430 AND 530
ROUND BALERS

JOHN DEERE

OPERATORS MANUAL

430 AND 530
ROUND BALERS

OME73768 G4 English

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ENGLISH

This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

METRIC

This baler is primarily of metric design.

For your conveninece, most specifications are given in metric measurement with the customary U. S. measurement following.

Some specifications cannot be converted, these appear in metric only.

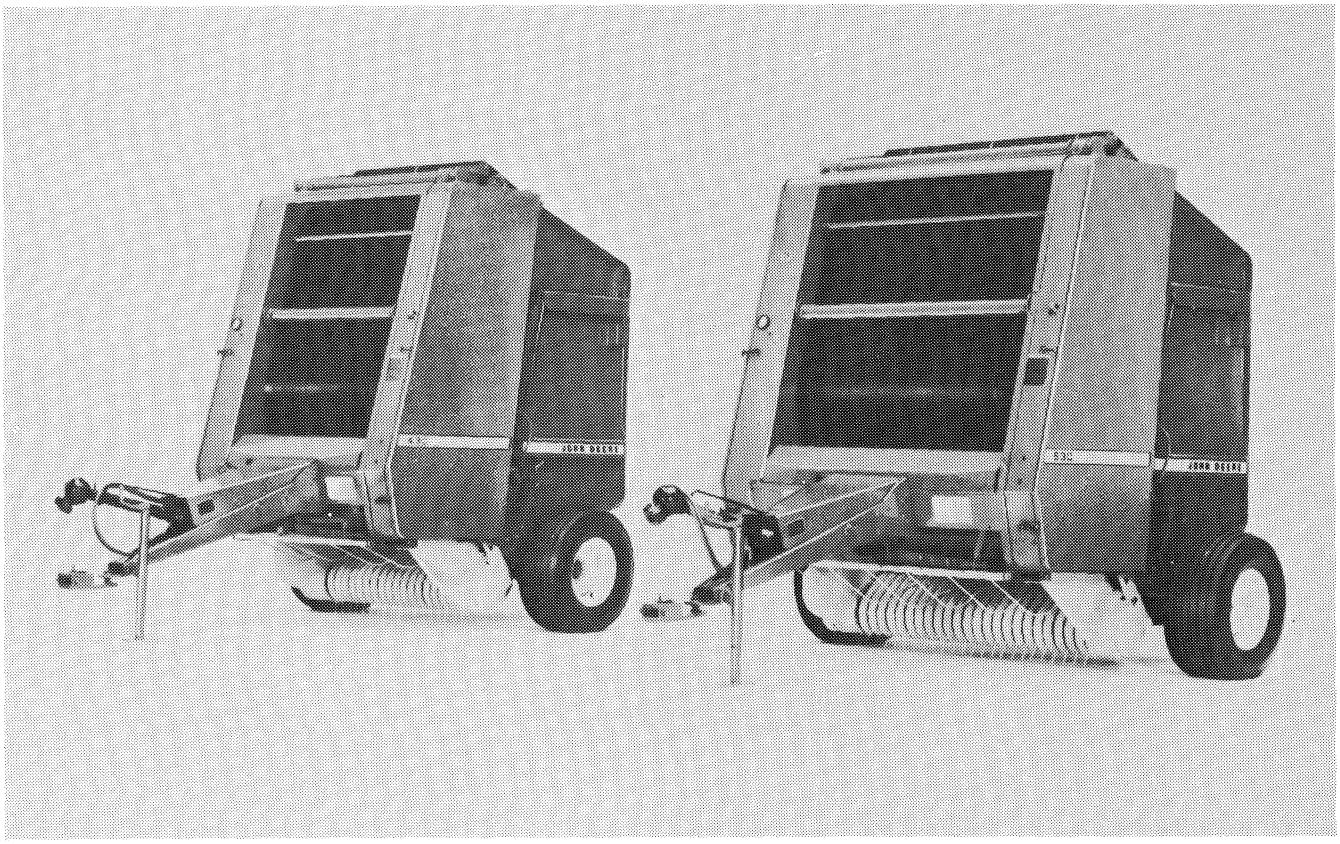
Most hardware is metric. Specified metric hardware must be used for replacement.

CAUTION: Use only metric tools. Other tools may not fit properly. They may slip and cause injury.

"Right-hand" and "left-hand" sides are determined by facing in the direction the baler will travel when in use.

Your warranty appears on your copy of the purchase order copy which you should have received from your dealer.

Record your baler serial number in the space provided on page 134. Your dealer needs this information to give you prompt efficient service.



John Deere 430 and 530 Round Balers

PREDELIVERY CHECK LIST

After the baler has been completely set-up, inspect it to be sure it is in good running condition before delivering it to the customer. The following check list is a reminder of points to inspect. Check off each item as it is found satisfactory or after proper adjustment is made.

- ☐ Baler has been assembled properly. (See page 98.)
- ☐ Check all hydraulic hoses and connections for oil leaks.
- ☐ Baler has been lubricated. (See page 46.)
- ☐ Gate opens and closes freely and latches are adjusted properly. (See page 80.)
- ☐ Upper arm stops have been installed. (See page 104.)
- ☐ Belt tracking is satisfactory. (See page 74.)
- ☐ Cycle twine arm and check oil level.
- ☐ Check monitor box to see that all lights and gauges function properly.
- ☐ Check gate lock valve for proper function.
- ☐ Drive chains have been adjusted properly and lubricated. (See pages 48 and 70.)
- ☐ Drive slip clutch has been checked for specified adjustment. (See page 71.)
- ☐ Tire pressures have been checked. (See page 17.)

_____ (Date set up)

_____ (Signature of Set-Up Technician)

AB5; E01;;530U A 080584

OWNER REGISTER

Name _____
Rural Route # _____
County_____State_____Zip_____
Serial Number _____
Operator's Manual No. OM-E73768 _____
Date Sold _____

AB5; E01;;530U B 080584

DELIVERY CHECK LIST

The following check list is a reminder of very important information which should be conveyed directly to the customer at the time the baler is delivered. Check off each item as it is fully explained.

- ☐ Advise the customer that the life expectancy of this, like any other machine, is dependent on regular lubrication as described in the operator's manual.
- ☐ Give the operator's manual to the customer and explain all operating adjustments and lubrication fully.
- ☐ Explain proper bale handling procedures.
- ☐ Explain proper ASAE standard dimensions for PTO hookup.
- ☐ Advise customer of safety precautions that must be observed while using this baler.
- ☐ Advise the customer never to discharge bales on sloping ground and if moving bales with a tractor loader, the loader MUST have a grapple.
- ☐ ⚠ When the baler is transported on a road or highway at night or during the day, accessory lights and devices should be used for adequate warning to operators of other vehicles. Various safety lights and devices are available from your John Deere dealer. In this regard, tell customers to check local governmental regulations.
- ☐ Advise the customer to set the front and rear wheels out on the tractors having adjustable-tread width to avoid driving over hay.

_____

(Date delivered)

_____

(Signature)

530PDC/092982

AFTER-SALE CHECK LIST

It is suggested the following items be checked sometime during the first season's operation.

- ☐ Go over entire machine for loose or missing bolts.
- ☐ Check belt lacings for proper wear.
- ☐ All chains are properly tightened.
- ☐ All safety shields are in place.
- ☐ Check for broken or damaged parts.
- ☐ If possible, run the baler to see if it is functioning properly.
- ☐ A good quality twine is being used and is threaded properly.
- ☐ Check operating adjustments. If possible, inspect wraps on a few bales.
- ☐ Review the entire operator's manual with the customer and stress the importance of proper and regular lubrication and safety precautions.

_____

(Date checked)

_____

(Signature)

530PDD/092982

Contents

AB5; E01;;530B A 090584

E27;P01 060684

Safety

OBSERVE SAFETY SIGNS AND MESSAGES

CAUTION: This message is used for general reminders of good safety practices or to direct attention to unsafe practices. The message will appear in your operator's manual and/or the sign will appear on the machine with the color combination of yellow and black.

WARNING: This message denotes a specific potential hazard. The sign will be displayed on the machine in areas of potential hazard. The sign will have the color combination of yellow and black.

DANGER: This message denotes the most serious specific potential hazard. The sign will be displayed on the machine in areas of potential hazard. The sign will have the color combination of red and white.

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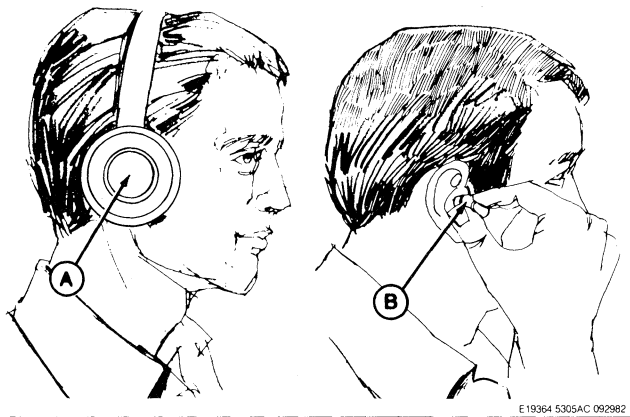
OBSERVE "IMPORTANT" MESSAGES

Messages labeled "Important" will appear in your operator's manual and/or on the machine to provide specific instructions for performing adjustments, services, etc. If these instructions are not followed, it could result in damage to the machine.

5305AB 092982

PROTECT AGAINST NOISE

Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear a suitable hearing protective device such as earmuffs (A) or earplugs (B) to protect against objectionable or uncomfortable loud noise.



E19364 5305AC 092982

AVOID HIGH-PRESSURE FLUIDS

Escaping fluid under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting hydrauic or other lines. Tighten all connections before applying pressure. Keep hands and body away from pinholes and nozzles which eject fluids under high pressure. Use a piece of cardboard or paper to search for leaks. Do not use your hand.

If ANY fluid is injected into the skin, it must be surgically removed within a few hours by a doctor familiar with this type injury or gangrene may result.

X9811/5305AD/092982

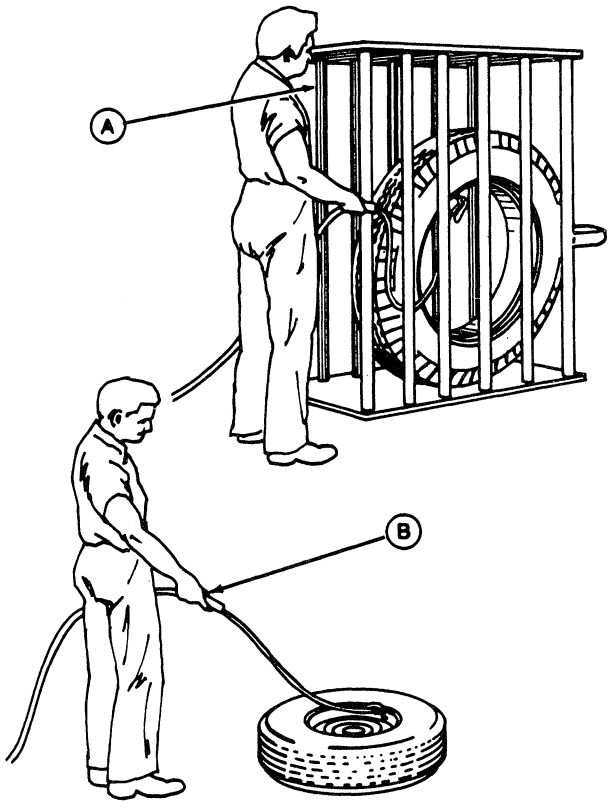
SERVICE TIRES SAFELY

Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious injury or death. Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job. Have it done by your John Deere dealer or a qualified tire repair service.

When sealing tire beads on rims, never exceed 35 psi (240 kPa) (2.4 bar) or maximum inflation pressure specified by tire manufactures for mounting tires. Inflation beyond this maximum pressure may break the bead, or even the rim, with dangerous explosive force. If both beads are not seated when the maximum recommended pressure is reached, deflate, reposition tire, relubricate bead, and reinflate.

Detailed agricultural tire mounting instructions, including necessary safety precautions, are contained in John Deere Fundamentals of Service (FOS) Manual 55, Tires and tracks, available through your John Deere dealer. Such information is also available from the Rubber Manufacturers Association and from tire manufacturers.

A—Use a safety cage if available.
B—Do not stand over tire. Use a clip-on chuck and extension hose.



TS-0123/5305AE/062983

DO NOT MODIFY MACHINE

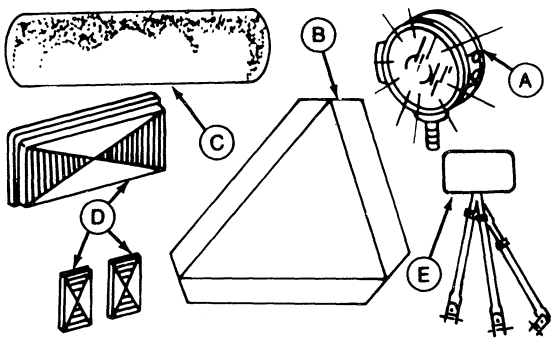
Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

5305AF/092982

USE SAFETY LIGHTS AND DEVICES

When transporting your machine on a road or highway at night or during the day, use necessary lights (A), SMV emblems (B), reflector tape (C) or reflectors (D), and mirror extension (E) for adequate warning to operators of other vehicles. In this regard, check local governmental regulations. These various safety lights and devices are available from your John Deere dealer.

A—Lights
B—SMV Emblem
C—Reflector Tape
D—Reflectors
E—Mirrow and Extension



E22683/5305AG/062983

OPERATE SAFELY

Wear relatively tight and belted clothing to prevent catching on machine parts.

Never allow riders on the baler.

Keep all shields in place when operating baler.

Do not attempt to pull hay or twine from pickup when baler is running.

Never hand-feed twine or hay into baler.

All machinery should be operated by responsible persons who have been properly instructed and delegated to do so.

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

Become familiar with all controls affecting machine functions.

Before servicing, adjusting, or removing material from the baler, always disengage all power and shut off engine.

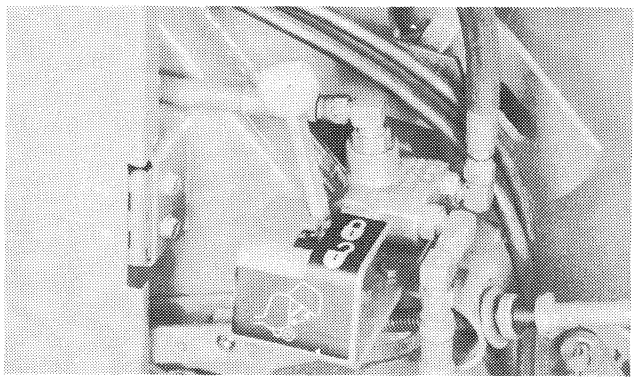
E19363/5305AH/092982

Position gate lock valve to locked position before working on or around baler with gate in raised position. See "Operating The Baler" for gate lock valve instructions.

To avoid injury stay clear of gate while it is being raised and lowered.

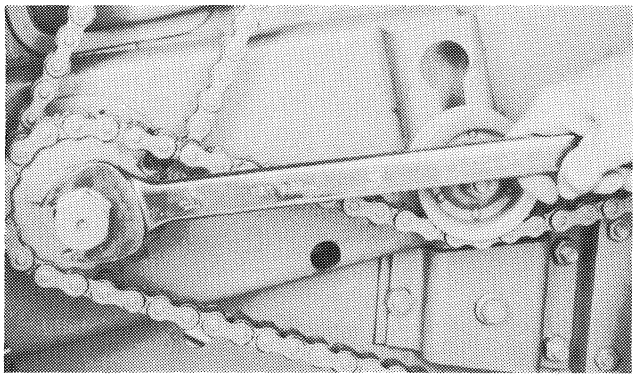
Be sure bystanders are clear before operating gate.

Remove foreign objects from machine. See "Operating The Baler" for removal of foreign objects.



E21639/5305AI/092982

Use open end wrench to turn the hex gear case output shaft to aid in servicing. Never use any type of tool or wrench on shaft while tractor engine is running. Always remove tool from the shaft whenever you are finished using it.



Check powerline shield to ensure it is free to turn. Make necessary repairs if the shield will not turn.

Check to make sure hookup is securely latched by pulling rearward on shield bell. Do not pull on collar as this will release latch.

Become familiar with operator's manual and the safety and instruction signs on the machine.

E21640/5305AJ/092982

If using a tractor loader to move bales, the loader MUST be equipped with a grapple to prevent bale from rolling down loader frame onto tractor operator.

Be especially careful when operating on hillsides. The baler may tip sideways if it strikes a hole, ditch, or other irregularity.

Due to the weight and rolling tendency of large round bales, be careful when moving bales.

To prevent injury or damage from a rolling bale, discharge bales on level ground or in such a manner that the bale will not roll.

Do not allow anyone to stand near the rear of the baler when it is discharging a bale.

W8104/5305AK/092982

USING FRONT-END LOADER TO MOVE ROUND BALES

CAUTION: Use extreme caution when using a front-end loader to handle round bales.

Even when using proper equipment, handling round bales can be hazardous. Follow the instructions shown in this manual and on the decals attached to the loader and round bale clamp.

Do not handle round bales with the loader unless the specially designed John Deere round bale clamp is installed. Without the clamp, the bale can fall on the operator when the loader is raised.

To avoid handling and stability problems, do not exceed the manufacturers rated capacity of the front-end loader.

The tractor must be equipped with a roll-over protective structure to prevent operator injury in case of a tractor roll-over accident.

The tractor must have maximum rear ballast per wheel and maximum tread width. See your tractor operator's manual.

Reduce the tractor ground speed. Carry the bale as low as possible and maintain adequate visibility and ground clearance at all times.

Jerky operation causes tractor-loader instability. Operate the loader controls smoothly.

Maximum bale weight must not exceed 907 kg (2000 lbs.).

W8104 5305AL 092982

When handling round bales, open the clamp and lower the fork or bucket to the ground. Keep the fork or bucket level with the ground to avoid damaging the round bale. Drive ahead until the bale is on the fork or bucket. Close the clamp to grasp the bale, roll the fork or bucket back, and raise the loader boom to provide adequate visibility and ground clearance for transport.

When handling round blades on a slope, approach the bale with the tractor facing uphill. Open the clamp and lower the fork or bucket to the ground. Keep the fork or bucket level with the ground to avoid damaging the round blade. Drive ahead until the bale is on the fork or bucket. Close the clamp to grasp the bale, roll the fork on bucket back, and raise the loader boom 152 mm (6-in.) to provide ground clearance for trasport on the slope. Proceed slowly with extreme caution.

Never use the tractor-loader to stop a rolling bale.

Improper use of front-end loaders to handle round bales can result in injury to the tractor operator from:

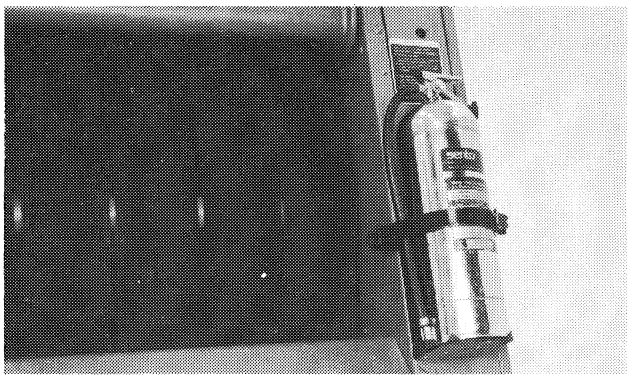
(a) The bale rolling back down the loader boom into the operator's station.

(b) A tractor roll-over accident caused by instability when the blade is not carried low.

W8053 5305AM 092982

RECOMMENDED FIRE EXTINGUISHER

To limit the damage in case of fire, attach a 9.5L (2-1/2 gal.) pressurized water fire extinguisher on the front of baler. (See Attachment Section.) This should not replace the fire extinguisher that is recommended for the tractor.



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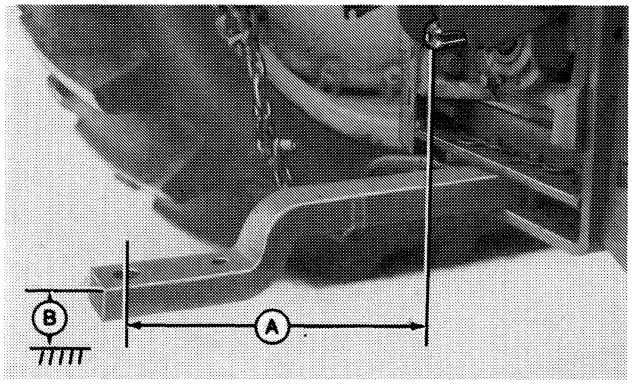
ADJUSTING THE DRAWBAR



Vertically align drawbar hitch pin hole with centerline of tractor power take-off shaft.

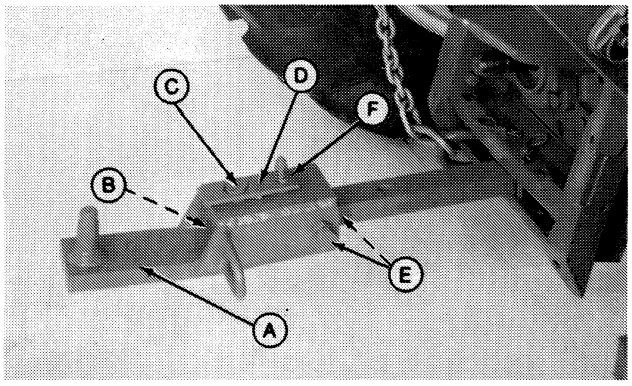
IMPORTANT: Before attaching baler to tractor, be sure to adjust tractor drawbar so it measures 356 mm (14-in.) (for 540 rpm PTO) or 406 mm (16-in.) (for 1000 rpm PTO) from the end of the power take-off shaft to center of hitch pin hole in drawbar. Replace all shielding removed.

Set drawbar to the following dimensions.

A—356 mm (14-in.) (540 rpm)
—406 mm (16 in.) (1000 rpm)
B—330-508 mm (13-20 in.) To Ground

AA7;E24243 E01;;530V A 090584

ATTACHING HITCH TO DRAWBAR



1. Slide hitch (A) onto tractor drawbar.

2. Place shims (B) between drawbar and hitch for a tight fit. Store extra shims under locking straps (D).

3. Insert hitch pin (C) and rotate locking strap (D) over top of spring pin to secure.

4. Tighten adjusting bolts (E) on both sides of hitch. Tighten jam nuts against hitch.

5. Tighten nut (F) on locking strap until spring is solid and then loosen two turns.

A—Equal Angle Hitch
B—Shims
C—Hitch Pin
D—Locking Strap
E—Adjusting Bolts
F—Nut

AA7;E22646 E01;;530V B 150584

E27;P09 060684

SETTING TRACTOR WHEELS

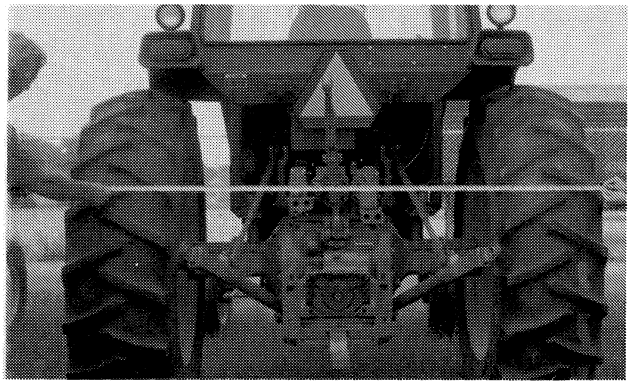
Set front wheels to provide an inside tire to tire dimension of 1372 to 1524 mm (54 to 60-in.) on the 430 Baler or 1676 to 1829 mm (66 to 72-in.) on the 530 Baler.

AA7;E21602 E01;;530V C 090584

Set rear tractor wheels to provide an outside tire dimension of 2591 to 2743 mm (102 to 108-in.)

NOTE: If converging wheels are installed, the outside dimension of the rear wheels must not exceed 2286 mm (90-in.) for the 430 Baler and 2388 mm (94-in.) for the 530 Baler.

IMPORTANT: Do not make extremely short turns or cause the baler to jackknife while backing as damage may occur to the converging wheels.



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CHECKING 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.

AA7; E01;;530V E 090584

SELECTING TRACTOR PTO SPEED

CAUTION: Under no circumstances should a baler equipped for 540 rpm PTO drive be operated with a tractor equipped with 1000 rpm PTO.

AA7; E01;;530V F 090584

SETTING HYDRAULIC OUTLETS

Set tractor hydraulic remote outlets to maximum flow rate.

AA7; E01;;530V G 090584

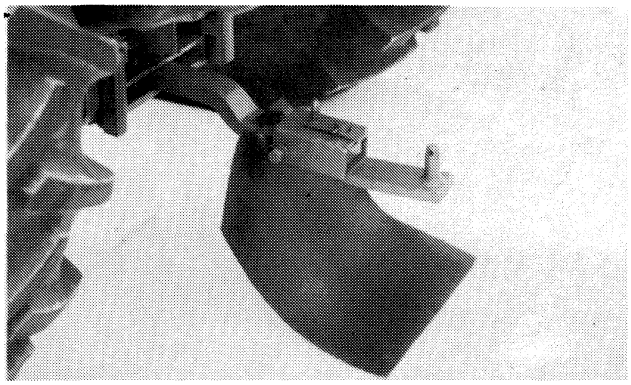
INSTALLING "BALE-TRAK™" MONITOR

See "Install Bale-Trak Monitor Console" in the assembly section.

AA7; E01;;530V H 090584

USING DRAWBAR SHIELD

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



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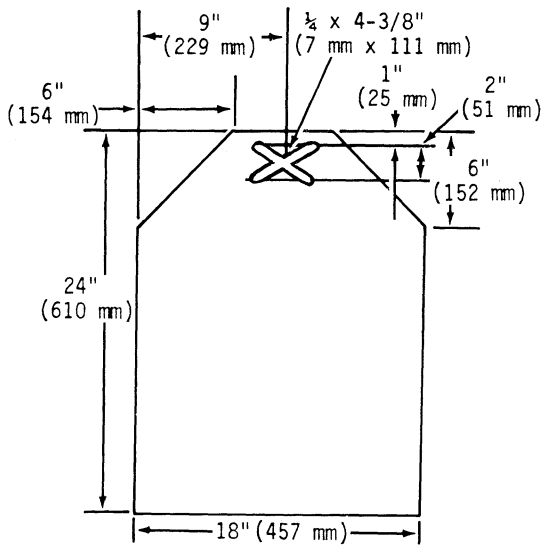
USING HEAVY-DUTY TRACTOR DRAWBAR

IMPORTANT: Some tractor drawbars may not be strong enough for use with 430 or 530 Balers and should be replaced with heavy-duty drawbars. Inspect your tractor drawbar frequently for cracking or bending. Replace it immediately if any damage is observed. See your dealer for information on special heavy-duty drawbars that are available for many John Deere tractor models.

AA7; E01;;530V K 090584

MAKING DRAWBAR SHIELD

1. Use 2 or 4 ply belting.



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Preparing the Baler

SELECTING TWINE

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

For a more trouble-free baling operation, select the twine which meets the ASAE standards.

Twine of good tensile strength and uniformity in size should be selected for proper baling operation. This will also help prevent twine from breaking during handling and transporting of bales.

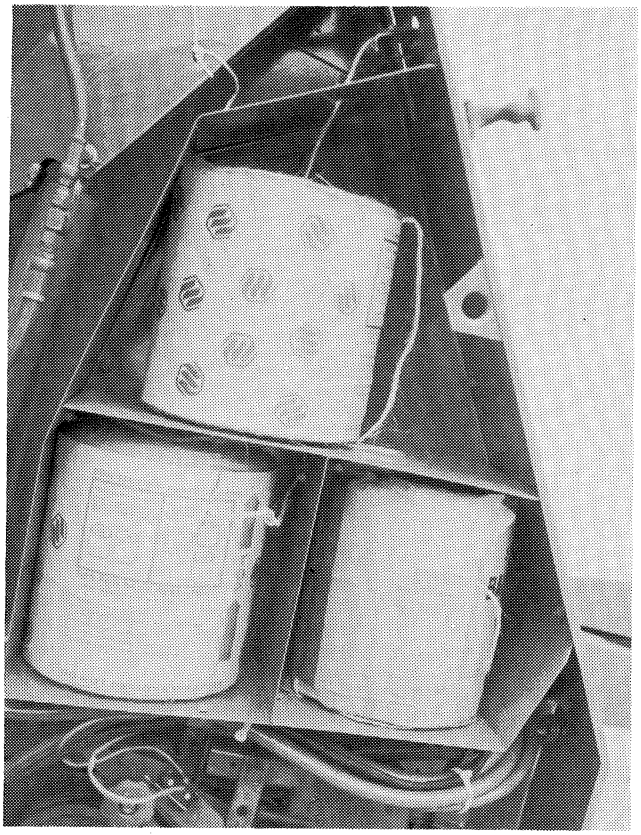
530PMA 092982

LOADING TWINE BOX

1. Place one ball of good quality twine in each compartment of the twine box. Be sure twine is pulled from end of the ball marked "top."

2. Join twine by tying the inside end of one ball to the outside of the other ball. In joining twine, use a modified square knot with sisal twine and a sheet bend knot with plastic twine.

3. Trim loose ends of twine as close to knot as possible.

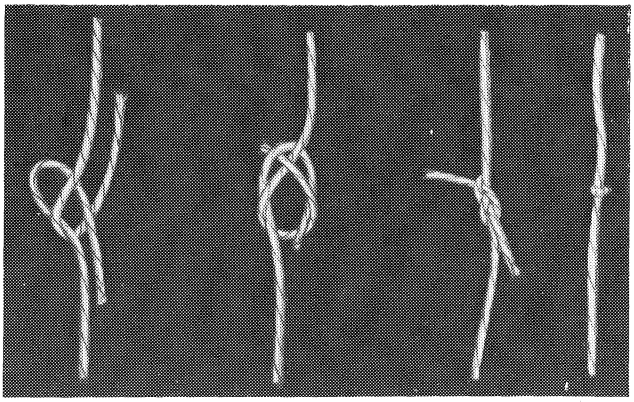


E21611 530PMB 092982

TYING SHEET BEND KNOT — PLASTIC TWINE

IMPORTANT: The knot must be small enough to pass through the guides and twine arm.

Tie plastic twine balls together with a sheet bend knot as shown.

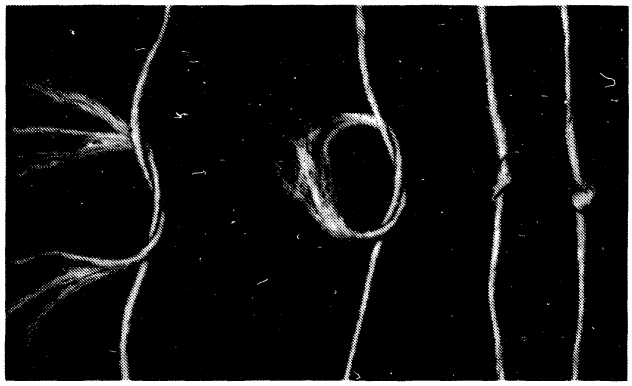


E11344 530PMC 092982

TYING MODIFIED SQUARE KNOT—SISAL TWINE

IMPORTANT: The knot must be small enough to pass through the guides and twine arm.

Tie twine balls together with a square or modified square knot as shown.

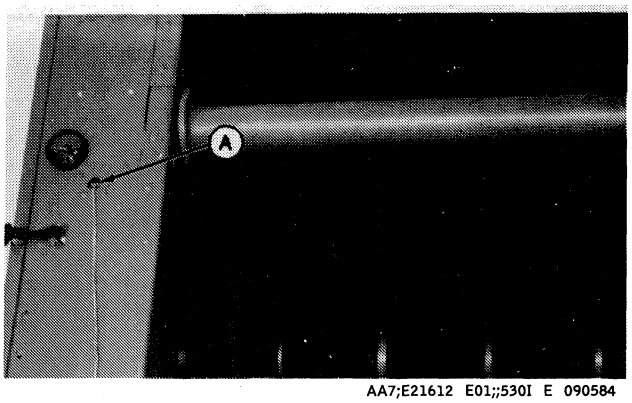


AA7;E7986 E01;;530I D 090584

ROUTING TWINE THROUGH GUIDES

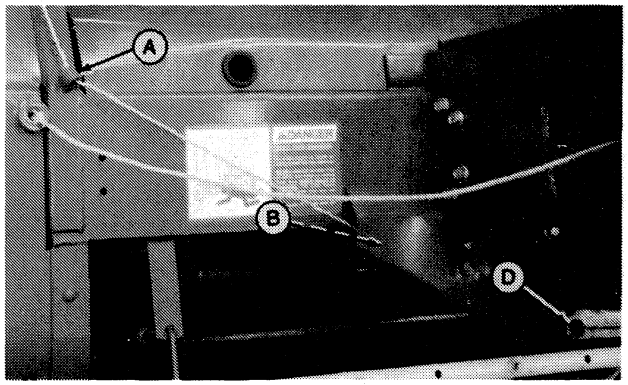
NOTE: A detailed threading diagram is located inside right-hand shield door.

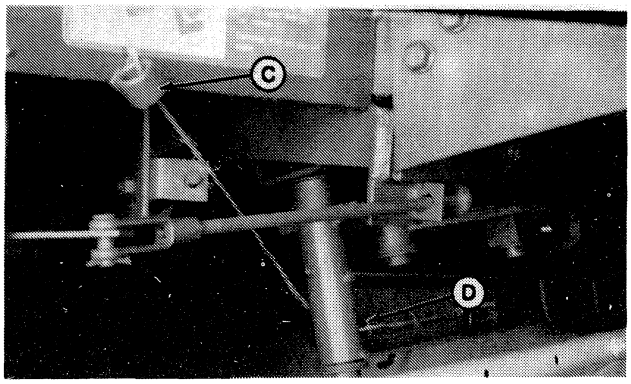
1. Pull twine through twine tension plate and opening (A).



AA7;E21612 E01;;530I E 090584

2. Route twine through guide (A).
3. For 530 Baler only, route twine through guide (B).
4. For 430 Baler only, route twine through guide (C).
5. Route twine through guide (D).





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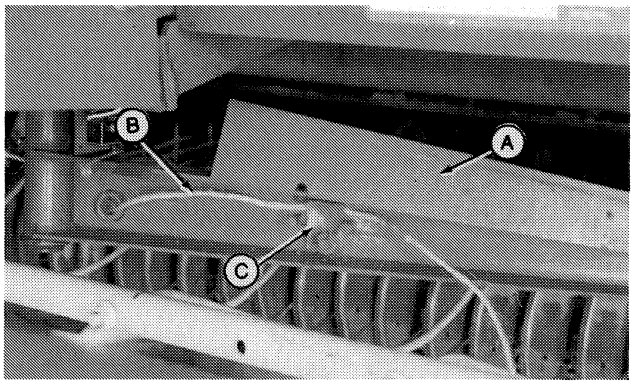
E27;P15 060684

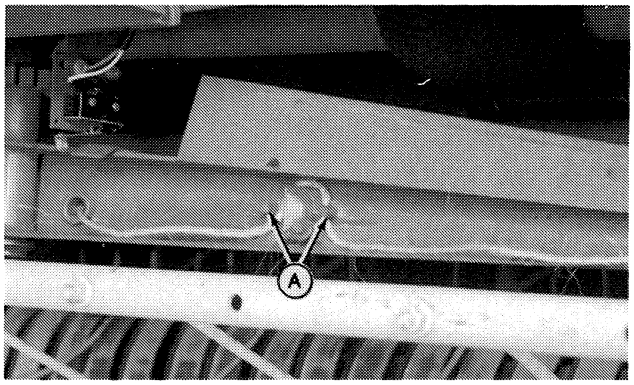
THREADING TWINE ARM TENSION PLATE

1. Raise twine arm shield (A) up and place twine (B) over top of tension plate (C) as shown.



AA7;E24209 E01;;530I G 090584

2. Loop twine under guide pins (A).



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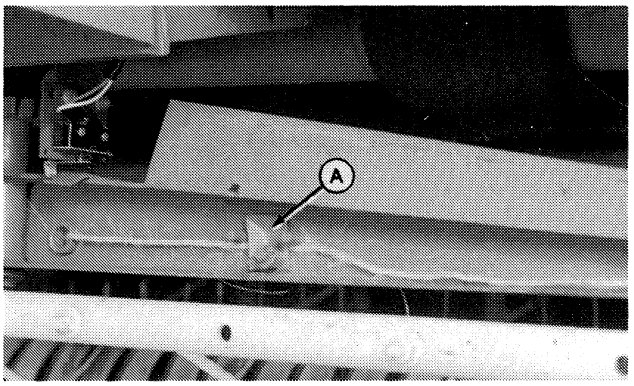
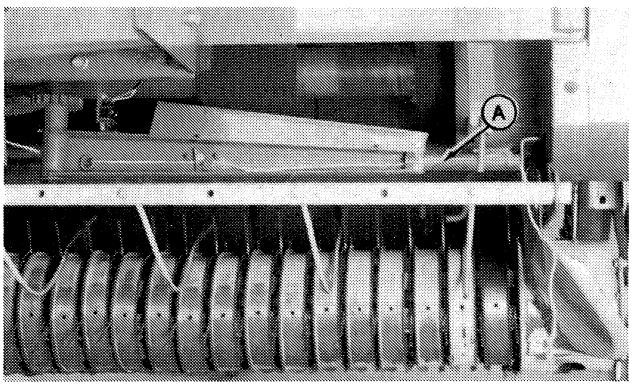
3. Pull on twine from both sides of tension plate (A) to get twine under the plate.



AA7;E24211 E01;;530I I 090584

4. Thread twine through twine arm (A). There must be 305 mm (12-in) of twine exposed from end of twine arm.



AA7;E24212 E01;;530I J 090584

P27;P16 060684

SELECTING PROPER TIRE INFLATION

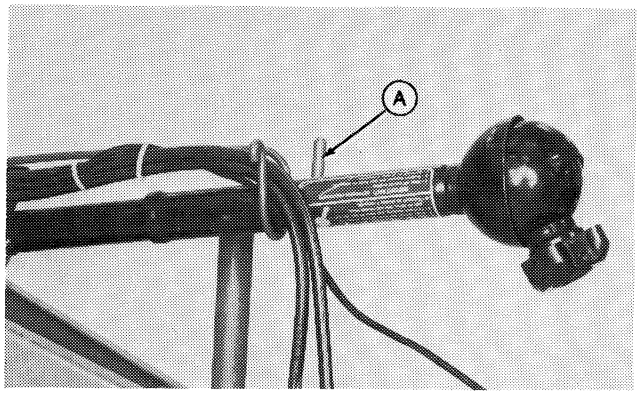
TIRE PRESSURE CHART

Tires	Psi	Bar	kPa
Hi-Flotation (31 x 13.5 - 15 6 PR)	30	2.1	207
Regular (11L - 14 6 PR)	30	2.1	207
Pickup Gauge Wheel	20	1.4	138

530PMK/092982

PTO STORAGE BRACKET

A convenient hydraulic hose and PTO hookup support (A) is supplied. It helps protect hydraulic hoses during operation and provides a convenient "out of the dirt" storage location for the tractor hookup.



E22699/530PML/062983

Attaching and Detaching

ATTACHING BALER TO 540 RPM PTO

CAUTION: Never operate 540 rpm baler with 1000 rpm tractor.

Your baler can be attached to any tractor having a drawbar and power take-off that conforms to ASAE-SAE standards and having a 540 rpm power take-off speed to match the power-shaft speed of your baler.

530ADA/092982

ADJUSTING TRACTOR DRAWBAR

IMPORTANT: Before attaching baler to tractor, be sure to adjust tractor drawbar so it measures 356 mm (14-in.) (for 540 rpm PTO) 406 mm (16-in.) (for 1000 rpm PTO) from end of power take-off shaft to hitch pin hole in drawbar. See "Preparing the Tractor."

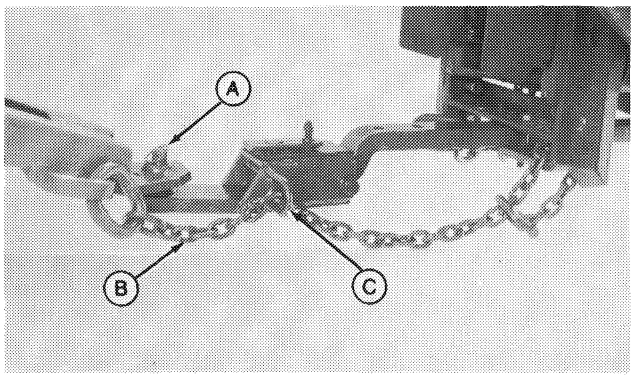
530ADB/092982

ATTACHING BALER TO TRACTOR DRAWBAR

1. Hitch baler to tractor drawbar.
2. Install retaining pin (A).
3. Attach baler safety chain (B) as shown.

Remove all slack except what is needed for turns.

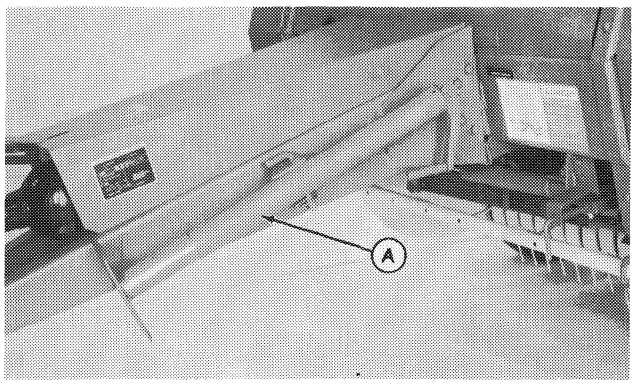
IMPORTANT: Route safety chain from baler through hitch (C) and secure to drawbar supporting structure as shown. Do not secure to drawbar.



E21605/530ADC/092982

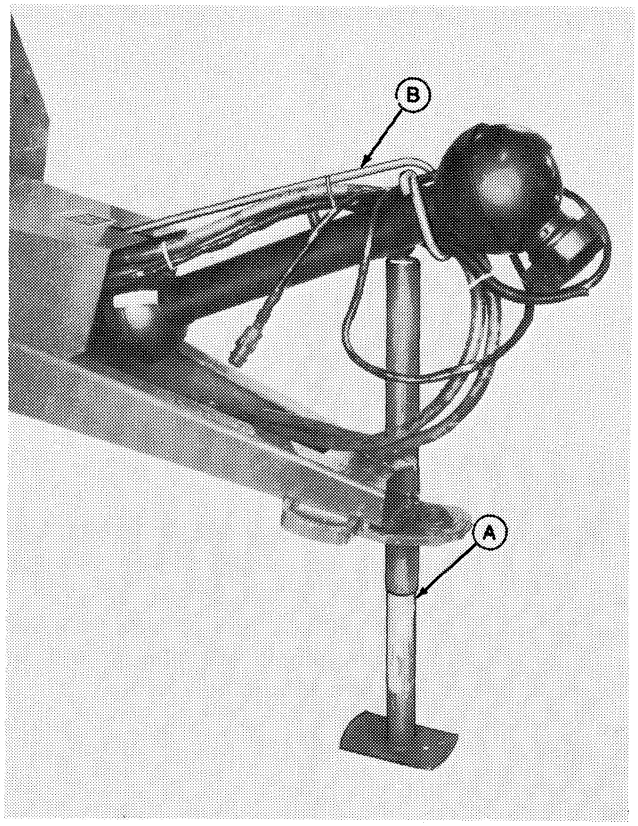
OPERATING JACK STAND

After hitching to tractor, secure jack stand (A) in storage location as shown.



E21609/530ADD/092982

When unhitching tractor from baler, remove jackstand from storage location and place it in the vertical position (A). Store PTO hookup in holder (B).



E21610/530ADE/062983

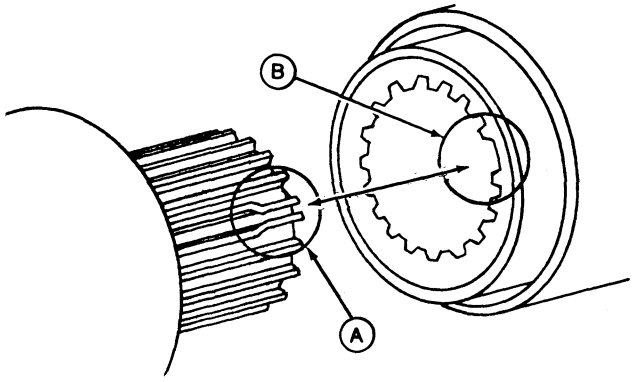
ASSEMBLING SPLINED TELESCOPING MEMBERS

1. Wipe excess grease from shaft and sleeve to see timing marks.

2. Line crimped pair of shaft teeth (A) with the locating groove in sleeve (B).

3. Assemble telescoping members together.

4. Lubricate sleeve fitting before operating. (See Lubrication Section.)



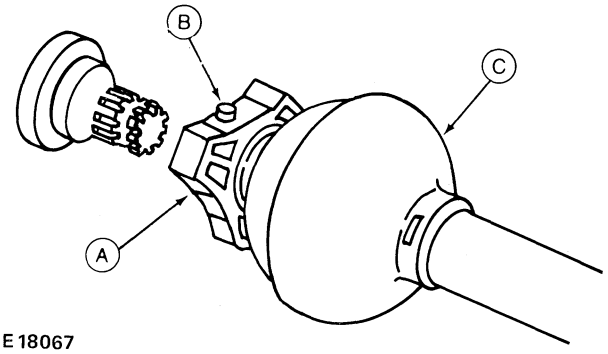
E23802/530ADL/011283

ATTACHING PTO POWR-GARD® HOOKUP

IMPORTANT: Keep hookup and powershaft splines clean of paint, dirt, and chaff.

CAUTION: Follow safe PTO hookup procedure outlined below.

1. Shut off tractor engine.
2. Pull collar (A) back and press button (B) down.
3. Turn collar until button locks down.
4. Align splines and push forward on bell (C).
5. To check latching, pull back on bell. Do not pull on collar; this will release latch.
6. Reinstall all shields if removed.



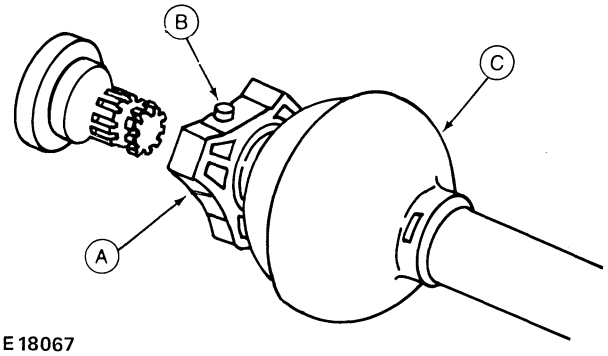
E 18067

E18067/530ADF/092982

DETACHING PTO POWR-GARD HOOKUP

CAUTION: Follow safe PTO detaching procedure outlined below.

1. Shut off tractor engine.
2. Support coupler and pull back on collar (A).
3. Reinstall all shields removed.

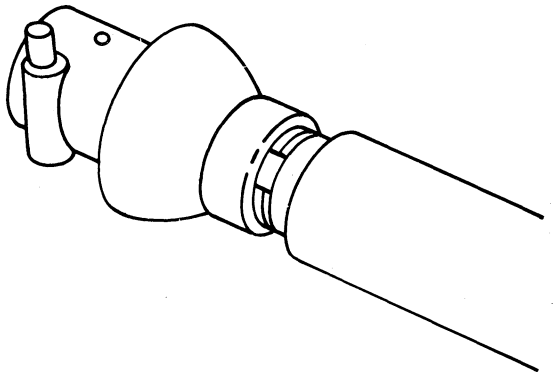


E 18067

E18067/530ADG/093082

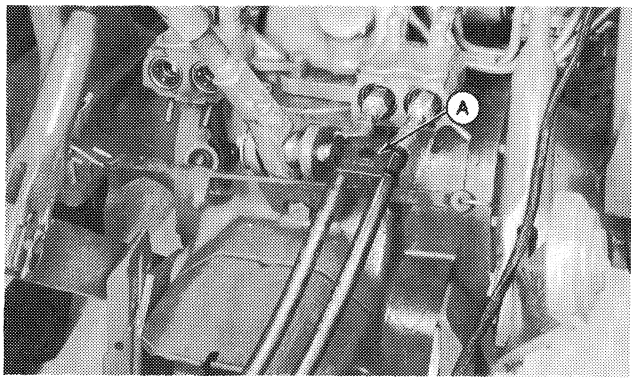
ATTACHING PUSH PIN PTO HOOKUP

1. Shut off tractor engine.
2. Align splines.
3. Push button to start hookup onto shaft. Push forward until button snaps out.
4. Pull rearward to be sure powershaft is latched.
5. Replace any tractor PTO shielding which was removed to attach hookup.



E19432/530ADH/092982

ATTACHING TO TRACTOR HYDRAULIC SYSTEM



ISO hydraulic couplers are standard with the baler. If they do not fit the tractor, see your John Deere dealer for correct coupler.

1. Identify which hydraulic receptacle is pressurized when tractor hydraulic lever is moved rearward.

2. Connect hose with cylinder extension symbol on identification tag (A) to this receptacle.

3. Connect remaining hose.

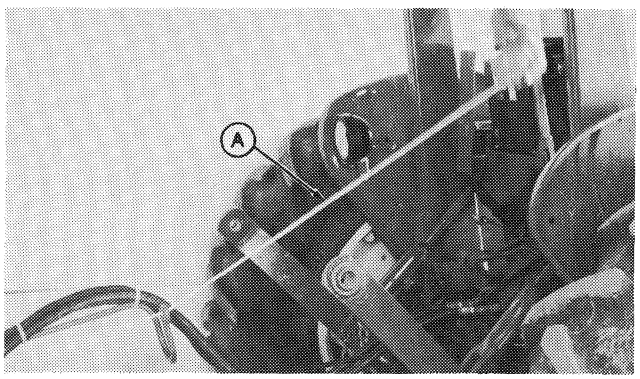
E21606/530ADI/093082

CONNECTING WIRING HARNESS

Line up timing mark on connectors and tighten locking ring.

530ADJ/092982

ATTACHING TWINE WRAP RECYCLE ROPE



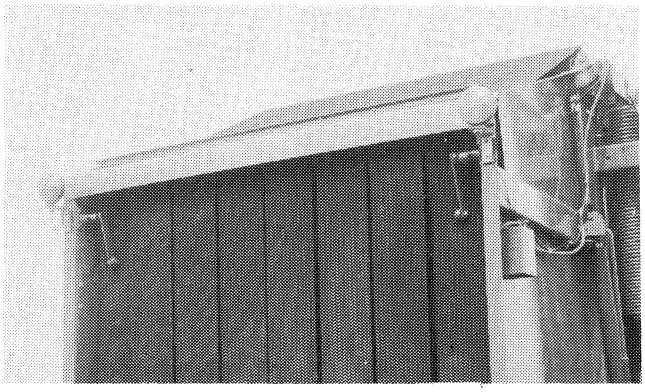
Attach twine wrap recycle rope (A) to a convenient location near tractor centerline. This will reduce the possibility of tractor tires tripping the rope when turning. Allow small amount of slack for free movement of twine linkage.

E21608/530ADK/092982

Transporting

RECOMMENDED WARNING LIGHTS

CAUTION: Use of flashing warning lights and turn signals are recommended when towing this equipment on public roads unless prohibited by state or local regulations. An implement safety lighting kit is available from your John Deere dealer.



E22680/530TRA/062983

PREPARING FOR TRANSPORT

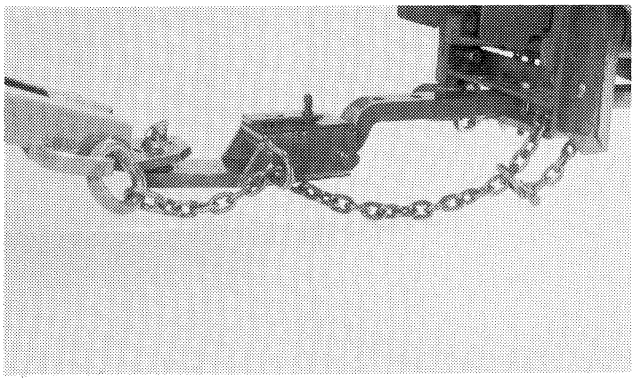
Close gate, raise pickup and converging wheels, if equipped.

CAUTION: Always use a safety chain while transporting baler. Sudden jolts or rocking could cause the drawbar to break. If a rocking motion occurs when transporting, reduce speed until rocking stops. Check rear tractor wheel and tire for being out of round and/or increase rear tractor tire air pressure to the maximum the tractor operator's manual recommends.

IMPORTANT: Route safety chain from baler through hitch and secure to drawbar supporting structure as shown. Remove all slack except what is needed for turns. Do not mark sharp turns when transporting baler. Damage could result if tongue strikes tractor tire.

CAUTION: Do not secure baler safety chain to drawbar.

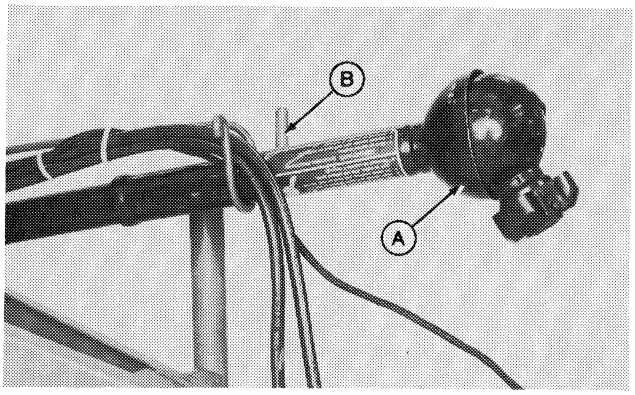
CAUTION: Use care when towing baler at transport speeds. Reduce speed if the combined weight of baler with bale exceeds weight of tractor.



E21619/530TRB/062983

PREPARING PTO FOR TRANSPORTING

When transporting machine behind a truck or other vehicle, remove front half of PTO (A) and secure rear half to bracket (B).



E22694/530TRC/062983

USING REAR-VIEW MIRROR EXTENSION

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

530TRD/062983

CROP PREPARATION

Make windrows either:

a. Not more than one half the width of the pickup.

b. Make windrows the full width of the pickup to eliminate weaving.

To prevent loss due to spoilage, do not bale with round baler until the hay could be baled with a conventional baler.

AA7; E01;;530J A 090584

BALING SHORT, DRY, SLICK CROPS

CAUTION: DON'T TAKE CHANCES! 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.

To reduce plugging when baling short, dry, slick crops, try one or more of the following techniques:

1. Raise pickup as high as practical.

2. Reduce engine speed to 1500 rpm and shift to higher gear.

3. Reduce bale density as necessary.

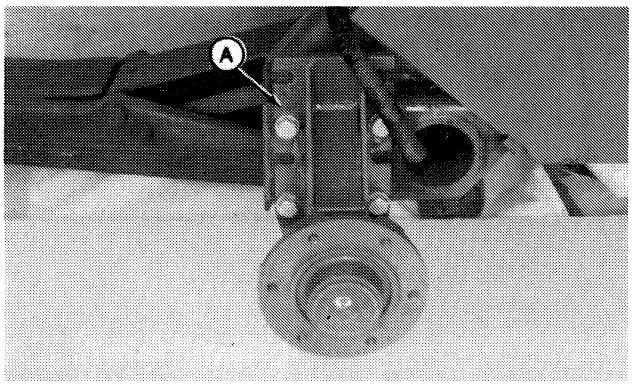
4. Remove compressor rack assembly, or individual rods, if material accumulates on it. Always replace compressor rack under normal conditions.

5. Make large windrows (rake together as necessary).

AA7; E01;;530J AJ 090584

6. In extremely short, dry conditions, it may be necessary to lower the baler. Position wheel spindles (A) as shown.

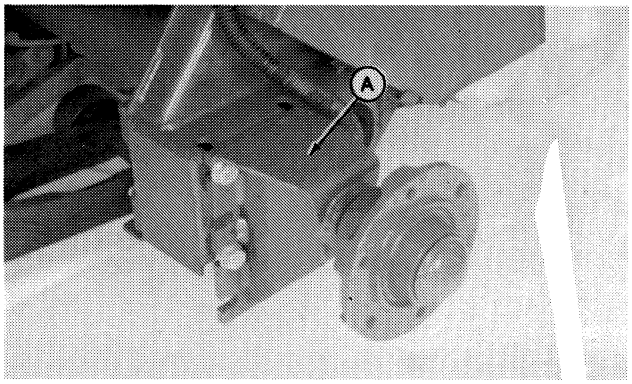
IMPORTANT: Position wheel spindles in "normal" position for all other baling conditions.



AA7;E24213 E01;;530J AK 090584

E27;P26 060684

BALING CORNSTALKS



1. Cut stalks prior to baling to improve pickup tooth life.

2. Do not rake more than six rows together or plugging may occur at the pickup area. Higher productivity can be obtained by baling smaller windrows at faster ground speeds.

3. Remove rack if cornstalks build up on top of rods. (See Removing Compressor Rack Assembly.)

4. Increase feed opening by:

    a. Lowering pickup as low as practical.

    b. Installing high flotation tires to reduce sinking into soft ground.

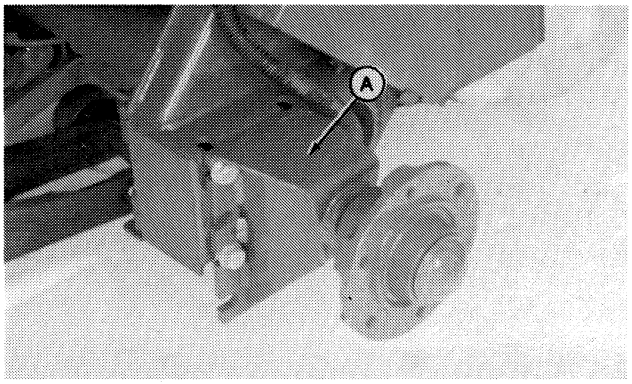
    c. Raise the baler by placing wheel spindles (A) in normal position.

    d. Adjust compressor rack to highest position. (See Adjusting Compressor Rack Assembly.)

5. Replace missing pickup teeth.

AA7;24214 E01;;530J B 090584

BALING WET HAY



If bales fail to start rotating due to windrows being wet on the bottom, try the following suggestions:

1. Increase feed opening by:

    a. Operating pickup as low as practical.

    b. Installing high flotation tires to reduce sinking into soft ground.

    c. Raise baler by placing wheel spindles (A) in normal position.

    d. Adjust compressor rack to highest position. (See Adjusting Compressor Rack.)

2. Select a gear which will give a 4 -5 mph forward travel speed at rated PTO speed.

3. Reduce tractor engine speed to low idle (900 -1200 rpm) while starting.

4. Approach windrow with crop centered on pickup to reduce flare plugging.

5. Travel forward at least ten feet without stopping to allow enough crop into the baler to start rolling.

6. Resume rated PTO speed.

7. Be sure that the tractor drawbar pin or hitch parts are not dragging and bunching the windrow. Use drawbar shielding as necessary. (See Using Drawbar Shield in Preparing the Tractor Section.)

8. Surface moisture on bottom of windrow causes crop to slip more easily against forming belts. Turn windrows with a rake or tedder to improve bale starts.

AA7;E24214 E01;;530J AL 090584

EXTINGUISHING A FIRE

1. Eject bale immediately.

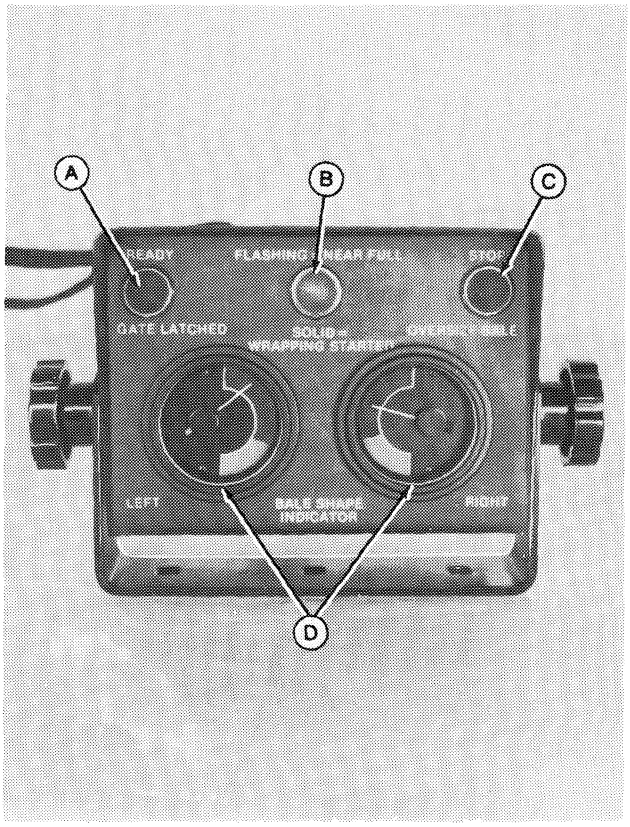
2. Move tractor and baler upwind 9 m (29 ft.) away from flammable material.

3. Raise gate and engage gate lock valve.

4. Use fire extinguisher or other water supply to put out fire.

530OMC/093082

BALE TRAK™ MONITOR



A—Green light — GATE LATCHED.
This light on indicates the gate is closed and latched. It also acts as a pilot light showing the monitor box has power.

IMPORTANT: Damage to gate or gate latches can occur if only one side of gate is latched. Green light must be on before starting a bale. Hold tractor valve in closed position for 1 to 2 seconds after light comes on. Recheck light after transport.

B—Yellow light — AUTOMATIC TWINE WRAP
This light will start flashing when the bale is near its finished size. This allows time to even the bale up before the automatic twine wrap starts.

When the twine arm starts its cycle, this light will go solid and stay solid until the twine arm returns to its home position. At this time, the light will return to flashing until the bale is ejected.

C—Red light and buzzer — OVERSIZE BALE
Light and buzzer on indicates the baler is filled to maximum capacity. Stop immediately or damage may occur to baler. After stopping forward travel, the bale can be wrapped with twine by pulling and releasing the manual control rope. This light should not come on during normal operation of the baler.

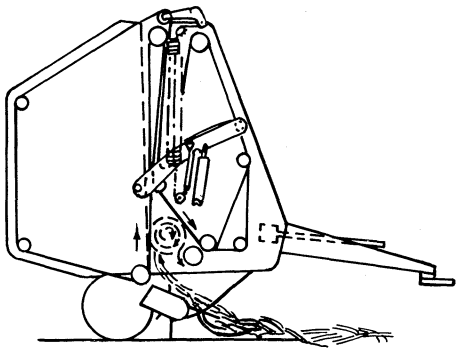
NOTE: When red light comes on, green light will go out.

D—BALE SHAPE GAUGES
Bale shape gauges show the shape of each end of the bale by measuring slack in the two outside belts nearest the left-hand and right-hand side sheets. When the left-hand belt is tight, the left-hand gauge will read high in the green area showing that side of baler is filled with hay. As the gauge falls in the green area or into the red area, it indicates that side of the bale needs hay to tighten the belt.

E21620/530OMD/093082

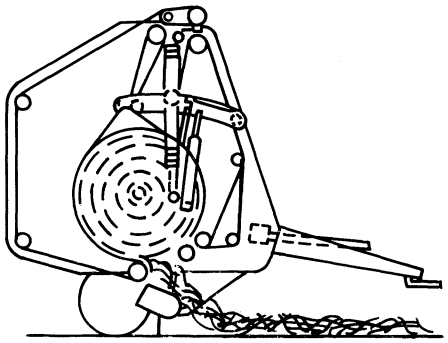
HOW THE BALER FORMS A BALE

1. Starting the bale.



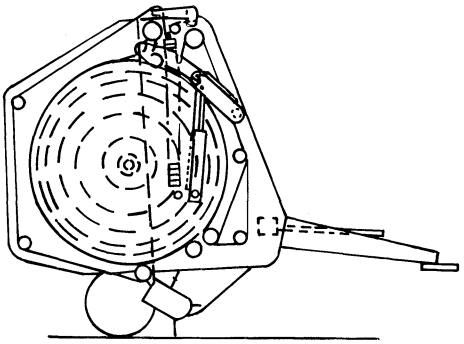
E21621/530OME/093082

2. Forming the bale.



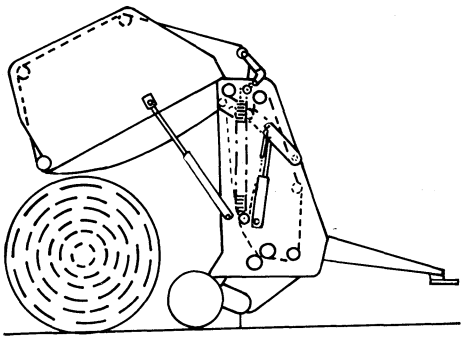
E21622/530OMF/093082

3. Completed bale.



E21623/530OMG/093082

4. Discharging the bale.



E22989/530OMH/062983

BREAKING-IN

IMPORTANT: Belts and drive loads increase as bale size approaches maximum diameter. Frequent forming of oversize bales (red light and alarm sounding) can lead to premature failures.

A break-in period of approximately 50 bales can increase the life and reduce maintenance of baler. During the break-in period, a smaller and lower density bale is recommended. Baler is preset at factory. Density knob has been turned counterclockwise three turns from maximum and the bale size knob rearward from bottom of slot 12.7 to 19 mm (1/2 to 3/4-in). This will yield approximately a 1676 mm (5-1/2 ft) bale.

AA7; E01;;530J AI 090584

FORMING A BALE

CAUTION: DON'T TAKE CHANCES! 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.

1. Operate tractor at rated PTO speed.

2. Move tractor selector valve lever to close gate. Hold in this position until green light is on. Move selector valve lever back to neutral position.

IMPORTANT: To ensure that the twine mechanism is relatched, tractor must be operated at PTO speed and selector valve lever moved to full flow position. If this is not done, the twine pump drive idler may not be relatched which would cause the bale to be wrapped before it reaches its finished size.

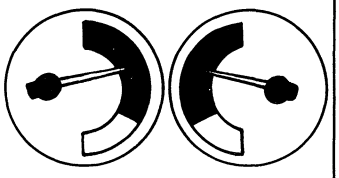
3. Engage PTO.

AA7; E01;;530J I 090584

BALE SHAPE INDICATOR

LEFT **RIGHT**

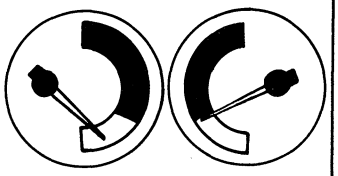
Normal gauge reading with empty baler.



4. Drive into windrow.

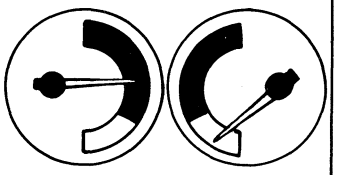
NOTE: Gauge needles may not be even with empty baler.

5. Feed hay to left-hand side.



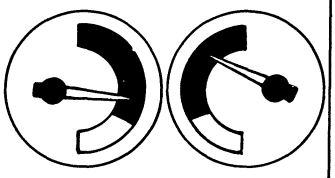
NOTE: When forming the bale core, it is possible for both gauges to read in red area.

6. Feed hay to right-hand side.



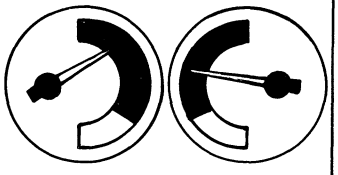
NOTE: When weaving from side to side, weave quickly.

7. Feed hay to left-hand side.



NOTE: Crowd ends by driving with inside of front tractor tire near edge of windrow.

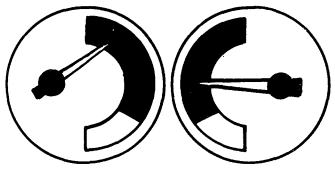
8. Continue feeding left-hand side for longer period.



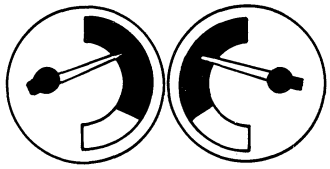
BALE SHAPE INDICATOR

LEFT **RIGHT**

9. Feed right-hand side.



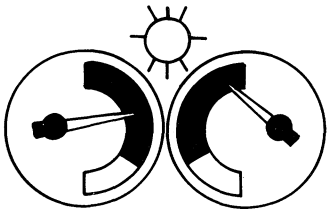
10. Continue feeding right-hand side for longer period.



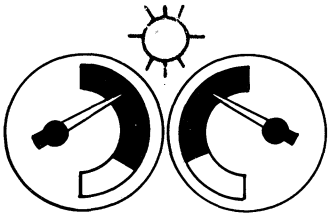
NOTE: Weaving too often puts too much hay in center of bale.

11. Feed left-hand side.

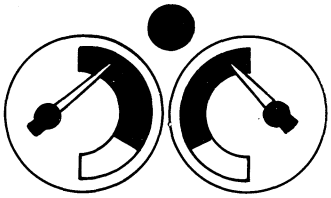
Flashing yellow light comes on.



12. Keep gauge needles even and as high as possible by weaving more often until yellow light goes solid.



13. Flashing yellow light goes solid.



14. Continue forward travel. Look back to ensure twine is moving.

15. Stop forward travel.

16. Back up baler 2 to 3 m (8 to 10 ft.).

17. Solid yellow light returns to flashing yellow.

530OML/062983

18. To ensure twine is cut, glance back to see that twine has stopped moving.

19. Disengage PTO.

IMPORTANT: Do not continue to turn bale more than a minute after twine cycle is complete or damage may occur to the twine system hydraulic pump.

20. Raise gate.

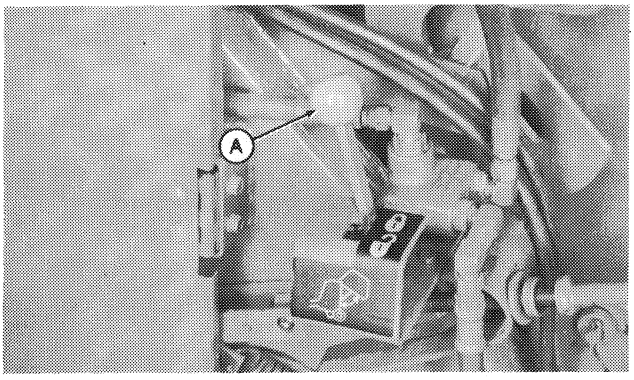
21. Drive forward to clear bale and close gate.

530OMM/062983

GATE LOCK VALVE

This valve locks each gate lift cylinder independently with the gate in any position. If the hydraulic lift system failed on one side of the machine, the gate would still be held open by the other side.

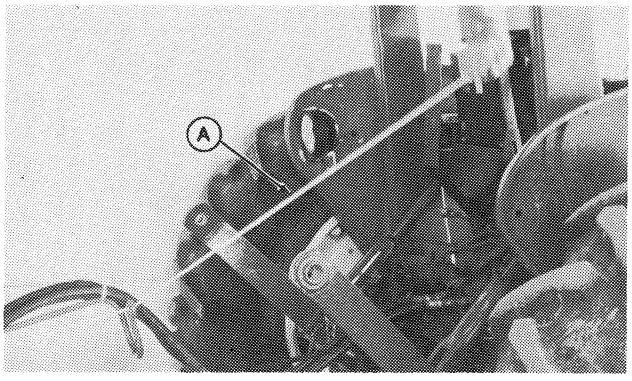
CAUTION: While working inside or around the baler with an open gate, the gate lock lever (A) must be moved to the locked position. Use this safety feature any time the gate is open. Close the gate any time the baler must be left unattended.



E21617/530OMN/062983

RECYCLING TWINE ARM

If twine is not caught by bale and twine arm returns to home position, pull rope (A) and release. This will start the twine arm through another cycle.



E21608/530OMO/062983

WRAPPING A SMALL BALE

Any bale size greater than 813 mm (32-in.) diameter can be wrapped by pulling and releasing rope.

NOTE: A much greater force is required to pull the rope for wrapping a small bale than for recycling the twine arm.

530OMP/062983

WRAPPING AN OVERSIZE BALE

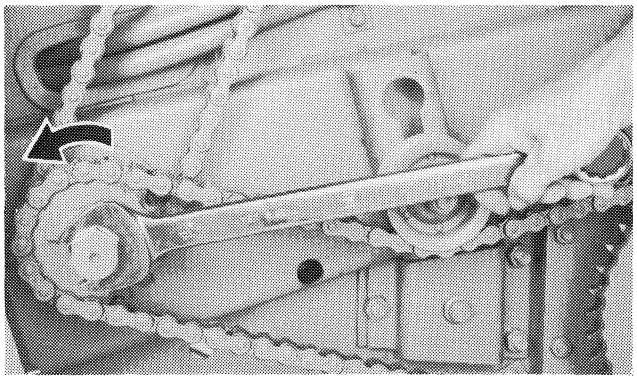
If the red light on the monitor box comes on while baling and the bale is not wrapped, stop forward travel and pull rope to wrap bale.

530OMQ/062983

ROTATING BALER BY HAND

CAUTION: Never use any type of tool or wrench on shaft while tractor engine is running. Always remove tool from the shaft whenever you are finished using it.

An open-end wrench can be placed on the gear case output shaft of the baler if it is necessary to rotate the baler by hand.



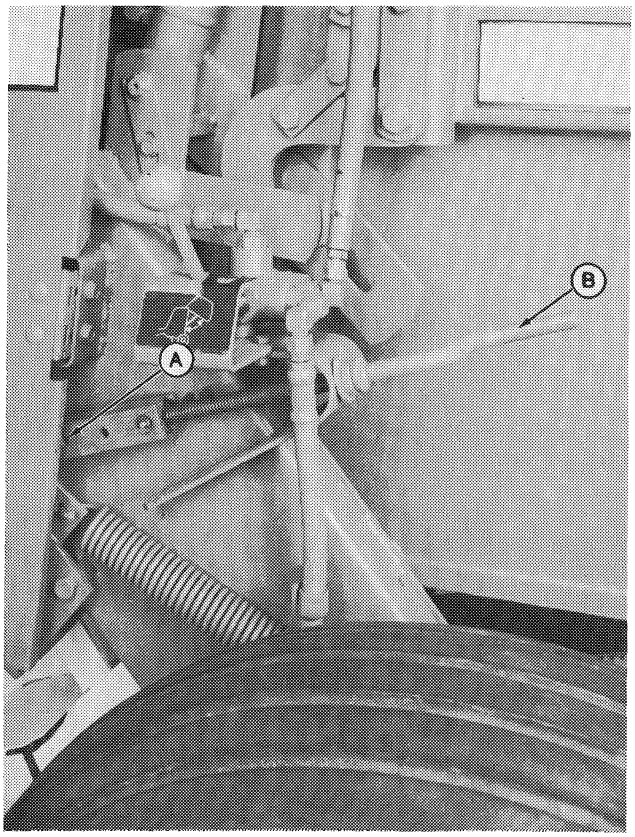
E21638/530OMAD/062983

ADJUSTING PICKUP HEIGHT

1. Turn pickup crank (B) to align second gage hole (A) on clevis with rear edge of door as initial adjustment.

2. The final adjustment will be determined by field conditions. To raise the pickup, turn crank (B) clockwise; to lower the pickup, turn crank (B) counter-clockwise.

If baler is equipped with a hydraulic pickup lift, the crank acts as the downstop controlling pickup operating height. This feature allows the pickup to return to the same operating height after raising and lowering.



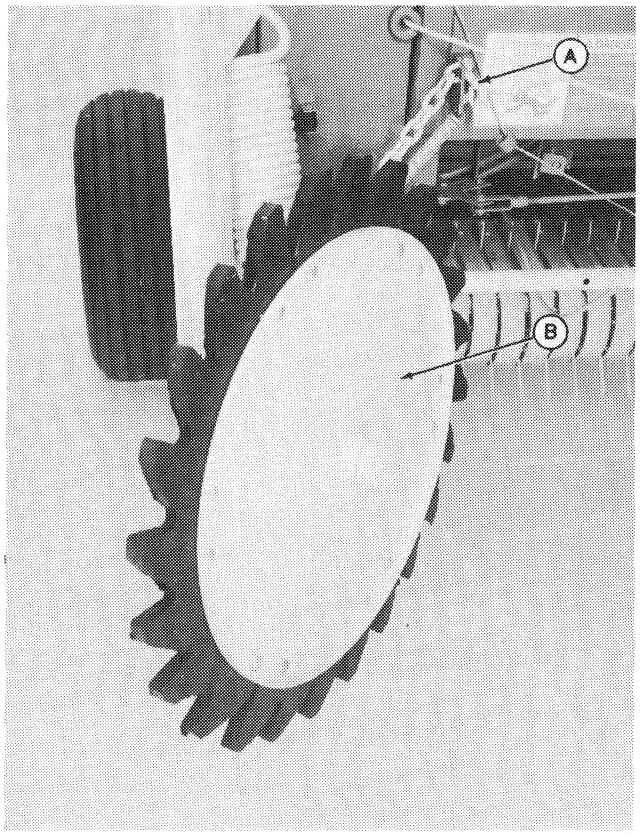
E21628/530OMT/062983

ADJUSTING CONVERGING WHEEL HEIGHT

1. Remove chain (A) from chain anchor support and lower wheel (B) to ground.

2. Raise chain (A) one link and install back in chain anchor support. Wheel should be approximately 25 mm (1-in.) from the ground.

NOTE: This is an initial setting; final adjustment will be determined by field conditions. The converging wheel should never be in heavy contact with the ground.



E21636/530OMAA/062983

ADJUSTING BALE SIZE

IMPORTANT: Belts and drive loads increase as bale size approaches maximum diameter. Frequent forming of oversize bales (red light on and alarm sounding) can lead to premature failures.

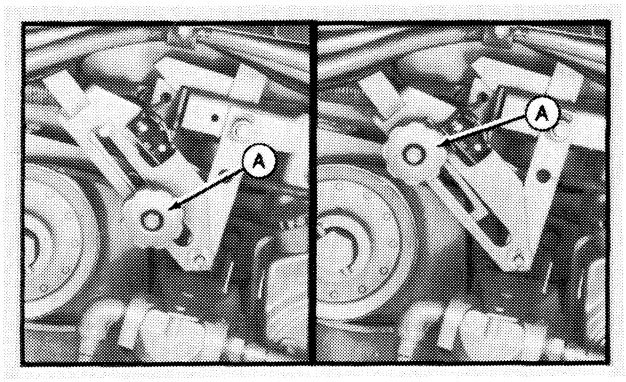
Baler has been preset at factory for a break-in period (approximately 50 bales). After break-in period, adjust bale size as follows:

530OMU/062983

1. Close gate.

2. For maximum bale size, loosen knob (A) and move all the way down in slot. Tighten knob (A).

3. For minimum bale size (approximately 991 mm (39-in.), loosen knob (A) and move all the way back in slot. Tighten knob (A).



E23133/530OMV/062983

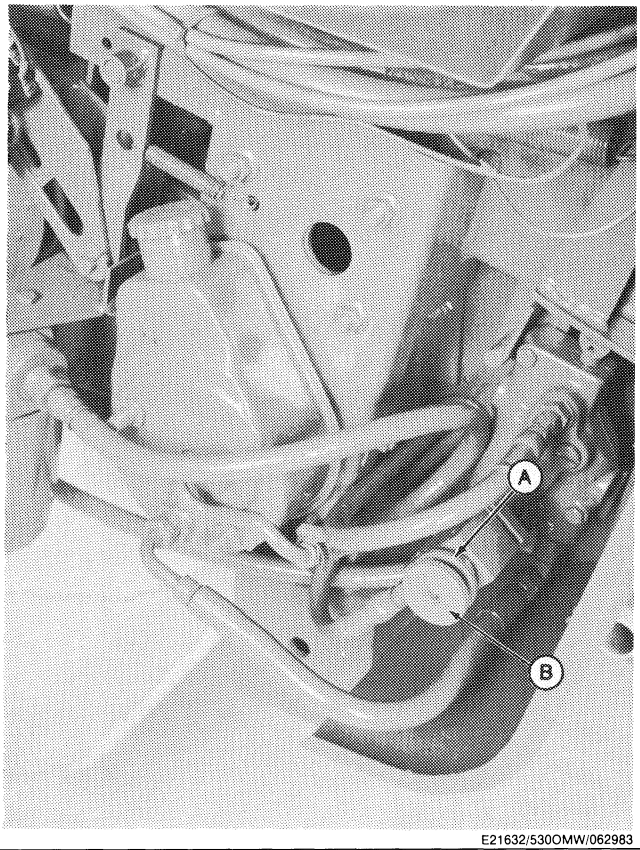
ADJUSTING TWINE SPACING

1. Loosen locking ring (A) and turn flow control knob (B) fully counter-clockwise.

2. Turn flow control knob (B) back clockwise 1-1/4 turns and tighten locking ring (A).

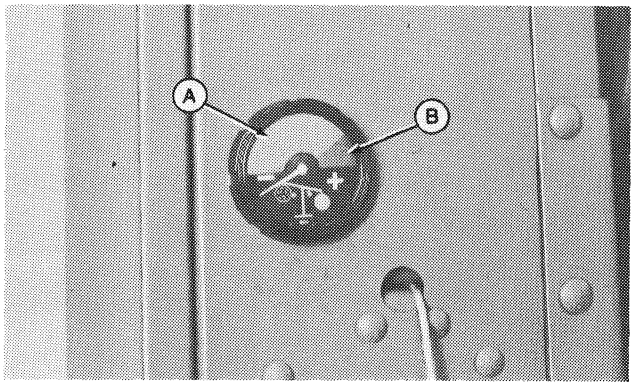
3. After making several bales, the final twine spacing adjustment can be made. For more twine, turn control knob (B) clockwise; for less twine, turn control knob (B) counter-clockwise.

NOTE: When making the final adjustment, turn knob a small amount each time (approximately 1/8 of a turn). If knob is turned too far clockwise, it will stop twine arm.



E21632/530OMW/062983

BALE DENSITY GAUGE



The gauge indicates the relative pressure within the hydraulic bale tensioning system while forming a bale.

Turning the bale density knob counter-clockwise will cause the needle to move towards the minus sign and make lighter bales.

Turning the bale density knob clockwise will cause the needle to move towards the plus sign and make heavier bales.

NOTE: The gauge will not register a higher setting until more hay is fed into the baler.

The green band (A) represents normal baler operating pressure range.

If the needle reaches the red band (B):

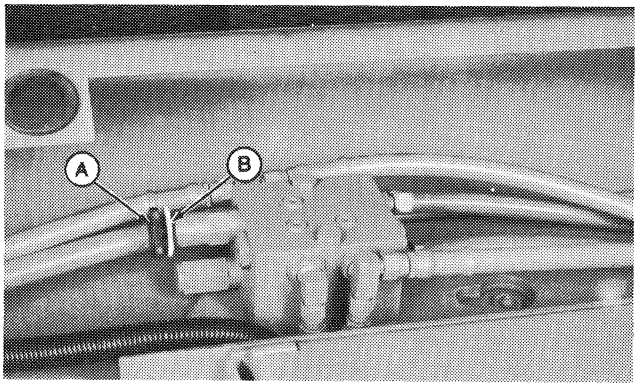
1. Reduce bale density.

2. Check for faulty gauge or relief valve.

3. Make sure tractor selector valve returns to neutral while baling.

E21634/530OMY/062983

ADJUSTING BALE DENSITY



Baler has been preset at factory for a break-in period (approximately 50 bales). The correct adjustment for this break-in period may be checked by the following procedure:

Loosen locking ring (B) and turn knob (A) clockwise until seated. Turn knob (A) counterclockwise three turns and tighten locking ring (B).

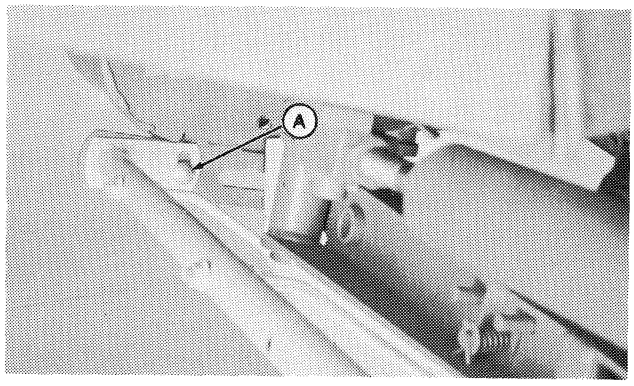
After the break-in period, adjust bale density as follows:

NOTE: To adjust the bale density, close gate and lower belt tension arm. This will allow the bale density knob (A) to be turned more easily.

If lighter bales are desired, loosen locking ring (B), turn knob (A) counterclockwise; for heavier bales, turn knob (A) clockwise. Tighten locking ring (B).

E21633/530OMX/062983

ADJUSTING COMPRESSOR RACK ASSEMBLY



To improve feeding, the compressor rack may be adjusted up or down.

1. Loosen bolt (A).

2. Adjust rack to desired height.

NOTE: Make sure compressor rods not interfere with twine arm. Adjust rods as necessary for clearance.

3. Tighten bolt (A).

In short, dry, slick crops it may be necessary to remove the compressor rack if material builds up on top of rods. See Removing Compressor Rack Assembly.

NOTE: Reinstall compressor rack whenever build-up conditions cease or when returning to bale hay crops.

E21635/530OMZ/062983

UNPLUGGING BALER WITH HYDRAULIC PICKUP LIFT

1. Back clear of windrow.

2. Operate tractor at 1500 - 2100 rpm and engage PTO.

IMPORTANT: Do not prolong operating a raised pickup to clear the baler or the pickup drive may be damaged.

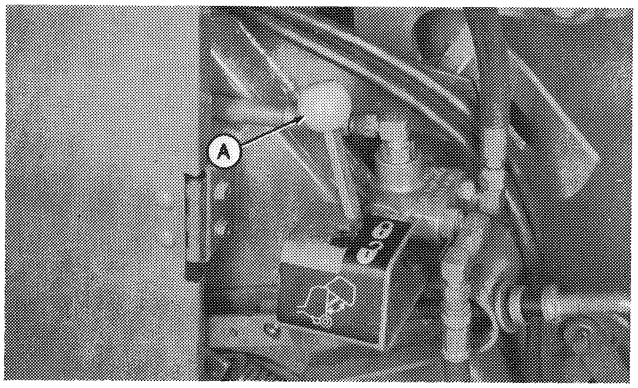
3. Raise and lower pickup a couple of times by moving tractor selector valve.

4. If baler does not clear, shut off PTO and tractor. Try ''Unplugging Baler Under Power''.

5. If baler clears, lower pickup to operating height and continue baling.

530OMAH/062983

UNPLUGGING BALER UNDER POWER



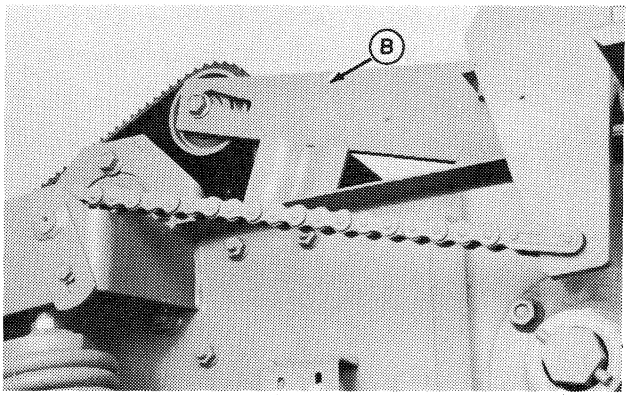
1. Shut off tractor.

2. Place gate lock valve in "Lock" position (A).

3. Raise belt tension arm with tractor selector valve until upper arm (B) starts to move.

4. Engage PTO.

IMPORTANT: If belts slip, lower belt tension arm. Do not prolong belt slippage as damage may occur to the baler.



5. If this does not clear the baler, unlock gate, discharge bale and shut off tractor.

NOTE: Lowering the pickup will aid in removing the plug manually.

6. With gate open place gate lock valve in "Lock" position (A), and unplug manually.

E21627/E22662/530OMAB/062983

OPERATING TWINE ARM WITH EMPTY BALER

1. Raise gate until bale size indicator reads "6".

2. Lock gate.

3. With gate selector lever on tractor, lower belt tension arm until bale size indicator reads "4".

IMPORTANT: Do not leave the PTO engaged for more than two minutes with twine arm in its home position.

4. Engage PTO with tractor running at rated PTO speed. Twine arm will move through its cycle.

5. To recycle, pull and release twine rope.

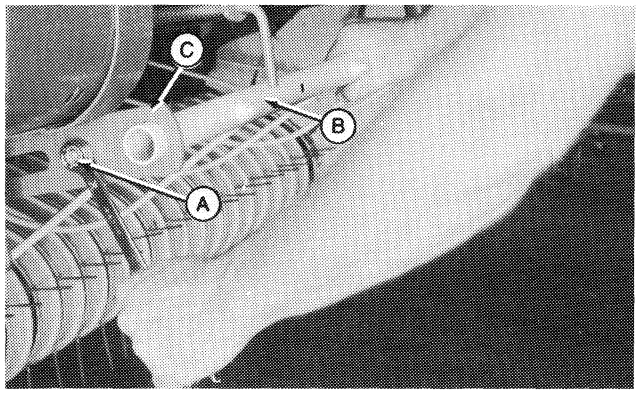
E21637/530OMAC/062983

REMOVING COMPRESSOR RACK ASSEMBLY

1. Remove carriage bolt and nut (A).

2. Slide compressor rack (B) away from right-hand bracket (C).

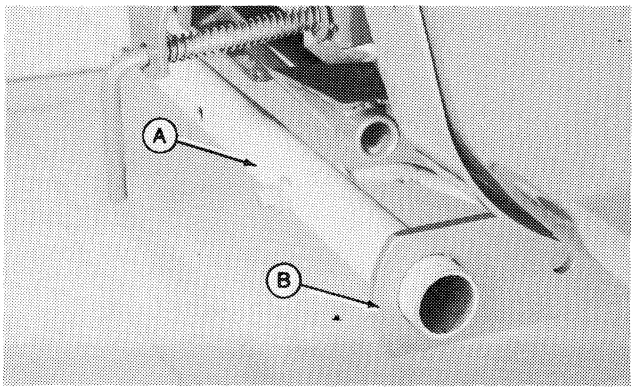
3. Lower right-hand end and remove compressor rack from left-hand bracket.



E22692/530OMAE/062983

INSTALLING COMPRESSOR RACK ASSEMBLY

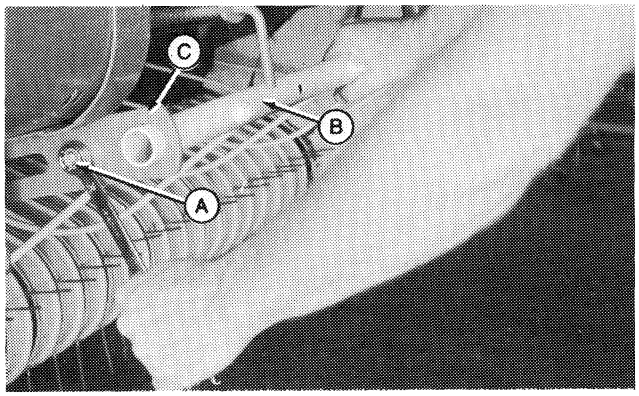
1. Install compressor rack (A) in left-hand bracket (B).



E22693/530OMAF/062983

2. Lift right-hand end and slide compressor rack (B) into bracket (C).

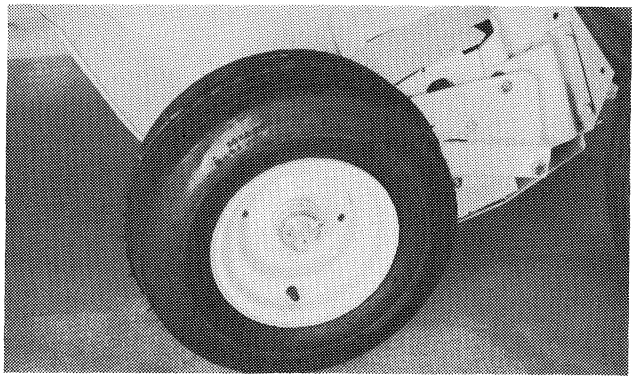
3. Install carriage bolt and nut (A).



E22692/530OMAG/062983

PICKUP GAUGE WHEEL

Pickup gauge wheel allows pickup to follow ground contour more evenly when operating in irrigated fields or in rough or irregular conditions. The wheel is not designed to be operated in constant contact with the ground.

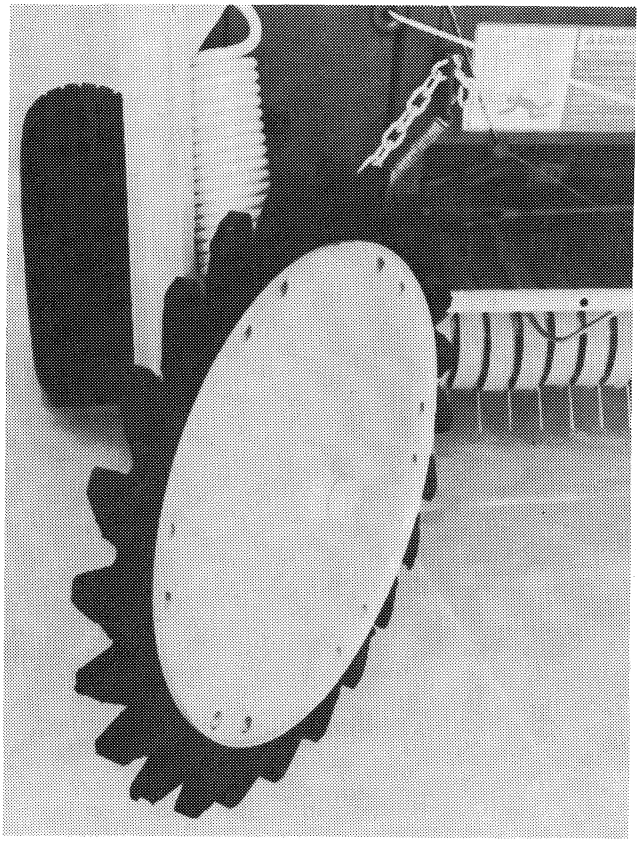


E21642/530ATA/093082

CONVERGING WHEELS

These wheels are mounted on each side of the baler in front of the pickup.

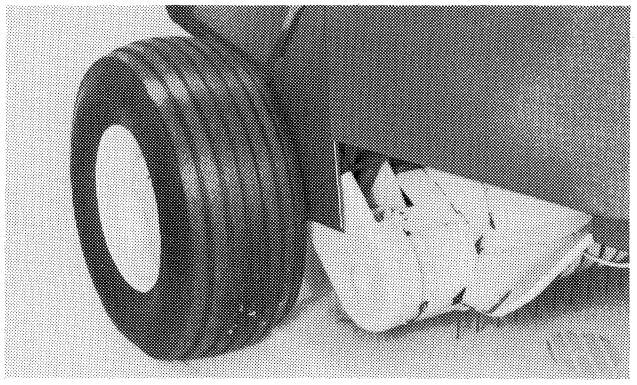
Converging wheels aid in handling wider windrows and reducing crop loss in uneven windrows. The wheels also have a special "breakaway" feature to eliminate damage from hitting obstructions.



E21643/530ATB/093082

HI-FLOTATION TIRES

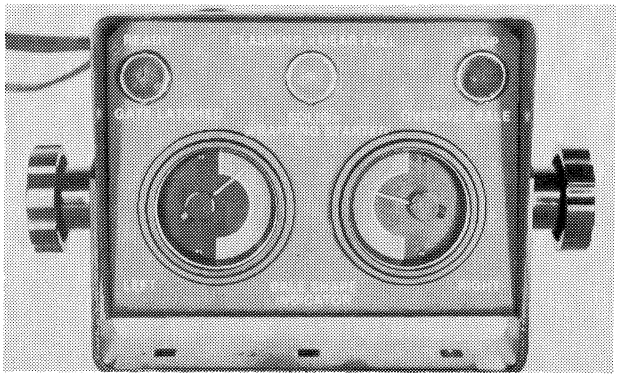
High flotation tires (31.5 x 13.5) reduce ground compaction.



E21644/530ATC/093082

"BALE-TRAK" MONITOR

This optional attachment can be mounted on a customer's second tractor for easy plug-in to the baler. This includes a monitor box and an electrical harness for tractor/monitor connection.



E21949/530ATD/093082

HYDRAULIC PICKUP LIFT

The hydraulic pickup lift enables control from the tractor seat. Hydraulic lines attach to tractor hydraulic system.

530ATE/093082

PTO CONVERSION PARTS - 1000 RPM

The 1000 rpm conversion consists of a tractor hookup and instructions for changing the gears in the gear case.

The installation of this conversion will convert the baler for operation with a tractor having a 1000 rpm PTO.

CAUTION: Never hook up a 540 rpm baler to a 1000 rpm tractor.

530ATF/093082

PUSH-PIN TRACTOR HOOKUP

Available for customers who prefer the push-pin hookup.

530ATG/093082

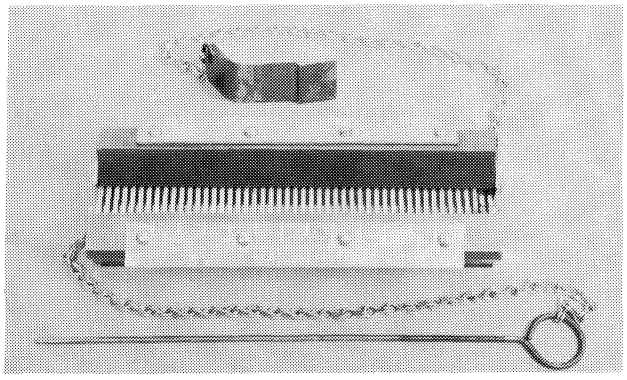
PTO HOOKUP ADAPTING BUNDLE

PTO adapting parts are required for tractors with recessed PTO shafts not accepting power-gard hookups. These parts are available from the dealer.

530ATH/093082

BELT LACING TOOL

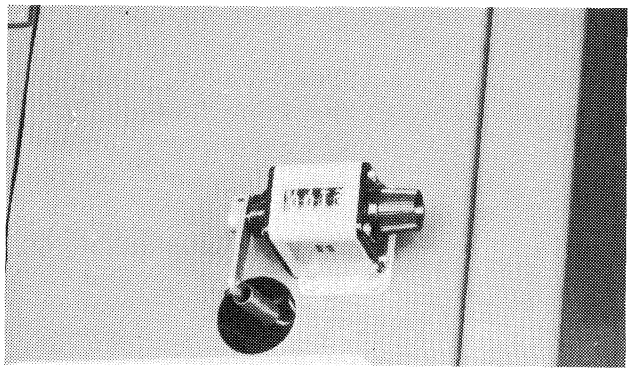
A belt lacing tool and hardware is available for repairing broken belts.



E21645/530ATI/093082

BALE COUNTER

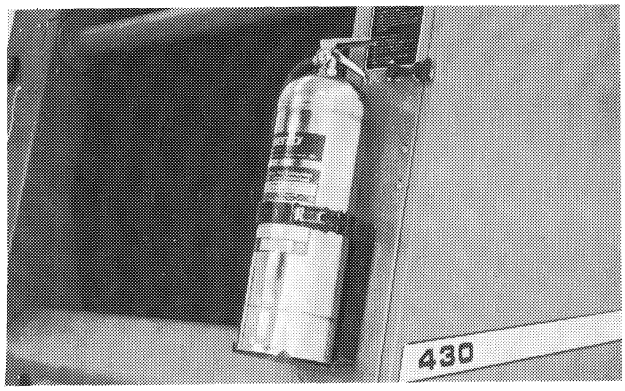
Bale counter keeps a record of the number of bales baled.



E21646/530ATJ/093082

FIRE EXTINGUISHER AND MOUNTING BRACKET

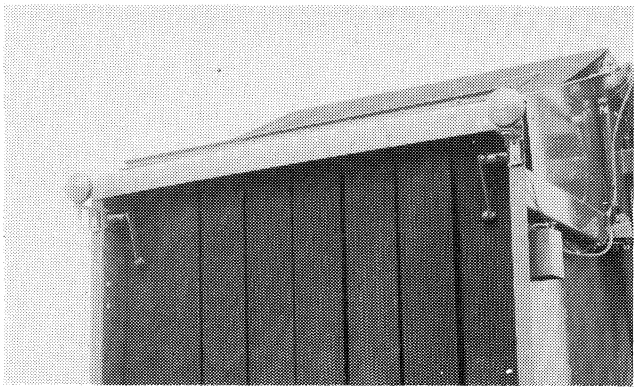
A 9.5 L (2-1/2-gal.) pressurized-water fire extinguisher can be mounted in the holes that are provided on the baler.



E21647 530ATK/093082

WARNING LIGHT KIT

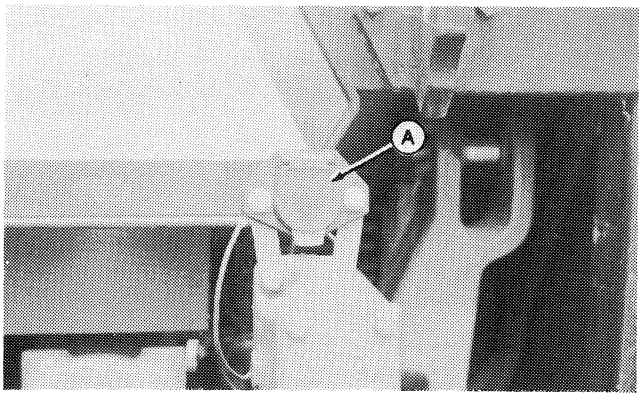
This kit includes two warning lamps, one 7-pin plug, 40 feet of electrical cable, and all the attaching hardware necessary for installation. Electrical outlet socket is required.



E22680/530ATL/062983

ELECTRICAL OUTLET SOCKET

This seven-terminal auxiliary outlet socket (A) may be installed on tractors to plug in electrical equipment such as the warning lamp.



E22681/530ATM/062983

REAR-VIEW MIRROR EXTENSION

To improve visibility of traffic behind the baler, a mirror is recommended. See your John Deere dealer.

530ATN/062983

OBSERVE LUBRICATION SYMBOLS

Lubricate with John Deere Multi-Purpose Lubricant or an equivalent SAE multipurpose-type grease (unless otherwise specified) at hourly intervals indicated on the symbols.

Lubricate with SAE 30 oil at hourly intervals indicated on the symbols.

530LMA/093082

CAUTION: Do not clean, lubricate, or adjust baler while it is running.

IMPORTANT: The lubrication period recommended is based on normal conditions. Severe or unusual conditions may require more frequent lubrication or oil changes.

Perform each lubrication and service illustrated in this section.

Clean grease fittings before using grease gun. Replace any lost or broken fittings immediately. If a new fitting fails to take grease, remove and check for failure of adjoining parts.

530LMB/093082

ALTERNATIVE LUBRICANTS

Conditions in certain geographical areas may require special lubricants and lubrication practices which do not appear in this operator's manual. If you have any questions, consult your John Deere dealer to obtain the latest information and recommendations.

530LMC/093082

HYDRAULIC PUMP OIL

John Deere All-Weather Hydrostatic Fluid or Type F automatic transmission fluids are recommended.

530LMD/093082

GENERAL PURPOSE GREASE

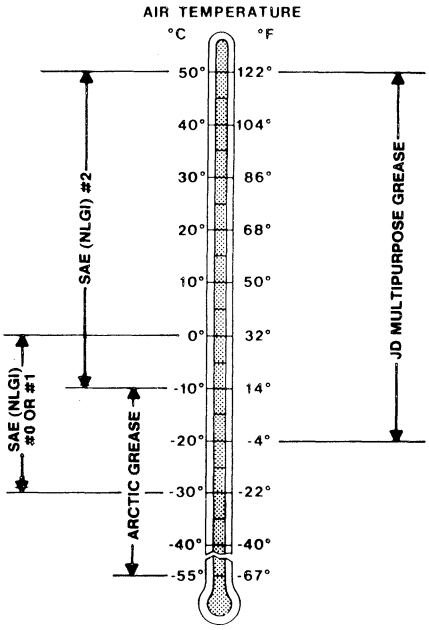
Depending upon the expected air temperature range during the service interval, use grease as shown on the adjoining temperature chart.

John Deere Multipurpose Grease is recommended. If other greases are used, use:

—SAE Multipurpose Grease

—SAE Multipurpose Grease containing 3 to 5 per cent molybdenum disulfide.

At temperatures below −30°C (−22°F), use arctic greases such as those meeting Military Specifications MIL-G-10924C.



X9326/530LME/093082

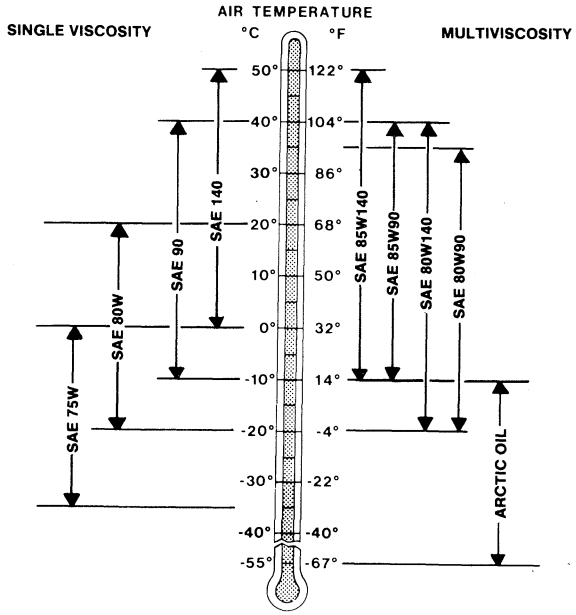
GEAR CASE OIL

Depending upon the expected air temperature range during the drain interval, use oil viscosity shown in the temperature chart.

John Deere SAE 85W 140 API GL-5 Gear oil is recommended. If other oils are used, they must be oils meeting the following requirements:

—API Service Classification GL-5
—Military Specification MIL-L-2105B
—Military Specification MIL-L-2105C

At temperatures below −35°C (−31°F), use arctic oils such as those meeting Military Specifications MIL-G-10324A.



X9322/530LMF/093082

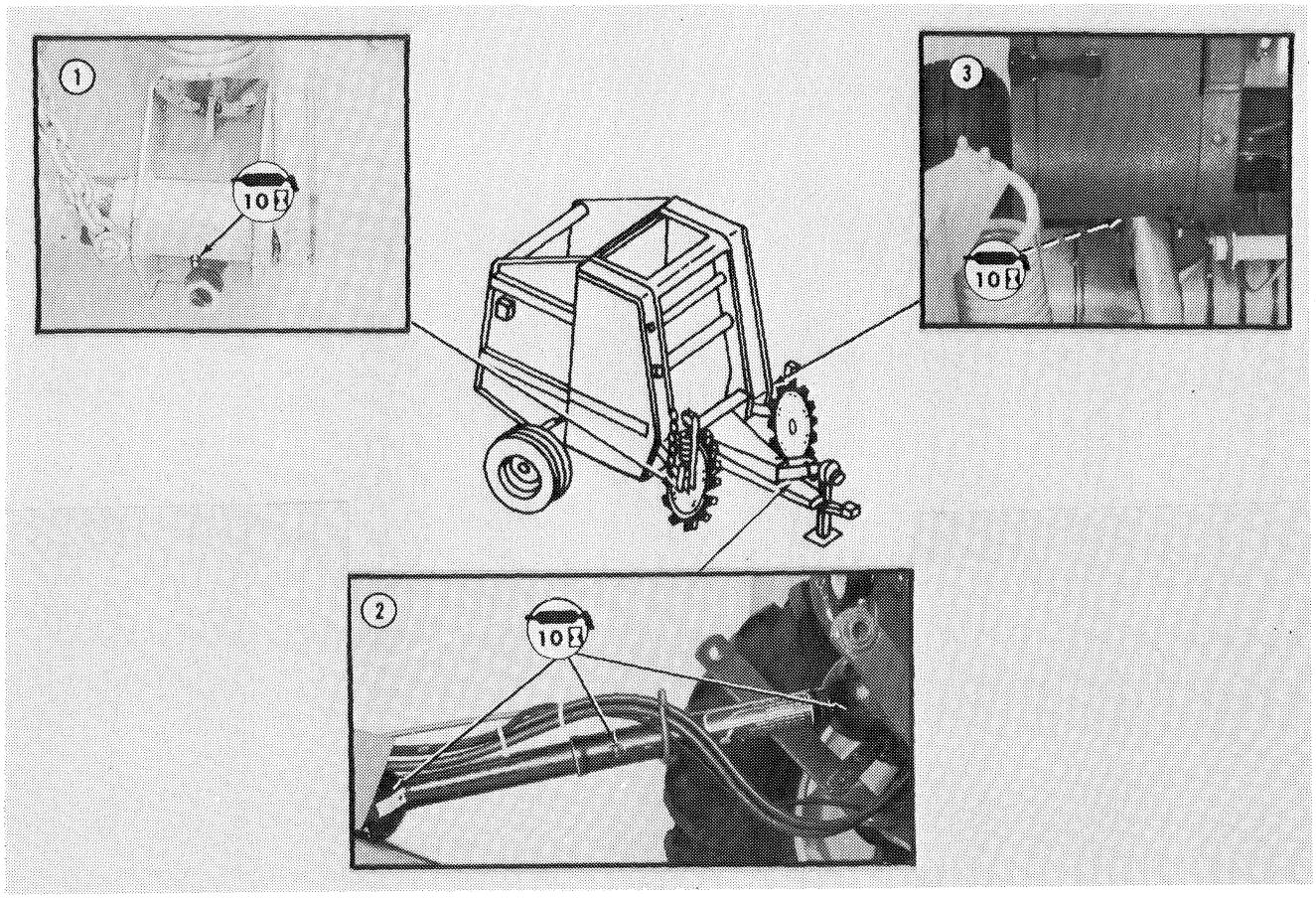
CHAINS

Liberally apply SAE 30 or heavier oil to chains every 10 hours of operation.

Lubricate chains immediately after operation when the chains are still warm. Let the machine stand idle for a short period to insure effective oil penetration, resulting in longer chain life.

530LMK/093082

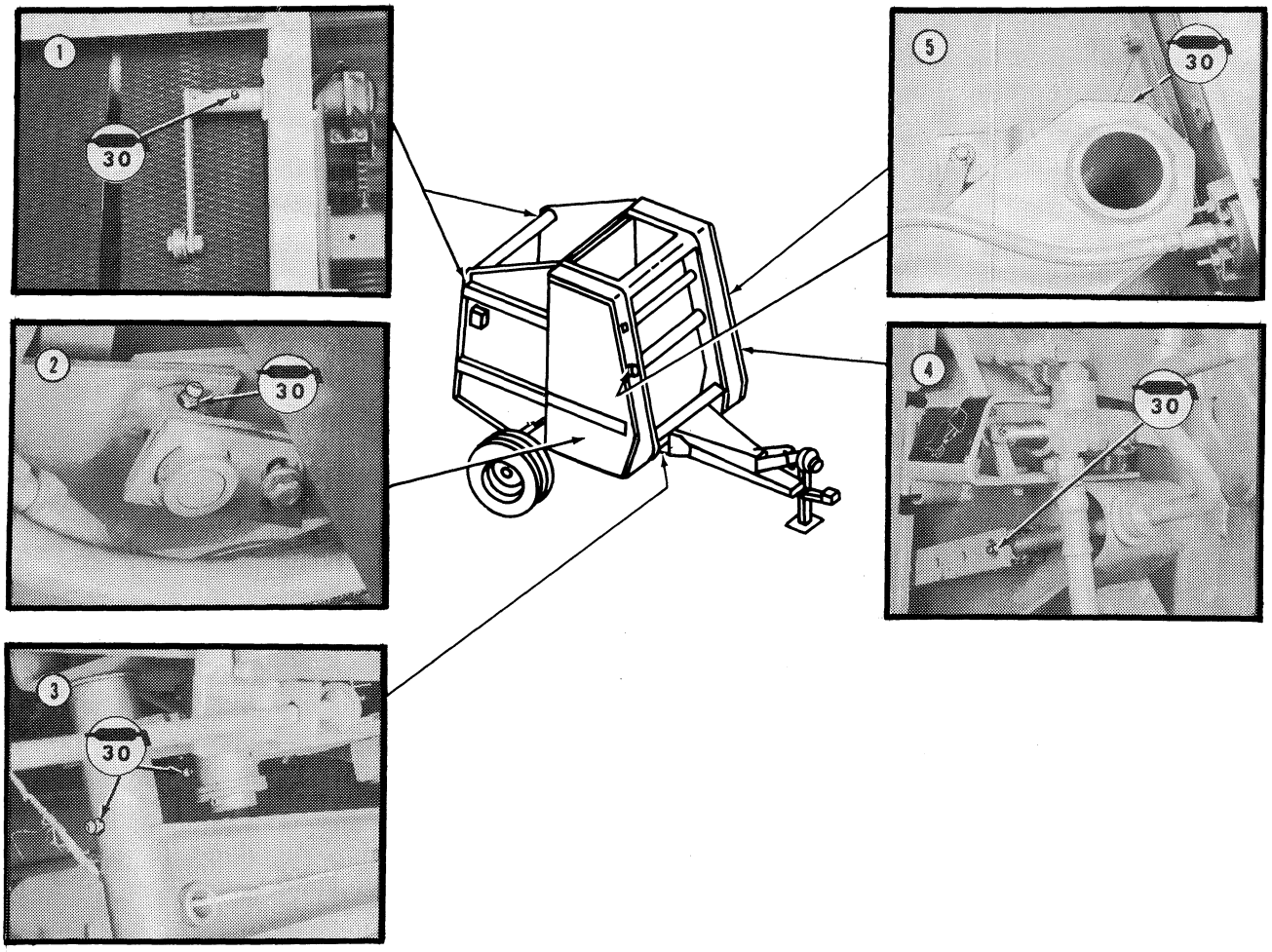
EVERY 10 HOURS



1—Converging Wheels
2—PTO Powr-Gard Hookup
3—Wheel Support Pivot

E23778/530LMG/112183

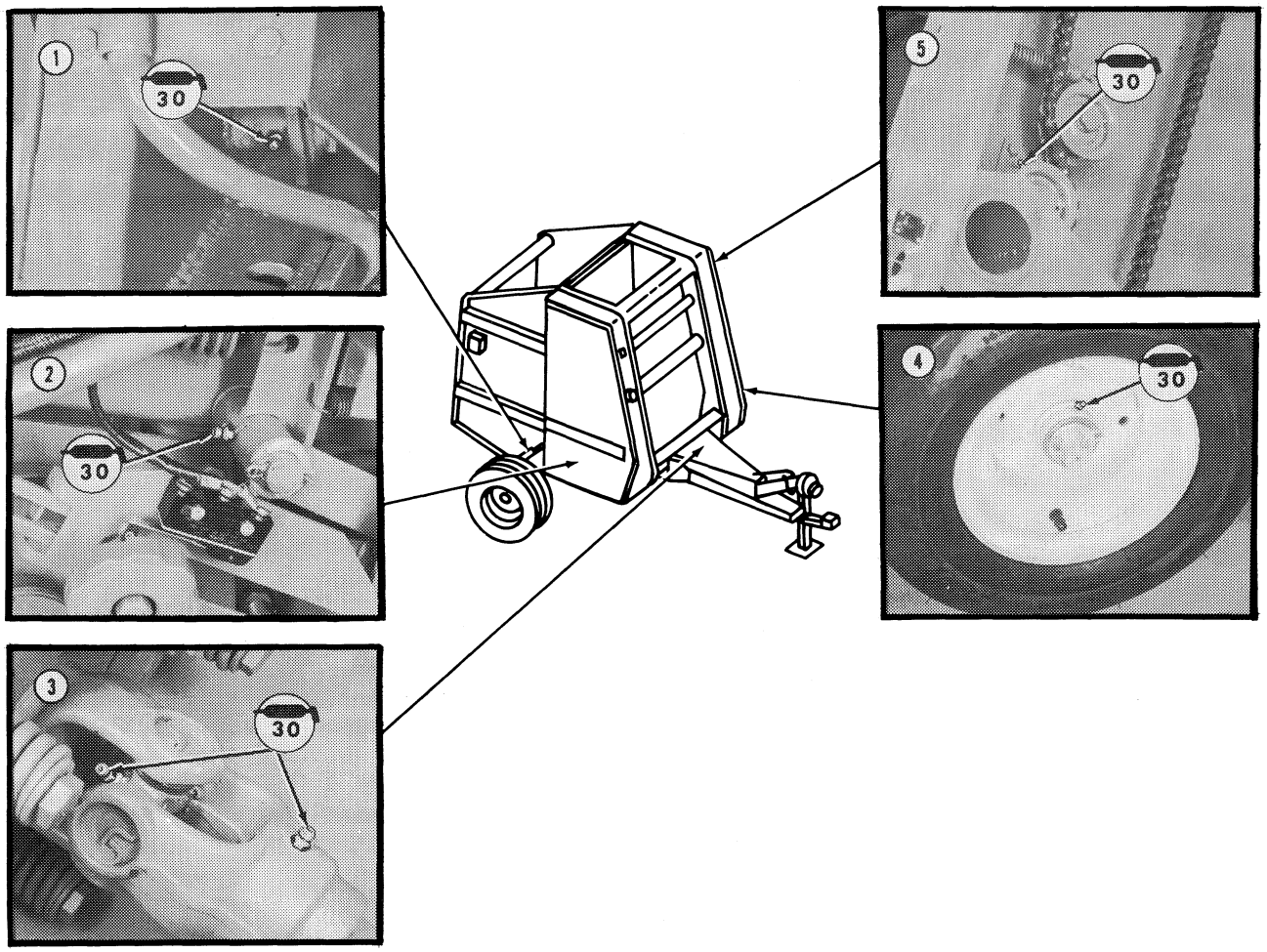
EVERY 30 HOURS



1—Bale Shape Sender Arm
2—Automatic Twine Linkage Bellcrank
3—Twine Arm Hub and Gear Hub
4—Pickup Lift Crank
5—Belt Tension Arm

E21649/530LMH/093082

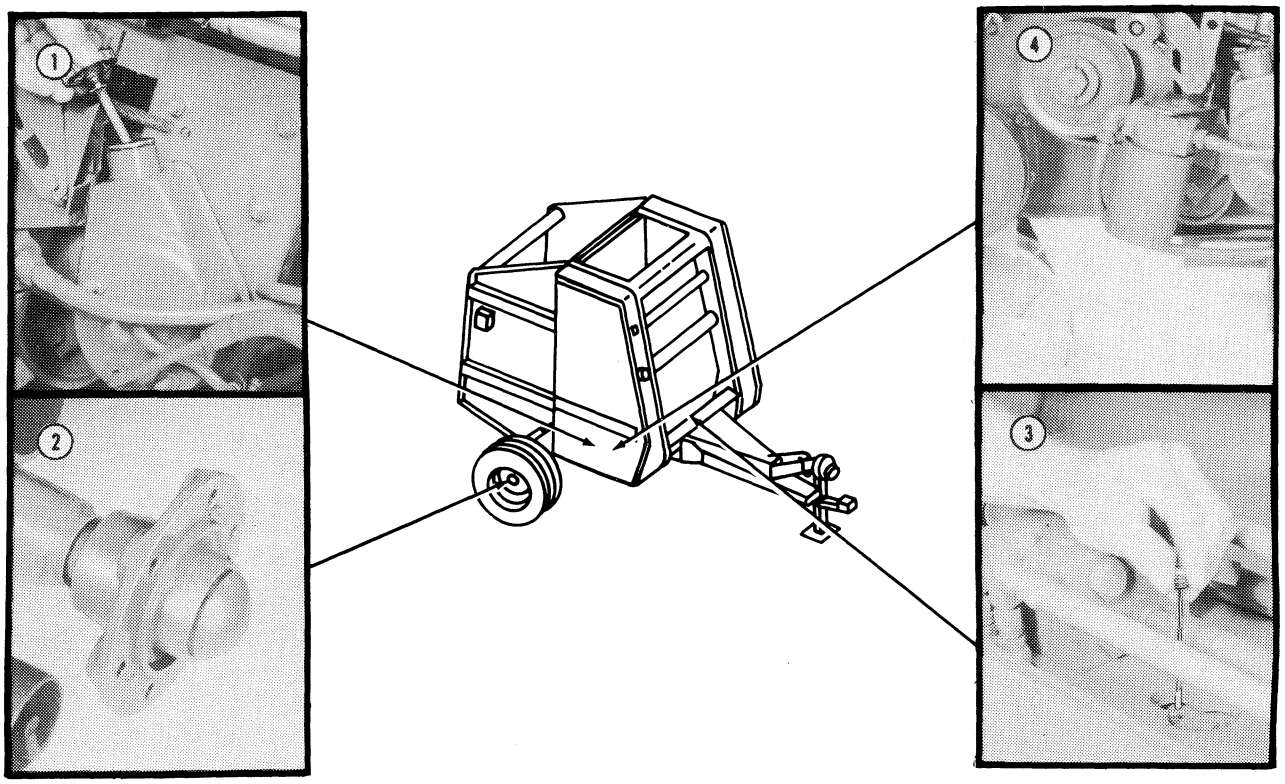
EVERY 30 HOURS



1—Pickup Belt Idler
2—Twine Pump Drive Bellcrank
3—Drive Slip Clutch
4—Pickup Gauge Wheel
5—Drive Chain Idler

E21650/530LMI/093082

ANNUALLY



IMPORTANT: When checking twine pump oil level, remove all dirt and dust before removing filler cap. Use a clean container when adding oil.

1—Hydraulic Twine Pump
Use John Deere All-Weather Hydrostatic Fluid or Type F automatic transmission fluids.

2—Wheel Bearings
Remove the wheels; then clean, re-pack and adjust the bearings. Use John Deere Multipurpose-Type Lubricant, or an equivalent SAE multipurpose-type grease, or wheel bearing grease.

IMPORTANT: Do not over fill gear case as this will result in overheating and oil leakage.

3—Gear Case
Check level of lubricant and refill as necessary using SAE 85-140 API GL-5 gear lubricant. Drain and refill gear case once each season. Gear case capacity is .650 L (1.4 pt.)

4—Twine System Oil Filter
Before installing new filter, fill with John Deere All-Weather Hydrostatic Fluid or Type F automatic transmission fluids.

E22661/530LMJ/062983

Trouble Shooting

Problem	Cause	Remedy	Page
AUTO TWINE WRAP			
Twine arm moves too slow from left to right.	Wrong orifice size in hydraulic cylinder.	Replace cylinder.	—
	Valve not shifting fully. Binding in linkage or valve.	Find cause of binding and correct.	—
	Drive belt slipping.	Replace belt or adjust idler clevis.	75
Flashing yellow light does not go solid, twine arm will not move.	Spool valve not shifted up.	1) Pull recycle rope and release letting rope return freely. 2) Look for binding in valve linkage or latch and repair. 3) Valve shifting spring broken.	—
	Low oil level in pump.	Fill to proper level.	52
	Belt idler tension spring broken.	Replace spring.	—
	PTO speed too slow.	Run tractor full PTO speed.	—
	Broken drive belt.	Replace belt.	—
	Pump lost prime due to low oil level.	See instructions for priming pump.	87
	Defective pump.	Replace pump.	*
	Recycle rope tied too tight not allowing valve to shift.	Provide slack in rope.	—
Twine too tight or twine breaks while wrapping.	Twine routing wrong.	Check for correct routing.	15
	Bad twine, knots in twine, new ball with tight core, wet twine.	Pull out bad twine or replace twine.	14
	Wrong twine tension plate pin or springs.	Replace with correct parts.	—
Twine too loose on bale.	Broken or missing twine tension spring.	Replace spring.	—
	Wrong tension spring pin.	Replace pin.	—
	Worn twine tension plates.	Replace worn parts.	—

**See your John Deere Dealer*

Problem	Cause	Remedy	Page
AUTO TWINE WRAP			
Solid yellow light on, no hay in baler. Twine arm not in home position.	Twine arm went part way thru cycle.	See "Operating Twine Arm with Empty baler."	54
Twine arm moves to right hand side of baler and will not return.	Flow control valve closed.	Open valve and readjust.	36
	Low oil level in twine pump.	Fill to proper level.	52
	Two way valve or valve arm does not move freely.	Find interference and repair or replace part.	—
	Dirt in line between flow control valve and hydraulic cylinder.	Remove hose between flow control valve and hydraulic cylinder. Clean hose and connecting ports.	—
	Valve latch does not trip because of binding or obstruction in latch linkage or twine arm.	Repair or remove obstruction.	—
	(430 only) Twine arm return plunger not adjusted or missing.	Adjust or replace part.	78
	(430 only) Twine arm hangs up on compressor rod.	Model compressor rod down.	37
Twine spacing not consistent.	Low oil level.	Fill to proper level.	52
	Slipping or worn pump drive belt.	Adjust idler rod or replace belt.	75
	Dirty oil filter.	Replace filter.	—
	Two way spool valve not shifting down fully due to binding in valve or linkage.	Correct binding.	—
	Twine contacting compressor rod.	Lower compressor rack or model rod.	37
	Flow control valve moving out of adjustment.	Make adjustment and lock locking ring.	36
	Oil cold at start-up.	Some change in twine spacing may be expected during the first few bales made with cold oil.	—

AUTO TWINE WRAP -Continued

Problem	Cause	Remedy	Page
No twine on bale or twine not caught by bale.	Twine from end of twine tube too short.	With tractor shut off, pull out twine until 305 mm (12-in.) is exposed from end of twine arm.	16
	Twine tension too high.	See "Twine too tight or twine breaks while wrapping".	54
	Twine not fed in with crop.	Do not stop forward travel of tractor as soon as yellow light goes solid. Allow a few seconds for twine to be fed in with hay.	---
	Baler out of twine.	Add twine.	14
Twine too close to edge of bale.	Missing or bent twine guide rod.	Replace or model rod.	---
	Barrel shape bales.	Fill ends of bale by crowding windrow.	---
	Dry slick crops.	Use more twine.	---
Twine not cut.	PTO disengaged before twine is cut.	Look at twine to see that it has stopped moving before disengaging PTO.	---
	Twine cutter out of adjustment.	Adjust twine cutter.	79
	Dull knife or uneven edge not making contact with anvil.	Sharpen or replace knife.	---
	Knife not parallel to anvil.	Model knife pivot shaft so knive makes contact with anvil in area where twine is cut.	77
	Obstruction causing twine not to be guided under knife.	Remove obstruction.	---
	Bent twine guide rod.	Model or replace.	---

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Problem	Cause	Remedy	Page
AUTO TWINE WRAP			
Twine not cut - Continued	Binding in twine arm or cutter linkage.	Repair or replace so linkage operates freely.	---
	Incorrect twine routing or bad ball of twine causing high twine tension.	Correct cause of high tension.	---
	(430 only) Twine arm gears out of time.	Recycle twine arm.	---
Solid yellow light comes on, twine arm goes thru cycle prematurely and wraps small bale.	Bale size knob adjusted for small bale size.	Readjust to desired size.	35
	Pump drive latch does not relatch.	1) Make sure belt tension arm is returning all the way to start position when closing gate. See "Installing Orifice in Tractors with Low Hydraulic Flow."	86
		2) Belt tension bellcrank spring missing.	---
		3) Check twine trip rod for proper adjustment.	76
		4) Mud buildup on rollers - clean rollers.	---
	Bale size link does not telescope freely.	Find cause of binding and correct.	---
	Tractor tire trips rope.	Check for proper rope routing.	---

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Problem	Cause	Remedy	Page
"BALE TRAK" MONITOR DIFFICULTIES			
Red light comes on, solid yellow light did not come on and twine arm did not cycle.	Twine trip bell crank arm out of adjustment.	Adjust arm.	75
	Twine trip rod clevis out of adjustment.	Adjust clevis.	75
	Red light switch not adjusted properly.	Adjust switch.	82
Solid yellow light on, twine arm in home position.	Switch not adjusted properly.	Adjust twine arm switch.	81
	Defective switch.	Replace.	—
	White wire from twine arm switch shorted to baler or tractor frame.	Find short and repair.	—
No flashing yellow light, yellow light comes on solid and twine arm goes thru its normal cycle.	Switch not adjusted properly.	Adjust switch near bale size knob.	81
	Extra light bulb inside of monitor box burned out.	Replace. (this bulb is used to add resistance to the flasher circuit)	—
	Defective flasher or loose connection.	Replace flasher or repair connection.	—
	Defective switch.	Replace.	—
	Low voltage.	Make sure connection to power source is full 12 volt.	—
Green light does not come on when gate is closed.	Gate lockout lever engaged.	Unlock gate.	—
	Gate switch not adjusted properly.	Adjust switch.	80
	Defective bulb or switch.	Replace defective part.	—
	Poor connection or broken wire.	Make repair.	—
Green light goes out while baling.	Gate latch switch not adjusted properly.	Adjust switch.	80
	Air in hydraulic system.	Open and close gate several times to remove air.	—
	Internal leak in gate hydraulic cylinder.	Repair or replace cylinder.	—

Problem	Cause	Remedy	Page
"BALE TRAK" MONITOR DIFFICULTIES			
Gages read low or uneven with tight well shaped bale.	Gage sending units not adjusted properly.	Adjust sending units.	82
	Defective gage or sending unit.	Replace defective part.	—
Gate not latched. Green light on.	Defective switch.	Replace switch.	—
	Shorted wire to baler or tractor frame.	Repair wire.	—
Bale shape gages will not function. Lights ok.	Reversed polarity on electrical hook-up.	See "Tractor Electrical Hook-up" in Preparing The Tractor Section.	113

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Problem	Cause	Remedy	Page
FEEDING DIFFICULTIES			
Baler won't feed hay, plugged at feed opening.	Large windrows and/or too fast ground speed.	Reduce windrow size and/or reduce speed.	---
	Missing pickup teeth.	Replace teeth.	---
	Compressor rack too low.	Raise rack.	37
	Gate opening while baling.	Adjust gate latch. Correct leaky gate hydraulic cylinders.	72
	Gate not closed.	Eject bale. Close gate.	---
	Bale density too high.	Decrease density.	---
	Incorrect belt routing.	Properly route belts.	89
	Clutch not adjusted properly.	Adjust clutch.	71
Baler will not feed short, dry, slick or brittle crops.	Excessive buildup on top of compressor rack.	Remove compressor rack assembly.	---
	PTO speed too fast.	Reduce engine speed to 1500 rpm and shift to higher gear.	---
	Bale density too high.	Decrease density.	---
	Pickup too low.	Raise pickup.	35
	Windrows too small.	Make larger windrows by raking.	---
	Weathered windrows (rained on several times).	Make larger windrows by raking.	---
Baler will not feed cornstalks.	Pickup too high.	Lower pickup. Install flotation tires.	---
	Windrows too large.	Make windrows smaller.	---

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Problem	Cause	Remedy	Page
PICKUP DIFFICULTIES			
Pickup teeth do not revolve.	Belt slipping.	Replace or tighten belt. Raise compressor rack.	37,89
	Broken cam.	Check for failed or worn cam.	---
Pickup will not float or drop freely.	Excess or insufficient float assist.	Adjust float spring.	83
	Binding at pivots.	Remove chaff and dirt. Model clearance between sliding parts.	---
		Install gauge wheel to keep joints free of chaff and dirt.	---
Not picking up hay clean.	Pickup teeth set too high.	Lower pickup.	35
	Pickup stays up.	Loosen float spring.	83
	Ground speed too fast.	Reduce ground speed.	---
	Windrows too light.	Rake heavier windrows.	---
	Pickup teeth bent or broken.	Straighten or replace teeth.	---
Pickup teeth digging in ground.	Pickup set too low.	Raise pickup.	35
	Poor pickup flotation.	Tighten float springs. Check pivots.	83
Pickup tooth breakage.	Set too low.	Raise pickup.	35
	Foreign material inside and/or broken teeth.	Remove material and/or teeth.	---
	Baling cornstalks.	Raise pickup. Higher tooth breakage can be expected.	
Pickup too high in down position.	Wheel spindles installed upside down.	Correctly install spindles.	---

PICKUP DIFFICULTIES -Continued

Problem	Cause	Remedy	Page
Plugging at flares.	Overcrowding ends.	Reduce crowding.	---
	Pickup set too low.	Raise pickup.	35
	Tractor tires smashing crop into stubble.	Widen wheel spacing.	---
Inside of strippers worn.	Strippers bent up hitting tooth coils.	Check for binding at flares.	---
		Increase float.	83
		Raise pickup.	35
		Bend strippers down for clearance.	---

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E27;P62 060684

Problem	Cause	Remedy	Page
BALE QUALITY			
Cone shaped bale, monitor shows a well shaped bale when yellow light comes on solid.	Monitor sending units out of adjustment.	Readjust to proper setting.	82
	Defective gauge or sending unit.	Replace defective part.	---
	Outside belts are not the same length.	Belts should be the same length within 38 mm (1-1/2 in.).	91
	Broken belt roller arm spring.	Replace spring.	--
Barrel or cone shape bale gauges read high in green.	Gauge sending units not adjusted properly.	Adjusting sending units.	82
	Outside belts too short.	Check and correct belt length.	---
Baler will not make dense bales.	Internal leak in belt tension hydraulic cylinder.	See your John Deere dealer.	*
	Dirty or defective relief valve.	See your John Deere dealer.	*
	Bale ends not filled tightly.	Crowd more hay in ends of baler.	---
	Density control adjusted for light bales.	Adjust for heavier bale.	36
	Bale forming belts too short.	Check length and correct.	---
Baler will not make full size bale.	Bale size knob not adjusted to desired bale size.	Adjust knob to desired bale size.	35
	Twine trip bellcrank arm not adjusted properly.	Check adjustment.	*
	Bale forming belts are too short.	Increase belt length to recommended length.	---

* See your John Deere dealer.

GENERAL BALER DIFFICULTIES

Problem	Cause	Remedy	Page
Gate opens while baling.	Gate not latched.	When closing gate, hold tractor selector valve until green light comes on.	---
	Tractor selector valve leaking.	See your John Deere dealer.	*
	Internal leak in baler hydraulic system.	See your John Deere dealer.	*
	Gate latches not adjusted properly.	Adjust gate latches.	72
Belts do not track properly.	Lower rear gate roll out of adjustment.	Adjust roller.	74
	Belts not routed correctly.	See belt routing diagram and reroute belts.	89
	Twine or mud buildup on baler rolls.	Remove buildup.	---
	Belts not cut square when splicing.	Resplice belt.	90
Bale density gauge reading in red.	Tractor selector valve not in neutral position while baling.	Move hydraulic lever to neutral.	--
	Defective density gauge.	Replace gauge.	---
	Defective bale density valve.	Replace or repair valve.	---
Bale forming belts rubbing.	Upper belt tension roll in shipping position.	Move to operating position.	104
	Belt tension arm not fully down.	Lower tension arm with tractor hydraulic lever.	---
	Belts not routed properly.	See belt routing diagram and reroute.	89

* See your John Deere dealer.

GENERAL BALER DIFFICULTIES - Continued

Problem	Cause	Remedy	Page
Starter roll wraps with hay	Ground speed and rpm too high when starting bale.	Reduce rpm until bale core has formed.	---
	Windrow too large.	Decrease windrow size.	---
	Pickup drive slipping.	Adjust drive or replace belt.	84
	Material pinched under pickup flare or tire.	Start bale with windrow centered on pickup.	---
Bale density control knob hard to turn.	Locking ring locked against valve body.	Unscrew locking ring before adjusting density control knob.	---
	Dry threads on adjusting screw.	Apply a few drops of oil or a dry graphite lubricant to the threads.	---
	Raised gate and/or belt tension arm creates additional turning force.	Adjust with gate closed and belt tension arm down.	36
Belt lacing failure.	Belts are not the same length.	Belts must be the same length within 39 mm (1-1/2 in.).	91
	Improper belt splice hooks or poor quality splice.	See repairing belts.	90
Belts slipping or not turning.	Belt tension arm not returning all the way to tension belts.	Check to see that tension arm tightens belts before green light comes on.	80
	Belts too long.	Cut belts to proper length.	---

*See your John Deere dealer.

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GENERAL BALER DIFFICULTIES - Continued

Problem	Cause	Remedy	Page
Gate not latched. Green light not on.	Obstruction between gate and frame.	Remove obstruction.	---
	Hay buildup on belts in some crop conditions.	Remove buildup. Operate PTO while closing gate.	---
	Too much clearance between latch hooks and shim pad.	Adjust gate latch stop.	80
	Gate light switches not adjusted properly.	Adjust gate light switches.	80
	Gate sprung.	Model straight.	---
	Hay buildup at gate latch area due to misrouting of hydraulic pickup lift hoses.	Route hoses correctly.	125
Bale sticks in chamber.	New baler.	Reduce density until baler has made several bales to polish side sheet.	36
	Bale density too high.	Lower bale density at control valve.	36
Damage to belt diamond pattern.	Material buildup on compressor rack causing belts to contact starter roll.	See "Baling Short, Dry, Slick Crops."	26
Belt edges fuzzy.	Normal break-in.	Clip off loose threads. After break-in period, the fuzzing will stop.	---

PRACTICE SAFETY

CAUTION: Before servicing or adjusting baler:

1. Disengage all power.
2. Shut off engine.
3. Wait until all moving parts have stopped.

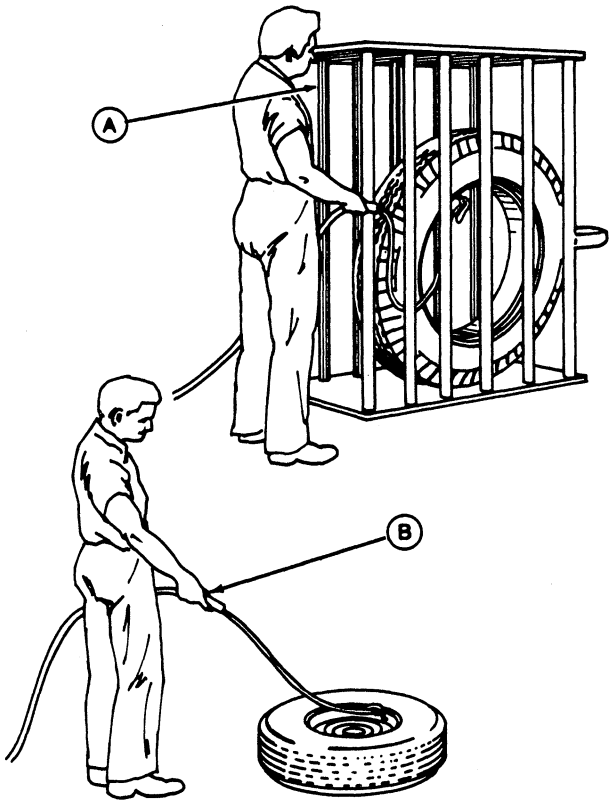
530SVA/093082

MOUNTING TIRES

CAUTION: Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious injury or death. Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job. Have it done by your John Deere dealer or a qualified tire repair service.

When sealing tire beads on rims, never exceed 35 psi (240 kPa) (2.4 bar) or maximum inflation pressures specified by tire manufacturers for mounting tires. Inflation beyond this maximum pressure may break the bead, or even the rim, with dangerous explosive force. If both beads are not seated when the maximum recommended pressure is reached, deflate, reposition tire, relubricate bead, and reinflate.

Detailed agricultural tire mounting instructions, including necessary safety precautions, are contained in John Deere Fundamentals of Service (FOS) Manual 55, Tires and Tracks, available through your John Deere dealer. Such information is also available from the Rubber Manufacturers Association and from tire manufacturers.



A—Use a safety cage if available.
B—Do not stand over tire. Use a clip-on chuck and extension hose.

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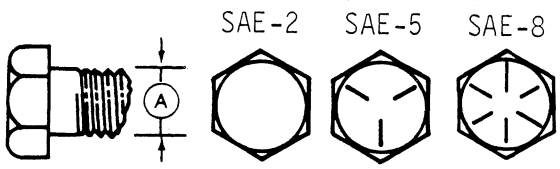
BOLT TORQUE CHARTS

The tables shown below give correct torque values for various bolts and cap screws. Check tightness of bolts periodically, using bolt torque chart as a guide.

U.S. MEASUREMENT

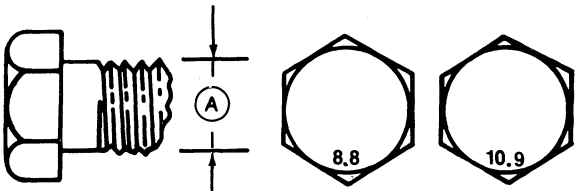
Bolt Diameter "A"	Bolt Torque in Ft-Lbs (N·m) SAE 2		SAE 5		SAE 8	
1/4″	Not	Used	14	(10)	19	(14)
5/16″	Not	Used	27	(20)	41	(30)
3/8″	23	(31)	35	(47)	50	(68)
7/16″	35	(47)	55	(75)	80	(108)
1/2″	55	(75)	85	(115)	120	(163)
9/16″	75	(102)	130	(176)	175	(237)
5/8″	105	(142)	170	(231)	240	(325)
3/4″	185	(251)	300	(407)	425	(576)
7/8″	160	(217)	445	(603)	685	(929)
1″	250	(339)	670	(910)	1030	(1396)
1-1/4″	330	(450)	910	(1235)	1460	(1979)



Replace hardware with the same strength bolt.

METRIC MEASUREMENT

Bolt Diameter "A"	Bolt Torque in Ft-Lbs (N·m) 8.8		10.9	
5 mm	5	(6)	7	(9)
6 mm	9	(11)	13	(17)
8 mm	20	(28)	30	(40)
10 mm	40	(55)	59	(80)
12 mm	70	(95)	103	(140)
16 mm	173	(235)	258	(350)
20 mm	350	(475)	498	(675)
24 mm	608	(825)	863	(1170)
30 mm	1201	(1630)	1712	(2320)



NOTE: Bolts having lock nuts should be torqued to approximately 65% of amounts shown in above chart.

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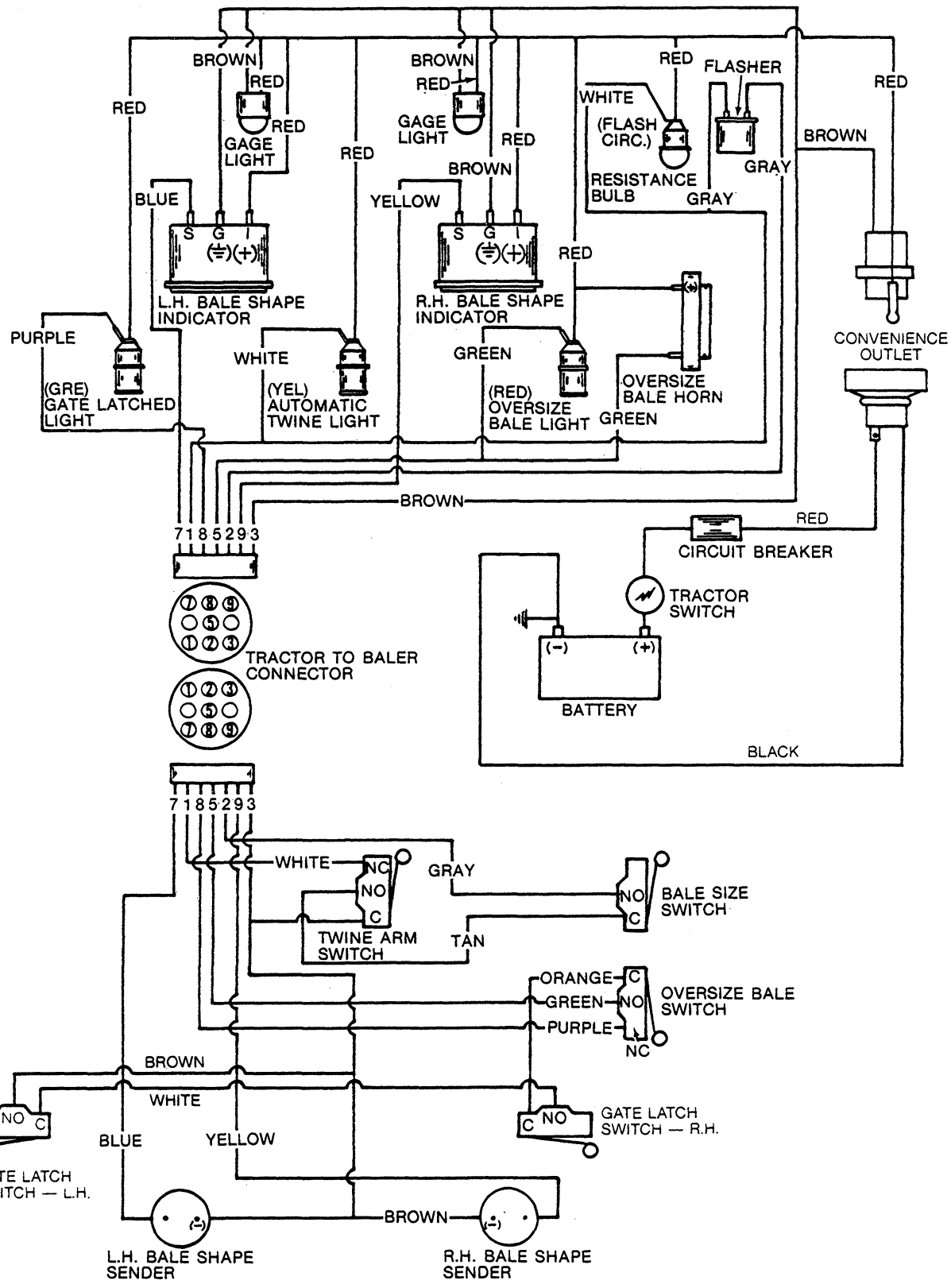
WIRING DIAGRAM



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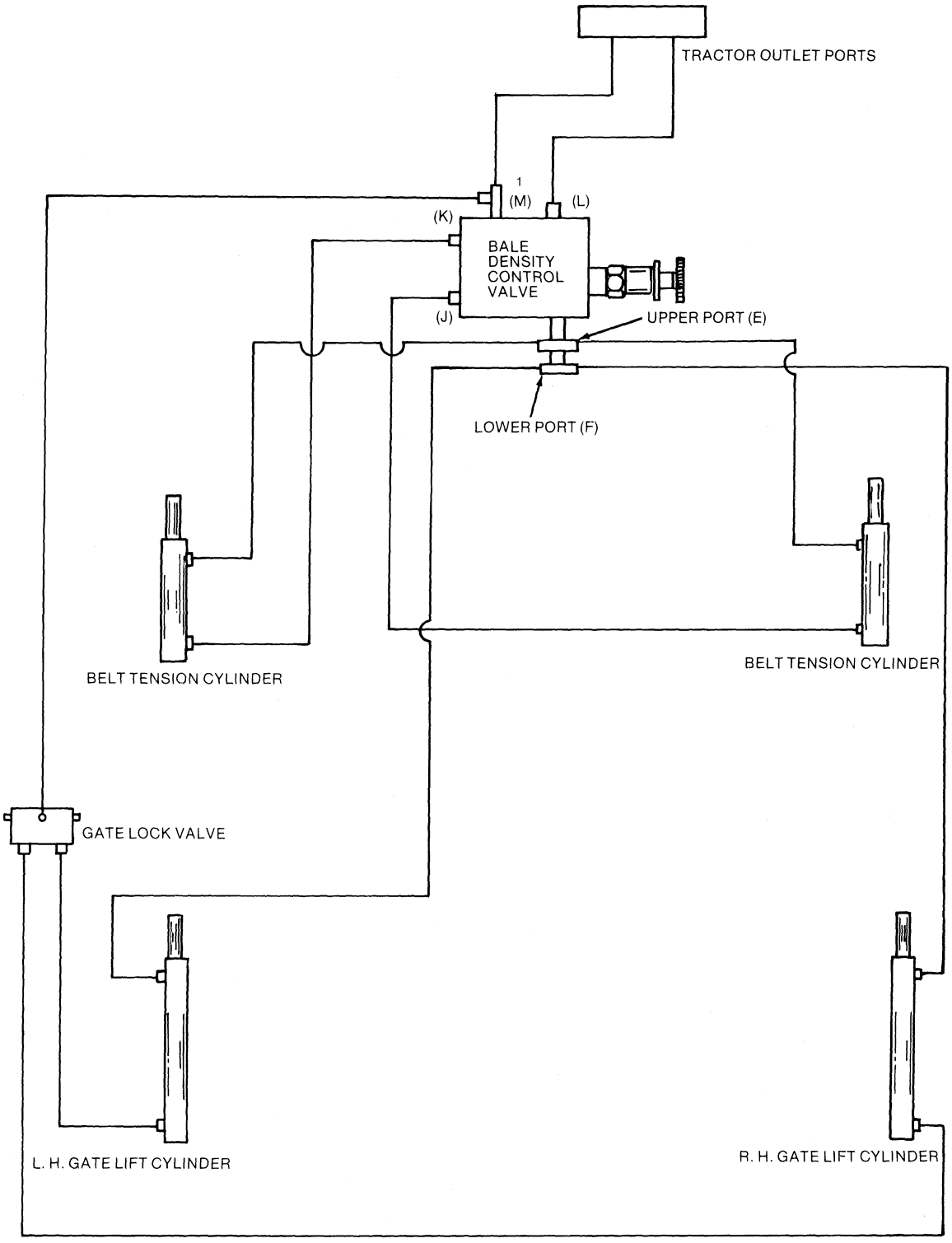
BALE TENSION AND GATE HYDRAULIC SYSTEM



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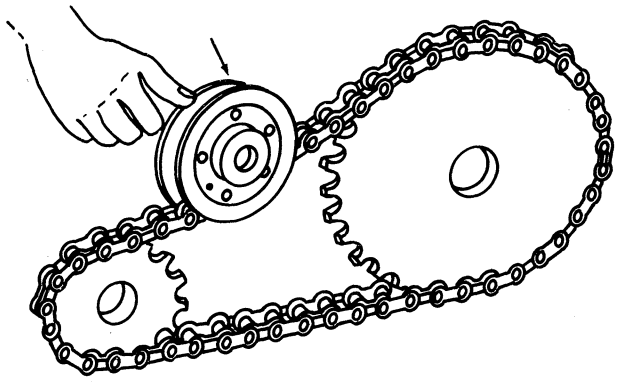
ADJUSTING CHAINS

Adjust tension on all roller chains by loosening idler mounting bolts and pressing idler against chain with 2.3 to 4.5 kg (5 to 10 lb.) pressure.

Tighten idler mounting cap screw to 163 N·m (120 lb-ft).

Readjust if necessary.



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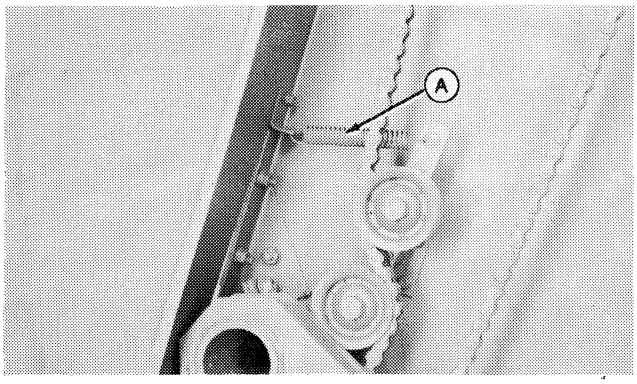
ADJUSTING UPPER DRIVE ROLL CHAIN

If dimension between hooks on spring (A) is less than 140 mm (5-1/2-in.), remove one pitch from drive chain.



E21743/530SVG/100182

ADJUSTING DRIVE SLIP CLUTCH

Adjust slip clutch (A) if excessive slipping occurs during operation or if it has been disassembled.

For 540 rpm, the clutch is properly adjusted when dimension (B) is 37 mm (1-15/32-in.) from end coil to end coil.

For 1000 rpm, the clutch is properly adjusted when dimension (B) is 42 mm (1-21/32-in.) from end coil to end coil.

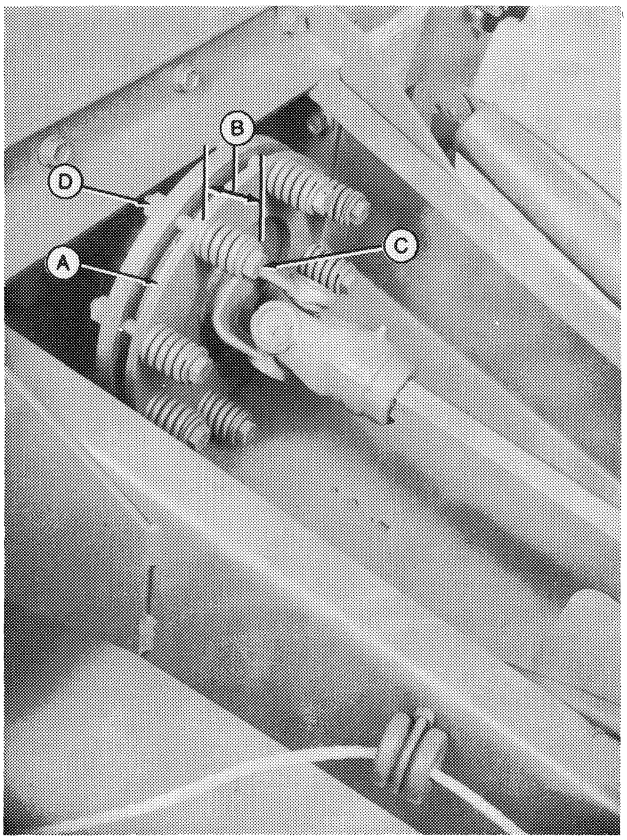
IMPORTANT: The slip clutch has been designed to furnish protection to the drive train; overtightening will decrease this protection.

To adjust slip clutch (A):

1. Loosen nut (D).

2. Turn spring adjusting bolt (C) until proper spring dimension (B) is attained.

3. Tighten nut (D).



A—Slip Clutch
B—37 mm (1-15/32 in.) 540 rpm
42 mm (1-21/32 in.) 1000 rpm
C—Adjusting Bolt
D—Nut

E21744/530SVH/100182

ADJUSTING BELT TENSION SPRINGS

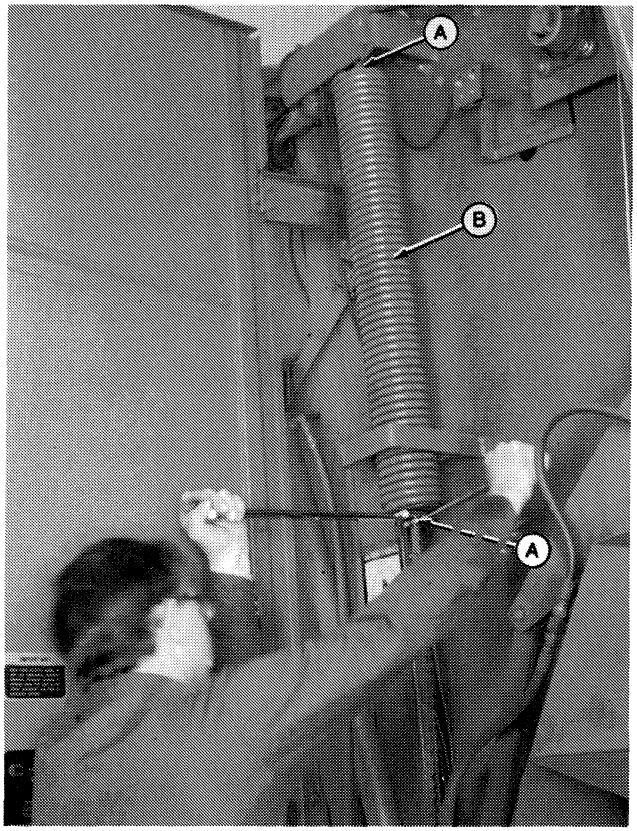
NOTE: Baler must be empty and belt tension arm in down position.

Belt tension springs are located on the right-hand and left-hand sides of baler.

1. Loosen jam nuts (A).

2. Rotate spring (B) until top and bottom eyebolts are tightened all the way into spring plug.

3. Tighten jam nuts (A) using wrench on spring plug to prevent chain from twisting.



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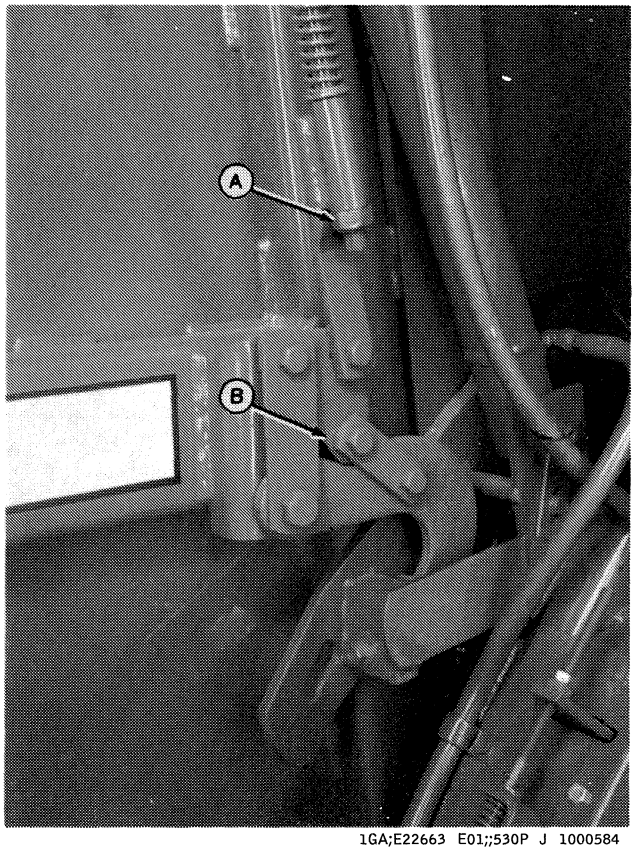
ADJUSTING GATE LATCH

1. Close gate completely.

2. Adjust nut (A) until plate (B) just touches relief notch in hook.

3. Repeat on opposite side.



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CHECKING BELT TRACKING

1. Remove any wrappage or buildup on rollers.

2. Determine if gate closes evenly by moving tractor selector valve to float with the tractor shut off. If both sides contact at the bottom, proceed. If there is a gap on one side when the other side is contacting, see your John Deere dealer for proper procedure to straighten the gate.

3. Shim the gate latches properly. (See Adjusting Gate Latch Stop in this section.)

4. Park baler on a level surface. With baler empty and gate closed, engage PTO and run at slow speed. Check the tracking of the belts.

5. Shut off tractor engine and adjust belts, if necessary. (See Adjusting Belt Tracking on the following pages.)

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ADJUSTING BELT TRACKING

IMPORTANT: Belt tracking must be checked before adjustments are made. (See Checking Belt Tracking on preceding page.)

NOTE: Refer to illustration on facing page.

1. If belts are not centered at the lower belt guide (D), make the following adjustment:

   a. If belts track to the right, raise left-hand end of lower rear gate roller (C).

   b. If belts track to the left, raise right-hand end of lower gate roller(C).

2. If belts are not centered at the upper front belt guide (I), make the following adjustments:

   a. If belts track to the right, raise the right-hand end of the front idler roller (F).

   b. If belts track to the left, raise the left-hand end of the front idler roller (F).

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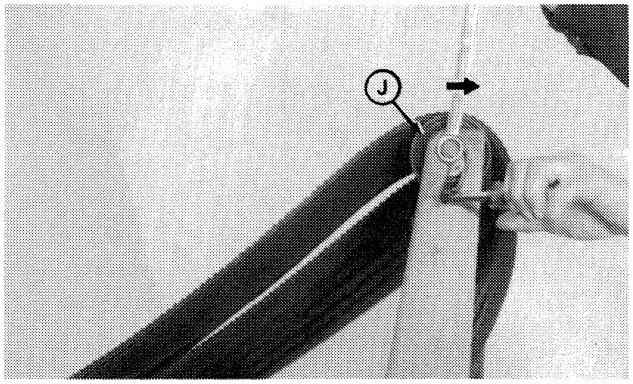
3. If belts are not centered at the take-up roller (J), make the following adjustment:

   a. If belts track to the right, move the right-hand end of the take-up roller in the direction shown in the short leg portion of the "L" shaped slot.

   b. If belts track to the left, move the left-hand end of the take-up roller in the direction shown in the short leg portion of the "L" shaped slot.



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4. If outside belts track to the outside rubbing the lower belt guide (D) or side of baler, adjust as follows:

   a. Move the roller from the normal outside position (A) on the sender arm to the inside position (B). The belt will track towards the middle of the baler.

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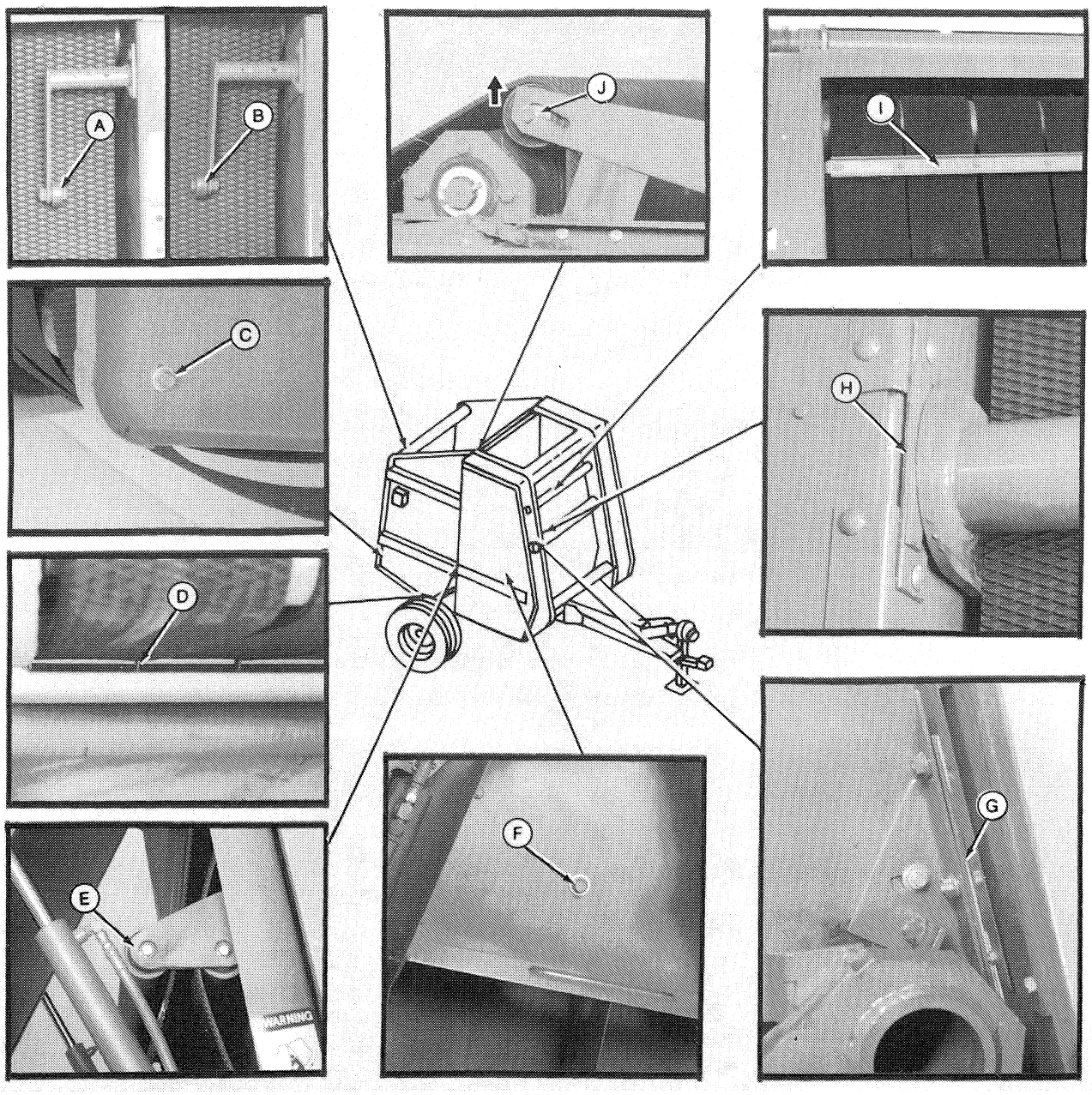
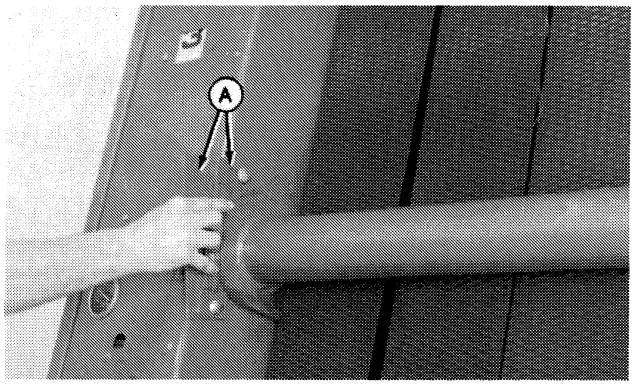


A—Normal Position
B—Inside Position
C—Lower Rear Gate Roller
D—Lower Belt Guide
E--Tension Arm Tip
F—Front Idler Roller
G—Pivot Bracket Shims
H—Tension Arm Spacers
I—Upper Front Belt Guide
J—Take-up Roller

5. If tension arm is rubbing inside of side sheet and/or the outside belt is rubbing hard at the rear tip of the tension arm, make the following adjustment:

a. Center tension arm at the front pivot brackets by adding one welded spacer and loose spacers (A) to one or both sides.



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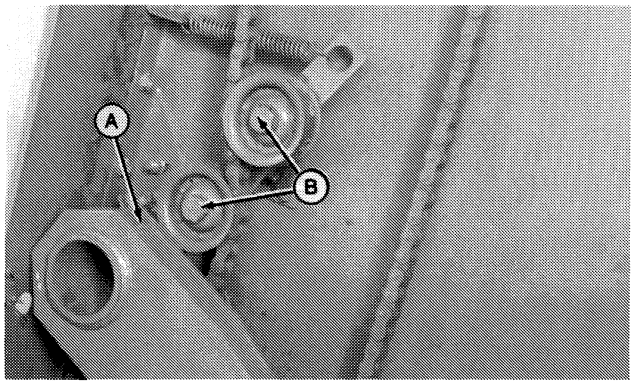
IMPORTANT: Slowly raise tension arm to check the following clearance areas after centering adjustment.

b. The left-hand outside tension arm (A) must clear the upper chain idler bolt heads (B) by 1.5 mm (0.060-in.). Grind off bolt heads or remove washers behind idler for proper clearance.

c. Rear tips must not contact inside of side sheet.



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6. If the rear tips (A) of tension arms are still not centered between side sheets after previous adjustment, do the following:

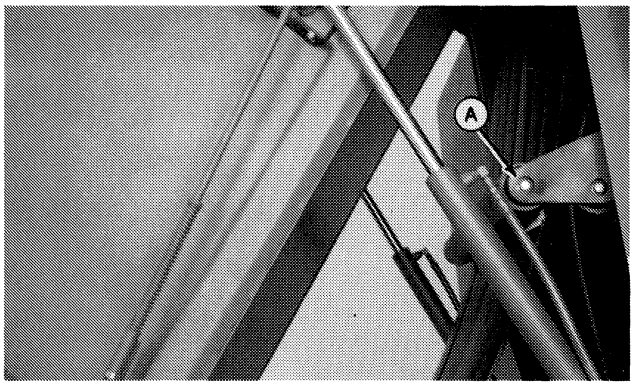
a. Remove remaining shims (B), as necessary, to center the tips.

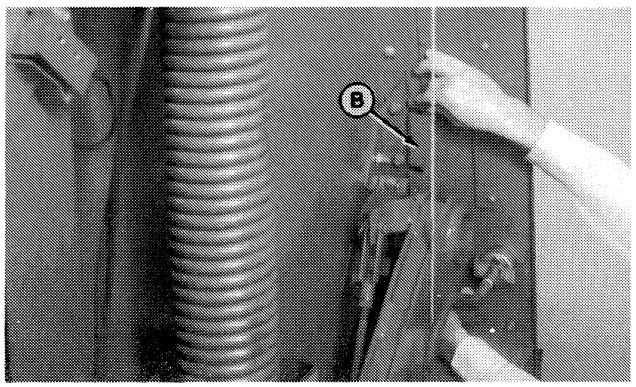
b. If the tips are too close to the left, remove shims from the right-hand pivot bracket.

c. If the tips are too close to the right, remove shims from the left-hand pivot bracket.

d. Recheck clearances indicated in Step 3.

NOTE: Always maintain two shims on one side of the baler, and remove shims, as needed, from the opposite side to correct centering.





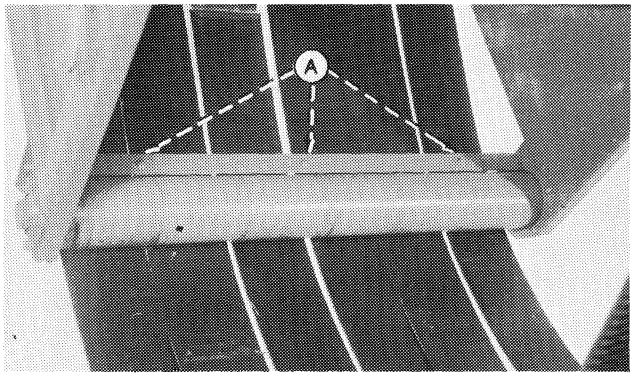
1GA;E24248;E24249 E01;;530P CB 100584

ADJUSTING LOWER FEED ROLL SCRAPER

1. Open gate to convenient height and lock with gate lock valve.

2. Move tractor selector valve to raise belt tension arm to the highest position.

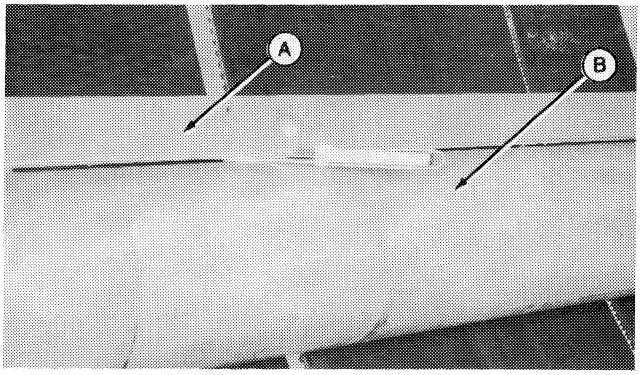
3. Loosen nuts (A).



E21747/530SVK/093082

4. Set scraper (A) to clear gate roll (B) by 1 to 2 mm (0.039 to 0.0787-in.).

5. Retighten nuts.



E21748/530SVL/062983

ADJUSTING PUMP DRIVE IDLER

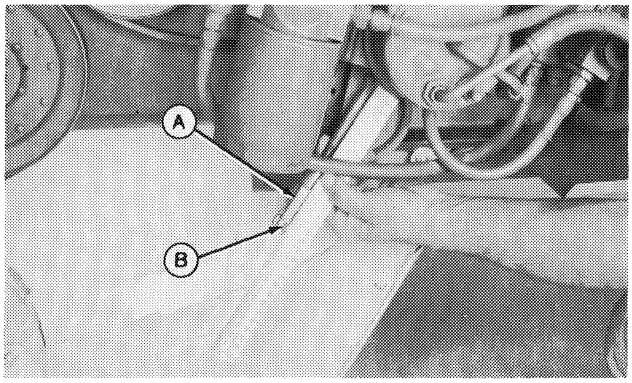
1. Close the gate.

2. Remove cotter pin and clevis pin from hole (B). Pivot rod down to position shown and loosen jam nut.

3. Adjust clevis (A) to obtain a 170 mm (6-11/16 in.) dimension from center of hole in clevis to center of bend at the end of rod.

4. Tighten jam nut.

5. Install clevis pin and cotter pin.



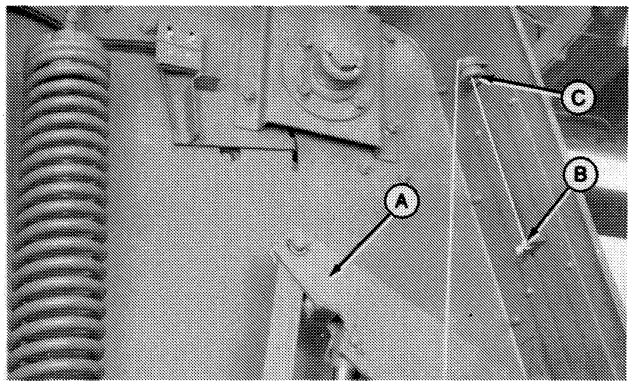
E21753/530SVQ/062983

ADJUSTING BALE SIZE INDICATOR

1. Lock gate in closed position.

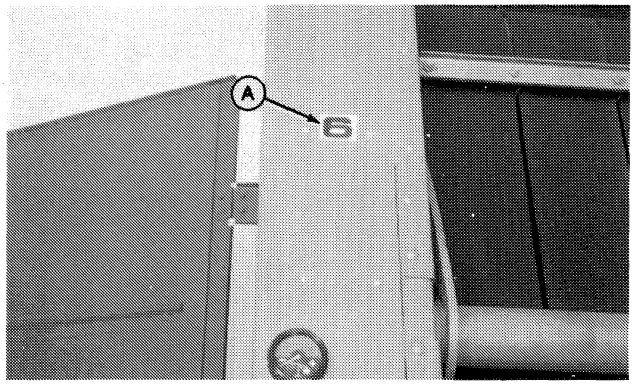
2. Using tractor selector valve, raise belt tension arm (A) to the highest position.

3. Tie rope to the hole of bale size indicator (B) and thread it through the twine guide.



1GA;E21750 E01;;530P N 100584

3. Adjust rope so the number "6" is centered in the bale size window (A).

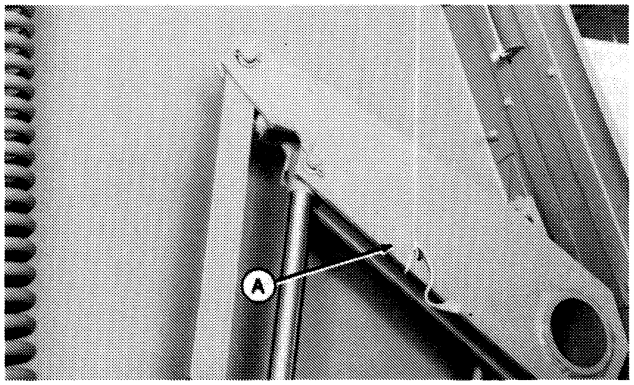


1GA;E21751 E01;;530P O 100584

4. Tie the other end of the rope to the belt tension arm (A) as shown.

5. Using tractor selector valve, lower belt tension arm.

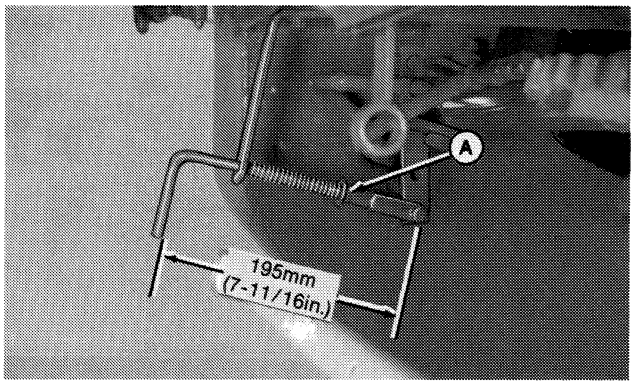
6. Unlock gate.



1GA;E21752 E01;;530P P 160584

ADJUSTING TWINE VALVE TRIP ROD (530 ONLY)

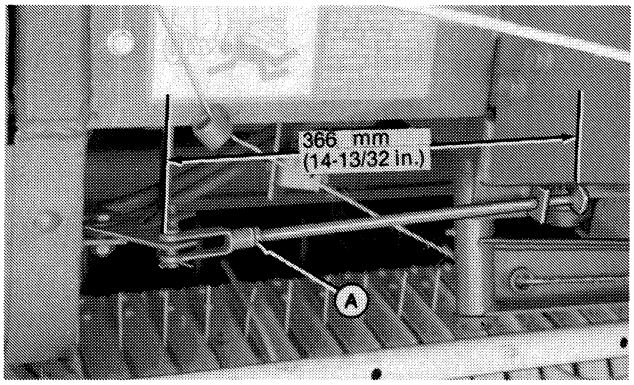
1. Loosen jam nut (A).
2. Adjust rod to 195 mm (7-11/16 in.).
3. With bent end of rod in a vertical position, tighten jam nut (A).



1GA;E22664 E01;;530P R 100584

ADJUSTING TWINE VALVE TRIP ROD (430 ONLY)

1. Loosen jam nut (A).
2. Adjust rod to 366 mm (14-13/32 in.).
3. Tighten jam nut (A).

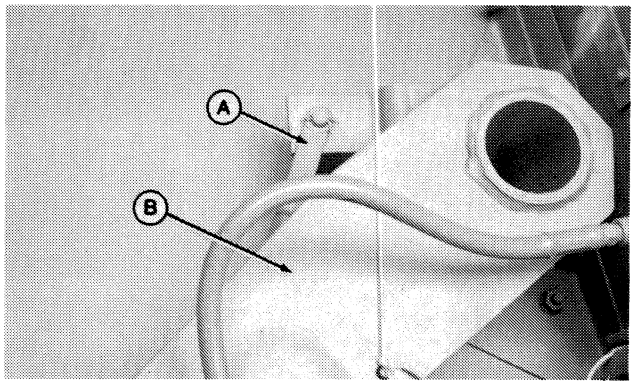


1GA;E21755 E01;;530P S 100584

ADJUSTING TWINE TRIP ROD AND VALVE LATCH CLEARANCE

1. Close gate and lower belt tension arm (B) with tractor selector valve.

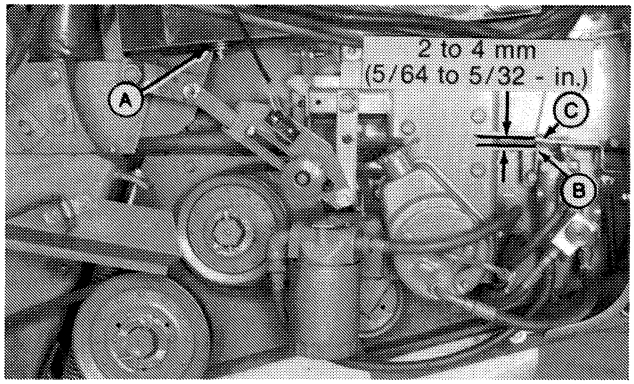
2. Remove cotter pin and pin from clevis (A).



1GA;E21756 E01;;530P T 100584

3. With bell crank against stop washers (A), add or subtract washers as needed to obtain 2 to 4 mm (5/64 to 5/32-in.) between valve arm latch (B) and valve arm (C). The pump drive bell crank (D) must latch freely with the pump drive latch (E). If not, adjust by removing one stop washer.

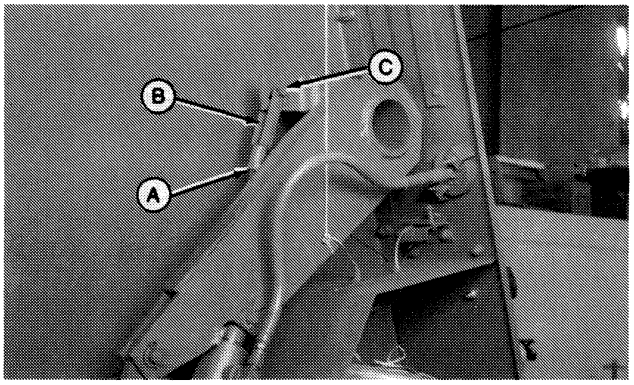
A—Stop Washers
B—Valve Arm Latch
C—Valve Arm
D—Pump Drive Bell Crank
E—Pump Drive Latch



1GA;E24217 E01;;530P U 100584

4. With bell crank against stop washers, loosen jam nut (A) and adjust the clevis (B) so that it is centered in the slot on the belt tension arm.

5. Tighten jam nut and install pin (C) and cotter pin.

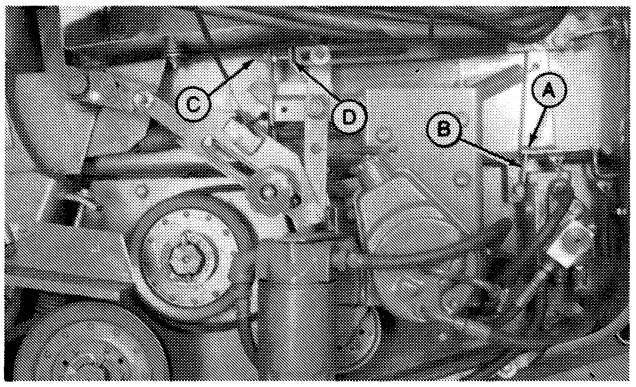


1GA;E21758 E01;;530P V 100584

6. Move valve arm (A) to rear by hand until it just contacts the valve latch (B). With valve arm (A) in this position, loosen locking nuts and adjust stop pin (C) until it contacts valve link (D).

7. Tighten locking nuts.

A—Valve Arm
B—Valve Latch
C—Stop Pin
D—Valve Link

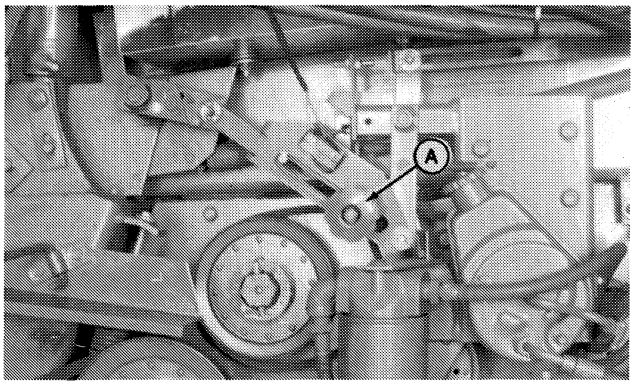


1GA;E24216 E01;;530P CC 100584

CHECKING PUMP DRIVE LATCH ADJUSTMENT

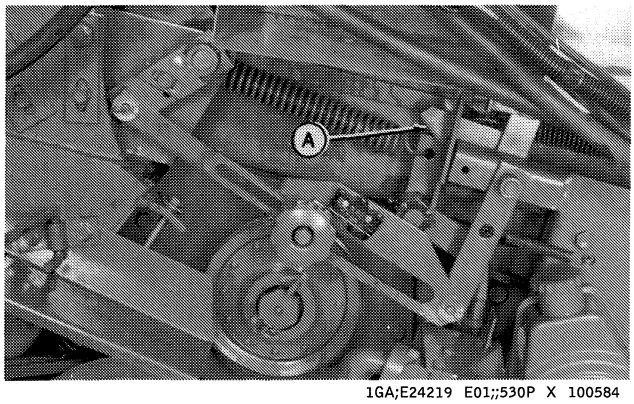
This adjustment was sealed at the factory and should not need further adjustment.

1. To check adjustment, adjust bale size knob (A) to largest bale size (all the way forward).



1GA;E24218 E01;;530P W 100584

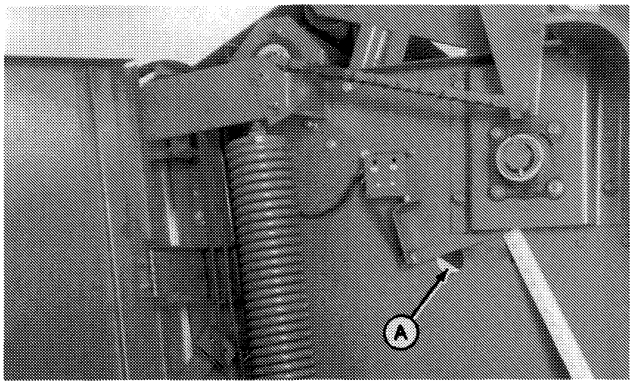
2. Lock gate and raise belt tension arm very slowly until pump latch (A) is just tripped.



1GA;E24219 E01;;530P X 100584

3. The top edge of belt tension arm (A) should be in the lower one third of the side sheet hole. If so, the pump drive latch is adjusted correctly.

If an adjustment is necessary, see your John Deere dealer.



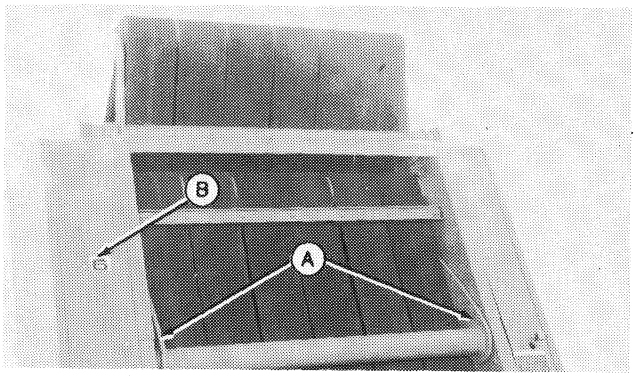
1GA;E24223 E01;;530P BQ 100584

ADJUSTING TWINE CUTTER ANVIL

1. Lock gate in closed position with gate lock valve.

2. Move tractor selector valve to raise belt tension arm (A) until the number "6" appears in bale size window (B). This will shift the twine valve to its up position allowing the twine arm to be moved by hand.

3. Shut off tractor.



E21761/530SVY/100182

4. Manually twine arm (D) until it is centered over knife anvil (C).

5. Loosen nuts (A).

6. Adjust twine cutter assembly (B) so clearance between knife anvil (C) and twine tube (D) is 4 mm (5/32-in.).

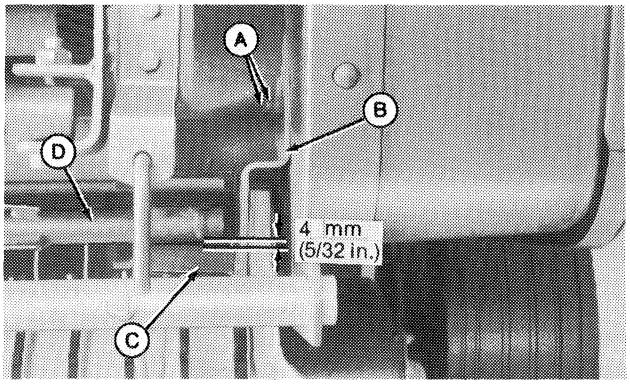
7. Retighten nuts (A).

8. Move tractor selector valve to lower belt tension arm.

9. Shut off tractor.

10. Manually move twine arm forward to home position.

11. Unlock gate.



A—Nuts
B—Twine Cutter Assembly
C—Knife Anvil
D—Twine Tube

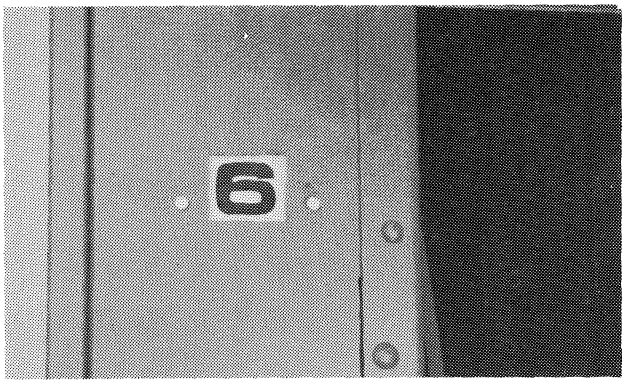
E21762/530SVZ/100182

ADJUSTING TWINE ARM RETURN (430)

1. Raise gate until number "6" is showing.

2. Lock gate.

3. Using gate selector lever on tractor, lower belt tension arm until bale size indicator reads "4."



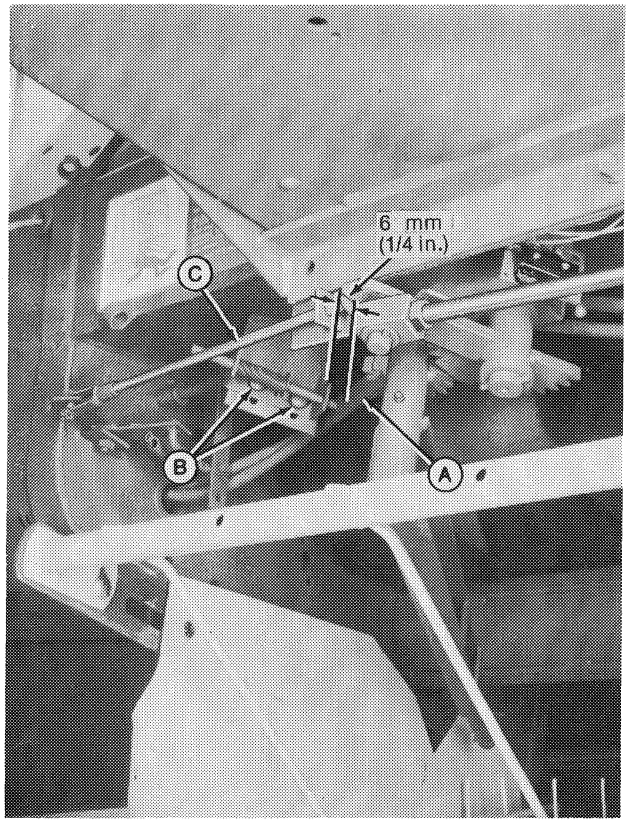
E21637/530SVAA/100182

4. With tractor running at rated PTO speed, engage PTO. When valve trip rod (C) starts to move, disengage PTO. Twine arm will be in extreme right-hand position. Shut tractor off.

5. Loosen carriage bolts (B) and adjust plunger assembly vertically until rod is centered on twine arm return strap (A). Adjust horizontally to obtain a 6 mm (1/4-in.) dimension. Tighten bolts (B).

6. Start tractor and engage PTO until twine arm returns to home position.

7. Unlock and close gate.



E21763/530SVAB/100182

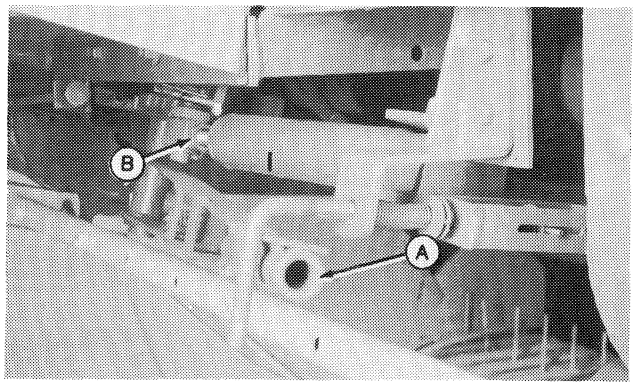
ADJUSTING TWINE CUTTER TENSION

CAUTION: Stay clear of moving parts.

1. Move arm (A) to home position under hydraulic pressure. (Refer to How To Operate Twine Arm With Empty Baler in Operating the Baler Section.) Dimension between spring pin and bracket should be approximately 6 mm (1/4-in.). See step 5 for measurement.

2. If adjustment is needed, shut off tractor.

3. Loosen jam nut (B) on cylinder rod.



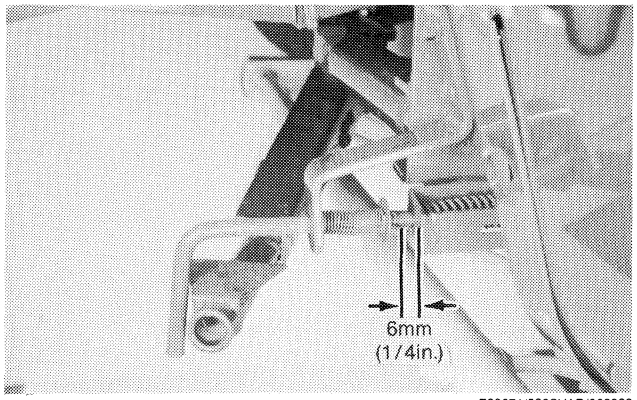
E21764/530SVAC/062983

4. Adjust twine cutter link by turning the hydraulic cylinder rod in or out of the adjusting blocks. Make adjustment by turning rod 1/8 to 1/4 turn. Turning the rod into the block will increase the dimension.

5. Start tractor, engage PTO, and check measurement. If measurement is still not correct, repeat steps 2, 4, and 5.

6. Shut off tractor.

7. Tighten jam nut on cylinder rod.



E22671/530SVAD/062983

ADJUSTING GATE LATCH STOP

1. Close and latch gate. Push gate latch (A) forward by hand. If distance between gate latch stop (B) and stop pad (C) is not 2 ± 1 mm (0.079 ± 0.039-in.), shim as necessary following this procedure.

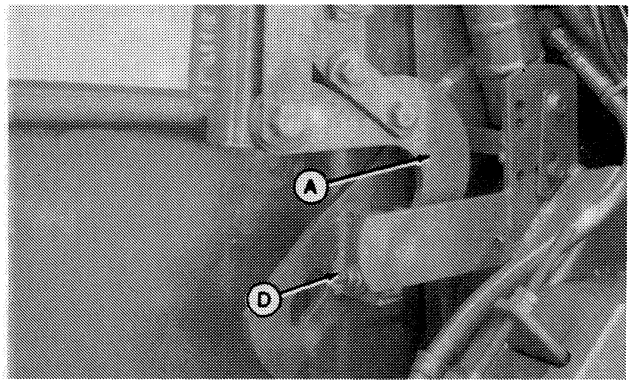
2. Loosen bolt (D). Shims are slotted so bolt does not have to be removed.

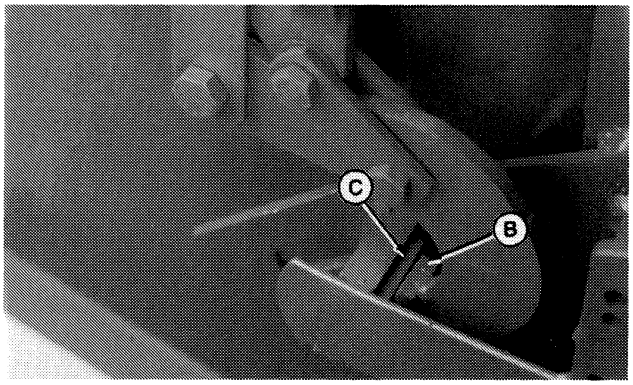
3. If dimension is greater than 3 mm (0.118-in.), transfer shims from storage position to shimming position until a dimension of 2 ±1 mm (0.079 ± 0.039-in.) is obtained.

4. If dimension is less than 1 mm (0.039-in.), transfer shims from shimming position to storage position until a dimension of 2 ± 1 mm (0.079 ± 0.039-in.) is obtained.

NOTE: If proper adjustment cannot be obtained, lower gate with tractor engine shut off. If there is a gap on one side when the other side is contacting, see your John Deere dealer for proper procedure to straighten the gate.

5. Center shims and stop pad and tighten bolt (D). If necessary, repeat procedure on opposite side.





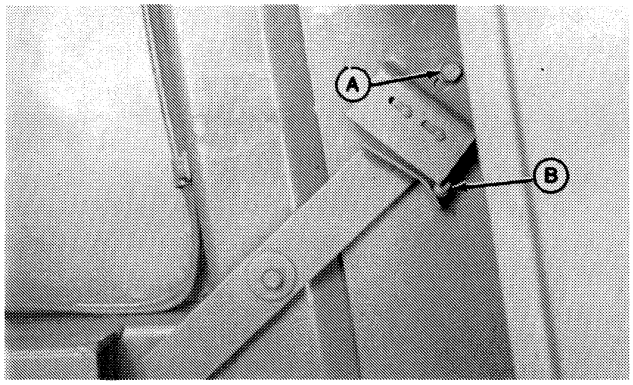
1GA;E21766;E21767 E01;;530P AE 100584

ADJUSTING GATE LATCH SWITCH (GREEN LIGHT)

1. Close and latch gate. Cylinder should be fully retracted.

2. Loosen cap screw (A).

3. Rotate switch bracket so the switch roller (B) is centered on the short leg of the ramp.

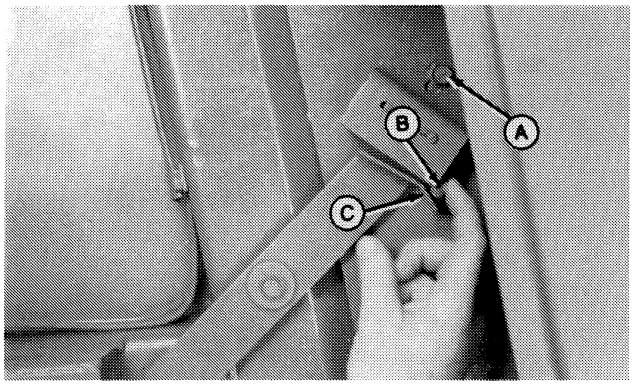


1GA;E21768 E01;;530P AF 100584

4. With switch arm contacting the switch body, adjust the switch bracket to obtain a dimension of 1 to 2 mm (0.039 to 0.079-in.) between the switch roller (B) and the ramp (C).

5. Tighten cap screw (A).

6. Repeat on opposite side.



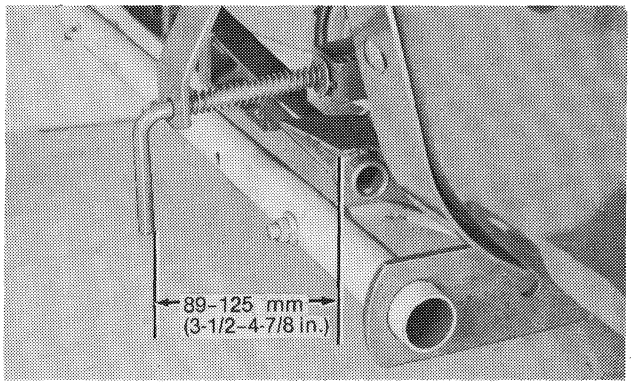
1GA;E21769 E01;;530P AG 100584

E27;P80 060684

ADJUSTING TWINE ARM SWITCH (SOLID YELLOW LIGHT)

1. Raise and lock gate to shift twine valve so twine arm can be moved manually.

2. Move twine arm so it is 89 to 125 mm (3-1/2 to 4-7/8-in.) from twine cutter control rod.



E21770/530SVAH/100182

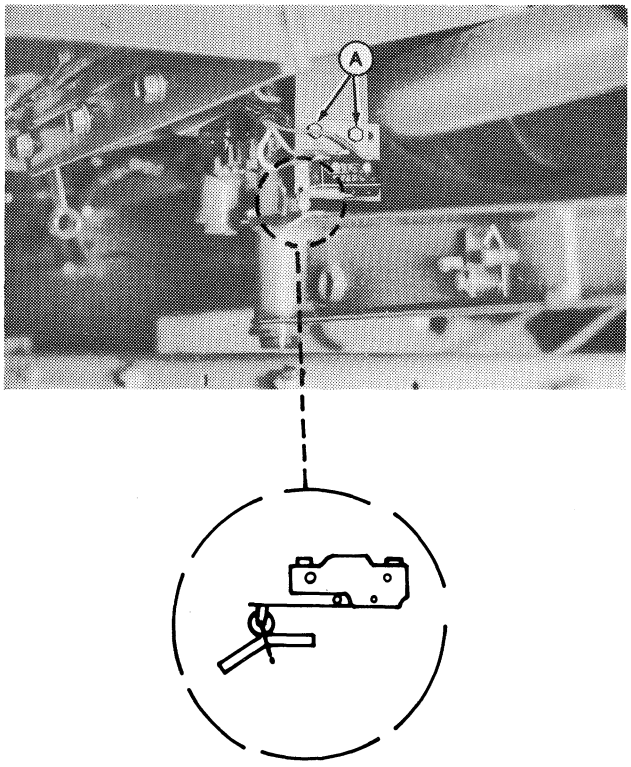
3. Loosen two cap screws (A) on switch mounting plate.

4. Move switch horizontally until it is positioned as shown in insert.

5. Move switch vertically until switch is just activated.

6. Tighten cap screws (A).

7. Unlock and close gate.



E21771/530SVAI/100182

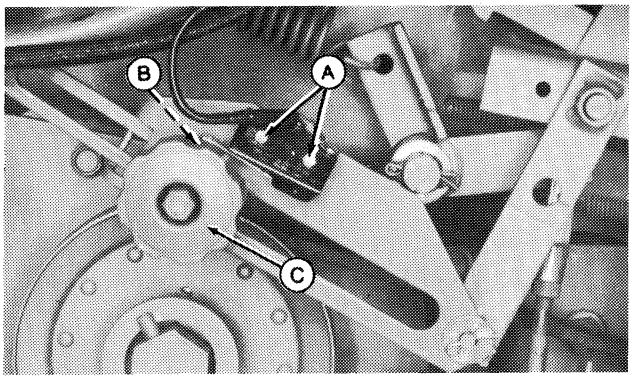
ADJUSTING FLASHING YELLOW LIGHT SWITCH

1. Position switch roller (B) on highest point of bale size adjusting knob (C).

2. Loosen switch mounting screws (A).

3. Adjust switch so it is just activated.

4. Tighten screws (A).

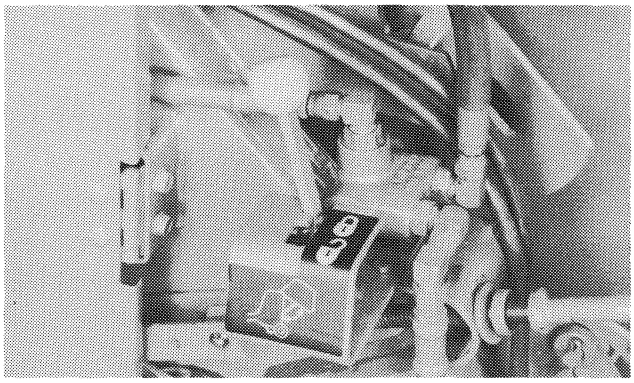


E21772/530SVAJ/100182

ADJUSTING OVERSIZE BALE SWITCH (RED LIGHT)

1. Lock gate.

2. Raise belt tension arm to extreme top position with tractor selector control valve. The green light must be on to make this adjustment.



E21639/530SVAK/100182

3. Loosen nuts (A).

4. Move switch horizontally until it is in position (B).

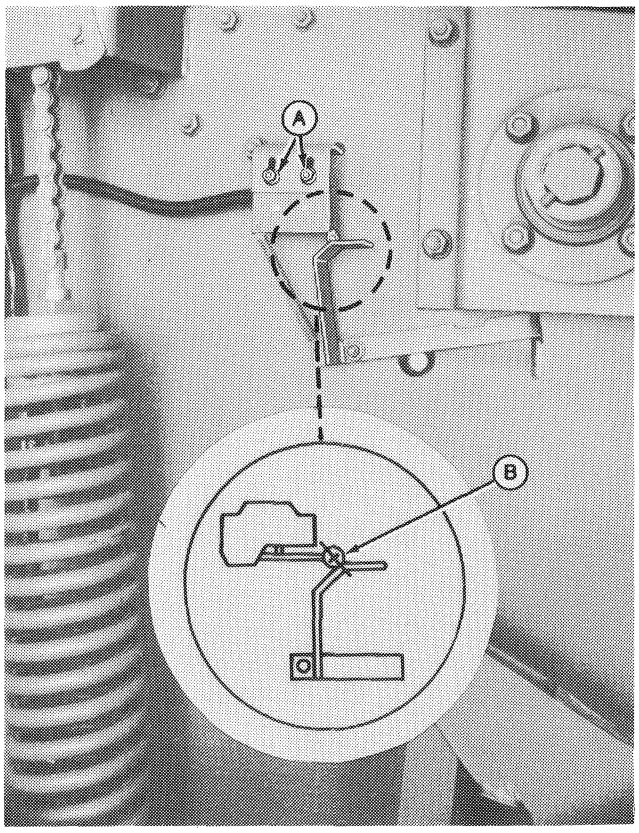
5. Move switch vertically until switch is just activated.

6. Tighten nuts (A).

7. Lower and raise belt tension arm to check adjustment (red light on).

8. Lower belt tension arm.

9. Unlock gate.



E21773/530SVAL/100182

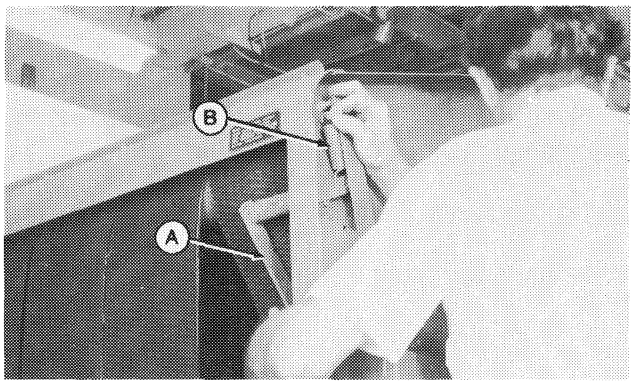
ADJUSTING BALE SHAPE SENDERS

Bale shape senders are located at the rear of baler on the left-hand and right-hand sides.

1. Lock gate in closed position.

2. Raise belt tension arm to highest position with tractor selector valve to slacken belts.

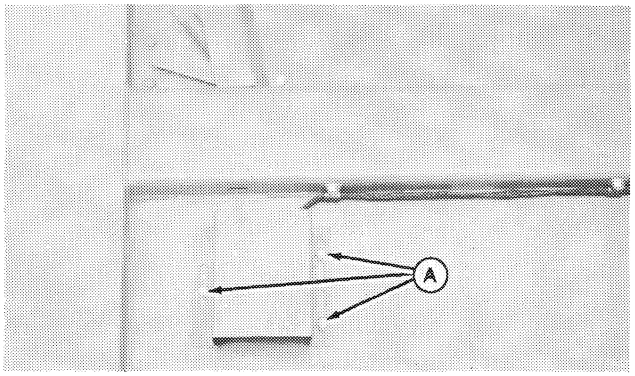
3. Push in bale shape sender arm (A) and unhook spring (B).



E21774/530SVAM/100182

4. Lower belt tension arm and engage PTO for a few seconds to ensure belts are tensioned.

5. Loosen nuts (A).



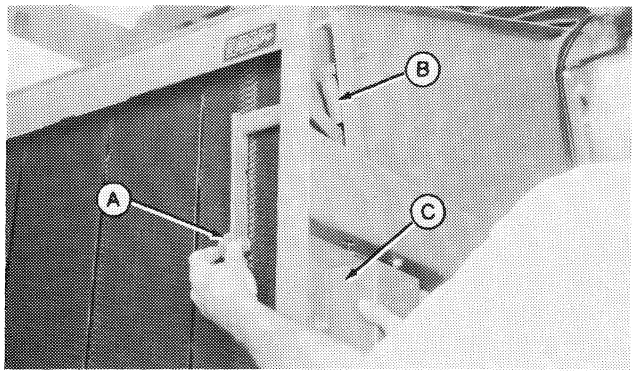
E21775/530SVAN/093082

NOTE: Shield (C) has been cut away for illustration purposes only.

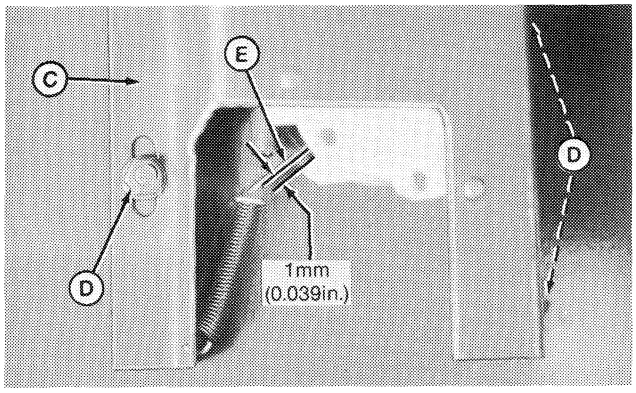
6. With roller (A) just contacting belt, move shield (C) up or down as needed to obtain approximately 1 mm (0.039-in.) between sending unit arm (E) and bottom stop.

7. Tighten nuts (D).

8. Raise belt tension arm to slacken belts and hook up spring (B).



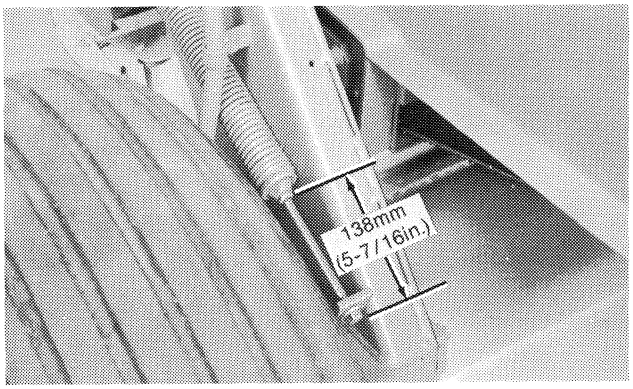
A—Roller
B—Spring
C—Shield
D—Nuts
D—Sending Unit Arm



E21776/E22698/530SVAO/062983

ADJUSTING PICKUP FLOAT SPRINGS

1. Adjust left-hand side by tightening screw into spring plug until 138 mm (5-7/16-in.) dimension is attained between spring plug and end of adjusting screw.



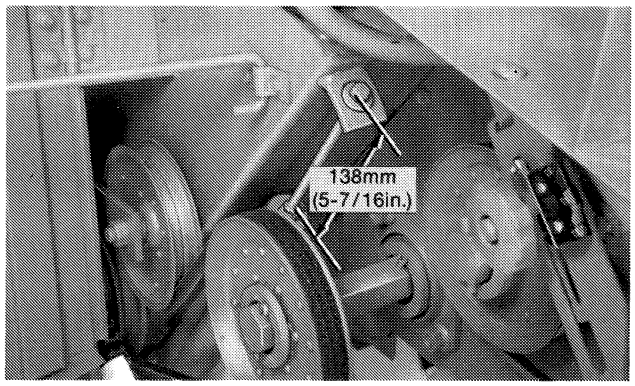
E22647/530SVAP/062983

NOTE: Shield removed for illustration purposes.

2. Adjust right-hand side by tightening screw into spring plug until 138 mm (5-7/16 in.) dimension is attained.

This setting should allow the pickup to drop completely when lowered. If not, slightly reduce spring setting.

When operating at heights other than extreme down position, additional spring force will be required to obtain adequate float.



1GA;E22648 E01;;530P AQ 100584

ADJUSTING PICKUP BELT IDLER

IMPORTANT: The belt tensioner is designed to protect pickup components; overtightening reduces the protection. Check adjustment daily.

Before adjusting idler, engage PTO and observe washer (B) movement with respect to sight hole (C). If total movement is more than 3 mm (1/8-in.), there may be a burnt or thin spot in the belt. Inspect belt and replace if necessary.

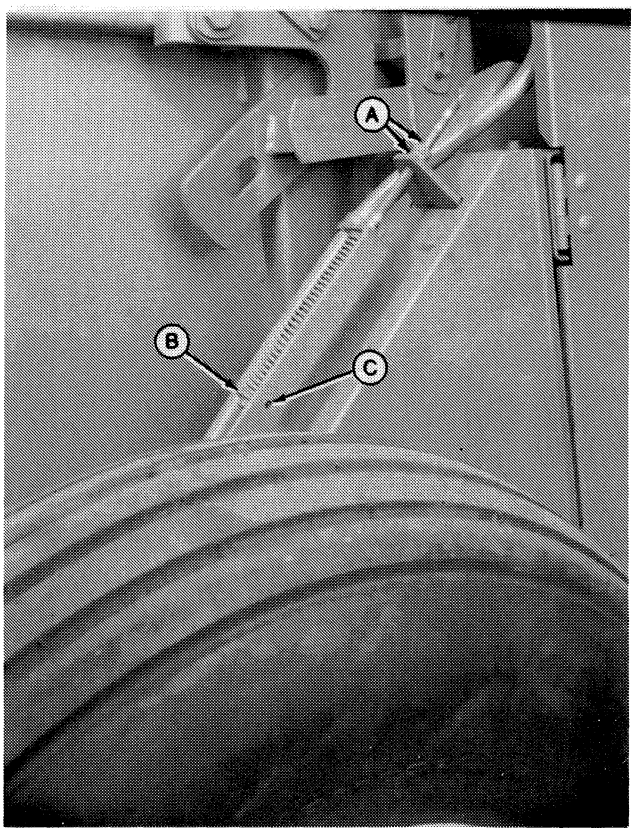
To adjust pickup belt idler:

1. Shut off tractor.

2. Loosen jam nuts (A).

3. Adjust spring until washer (B) is centered at the sight hole (C).

4. Lock jam nuts (A).



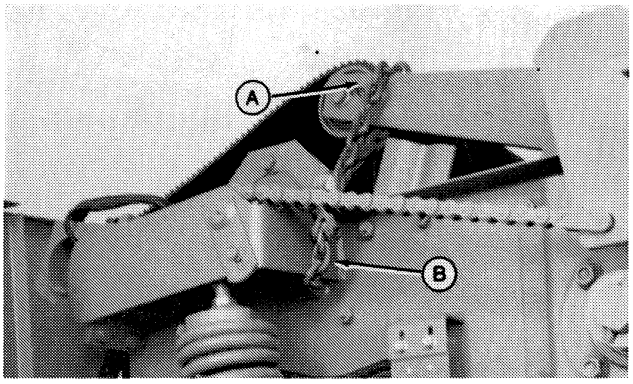
1GA;E21780 E01;;530P AR 100584

REMOVING CENTER AND REAR TENSION ARM ROLLS

1. Close gate and lower belt tension arm with tractor selector valve.

NOTE: Step two applies only to the removal of the center roll.

2. Chain both ends of upper arm (A) to frame member (B).

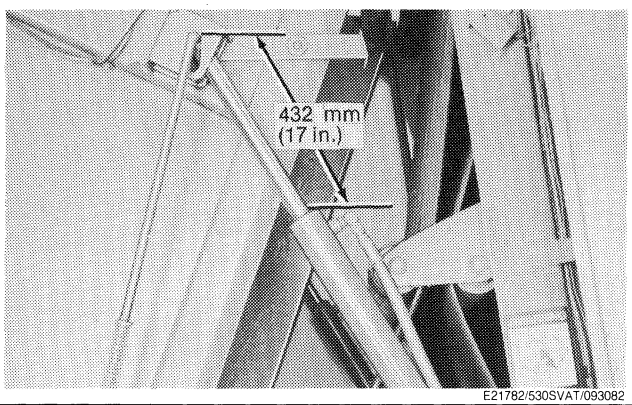


1GA;E21781 E01;;530P AS 100584

E27;P84 060684

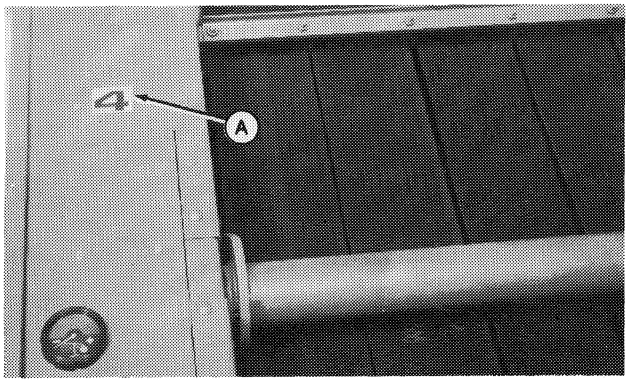
3. Raise gate until cylinder is extended 432 mm (17-in.).

4. Lock the gate.



E21782/530SVAT/093082

5. For access to roller bolts, raise belt tension arm until the number "4" appears in the bale size window (A).



E21783/530SVAU/093082

6. To remove rear roll (A), remove bolt (B). Repeat on opposite side.

7. To remove center roll (C), remove bolt (D). Repeat on opposite side.

NOTE: Install rolls with belts separating them as shown.

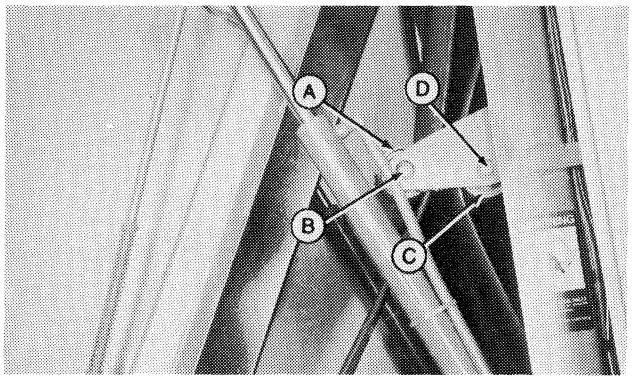
8. Install center roll (C) and secure with bolts. Torque to 140 N·m (103 lb-ft).

9. Install rear roll (A) and secure with bolts. Torque to 140 N·m (103 lb-ft).

10. Lower the belt tension arm.

11. Unlock and close the gate.

12. Remove chains installed in step two.



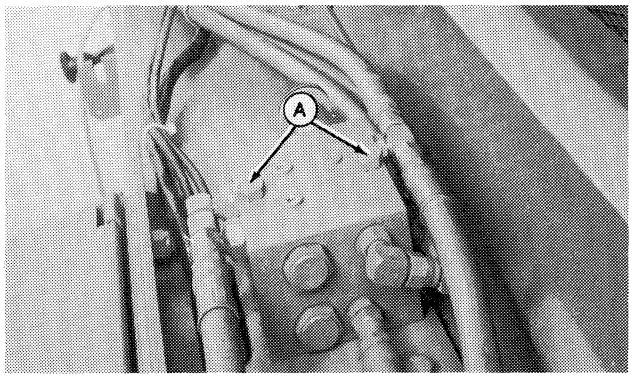
A—Rear Roll
B—Bolt
C—Center Roll
D—Bolt

E21784/530SVAV/093082

INSTALLING ORIFICE IN TRACTORS WITH LOW HYDRAULIC FLOW

For tractors with hydraulic flow less than 25 L/min (6.5 gpm), the gate may close before the belt tension arm returns and twine mechanism relatches. To correct this situation, install orifice which is available through your John Deere dealer.

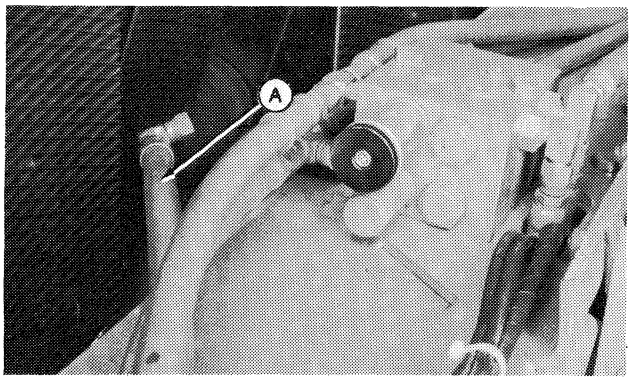
1. Remove nuts from cap screws (A). Bale density control valve can then be lifted for access to lower hydraulic fitting.



E21785/530SVAW/093082

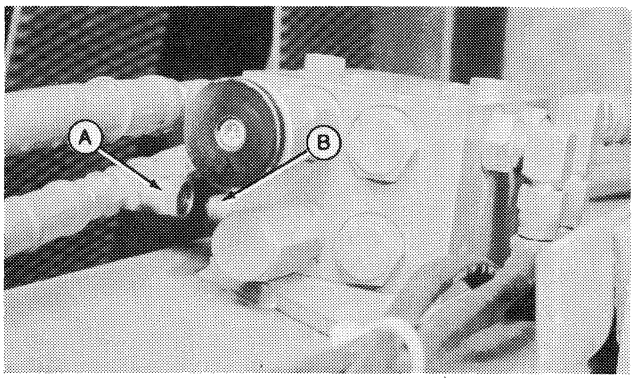
NOTE: Shield removed for illustration purposes only.

2. Remove hose (A).



E21786/530SVAX/093082

3. Break bottom line (A) and remove fitting (B).



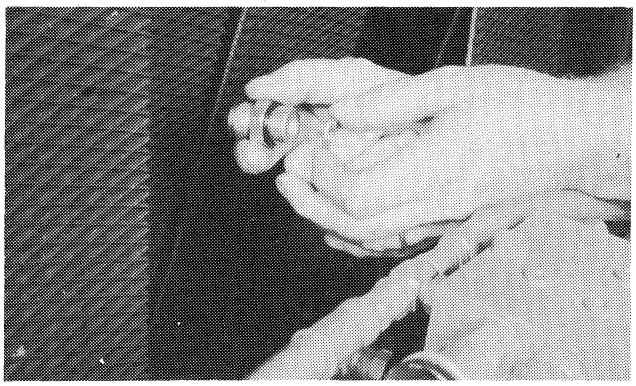
E21787/530SVAY/093082

4. Install orifice in valve with smooth face towards fitting. Tighten fitting.

IMPORTANT: Be sure orifice is installed flush with valve. It must not be tilted.

5. Reinstall hydraulic line.

6. Reinstall two cap screws in bale density control valve.



E21788/530SVAZ/093082

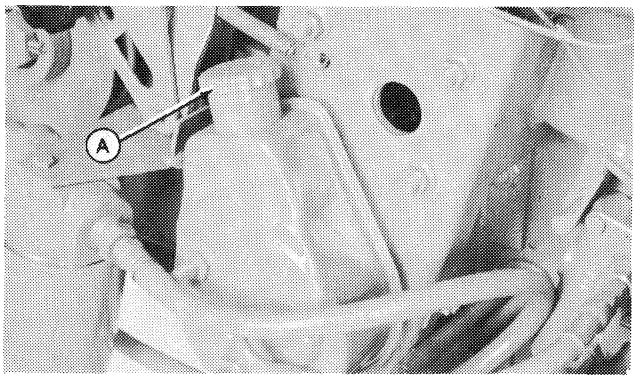
PRIMING TWINE HYDRAULIC PUMP

If the twine mechanism will not cycle after installing a new pump or adding a large quantity of oil, use the following procedure to prime the pump.

1. Open right-hand shield door and clean area round pump filler cap (A).

2. Raise gate with tractor until baler size indicator reads "6".

3. Lock gate.



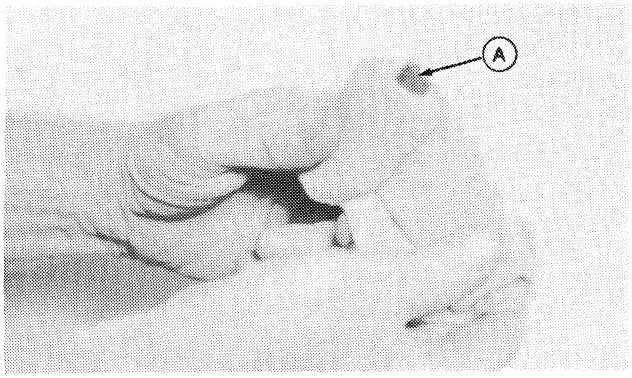
E219970/530SVBB/062983

4. With gate hydraulic selector lever on tractor, lower belt tension arm until bale size indicator reads "4".

5. With tractor in neutral and parking brake engaged or with tractor in park, engage PTO at rated PTO speed.

6. Fold a shop cloth until it is about 60 mm (2-3/8 in.) wide.

7. Wrap the cloth tightly around one end of a 10 to 13 mm (3/8 or 1/2-in.) I.D. hose (A).



E21789/530SVBA/062983

CAUTION: Stay clear of moving parts.

8. Remove pump filler cap and place end of hose with cloth on filler opening. Form a tight seal between cloth and filler neck as shown.

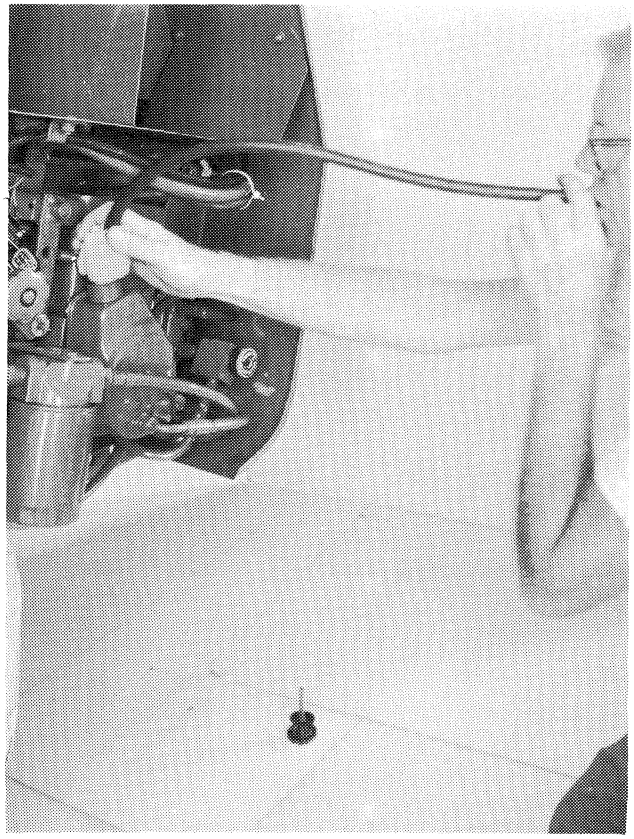
9. Blow for three or four seconds into the other end of hose (similar to blowing up a balloon). The twine arm should start to move immediately. Let twine arm complete its normal cycle.

10. If twine arm does not move, tap pump lightly with plastic mallet to unset vanes in pump. Repeat step 9, if needed.

11. Unlock gate.

12. Disengage PTO.

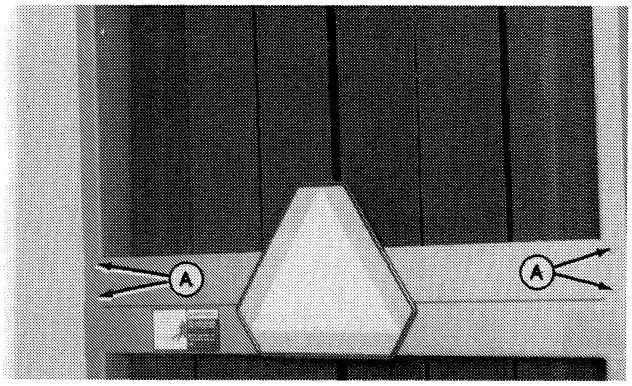
13. Lower gate and shut off tractor.



E21792/530SVBC/062983

RAISING GATE WITH HOIST

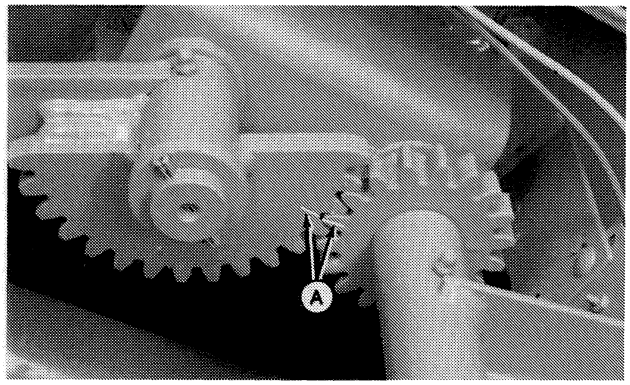
1. Remove four carriage bolts (A) and remove top belt shield.



1GA;E21793 E01;;530P BD 160584

TWINE ARM TIMING (530)

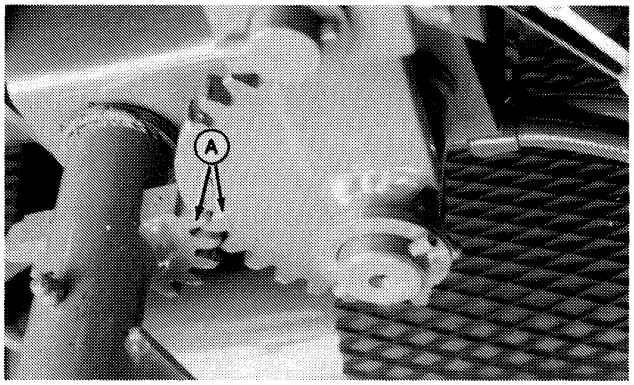
When replacing or servicing the twine arm or its drive gear, make sure that timing marks (A) are lined up as shown.



1GA;E21794 E01;;530P BE 100584

TWINE ARM TIMING (430)

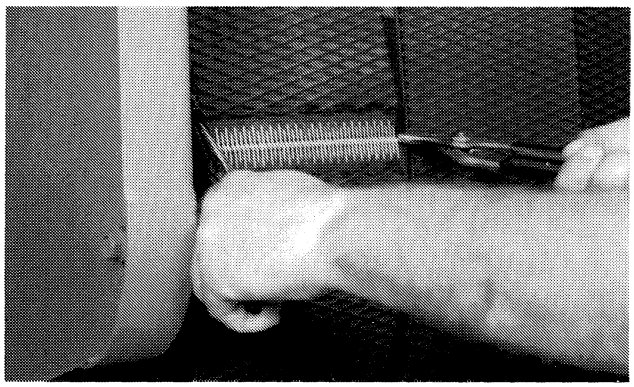
When replacing or serving the twine arm or its drive gear, make sure that timing marks (A) are lined up as shown.



1GA;E22672 E01;;530P BT 100584

CHECKING BELT PINS

Check pins for wear or damage every 2000 bales (every 1000 bales in sandy conditions). Replace worn or damaged pins.



1GA;E24275 E01;;530P CD 1005784

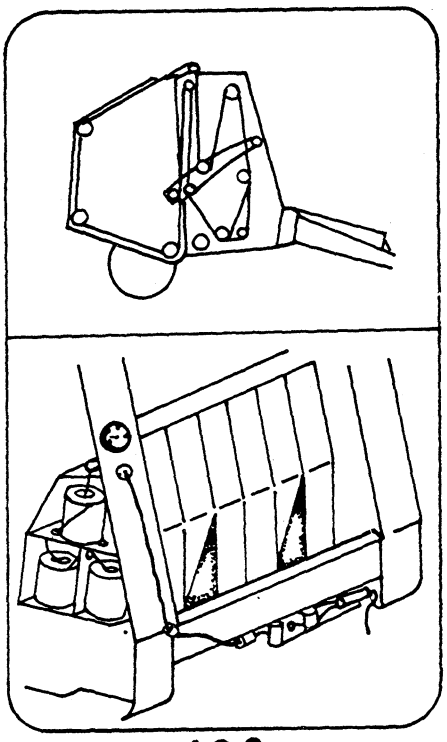
E27;P88 060684

INSTALLING BELTS

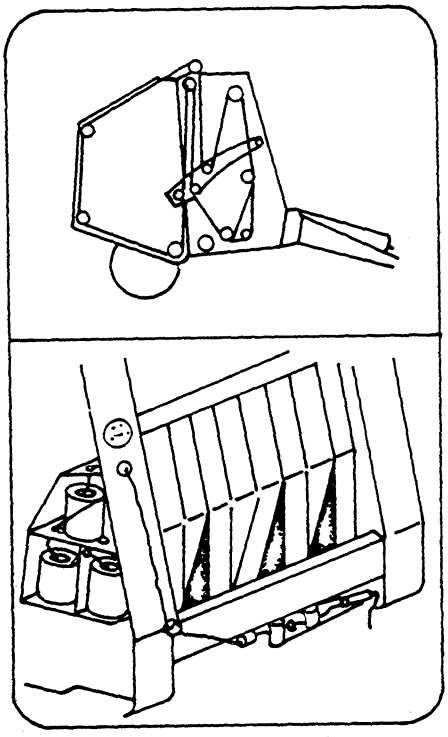
NOTE: Refer to Specification section for proper length of belts.

Slacken belts by locking the gate in any position and raising the belt tension arm with the tractor hydraulic lever.

1. Attach belts with the diamond portion of the belt to the outside. Thread as shown in illustration, passing through the individual guides. See illustrations for location of long and short belts.



430



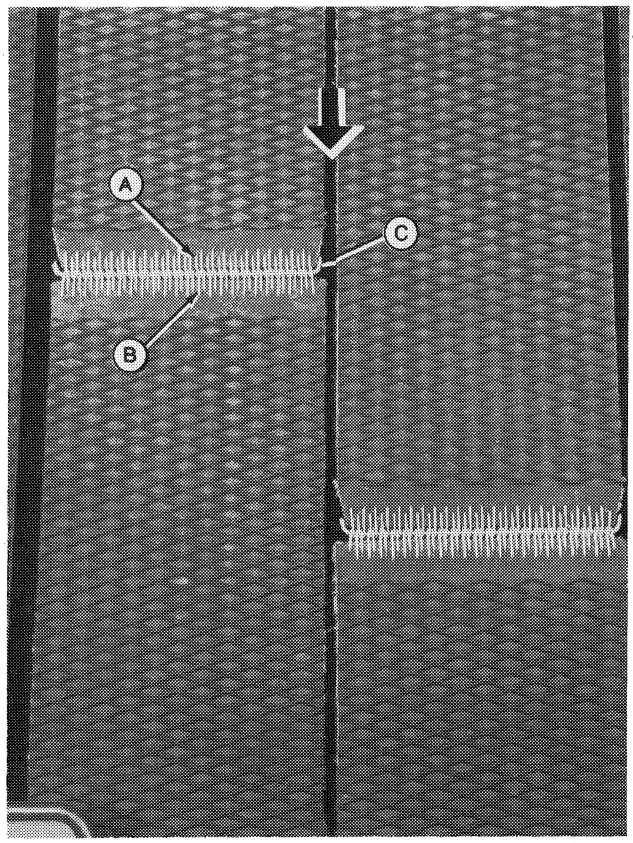
530

1GA;E21795 E01;;530P BC 150684

E27;P89 250684

2. Begin threading so that upon completion and with belts traveling in direction shown, there will be 44 hooks in splice (A) and 45 hooks in splice (B). Insert pin and bend ends at 70 to 80-degree angle pointing in an upward direction (C) against the direction of travel (arrow).

IMPORTANT: If belts have been shortened or replaced, see Service Section for proper adjustment of twine trip rod.



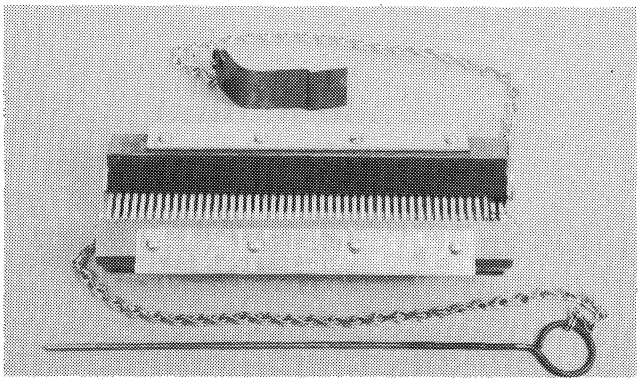
E21796/530SVBG/100182

REPAIRING BELTS

A belt lacing tool and hardware is available for repairing belts.

Belt slack may be obtained by locking the gate in any position and raising the belt tension arm with the tractor hydraulic lever.

NOTE: Belts may fray at the edges or cup. Trim the frayed cords as they appear; this reduces the chances of frayed cords being caught as the bale is formed, causing additional fraying or damage to the belts.

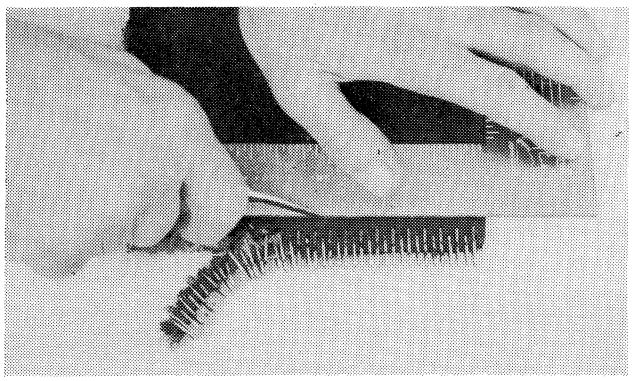


E21645/530SVBH/100182

1. Remove broken belt.

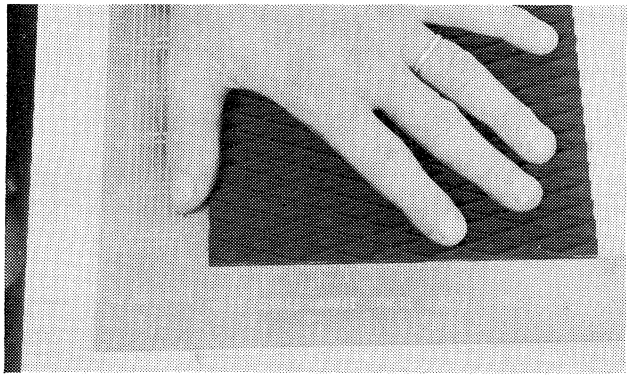
2. Using a square and a sharp knife, remove damaged area.

IMPORTANT: Belt length variation must not be more than 38 mm (1-1/2-in.).



E21797/530SVBI/100182

3. Recheck belt to be sure it is cut squarely.

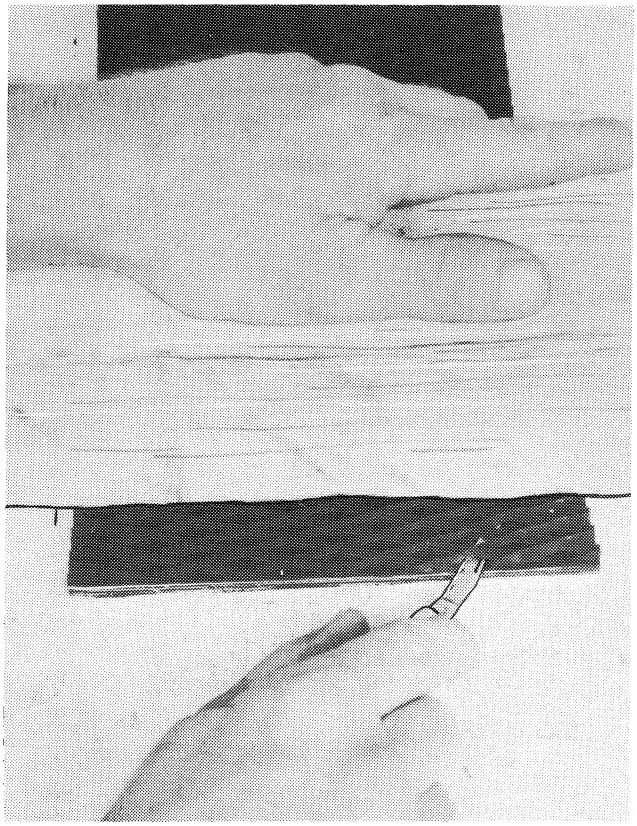


E21798/530SVBJ/100182

4. Use a 25 to 51 mm (1 to 2-in.) thick board to hold belt as shown.

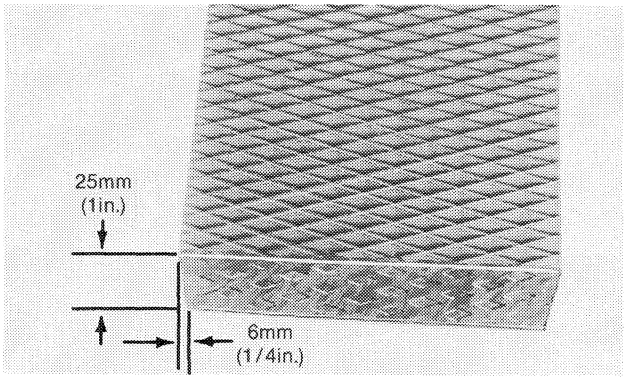
5. With a sharp knife, remove 25 mm (1-in.) of diamond pattern from end of belt, similar to that removed for original belt splice. To reduce cutting effort, dip knife blade in liquid soap.

IMPORTANT: Cut only the diamond pattern. Cutting deeper can damage the belt cords.



E21799/530SVBK/100182

6. Trim trailing end of belt ONLY as shown in illustration.

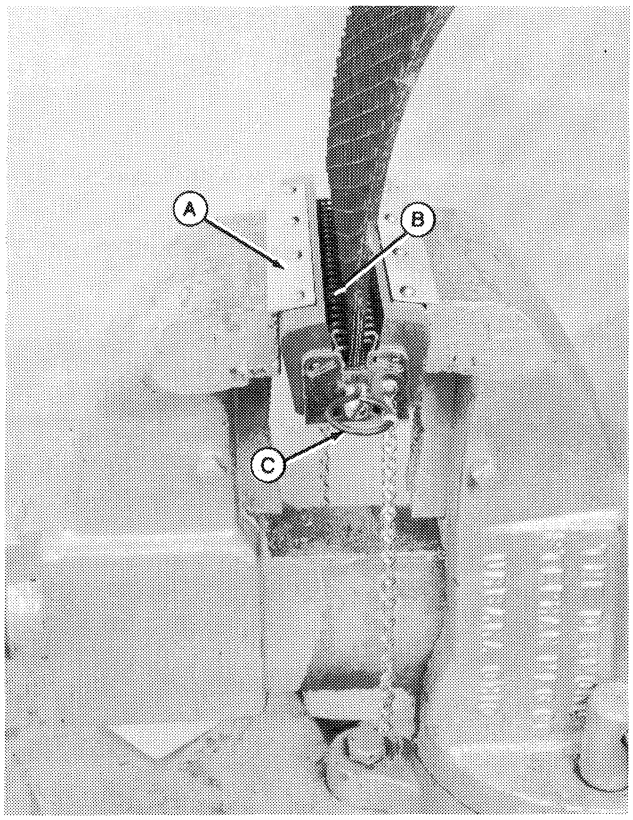


E22649/530SVBL/062983

IMPORTANT: If repair is needed on only one end of belt, count the hooks. There should be 44 hooks for the trailing end of belt and 45 hooks for the leading end of belt.

7. Place the belt lacing tool (A) in a vise, setting the determined amount of hooks (B) in center of the lacing tool, and inserting long pin (C) to hold hooks (B) in place.

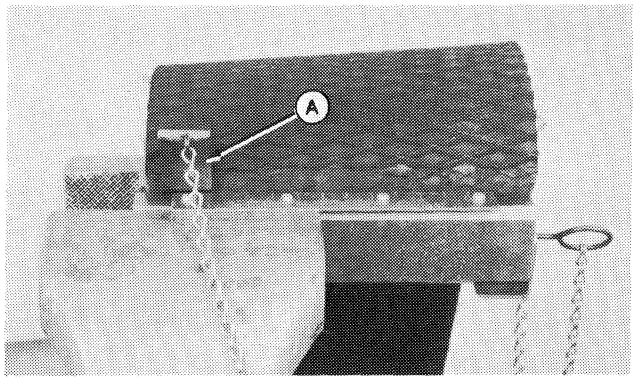
8. Visually align belt so hooks (B) are centered in belt. Make sure full width of belt is in contact with bottom of lacer. Tighten vise forcing hooks through belt.



E21801/530SVBM/100182

IMPORTANT: To correctly clinch hooks in the belt and ensure proper splice life, use the following procedure:

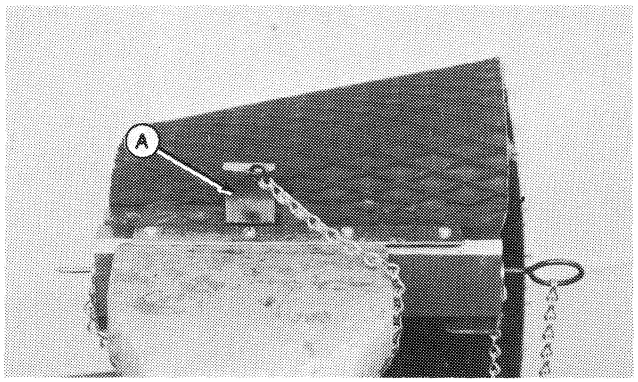
9. Starting at one end of belt, and keeping pressure plate (A) centered in the vise, retighten vise to exert maximum pressure on approximately six hooks at a time.



E21802/530SVBN/100182

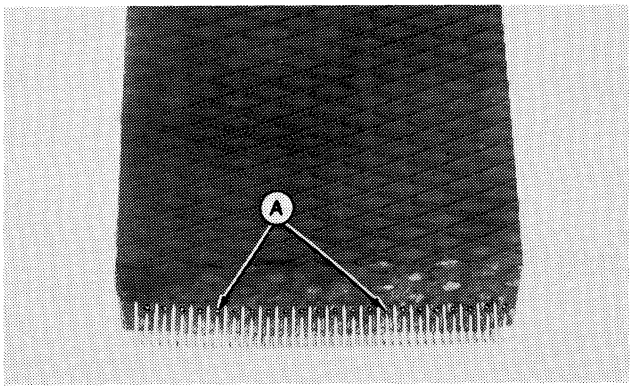
10. Always keeping pressure plate (A) centered in the vise, move belt and lacing tool over and retighten vise.

11. Repeat procedure until all hooks are clinched.



E21803/530SVBO/100182

12. When properly installed, the points (A) have come through the belt from the opposite side and are slightly clinched. (See Installing Belts for proper installation.)



E21804/530SVBP/100182

STORING BALER AT THE END OF SEASON

1. Shelter baler in a dry place. If baler must be stored outside, belt life can be prolonged by covering or removing belts to protect from sunlight and ozone exposure.

2. Clean baler thoroughly inside and out. Trash and dirt will draw moisture and cause rust.

3. Apply a few drops of oil to all pivot points and linkages.

4. Thoroughly lubricate baler. (See Lubrication Section.)

5. Apply a thin layer of grease to threads of all adjustment bolts.

6. Paint all parts from which the paint has been worn.

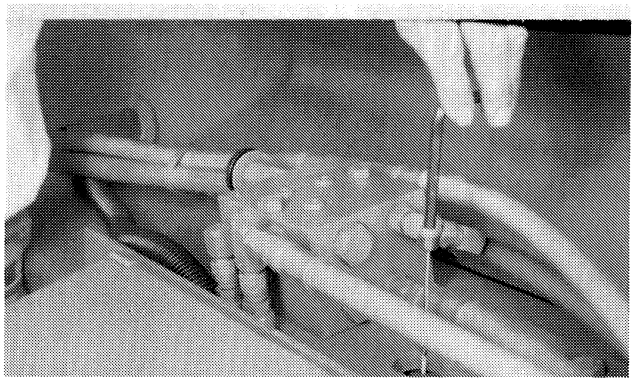
7. Clean all chains by washing them with diesel fuel. Dry well and coat with a heavy oil.

8. Block up baler, taking load off tires. DO NOT DEFLATE TIRES. If exposed, cover tires to protect them from light, grease and oil.

9. List the replacement parts that will be needed and order them.

AA7; E01;;530Q A 100584

PREPARING FOR BEGINNING OF SEASON



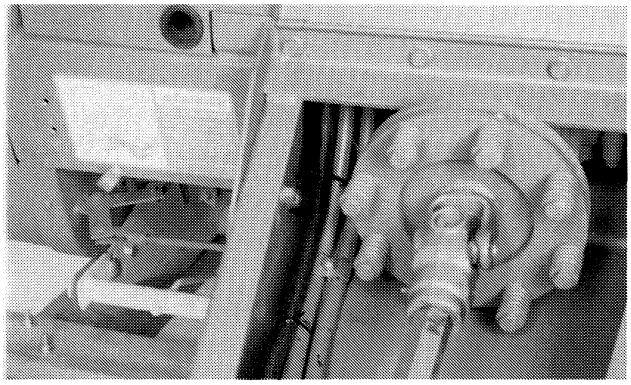
1. Check and fill gear case to dipstick level. See Lubrication Section.

2. Replace twine system oil filter. See Lubrication Section.

3. Remove the heavy oil from the chains and lubricate with 30W or heavier oil.

4. Lubricate complete machine. (See Lubrication Section.) This will force any collected moisture out of the bearings.

AA7;E21652 E01;;530Q B 100584



5. Loosen clutch spring bolts making sure clutch plates are free and have not become frozen. See Service Section for clutch adjustment.

6. Check tires for proper air pressure.

7. Tighten all bolts, nuts, and set screws.

8. Check all belt splice pins for damage and replace as necessary. Check pins every 2000 bales (every 1000 bales in sandy conditions).

9. Check adjustments of baler as described in Service Section.

10. Review your operator's manual.

11. Check oversize bale switch by locking gate and raising belt tension arm. Red light should come on and buzzer should sound. If not, refer to Adjusting Oversize Bale Switch.

12. Remove converging wheel breakaway springs and trip wheel. If wheel does not pivot freely by hand, remove wheel bracket from tube. Apply grease to pivoting surfaces and reassemble.

AA7;E21653 E01;;530Q C 100584

Crime Prevention Tips

GOOD ADVICE

Keep your machine damage-free and YOURS!

Follow the advice on these pages to reduce vandalism, discourage theft, and help recover your machine if it is stolen.

AB6;TS140 053;CRPRV A 181183

RECORD IDENTIFICATION NUMBERS

1. Record Product Identification Number (PIN) of unit and identification numbers of engine, component, attachment, etc. EXACTLY as they appear on the plates.

2. Check that the complete and correct numbers appear on all documentation (insurance, financial, warranty, manufacturer's certificate of origin, etc.). Keep all documents in a safe location.

3. If available, participate in an "Owner Applied Numbering Program" and mark your own machines.

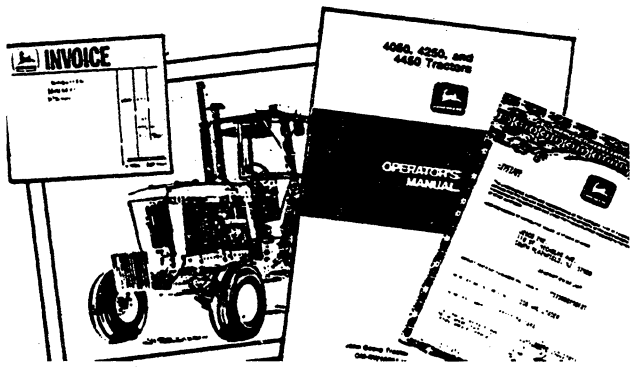
AB6;TS161 053;CRPRV B 091283

MAINTAIN DOCUMENTED PROOF OF OWNERSHIP

1. Keep in a safe location all documents (invoices, warranty cards, manufacturer's certificate of origin, if available, etc.) that accompanied your machines at the time of purchase.

2. Take color photographs of each machine from several angles.

3. Maintain an up-to-date inventory of all machines. Check regularly to insure no machines have been stolen.



AB6;TS142 053;CRPRV C 181183

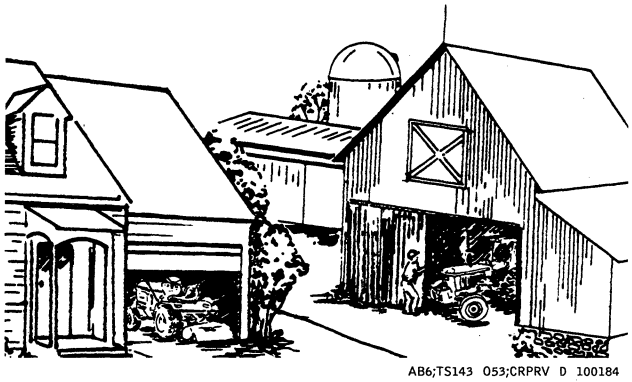
PARK INDOORS OUT OF SIGHT

1. Lower all equipment making the machine harder to move.

2. Remove ignition key. If so equipped, lock cab doors, windows and any vandal protection devices. Place hard-to-move equipment in front of exits.

3. If machine is being stored, remove the battery or any essential component in the electrical system.

4. Set wheels in widest position making loading more difficult. Secure all openings to storage buildings.



AB6;TS143 053;CRPRV D 100184

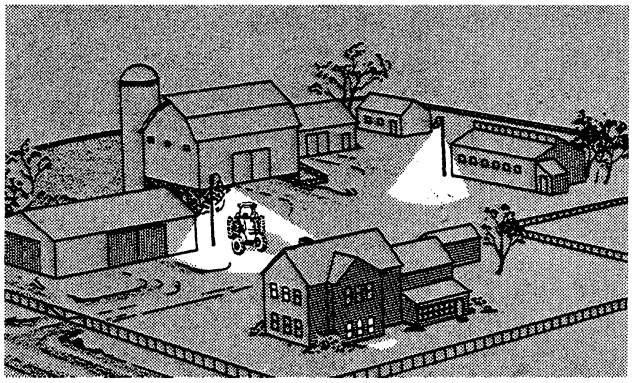
E27;P96 060684

PARKING OUTDOORS

1. Park machine in a fenced, well-lighted, locked area. Lower equipment, remove ignition key and lock cab doors, windows, and any vandal protection devices, if so equipped.

2. Make law enforcement aware of your presence in an area and provide them with a contact person to assist them in dealing with suspicious activity.

3. Solicit assistance from neighbors or merchants who permanently reside near the parking area.



AB6;TS155 053;CRPRV E 091283

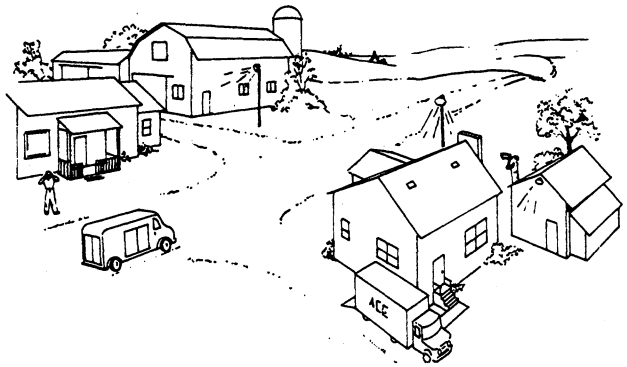
REDUCE VANDALISM

1. Install vandal protection devices especially if parking machine in high-risk areas.

2. Solicit assistance for watching machine from individuals residing in the area.

3. Take written notes and report to law enforcement all suspicious vehicles or persons.

4. Participate in a "Neighborhood Watch Program."



AB6;TS145 053;CRPRV F 100184

REPORT THEFT

1. If a theft occurs, notify the law enforcement agency having jurisdiction and the insurance carrier immediately.

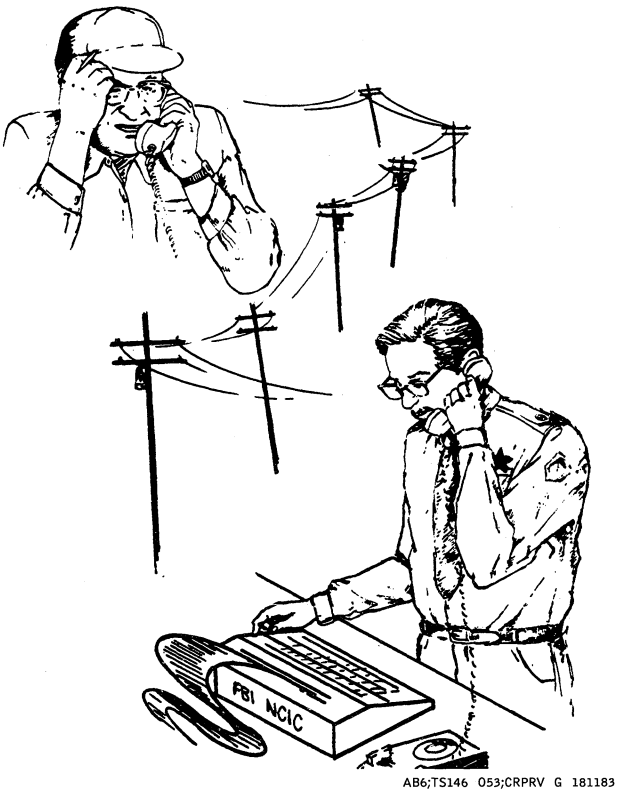
2. Give a full description and a complete identification number(s) to the investigating officer and insurance carrier.

3. If available, provide the investigating officer with photographs of the actual machine, manufacturer's literature and knowledge of any identifiable marks that would assist in identifying the machine.

4. Ask for verification that the stolen machine has been entered into the National Crime Information Center (NCIC) operated by the FBI in Washington D.C.

5. Notify your John Deere dealer of the theft and request that, if possible, a notice be posted that provides the description and identification information.

6. Regularly check the identification plates on all machines and report any removed plates to law enforcement immediately. Promptly contact your dealer and order a duplicate identification plate.

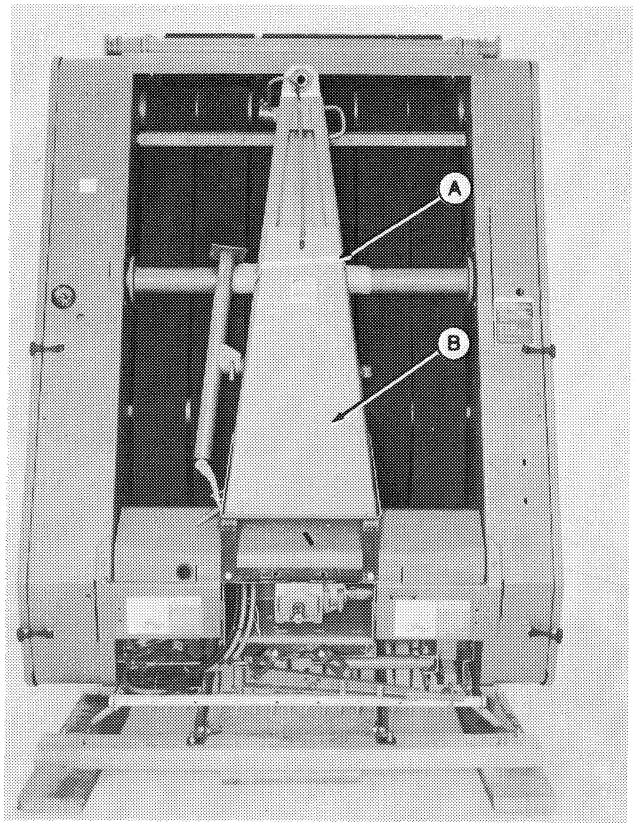


AB6;TS146 053;CRPRV G 181183

E27;P97 060684

REMOVE TONGUE AND SHIELD

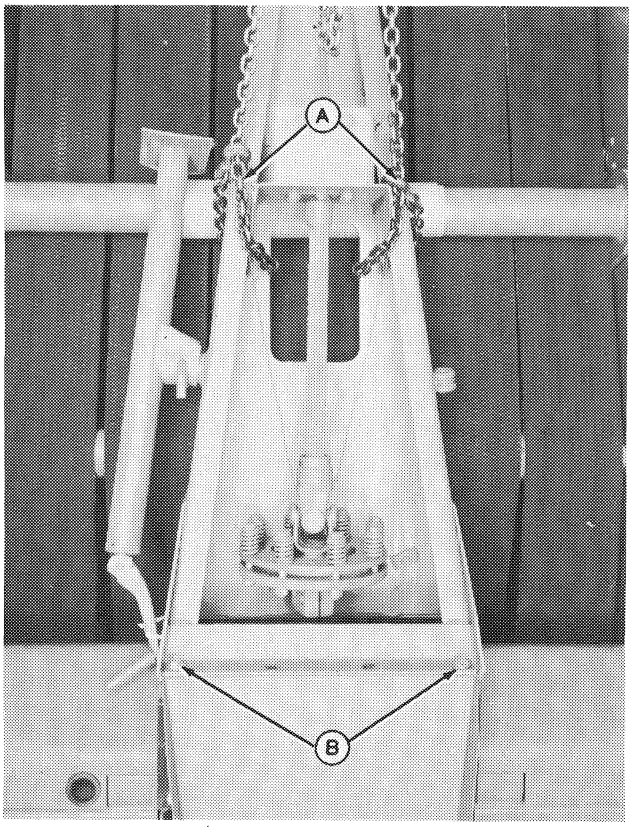
1. Cut banding (A) from tongue and shield. Pull shield (B) down.



E21655/530ASA/100182

2. Fasten support chains (A) from hoist to tongue and remove slack from chains.

3. Remove two cap screws (B) from tongue support and set tongue and shield aside.

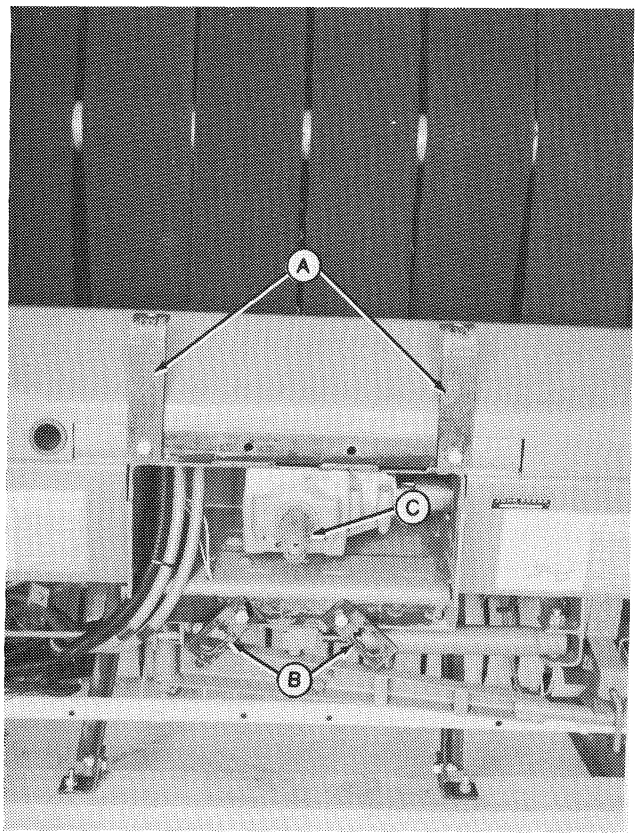


E21656/530ASB/100182

4. Remove and discard two tongue supports (A) and two tie-down brackets (B).

5. Remove shipping ties from hoses and remove hoses from shipping position.

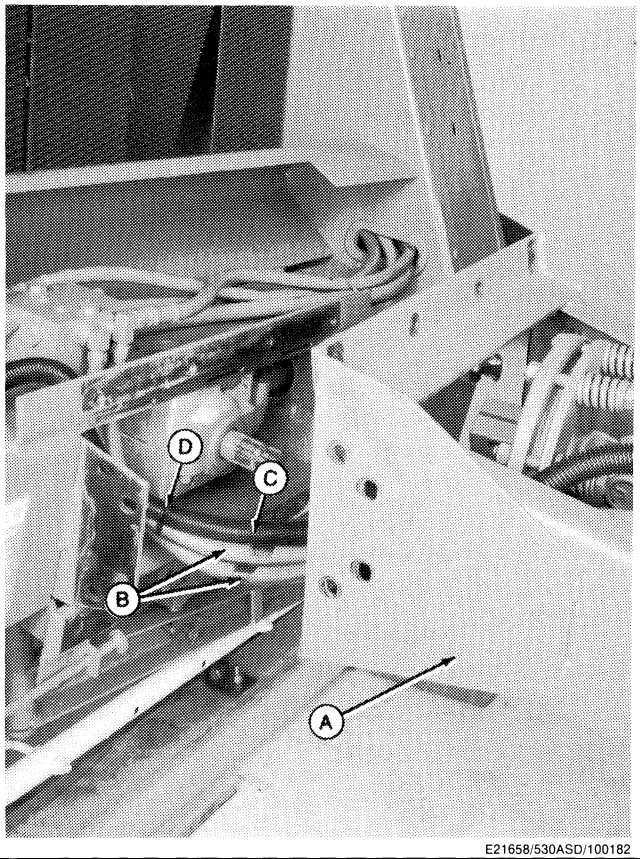
6. Remove shipping protector (C) from gear case shaft.



E21657/530ASC/100182

INSTALL TONGUE AND SLIP CLUTCH

1. Position tongue (A) at mounting location and feed hoses (B) and wiring harness (C) through rear of tongue. Install plastic tie (D).



E21658/530ASD/100182

2. Remove shipping wire from slip clutch. Install tongue and slip clutch. Secure slip clutch with two 1/2 x 2-3/4 in. cap screw (D) and lock nuts.

NOTE: On 530 Balers only, install twine shield (B) before securing with flange screws and nuts (C).

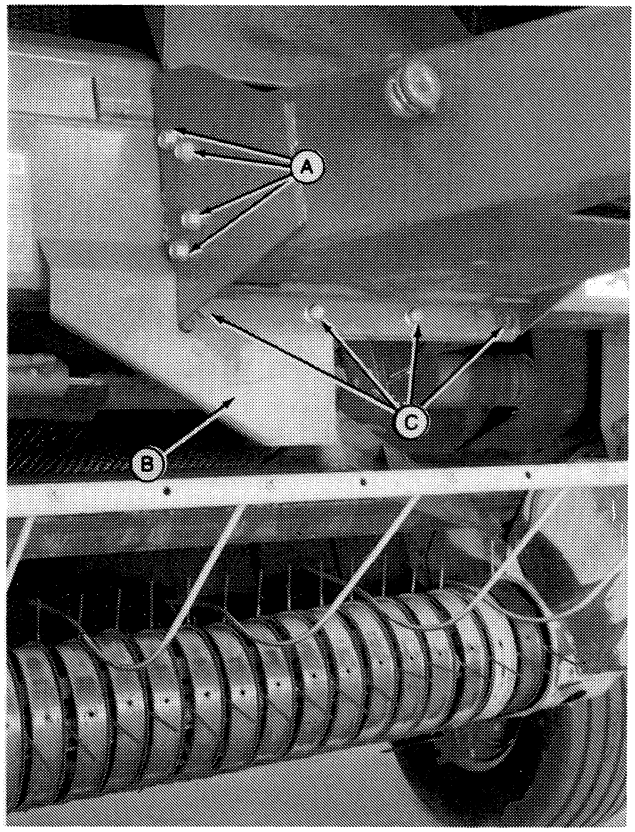
3. Secure tongue with four M12 x 35 flange screws and flange nuts (C). Torque to 91 N·m (67 lb-ft).

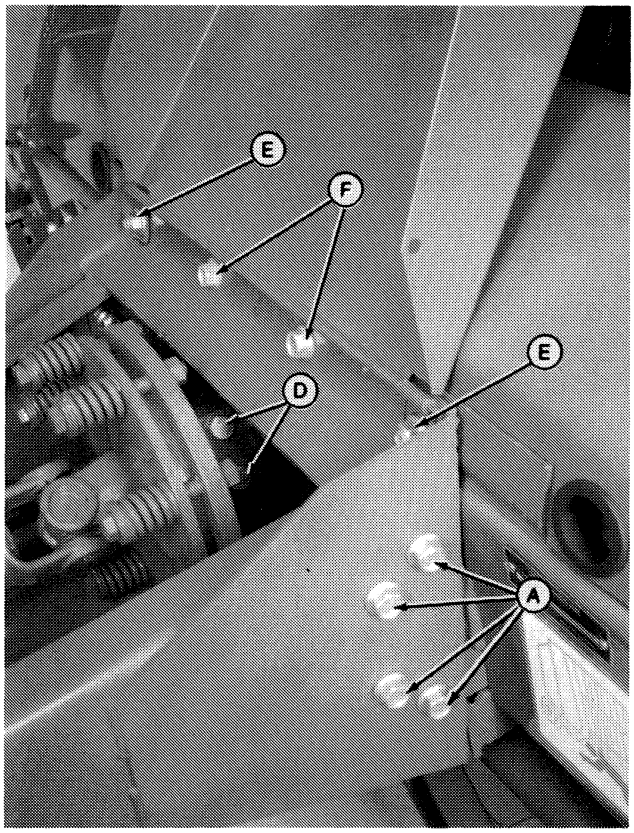
4. Install two M12 x 35 flange screws and lock nuts (F).

5. Install upper shield on front side of tongue using two M12 x 35 flange screws and lock nuts (E). Torque to 91 N·m (67 lb-ft).

6. Install eight M12 x 30 flange screws (A) and flange nuts. Torque to 140 N·m (103 lb-ft).

A—Flange Screws
B—Twine Shield
C—Flange Screws and Flange Nuts
D—Cap Screws
E—Flange Screws and Lock Nuts
F—Flange Screws and Lock Nuts



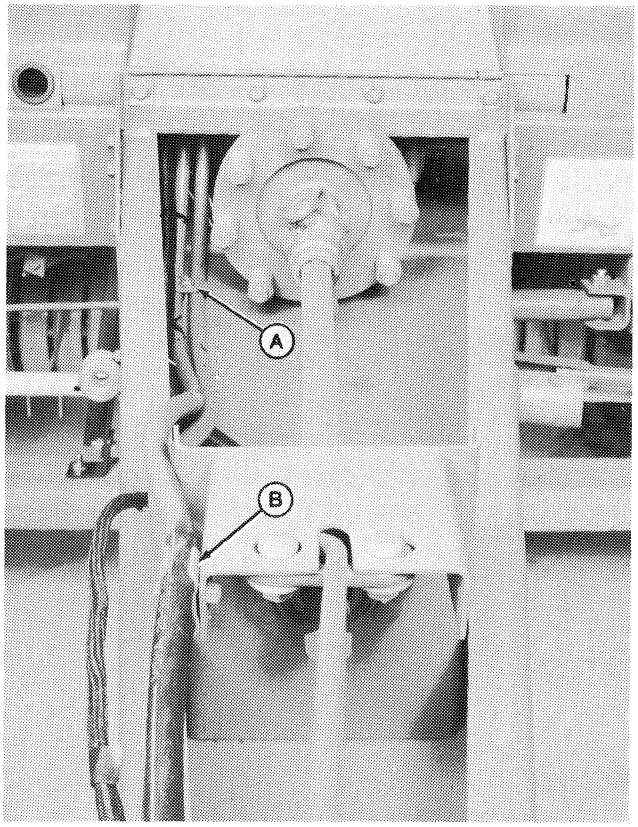


AB5;E24221, E22673 E01;;530R E 100584

E27;P100 060684

6. Route hoses and secure with clamps (A) and (B).

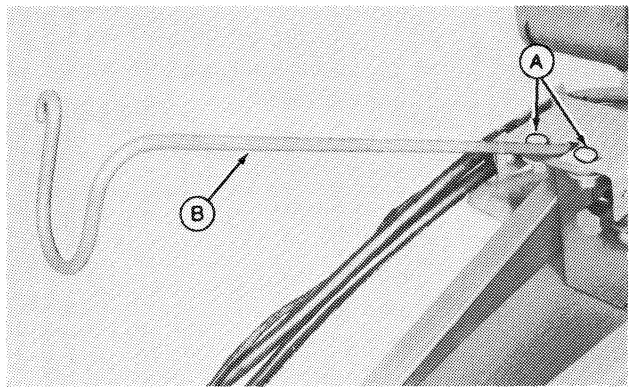
NOTE: Before securing clamps (A) and (B), determine proper length of hoses for tractor hookup. Store excess hose behind clamp (A). Hoses must clear all moving parts.



E22682/530ASF/062983

INSTALL HOSE SUPPORT

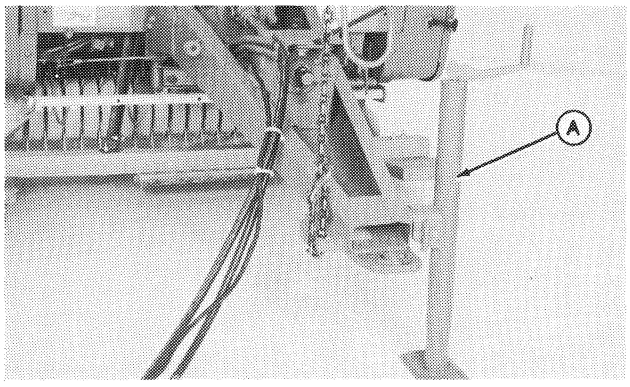
1. Remove two carriage bolts (A), washers, and lock nuts. Turn support (B) over and reinstall the two carriage bolts (A), washers, and lock nuts.



E21662/530ASG/100182

INSTALL JACK STAND

1. Raise tongue and install jack stand (A). Secure with pin and quick-lock pin.

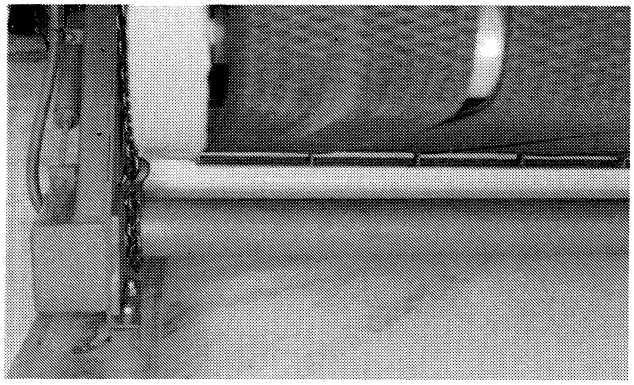


E21663/530ASH/100182

INSTALL WHEELS (11L -14 TIRES)

NOTE: If hi-flotation tires are used, see "Install Hi-Flotation Wheels" in this section.

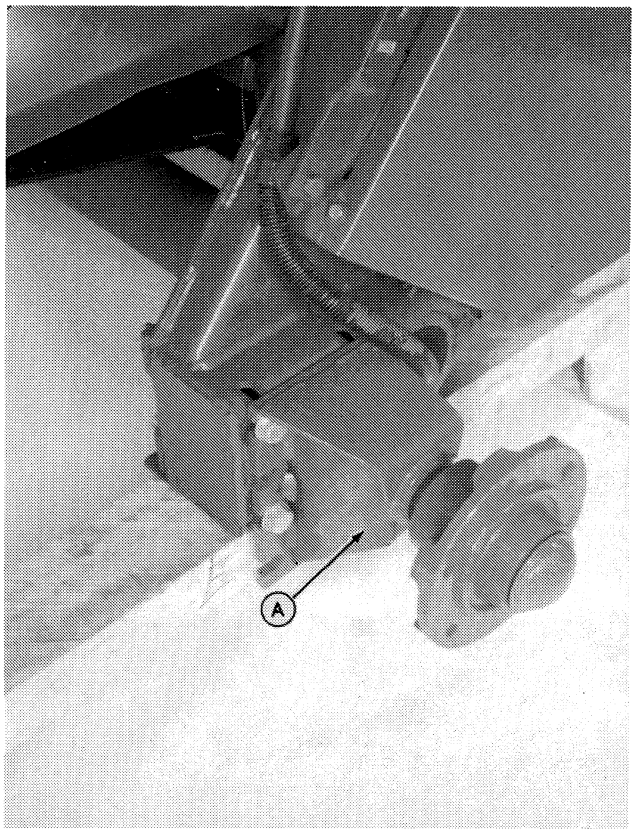
1. Raise one side of baler.



AB5;E21664 E01;;530R I 160584

IMPORTANT: Install cap screws with head out as shown or bolt breakage may occur.

2. Install spindle and hub assembly (A) and secure with four M16 x 160 cap screws and nuts. Torque to 235 N·m (173 lb-ft).

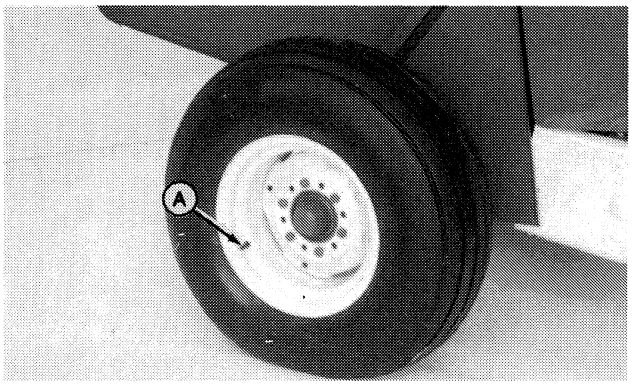


AB5;E24222 E01;;530R J 100584

3. Install wheel with valve stem (A) towards the outside and secure with six wheel bolts. Tighten bolts to 75 N·m (55 lb-ft). Check for proper tire inflation.

4. Repeat steps 1, 2, and 3 on opposite side.

5. Remove shipping supports and discard.



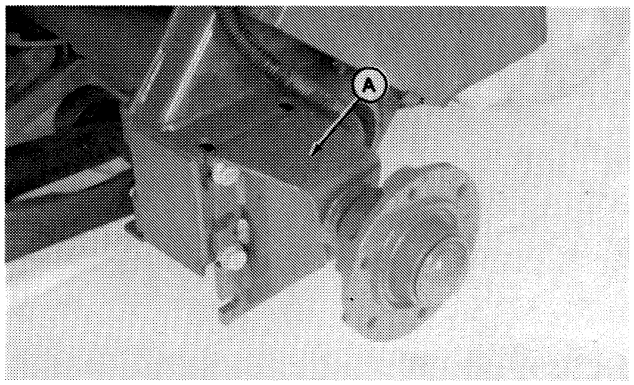
AB5;E22674 E03;;530R K 100584

INSTALL HI-FLOTATION WHEELS (31 x 13-5 -15 TIRES)

1. Raise right-hand side of baler with jack.

IMPORTANT: Install cap screws with head out as shown or bolt breakage may occur.

2. Install spindle and hub assembly (A). Secure with four M16 x 160 cap screws and nuts. Torque to 235 N·m (173 lb-ft).



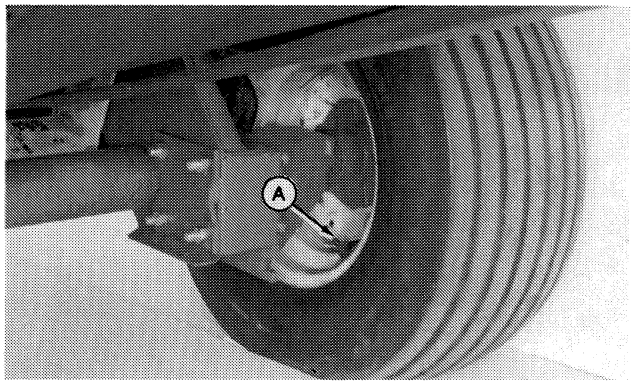
AB5;E24214 E01;;530R L 100584

3. Install wheel with valve stem (A) towards the inside. Secure with six 1/2 x 1-1/2 in. wheel bolts. Torque to 122 N·m (85 lb-ft).

4. Raise left-hand side of baler.

5. Install spindle and secure with four M16 x 160 cap screws and nuts.

6. Install wheel with valve stem towards the inside. Secure with six 1/2 x 1-1/2 in. wheel bolts. Torque to 163 N·m (120 lb-ft). Lower baler.



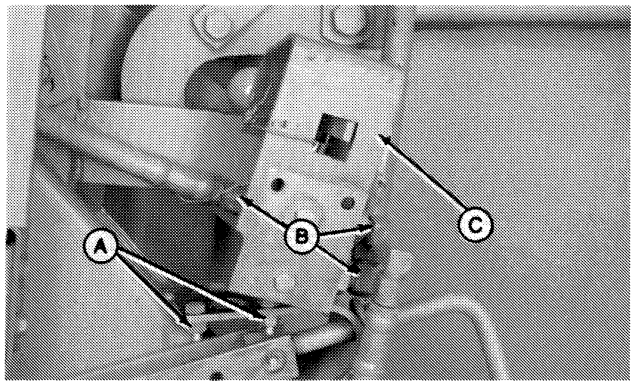
AB5;E24224 E01;;530R M 100584

INSTALL GATE LOCK VALVE

1. Remove two cap screws and nuts (A).

2. Loosen swivel on the three hydraulic lines (B).

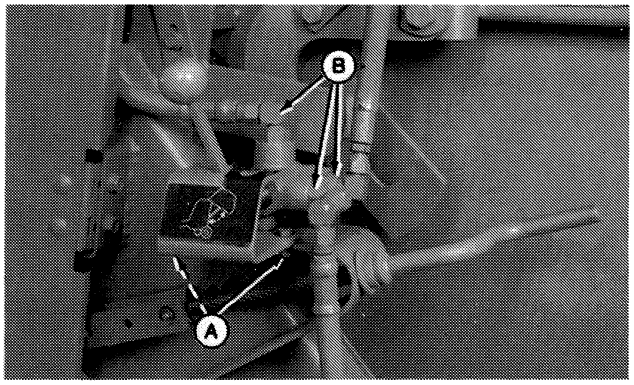
3. Remove wire and pivot gate lock valve (C) into position.



AB5;E21670 E01;;530R N 100584

4. Reinstall cap screws and nuts (A).

5. Tighten hydraulic lines (B).



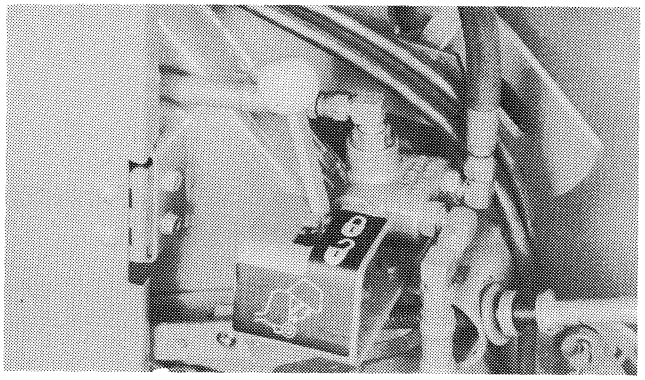
AB5;E21671 E01;;530R O 160584

E27;P103 060684

INSTALL UPPER ARM STOP

1. Connect hydraulic lines to tractor coupler.

2. Lock gate.

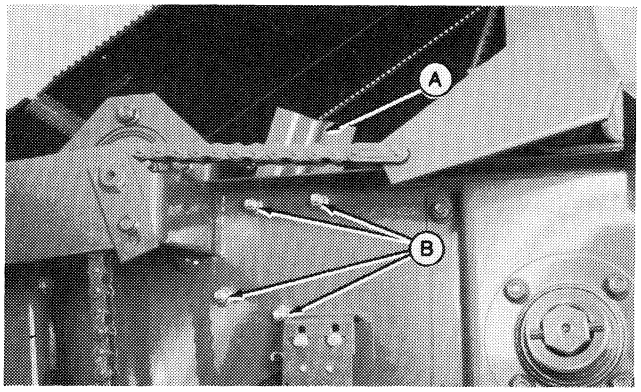


E21639/530ASP/100182

3. Raise belt tension arm to highest position.

4. Install upper arm stop (A). Secure with four M10 x 25 cap screws and flange nuts (B). Repeat on opposite side.

5. Unlock gate.



E22676/530ASQ/062983

MOVING IDLER ROLL TO OPERATING POSITION

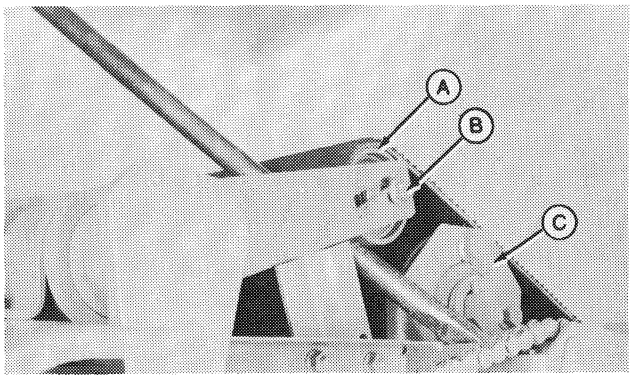
1. Lower belt tension arm.

2. Loosen roll bolt (B). Repeat on opposite side.

3. Using a pry bar between the stop and the roll (A), slide the roll to the top of the slot until the bolt drops into the notch. Repeat on opposite side.

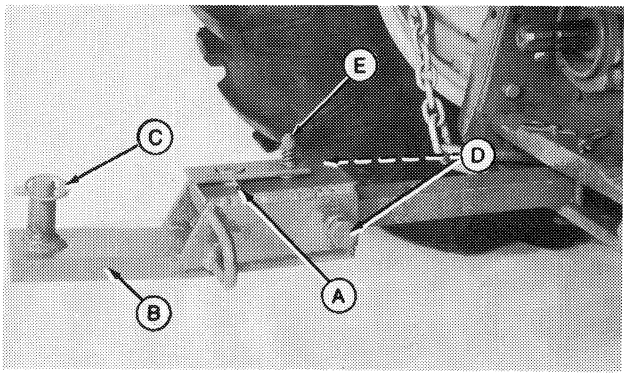
4. Tighten bolts.

NOTE: Check main roll mounts (C) to be sure they are in the upper position and all five mounting bolts are installed.



E21673/530ASR/100182

ATTACH EQUAL ANGLE HITCH TO DRAWBAR



1. Slide hitch (B) onto tractor drawbar.

2. Place shims between drawbar and hitch until a tight fit is attained.

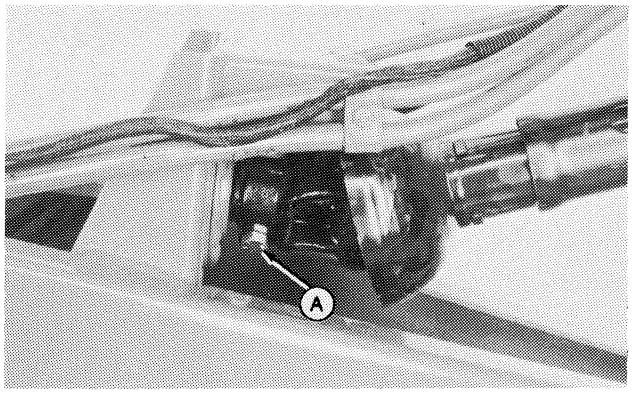
3. Secure with hitch pin (A) and spring-locking pin (C), with pin on top.

4. Tighten bolts (D) on both sides of equal angle hitch until there is approximately 1 mm (1/32-in.) clearance between bolt and tractor drawbar. Tighten jam nuts against hitch.

A—Hitch Pin
B—Hitch
C—Spring-Locking Pin
D—Bolts

E22650/530ASS/062983

ATTACH PTO POWR-GARD® HOOKUP TO BALER

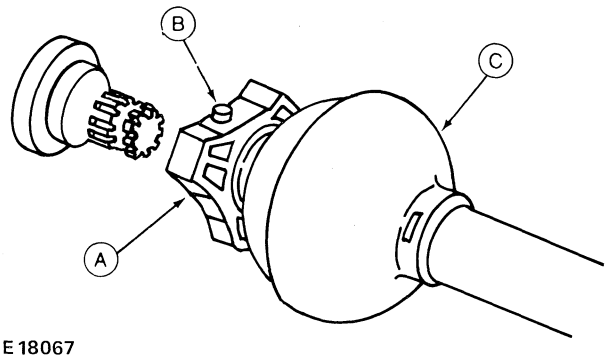


1. Install yoke on input shaft and secure with cap screw (A) and nut.

E22677/530ASCO/062983

ATTACH PTO POWR-GARD® HOOKUP TO TRACTOR

CAUTION: Follow PTO hookup procedure outlined below.



E 18067

1. Shut off tractor engine.

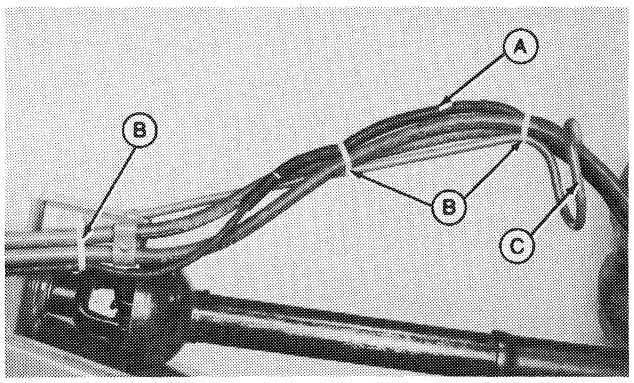
2. Pull collar (A) back, hold down on button (B) while turning collar until button locks down.

3. Align splines and push forward on bell (C). To check latching, pull back on bell. Do not pull on collar, this will release latch.

E18067/530AST/062983

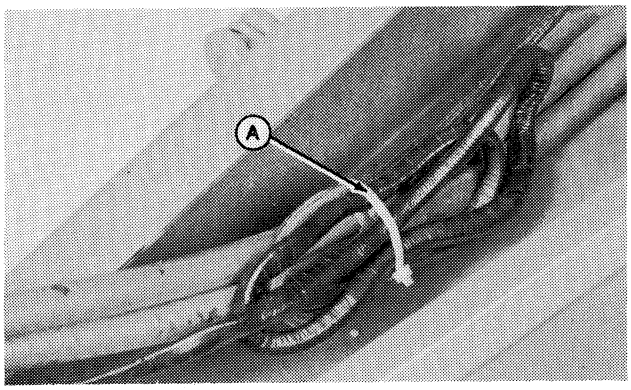
4. Place hoses and wiring harness in hose holder (C) and connect to tractor outlets.

5. Install wiring harness guard (A) and install tie straps (B) as shown.



E21675/530ASU/062983

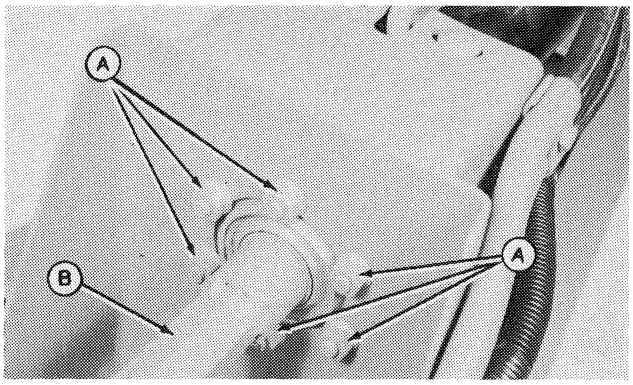
6. To eliminate excess wiring harness, coil harness as shown and secure with tie strap (A).



E21676/530ASV/062983

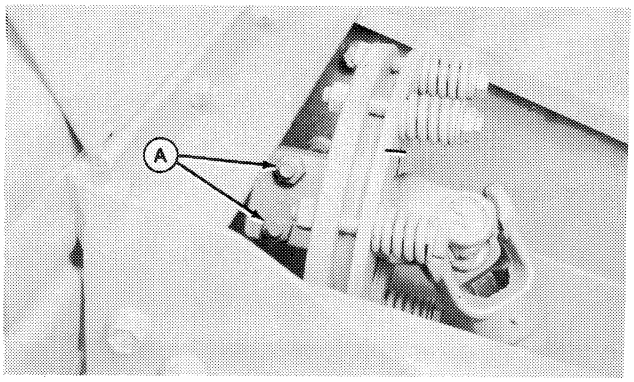
CONVERT PTO TO 1000 RPM (If Necessary)

1. Remove six carriage bolts and nuts (A) and pull shaft (B) away from slip clutch.



E21678/530ASX/100182

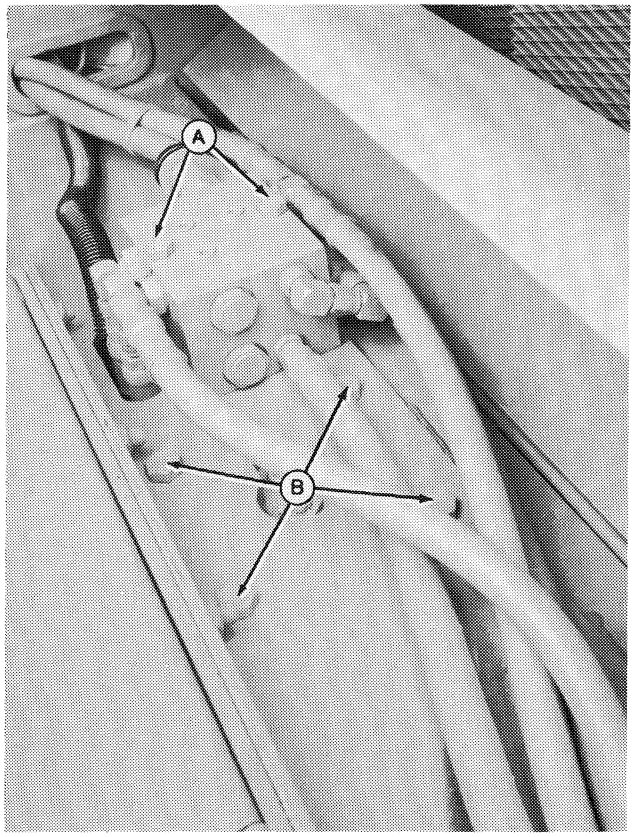
2. Remove two cap screws and lock nuts (A) and remove slip clutch.



E21679/530ASY/100182

3. Remove two cap screws (A) from bale density control valve.

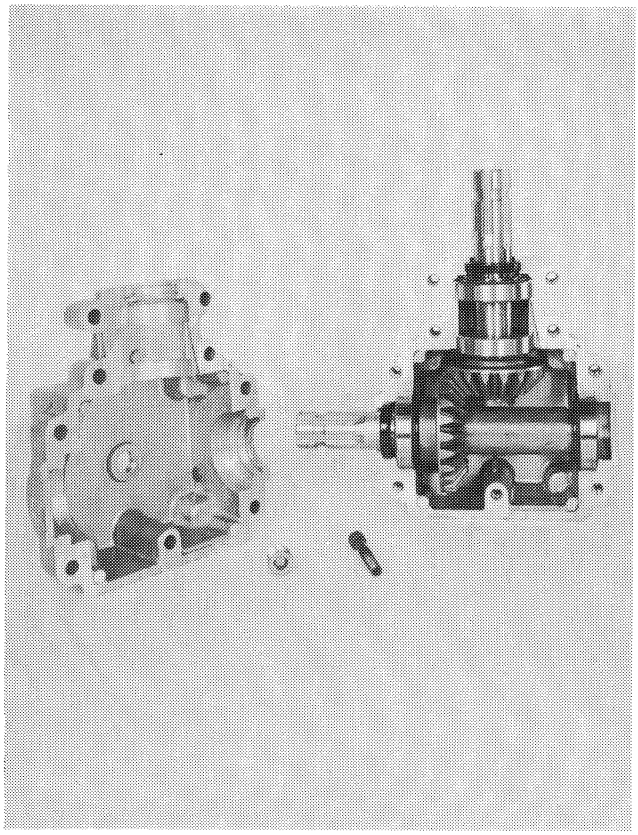
4. Rotate tension valve and remove four cap screws (B) securing gear case. Remove gear case.



E21680/530ASZ/100182

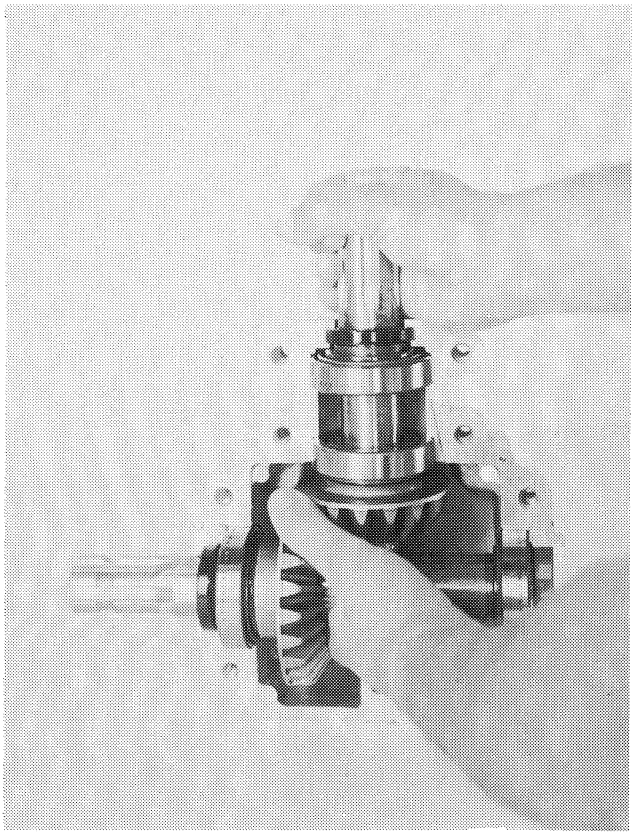
5. Drain gear case.

6. Remove nine 3/8-in. socket-head bolts. Tap with plastic or wood hammer to break seal. Lay top half aside.



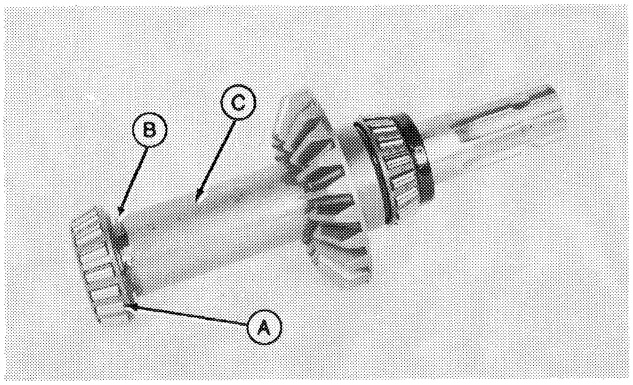
E21681/530ASAA/100182

7. Lift both shafts out of lower case half.
8. Clean both case halves.
9. Remove ALL hardened gasket material.



E21682/530ASAB/100182

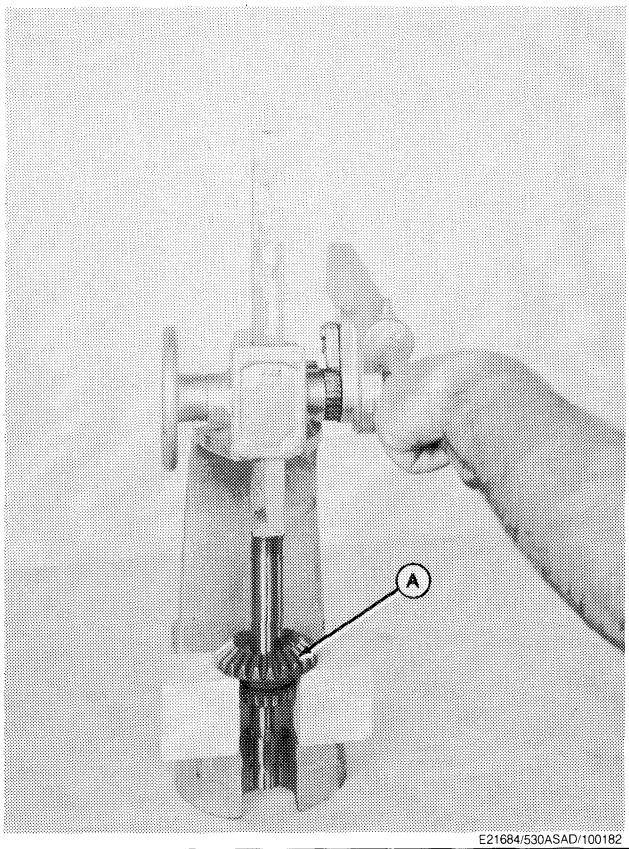
10. Press bearing (A) off input shaft, remove snap ring (B) and sleeve (C).



E21683/530ASAC/100182

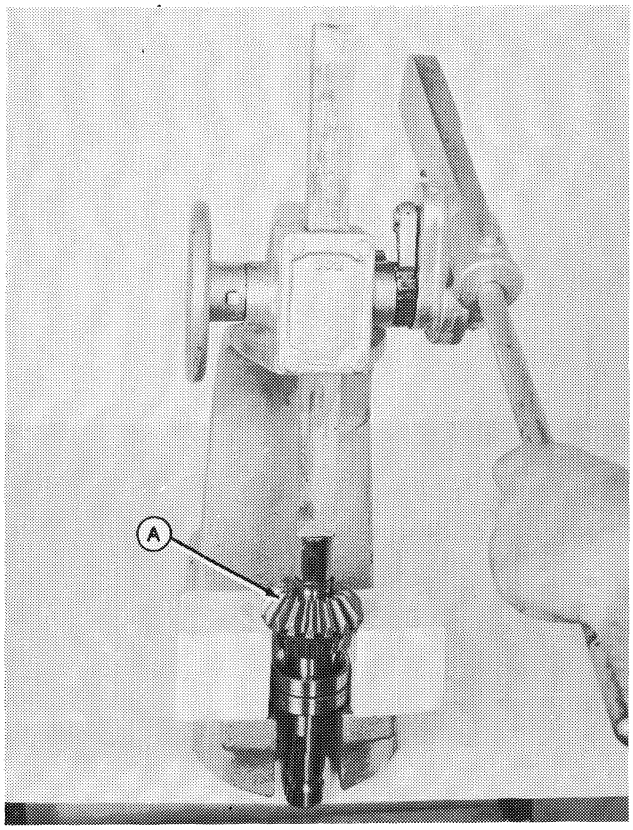
IMPORTANT: Do not press gear over splined area as it may scratch the shaft and reduce seal life.

11. Press 23-tooth gear (A) from input shaft.



E21684/530ASAD/100182

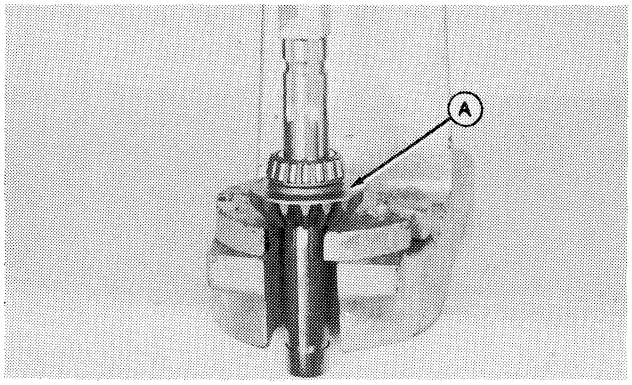
12. Remove snap ring. Press 17-tooth gear (A) from output shaft.



E21685/530ASAE/100182

13. Place 17-tooth gear (A) on input shaft and align keyway in gear with key in shaft.

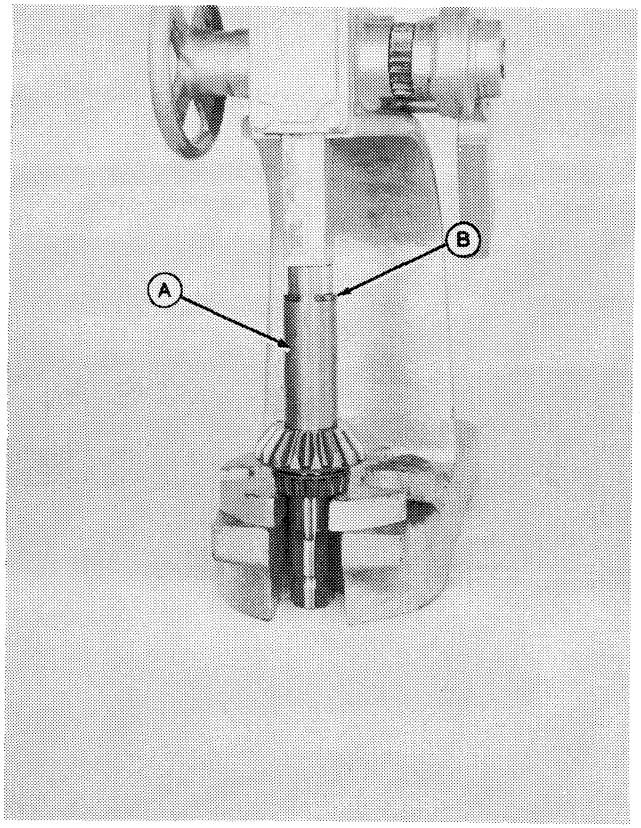
14. Press gear in place as shown.



E21686/530ASAF/100182

IMPORTANT: To prevent bearing damage, support inner race of bearing while pressing.

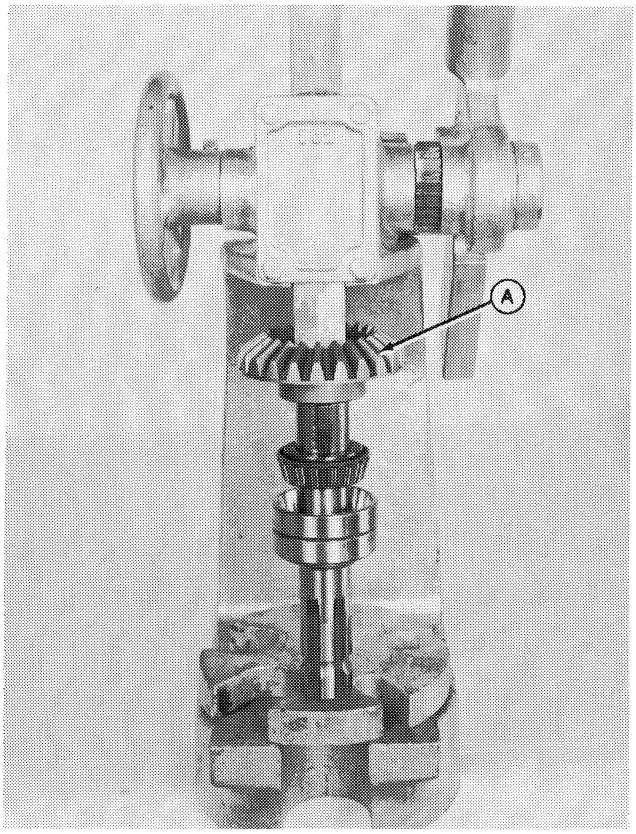
15. Install sleeve (A) and snap ring (B). Press to insure tightness of sleeve between shaft and gear.



E21687/530ASAG/100182

16. Place 23-tooth gear (A) on output shaft and align key way in gear with key in shaft.

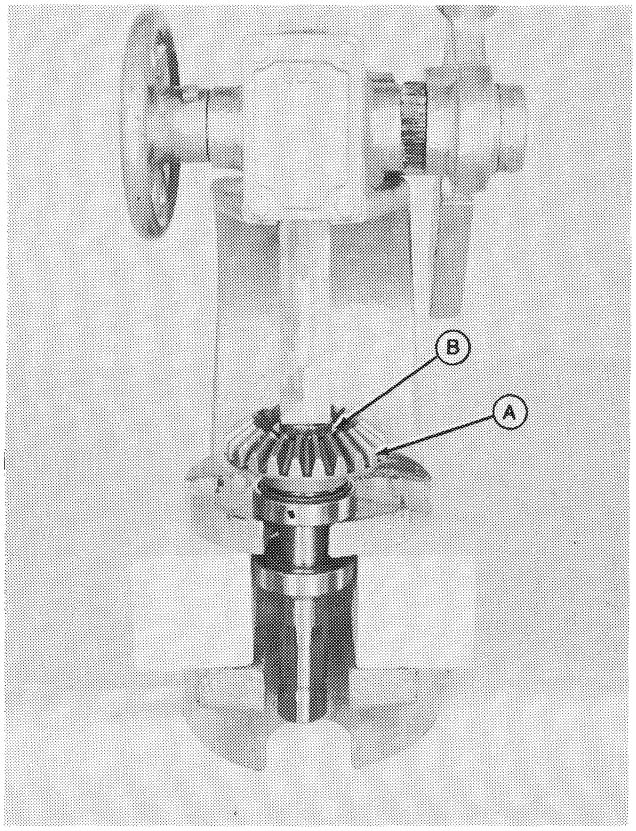
17. Press gear in place as shown and install snap ring.



E21688/530ASAH/100182

IMPORTANT: To prevent bearing damage, support inner race of bearing while pressing.

18. To insure correct bearing distance for installation in gear case, press shaft until gear (A) is tight against snap ring (B).



E21689/530ASAI/100182

19. Spray both mating surfaces of gear case with John Deere Cleaner-Primer and wipe dry.

20. Spray top half of case with John Deere Cleaner-Primer and let air dry approximately 1 minute.

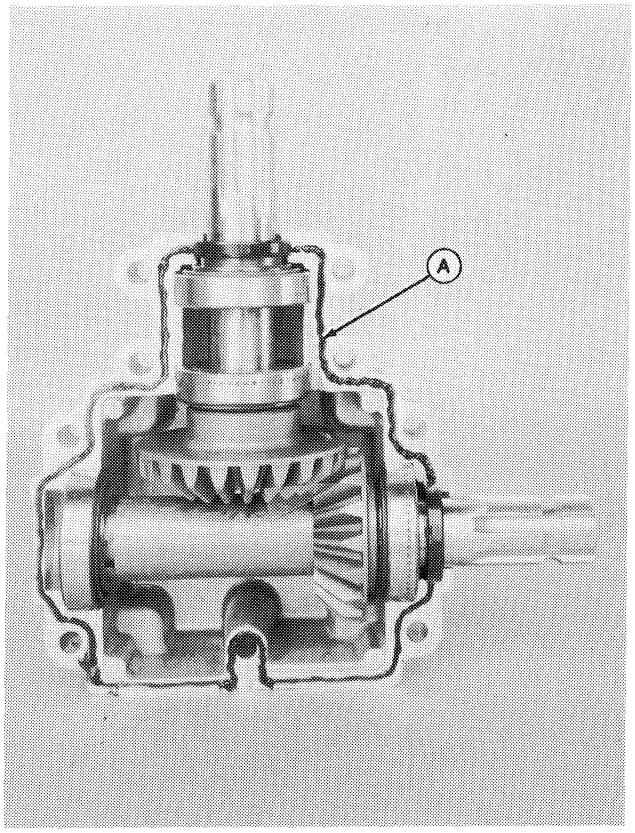
21. Install shafts in lower case half.

22. Lay 1/16-in. bead (A) of John Deere Gasket Eliminator around lower case casting as shown.

23. Place top half of case over lower half and press down with hand. Take care not to disturb seals.

24. Install nine 3/8-in. socket-head bolts and torque to 20-27 N·m (15-20 lb-ft).

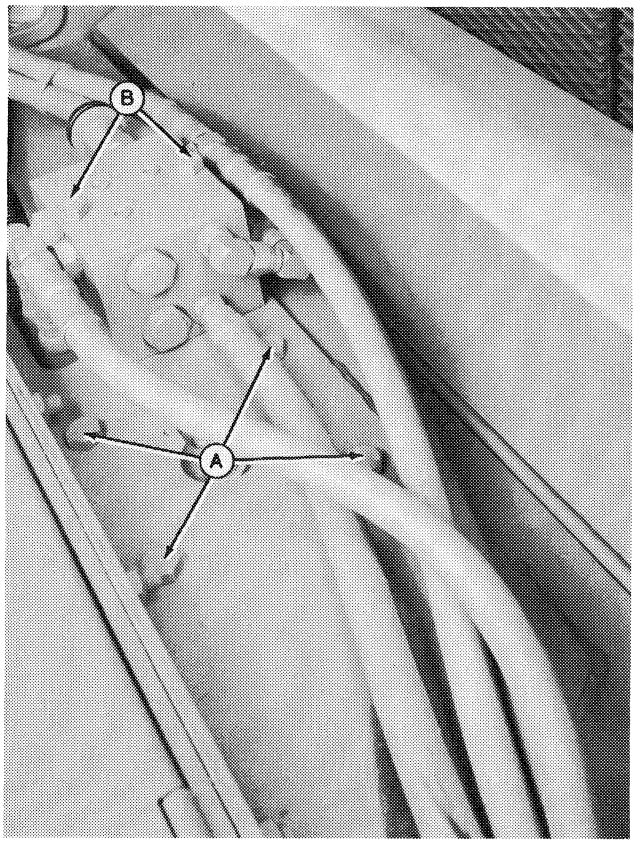
25. Refill gear case using SAE-85W 140 API GL-5 gear lubricant. Gear case capacity is .650 L (1.4 pt.).



E21690/530ASAJ/063083

25. Install gear case and secure with four cap screws (A).

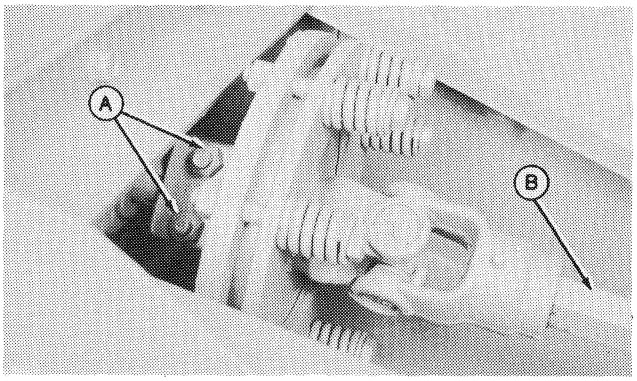
26. Secure tension valve with two cap screws (B).



E21691/530ASAK/100182

27. Install slip clutch and secure with two cap screws and nuts (A).

28. Slide shaft (B) into yoke and secure with six carriage bolts and nuts.

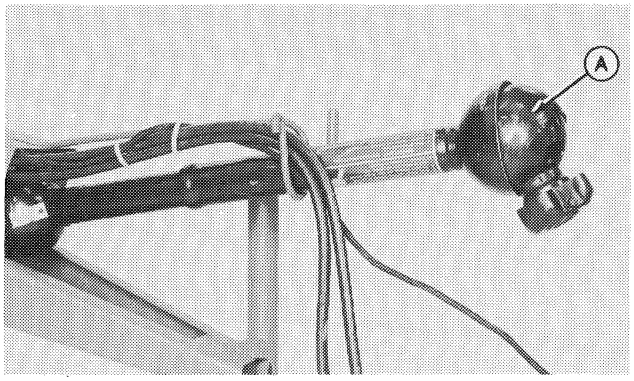


E21692/530ASAL/100182

29. Remove front half of telescoping hook-up (A) and replace with 1000 rpm hook up.

30. Remove 540 rpm decals and replace with 1000 rpm decals on the slip clutch shield.

31. Adjust clutch for 1000 rpm. See Service Seciton.



E21693/530ASAM/100182

TRACTOR ELECTRICAL HOOK-UP

The baler monitor is designed for use on 12-volt negative or positive ground electrical systems.

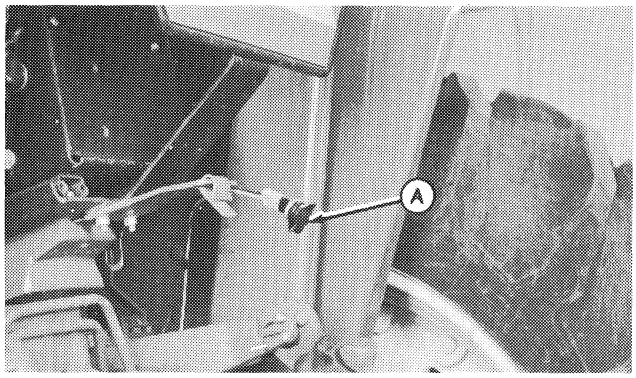
1. Determine whether your tractor is negative or positive ground and follow the instructions for that system.

530ASAN/100182

INSTALL CONVENIENCE OUTLET ON NEGATIVE GROUND TRACTORS WITHOUT SOUND-GARD® BODIES

1. Install socket (A) in convenient location.

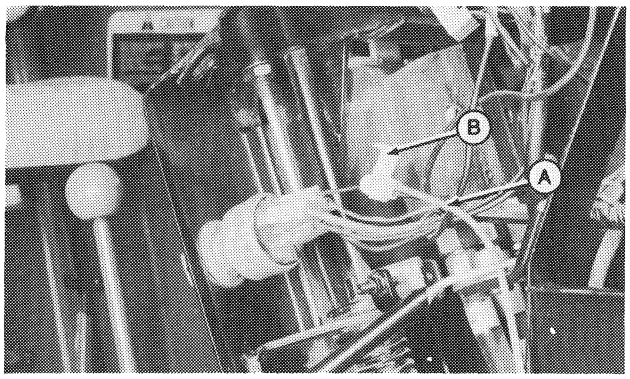
NOTE: Route wires away from tires, lift links, and other pinch points. Avoid all sharp edges. Secure wires with tie straps provided.



E21694/530ASAO/100182

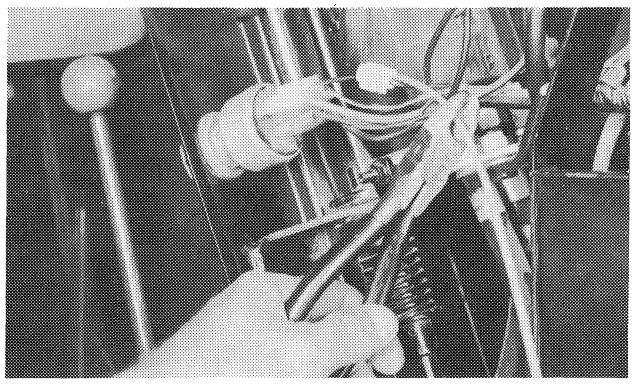
CAUTION: To avoid injury from a spark or short circuit, DISCONNECT THE BATTERY GROUND STRAP FROM THE BATTERY when working on any part of the electrical system.

2. Locate a switch-controlled terminal. Cut red wire (A) to length and splice to a "hot" wire from terminal using connector (B).



E21695/530ASAP/100182

3. Cut red wire approximately 4 inches from the terminal and strip the end. Strip end of cut wire connected to convenience outlet.

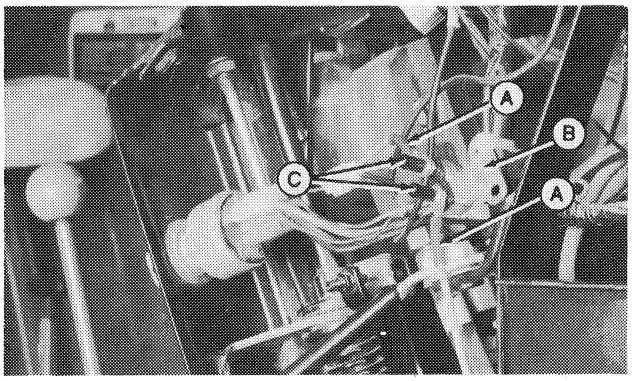


E21696/530ASAQ/100182

4. Slip insulating sleeves (A) and eyelets over stripped wires. Crimp eyelets to wires and cover crimp with insulating sleeves (A).

5. Connect wires to circuit breaker (B) using two #10 nuts on each post clamping eyelet between nuts.

6. Wrap circuit breaker posts with electrical tape (C) to prevent shorting and secure circuit breaker using tie strap.

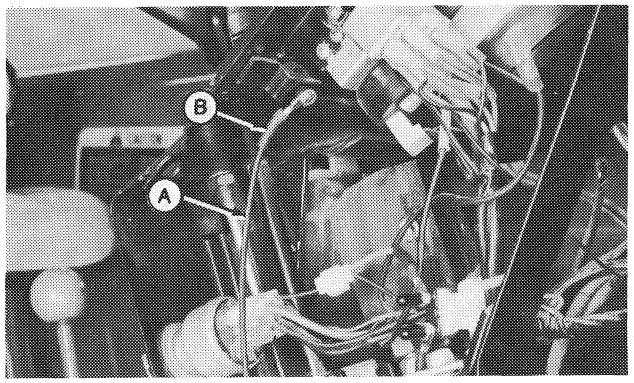


E21697/530ASAR/100182

7. Locate a ground screw and cut black wire to reach this location. Strip end of wire.

8. Slip insulating sleeve (B) and eyelet over stripped end of black wire (A). Crimp eyelet to wire and cover crimp with insulating sleeve (B).

9. Connect eyelet to ground screw.

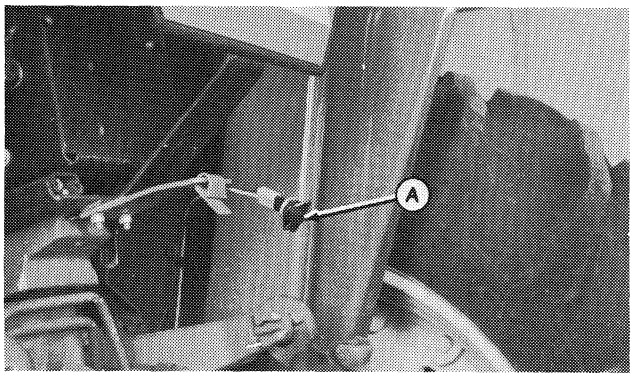


E21698/530ASAS/100182

INSTALL CONVENIENCE OUTLET ON POSITIVE GROUND TRACTORS WITHOUT SOUND-GARD BODIES

1. Install socket (A) in convenient location.

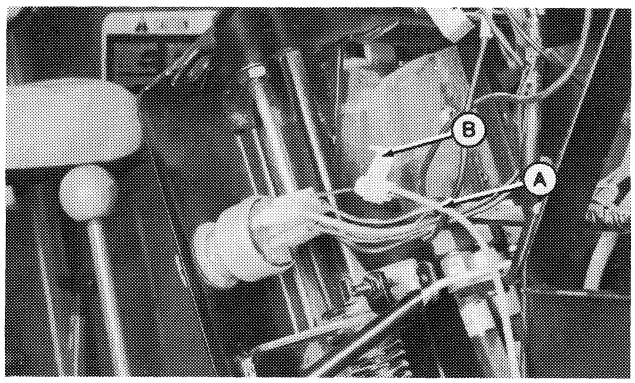
NOTE: Route wires away from tires, lift links, and other pinch points. Avoid all sharp edges. Secure wires with tie straps provided.



E21694/530ASAT/100182

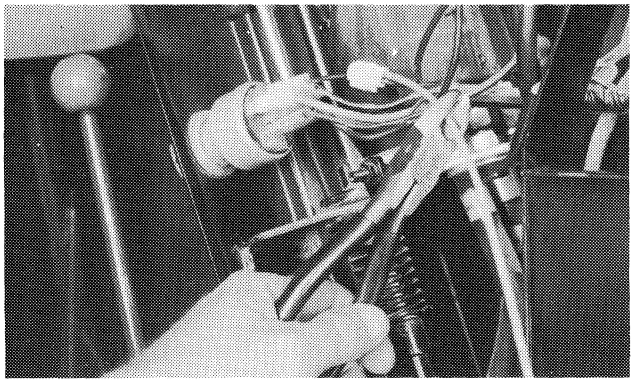
CAUTION: To avoid injury from a spark or short circuit, DISCONNECT THE BATTERY GROUND STRAP FROM THE BATTERY when working on any part of the electrical system.

2. Locate a switch-controlled terminal. Cut black wire (A) to length and splice to a "hot" wire from terminal using connector (B).



E21695/530ASAU/100182

3. Cut black wire approximately 4 inches from the terminal and strip the end. Strip end of cut wire connected to convenience outlet.

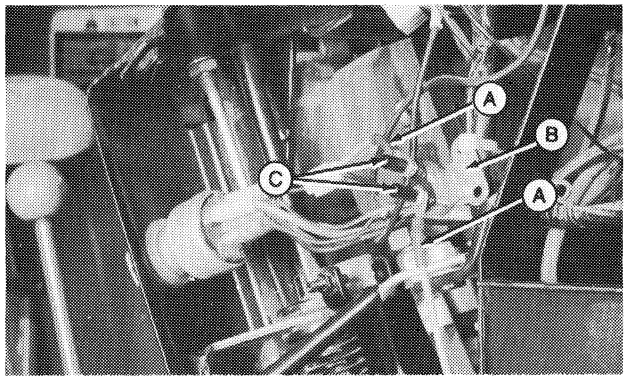


E21696/530ASAV/100182

4. Slip insulating sleeves (A) and eyelets over stripped wires. Crimp eyelets to wires and cover crimp with insulating sleeves (A).

5. Connect wires to circuit breaker (B) using two #10 nuts on each post clamping eyelet between nuts.

6. Wrap circuit breaker posts with electrical tape (C) to prevent shorting and secure circuit breaker using tie strap.

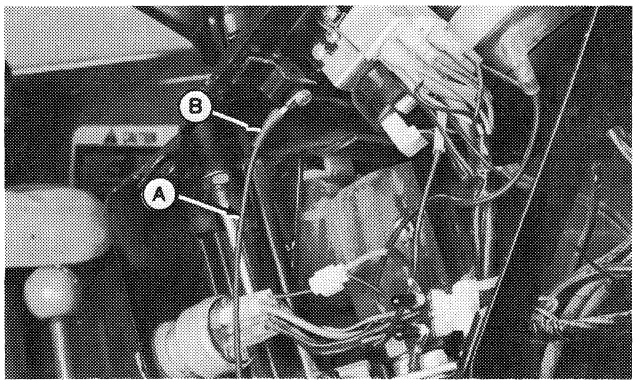


E21697/530ASAW/100182

7. Locate a ground screw and cut red wire to reach this location. Strip end of wire.

8. Slip insulating sleeve (B) and eyelet over stripped end of red wire (A). Crimp eyelet to wire and cover crimp with insulating sleeve (B).

9. Connect eyelet to ground screw.

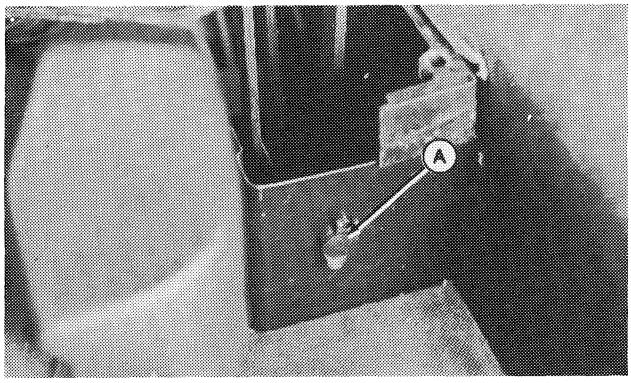


E21698/530ASAX/100182

INSTALL CONVENIENCE OUTLET ON TRACTORS WITH SOUND-GARD BODIES

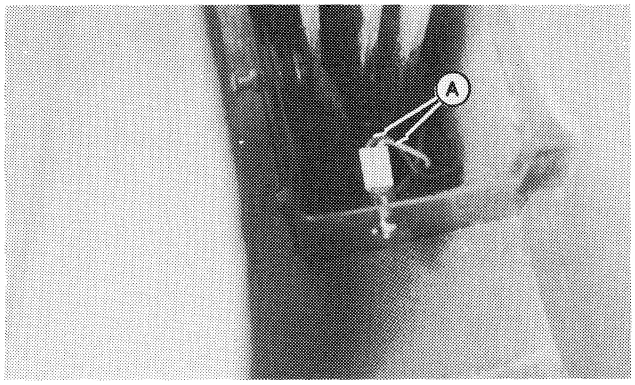
1. Remove top of control console at the right-hand side of the operator. Move all control levers to their rear positions.

2. Locate the socket so it will not interfere with the control levers. Drill a 19 mm (3/4-in.) hole in the panel and install socket (A). Secure with nut.



E21699/530ASAZ/100182

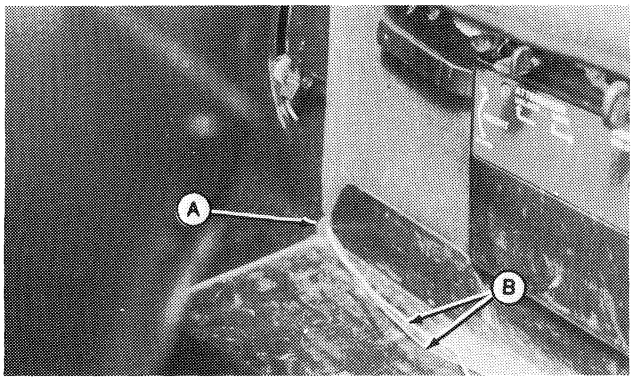
3. Connect wires (A) to socket. Route wires (A) to the floor level of console, avoiding all moving parts and pinch points.



E21700/530ASBA/100182

4. Drill a 14 mm (9/16-in.) hole in console at floor level and install grommet (A).

5. Route wires (B) through the hole and under the floor mat to the left cowl.

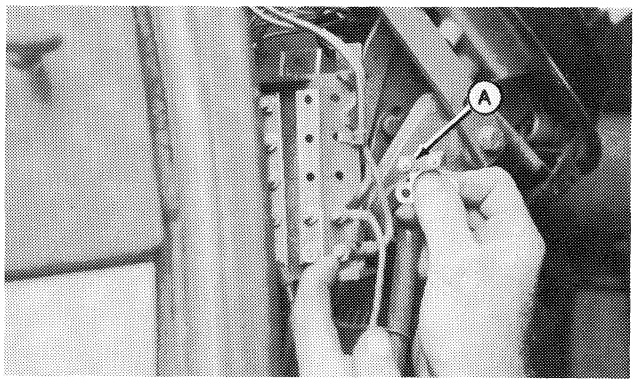


E21701/530ASBB/100182

CAUTION: To avoid injury from a spark or short circuit, DISCONNECT THE BATTERY GROUND STRAP.

6. Remove the left cowl and plate covering the tractor electrical center.

7. Connect circuit breaker (A) to the right-hand switch-controlled terminal strip. Secure with nuts.



E21702/530ASBC/100182

8. Route the red wire (positive) (A) to circuit breaker and cut to length. Strip end of wire.

9. Slip the insulating sleeve (B) and eyelet over the stripped wire. Crimp eyelet to wire and cover crimp with insulating sleeve (B).

10. Connect red wire (A) to circuit breaker using #10 nut.

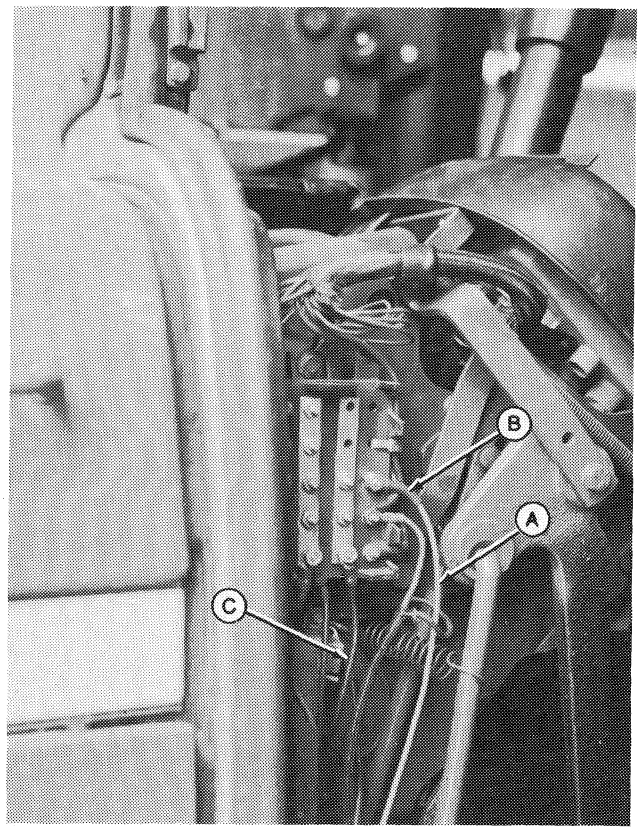
11. Route the black wire (negative) (C) to any convenient ground bolt or screw. Cut to length and strip end.

12. Slip insulating sleeve and eyelet over the stripped wire (C). Crimp eyelet to wire and cover with insulating sleeve (B).

13. Connect to ground bolt or screw.

14. Reinstall the electrical center cover and the left cowl.

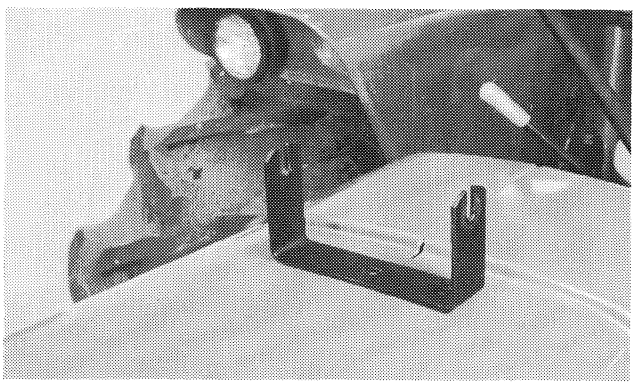
15. Reinstall top of control console.



E21703/530ASBD/100182

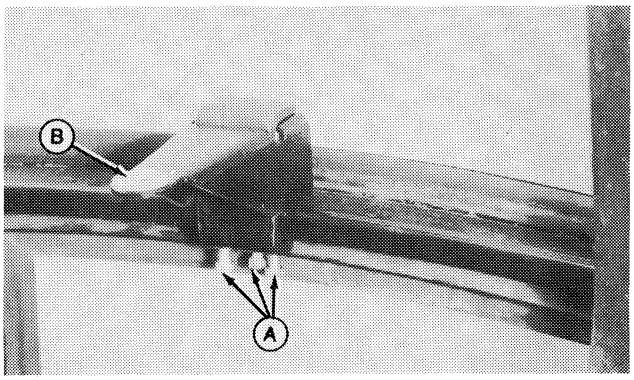
INSTALL BALE-TRAK™ MONITOR CONSOLE

NOTE: If the tractor is not equipped with a cab or SOUND-GARD body, mount the monitor bracket on cowling, fender, or any convenient area. Be sure to check for mounting hardware clearance before drilling.



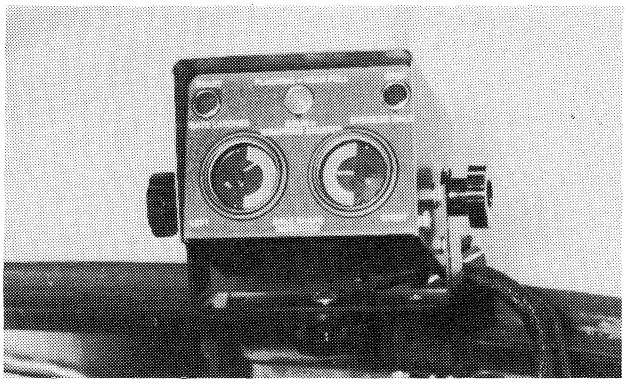
E21704/530ASBE/100182

1. Assemble mounting brackets and secure to window ledge with three cap screws (A). Place washer (B) over hole.



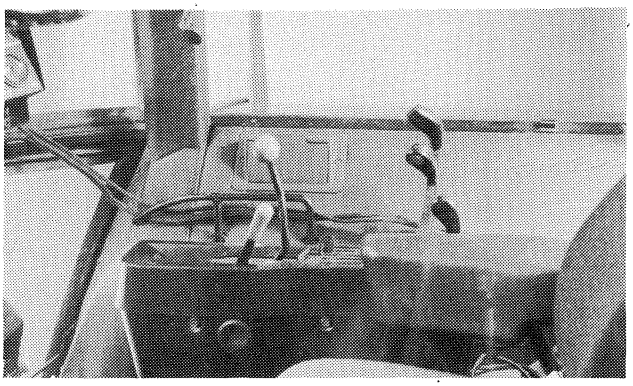
E21705/530ASBF/100182

2. Secure console to bracket.



E21706/530ASBG/100182

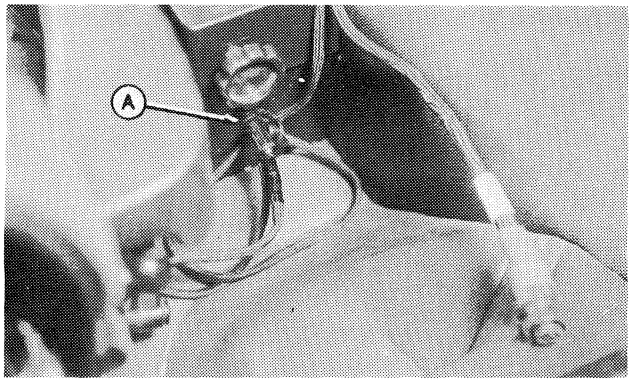
3. Route monitor harness along the side of cab away from operating levers and back to the right-hand rear of cab.



E21707/530ASBH/100182

4. Connect monitor harness to convenience outlet (A).

5. Drill 38 mm (1-1/2 in.) hole through the cab in a convenient location and insert grommet. Route harness through grommet.

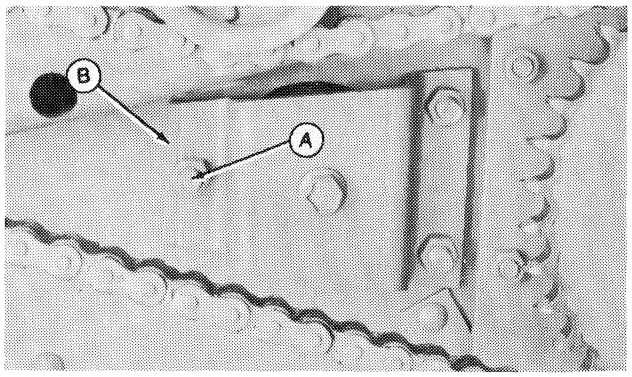


E21708/530ASBI/100182

INSTALL CONVERGING WHEELS

NOTE: Lock gate in closed position and raise belt tension arm to slack belts.

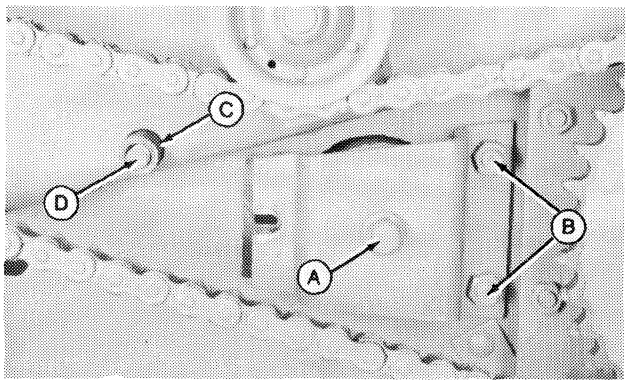
1. On the left-hand side of baler, remove carriage bolt (A), nut, and spacer (B).



E21709/530ASBJ/062983

2. Loosen cap screw (A) and two bolts (B).

3. Install M12 x 70 carriage bolt (D) and pipe spacer (C).

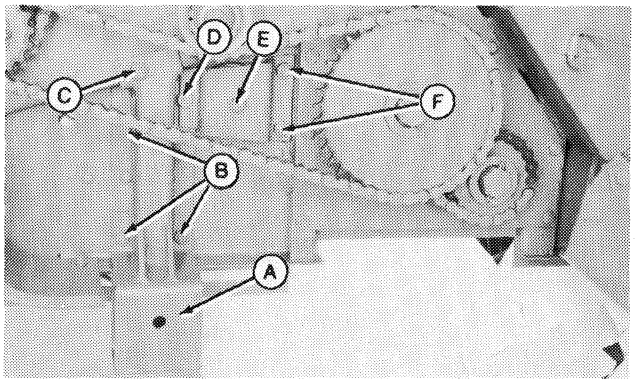


E21710/530ASBK/100182

4. Install bracket (A) and secure with cupped washer (serrations out) and nut (C), M12 x 30 carriage bolt and nut (D), and three M10 x 20 carriage bolts and nuts (B).

IMPORTANT: When tightening roll mounting bolts (F), make sure roll is free to rotate with a minimum gap of 1 mm (1/32-in.) maintained between roller and side sheet hole.

5. Tighten cap screw (E) and two roll mounting bolts (F).



E21711/530ASBL/062983

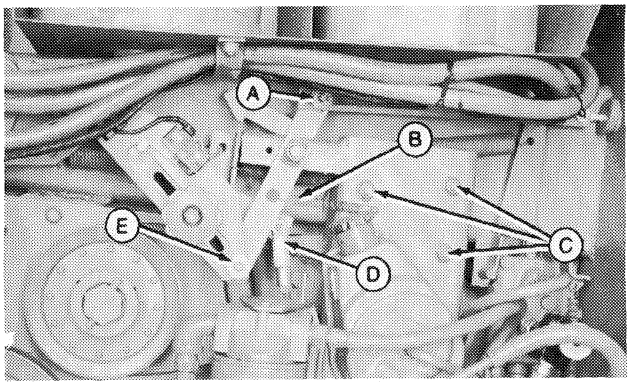
6. On right-hand side of baler, remove pin and washer (A) from twine link.

7. Remove spring hook (B) from linkage.

8. Remove pin from clevis (D).

9. Remove pin and washer (E) from bale size linkage.

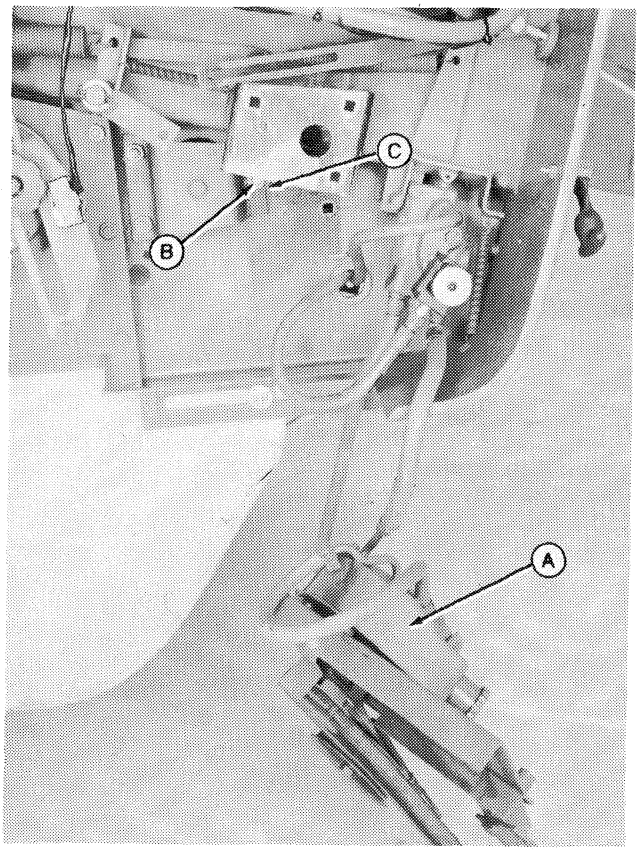
10. Remove three carriage bolts and nuts (C).



E21712/530ASBM/100182

11. Lower twine pump assembly (A).

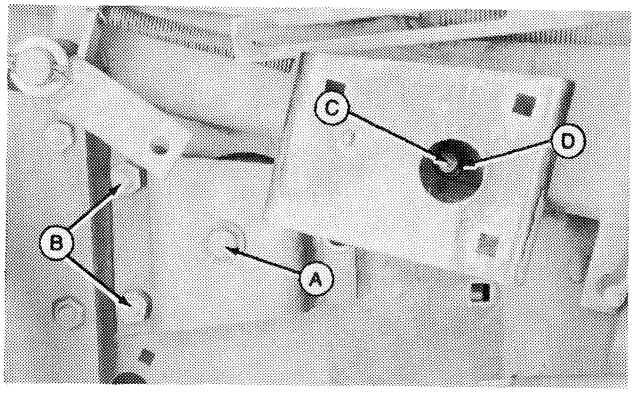
12. Remove carriage bolt (B) and spacer (C).



E21713/530ASBN/100182

13. Loosen flange head cap screw (A) and two cap screws (B).

14. Install M12 x 70 carriage bolt (C) and pipe spacer (D).

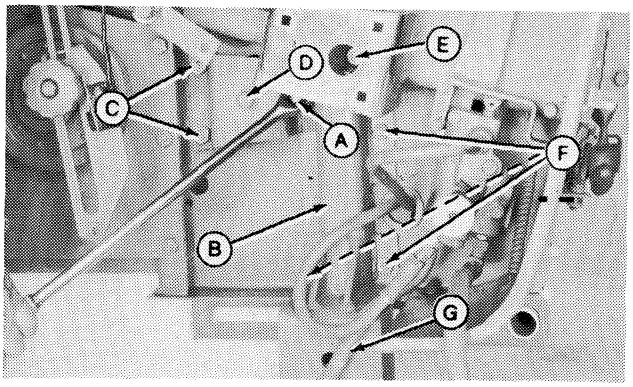


E21714/530ASBO/100182

NOTE: Locate hose (G) outside of bracket (B) as shown while installing bracket (B).

15. Install bracket (B) and secure with cupped washer (serrtions out) and nut (E), M12 x 30 carriage bolt and nut (A) and three M10 x 20 carriage bolts and nuts (F).

16. Tighten flange head cap screw (D) and two cap screws (C).



E22678/530ASBP/062983

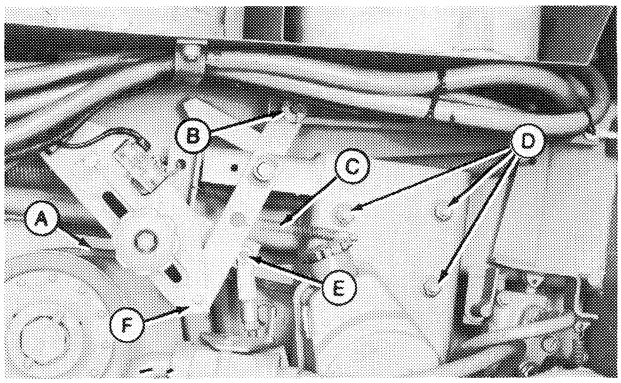
17. Install belt (A) on idler and secure twine pump assembly with three carriage bolts and nuts (D).

18. Install pin and washer (F) on bale size linkage.

19. Install clevis pin (E).

20. Install pin and washer (B) on twine link.

21. Install spring hook (C) on linkage.

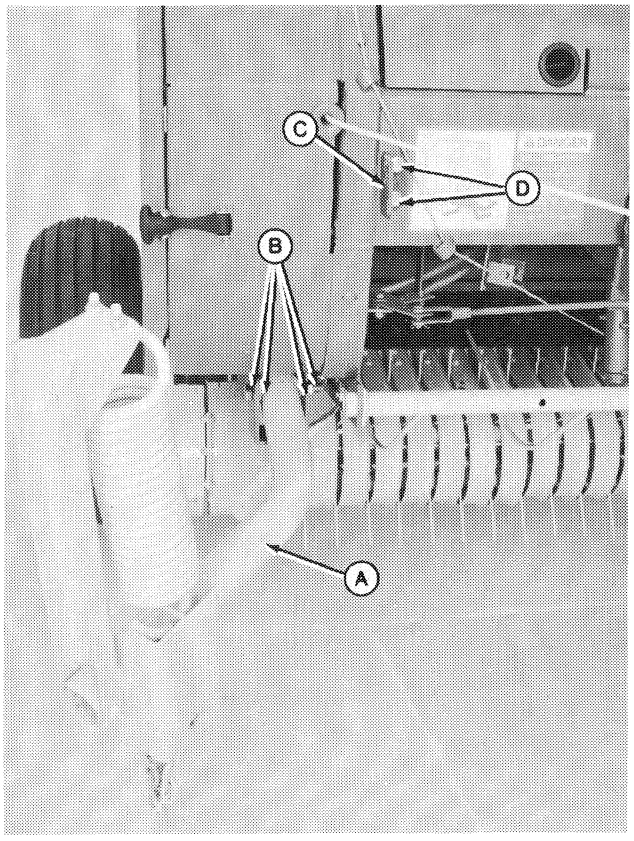


A—Belt
B—Washer
C—Spring Hook
D—Nuts
E—Clevis Pin
F—Washer

E21716/530ASBQ/100182

22. Install wheel support (A) and spacer. Secure with M16 x 110 cap screw, four washers (B), and nut. Torque to 235 N·m (173 lb-ft).

23. Install chain anchor support (C) and secure with two M10 x 25 self-tapping screws (D).



A—Wheel Support
B—Washers
C—Chain Anchor Support
D—Self-Tapping Screw

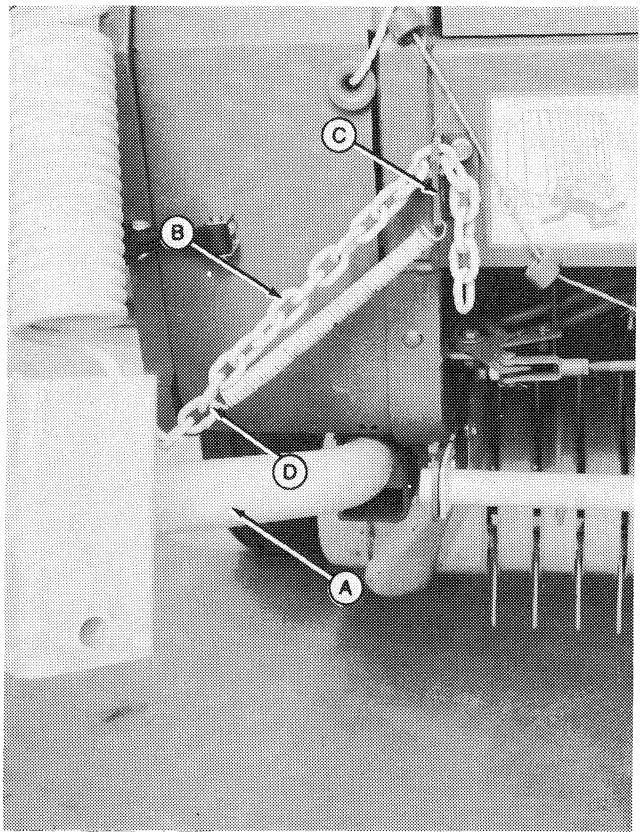
E21717/530ASBR/100182

24. Raise wheel support (A) to the highest position and insert chain (B) in chain anchor support (C).

25. Starting from where chain (B) attaches to support (A), install spring hook (D) in the fifth chain link.

26. Install other spring hook in chain anchor support (C).

A—Wheel Support
B—Chain
C—Chain Anchor Support
D—Spring Hook



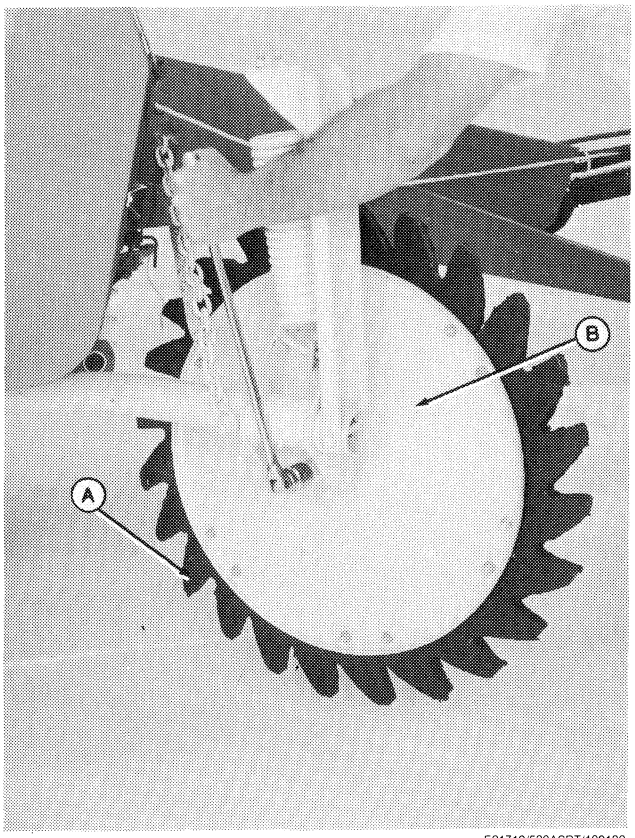
E21718/530ASBS/100182

IMPORTANT: Install wheels with teeth (A) pointing in the direction shown.

27. Install wheel (B) and secure with lock washer and nut.

28. To install left-hand converging wheel, repeat steps 20 thru 25.

NOTE: See Adjusting Converging Wheel Height in Operating the Baler.



E21719/530ASBT/100182

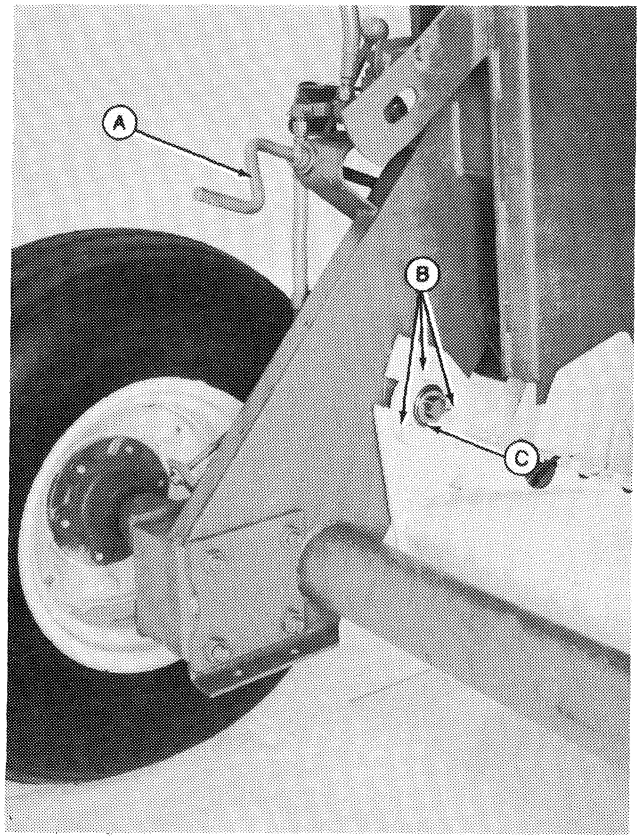
INSTALL HYDRAULIC PICKUP LIFT

1. Open and lock gate.

2. Lower pickup and continue turning crank (A) until it stops.

3. Remove three cap screws (B) and three washers. Do not discard washers.

4. Remove pin, two outside washers (C), and flangettes.



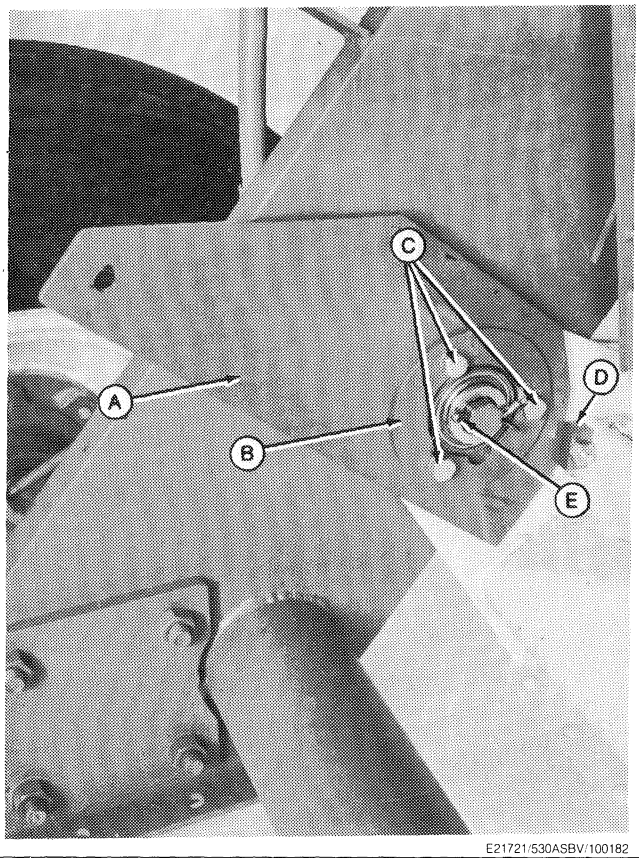
E21720/530ASBU/100182

5. Install old bearing using two heat-treated flangettes provided, lift arm (A), and pivot plate (B). Using the three washers removed in step 3 and the three washers provided, install two washers under the head of the three M10 x 25 cap screws (C).

6. Install two outside washers and secure with cotter pin (E).

7. Install striker bar (D) and secure with M12 x 40 cap screw and nut.

A—Lift Arm
B—Pivot Plate
C—Cap Screws
D—Cotter Pin
E—Striker Bar

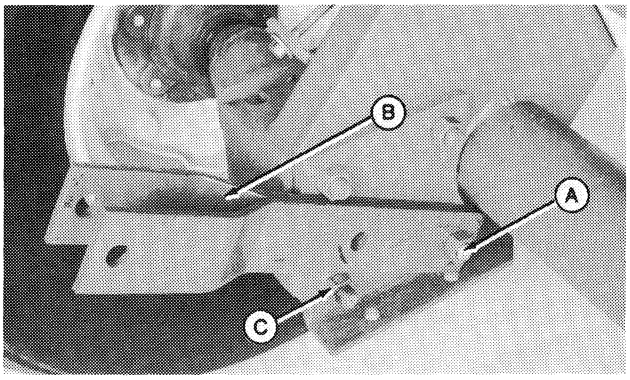


E21721/530ASBV/100182

8. Remove cap screw and nut (A).

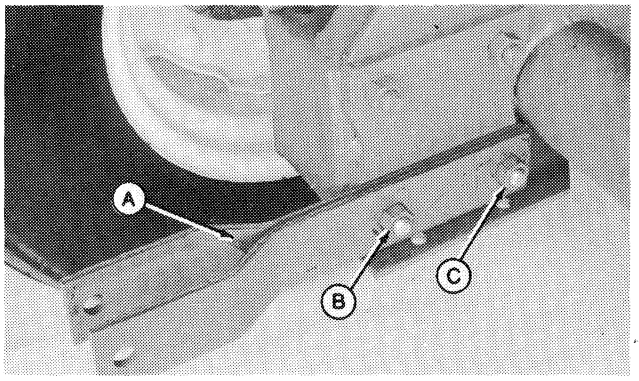
9. Position cylinder support (B) in place. Install M16 x 170 cap screw. Install nut but do not tighten at this time.

10. Remove cap screw and nut (C).



E21722/530ASBW/100182

11. Lower cylinder support (A) into place. Install M16 x 170 cap screw and nut (B). Torque nuts (B) and (C) to 235 N·m (173 lb-ft).



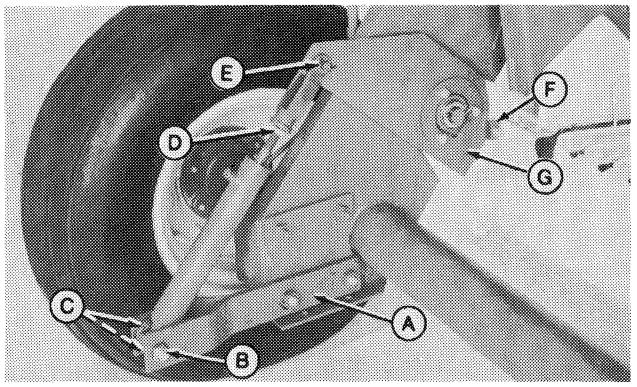
E21723/530ASBX/100182

12. Crank pickup to highest position.

13. Fully retract cylinder and attach to cylinder support (A) using M16 x 80 cap screw, two 17 x 30 x 3 mm washers (C), and nut (B).

14. With lift arm (G) contacting striker bar (F), turn yoke until pin inserts. Secure with cotter pin (E). Tighten jam nut (D).

A—Cylinder Support
B—Nut
C—Washers
D—Jam Nut
E—Cotter Pin
F—Striker Bar
G—Lift Arm



E21724/530ASBY/100182

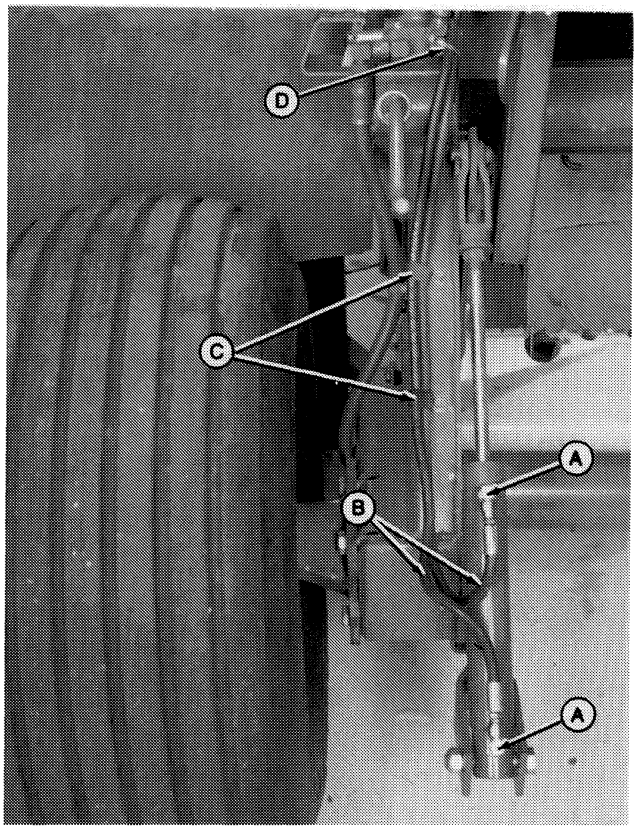
15. Install O-rings and elbows (A) to cylinder.

IMPORTANT: Do not route hoses under gate latch as it could cause material buildup and gate latch to malfunction.

16. Attach hydraulic hoses (B) and route as shown.

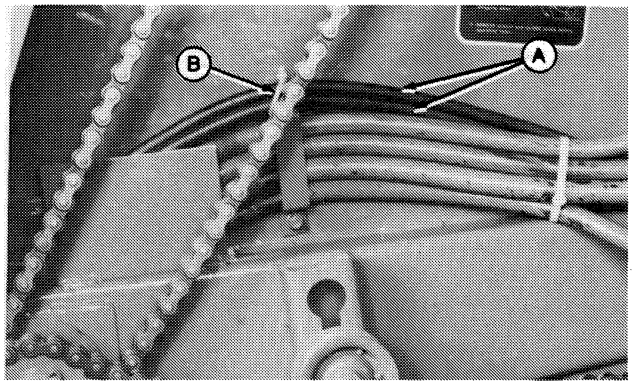
17. Install hose clamps (C) using M8 x 16 self-tapping screws and install tie strap (D).

A—Elbows
B—Hoses
C—Hose Clamps
D—Tie Strap



AB5;E22679 E01;;530R BZ 100584

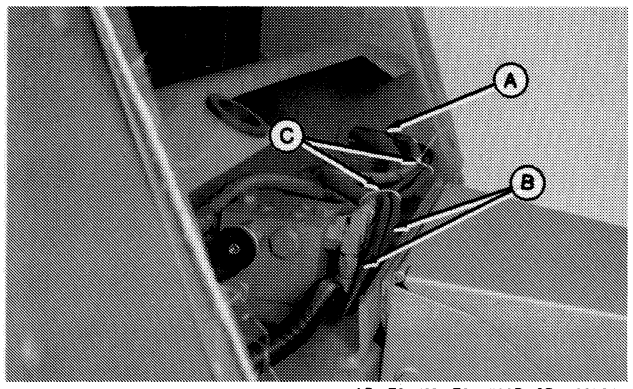
18. Route hoses (A) as shown using tie strap (B) to hold in place.



AB5;E21726 E01;;530R CA 100584

19. Pull hoses (B) through access hole (A) in main frame and route down into the tongue.

20. Install tie straps (C).



AB5;E21727 E01;;530R CB 100584

E27;P125 060684

21. Route hoses (C) through the tongue as shown.

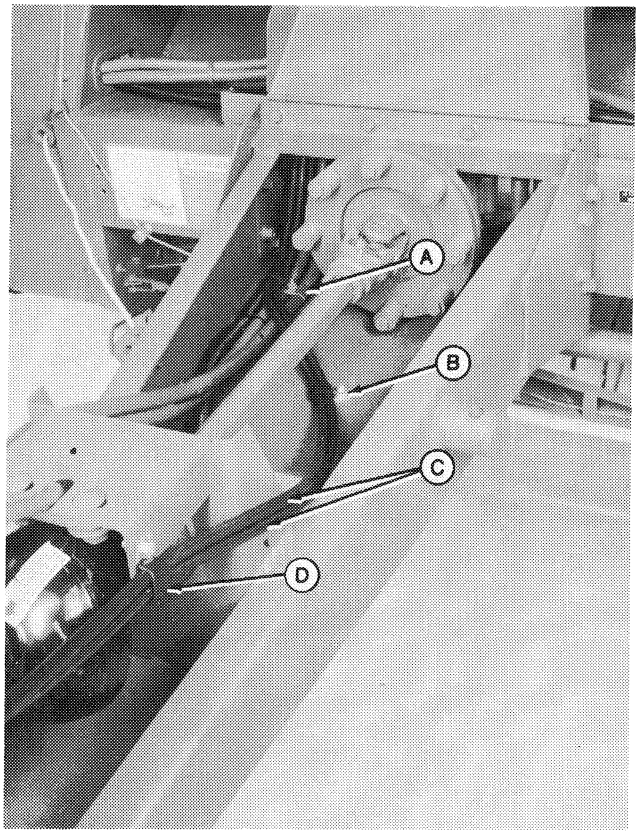
NOTE: Before securing clamps (A), (B) and (D), determine proper length of hoses for tractor hookup. Store excess hose behind clamp (A). Hoses must clear all moving parts.

22. Install hose clamp (A) using existing carriage bolt and nut.

23. Install hose clamp (B) using M8 x 20 carriage bolt and nut.

24. Install hose clamp (D) using M8 x 20 cap screw and nut.

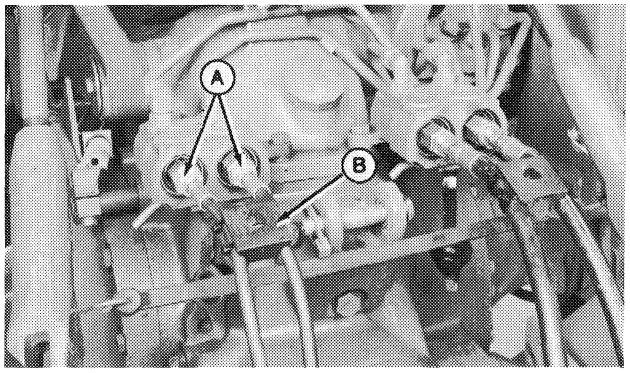
A—Hose Clamp
B—Hose Clamp
C—Hoses
D—Hose Clamp



E21728/530ASCC/062983

25. Install connectors (A) on hoses and attach to couplers.

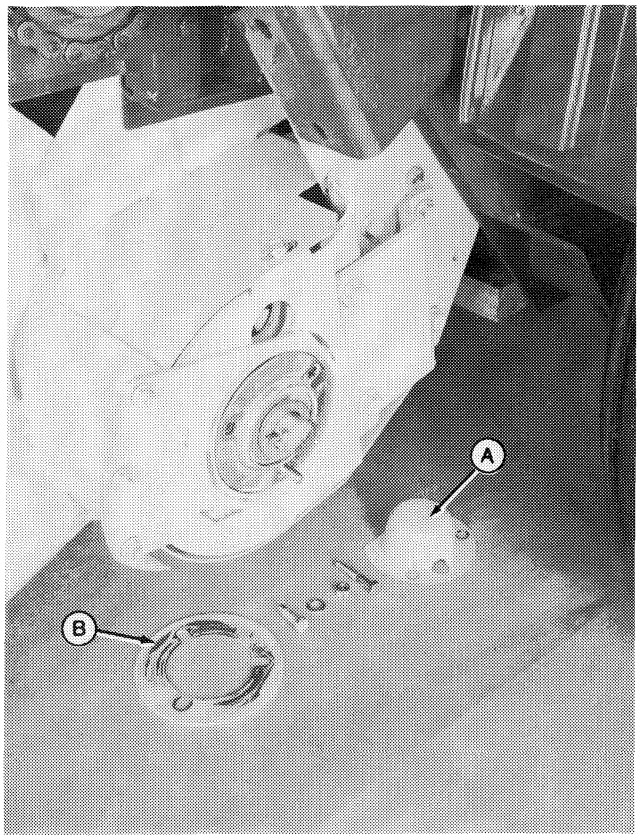
26. Install hose identification tag (B).



E21729/530ASCD/100182

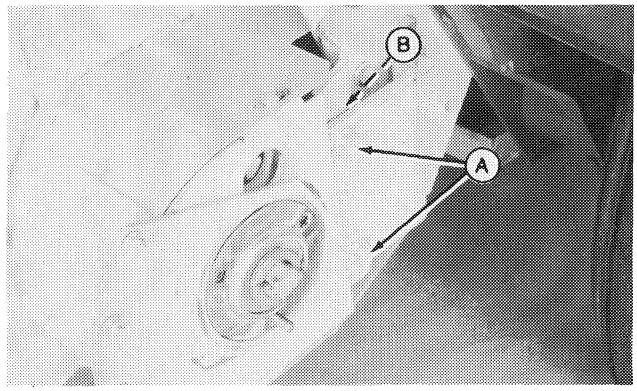
INSTALL PICKUP GAUGE WHEEL

1. Remove bearing cover (A) and retainer (B).



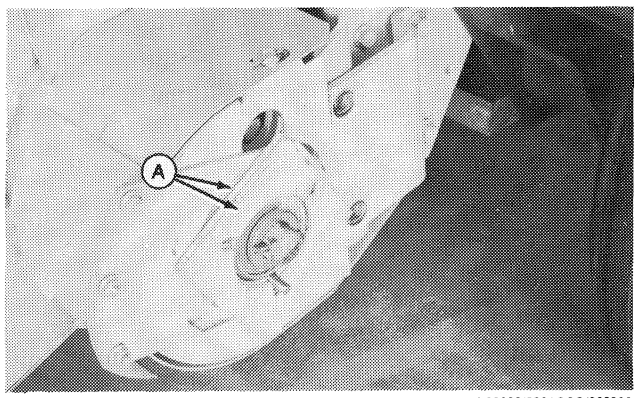
E22686/530ASCE/062983

2. Remove cap screw (A).
3. Retain shims (B) for reinstallation.



E22687/530ASCF/062983

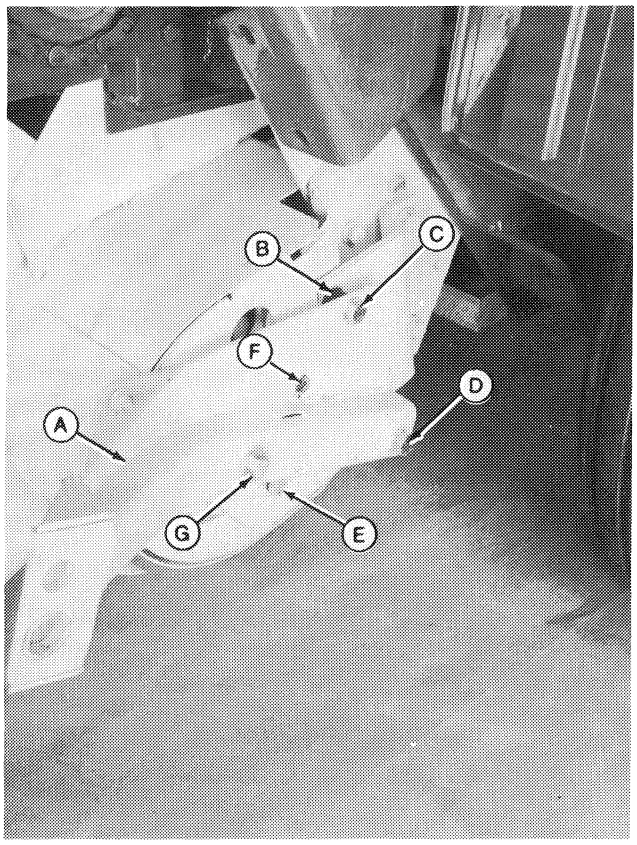
4. Install two spacers (A).



E22688/530ASCG/062983

5. Install gauge wheel support (A) using M12 x 60 cap screw (C) and spacer (B). Install M12 x 100 cap screw (D) and 3/8-in. nut (E). Do not tighten hardware.

6. Use a punch at location (F) to align parts and install 3/8 x 3-3/4-in. cap scrw (G) and washer. Do not tighten hardware.

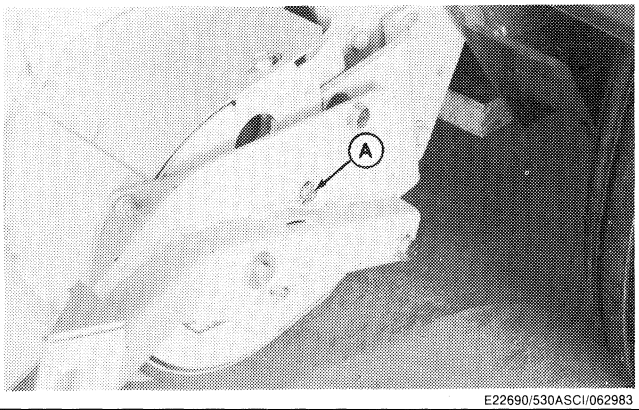


E22689/530ASCH/062983

A—Gauge Wheel Support
B—Spacer
C—M12 x 60 Cap Screw
D—M112 x 100 Cap Screw
E—3/8-in. Nut
F—Insert Punch
G—3/8 x 3-3/4-in. Cap Screw

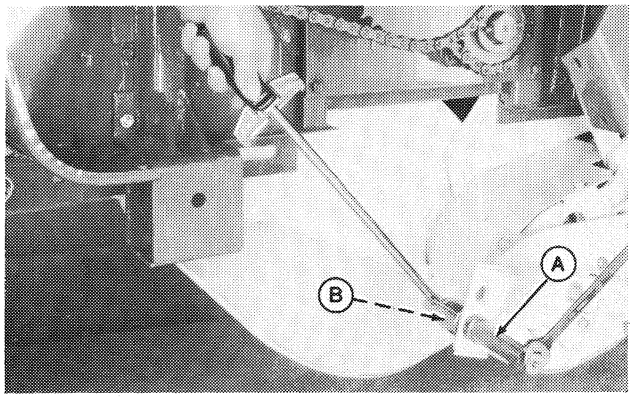
7. Install 3/8 x 1-3/4-in. cap screw (A).

8. Tighten all hardware.



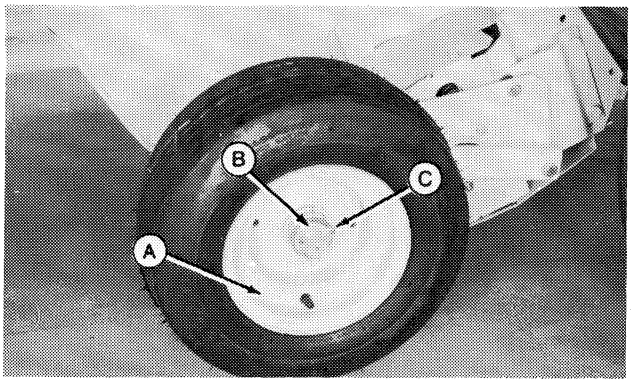
E22690/530ASCI/062983

9. Install spindle (A) in lower hole. Secure with M20 lock nut (B) and torque to 309 N·m (228 lb-ft). See Adjusting Pickup Gauge Wheel Height in Operating the Baler Section.



E22691/530ASCJ/062983

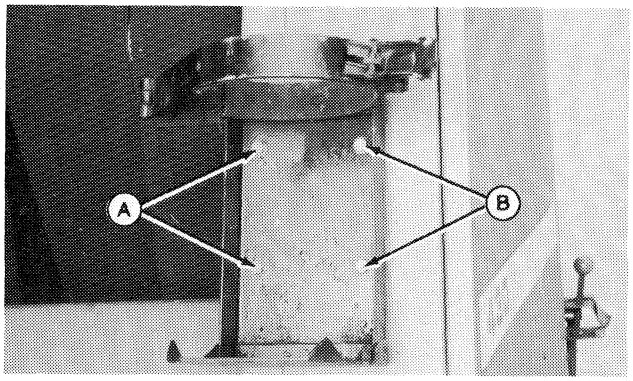
10. Install gauge wheel (A) and washers (B) as needed. Secure with cotter pin (C). To adjust the pickup height see Operating the Baler Section.



E21736/530ASCK/100182

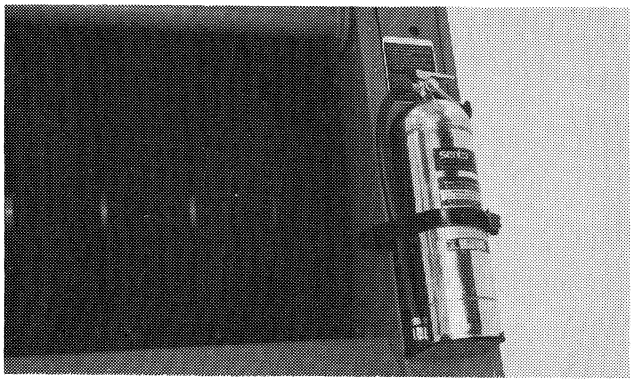
INSTALL FIRE EXTINGUISHER

1. Install bracket using two existing carriage bolts (A) and two cap screws (B) going through slots provided in frame.



E21737/530ASCL/100182

2. Attach fire extinguisher to bracket.



E21601/530ASCM/062983

INSTALL BALE COUNTER

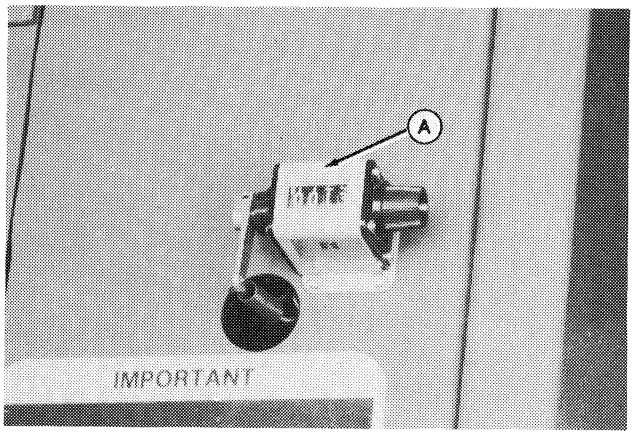
1. Install counter (A) with three No. 5 x 5/8-in. machine screws, No. 5 lock washers, and nuts.

2. Hook spring link (C) in eye of cotter pin (B). Install cotter pin (B) in belt tension arm as shown.

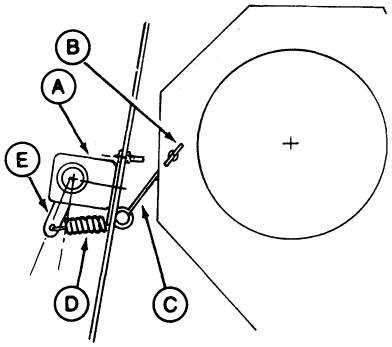
3. Install spring (D) as shown and close ends.

NOTE: Belt tension arm must be in down position.

4. Adjust counter arm (E) so slack is just removed from spring (D).



A—Bale Counter
B—Cotter Pin
C—Spring Link
D—Spring
E—Bale Counter Arm



E21738/E21739/530ASCN/062983

Specifications

BALE:	
Diameter	1 000 mm up to 1 829 mm (39 in. up to 72 in.)
Width	
430	1 170 mm (46 in.)
530	1 565 mm (61.6 in.)
Weight	
430	630 kg (1400 lbs.) (Depending on crop and moisture content)
530	833 kg (1850 lbs.) (Depending on crop and moisture content)
BALER:	
Weight	
430	1 773 kg (3940 lbs.)
530	1 958 kg (4350 lbs.)
Length ,gate closed	3 710 (146 in.)
Length, gate open	4 750 mm (187 in.)
Height, gate closed	2 810 mm (110 in.)
Height, gate open	3 640 mm (143 in.)
Width	
430	2 450 mm (96 in.)
530	2 840 mm (112 in.)
PICKUP:	
Width (inside)	
430	1 170 mm (46 in.)
530	1 560 mm (61.4 in.)
Width (on flare)	
430	1 410 mm (55.5 in.)
530	1 810 mm (71 in.)
Width (between outer teeth)	
430	1 120 mm (44 in.)
530	(1 520 mm (60 in.)
Bars	4
Number of teeth	
430	72
530	96
Tooth spacing	66 mm (2.6 in.)
Stripper diameter	255 mm (10 in.)
FORMING BELTS:	
Number	
430	6
530	8
Type	3-ply fabric, diamond tread
Length	530 (4) - 13330 mm (525 in.) (4) - 13490 mm (531 in.) 430 (2) - 13330 mm (525 in.) (4) - 13490 mm (531 in.)

530SPA/100182

TWINE WRAP:

Control	Self-activating, automatic to preset bale size
Type	Hydraulic, self-contained
Spacing	Adjustable, infinitely variable

OPERATOR'S CONSOLE:

Bale forming monitors	Dial indicators
Never-full bale indiator	Flashing yellow light
Auto-wrap indicator	Solid yellow light
Oversize bale protection	Red light with audible warning
Gate closed	Green light
Tire size	11L x 14, 6-ply rating 31.5 x 13.5 optional
PTO shaft speed	540 rpm 1000 rpm conversion
Drive protection	Slip clutch
Tractor recommended	
430	37.5 kW (50 hp) minimum
530	52.2 kW (70 hp) minimum

(Specifications and design are subject to change without notice.)

SERIAL NUMBERS

When ordering parts, always furnish model and serial number as given on serial number plate. It will assist your John Deere dealer in giving you prompt, efficient service. For your convenience, a space is provided for recording this number.

SERIAL NUMBER

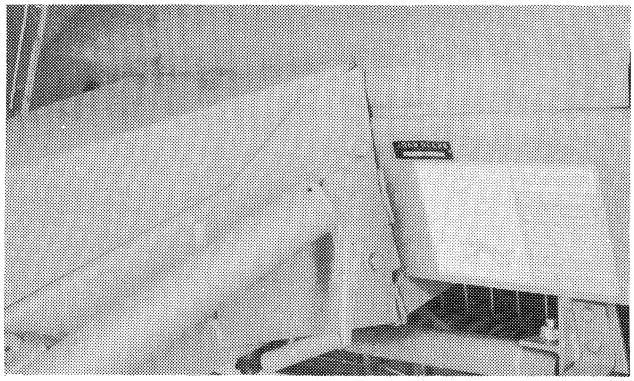
Baler Serial No._____

Date of Purchase _____ 19____

(To be filled in by purchaser)

530SPC/100182

The baler serial number is located on the left front of main frame cross member.



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Operator's Manual 430 and 530 Round Balers	OM-E73768		
Technical Manual 430 and 530 Round Balers	TM-1276B		

NOTE: If you want manuals or catalogs for equipment not shown on this list, list the model number, serial number and name of the equipment below.

FMO Manual - Tractors	FMO-10102B		
FMO Manual - Tillage	FMO-11102B		
FMO Manual - Planting	FMO-12102B		
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FMO Manual - Hay & Forage Harvesting	FMO-14102B		
FMO Manual - Combine Harvesting	FMO-15102B		
FMO Manual - Preventive Maintenance	FMO-16103B		
FMO Manual - Machinery Management	FMO-17102B		
FMO Manual - Machine Safety	FMO-18102B		
FMO Set of 9 Manuals above	FMO-394 Set		
FOS Manual - Hydraulics	FOS-1003B		
FOS Manual - Electrical Systems	FOS-2005B		
FOS Manual - Engines	FOS-3005B		
FOS Manual - Power Trains	FOS-4005B		
FOUR FOS MANUALS (above)	FOS-90 Set		
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FOS Manual - Bearings and Seals	FOS-5403B		
FOS Manual - Tires and Tracks	FOS-5505B		
FOS Manual - Mowing and Spraying Equipment	FOS-5604B		
FOS Manual - Air Conditioning	FOS-5705B		
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FOS Manual - Fiber Glass	FOS-5902B		
FOS Manual - Fasteners	FOS-6002B		
FOS Manual - Iden. of Parts Failures	FOS-6102B		
SET OF ELEVEN FOS MANUALS FOS-51B, 52B, 53B, 54B, 55B, 56B, 57B, 58B, 59B, 60B and 61B	FOS-71 Set		
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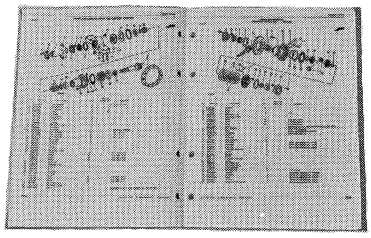
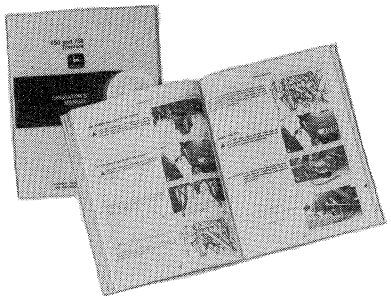
PARTS CATALOG



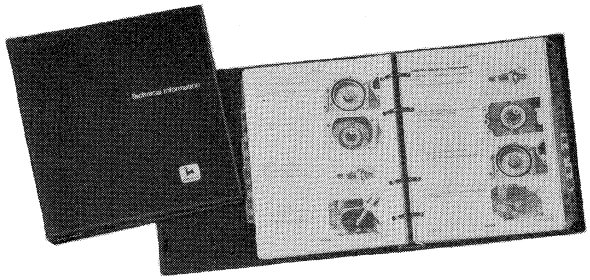
A parts catalog containing exploded view illustrations and lists of all parts is useful when purchasing service parts. Helps identify the correct parts. Useful in assembling and disassembling.

OPERATOR'S MANUAL



An extra copy of the operator's manual may be important if the copy furnished with your machine is misplaced.

TECHNICAL MANUAL



The technical manual is a service guide for your machine. Included in the manual are specifications, diagnosis and adjustments, illustrations of special assembly and disassembly procedures, hydraulic oil flows, and wiring diagrams.

FMO AND FOS MANUALS

These are basic manuals covering most all types and makes of agricultural machinery. FMO manuals tell ycu how to *operate* machines; FOS manuals tell you how to *service* machines. Each manual starts with basic theory and is fully illustrated with colorful diagrams and photographs. Both the"whys" and "hows" of adjustments and repairs are covered in this reference library.

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