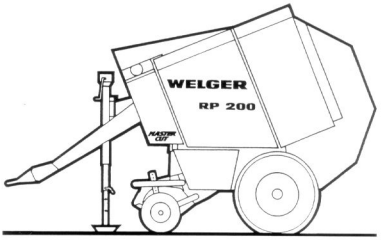
WELGER

RP 200

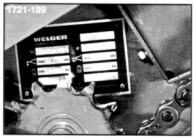


GB OPERATING MANUAL

1. Contents

⚠ Read the operating manual and safety instructions before putting the machine into operation. We have put a warning sign at points in this operating manual concerning your safety. Please also pass on the safety instructions to other users. The warning and instruction plates on the baler provide important information on safe operation. Pay attention to them for safety's sake.

The machine number is punched onto the data plate shown opposite. Warranty claims and enquiries cannot be dealt with without this number. Please enter this number here immediately after delivery:



Operating manual No. 1722.99.03.01

KCS 12.94.600 000

Manufacturer: **Welger** GmbH

Postfach 1965 • 38289 Wolfenbüttel

Telephone: (0044) (05331) 404-0 • Fax: (05331) 404-266 • Teletex: (17) 5331 8311

* Please note that the features marked with a [*] in this operating manual are fitted as standard only to certain models or are only available for particular models as additional features. These features are also not supplied to all export countries.

Handover Declaration

Please fill out this form when the machine is handed over and return it to the manufacturer. No warranty applications can be processed until this form is received.

WELGER GmbH
Abt. Service
Postfach 1965
D-38289 Wolfenbüttel

(1) Handover date	

(2) Type:	**RP 200**
Machine No.: (see rating plate: #)	

☐ Standard pick-up ☐ Cutting unit ☐ Net wrapping
☐ Wide pick-up ☐ Twine wrapping ☐ .....

(3) Customer's address:

Name:			
Street:			
Postal code:		Town:	

(4) The machine entered in (2) was purchased / used by me.

When the machine was handed over, I was given the Operating Instructions No. 1722.99.03.01, including the EC Conformity Declaration. The safety, operating and maintenance regulations contained therein were explained to me.

....
Date Customer's signature

(5) Address of sales partner / importer

Company stamp / signature	Company stamp / signature if different to (5)

(6) The machine was handed over to the customer in accordance with the manufacturer's guidelines.

....
Date Customer service specialist's signature

2. Components relevant to safety

1. Safety cover for binder area
2. Safety bracket for pick-up unit
3. Pick-up unit support wheels (only relevant to safety in the case of wide pick-up units)
4. Guard for bale pick-up unit drive and augers (only wide pick-up units)
5. Lateral front guard, left and right
6. Lateral rear guard, left and right (only open on the version with lateral binder container)
7. Rear cover of the rollers

⚠ Always keep components which are relevant to safety in a suitable condition. All guards must be fitted and closed before putting the machine into operation!

3. Your safety...

- Never carry out adjustments, repairs or maintenance and care work on the machine whilst it is running. Always first stop the pto shaft and pull the universal drive shaft off the pto shaft stub before carrying out work on moving parts of the machine.
- When driving on public roads, the universal drive shaft must always be fitted to the tractor pto shaft. The baling chamber must be empty.
- Never try to remove hay, straw or silage crop from the machine whilst it is running. Always first stop the pto shaft, switch off the tractor engine and remove the ignition key.
- Whilst work is in progress, only the driver should be on the tractor. Passengers are not allowed on the baler!
- Do not climb on the drawbar or other parts of the baler when it is in operation. Also, keep your distance from the pick-up unit.
- All protective guards must be fitted to the baler and must be in sound condition. Before opening the guards, stop the pto shaft and the tractor engine, remove the ignition key and wait until the machine has stopped.
- Adjustments to the drawbar must only be carried out by a competent person.
- No persons are allowed within the opening range when the tailgate is opened and closed. In addition, persons are not allowed to be present within the area of the opened and unsecured tailgate.
- Before entering the bale chamber, engage the tailgate support in the safety position (*Figure 1*).
- Before starting installation or assembly work on the hydraulic system, relieve the oil pressure. Close the tailgate before leaving the machine.
- Before detaching the baler from the tractor, secure it with the aid of the two chocks to prevent it rolling away. Carry the chocks with the baler. Deposit the universal drive shaft in the holder provided for it after pulling it off the tractor pto shaft.

Fire prevention

- Some crops are flammable under certain conditions.
- Always keep the baler free of crop remains and oil contamination.
- When machine parts are overheated, find the cause and eliminate it.
- Always keep the electrical circuits and exhaust system of the tractor in perfect working order.
- Do not smoke, and always keep a suitable fire extinguisher within easy reach.

⚠ If maintenance or installation/assembly work is performed with the tailgate open, it is essential to secure the tailgate to prevent it from dropping.

Use the cylinder support 4 on the right machine side for this purpose (*Figure 1*). To insert the support, completely raise the tailgate and open the right-side guard. Push the yellow support upwards until it fits between the upper piston rod linkage point and the upper edge of the cylinder housing.

Return the support to its original position after completing maintenance and installation/assembly work.

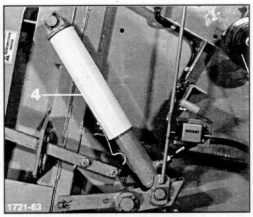


Figure 1

Noise level of tractors and machines

EC guideline 86 – 188 – EEC concerning noise at the workplace instructs employers and employees to measure and control the noise level at the workplace.

The noise level during normal field work is subject to various fluctuations which depend on the one hand on the noise level of the tractor and on the other hand on the conditions in which the baler is being used.

The noise level generated by the RP 200 baler, measured at the driver's head height with the tractor window open, is less than 70 dB (A) under normal working conditions.

The normal noise level generated by the baler and tractor primarily depends on the level of tractor noise (radios are an additional source of noise).

We recommend that the tractor be driven with the cabin windows closed.

Protective guards

In order to adhere to European safety regulations, prEN 704 requires the manufacturer of machines to make, no later than as from 01.01.95, fixed partitioning protective guards so that they can only be opened with a tool and which lock again automatically without the use of tools.

In order to open the protective guards on the WELGER baler RP 200, turn the hexagon head of the lock anti-clockwise with a 13 mm spanner and pull the guard off the machine (*Figure 2*). To close the guard, press the guard plate against the machine until the lock engages audibly.

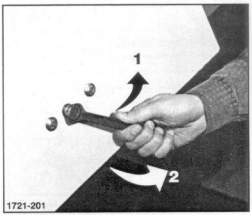
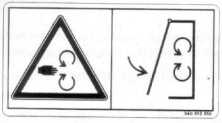
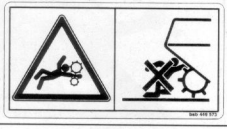


Figure 2

Warning symbols
Danger areas which cannot be made safe by design measures are identified by yellow warning symbols. Since these are signs without texts in most cases, their precise meaning is described below.

⚠ The warning symbol must always be kept in a recognisable state. If there are no warning symbols on your baler or if they are damaged, replace them (*also see spare parts list, Section F*).

Warning symbols/spare part No.	Meaning
	This plate indicates general danger areas. Spare part No.: 0391.05.00.00
	Close protective guards before putting into operation! Spare part No.: 0389.92.00.00
	Do not remain in the swing range of the tailgate when the tractor engine is running. Spare part No.: 0389.93.00.00
	Never reach into the bale pick-up unit area as long as the tractor engine is running with the pto shaft connected. Spare part No.: 0389.94.00.00
	Never reach into rotating augers. (Applies only to wide pick-up unit.) Spare part No.: 0389.95.00.00

Warning symbols/spare part No.	Meaning
	Do not go under the raised tailgate before the cylinder support is positioned (*also see Page 3, Figure 1*). Spare part No.: 0394.98.00.00
	The two crane eyes in the upper part of the baler are identified by this symbol. Other attachment points are not permissible for crane attachment. Spare part No.: 0389.48.00.00

Correct operation

- The roll baler is designed exclusively for baling agricultural crops from swaths (permissible use). Any other use, for example as a transport vehicle, is not permissible. The manufacturer does not accept liability for damage arising from impermissible use. Any risk is borne entirely by the user. It is not permitted to transport roll bales in the machine.
- Permissible use also includes observation of the manufacturer's operating, maintenance and servicing conditions.
- The roll baler may only be used, maintained and serviced by persons who are familiar with it and who have been informed about the dangers involved.
- It is not permissible to attach additional units apart from at the points provided for this purpose by the manufacturer.
- The relevant accident prevention regulations, in particular regional safety standards and the other generally recognised safety regulations, must be observed.
- Alterations carried out by the user and the installation of unapproved parts and attachments on the machine free the manufacturer of liability for any resulting damage. Use only original WELGER replacement parts. Only components with CE conformity may be used within the scope of validity of the CE guidelines.

Instructions for travelling on public roads

⚠ The roll baler is an agricultural trailer vehicle. It does not have to be registered, nor does an operating permit have to be issued for its use. When travelling on public roads and lanes, road traffic regulations require that it be fitted with an electrical lighting system. This is already permanently installed on your WELGER roll baler.

When driving on public roads and lanes, the lighting regulations for trailer vehicles must be observed. For this purpose, the connecting cable supplied with every baler must be attached in the sockets on the tractor and machine. Check that the lights are working correctly at regular intervals. Also, keep all indicator, braking, reversing and side lights and also the rear and side reflectors clean. Ensure that the lights are not covered by trailing crops.

The chocks (2 ea.) which form part of the safety equipment must be carried with the baler at all times.

The maximum permissible speed of 25 km/h must not be exceeded!

4. Technical data RP 200

Bale chamber	Diameter Width Volume	1.25 m 1.23 m 1.5 m^3	
Bale weight approx. (depending on the type and dry mass content of the crop)	Straw: Hay: Silage:	195 kg 240 kg 400 – 800 kg	
Bale density	Variable across a wide range. Outer layers more firmly compacted than core.		
Wrapping material	a) Sisal twine b) Plastic twine c) High-quality net for bales	Runnage .....200 or 330 m/kg Runnage .....400 to 750 m/kg Length .....2000 or 3000 m	
Wrapping unit	Fully-automatic (twine only) or hand-tripped (twine and net)		
Pick-up unit lifting device	hydraulic		
Tyres		Dimensions	Air pressure
		10.0/75 – 15 Impl. 11.5/80 – 15 Impl.* 15.0/55 – 17 Impl.* 19.0/45 – 17 Impl.* Pick-up unit support wheel	2.3 bar 2.0 bar 1.5 bar 1.5 bar 1.5 bar
Hydraulic connections	1 x single-action for tailgate 1 x single-action for pick-up device 1 x single-action for cutting unit*		
Tractor pto power required	Depending on bale density 40 kW/55 hp		
pto speed	540 rpm		
Drawbar	height-adjustable 40 – 90 cm		
Baler performance (depending on conditions of use)	30 – 40 roll bales/hour with twine wrapping		

Dimensions and weights	**with standard pick-up unit**	**with wide pick-up unit***
Pick-up width	1.5 m	2.0 m
Distance between outer tines	1.15 m	1.73 m
Tine bars	5	4
Length	4.0 m	4.0 m
Width (in working position)	2.26 m	2.56 m
Width (without pick-up unit support wheels)	—	2.30 m
Height	2.29 m	2.29 m
Empty weight (without binding material)	2,100 kg	2,600 kg

The data is approximate values and is non-binding. Design can vary.

* Please note that the features marked with a [*] in this operating manual are fitted as standard only to certain models or are only available for particular models as additional features. These features are also not supplied to all export countries.

5. Putting into operation

Attaching the baler

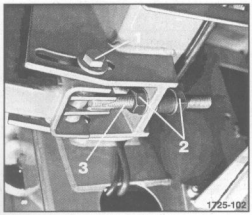


Figure 3

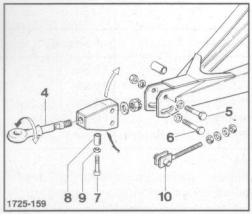


Figure 4

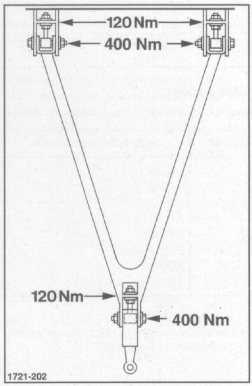


Figure 5

⚠ When handling in the vicinity of the drawbar, ensure that the machine is secured to prevent it rolling away. Do not crank up the support foot until the baler is securely attached to the tractor.

When uncoupling the baler, ensure that the support foot is on a solid surface and that the attachment pin on the telescopic tube is inserted and secured.

Keep children away from the machine at all times.

The roll baler must be connected to the tractor so that the lower edges of the side guards are approximately horizontal. To do this, the baler's triangular drawbar can be adapted to the relevant trailer height of the tractor:

To do this, align the baler horizontally with the support foot (see above). Undo the screws 1 (*Figure 2*) on both sides of the baler, undo the lock nuts 2 of the turnbuckle 3 on both sides and adjust the drawbar triangle evenly on both sides with the turnbuckles until the appropriate trailer height is reached. Bring the drawbar eye 4 into the correct horizontal position with bolts 5 and 6 and with the turnbuckle 10 (*Figure 4*).

⚠ The trailer hitch may only be adjusted at a suitable specialist workshop. Tighten all fastening bolts and nuts securely after making the adjustments. (*Tightening torques, see Figure 5.*)

After attaching the baler, screw in the support foot with the hand crank until there is sufficient clearance from the ground.

Important: A rotatable or a rigid drawbar eye can be fitted, depending on the variant (pay attention to national regulations)! The drawbar eye 4 (*Figure 4*) can be rotated about its longitudinal axis, but should be locked for high hitch attachment:

⚠ For high hitch attachment, prevent drawbar eye 4 from turning by fitting parts 7, 8 and 9. For low drawbar attachment, do not stop drawbar eye 4, i.e. parts 7 – 9 must not be fitted. Parts 7 – 9 are enclosed loose with the tool kit when the machine is delivered (*also see spare parts list, Section B*).

Fitting the universal drive shaft on the tractor side

a) Standard wide angle universal drive shaft with integrated shear bolt clutch and free-wheeling device:

Clean the pto splines on the tractor and baler. Push in sliding pins and fit the universal drive shaft. The sliding pins must be heard to engage properly. Ensure that the wide-angle joint is fitted to the tractor and that the shear bolt clutch is on the baler side. When overloading occurs, the torque is interrupted by bolt shearing.

Put back into operation after remedying the fault and replacing the shear bolts: spare part No. 0901.10.50.00

b) A wide-angle drive shaft with an automatic overload clutch facility* and free-wheeling device is available as a special feature:

Clean the pto shaft splines on the baler and tractor. Pull the sleeve of the QS quick-action lock back until it remains open (*Figure 6*).

Push the universal drive shaft onto the pto shaft until the QS lock automatically engages (*Figure 7*).

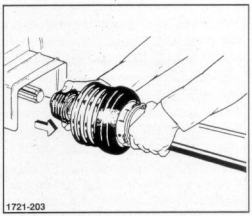


Figure 6

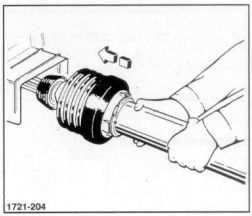


Figure 7

Fit the cam-type cut-out clutch* on the machine side

To do this, turn the retaining ring on the yoke lock in the direction of the arrow. Push the universal drive shaft onto the pto shaft until the lock engages in the original position (marking) (*Figure 8*).

By pushing and pulling, check whether the balls are engaged in the spline ring groove. Tighten the bolt above the clamping wedge (marking) and regularly check it to make sure that it is secure (*Figure 9*).

When overloading occurs, the torque is interrupted by the automatic overload safety device. Build up the torque by switching off the pto shaft and switching it back on at a greatly reduced pto shaft speed.

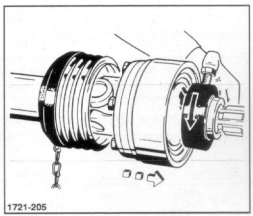


Figure 8

Important: Only the universal drive shafts stipulated by the manufacturer may be used. The free-wheeling device as an integral part of the universal drive shaft protects the machine drive against overrun loads.

⚠ The protective tube and cone of the universal drive shaft and the pto protection device must be fitted and must be in sound working order.

Before starting the pto shaft, ensure that the selected rpm of the tractor is in accordance with the permissible rpm and the machine's rotational direction. If the tractor is equipped with a hydraulically or pneumatically shifting pto shaft clutch, only start the pto shaft at idling speed!

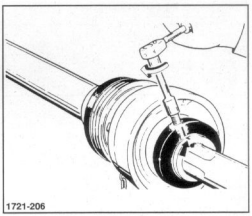


Figure 9

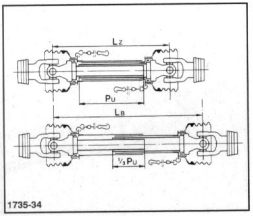


Figure 10

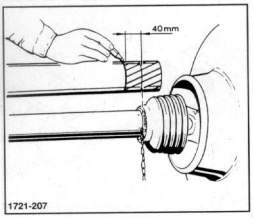


Figure 11

Adjusting the universal drive shaft

Pay attention to the maximum operating length LB (*see Figure 10*). Aim for the greatest possible overlap PU. During operation, the universal drive shaft telescopic length may not be extended to more than half of the length of the plastic tubes PU with the pto shaft pushed together, having a centre to centre length of LZ. If necessary, adjust the length.

- To do this, hold both halves of the universal drive shaft together in the shortest operating position and mark them (*Figure 11*).
- Shorten the guards and profiles equally.
- Shorten the inner and outer sliding sections by the same length as the plastic tube.
- Round off the separating edges and carefully remove chips. Grease the sliding sections.

Secure the protective tubes of the universal drive shaft with a chain to prevent them spinning.

Before putting into operation, always check the universal drive shaft to ensure that the locks are engaged.

Important: When turning sharp bends, ensure that the following angles are not exceeded on the wide-angle joint (tractor side):

Continuous operation	max. 25°
Short-term operation	max. 80°
Stationary	max. 80°

Connecting the hydraulic lines

⚠ When connecting the hydraulic hoses to the tractor hydraulics, make sure that the hydraulics are depressurised both on the tractor side and on the machine side.

Depending on the model chosen, the RP 200 has a maximum of three different hydraulic connections with push-in couplings (nominal diameter 10) for operating the following machine parts:

Symbol	Colour	Function
	Yellow	Opening and closing the tailgate
	Red	Pick-up unit (hose with shut-off valve) When driving on the road, lock the pick-up unit in its highest position with the aid of the shut-off valve.
	Green	Cutting unit* (hose with shut-off valve). When the tractor control valve is set to "lift", the cutting unit is swivelled out of the working position.

Note: If there are not enough connections on the tractor for the simultaneous operation of all hydraulic functions, refer to Page 30 under the heading "special features".

Electrical connections

When driving on public roads and lanes, you must observe the lighting regulations for agricultural trailers. For this purpose, the connection cable supplied with each roll baler for the indicators, brake lights and rear lights must be plugged into the sockets on the baler and tractor. Correct functioning of the lighting system should be checked regularly.

Connecting the signal box

Fit the bracket for the signal box in the tractor cabin and plug in the signal box. Connect the plug of the connecting lead on the tractor.

The green indicator lamp on the signal box shows that the supply voltage is present with correct polarity.

6. Twine wrapping*

⚠ Insert and thread new twine spools only with the baler switched off. Remove the ignition key.

Use baler twine of good quality. Refer to Page 7 for the technical data. When the bales are to be stored outside, it is recommended to use plastic twine. Put spools upright into the twine box (*Figures 12 and 14*). Unless spools are inserted the right way up, the twine tends to form loops and tear.

Pull the twine end out of spool A_1 upwards out of the wrapping and tie it to the start of spool A_2 with a simple knot. Tie spools B_1 and B_2 in the same way (*Figures 12 and 14*).

If the machine has twine boxes at the front and sides, up to four spools can be tied together (A_1 to A_4 and B_1 to B_4, compare *Figure 14*). Always pull the start of the twine through the eyes located above each twine spool.

Threading the twine (twine box only at the front)
Before threading the twine, move the twine running indicator 4 (*Figure 30*) by turning the pulley 1 over the left marking in the driving direction (starting position). Refer to *Figures 12 and 13* when threading the twine. Threading diagrams are also present on the machine.

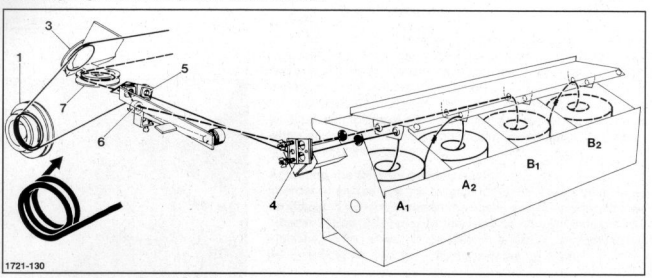


Figure 12

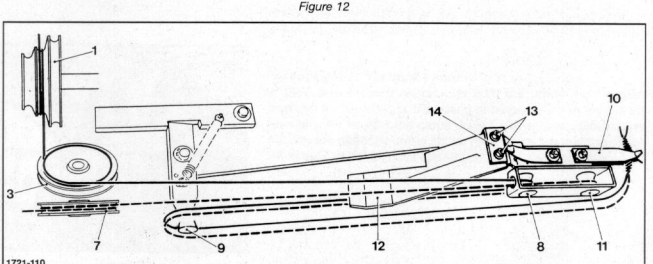


Figure 13

First twine (shown in the threading diagram as a continuous line):
Pull the twine out of spool A_1 through the top guide eye in the twine box, through the side of the twine box and out of the twine box and through the twine tensioner 4. Adjust the twine tensioner 4 so that the spring lengths are 35 mm.

Pull the twine through guide eye 5, around guide roll 3 and then guide it to the centre of the machine into the twine thrower area. *Figure 13* shows the further progress of the twine in the twine thrower area. Guide the twine, as shown, around bobbins 8 and 9. Jam the end of the twine under leaf spring 10. Pull the twine around guide roll 3 once and around step pulley 1 twice.

Second twine (shown in the threading diagram as a dotted line):
Pull the twine out of spool B_1, through the top guide eye in the twine box, through the twine box side panel and out of the twine box and through the twine tensioner 4. Guide the twine through the spring-loaded guide eye 6 and once around the guide roll 7. Guide the twine around bobbins 11 and 9 as shown in *Figure 13*. Twist both twine ends together and jam under leaf spring 10. Finally, pull both twines tautly towards the twine spool.

Threading the twine (additional twine box on side)*
With the additional twine box fitted on the side of the machine, the twine is threaded as shown in *Figure 14* and not as described above.

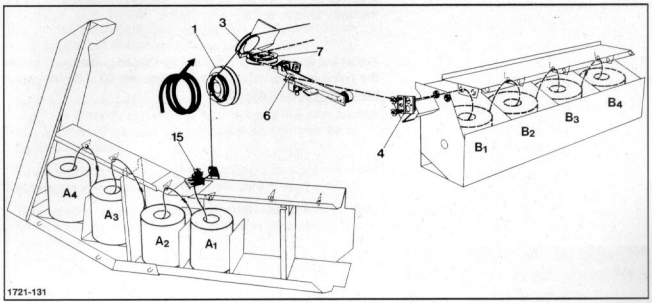


Figure 14

First twine (shown in the threading diagram as a continuous line):
Pull the twine upwards out of spool A_1 and out of the twine box, through the twine tensioner 15, through the twine guide eye of the twine box rear panel and to the guide pulley 3. Loop the twine around guide pulley 3 once.

Second twine (shown in the threading diagram as a dotted line):
Guide the twine out of spool B_1 through the upper guide eye in the twine box, through the twine box side panel and to the twine tensioner 4 and spring-loaded guide eye 6.

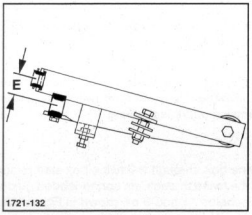


Figure 15

After looping the twine around guide roll 7, the twine can be threaded into the twine thrower area as shown above in *Figure 13*. Finally, make two loops around the step pulley with the first twine and pull both twines tautly towards the twine spool.

Note: The wrapping distance of twine on the finished bale can be preselected. This is determined by the runnage of twine around step pulley 1 (*Figures 12, 13 and 14*).

A large pulley diameter results in a narrow twine wrapping distance and vice versa. To prevent thin twine from slipping from the step pulley, wrap it up to three times around the step pulley.

Check the twine thrower 12 (*Figure 13*) for correct setting. The measurement between the tightly tensioned lower twine and the twine thrower 12 must be 10 – 20 mm. If this is not the case, loosen bolts 13 and adjust angle 14 in the longitudinal holes, so that the measurement is within the tolerance range. The twine thrower 12 must go directly past the lower edge of the wrapping unit frame. Tighten bolts 13 again.

Important: Do not turn the step pulley 1 (*Figures 12 – 14*) manually after threading.

Adjust the spiral spring of the spring-loaded guide eye 6 before the twine is threaded so that the eyes are 20 – 30 mm apart (*dimension E in Figure 15*).

7. Net wrapping★

Inserting the net roll

Open the guard above the net wrapping unit. Push the net tensioner 2 (*Figure 16*) backwards and lock it in this position with the split pin on the right side of the net retainer. Take the net roll holder (in the driving direction on the left) by its handle, unlock it by turning it briefly to the right and remove it from its mounting. Push the net roll onto the net roll holder (in the driving direction on the right). Guide the detached net roll holder into the cardboard centre of the net roll and secure it again by turning it to the left. Move the net roll so that it is in the centre of the roll chamber and then tension it by strongly turning the handwheel (*Figure 16*).

⚠ In order to handle the net roll safely, insert it together with a helper!

Roll off some net and guide it under the directing tube 3, around the net tensioner 2 and over the stretching device into the intake area of the rubber roll 4. Release the net tensioner 2. Gather in the net end from each side until its width is halved and put it in the space between the rubber roll 4 and the steel roll 5. Turn the rubber roll 4 manually until the net has been securely grasped.

The net must always be taut between the intake rolls 4 and 5 and the net roll 9. If the range of the net tensioner is exhausted and if the net is still loose, adjust the disc brake (*see Page 16*).

Hook the tension springs 10 of the net tensioner into the second chain link as seen from the spring.

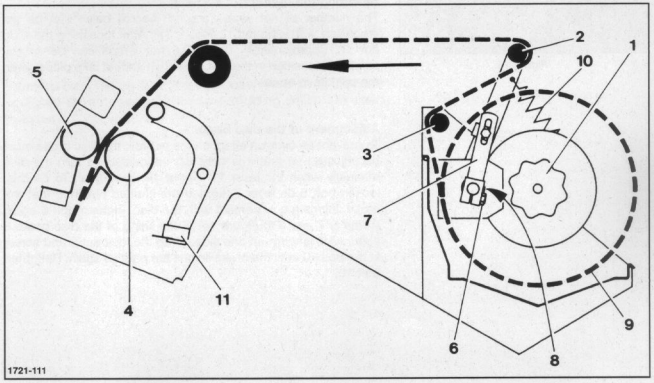


Figure 16

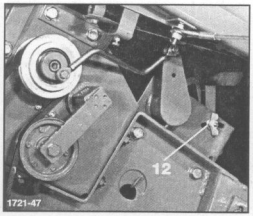


Figure 17

⚠ Never carry out adjustments and repairs or maintenance and care work on the machine when the drive is running. Switch off the tractor engine and wait for the machine to come to a standstill. Switch off the pto shaft and pull the universal drive shaft off the pto shaft before carrying out work on moving parts of the machine.

Before entering the baling chamber, bring the tailgate support into the safety position (*see Page 3, Figure 1*).

Take care when opening and closing the tailgate! Make sure that no persons are present in the swing range of the tailgate!

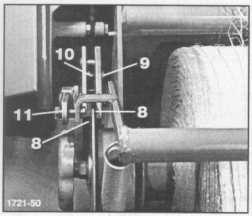


Figure 18

Tensioning the net wrapping unit

The net wrapping unit is reset automatically each time the tailgate is opened. If, when the baling chamber is full, the net must be tripped a second time without opening the tailgate (in the event of a fault or net roll change), resetting can be done manually. Pull lever 11 (*Figure 16*) forward against the spring tension as far as possible. Tripping follows as normal by pressing the green pushbutton.

Selecting the number of net wraps

The number of net wraps around the roll bales can be set steplessly with wing nut 12 (*Figure 17*). After loosening the wing nut 12, approximately 1.5 to 3.5 net wraps can be set by varying its position in the slot. Selection should take place when the tailgate is open.

Adjustment of the disc brake

To prevent an overrun effect on the net roll, the disc brake must be adjusted so that it is only just impossible to turn the disc manually when the lever 11 (*Figure 18*) is vertical. To do this, loosen bolt 6 on lever 7, tighten the knurled nut 8 so that the brake linings are in contact with the disc. Tighten bolt 6 again (*items 6, 7 and 8 in Figure 16*). If the lining of the disc brake 8 (*Figure 18*) is worn on one side, undo the lock nut 9 and screw in the bolt 10 until the brake linings are parallel again. Retighten bolt 10.

Adjusting the vibration damper

The movements of the net tensioner 2 (*Figure 16*) are braked on the machine side by a vibration damper (*Figure 19*).

Two wing nuts press the friction linings against the nut tensioner from both sides. To adjust the net tensioner, first move it into its upper end position and tighten the wing nuts "hand-tight". Do the same in the lower end position. The setting is correct when the net tensioner can still just be moved manually backwards and forwards between the two end positions.

During net wrapping, the net tensioner may only move slowly between the two end positions so that the net remains taut.

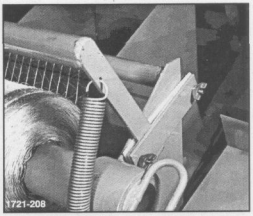


Figure 19

Adjusting the control unit

No special adjustment and maintenance work normally needs to be carried out on the net wrapping controller. However, if the adjustment dimensions shown in *Figures 20 and 21* have changed, re-adjust them as follows:

The distance between the transport roller 1 and segment 2 must be 5 mm when the tailgate is open (dimension A). If it is not, adjust it with screw 3. The length of the connecting rod is 235 mm. Adjust the two spiral springs 5 of the pressure roller 6 (*Figure 21*) to a length of 107 mm (dimension C).

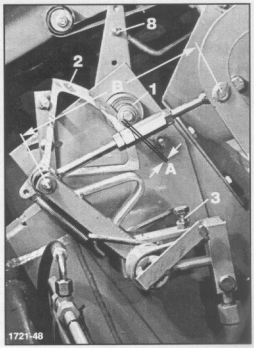


Figure 20

Setting the anvil to the blade

If the net has not been cut off completely at the end of the wrapping process, check to see that the anvil and blade are parallel and adjust them if necessary.

To do this, remove the net drive (complete with blade beam and anvil) from the machine. If there is a gap between the anvil and the knife, loosen the anvil in the area concerned and adjust with pressure bolts. After adjusting, securely tighten the cheesehead screws. It is possible to turn the knife three times. The anvil can be turned once. When doing this, remove any paint which may be on the blade.

⚠ Do not reach into the blade's working range. – **There is a danger of injury!**

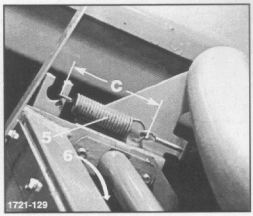


Figure 21

8. Field operation

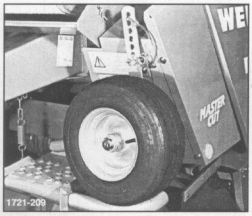


Figure 22

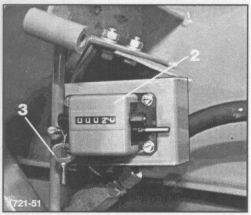


Figure 23

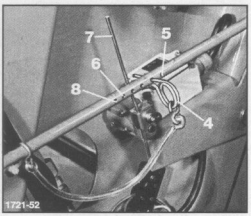


Figure 24

⚠ The roll baler is well guarded against possible accidents. Even so, it is important to operate the baler with appropriate care. Before starting to bale, check and keep all guards in place.

Never remedy malfunctions when the machine is in operation. Take special care when opening and closing the tailgate. Make sure that no persons are present in the swing range of the tailgate!. Use the tailgate support before entering the baling chamber (*see Page 3, Figure 1*)!

Before road transport

With the tractor hydraulics, lift the pick-up unit into its highest position and attach the depth limiting chain as short as possible. Close the shut-off valve on the hydraulic hose. The pick-up unit is now hydraulically and mechanically secured and remains in the transport position.

In the case of wide pick-up units:* bring the pick-up unit support wheels into the parking position (*Figure 22*).

Setting the bale counter

To keep a correct count of ejected roll bales, the bale counter 2 must be set to 0 with the supplied key 3 before operation (*Figure 23*).

Pre-set bale density

The required bale density can be pre-set by putting the spring pin 4 into various positions (*Figure 24*). The front four holes are provided for practical use. The greatest bale density can be reached in the front hole 5. The bale density can be reduced by moving the spring pin 4 back to the fourth hole.

Hole 6 serves merely as an assembly aid at the works and is not suitable for field operation. It must be ensured that the spring pin 4 is always inserted in front of the tripping lever 7 in the direction of travel.

Clamping sleeve 8 in the rear hole is used for adjustment at the factory and for later checking the basic setting.

To do this, the baling chamber must be empty and the selection switch on the signal box must be set to "manual". If the tripping lever 7 is moved backwards now, the signal sounds when the clamping sleeve is reached. To re-adjust, the switch can be moved in the mounting holes.

Setting the pick-up unit height
The pick-up unit is lifted and lowered by the tractor hydraulics. Once in the field, move the pick-up unit from the transport position to the working position. Avoid ground contact of tines. Do not remove clogging by lifting the pick-up unit hydraulically. Refer to the faults table.

The support wheel 9 (*Figure 25*) can be set higher or lower depending on the required pick-up unit clearance. Normally, the tines of the pick-up unit should have at least 2 cm clearance from the ground in the working position.

> ⚠ To adjust the support wheel, first completely raise the pick-up unit hydraulically and switch off the tractor engine.

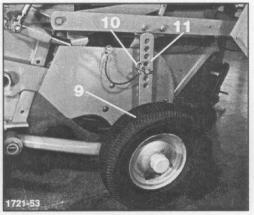


Figure 25

Pull out spring pin 10 and fit the bracket 11 on the required hole. Secure the guide wheel with the spring pin again. If a support wheel is fitted on both sides, always select the same setting for the opposite support wheel.

So that the pick-up unit does not sink too low in the working position when the ground is very uneven, attach the limiting chain 12 to the hook accordingly (*Figures 26 and 27*).

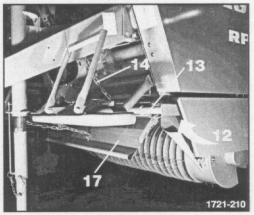


Figure 26

Wide pick-up unit*
The RP 200 is available with a wide pick-up unit as a special feature (*Figure 27*). The pick-up width is then 2 m. Two side augers and a rotating feeder between the pick-up drum and baling chamber give a rapid flow of material into the baling chamber. The baler is fitted with a fully-automatic cam-type cut-out clutch against overload.

> ⚠ In the case of the wide pick-up unit, both pick-up unit support wheels cover the tine range of the pick-up unit at the side and are therefore part of the safety equipment.
>
> Both pick-up unit support wheels must always be fitted when the baler is in use.

Figure 27

Windguard setting
The windguard 13 (*Figures 26 and 27*) is movably fitted above the pick-up unit drum. The swivel height of the windguard brake adapts itself steplessly to the swath thickness of the crop, thereby guaranteeing optimum guidance of the crop into the baling chamber. The upper end of chain 14 must always be attached to the hook in order to prevent seizure by the pick-up unit.

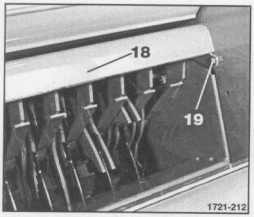


Figure 28

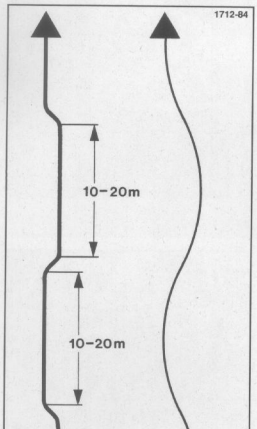


Figure 29

Pick-up unit cover shield*

(Special feature with standard pick-up unit.) The pick-up unit cover shield prevents short material from rolling away ahead of the pick-up. Fit cover shield 17 as shown in *Figure 26*. Hang both straps of the pick-up cover shield on the inside of the windguard and secure on both sides with a spring pin. Setting is carried out by a chain with spring hook. Hang the cover shield higher if the crops are longer.

In the case of the wide pick-up unit, the cover shield is fitted as standard and forms a unit of the windguard.

Feed guide plate

We recommend the use of the feed guide plate 18 for certain crops and operational conditions. This is supplied. These are in particular the use of net wrapping and short, brittle crops which greatly bulge out of the feed opening. Take the feed guide plate out of the inside of the drawbar and, from the baling chamber, insert it into the hole on the left (in the driving direction) behind the first roller, then insert the peg with the fixing strap into the hole on the right (in the driving direction) and tighten with bolt 19 (M 10) (*Figure 28*).

Windrowing

The baler performs at its best when the windrows are uniform and up to 1.5 m in width.

Good driving

To obtain high output and well-shaped round bales, the baling chamber must be fed evenly with material over the entire baler width. Good driving greatly contributes to steady, smooth feed. If windrows are narrower than the pick-up width, drive alternately along the right and left sides of the windrow to ensure uniform chamber feeding (*Figure 29*).

Pto shaft speed

The baler is operated at a standard pto shaft speed of 540 rpm. If extremely short and brittle crops are being baled, the pto speed can be reduced to approximately 350 – 450 rpm with no problems. When baling short and damp material, do not switch off the pto shaft during baling.

⚠ Only the universal drive shafts stipulated by the manufacturer may be used. Also see spare parts list, Section D.

The protective tube and cone of the universal drive shaft and the pto shaft guard must be fitted and must be in sound working order. Always check that the universal drive shaft is fitted correctly and well secured!

Secure the universal drive shaft guard by attaching the chain to prevent it turning. Before starting the pto shaft, ensure that nobody is within the danger zone on the machine!

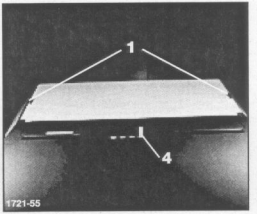


Figure 30

Locking the tailgate

Before picking up the crops and after each bale ejection, the tailgate must be locked properly. Keep the tractor control valve for actuating the tailgate to "lowering" for this purpose. This automatically locks the tailgate. The tractor driver can see this when the tailgate lock indicators 1 (*Figure 30*) are in the upper position.

If the tailgate is open or not correctly locked, the indicators 1 are retracted and are in the lower position.

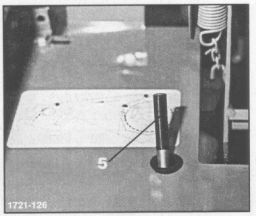


Figure 31

Bale density

The density of the round bale depends on the material and the compaction pressure. It can be varied widely and can be pre-set on the baler (*see Page 18*).

From his seat, the tractor driver can observe the filling indicator 5 (*Figure 31*) to determine the level of filling which has been reached.

Wrapping the bale

The signal box (*Figure 32*) has 2 illuminated pushbuttons (green and red), a buzzer and a rotary switch with the following functions:

Item in Fig. 32	Component	Function	Meaning
1	Buzzer		Gives signal for starting wrapping (together with red lamp)
2	Green illuminated pushbutton	Indicator lamp	Supply voltage with correct polarity is present
		Pushbutton	Manual net wrapping triggered (To do this, turn rotary switch to "manual")
3	Toggle switch	"Manual" position	Start twine wrapping with red pushbutton or net wrapping with green pushbutton (With net wrapping, press the green pushbutton for approx. 1 – 2 seconds until the net is contacted by the bale – recognisable by the rapid rotation of the net roll.)
		"Automatic" position	Twine wrapping is automatically triggered after the pre-set bale density is reached
4	Red illuminated pushbutton	Indicator lamp	Sends signal for starting wrapping (together with buzzer)
		Pushbutton	Triggers twine wrapping when rotary switch is set to "manual"

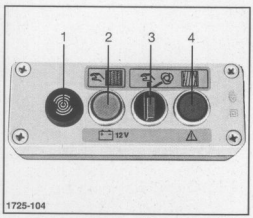


Figure 32

When the pre-set bale density has been reached (*see Page 18*), the RP 200 automatically signals this visually and audibly to the tractor driver by way of the signal box. Depending on the position of the rotary switch of the signal box (*Figure 32*), wrapping (twine/net) is automatically triggered via the push-buttons or, in the case of twine, automatically. When the twine or net has been drawn in – this can be seen on the twine running indicator 4 (*Figure 30*) or, in the case of the net, the net roll is seen to rotate rapidly – the tractor driver stops forward travel.

Whilst correct running of the driver twine can be seen on the twine running indicator 4 (*Figure 30*), a white lamp on the right side of the machine above the pick-up unit indicates that the second twine is running faultlessly.

On the RP 200, bale wrapping can be triggered at any time by pushing the pushbutton on the signal box, not only when the pre-selected bale density has been reached.

Important: In the case of net wrapping, ensure that the rotary switch is set to "manual" in order to avoid unwanted twine run-in.

Note: If very brittle crops are being wrapped with twine, the following procedure has proved to be advantageous.

1. In order to wrap in the end of the twine securely, feed in some more crop for a short time after the wrapping cycle has been started.
2. At the end of the wrapping cycle, reduce the pto shaft speed and eject the bales as the rollers are rotating slowly.

Combined net / twine wrapping
When using the RP 200, it is possible to combine both wrapping methods simultaneously, which reduces losses caused by crumbling and keeps net consumption down:

To do this, set the rotary switch on the signal box to "automatic". As soon as the pre-set density is reached, the signal sounds and twine wrapping starts automatically. Immediately after the signal sounds, the tractor driver must engage the net wrapping cycle manually. When using this wrapping combination, it is sufficient to select the minimum number of net wrappings and a small diameter on the step pulley.

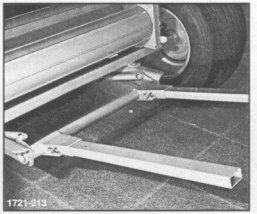


Figure 33

Bale ejection
After the wrapping cycle has ended, open the tailgate hydraulically for the bale to roll out. Keep the control valve on the tractor side set to "lowering" until the tailgate is completely closed and locked (*for indicator, see Figure 30*). The next bale can then be started.

To prevent the tailgate hitting the ejected bale when it is being closed, a bale ejector is fitted below the baling chamber (*Figure 33*). When bales are ejected, this forms a slope so that the bale rolls out of the swing range of the tailgate.

⚠ In order to prevent the risk of injury, the two square tubes of the bale ejector (*Figure 33*) may only be fitted for field operation.

When working on hilly ground, be sure to eject the bale across the run of the slope so that it cannot start moving.

Take special care when opening and closing the tailgate. Make sure that no persons are present in the swing range of the tailgate!.

Setting of end wrappings
For setting the end wrappings on round bales, adjust the guide hooks 6 and 7 in *Figure 34*. If baling very dry materials and if the bale ends are not filled out properly, the guide hooks 6 and 7 must be moved further inwards. Open the wrapping unit cover, lift guide hooks 6 and 7 manually and then move them sideways. Six different rest positions for each guide are possible. Close the cover after adjustment.

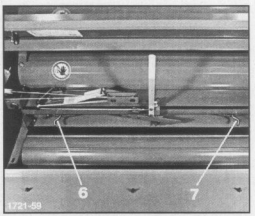


Figure 34

9. Cutting unit*

The cutting unit can be used for silage, hay and straw. It is swivelled in and out hydraulically. The third single-action control valve on the tractor (if present) is used for this purpose. If only two control valves are present on the tractor, the bale pick-up unit lifting fixture and cutting mechanism must be actuated with the same control valve. The hydraulic hose not connected is then closed off by the ball valve.

Note: A three-way valve is available under the WELGER spare part No.: 1722.82.10.00. It allows up to three hydraulic functions to be actuated from a single tractor control valve. Switchover is automatic from the tractor's seat.

To bring the blades into the cutting position, set the control valve to "lowering". If, on the other hand, the cutting unit hydraulic cylinders are put under pressure (control valve set to "lift"), the blade locking device swings to the rear and the individual blades can descend by force of their own weight. When a blade comes in contact with a foreign body, it can spring away and return to its original cutting position automatically.

To ensure that each blade can move freely, it is advantageous to let the cutting unit swivel in and out several times each day.

When baling crumbly crops, it is recommended to hydraulically swing the cutting mechanism out of its cutting position for a short time before the wrapping cycle begins. By doing this, the bale gets a final wrapping of long material which prevents crumbling to a great extent.

Installing and removing the blades

The blades can be removed individually. To do this, swing the cutting mechanism out of the feed channel area. Open the tailgate and support with the cylinder support. Swing the blade axle lever on the auger housing (on the right when driving forwards) down by 90° (*Figure 35*). Pull the blade from the baling chamber upwards towards yourself from the blade axle and remove from the slit.

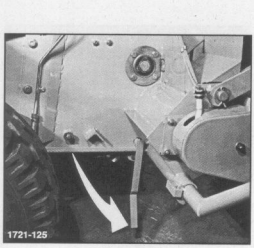


Figure 35

⚠ **Warning! Danger of injury!** Always wear protective gloves when working on the blades.

The removed blades can be brought into the parking position on the right side of the transport housing and secured with a split pin.

The length of the crop cut can be varied by removing individual blades. If the cutting unit is not required over an extended period, all blades can be removed.

In this case, the slits in the floor of the auger housing should be covered by the supplied guard. Push this cover guard from the open baling chamber into the front clamps and secure it with three countersunk bolts and washers.

Regrinding the cutting unit blades

In order to guarantee optimum crop throughput, it is recommended to sharpen the cutting mechanism blades no later than after cutting 500 bales. Depending on the operational conditions, sharpening may also be necessary before this. To do this, remove the blades as described above and sharpen them on one side from the smooth side. Ensure that the hardened cutting edges do not anneal.

Overload safety

To safeguard the machine against overload, the RP 200 can be supplied with either a shear bolt clutch or an automatic cam-type cut-out clutch* on the universal drive shaft. This interrupts the torque when an overload occurs.

On the version with the cam-type cut-out clutch*, the torque is built up again if the pto shaft speed is reduced or switched off, so that the machine can be put back into operation immediately. Avoid long and frequent periods of overload. Ensure that only the correct universal drive shaft is being used.

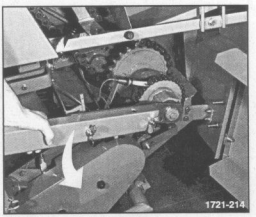


Figure 36

Reversing the auger

In order to release blockages in the pick-up unit area, the auger of the wide pick-up unit* can be turned backwards. To do this, open the guard of the pick-up unit gear reducer unit. Remove the spanner from the inside of the guard and extend with a bale ejector tube by screwing.

To turn the auger, put the spanner onto the outer shaft end of the gear reducer unit (*Figure 36*). If present, swivel the cutting unit blades* out of the intake area.

⚠ Only deal with faults on the intake components, e.g. pick-up unit, feed rotor and augers when the tractor engine has been stopped and the ignition key removed.

On the cutting unit special feature: when the cutting device has been lowered, there is still a danger of injury when working in the feed area. Always wear protective gloves!

10. Baler maintenance

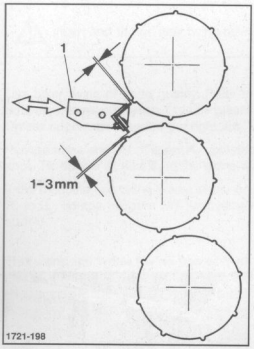


Figure 37

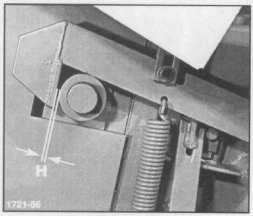


Figure 38

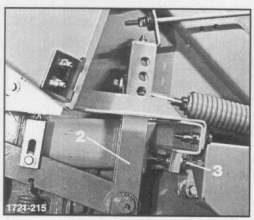


Figure 39

> ⚠ Never carry out repairs or maintenance and care work on the machine when it is running. Stop the tractor and remove the ignition key. Wait for the baler to come to a standstill. Shut off the pto shaft and remove the universal drive shaft from the pto shaft before performing work on moving machine parts.
>
> Secure the tailgate with the tailgate support before entering the baling chamber (*Figure 1*).
>
> Take care when opening and closing the tailgate. Make sure that no persons are present in the swing range of the tailgate!.

Look after your baler with care and always observe the specified servicing intervals in order to ensure cost-efficient operation and a long service life and to prevent premature repairs and to maintain the baler's value.

Deflectors

In order to prevent wrapping material leaving the baling chamber, two deflectors 1 have been fitted in the area of the two rolls (*Figure 37*). After undoing the securing bolts in the side panels, the distance between the deflectors and the rollers can be adjusted. This adjustment must be made so that the longitudinal profiles of the rollers only just touch the deflectors when passing them during operation. When this is the case, tighten the bolts again.

Adjusting the tailgate locking device

In order to ensure that the tailgate locks are safely, there must be play of H = 5 mm between the hooks and the holders on the tailgate (*Figure 38*). Keep to the settings on both sides of the machine. In the event of deviations, appropriately adjust the position of the rocker rod 2 with screw 3 (*Figure 39*).

Note: The basic setting of the wrapping start is changed by adjusting the rocker rod 2. See also "basic setting" (*Page 18*).

Scraper above the intake screws*

In the case of the wide pick-up unit, the crops are bundled together to the width of the baling chamber with the aid of two feed augers. So that the crops do not get wrapped around the augers, the deflector strips above must be set so that the auger windings just fail to make contact with the deflectors as they go past.

Tensioning roller chains and V belts

The chain tension for the pick-up unit drive (in the driving direction on the left) and for the drive of the right auger (only on the wide pick-up unit) must be checked and, if necessary, readjusted no later than every 500 bales. Loosen the chain tension blocks and retension them in the slots. Retighten the chain tension blocks firmly.

The rubber-sprung chain tensioning lever (wide pick-up unit drive – auger on the left in the driving direction) is readjusted by loosening the hexagon bolt on the inside under the bearing block and by turning the square housing a/f 36 to approximately 15° (using the marking provided) and then by tightening up the hexagon bolt again.

The remaining drive chains are elastically tensioned by springs 2 (*Figure 40*). Tension these springs so that the spring washer is flush with the angle gauge (dimension X). After readjusting, tighten them once again. If the chain tension range is exhausted, shorten the chain by removing one link. If necessary, insert a cranked chain link from the tool kit (spare part No.: 0934.60.90.00).

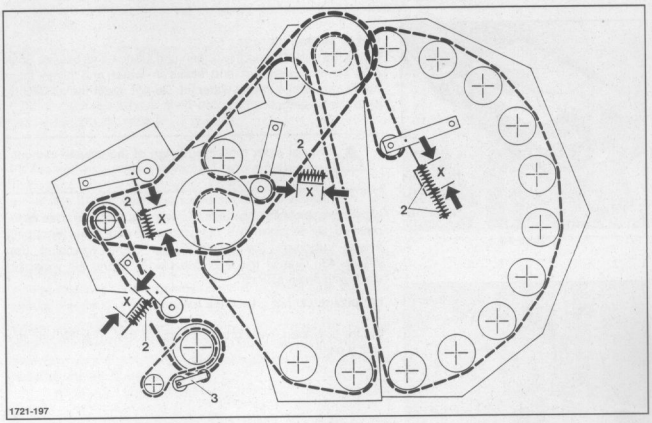


Figure 40

Changing the gear oil

The oil in the gear box must be changed after every season (*Figure 41*). Take off the filling cap E with breather, remove the drain plug A and drain out the old oil into a container. Remove the screw plug from the oil inspection hole K. Clean the drain plug and refit it. Fill with approx. 1.65 l of gear oil SAE 90 until oil comes out of the inspection hole K. Refit the caps on the oil inspection hole and filling hole tightly. Check the oil level regularly.

Important: Dispose of old oil in an environmentally-friendly way.

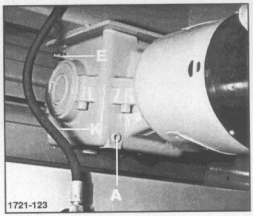


Figure 41

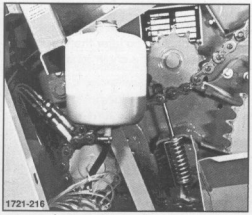


Figure 42

Automatic chain lubrication*
Check the oil level in the tank daily and add chain saw oil if necessary. First, open the guard door on the left of the machine to reach the oil tank (*Figure 42*). Adjust the central lubrication brushes so that they just make contact with the chains.

Important: The lubrication system is designed for the use of bio-degradable adhesive chain saw oils which, however, must not be mixed with standard mineral oils.

Tightening bolts
Tighten all retaining nuts and bolts after approximately 20 operating hours. Do not alter adjustment bolts and nuts.

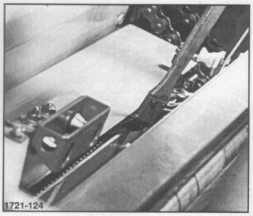


Figure 43

Out of season storage
Clean the baler thoroughly. Clean and lubricate all chains. Soak rolls covered with dirt and stalks in water and clean them afterwards with a strong water jet. Do not direct the jet directly onto the bearings!

> ⚠ Do not enter the swing range of the tailgate without supporting it first.

Lightly grease shear points in the twine guide eyes. Use compressed air to clean the net wrapping and twine wrapping areas. Lubricate the chain in the twine wrapping unit (*Figure 43*). Grease the anvil and blades of the net wrapping unit* with chain saw oil

Important: Do not grease the rollers!

Before operation, wipe greased parts of the wrapping unit dry with a cloth.

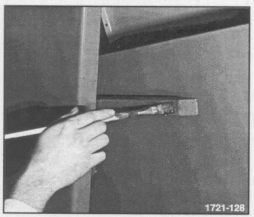


Figure 44

11. Maintenance overview

Daily or after max. 500 bales

Lubrication:

Machine part	Lubricant	Lubrication points	Notes
Central chain lubrication	Chain saw oil	1	*Figure 42*
Bracket for tailgate	Multi-purpose grease	1	On both sides, *Figure 44*
Universal drive shaft	Multi-purpose grease	5	Also see universal drive shaft manufacturer's notes
Star ratchet for pick-up unit drive	Multi-purpose grease	1	Not fitted on standard pick-up units within the EU.
Bearing for countershaft	Multi-purpose grease	2	Only on wide pick-up unit

Inspections

Machine part	Inspection points	Notes
Chain tensioner	4	*Figure 40*
Cutting blades	14	Regrinding of the blades may also be necessary earlier, depending on the conditions of use (*see Page 25*)

Additionally every week or after max. 2,000 bales

Lubrication:

Machine part	Lubricant	Lubrication points	Notes
Chain (twine wrapping unit beam)	Chain saw oil	1	*Figure 43*
Locking rollers	Multi-purpose grease	2	
Locking joints	Multi-purpose grease	6	
Transverse shaft joint	Multi-purpose grease	1	
Cable pulley and lever of the pick-up unit lifting device	Machine oil	3	
Cutting fixture joints	Machine oil	4	
Twine deflection rollers	Machine oil	3 (2)	
Swivel and latching lever for wrapping	Machine oil	2	

Check:

Machine part	Inspection points	Notes
Pick-up unit support disk	1	Wear
Twine tensioner and twine guide		Wear
Twine carriage and eyes		Smooth running
Wrapping drive	1	Smooth running
Net wrapping belts*	1	Belt tensioning
Adjusting the net tensioner/vibration damper*	1 / 1	See Page 16 / 17
Axles / wheels	1 / 3 (4)	Bolts and hub cover
Tires: air pressure	3 (4)	See technical data: Page 7

12. Special features*

Wide pick-up unit
To ensure correct picking-up of the crops even with large windrows, the RP 200 can be fitted with a wide pick-up unit. (Only in conjunction with a universal drive shaft with cam-type cut-out clutch and free-wheeling device).

Cutting unit
A cutting device is available as an optional fitting for the wide pick-up unit. The bale density is increased and bales are easier to take apart for distribution. The cutting unit can be used for silage, hay and straw. It is swung in and out hydraulically.

Net wrapping
The advantages of net wrapping are, in particular, a reduced wrapping time and therefore an increase in output. In addition, there are only minimum losses caused by material breaking up.

Oversize tires
The following oversize tires are available for special purposes instead of the standard tires:

11.5/80 – 15.3 Impl.
15.0/55 – 17 Impl., in conjunction with track width 2.0 m;
19.0/45 – 17 Impl., in conjunction with track width 2.0 m;

Pick-up unit cover shield
On the standard pick-up unit, the pick-unit cover shield guarantees perfect picking-up of short stalk material. The wide pick-up unit is fitted with an integrated cover shield as standard.

Wrapping material containers
In addition to the front twine boxes, the RP 200 can be fitted with wrapping material containers on both sides. This provides space for up to 15 twine spools or 10 twine spools and one reserve net roll.

Universal drive shaft with automatic overload clutch and free-wheeling device
The drive is interrupted if the machine is overloaded. The baler is put back into operation by switching off the pto shaft and by switching back on again at a greatly reduced speed.

Electro-hydraulic distribution block
A three-way valve is available under WELGER spare part No.: 1722.82.10.00, with which up to 3 hydraulic functions can be controlled from a single tractor control valve. Switchover takes places electrically from the tractor seat.

13. Trouble-shooting made easy

It is not possible to provide accurate instructions for all possible cases, due to the different operating conditions. Ground conditions, windrow thickness, conditions of the crop, inexpert or insufficient care of the machine can all cause difficulties.

For difficult cases with which you cannot cope, your local WELGER dealer is at your disposal. Generally, however, you will be able to manage with the help of the table below

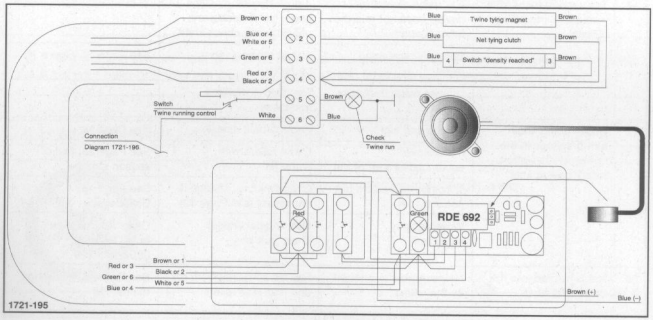
⚠ Before correcting faults, stop the pto shaft and the tractor engine. Remove the ignition key and wait until all moving parts have stopped. Never try to correct faults - for example in the area of the feed opening – while the machine is running.

No.	Fault	Possible cause	Remedy	Remarks
1	Baling material is not picked up cleanly	Pick-up unit not low enough	Adjust pick-up unit height	See Page 19, Setting pick-up unit height
		Wrong position of windguard	Adjust operating range of windguard (on wide pick-up)	See Page 19, Windguard adjustment
		Pick-up unit cover shield not used when baling short crop or working on hills	Use cover shield when baling short crop or working on hills	See Page 20, Pick-up unit cover shield
		Insufficient pick-up on uneven ground	Correct setting of pick-up support wheel or fit second support wheel	See Page 19, Pick-up unit guide wheel
2	Baling material is clogging between pick-up and baling chamber	Wrong windguard setting (on wide pick-up units)	Adjust windguard	See Page 19, Windguard adjustment
		Travelling speed too high	Slow down until bale is started	See Page 8
		Baler not attached parallel to ground	Adjust towing unit	See Page 8
3	Tailgate is opening and material is dropping out of baling chamber	Tailgate is not closed correctly	Observe mechanical closing device of tailgate. Hold tractor valve longer in "lowering" position	See Page 21, Locking tailgate
4	Slippage between bale and baling chamber	Extremely dry or slippery, smooth material	Reduce bale density	See Page 18, Bale density
5	Uneven bale shape	Improper driving	Drive according to instruction	See Page 20, Good driving practice

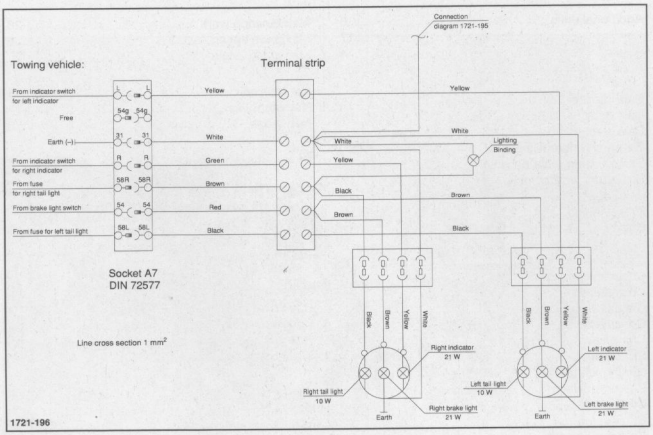
No.	Fault	Possible cause	Remedy	Remarks
6	Loss of short material	On very dry material pto speed too high	Cut pto speed to about 350 – 450 rpm. Avoid unnecessary running of baler.	See Page 20, Pto speed (see also fault No. 4)
		Travelling speed too slow	Switch to higher gear	
		Windrows too small	Bigger size windrow	
7	Twine is slipping off bale	Uneven shape of bale	Drive according to instruction	See Page 20, Good driving practice
		Guide hooks are too near to the edge for bales of short or slippery baling material	Do not put twine wraps too close to the ends of bale	See Page 23, Setting end wrappings
8	Wrapping unit does not start after tripping	Twine for the drive not caught by the bale	Check function and setting of twine thrower	See Page 14
		Drive twine missing	Thread new twine	See Pages 12 – 14
		Starting loop is missing	Is trip lever (part No.: 1712.34.05.02) securely locked by twine carriage into its end position	
9	Wrapping unit is tripped but twine carriage is not moving or only in jerks	Twine is slipping on the step pulley	Wind twine around step pulley several times	
			Check function of wrapping unit drive	
10	Pre-set bale density has been reached, but signal does not sound	Position of engaging switch is incorrect	Adjust position of switch	See basic setting, Page 18
		Engaging lever for wrapping is stiff	Check movement of engaging lever	
11	Twine thrower fails to inject twine	Twine thrower incorrectly set	Correct twine thrower setting	See Page 14, Setting the twine thrower
12	Twine is running out of baling chamber	Slippery baling material, twine slips off	Check setting on deflectors	See Page 26
			After tripping the wrapping unit, continue to pick up some more crop	See Page 22, Wrapping of bale
13	Both twines are running next to each other	Guide eye 1720.34.03.30 not functioning correctly	Correct function of guide eye (clean it)	
14	Twine carriage stops close to the side wall on the left-hand side in driving direction	Build-up of material in twine carriage area	Clean out material build up	
15	Wrapping cycle is finished but one twine not cut off	Wrong threading of twine. Twine for the drive misplaced	Re-thread correctly	

No.	Fault	Possible cause	Remedy	Remarks
16	The second twine falls voluntarily into baling chamber	The twine clamping device does not grip the twine properly	Adjust clamping device and clean if necessary; check twine, check knife	
		Spring is tensioning twine	Adjust tension spring correctly	See Page 14, *Figure 15*
		Uneven twine thickness is used	Use twines of same thickness	
17	Heavy going shear bolt breakage in the universal drive shaft, safety device acts	Density too high	Reduce bale density	See Page 18
		Roller have accumulated a lot of dirt	Clean rollers with water jet	See Page 28, Out of season storage
		Tripping mechanism not correctly set	Check setting, change if necessary (see Page 12)	See Page 18, Bale density
		Wrong quality shear bolt	Use original Welger shear bolt only	Order No. for shear bolts: RP 200: 0901.10.50.00
18	Net is not fed into the baling chamber	Net is not being gripped by the rollers	Roll off some net from roll and lead it to rollers	See Page 15, Inserting the net roll
		Too much tension on net brake	Slacken net brake	See Page 16, Adjusting brake
19	Net is not being cut properly	Anvil and knife are not parallel	Reset anvil	See Page 17, Setting anvil to blade
		Knife is damaged or worn down	Check knife, turn if necessary	
20	Net keeps running after wrapping cycle has ended	Hydraulic cylinder of net wrapping unit does not retract completely	When closing the tailgate, keep the control valve on the tractor on "lowering" for a sufficiently long time	
		Not enough tension on net brake	Adjust net brake	See Page 16, Adjusting brake
21	Net is wrapping itself around the rollers	Scraper is bent	Check scraper, fit new scraper if necessary	See Page 17, *Figure 21*, Unhook spring 5. Wind net off the rollers
		Net is sticking to the rubber roller	After long shut down period turn the rubber roll manually for ¼ – ½ turn	

14. Circuit diagram – signal box



15. Circuit diagram – lighting



16. Index of keywords

EC Declaration of Conformity

according to Directive 89/392/EEC

We WELGER GmbH

(Name of supplier)

Gebrüder-Welger-Straße, D-38304 Wolfenbüttel

(full address of the manufacturer - authorized representative established in the Community must also give the business name and address of the manufacturer)

declare under our sole responsibility, that the product

WELGER RP 200

(Make, model)

to which this declaration relates corresponds to the relevant basic safety and health requirements of the Directives 89/392/EEC and 89/336/EEC,
(if applicable)

and to the requirements of the other relevant Directives:

— — —

(Title and/or number and date of issue of the other Directives)

(if applicable)

For the relevant implementation of the safety and health requirements mentioned in the Directives, the following standard(s) and/or technical specification(s) has (have) been respected:

— — —

(Title and/or number and date of issue of standard(s) and/or technical specification(s))

Wolfenbüttel, 20.12.1995

Dr. Wilkens
(Entwicklungsleiter)