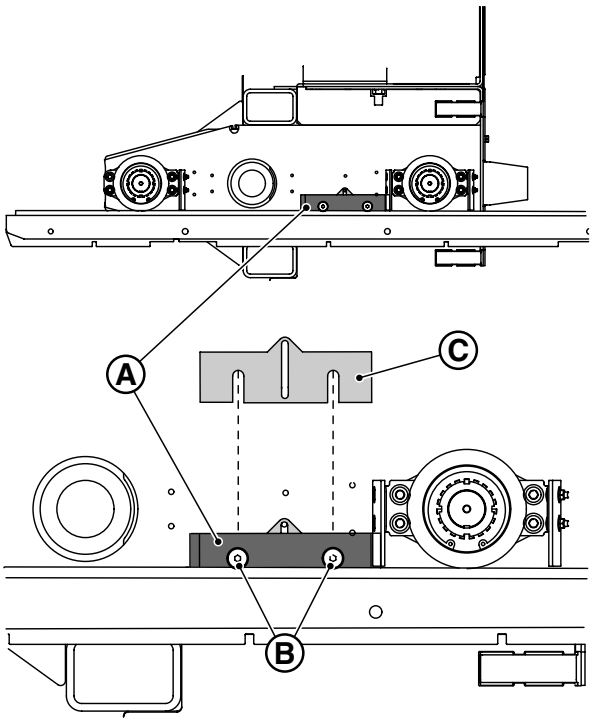
NOTE: Shims (C) are available is different thicknesses.

   d. Tighten bolts to specification.

Specification

Guide Block
Bolt—Torque..... 80 N·m (59 lb·ft)

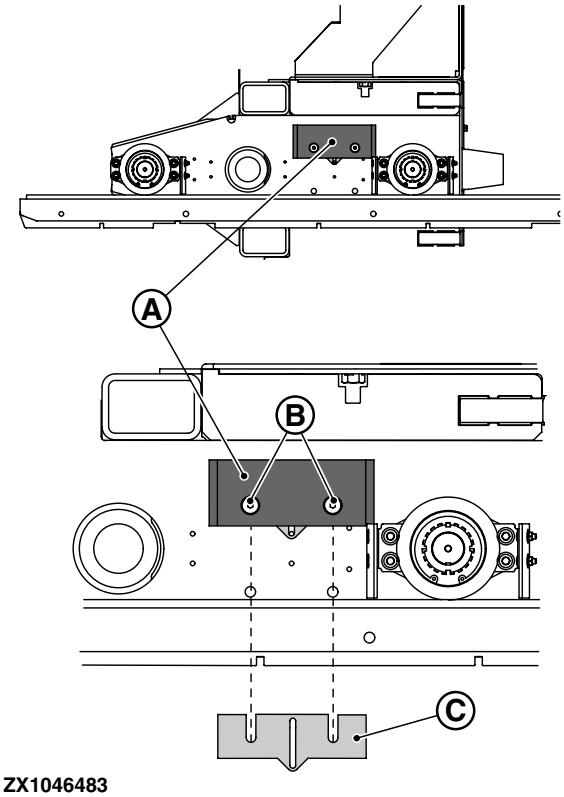
A—Guiding Block
B—Guiding Block Bolts
C—Shim



ZX1046482 —UN—01FEB12

ZX1046482

Plungerhead Guiding Block - 1424, 1424C



ZX1046483 —UN—01FEB12

ZX1046483

Plungerhead Guiding Block - 1423, 1423C, 1434, 1434C

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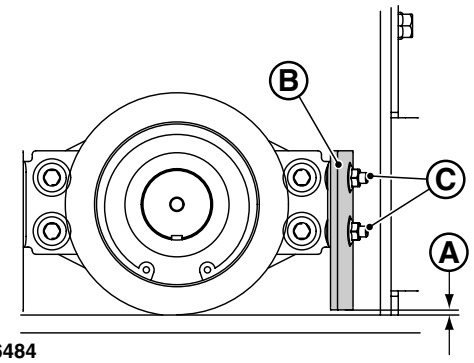
SF04007,0000CE6 -19-30NOV16-2/5

8. Check spacing (A) between roller scraper (B) and the bale chamber rail measured over full length of plunger stroke is within specification.

Specification

Scraper-to-
Bale Chamber
Rail—Distance..... 0.2 ± 0.1 mm (0.0079 ± 0.0039 in)

9. Adjust spacing by completing following steps:
   a. Loosen bolts (C) of roller scraper.
   b. Slide scraper downward until distance is within specification.
   c. Tighten bolts of scraper again.



ZX1046484

ZX1046484 —UN—01FEB12

A—Scraper and Rail Spacing
B—Scraper
C—Bolt

SF04007,0000CE6 -19-30NOV16-3/5

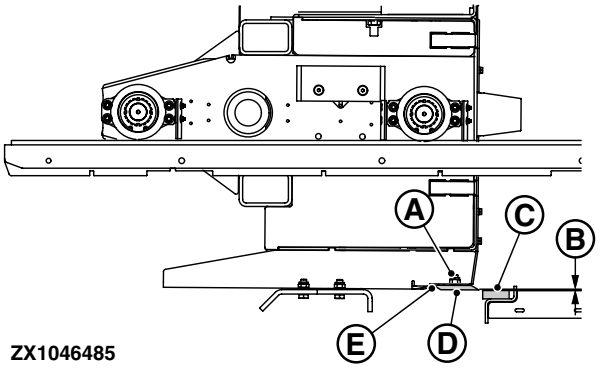
10. **Adjust Plunger Knives**

    Check that spacing between fixed knife (C) and plungerhead knife (D) is within specification.

Specification

Fixed Knife to
Plungerhead—Distance..... 1—2 mm (0.039—0.079 in)

11. To adjust plungerhead knife spacing complete following steps:
    a. Block flywheel using brake.
    b. Loosen nuts (A).
    c. Add or remove shims (E) as required.
    d. Tighten nuts.



ZX1046485

ZX1046485 —UN—01FEB12

A—Nuts
B—Knife Spacing
C—Fixed Knife
D—Plungerhead Knife
E—Shims

Continued on next page

SF04007,0000CE6 -19-30NOV16-4/5

12. **Adjust Plunger Crop Deflector**

    Check that spacing (D) between plunger and cross-member (C) is within specification.

Specification

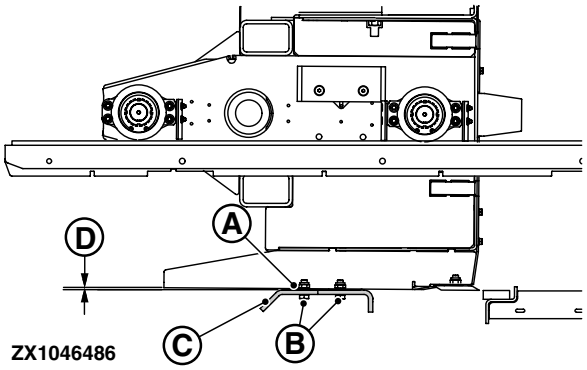
Plungerhead to Cross-Member—Distance..... 2—3 mm (0.079—0.118 in)

13. To adjust crop deflector spacing complete following steps:

    a. Loosen bolts (B).

    b. Add or remove shims (A) as required.

    c. Tighten bolts.



ZX1046486

ZX1046486 —UN—01FEB12

A—Shims
B—Bolts
C—Cross Member
D—Plungerhead and Cross Member Spacing

SF04007,0000CE6 -19-30NOV16-5/5

Adjust Main Drive Slip Clutch

At the beginning of each season, and after every 5000 bales, check slip clutch for wear, debris, and that clutch moves freely.

Slip Clutch—1433 and 1433C

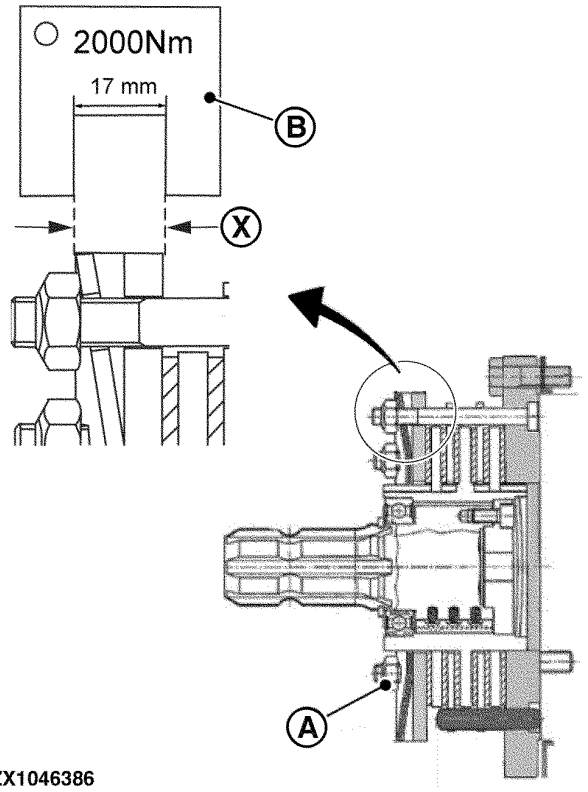
1. Loosen nuts (A).
2. Rotate clutch by hand.

   Repair, or replace, clutch when clutch does not rotate freely or is damaged.

3. Adjust slip clutch using supplied tool (B) and tightening nuts (A) until specified distance (X) is reached.

Specification

Slip Clutch—1433 and 1433C adjustment—Distance..... 17 mm (0.66 in)



ZX1046386

ZX1046386 —UN—31JAN12

A—Nut
B—Tool
X—17 mm (0.66 in)

Continued on next page

SF04007,0000CE7 -19-30NOV16-1/3

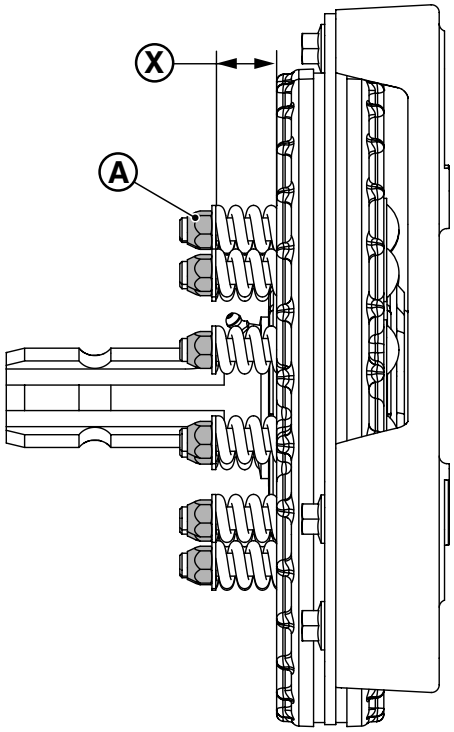
Slip Clutch—1424, 1424C, 1434, and 1434C (Type A)

1. Loosen nuts (A).
2. Rotate clutch by hand.

   Repair, or replace, clutch when clutch does not rotate freely or is damaged.
3. Adjust slip clutch tightening nuts (A) until specified distance (X) is reached.

Specification	
Slip Clutch—1424, 1424C, 1434, and 1434C (Type A) adjustment—Distance	26 ± 0.5 mm (1.02 ± 020 in)

A—Nut **X—26 ± 0.5 mm (1.02 ± 020 in)**



ZX1046387

ZX1046387 —UN—31JAN12

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SF04007,0000CE7 -19-30NOV16-2/3

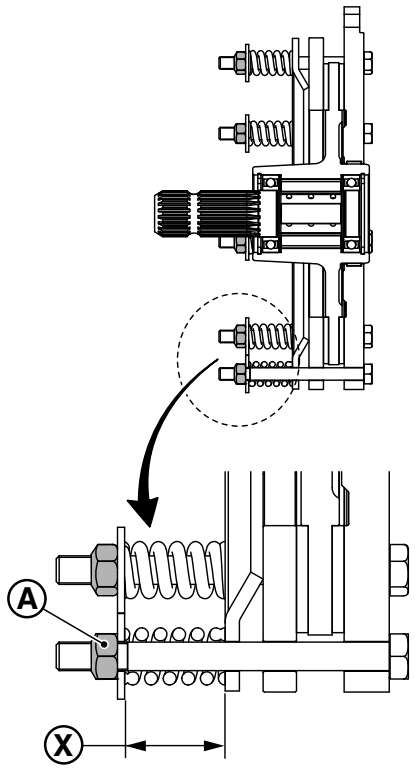
Slip Clutch—1424, 1424C, 1434, and 1434C (Type B)

1. Loosen nuts (A).
2. Rotate clutch by hand.

   Repair, or replace, clutch when clutch does not rotate freely or is damaged.
3. Adjust slip clutch tightening nuts (A) until specified distance (X) is reached.

Specification	
Slip Clutch—1424, 1424C, 1434, and 1434C (Type B) adjustment—Distance	42.2 mm (1.66 in)

A—Nut **X—42.2 mm (1.66 in)**

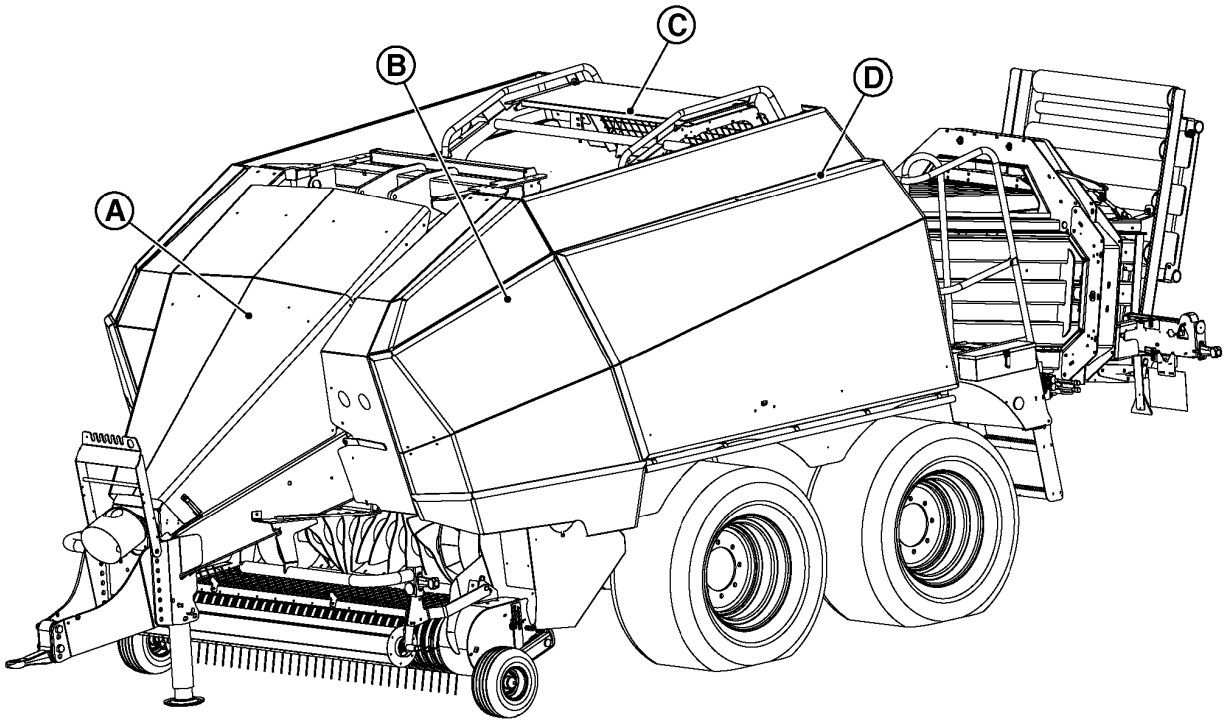


ZX207271

ZX207271 —UN—03NOV13

SF04007,0000CE7 -19-30NOV16-3/3

Shear Bolt Locations



ZX1050766

ZX1050766 —UN—10AUG12

A—Flywheel Shear Bolt (3x3 only)
B—Needle Linkage Shear Bolt
C—Knotter Hub Shear Bolt
D—Knotter Drive Crank Shear Bolt

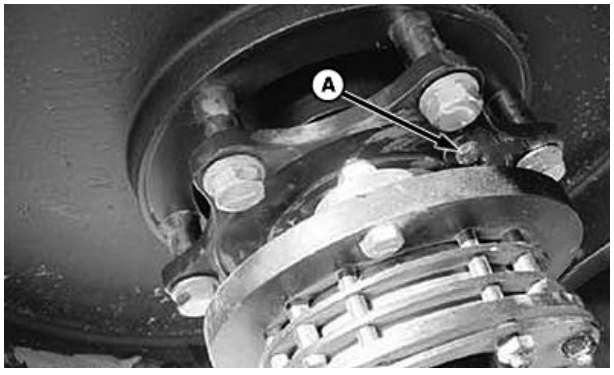
IMPORTANT: Broken shear bolts must be replaced with hardware of identical size and grade.

SF04007,0000CE8 -19-30NOV16-1/5

Flywheel Shear Bolt

The flywheel connection on 1433 Balers is protected by a shear bolt (A).

A—Shear Bolt, M10 X 35 Grade 10.9



E60779 —UN—25JAN12

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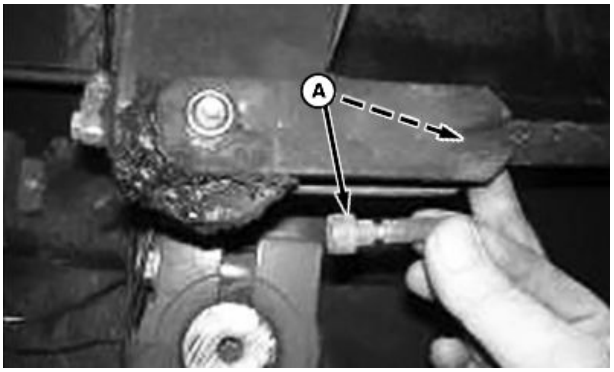
SF04007,0000CE8 -19-30NOV16-2/5

Needle Linkage Shear Bolt

The needles are protected by a special shear bolt (A) in the needle linkage near the needle extractor valve.

A—Shear Bolt



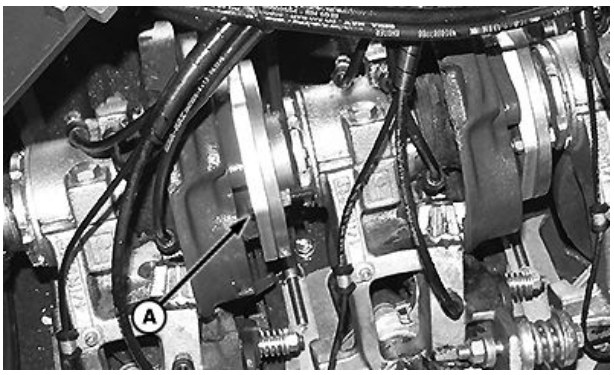
E60782 —UN—25JAN12

SF04007,0000CE8 -19-30NOV16-3/5

Knotter Hub Shear Bolts

Each knotter hub assembly is protected by a shear bolt (A).

A—Shear Bolt, M6 X 30 Grade 8.8



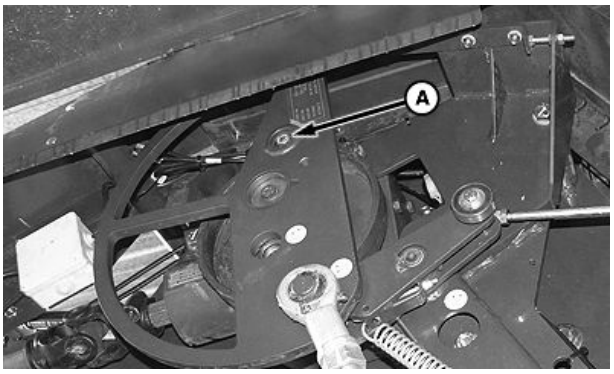
E60808 —UN—25JAN12

SF04007,0000CE8 -19-30NOV16-4/5

Knotter Drive Crank Shear Bolt

The knotter drive crank is protected by a shear bolt (A).

A—Shear Bolt, M10 X 35 Grade 10.9



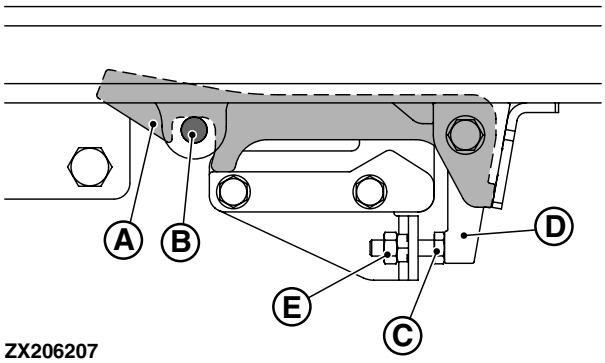
E60781 —UN—25JAN12

SF04007,0000CE8 -19-30NOV16-5/5

Adjust Last Bale Ejector

When the bale ejector is in the most forward position, both the hooks (A) have to be all the way over the catch pins (B) and the bolt (C) must touch the hooks (D). If necessary, adjust the hooks (A) as follows:

1. Turn the bolt (C) all the way into the bracket.
2. Activate the relevant tractor Selective Control Valve (see Attaching and Detaching section).
3. Use the relevant lever to move the bale ejector to the most forward position.
4. Set the bolt (C) in such way that it forces the hook (D) down over the catch pin (B).
5. Secure bolt (C) by tightening lock nut (E).



ZX206207

ZX206207 —UN—03NOV13

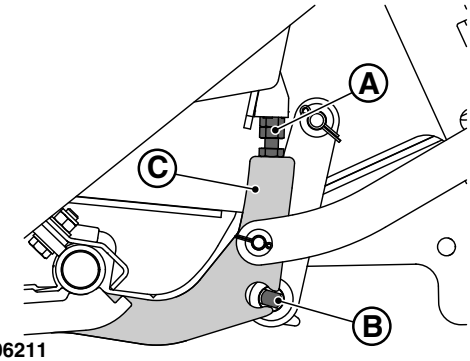
A—Hook
B—Catch Pin
C—Bolt
D—Hook
E—Lock Nut

SF04007,0000CE9 -19-30NOV16-1/1

Adjust Knife Cassette (1424C and 1434C Only)

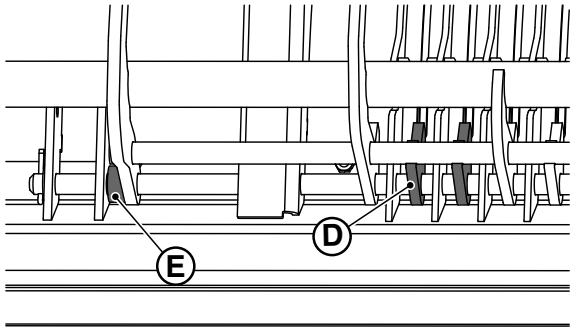
1. Adjust bolts (A) on both sides of the machine so that axle (B) that blocks the knife cassette (C) can swing into the holes of the knife cassette when it is up.
2. Check that the plates (D) (thickness 10 mm (0.40 in) on the frame of the cassette are in the front of the slots for the knives in the rotor frame. If there is a misalignment of more than 1 mm (0.040 in), the position of the frame must be corrected as follows:
   a. Put shims (E) between the rotor frame and the frame of the cassette on the right or left-hand side of the frame of the cassette.
   b. Grind off the bushing on the other side of the frame if necessary.
3. Check that the knives (F) can move free up and down into the slots of the rotor frame. If a readjustment is necessary then:
   a. Loosen the counter nut (G).
   b. Adjust the position of the cassette by turning the bolt (H) clockwise or counterclockwise.
   c. Tighten the counter nut (G).
   d. Move leaf spring (I) to right-hand side of machine until it can be lifted over the pin on the frame of the cassette.
   e. Tighten the bolt of the leaf spring (I).

A—Adjusting Bolt
B—Axle
C—Knife Cassette
D—Plates
E—Shim
F—Knife
G—Counter-nut
H—Bolt
I— Leaf spring



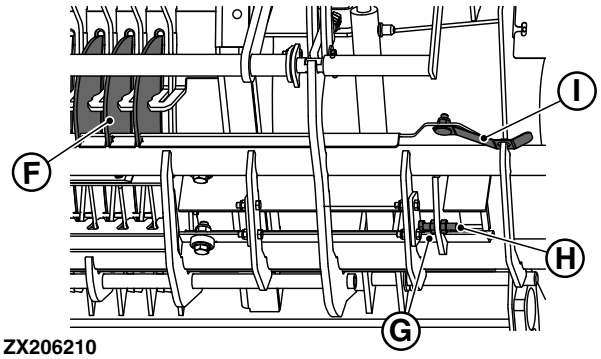
ZX206211

ZX206211 —UN—03NOV13



ZX206212

ZX206212 —UN—03NOV13

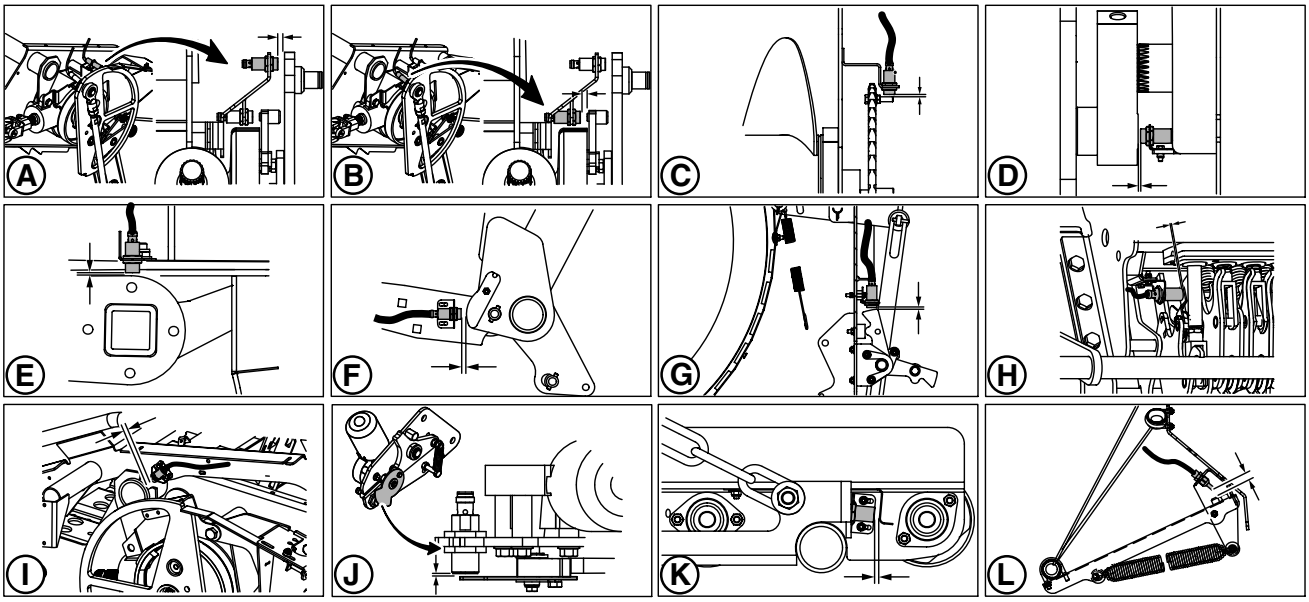


ZX206210

ZX206210 —UN—03NOV13

SF04007,0000CEA -19-30NOV16-1/1

Sensors Adjustment



ZX206229

ZX206229 —UN—03NOV13

Sensors location and specification

Location	Specification	Function
(A) Needle Frame Sensor	2 mm (0.079 in)	Detects number of bales tied, resets bale length
(B) Bind Sensor	2 - 6 mm (0.079 - 0.236 in)	Detects needle position
(C) Rotor Sensor	2 - 6 mm (0.079 - 0.236 in)	Detects speed of main rotor
(D) Feeder Fork Sensor	2 - 6 mm (0.079 - 0.236 in)	Detects speed and position of feeder fork crank
(E) Fill Sensor	2 - 6 mm (0.079 - 0.236 in)	Detects when a full filling stroke takes place
(F) Bale Chute Sensor	2 - 6 mm (0.079 - 0.236 in)	Detects the position of the bale chute
(G) Flywheel Brake Sensor	2 - 6 mm (0.079 - 0.236 in)	Detects engagement of the flywheel brake system
(H) Knife Position Sensor	2 - 6 mm (0.079 - 0.236 in)	Detects knife engagement for control and recording
(I) Knotter Hood Sensor	2 - 6 mm (0.079 - 0.236 in)	Detects operator presence in knotter area
(J) Electric Bind Sensor (if equipped)	2 - 6 mm (0.079 - 0.236 in)	Detects position of the knotter trip cam
(K) Bale Drop Sensor (if equipped)	2 - 6 mm (0.079 - 0.236 in)	Detects position of the metal strip of bale drop indication
(L) Twine Detection Sensor	15 - 20 mm (0.59 - 0.78 in)	Detects when a twine string has been dropped or broken on the bale

Type I proximity sensors can be adjusted by loosening the rear nut on the body of the sensor. Set the clearance by rotating the front nut while holding against the sensor bracket. Then tighten the rear nut against the sensor bracket.

Tighten the nuts carefully. Do not strip the threads or crack the sensor.

Type II proximity sensor can be adjusted by loosening the compression nut and sliding the sensor in the housing to set the clearance. Hold the sensor in place by tightening the compression nut.

Tighten the compression nut carefully. Do not strip the plastic threads.

SF04007,0000CEB -19-30NOV16-1/1

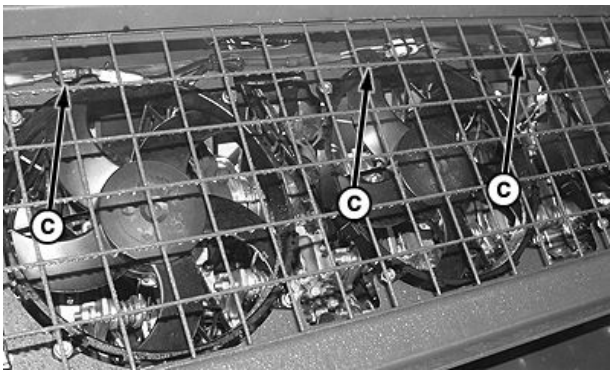
Fuses Locations

Two fuses (A and B) are located inside of the main electronics box of the baler.

Each knotter fan is equipped with a 15 A fuse (C).

A—30 A Fuse, Main Fuse
B—10 A Fuse, Twine System Electric Motor
C—15 A Fuse, Knotter Fan

E60806 —UN—25JAN12



E60807 —UN—25JAN12

SF04007,0000CEC -19-30NOV16-1/1

Replace Prechopper Knives (If Equipped)

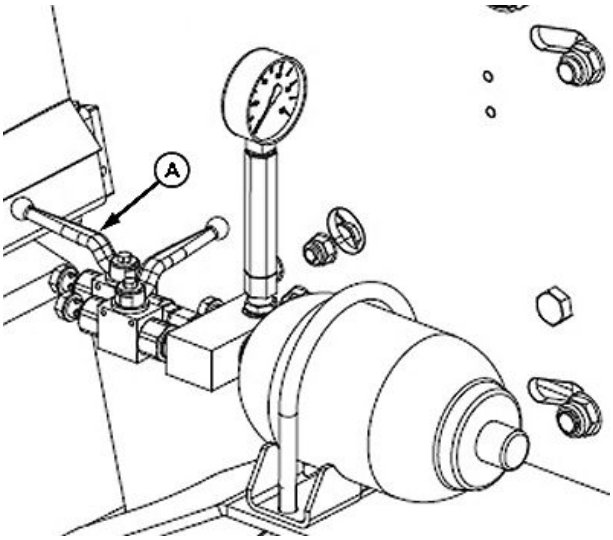
1. Replace worn or damaged knives.
2. Replace knives that are diametrically opposite, maintaining the existing balance.

NOTE: Put lighter pairs in the center of the rotor and heavier pairs to the edges.

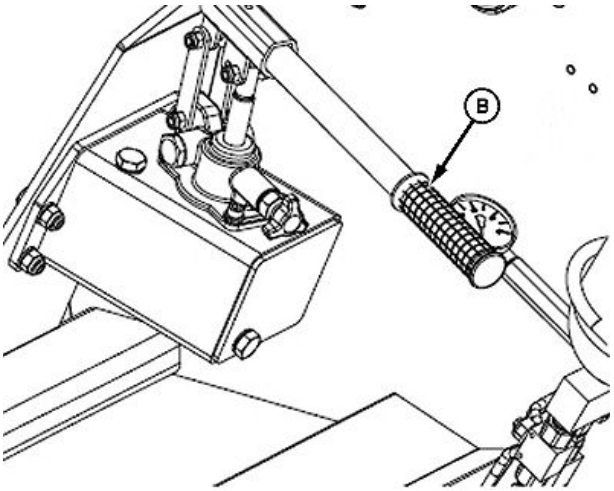
3. Check that there is still play between the knife pairs and the supports.

SF04007,0000CED -19-30NOV16-1/1

Adjust Prechopper Belt Tension (If Equipped)



E80297 —UN—03NOV15

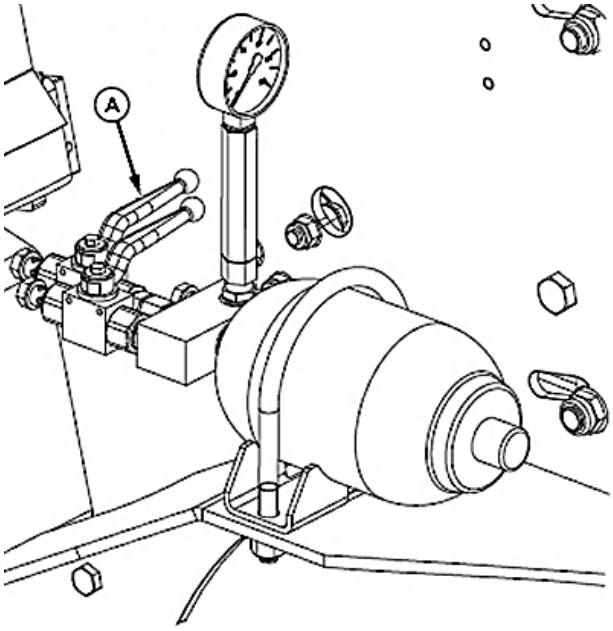


E80298 —UN—03NOV15

Open Valve

1. Turn lever (A) to open position as shown.
2. Pump up pressure to 4000 ± 200 kPa (40 ± 2 bar) (580 ± 29 psi) using handle (B) on manometer.
3. Turn lever (A) to closed position as shown.

A—Lever **B—Handle**



E80299 —UN—03NOV15

Closed Valve

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SF04007,0000CEE -19-30NOV16-1/2

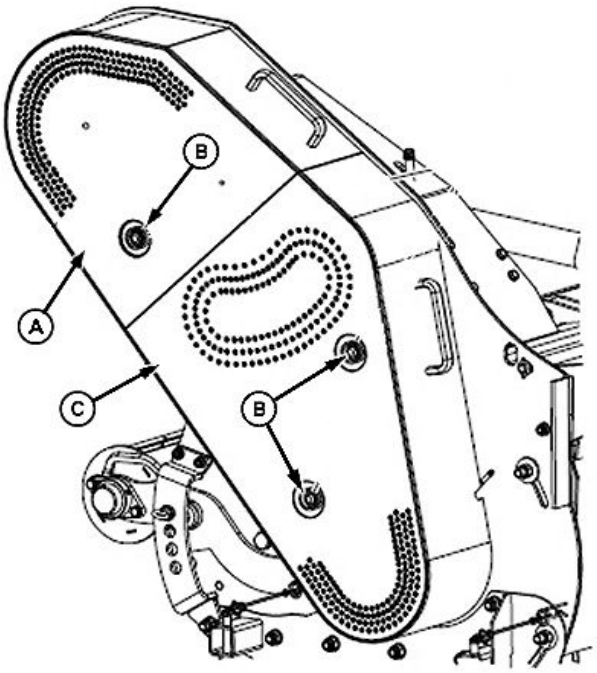
4. Remove and retain cap screws (B) and covers (A and C).
5. Check belt elongation (D) distance.

NOTE: Ensure that distance is bigger than 98 mm (3-27/32 in).

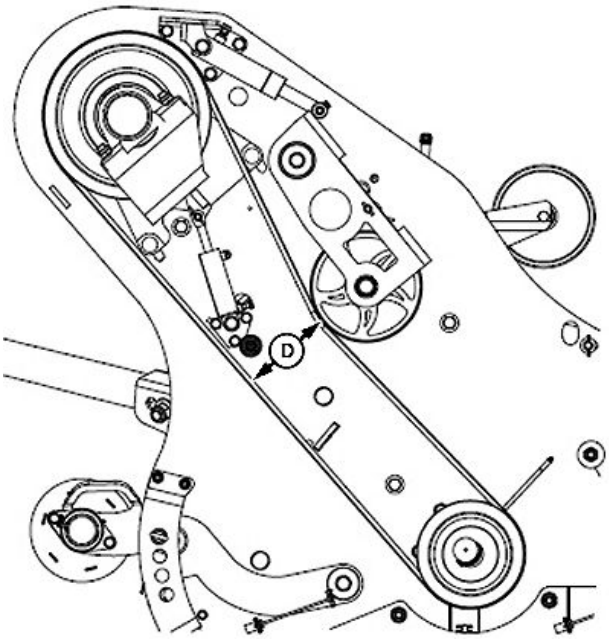
NOTE: Replace belt if distance is less than 98 mm (3-27/32 in). See next section for details.

6. Reinstall previously removed covers and cap screws.

A—Cover
B—Cap Screw (3 used)
C—Cover
D—Elongation



E80300 —UN—03NOV15



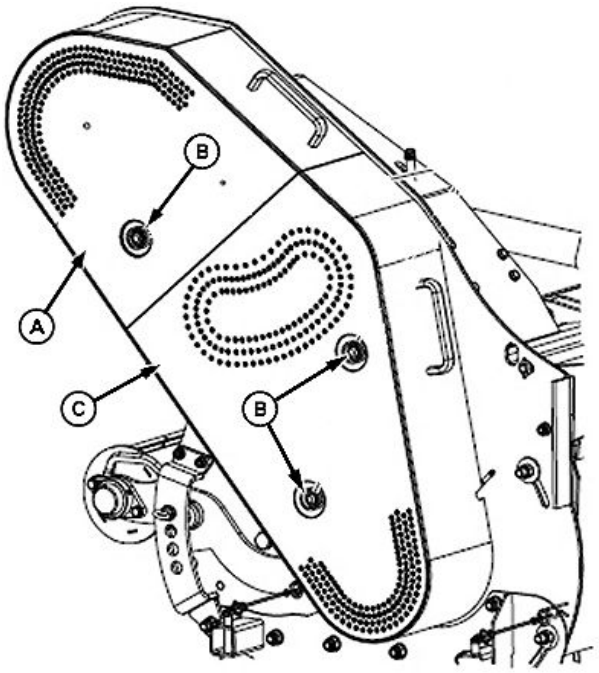
E80301 —UN—03NOV15

SF04007,0000CEE -19-30NOV16-2/2

Replace Prechopper Belts (If Equipped)

1. Remove and retain cap screws (B) and covers (A and C).
2. Turn knob (A) counterclockwise opening the valve.

A—Cover
B—Cap Screw (3 used)
C—Cover

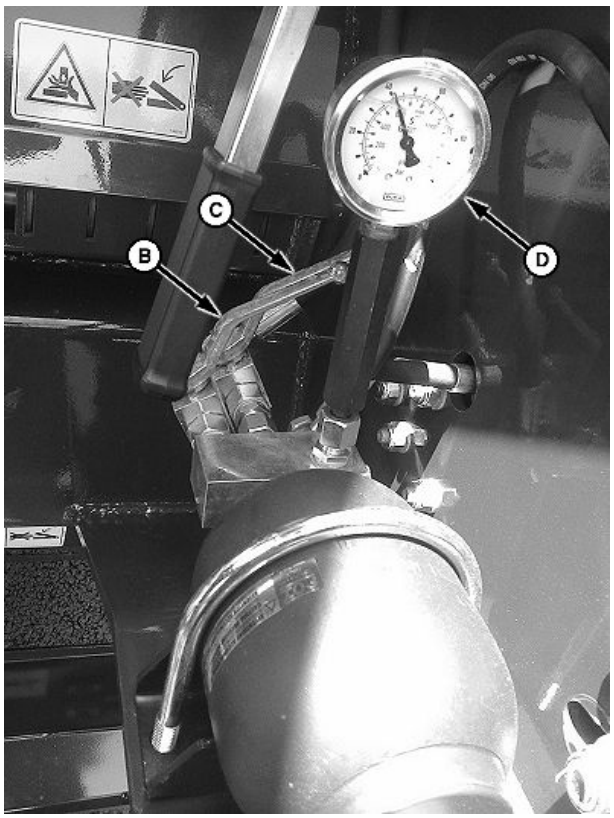


E80300 —UN—03NOV15

SF04007,0000CEF -19-30NOV16-1/9

3. Place levers (B and C) in line with hydraulic lines, open position.

NOTE: Ensure that pressure on manometer (D) is 0 bar (0 psi).



E80303 —UN—03NOV15

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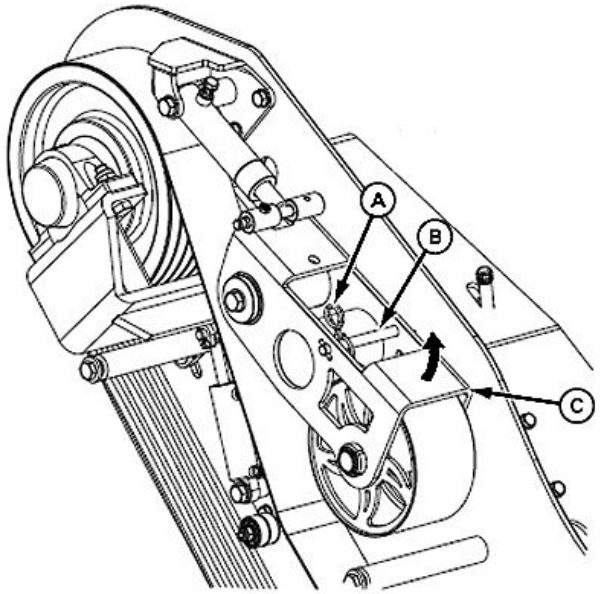
SF04007,0000CEF -19-30NOV16-2/9

4. Remove and retain safety pin (A) and pin (B).
5. Move belt tensioner (C) upwards.
6. Lock belt tensioner with pin (B) in upper hole. Install safety pin (A).

A—Safety Pin
B—Pin
C—Belt

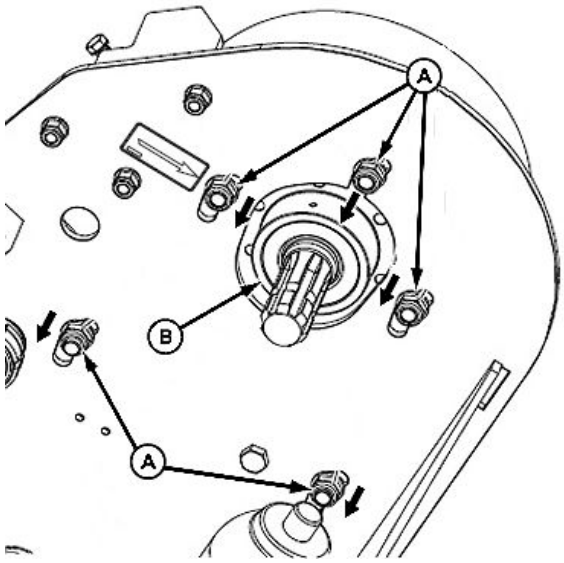


E80304 —UN—03NOV15

SF04007,0000CEF -19-30NOV16-3/9

7. Loosen cap screws (A).
8. Lower pulley support (B) downwards.

A—Cap Screw (5 used)
B—Pulley Support



E80305 —UN—04NOV15

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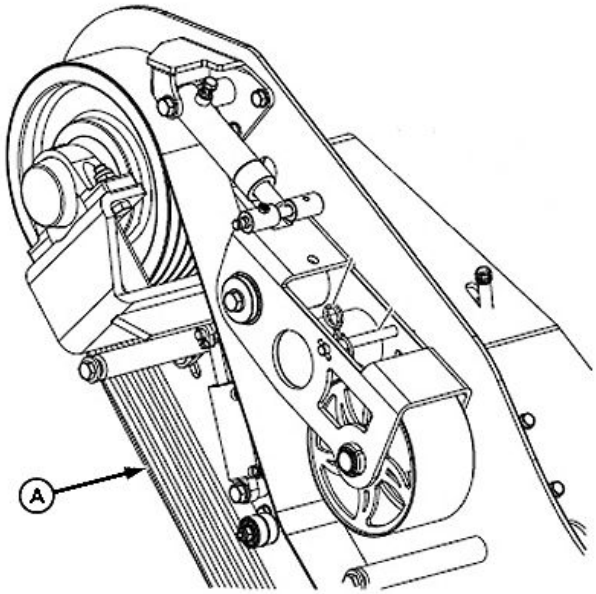
SF04007,0000CEF -19-30NOV16-4/9

9. Replace belt (A).

A—Belt



E80306 —UN—03NOV15

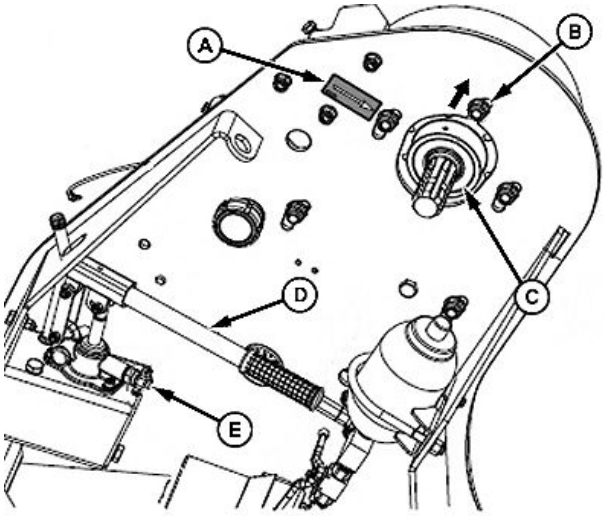
SF04007,0000CEF -19-30NOV16-5/9

10. Turn knob (E) clockwise closing the valve.
11. Move handle (D) up and down (pumping motion) lifting pulley support (C) up to indication mark (A).
12. Tighten cap screws (B) to specification.

Specification

Cap Screw—Torque.....210 N·m (155 lb·ft)

A—Indication Mark
B—Cap Screw (5 used)
C—Pulley Support
D—Handle
E—Knob



E80471 —UN—09NOV15

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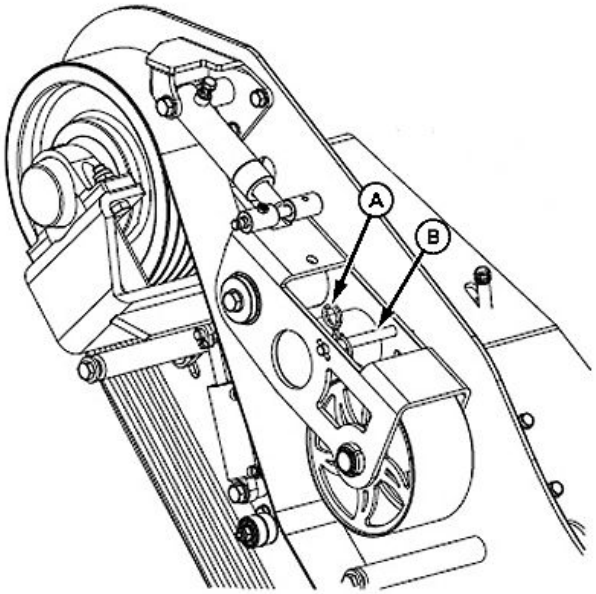
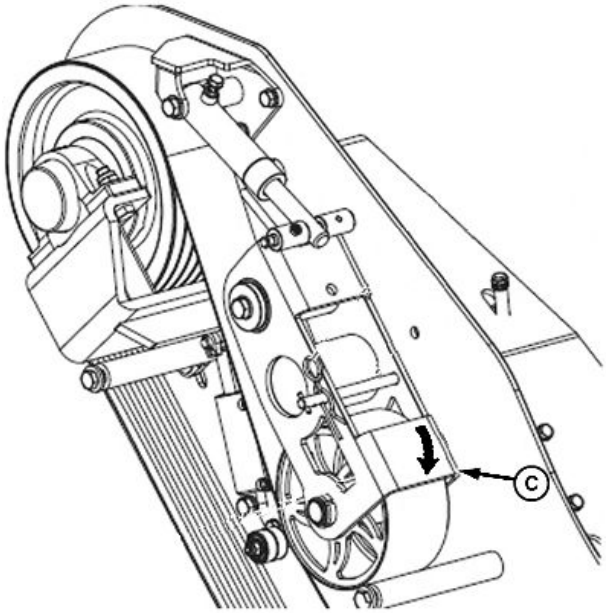
SF04007,0000CEF -19-30NOV16-6/9

13. Remove and retain safety pin (A) and pin (B).
14. Move belt tensioner (C) downwards and place pin (B) in lower hole.
15. Reinstall safety pin (A).

A—Safety Pin
B—Pin
C—Belt Tensioner



E80472 —UN—09NOV15



E80473 —UN—09NOV15

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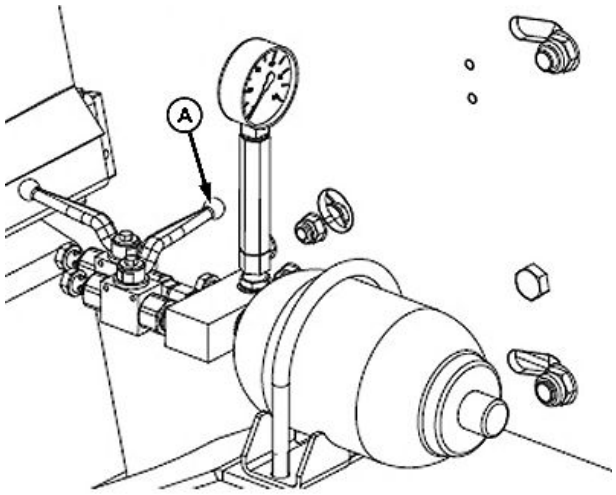
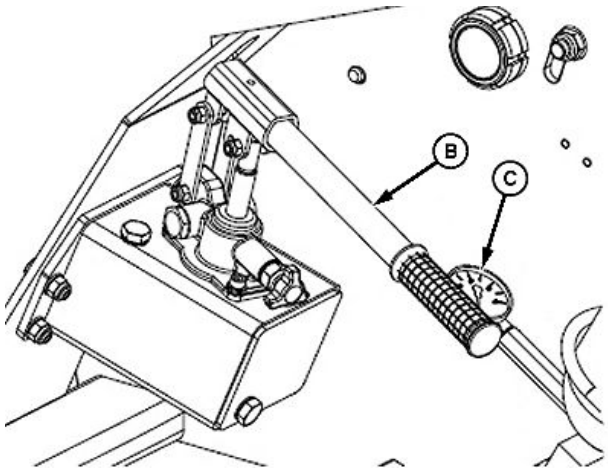
SF04007,0000CEF -19-30NOV16-7/9



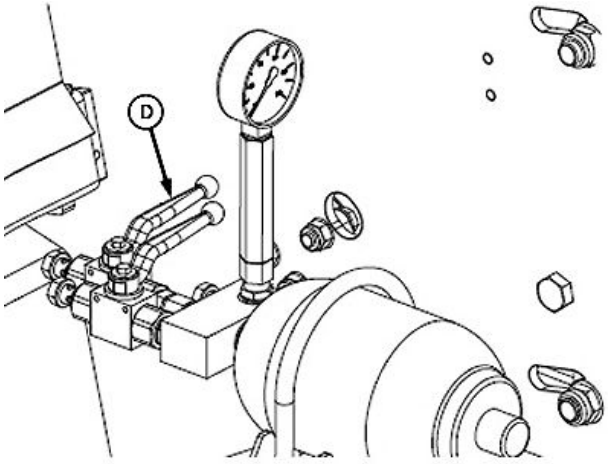
E80474 —UN—09NOV15



E80475 —UN—09NOV15

16. Turn lever (A) to closed position as shown.
17. Pump handle (B) up and down until manometer (C) reads a pressure of 40 ± 2 bar (580 ± 29 psi).
18. Turn lever (D) to closed position as shown.

A—Lever
B—Handle
C—Manometer
D—Lever



E80476 —UN—09NOV15

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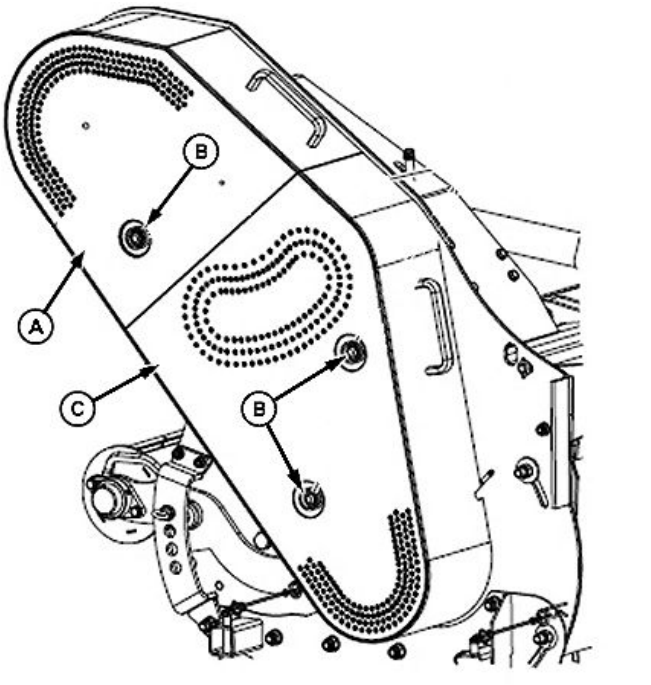
SF04007,0000CEF -19-30NOV16-8/9

19. Reinstall covers (A and C) and cap screws (B). Tighten to specification.

Specification

Cap Screw—Torque.....135 N·m (99 lb·ft)

A—Cover
B—Cap Screw (3 used)
C—Cover



E80300 —UN—03NOV15

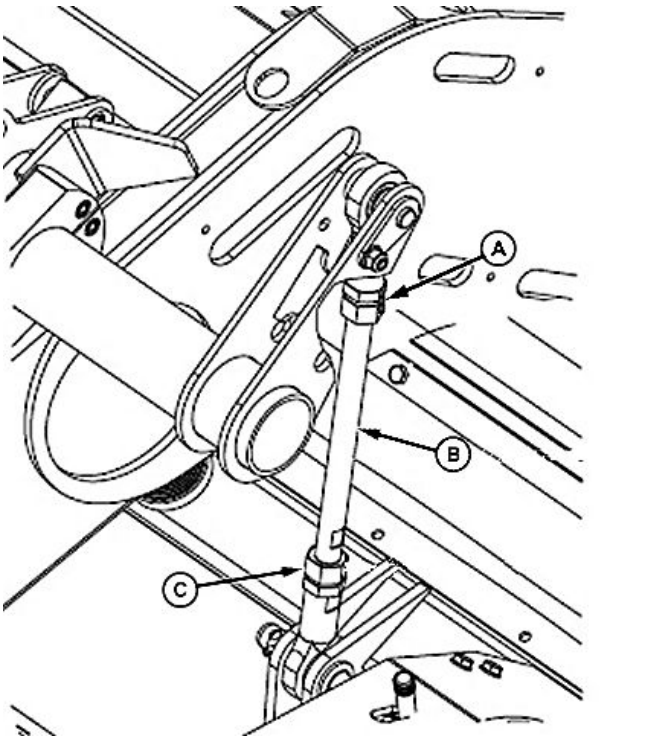
SF04007,0000CEF -19-30NOV16-9/9

Adjust Prechopper Lifting Arms (If Equipped)

NOTE: Adjustment is same for both sides.

1. Loosen lock nuts (A and C).
2. Turn lifting rod (B) to lift or lower the prechopper as required.
3. Tighten lock nuts (A and C).
4. Check adjustment.

A—Lock Nut (2 used)
B—Lifting Rod
C—Lock Nut (2 used)

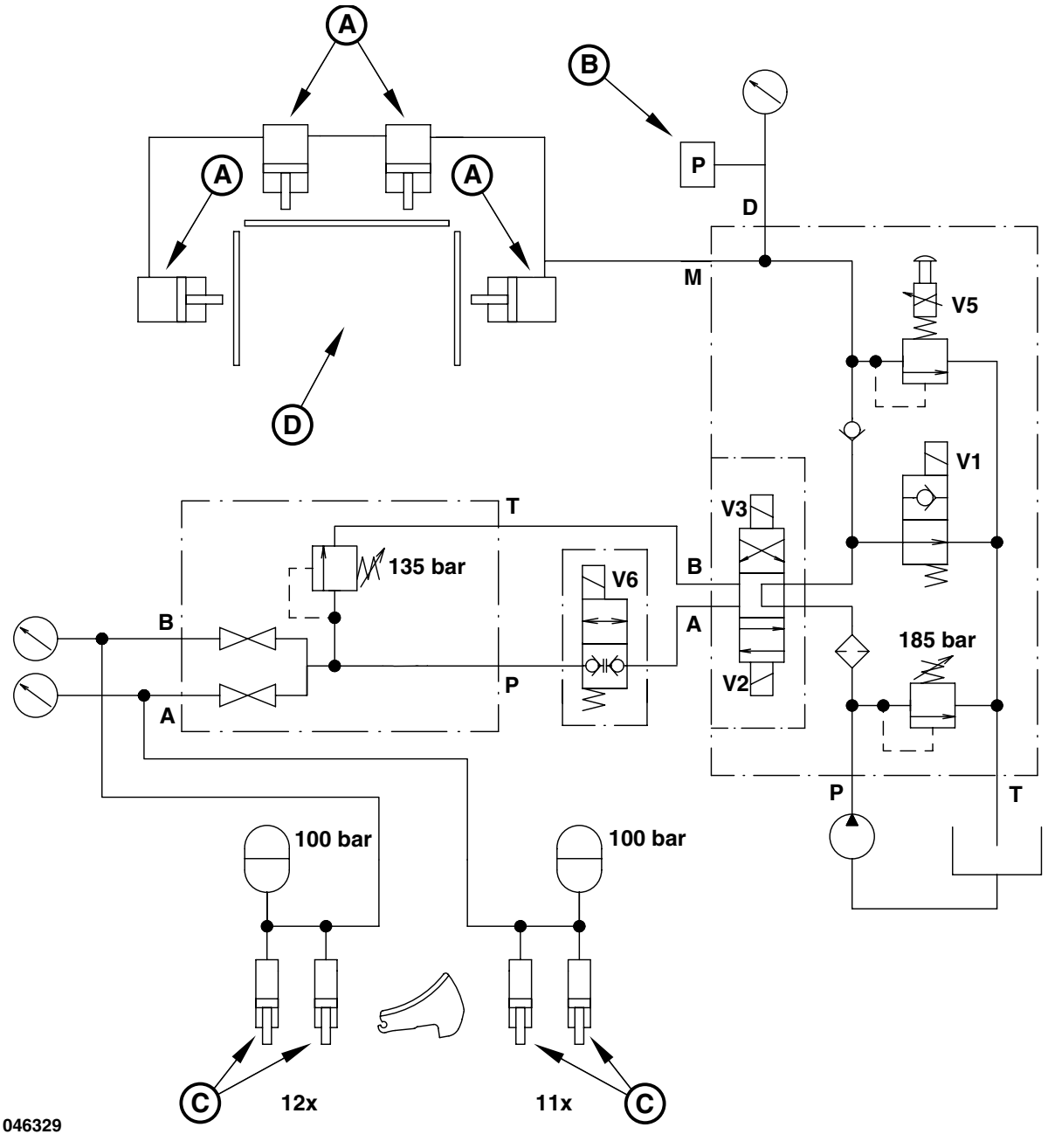


E80477 —UN—09NOV15

SF04007,0000CF0 -19-30NOV16-1/1

Onboard Hydraulic System Diagram

1424C and 1434C Baler



A—Density Cylinder (4 used)
B—Pressure Sensor
C—Knife Cylinder (4 used)
D—Pressure Chamber
V1—Pressure Selector Valve for Tension Circuit
V2—Knives to Cutting Position
V3—Knives to Retracted Position
V5—Proportional Density Valve
V6 — Knives Check Valve

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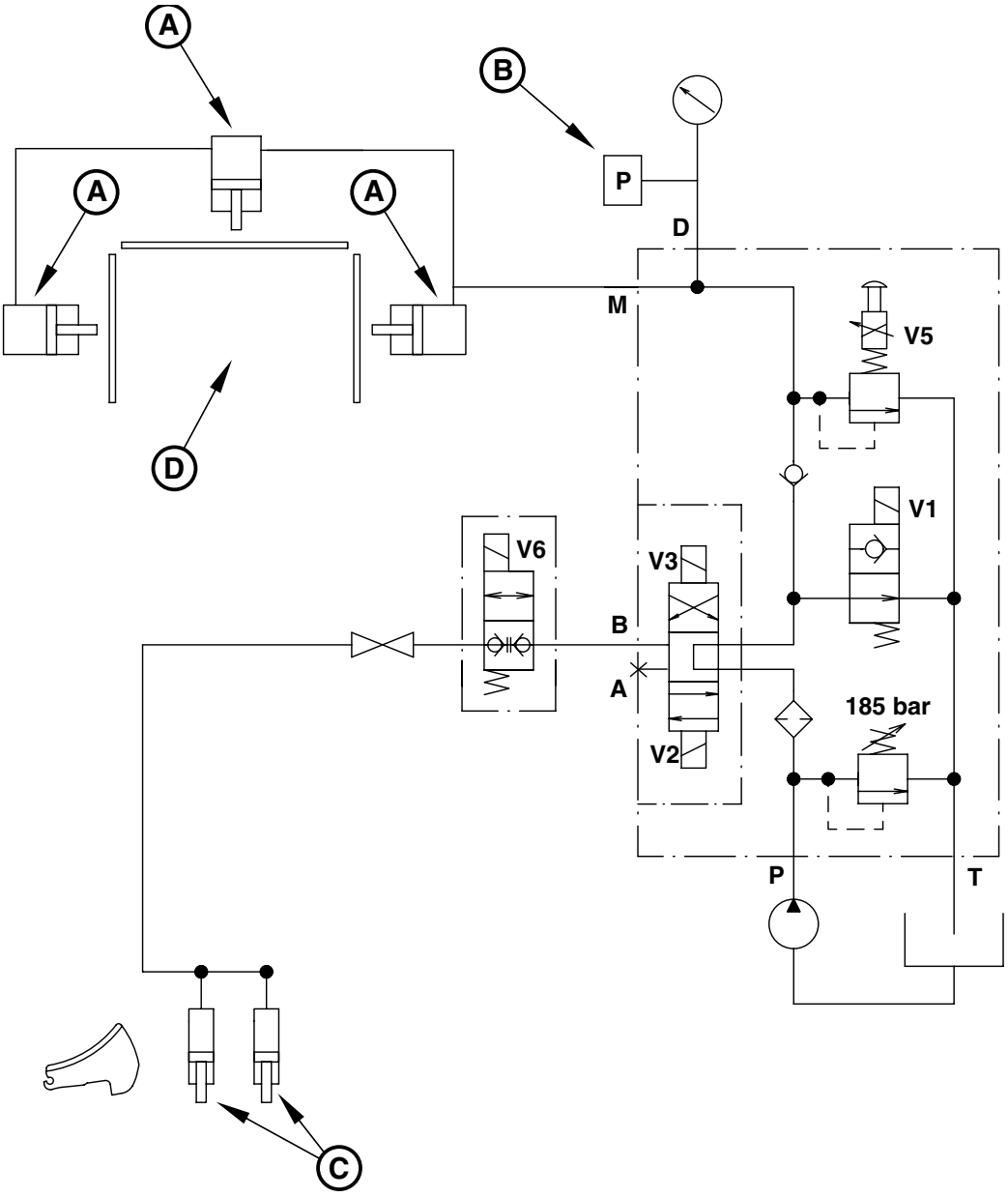
SF04007,0000CF1 -19-30NOV16-1/6

1433C Baler



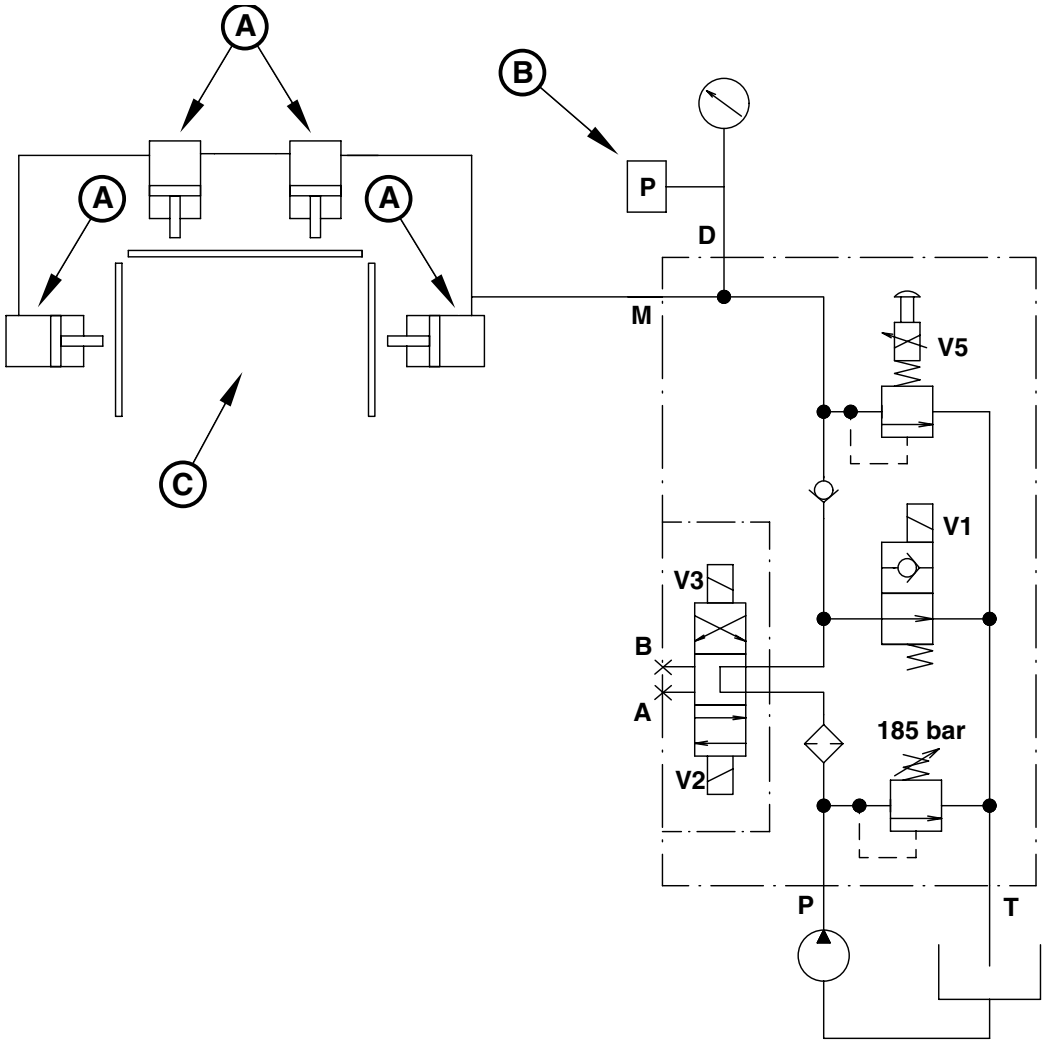
ZX1046341

A—Density Cylinder (3 used)
B—Pressure Sensor
C—Knife Cylinder (2 used)
D—Pressure Chamber
V1—Pressure Selector Valve for Tension Circuit
V2—Knives to Cutting Position
V3—Knives to Retracted Position
V5—Proportional Density Valve
V6 — Knives Check Valve

Continued on next page

SF04007,0000CF1 -19-30NOV16-2/6

1424, 1433 and 1434 Baler



ZX1046342 —UN—17JAN12

ZX1046342

A—Density Cylinder (4 used)[1]
B—Pressure Sensor
C—Pressure Chamber
V1—Pressure Selector Valve for Tension Circuit
V2—Not Used
V3—Not Used
V5—Proportional Density Valve

Onboard Hydraulic System

John Deere large square balers have an onboard hydraulic system which is responsible for generating the oil pressure used to tension the bale chamber. On models with precutters, the hydraulic system moves the knives in and out of the feed system.

The onboard hydraulic system can only generate pressure when the PTO is engaged and the main drive gear case is turning. The main spur gear of the main drive gear case drives the pump. It can be found on the left-hand side of the machine.

Continued on next page

SF04007,0000CF1 -19-30NOV16-3/6

During normal operation, the pressure sensor (B) is constantly monitoring the hydraulic pressure in the tension cylinder circuit. PWM valve V5 is used to regulate the pressure in the tensioning circuit. Activation of the solenoid valve V1 raises the pressure in the tensioning cylinders (A), and is automatically controlled. The function of the tensioning system has priority over the other functions of the onboard hydraulic system.

On models with precutters, the onboard system is also used to move the knives. When the command is given to raise the knives the control unit first checks if the tension system pressure is within 500 kPa (5 bar) (73 psi) of the set pressure. If the tension system is up to pressure, the control unit proceeds to raise the knives by activating valve V1, V2, and V6. When the command is given to lower the knives the same sequence is performed with one difference, valve V3 is activated instead of V2.

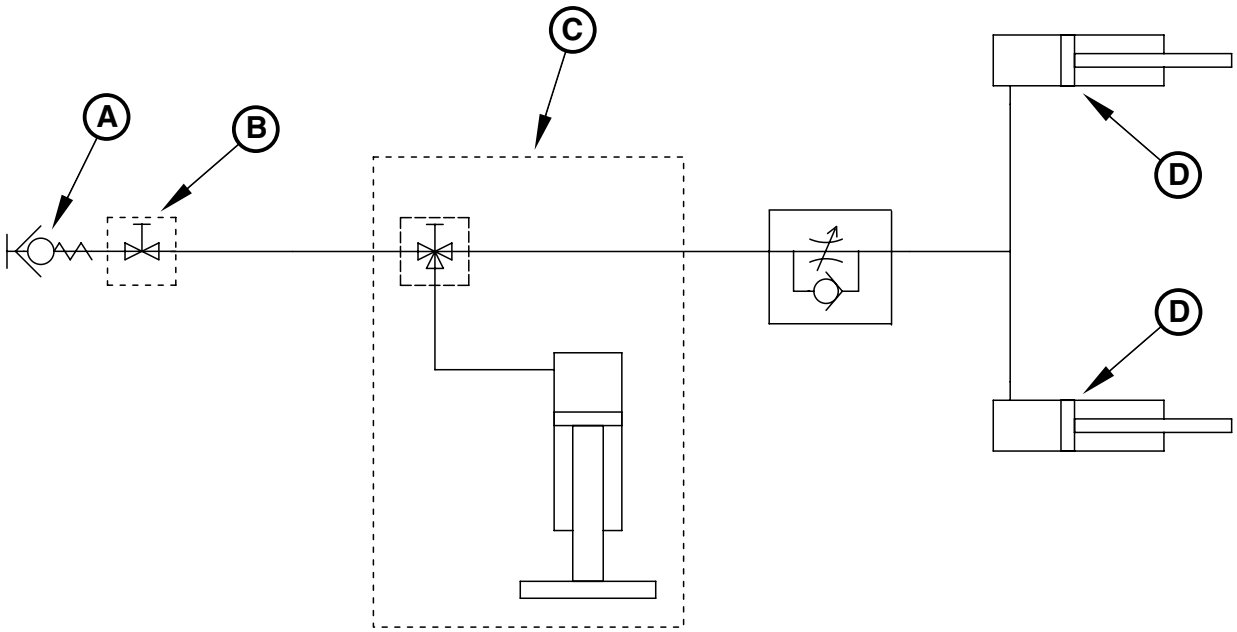
If the tension system is not up to pressure the knives WILL NOT extend or retract until target pressure is achieved. This logic assures bale density is always the main priority. The entire system is protected by a 18 500 kPa (185 bar) (2683 psi) mechanical relief valve which dumps relief oil back to the reservoir.

The baler is also equipped with two open center auxiliary hydraulic circuits that are powered by the tractor hydraulic system. One circuit operates the hydraulic pickup lift and hydraulic jack. The other operates the bale chute, last bale eject, and when equipped with a precutter, the knife drawer function.

[1]On 1433 Baler, three used

SF04007,0000CF1 -19-30NOV16-4/6

Auxiliary Circuit 1—Hydraulic Pickup and Jack Screen Clipping



ZX1046324 —UN—29DEC11

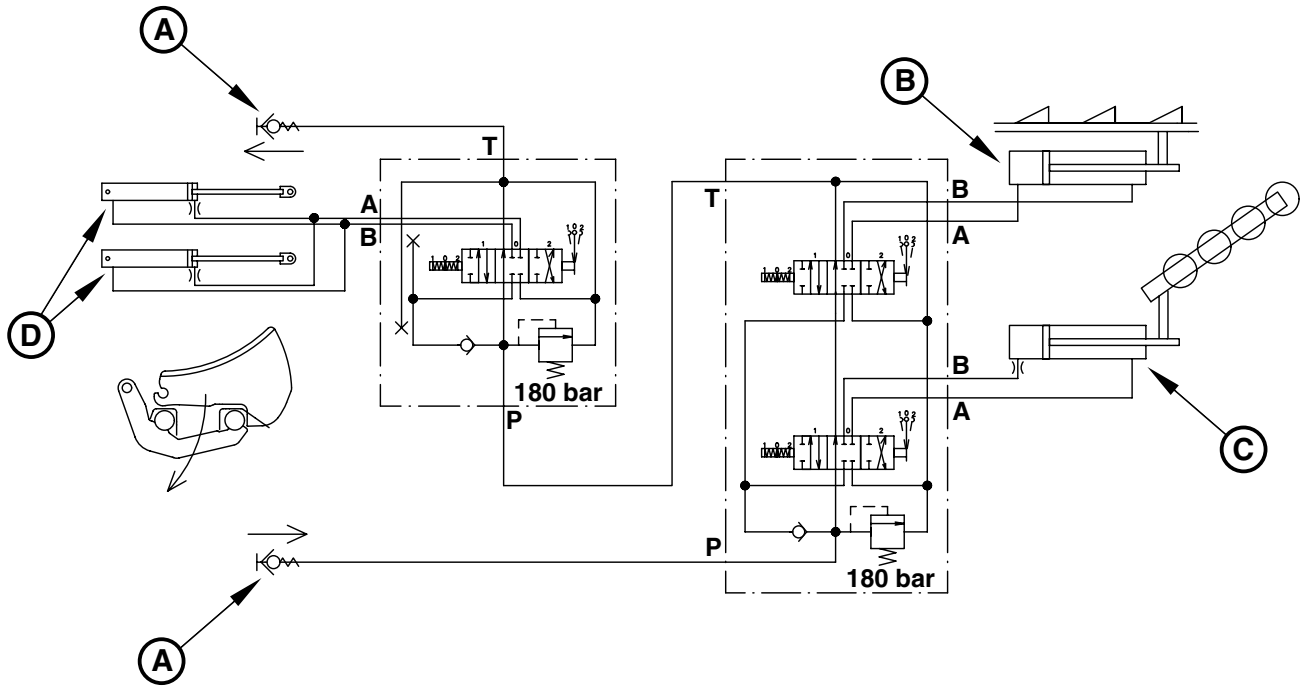
ZX1046324

A—Quick Coupler
B—Valve
C—Jackstand
D—Pickup Cylinder (2 used)

Continued on next page

SF04007,0000CF1 -19-30NOV16-5/6

Auxiliary Circuit 2—Bale Chute, Last Bale Eject, Knife Drawer



ZX1046330

A—Quick Couplers
B—Bale Ejector Cylinder
C—Roller Chute Cylinder
D—Knife Cassette Cylinder (2 used)

SF04007,0000CF1 -19-30NOV16-6/6

Storage

End of Season

1. Move baler to a dry place.
2. When the baler is unhitched from the tractor, put plugs on the support at the drawbar.

NOTE: For a long storage duration, support the baler under the hitch with more support.

3. If a prechopper is equipped, perform the following:
   - Check condition of the fixing elements.
   - Check torque of the knife-fixing cap screw. Replace if needed.
   - Ensure that all the original safety decals are in their original locations, undamaged, and legible.
   - Drain the bevel gear case and fill with new oil
   - Slacken the belts and check their condition.
   - Check the rotor blade condition. Replace if needed.
   - Check the counterknife blade condition on both rows. Replace if needed.
4. Remove twine. Store twine inside during winter.
5. Open packer floor and remove crop residue from the rotor, pre-compression chamber, and the bale chamber areas.
6. Clean the baler thoroughly inside and out. Debris and dirt draw moisture which can cause corrosion.

NOTE: Order replacement parts and make repairs as necessary before storage.

7. Check safety signs and replace any safety signs that cannot be easily read.
8. Apply a few drops of oil to all pivot points and linkages.
9. Coat chains with oil.
10. Apply a thin layer of clean grease to all threads of the adjustment bolts.
11. Apply a thin layer of grease to all bright metal such as cylinder rods.
12. Fill the grease pump.
13. To ensure that the grease is pushed throughout the system, let the pump work for a few minutes .
14. Confirm that all grease fittings are taking grease.
15. Top off the grease pump, if necessary.
16. On a machine with a hydraulic knotter cleaning fan, check the blower air hose for wear and tear.
17. Coat the knotters and knotter components with protection fluid or fine oil to prevent rust and oxidation.
18. Check torque of necessary hardware.
19. Coat the inside of the press chamber with anti-rust spray.
20. If equipped with a fire extinguisher, follow manufacturers recommendation for inspection and maintenance. If the baler is subjected to cold weather, drain or treat fire extinguisher fluid with a nonflammable antifreeze solution to prevent damage.

SF04007,0000CB8 -19-16JAN17-1/1

Beginning of Season

1. Make sure that the main drive slip clutch is free to slip. If the clutch does not slip, damage to drivetrain can occur. (See Adjust Friction Clutch in Service section.
2. If a prechopper is equipped, perform the following:
   - Wipe off grease on the cylinder rods.
   - Ensure that the machine is greased.
   - Check all knives and fixings. Replace if necessary.
   - Ensure that all nuts and cap screws are tightened to specifications.
   - Retension belts and check their condition.
   - Check belt guard conditions and ensure that they are firmly secured.
   - Ensure that all guards are in place.
3. If equipped with a pickup slip clutch, ensure that slip clutch is free to slip.
4. Confirm that gear case is at the proper level on dipstick
5. Confirm that complete machine is lubricated properly.
6. To push clean grease through all the fittings, operate the grease pump.
7. Manually grease all fittings that the pump does not service.
8. Check tires for proper inflation.
9. Tighten and torque all necessary hardware.
10. Review Operator's manual and perform any necessary adjustments.
11. On a machine with a hydraulic knotter cleaning fan, check blower air hose for wear and tear.
12. Remove the protection fluid from the knotters and knotter components.
13. Check fire extinguisher and follow manufacturers recommendation for inspection and maintenance.

SF04007,0000CD9 -19-16JAN17-1/1

1433/1433C Large Square Baler

BALER DIMENSIONS AND WEIGHT	
Width	2.80 m (9 ft 2.23 in)
Overall Length Bale Chute Folded up	8.00 m (26 ft 2.93 in)
Overall Length Bale Chute Extended	8.85 m (29 ft)
Overall Height	2.85 m (9 ft 4.20 in)
Weight (Empty)	7800-8300 kg (17196-18298 lb)
BALE SIZE	
Width x Height	80 x 90 cm (2 ft 7.49 in x 2 ft 11.43 in)
Length (Adjustable)	60—300 cm (1 ft 11.62 in to 9 ft 10 in)
PICKUP	
Working Width	210 cm (6 ft 10.68 in)
Number of Tooth Bars	4
Number of Teeth	120
Lift Control	Hydraulic
Flotation	Spring tension, adjustable
Stripper Diameter	25.4 cm (10 in)
Gauge Wheel Type	Pivoting
PLUNGERHEAD	
Speed	46 strokes per minute
Stroke Length	695 mm (2 ft 3.36 in)
FEEDING SYSTEM	
Packer drum with 5 rows of tines	
Rotor with integrated augers	
Pre-chamber with feedback volume/density measurement	
TYING SYSTEM	
Type	Single knot
Number of Knotters	4
Spacing	18 cm (7.1 in)
Twine Capacity	24 balls
Twine Type	Teufelberger twine type TEWE 130 SIGNAL BIGMAX, or twine with similar quality
Twine Range	130—150 m/kg (193 to 223 ft/lb)
Lubrication	Central lube

BALE CHAMBER TENSIONING	
Type	Electronic/hydraulic 3 hydraulically controlled doors
Density Control	Hydraulic pressure adjustable from the tractor
DRIVETRAIN PROTECTION	
Main Drivetrain	Shear bolt clutch, freewheel clutch, and slip clutch
Pickup	Radial pin slip clutch
Rotor	Torque limiter clutch

Continued on next page

DRIVETRAIN PROTECTION	
Knotters	Shear bolt
Needles	Shear bolts
AXLE	
Single Axle	**Hydraulic or pneumatic brakes**
Tandem Axle	Steered - Hydraulic or pneumatic brakes
Tire Size	710/40-22-5 620/50-22.5 560/45-22.5 500/55-20 400/70-20
MONITOR	
Baler Control Monitor	GreenStar™ 2 1800 Display
	GreenStar™ 2 2600 Display
	GreenStar™ 3 2630 Display
	Generation 3 CommandCenter™ Display
	Generation 4 CommandCenter™ Display
OIL CAPACITIES	
Main Gear Case	25 L (6.6 gal)
Front Tying Gear Case	3.3 L (0.87 gal)
Rear Tying Gear Case	0.8 kg (1.75 lb)
Packer Gear Case	4.0 L (1.06 lb)
Hydraulic Reservoir	9.0 L (2.38 gal)

TRACTOR REQUIREMENTS	
PTO Minimum Power	74 kW (100 hp) —1433 baler 87 kW (115 hp) —1433C baler
PTO Speed	1000 rpm
1 single acting control valve outlet	For Pickup/Support jackstand
1 double acting control valve outlet	Bale chute/Last bale ejector
1 single acting control valve outlet	Steered tandem axle (if equipped)
Hydraulic brakes	1 brake connection—ISO 5676
Pneumatic brakes	2-line air pressure system
Electric supply	ISOBUS ready—9-pole ISO11783 plug

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SF04007,0000CC6 -19-13JAN17-2/2

1424/1424C Large Square Baler

BALER DIMENSIONS AND WEIGHT	
Width	3.00 m (9 ft 10.11 in)
Overall Length Bale Chute Folded up	8.00 m (26 ft 2.93 in)
Overall Length Bale Chute Extended	8.85 m (29 ft)
Height	2.85 m (9 ft 4.20 in)
Weight (Empty)	8800-9460 kg (19401-20856 lb)
BALE SIZE	
Width x Height	120 x 80 cm (3 ft 11.24 in x 2 ft 7.49 in)
Length (Adjustable)	60—300 cm (1 ft 11.62 in to 9 ft 10 in)
PICKUP	
Width	230 cm (7 ft 6.55 in)
Number of Tooth Bars	5
Number of Teeth	160
Lift Control	Hydraulic
Flotation	Spring tension, adjustable
Stripper Diameter	30 cm (12 in)
Gauge Wheel Type	Pivoting
PLUNGERHEAD	
Speed	46 strokes per minute
Stroke Length	695 mm (2 ft 3.36 in)
FEEDING SYSTEM	
Packer drum with 7 rows of tines	
Rotor with integrated augers	
Pre-chamber with feedback volume/density measurement	
TYING SYSTEM	
Type	Single knot
Number of Knotters	6
Spacing	18 cm (7.1 in)
Twine Capacity	24 balls
Twine Type	Teufelberger twine type TEWE 130 SIGNAL BIGMAX, or twine with similar quality
Twine Range	130—150 m/kg (193 to 223 ft/lb)
Lubrication	Central lube

BALE CHAMBER TENSIONING	
Type	Electronic/hydraulic 3 hydraulically controlled doors
Density Control	Hydraulic pressure adjustable from the tractor
DRIVETRAIN PROTECTION	
Main Drivetrain	Automatic clutch, freewheel clutch, and slip clutch
Pickup	Radial pin slip clutch
Rotor	Torque limiter clutch

Continued on next page

DRIVETRAIN PROTECTION	
Knotters	Shear bolt
Needles	Shear bolts
AXLE	
Single Axle	Hydraulic or pneumatic brakes
Tandem Axle	Steered - Hydraulic or pneumatic brakes
Tire Size	710/40-22-5 620/50-22.5 560/45-22.5 500/55-20 400/70-20
MONITOR	
Baler Control Monitor	GreenStar™ 2 1800 Display
	GreenStar™ 2 2600 Display
	GreenStar™ 3 2630 Display
	Generation 3 CommandCenter™ Display
	Generation 4 CommandCenter™ Display
OIL CAPACITIES	
Main Gear Case	25 L (6.6 gal)
Front Tying Gear Case	3.3 L (0.87 gal)
Rear Tying Gear Case	0.8 kg (1.75 lb)
Packer Gear Case	4.0 L (1.06 lb)
Hydraulic Reservoir—Machine without hydraulic knotter cleaning fan	9.0 L (2.38 gal)
Hydraulic Reservoir—Machine with hydraulic knotter cleaning fan	60.0 L (15.85 gal)

TRACTOR REQUIREMENTS	
PTO Minimum Power	98 kW (130 hp) —1424 baler 109 kW (145 hp) —1424C baler
PTO Speed	1000 rpm
1 single acting control valve outlet	For Pickup/Support jackstand
1 double acting control valve outlet	Bale chute/Last bale ejector
Hydraulic brakes	1 brake connection—ISO 5676
1 single acting control valve outlet	Steered tandem axle (if equipped)
Pneumatic brakes	2-line air pressure system
Electric supply	ISOBUS ready—9-pole ISO11783 plug

SF04007,0000CC7 -19-13JAN17-2/2

1424/1424C Large Square Baler with Prechopper

BALER DIMENSIONS AND WEIGHT	
Width	3.00 m (9 ft 10.11 in)
Overall Length Bale Chute Folded up	9.38 m (30 ft 9-9/32 in)
Overall Length Bale Chute Extended	10.23 m (33 ft 6-9/32 in)
Height	2.85 m (9 ft 4.20 in)
Weight (Empty)	10400-10900 kg (22888-23980 lb)
BALE SIZE	
Width x Height	120 x 80 cm (3 ft 11.24 in x 2 ft 7.49 in)
Length (Adjustable)	60—300 cm (1 ft 11.62 in to 9 ft 10 in)
PICKUP	
Width	230 cm (7 ft 6.55 in)
Number of Tooth Bars	5
Number of Teeth	160
Lift Control	Hydraulic
Flotation	Spring tension, adjustable
Stripper Diameter	30 cm (12 in)
Gauge Wheel Type	Pivoting
PLUNGERHEAD	
Speed	46 strokes per minute
Stroke Length	695 mm (2 ft 3.36 in)
FEEDING SYSTEM	
Packer drum with 7 rows of tines	
Rotor with integrated augers	
Pre-chamber with feedback volume/density measurement	
TYING SYSTEM	
Type	Single knot
Number of Knotters	6
Spacing	18 cm (7.1 in)
Twine Capacity	24 balls
Twine Type	Teufelberger twine type TEWE 130 SIGNAL BIGMAX, or twine with similar quality
Twine Range	130—150 m/kg (193 to 223 ft/lb)
Lubrication	Central lube

BALE CHAMBER TENSIONING	
Type	Electronic/hydraulic 3 hydraulically controlled doors
Density Control	Hydraulic pressure adjustable from the tractor
DRIVETRAIN PROTECTION	
Main Drivetrain	Automatic clutch, freewheel clutch, and slip clutch
Pickup	Radial pin slip clutch
Rotor	Torque limiter clutch

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SF04007,0000CC8 -19-17JAN17-1/2

DRIVETRAIN PROTECTION	
Knotters	Shear bolt
Needles	Shear bolts
AXLE	
Single Axle	Hydraulic or pneumatic brakes
Tandem Axle	Steered - Hydraulic or pneumatic brakes
Tire Size	710/40-22-5 620/50-22.5 560/45-22.5
MONITOR	
Baler Control Monitor	GreenStar™ 2 1800 Display
	GreenStar™ 2 2600 Display
	GreenStar™ 3 2630 Display
	Generation 3 CommandCenter™ Display
	Generation 4 CommandCenter™ Display
OIL CAPACITIES	
Main Gear Case	25 L (6.6 gal)
Front Tying Gear Case	3.3 L (0.87 gal)
Rear Tying Gear Case	0.8 kg (1.75 lb)
Packer Gear Case	4.0 L (1.06 lb)
Hydraulic Reservoir—Machine without hydraulic knotter cleaning fan	9.0 L (2.38 gal)
Hydraulic Reservoir—Machine with hydraulic knotter cleaning fan	60.0 L (15.85 gal)

TRACTOR REQUIREMENTS	
PTO Minimum Power	98 kW (130 hp) —1424 baler 109 kW (145 hp) —1424C baler
PTO Speed	1000 rpm
1 single acting control valve outlet	For Pickup/Support jackstand
1 double acting control valve outlet	Bale chute/Last bale ejector
Hydraulic brakes	1 brake connection—ISO 5676
1 single acting control valve outlet	Steered tandem axle (if equipped)
Pneumatic brakes	2-line air pressure system
Electric supply	ISOBUS ready—9-pole ISO11783 plug
1 single acting control valve outlet	For Prechopper

SF04007,0000CC8 -19-17JAN17-2/2

1434/1434C Large Square Baler

BALER DIMENSIONS AND WEIGHT	
Width	3.00 m (9 ft 10.11 in)
Overall Length Bale Chute Folded up	8.00 m (26 ft 2.93 in)
Overall Length Bale Chute Extended	8.85 m (29 ft)
Height	2.85 m (9 ft 4.20 in)
Weight (Empty)	9220-9737 kg (20328-21648 lb)
BALE SIZE	
Width x Height	120 x 90 cm (3 ft 11.24 in x 2 ft 11.43 in)
Length (Adjustable)	60—300 cm (1 ft 11.62 in to 9 ft 10 in)
PICKUP	
Width	230 cm (7 ft 6.55 in)
Number of Tooth Bars	5
Number of Teeth	160
Lift Control	Hydraulic
Flotation	Spring tension, adjustable
Stripper Diameter	30 cm (12 in)
Gauge Wheel Type	Pivoting
PLUNGERHEAD	
Speed	46 strokes per minute
Stroke Length	695 mm (2 ft 3.36 in)
FEEDING SYSTEM	
Packer drum with 7 rows of tines	
Rotor with integrated augers	
Pre-chamber with feedback volume/density measurement	
TYING SYSTEM	
Type	Single knot
Number of Knotters	6
Spacing	18 cm (7.1 in)
Twine Capacity	24 balls
Twine Type	Teufelberger twine type TEWE 130 SIGNAL BIGMAX, or twine with similar quality
Twine Range	130—150 m/kg (193 to 223 ft/lb)
Lubrication	Central lube

BALE CHAMBER TENSIONING	
Type	Electronic/hydraulic 3 hydraulically controlled doors
Density Control	Hydraulic pressure adjustable from the tractor
DRIVETRAIN PROTECTION	
Main Drivetrain	Automatic clutch, freewheel clutch, and slip clutch
Pickup	Radial pin slip clutch
Rotor	Torque limiter clutch
Knotters	Shear bolt
Needles	Shear bolts
AXLE	
Single Axle	Hydraulic or pneumatic brakes

Continued on next page

DRIVETRAIN PROTECTION	
Tandem Axle	Steered - Hydraulic or pneumatic brakes
Tire Size	710/40-22-5 620/50-22.5 560/45-22.5 500/55-20 400/70-20
MONITOR	
Baler Control Monitor	GreenStar™ 2 1800 Display
	GreenStar™ 2 2600 Display
	GreenStar™ 3 2630 Display
	Generation 3 CommandCenter™ Display
	Generation 4 CommandCenter™ Display
OIL CAPACITIES	
Main Gear Case	37 L (9.8 gal)
Front Tying Gear Case	3.3 L (0.87 gal)
Rear Tying Gear Case	0.8 kg (1.75 lb)
Packer Gear Case	4.0 L (1.06 lb)
Hydraulic Reservoir—Machine without hydraulic knotter cleaning fan	9.0 L (2.38 gal)
Hydraulic Reservoir—Machine with hydraulic knotter cleaning fan	60.0 L (15.85 gal)

TRACTOR REQUIREMENTS	
PTO Minimum Power	98 kW (130 hp) —1434 baler 109 kW (145 hp) —1434C baler
PTO Speed	1000 rpm
1 single acting control valve outlet	For Pickup/Support jackstand
1 double acting control valve outlet	Bale chute/Last bale ejector
1 single acting control valve outlet	Steered tandem axle (if equipped)
Hydraulic brakes	1 brake connection—ISO 5676
Pneumatic brakes	2-line air pressure system
Electric supply	ISOBUS ready—9-pole ISO11783 plug

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SF04007,0000CC9 -19-13JAN17-2/2

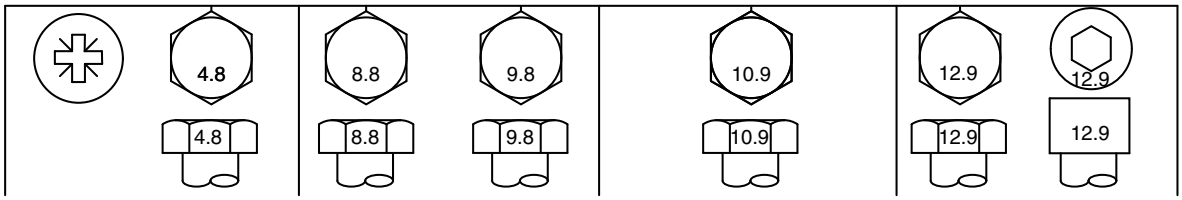
Tractor Drawbar Load

Maximum static vertical load on tractor drawbar allowance:
1600 kg (3527 lbs)

SF04007,0000CDA -19-30NOV16-1/1

Metric Bolt and Screw Torque Values

TS1670 —UN—01MAY03



Bolt or Screw Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Lubricated[a]		Dry[b]		Lubricated[a]		Dry[b]		Lubricated[a]		Dry[b]		Lubricated[a]		Dry[b]	
	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.
M6	4.7	42	6	53	8.9	79	11.3	100	13	115	16.5	146	15.5	137	19.5	172
									N·m	lb.-ft.	N·m	lb.-ft.	N·m	lb.-ft.	N·m	lb.-ft.
M8	11.5	102	14.5	128	22	194	27.5	243	32	23.5	40	29.5	37	27.5	47	35
			N·m	lb.-ft.	N·m	lb.-ft.	N·m	lb.-ft.								
M10	23	204	29	21	43	32	55	40	63	46	80	59	75	55	95	70
	N·m	lb.-ft.														
M12	40	29.5	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	46	80	59	120	88	150	110	175	130	220	165	205	150	260	190
M16	100	74	125	92	190	140	240	175	275	200	350	255	320	235	400	300
M18	135	100	170	125	265	195	330	245	375	275	475	350	440	325	560	410
M20	190	140	245	180	375	275	475	350	530	390	675	500	625	460	790	580
M22	265	195	330	245	510	375	650	480	725	535	920	680	850	625	1080	800
M24	330	245	425	315	650	480	820	600	920	680	1150	850	1080	800	1350	1000
M27	490	360	625	460	950	700	1200	885	1350	1000	1700	1250	1580	1160	2000	1475
M30	660	490	850	625	1290	950	1630	1200	1850	1350	2300	1700	2140	1580	2700	2000
M33	900	665	1150	850	1750	1300	2200	1625	2500	1850	3150	2325	2900	2150	3700	2730
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2770	4750	3500

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For stainless steel fasteners or for nuts on U-bolts, see the tightening instructions for the specific application. Tighten plastic insert or crimped steel type lock nuts by turning the nut to the dry torque shown in the chart, unless different instructions are given for the specific application.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical property class. Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original. Make sure fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

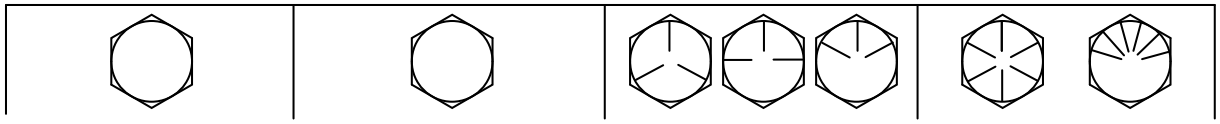
[a] *"Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or M20 and larger fasteners with JDM F13C, F13F or F13J zinc flake coating.*

[b] *"Dry" means plain or zinc plated without any lubrication, or M6 to M18 fasteners with JDM F13B, F13E or F13H zinc flake coating.*

DX,TORQ2 -19-12JAN11-1/1

Unified Inch Bolt and Screw Torque Values

TS1671 —UN—01MAY03



Bolt or Screw Size	SAE Grade 1				SAE Grade 2[a]				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
	Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]	
	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.	N·m	lb.-in.
1/4	3.7	33	4.7	42	6	53	7.5	66	9.5	84	12	106	13.5	120	17	150
													N·m	lb.-ft.	N·m	lb.-ft.
5/16	7.7	68	9.8	86	12	106	15.5	137	19.5	172	25	221	28	20.5	35	26
									N·m	lb.-ft.	N·m	lb.-ft.				
3/8	13.5	120	17.5	155	22	194	27	240	35	26	44	32.5	49	36	63	46
			N·m	lb.-ft.	N·m	lb.-ft.	N·m	lb.-ft.								
7/16	22	194	28	20.5	35	26	44	32.5	56	41	70	52	80	59	100	74
	N·m	lb.-ft.														
1/2	34	25	42	31	53	39	67	49	85	63	110	80	120	88	155	115
9/16	48	35.5	60	45	76	56	95	70	125	92	155	115	175	130	220	165
5/8	67	49	85	63	105	77	135	100	170	125	215	160	240	175	305	225
3/4	120	88	150	110	190	140	240	175	300	220	380	280	425	315	540	400
7/8	190	140	240	175	190	140	240	175	490	360	615	455	690	510	870	640
1	285	210	360	265	285	210	360	265	730	540	920	680	1030	760	1300	960
1-1/8	400	300	510	375	400	300	510	375	910	670	1150	850	1450	1075	1850	1350
1-1/4	570	420	725	535	570	420	725	535	1280	945	1630	1200	2050	1500	2600	1920
1-3/8	750	550	950	700	750	550	950	700	1700	1250	2140	1580	2700	2000	3400	2500
1-1/2	990	730	1250	930	990	730	1250	930	2250	1650	2850	2100	3600	2650	4550	3350

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For plastic insert or crimped steel type lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application. Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Replace fasteners with the same or higher grade. If higher grade fasteners are used, tighten these to the strength of the original. Make sure fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

[a] Grade 2 applies for hex cap screws (not hex bolts) up to 6 in. (152 mm) long. Grade 1 applies for hex cap screws over 6 in. (152 mm) long, and for all other types of bolts and screws of any length.

[b] "Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or 7/8 in. and larger fasteners with JDM F13C, F13F or F13J zinc flake coating.

[c] "Dry" means plain or zinc plated without any lubrication, or 1/4 to 3/4 in. fasteners with JDM F13B, F13E or F13H zinc flake coating.

DX,TORQ1 -19-12JAN11-1/1

EC Declaration of Conformity

Deere & Company
Moline, Illinois USA

The person named below declares that

Machine type: Large Square Baler

Models: 1424, 1424C, 1433, 1433C, 1434 and 1434C

Fulfills all relevant provisions and essential requirements of the following directives:

DIRECTIVE	NUMBER	CERTIFICATION METHOD
Machinery Directive	2006/42/EC	Self-certification, per Article 5 of the Directive
Agricultural Machinery Safety—Part 1: General Requirements	ISO 4254-1	Self-certification
Agricultural Machinery Safety—Part 11: Pick-up Balers	ISO 4254-11	Self-certification

Name and address of the person in the European Community authorized to compile the technical construction file:

Brigitte Birk
John Deere GmbH & Co. KG
Mannheim Regional Center (Zentralfunktionen)
John Deere Strasse 70
Mannheim, Germany D-68163
EUConformity@johndeere.com

Place of declaration: Arc les Gray

Date of declaration: 13 September 2013

Manufacturing unit:

Name: Didier Delphigue

Title: Product Engineering Manager Balers

DXCE01 —UN—28APR09

CE

SF04007,0000CDB -19-30NOV16-1/1

Serial Numbers

Serial Number Plate

Serial number identifying the baler is stamped on factory serial number plate.

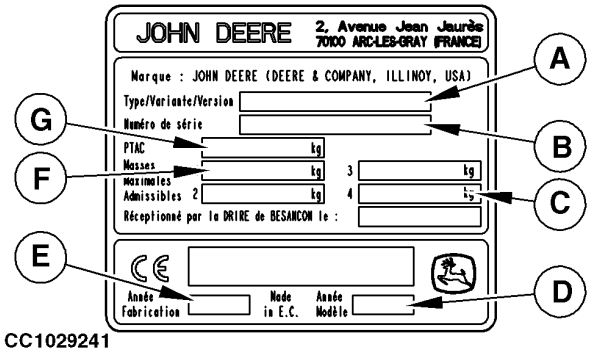
These numbers and letters are required when ordering baler or attachment replacement parts.

To ensure that you have these numbers at hand, enter the appropriate serial number in the table provided under the illustration.

OUCC002,0003930 -19-14JAN12-1/1

Serial Number Plate Description

A—Model Designation
B—Serial Number
C—Maximum Load at Hitch
D—Model Year
E—Year of Production
F—Maximum Load on Axle
G—Maximum Permissible Total Weight



CC1029241

CC1029241 —UN—20SEP07

OUCC002,0003931 -19-14JAN12-1/1

Baler Serial Number Record

The serial number plate is located on the right side of the baler.

Record the serial number in the table below.

ZX1046447 —UN—17JAN12

Serial Number																		
*																		*

OUCC002,0003932 -19-14JAN12-1/1

Keep Proof of Ownership

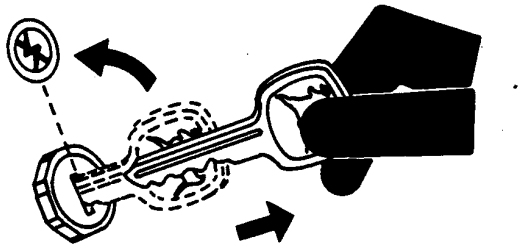
1. Maintain in a secure location an up-to-date inventory of all product and component serial numbers.
2. Regularly verify that identification plates have not been removed. Report any evidence of tampering to law enforcement agencies and order duplicate plates.
3. Other steps you can take:
   - Mark your machine with your own numbering system
   - Take color photographs from several angles of each machine

TS1680 —UN—09DEC03

DX,SECURE1 -19-18NOV03-1/1

Keep Machines Secure

1. Install vandal-proof devices.
2. When machine is in storage:
   - Lower equipment to the ground
   - Set wheels to widest position to make loading more difficult
   - Remove any keys and batteries
3. When parking indoors, put large equipment in front of exits and lock your storage buildings.
4. When parking outdoors, store in a well-lighted and fenced area.
5. Make note of suspicious activity and report any thefts immediately to law enforcement agencies.
6. Notify your John Deere dealer of any losses.



TS230 —UN—24MAY89

DX,SECURE2 -19-18NOV03-1/1

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W

Z

John Deere Service Keeps You on the Job

John Deere Parts

We help minimize downtime by putting genuine John Deere parts in your hands in a hurry.

That's why we maintain a large and varied inventory—to stay a jump ahead of your needs.

TS100 —UN—23AUG88

DX,IBC,A -19-04JUN90-1/1

The Right Tools

Precision tools and testing equipment enable our Service Department to locate and correct troubles quickly . . . to save you time and money.

TS101 —UN—23AUG88

DX,IBC,B -19-04JUN90-1/1

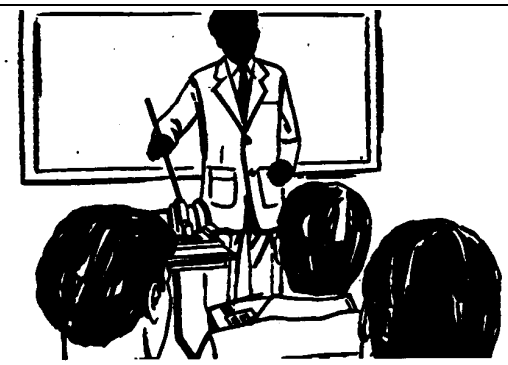
Well-Trained Technicians

School is never out for John Deere service technicians.

Training schools are held regularly to be sure our personnel know your equipment and how to maintain it.

Result?

Experience you can count on!



TS102 —UN—23AUG88

DX,IBC,C -19-04JUN90-1/1

Prompt Service

Our goal is to provide prompt, efficient care when you want it and where you want it.

We can make repairs at your place or at ours, depending on the circumstances: see us, depend on us.

JOHN DEERE SERVICE SUPERIORITY: We'll be around when you need us.

TS103 —UN—23AUG88

DX,IBC,D -19-04JUN90-1/1