

® Operating instructions

Nr. 99 537.GB.80A.0

+ INSTRUCTIONS FOR PRODUCT DELIVERY . . . Page 3

PROFI GP 1

(Type 537 : + . . 01001)

PROFI GP 2

(Type 539 : + . . 01001)

• Loader wagon

┌───┬───┐
Ihre / Your / Votre • Masch.Nr. • Fgst.Ident.Nr.



Dear Farmer

You have just made an excellent choice. Naturally we are very happy and wish to congratulate you for having chosen Pöttinger. As your agricultural partner, we offer you quality and efficiency combined with reliable servicing.

In order to assess the spare-parts demand for our agricultural machines and to take these demands into consideration when developing new machines, we would ask you to provide us with some details.

Furthermore, we will also be able to inform you of new developments.

Important information concerning Product Liability.

According to the laws governing product liability, the manufacturer and dealer are obliged to hand the operating manual to the customer at the time of sale, and to instruct them in the recommended operating, safety, and maintenance regulations. Confirmation is necessary to prove that the machine and operating manual have been handed over accordingly.

For this purpose, document A is to be signed and sent to Pöttinger, document B remains with the dealer supplying the machine, and the customer receives document C.



In accordance with the laws of product liability, every farmer is an entrepreneur.

According to the laws of product liability, property damage is damage caused by a machine and not to it. An excess of Euro 500 is provided for such a liability.

In accordance with the laws of product liability, entrepreneurial property damages are excluded from the liability.

Attention! Should the customer resell the machine at a later date, the operating manual must be given to the new owner who must then be instructed in the recommended regulations referred to herein.

^{GB} INSTRUCTIONS FOR PRODUCT DELIVERY

Dokument **D**



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According to the product liability please check the above mentioned items.

Please check.

- | | |
|---|--|
| <input type="checkbox"/> Machine checked according to delivery note. All attached parts removed. All safety equipment, drive shaft and operating devices at hand. | <input type="checkbox"/> Fitting to tractor carried out: height of drawbar adjusted, brake cable installed, hand brake lever assembled in tractor cabin. |
| <input type="checkbox"/> Operation and maintenance of machine and/or implement according to operating instructions explained to the customer. | <input type="checkbox"/> Function of electrical installation checked and explained. |
| <input type="checkbox"/> Tyres checked re. correct pressure. | <input type="checkbox"/> Hydraulic connection to tractor established and checked re. correct supply. |
| <input type="checkbox"/> Wheel nuts checked re. tightness. | <input type="checkbox"/> Hydraulic functions (drawbar, opening of rear gate, etc.) demonstrated and explained. |
| <input type="checkbox"/> Drive shaft cut to correct length. | <input type="checkbox"/> Handbrake and operating brake tested re. function. |
| <input type="checkbox"/> Correct power-take-off speed indicated. | <input type="checkbox"/> Trial run carried out and no defects found. |
| <input type="checkbox"/> Mechanical functions (opening of rear gate, pivoting of cutting mechanism out/in, etc.) demonstrated and explained. | <input type="checkbox"/> Functions explained during trial run. |
| <input type="checkbox"/> Removing and mounting of knives explained. | <input type="checkbox"/> Automatic on/off switch of loading mechanism checked. |
| <input type="checkbox"/> Electrical connection to tractor established and checked re. correct supply (54 g connected). Note references in operating manual. | <input type="checkbox"/> Pivoting in transporting and operating position explained. |
| | <input type="checkbox"/> Information given re. optional extras. |
| | <input type="checkbox"/> Absolute need to read the operating manual indicated. |

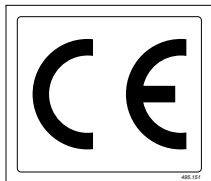
In order to prove that the machine and the operating manual have been properly delivered, a confirmation is necessary. For this purpose please do the following:

- sign the **document A** and send it to the company Pöttinger (in case of Landsberg equipment: to the company Landsberg)
- **document B** stays with the specialist factory delivering the machine.
- **document C** stays with the customer.

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CE sign

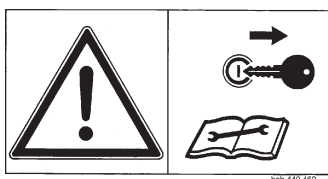


The CE sign, which is affixed by the manufacturer, indicates outwardly that this machine conforms to the engineering guideline regulations and the other relevant EU guidelines.

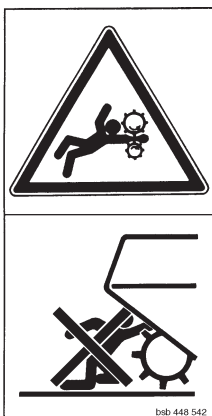
EU Declaration of Conformity

By signing the EU Declaration of Conformity, the manufacturer declares that the machine being brought into service complies with all relevant safety and health requirements.

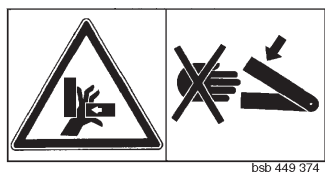
Meaning of warning signs



Turn engine off when adjustment, service and repair work is to be done.



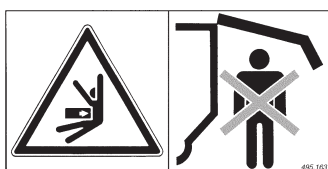
Never reach into the pick-up area as long as tractor engine is running with PTO connected.



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



Don't step on loading platform if PTO is connected to tractor and Engine is running.



Stay clear of gate swinging area while tractor engine is running. Access only allowed when safety lock is applied.

Recommendations for work safety



All points referring to safety in this manual are indicated by this sign.

Wait until all machine components have stopped completely before touching them.



Stay clear of gate swinging area while tractor engine is running.

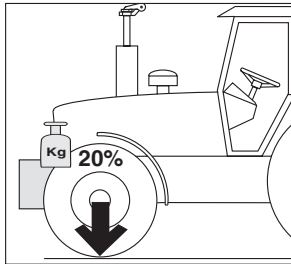


General safety tips for using the trailer

Tips for travelling with the trailer

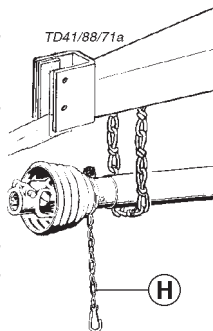
The handling of the tractor is influenced by the trailer coupled to it.

- Danger of tipping exists when working on slopes.
- The driving must be adapted to the corresponding terrain and ground conditions.
- The towing vehicle is to be sufficiently equipped with weights at the front or at the rear in order to guarantee the steering and braking capacity (a minimum of 20% of the vehicle's tare weight on the front axle).
- The transport of persons on the machine is not permitted.



Tips for coupling and uncoupling the trailer

- Danger of injury exists when coupling the implement to the tractor!
- As long as the tractor is moving backwards, do not step between it and the trailer when coupling.
- Nobody is to stand between the tractor and trailer without the vehicles being secured against rolling with the parking brake and/or wheel chocks.
- Drive shaft connection or disconnection is only to be undertaken when the motor has stopped.



Parking the implement

- When the implement is parked, either remove the driveshaft and store it, or secure it with a chain.

Do not use retaining chain (H) for this.

Only use the trailer according to regulations!

Regulations for Use: See chapter "Technical Data".

- The trailer's load limits (permitted axle load, support load, total weight) may not be exceeded. The relevant details are located on the right side of the trailer.
- In addition, observe the power limits of the tractor being used.


Travelling on roads

- Observe the road rules.
- The tailgate must be closed when travelling on public roads. Lighting devices must be fitted vertically to the road.

Before starting work

- Before commencing work, the operator must be aware of all operating devices and functions. The learning of these is too late after having already commenced operation!
- The vehicle is to be tested for traffic and operating safety before each operation.
- The danger of being crushed or cut exists in the Pick-up, cutting unit, tailgate and upper extension areas. All persons must be shown out of these areas before activating hydraulic equipment and turning on the drive.
- Before driving the vehicle, the driver must ensure that nobody will be endangered and that no obstructions are present. If the driver is unable to see and have an overall view of the roadway directly behind the trailer, he must be guided by somebody while reversing.
- Observe the safety tips which are attached to the trailer. An explanation of what the individual graphic warning symbols mean can be found on page 4.
- Observe also the tips in the respective chapters and in the supplement to this operating manual.

Checking before operation

 The following tips should make the trailer's operation easier for you. Detailed information for individual points can be found in the respective chapters in this operating manual.

- Check that all safety equipment (coverings, casings, etc.) are in proper order and fitted in position on the trailer.
- Grease the trailer in accordance with the lubrication chart. Check the gearing for tightness and the oil level.
- Check that tyres have the correct air pressure.
- Check that wheel nuts are sitting firmly.
- Ensure the correct p.t.o.-r.p.m..
- Make the electrical connections to the tractor and check that they are correct. Take note of the tips in the operating manual!
- Carry out the following adaptations:
 - Drawbar height
 - Laying of brake cable
 - Install hand brake lever in the tractor cabin.
- Secure trailer using only the fixtures provided.
- Cut drive shaft to the correct length and check the function of the overload safety (see supplement).
- Check the electronic unit function.
- Connect hydraulic lines to tractor.
 - Check hydraulic hoses for damage and wear.
 - Ensure the correct connection.
- All swivelling parts (tailgate, adjusting lever, etc.) must be secured against dangerous position changes.
- Check parking brake and service brake functions.

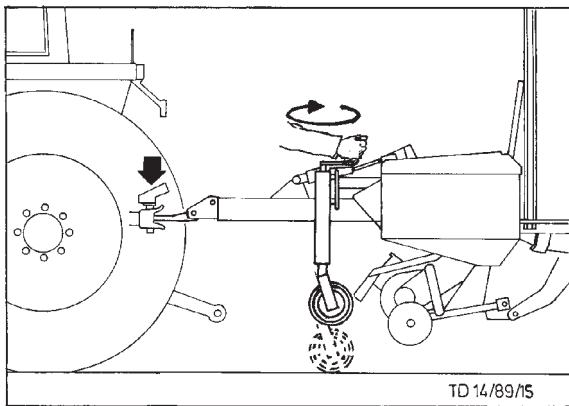
Operating the swivelling supporting wheel



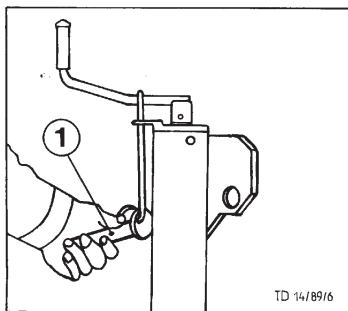
Only use eccentric lever (1) when implement is hitched to tractor (danger of an accident should the trailer tip sideways)! Therefore keep children away from the parked trailer.

Hitching up the implement

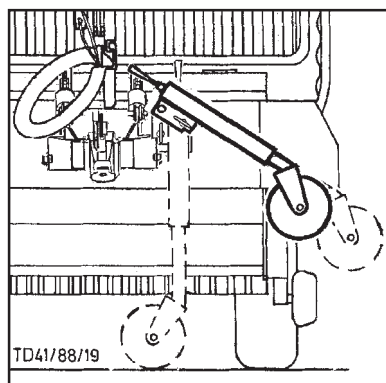
1. Couple implement to tractor and **wind up supporting wheel.**



2. Unlock positioning bolts with eccentric lever (1).



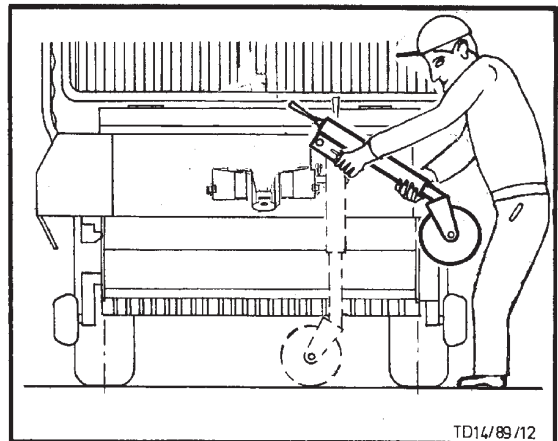
3. Swivel supporting wheel up and secure.



Parking the implement

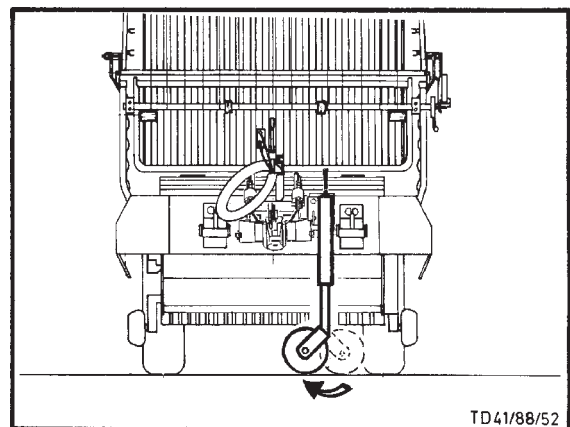
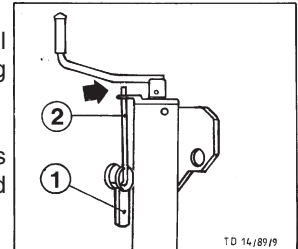
- Park the trailer on firm, level ground. If the ground is soft then the area where the support wheel is to stand must be appropriately increased using a suitable aid (e.g. wooden board).
- Park only empty implement on supporting wheel!
- When trailer is parked, apply the brake and secure against rolling with wheel chocks.

1. Using eccentric lever (1) raise supporting wheel slightly and unlock.



2. Swivel supporting wheel down and lock using eccentric lever (1).

Engaging positioning bolts can be visually discerned using safety rod (2).



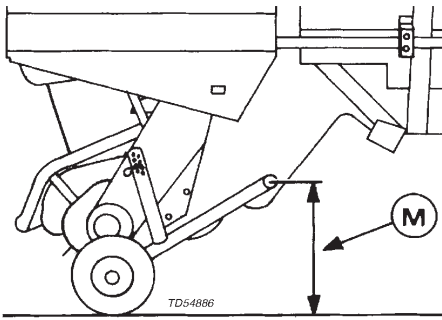
3. Turn supporting wheel crosswise inwards.
4. Wind implement up until tow ring is clear of tractor's coupling.

Maintenance advice

Grease locking bolts occasionally!



**Support wheel must not protrude beyond external contour of tractor!
Wind supporting wheel completely up!**



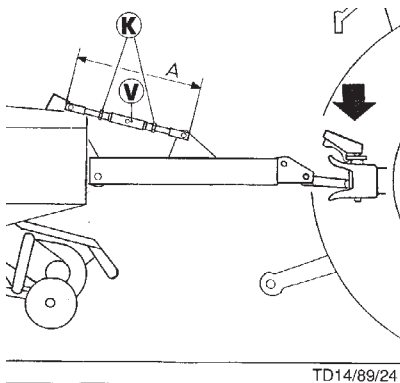
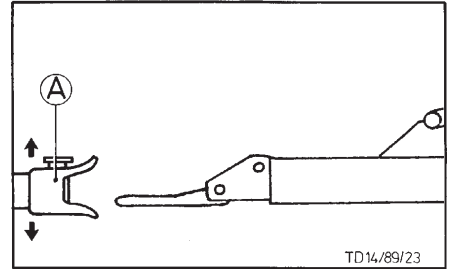
Adjusting drawbar to tractor's towing coupler

To allow pick-up to work perfectly, the height (M) of coupled trailer must be correctly set (pick-up pivoting area).

Height (M) = 43 cm

Note: Where the floor is uneven, reduce the measurement by 1 cm (M = 42 cm).

- Park unloaded trailer on even ground and on jockey wheel.
- Attach trailer coupler (A) to tractor so that on towed vehicle adequate distance exists between drive shaft and drawbar.
- Set height (M) from ground to centre of feeler coupling point by adjusting jockey wheel.

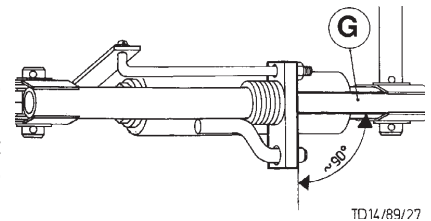


Drawbar adjustment when equipped with adjusting spindle:

- Loosen lock-nuts (K).
- Twist turnbuckle barrel (V) correspondingly.
- Check height (M) of trailer coupled to tractor.

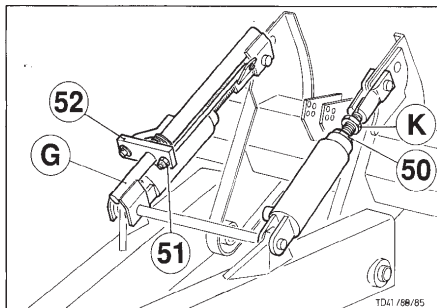
Observe following when equipped with hydraulic cylinder:

- Couple trailer to tractor.
- The hydraulic cylinder piston must be completely inserted.
- Twist nut (51) until clamp frame (52) is at rightangles (about 90°) to slip rod (G). The clamp can then be raised.

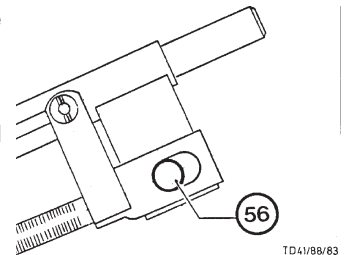


A slot is located in the fork of the regulating spindle.

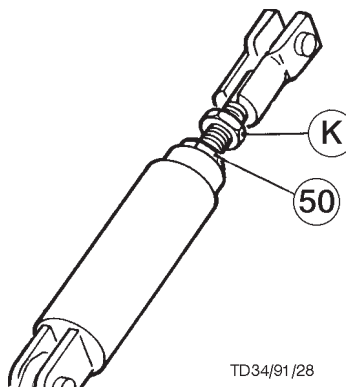
- The fastening bolt (56) must make contact with the inside of the slot.



- Loosen lock-nut (K) on the threaded spindle.
- By twisting the cylinder piston (50), screw the threaded spindle in or out until the height (M) is achieved. Slip rod (G) must be able to move in the casing during the adjustment process (adjust with nut 51).



- Retighten lock-nut (K).
- Twist nut (51) until clamp frame (52) is at rightangles (90°) to slip rod (G).



Pivoting drawbar safety device check

Function of the automatic clamping device:

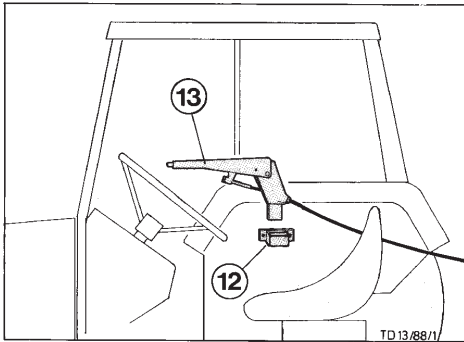
It prevents the trailer from tipping up during the return trip.

- Adjust by twisting the nut (51) until the clamp frame (52) prevents the trailer from tipping up through a slight inclination of the slip rod (G).

Maintenance:

Grease pivoting drawbar safety device frequently!

GB **BRAKE UNIT**
(moveable handbrake)



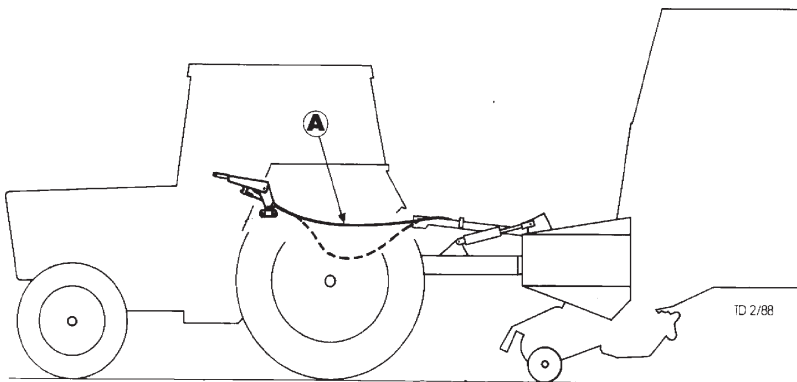
Initial operation

With initial operation install accompanying catch bracket (12) onto mudguard so that it is within reach and can be seen.

- Insert moveable hand break lever (13) onto tractor for every run.
- Carry out brake test.

Attention!

If brake fault occurs, immediately stop tractor and clear fault.



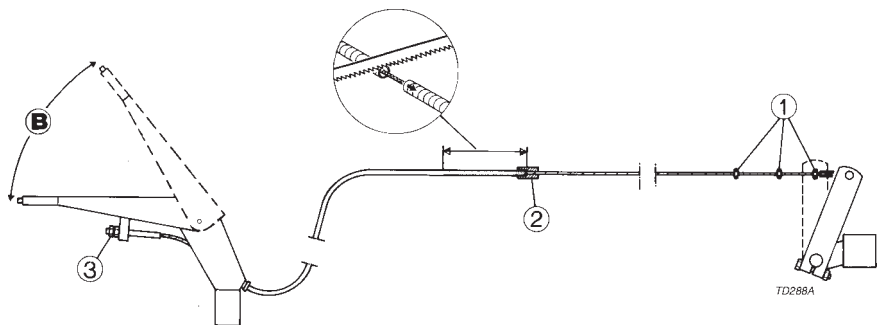
Shortening the bowden cable

The extra long brake cable is manufactured to suit the various designs of different tractor types.

In order to guarantee optimal function of brake unit, the cable (A) should run in a straight line if possible.

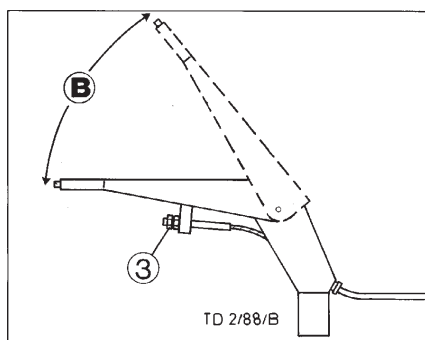
Adaption to tractor

- Loosen cable clamps (1) and unthread the cable through the support (2).
- Shorten bowden cable covering (see diagram) to a point where trouble-free cornering is still possible.
- Rethread cable and secure with cable clamps.
- Check lever action (B) and adjust with hexagonal nut (3) if necessary.



Brake adjustment

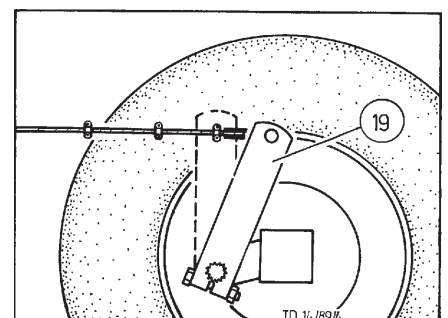
- If brake linings are worn out then brake shoes must be adjusted. This is carried out by turning adjusting nut (3) on hand brake lever.



Should the adjustment action on the hand brake lever no longer be adequate, then with the help of the notches on the brake cam axle lever, alter the position of the lever (19) correspondingly.



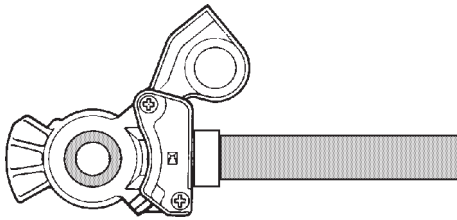
The lever adjustment (19) must be carried out on both sides simultaneously.



Connecting the brake hoses

When connecting the brake hoses ensure:

- that the hose-coupling sealing ring is clean
- proper sealing
- connection is according to markings "Compressed air storage" (coloured red) to "Compressed air storage" "Brakes" (coloured yellow) to "Brakes"



TD70/91/1

- Replace damaged sealing rings.
- Drain water from air reservoir before first run of the day.
- Only travel when air pressure in the brake-system is 5.0 bar.

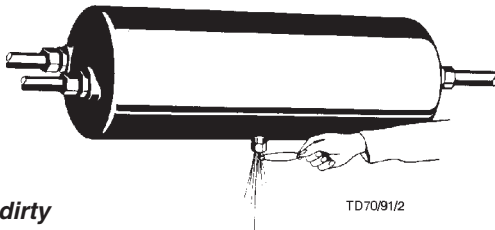
Attention!

For the brake unit to function properly:

- observe maintenance intervals
- observe brake setting (stroke max. 30 mm or 90 mm)

• Drain water from air reservoir daily.

Using a piece of wire turn bolt on drain valve in a sideways direction.



TD70/91/2

When dirty

- Screw out drain valve and clean.

Brake pressure regulator

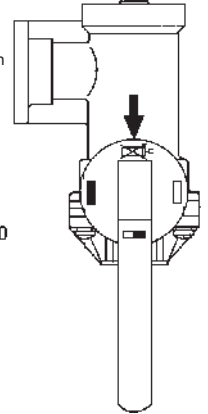
(for brake units with hand regulator)

After connecting to towing vehicle

- Adjust brake pressure regulator according to wagon's load condition (symbols).

Symbole:

- = Löststellung Release position
- = Leer Empty
- = Halb-Last Half-load
- = Voll-Last Full-load



Example:

- Wagon is half loaded - position servo-valve at "Half-load"

TD13/92/10

The release position

enables wagon to move (shunt) when brake hoses are not connected to towing vehicle.

ALB - regulator (Anti-wheel-lock braking system)

(for brake units with an automatic brake pressure regulator)

With an ALB regulator the necessary brake pressure is automatically regulated according to wagon's load condition.

The release position

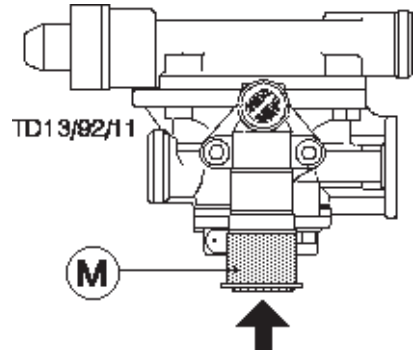
enables wagon to move (shunt) when brake hoses are not connected to towing vehicle.

- **Depress control button (M) until stop.**

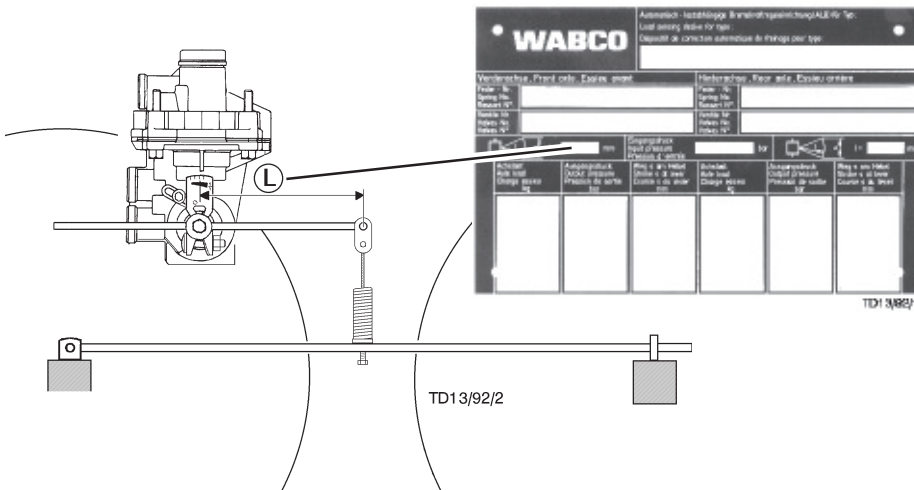
- Brakes are now released.

- **Pull out control button (M) until stop.**

- Wagon will brake again using the stored compressed air coming from the air reservoir.



TD13/92/11



TD13/92/2

Connecting to towing vehicle

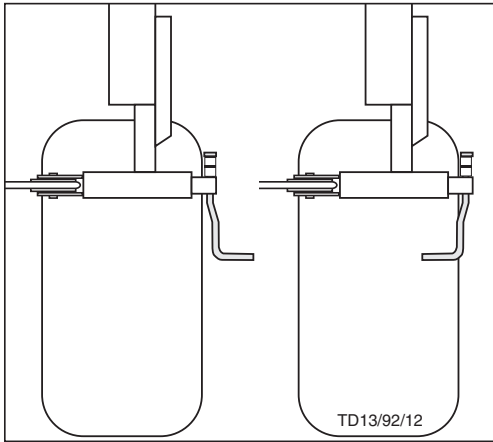
When connecting brake hoses, control button (M) is automatically pushed out by the stored compressed air coming from the towing vehicle.

Setting

The setting measurement (L) must not be altered. It must correspond to the found on the WABCO rating plate.

Before the first run

- Release locking break and swing crank handle inward.



Parking the wagon

- Secure wagon using locking break.
- Brake pressure regulator to "release position".
- Disconnect brake hoses from towing vehicle.

Cleaning and maintaining the air brake unit

! *The brake unit is a safety device. Therefore any work carried out on it must only be done by specialists.*

Brake adjustment

The piston stroke in the brake cylinder may not be greater than

30 mm as in Variation 1

90 mm as in Variation 2

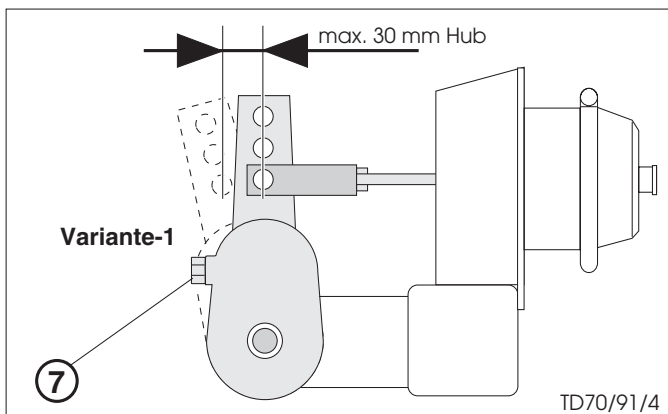
- Therefore check piston stroke occasionally and reset if necessary.

Brake adjustment - Variation 1

- Adjustment is carried out using adjusting screw (7).
- Piston stroke should be 12 - 15 mm when reset.

Brake adjustment - Variation 2

- Adjustment is carried out on brake lever groove tothing (K).



Adjusting the locking brake

Generally speaking the locking brake requires no adjustment as the spindle adjustment range is sufficient.

When the adjustment range is insufficient.

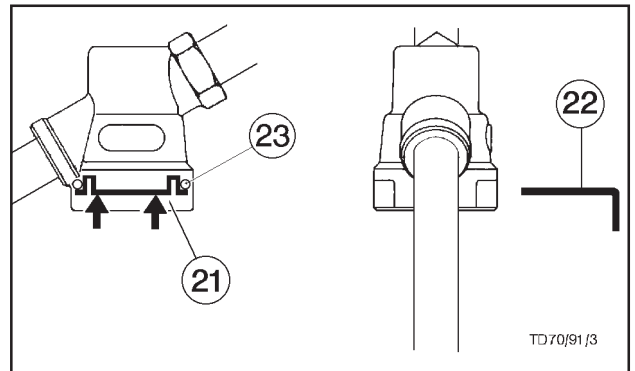
- loosen rope clamps (4 clamps) at the ends of the brake ropes
- re-adjust length of brake ropes until enough adjustment range is available again
- re-tighten rope clamps (4 clamps) at the ends of the brake ropes.

Cleaning the line filters

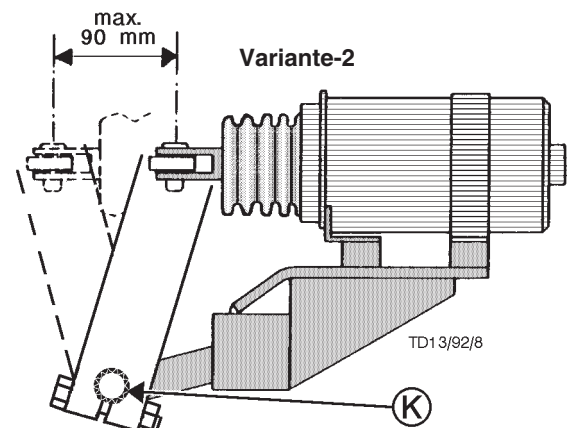
Both line filters are to be cleaned depending on operating conditions, normally about every 3-4 months. The sinter filter cartridges are to be removed to be cleaned.

Procedure:

- Depress locking tappet (21) on both brackets and remove slider (22).

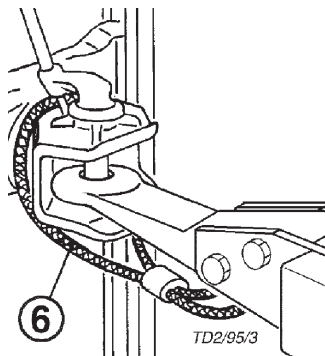


- Remove locking tappet with O-ring (23), compression spring and sinter filter cartridge.
- Wash sinter filter cartridge with nitro cleaning agent and blast clean with compressed air. Damaged filter cartridges are to be replaced.
- Reassembly is in reverse order, but ensure that O-ring does not jam guiding slots of slider!



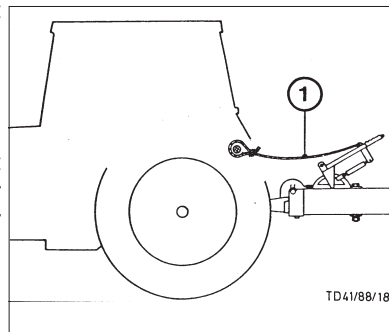
Safety Cable (max. 25 km und max. 4 to zul. Ges Gew.)

- Safety cable (6) to be fitted correctly to tractor's towing coupler. (Safeguard against breakage of trailer coupling ring or detachment from tractor.)



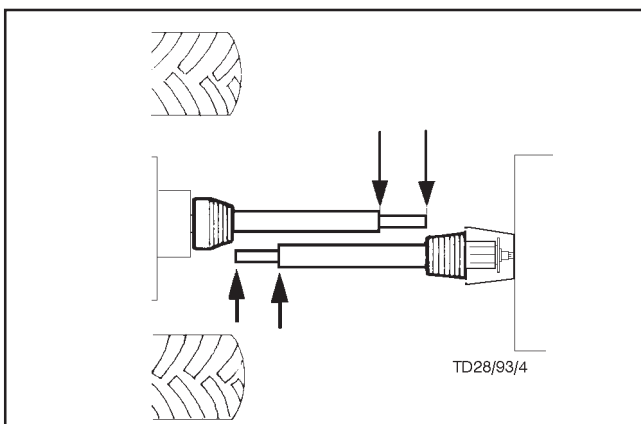
Abreißseil (nur bei Auflaufbremsanlage)

- Bei Anhänger mit Auflaufvorrichtung das Abreißseil (1) vom Handbremshebel am Traktor verknoten. (Safeguard against breakage of trailer coupling ring or detachment from tractor.)



Drive shaft adaption

To shorten the drive shaft see supplement-B!



Hydraulic connection

- Connect hydraulic lines to tractor.
 - See also chapter "HYDRAULIC OPERATION", "ELECTROHYDRAULIC OPERATION".

Putting into operation

- Before putting the tractor or implement into operation check vehicle safety (lights, brake unit, protective covering ...)!
 - Pay attention to correct load distribution during operation!

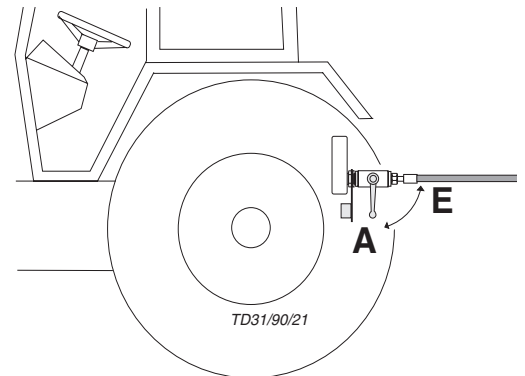
Uncoupling and parking the trailer

- See also chapter "SUPPORTING WHEEL", "BRAKE UNIT", "DRAWBAR".

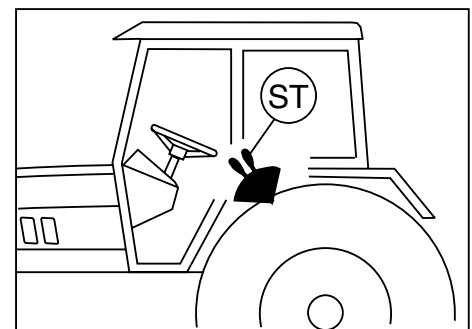
Important!

Before uncoupling the snap-lock coupler

1. Raise the pick-up.
2. Close shut-off valve on snap-lock coupler (position A).



3. Release pressure on tractor's control unit (ST) and uncouple.

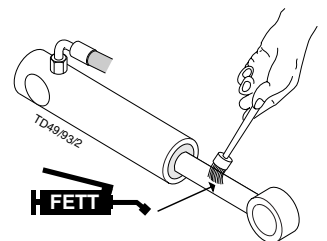


Attention!

- Always park implement so that it is standing safety.
- Secure trailer against rolling away (locking brake, wedges).

Parking in the open

When parking for longer periods in the open, clean plunger rods and then coat with grease.



Garaging for winter

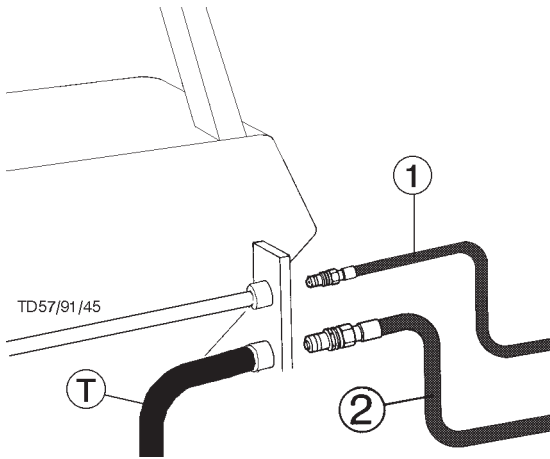
- Thoroughly clean the machine before garaging for winter.
- Apply weather protection.
- Change or top-up gear oil.
- Protect uncoated parts against rusting.
- Grease all lubricating points according to lubrication chart.

Hydraulic connection

Single-action control unit

Should the tractor only have a single-action servo-valve, then it is absolutely necessary to have an oil-return pipe (T) fitted by a specialist.

- Connect pressure hose (1) to the single-action control unit. Couple the oil-return hose (2) (with the greater diameter) to the tractor's oil-return system.



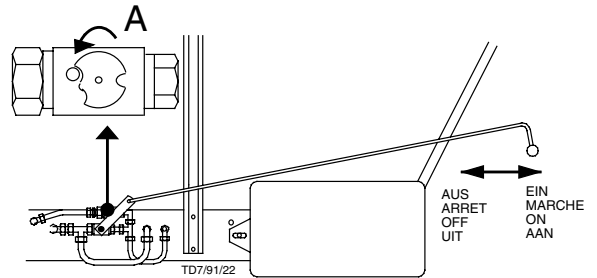
Double-action control unit

- Connect pressure line (1) and oil-return pipe (2) (pipe with the greater diameter is the oil-return pipe).

Note: If oil should become warm during operation then a single-action control unit should be connected (see above).

Standard position: with an open hydraulic system

- e.g. a standard tractor with a gear pump.
- The standard basic setting for the shut-off valve (position A) applies to this type. In this position the shut-off valve is open.

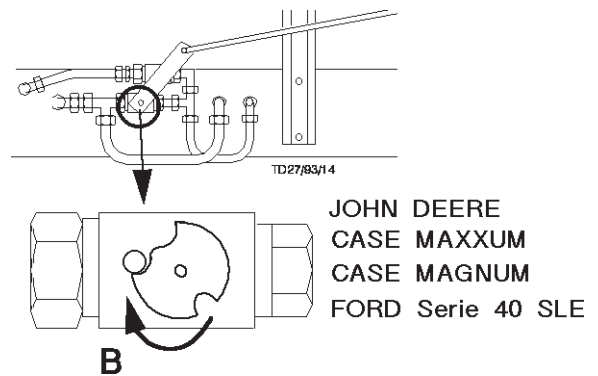


Tip! If the tractor has a closed hydraulic system and the unit is operating in this position, then the hydraulic oil will heat up (particularly due to the constant pumping of the maximum amount of oil).

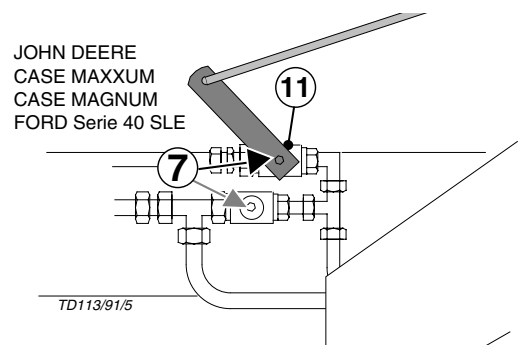
Remedy: Modify the system on the trailer or decrease the amount of oil being pumped at the tractor as written below.

Take care! with tractors with a closed hydraulic system

- JOHN-DEERE, FORD Serie 40 SLE, CASE-MAGNUM, CASE-MAXXUM,
- 1. Close the shut-off valve (position B).



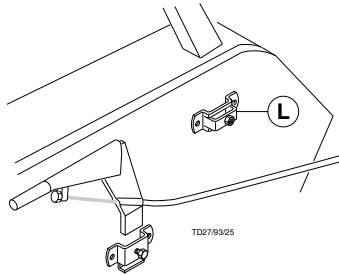
- 2. Dismount lever (7) and fit onto the shut-off valve (11).



Operation elements

Mounting bracket

- The accompanying bracket (L) is for mounting the hydraulic switching element in the cabin and is to be installed on the tractor's mud guard.



Operating elements

- Depending on the trailer's fittings, the order of the operating elements can differ slightly to the representation shown. For example, the lever with positions "E1-A-E2" can only be used on trailers with all extras (e.g. hydraulic drawbar, hydraulic dry forage extension, tailgate).

The following operating instructions refer to trailers with all extras

- Shift lever "6" serves to reverse the hydraulic flow between the the oil cycle of the hydraulic scraper floor drive and the oil cycle of the preselection levers for the Pick-up lift, drawbar, etc..

ST = Control valve

0 = 0-position

I + A = Pick-up (9), hydraulic drawbar (10)

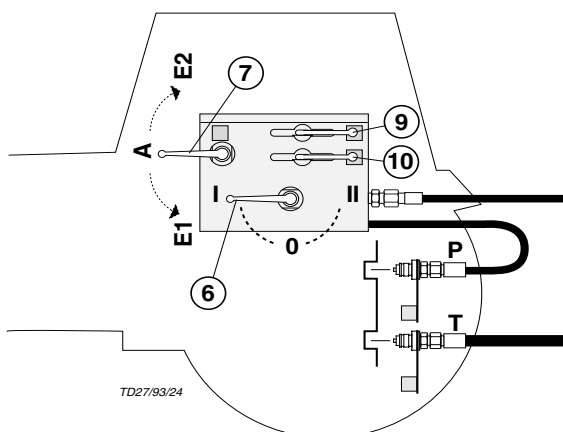
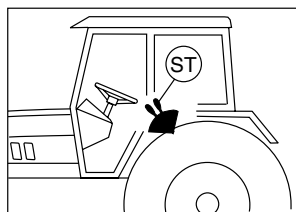
II = Hydraulic scraper floor drive

I + E2 = Tail gate

I + E1 = Dry forage extension

P = Pressure hose

T = Runback hose



Pick-up and hydraulic drawbar

- Put lever switch "6" into position "I".
- Put lever switch "7" into position "A".
- Select desired funktion with lever (9 resp. 10).
- Engage control valve (ST).

Dry forage extension

- Put lever switch "6" into position "I".
- Put lever switch "7" into position "E1".
- Engage control valve (ST).

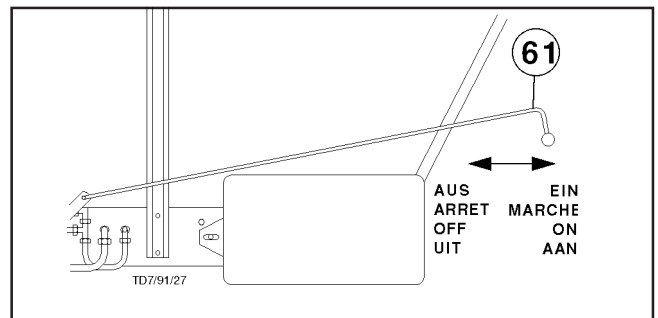
Tail gate

- Put lever switch "6" into position "I".
- Put lever switch "7" into position "E2".
- Engage control valve (ST).

Operation of hydraulic scraper floor drive

Front operation (from the tractor cabin)

- Shift lever (61) to the "ON" position.



- Put lever switch (6) into position II (scraper floor drive).
- Engage or disengage the scraper floor drive with the control valve (ST).

Rear operation

- First shift the lever (61) into the "OFF" position.
- Put lever switch (6) into position II (scraper floor drive).
- Engage control valve (ST).
- Switch scraper floor drive "on" or "off" with lever (61).

Safety tips



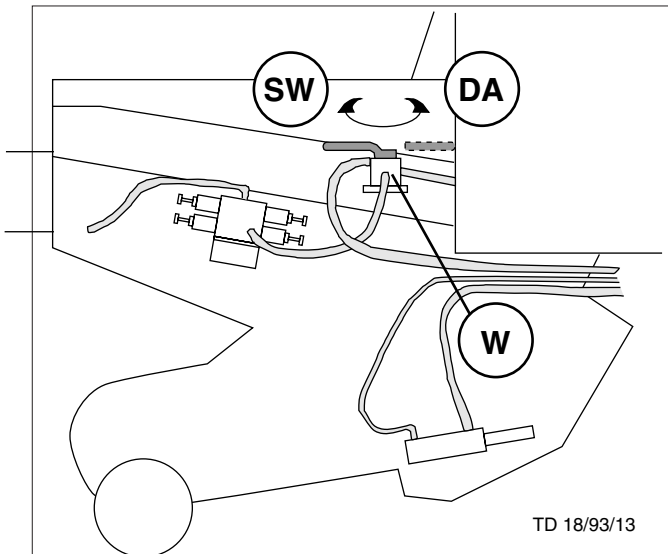
Please take particular care when the operating elements on the trailer and the tractor are to be used simultaneously by more than one person. A conscientious arrangement should be made by those concerned before operation.

An example:

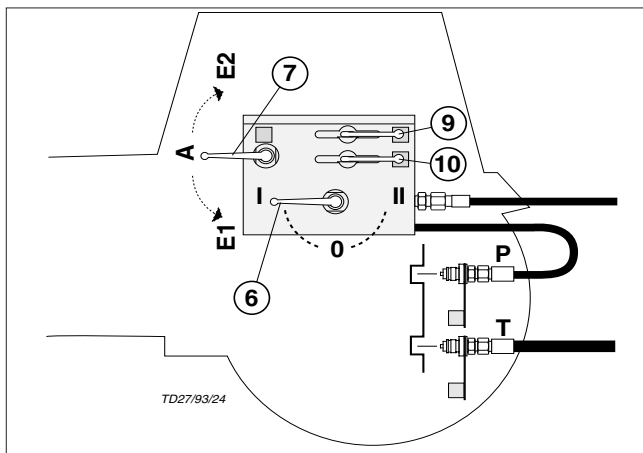
Danger of injury arises if a person stands at the rear of the trailer and somebody in the tractor cabin activates a switching function (opening the tailgate, switch on the driving gear, ...).

Dry forage extension

1. Lever (W) in position "DA".



2. Lever on control panel in position "E1".
3. Engage servo-control (ST) on tractor.
Folding extension up or back gradually.



Swivelling cutter unit

Caution!



Do not reach into swivel range of cutter bar when swivelling in / out.

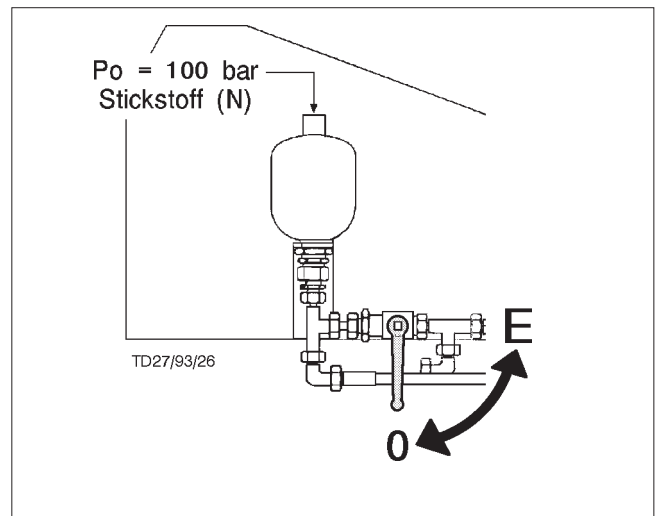
1. Lever (W) in position "SW".
 2. Lever on control panel in position "E1".
 3. Engage servo-control (ST) on tractor.
Both cutter bars swivel in resp. out.
- When only one cutter bar is needed for mowing, the lower cutter bar can be swivelled out using the accompanying lever (H).

Obstructions when swivelling

- Remove foreign body from swivel range.
- If the cutter bars do not swivel in properly, then a pressure loss in the cutter unit hydraulic could be the cause.

Remedy by hydraulically filling the reservoir

1. Move lever to position "E" on 3-way valve.
2. Actuate servo-valve. The cutter bar is swivelled out hydraulically.
3. Leave servo-valve (ST) in the press position for a few seconds while moving the lever on the 3-way valve to position "0".



- If obstruction cannot be removed then check gas fill pressure (100 bar nitrogen) in hydroreservoir.

Alteration of gas container pressure

- This work may only be carried out by customer service or a specialist.
- In order to reduce or increase the pressure in the gas container a special filling and checking device is necessary.

Note

- According to manufacturer's information all gas containers have a slight pressure drop after a certain amount of time.
- The gas loss (nitrogen) amounts to 2-3 % per year.
- After 4-5 years it is recommended that container pressure be checked and if necessary corrected.

Maintenance



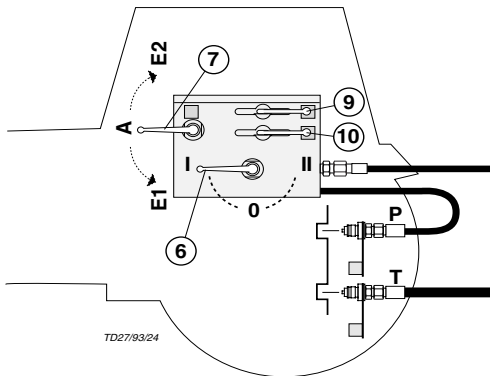
Beware!

No welding, soldering or mechanical works of any kind may be carried out on the container.

- Hydraulic oil change according to tractor manual.

Operation errors

In the operation errors which follow, a problem can arise with the coupling and/or uncoupling of the hydraulic hoses.



Operation error no. 1

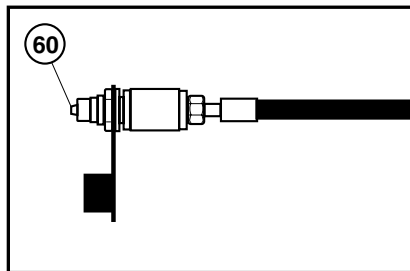
- Pressure hose (P) and runback hose (T) coupled. **CORRECT !**
- Selector valve (9) open for pick-up operation. **CORRECT !**
- Lever switch (6) into position I. **CORRECT !**
- Pick-up in raised condition. **WRONG !!!**

Result:

Due to the dead weight of the pick-up, pressure builds up in the hydraulic hose (P). To uncouple the pressure hose is only possible with great effort.

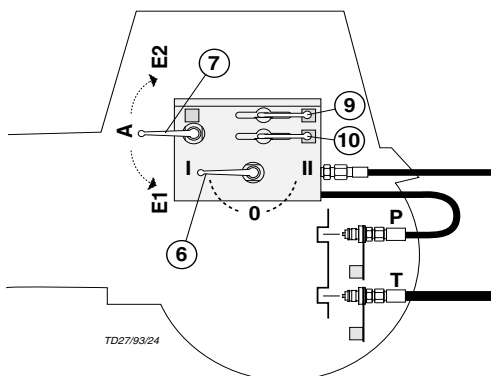
Solution:

Put lever switch (6) into the "0"-position for reoperation. The pressure in the hydraulic hose can be eased by opening a screw connection.



Caution!

Close the selector valve (9) for pick-up operation before uncoupling and bring the control valve (S) into "lower" or "float" position.



Operation error no. 2

The wagon with hydraulic drawbar is coupled to the tractor and the jockey wheel is cranked up.

- Pressure hose (P) and runback hose (T) coupled. **CORRECT !**
- Selector valve (10) opened for hydraulic drawbar operation. **CORRECT !**
- Lever switch (6) to pick-up operation (position I). **CORRECT !**
- The hydraulic drawbar cylinder is not quite retracted before garaging the wagon. **WRONG !!!**

Result:

Because of the load resting on the cylinders, excess pressure builds up in the hydraulic hose (P). Uncoupling of the hose is not possible.

Solution:

Completely retract the hydraulic drawbar cylinder or garage the wagon on the jockey wheel so that the load on the cylinder is eased.

Caution!

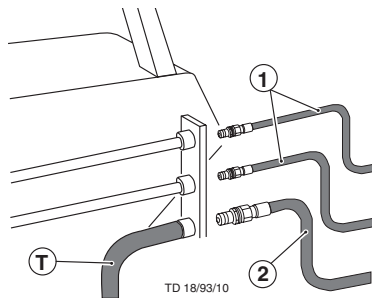
Do not operate the hydraulic drawbar while the wagon is supported on the jockey wheel.

Hydraulic connection

Single-action control unit

Should the tractor only have a single-action servo-valve, then it is absolutely necessary to have an oil-return pipe (T) fitted by a specialist.

- Connect pressure hose (1) to the single-action control unit.
- Couple the oil-return hose (2) (with the greater diameter) to the tractor's oil-return system.



Double-action control unit

- Connect pressure line (1) and oil-return pipe (2) (pipe with the greater diameter is the oil-return pipe).

Note:

If oil should become warm during operation then a single-action control unit should be connected (see above).

Power supply

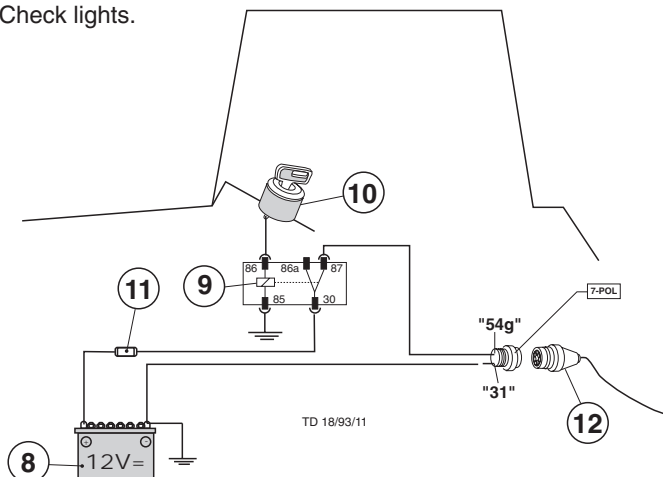
- Power (8) 12V is supplied via relay (9) connected to the ignition (10).
- Lead diameter 2,5 mm², fuse 16A (11).
- Power for the trailer is supplied via socket "54g" (+pole) and "31" (-pole).

This modification is to be carried out only by specialized workshops.

- Don't connect directly to ignition (danger of fire and/or damage of electrical equipment).

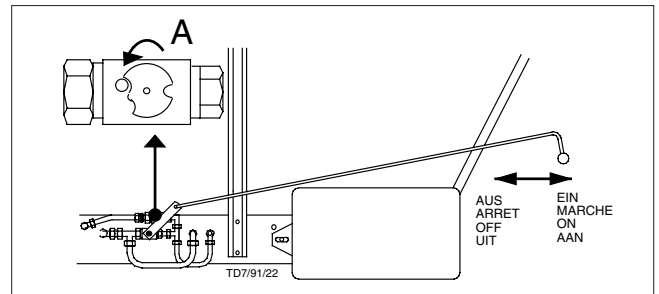
Establishing electric connection

- After completing above mentioned work connect 7-pole plug from trailer with socket.
- Check lights.



Standard position: with an open hydraulic system

- e.g. a standard tractor with a gear pump.
- The standard basic setting for the shut-off valve (position A) applies to this type. In this position the shut-off valve is open.

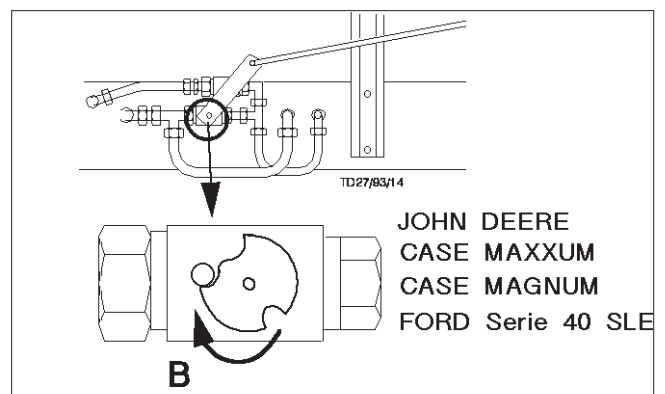


Tip! If the tractor has a closed hydraulic system and the unit is operating in this position, then the hydraulic oil will heat up (particularly due to the constant pumping of the maximum amount of oil).

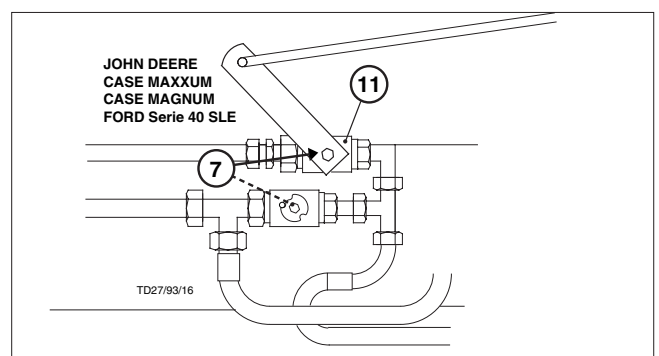
Remedy: Modify the system on the trailer or decrease the amount of oil being pumped at the tractor as written below.

Take care! with tractors with a closed hydraulic system

- JOHN-DEERE, FORD Serie 40 SLE, CASE-MAGNUM, CASE-MAXXUM,
- Close the shut-off valve (position B).

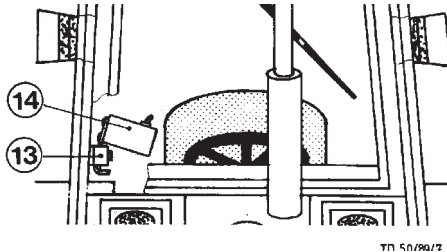


- Dismount lever (7) and fit onto the shut-off valve (11).



Installation and check of the electrohydraulic operation

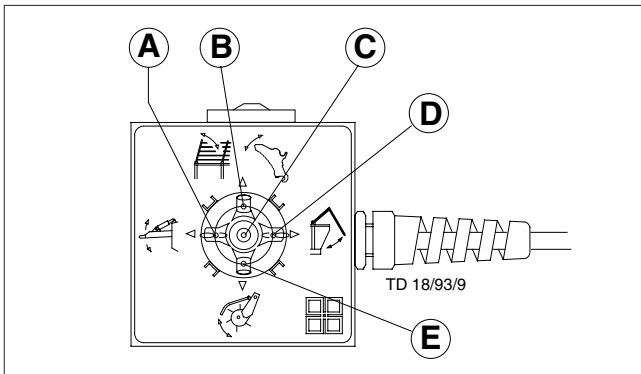
- Mount supplied bracket (13) for the electrohydraulic operating with two hexagon screws within driver's vision and reach in tractor cabin.



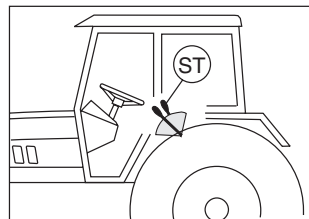
- Insert front control panel (14) in bracket (13).

Operation

- Preselect desired function on control panel. Switch engages.



- Preselected function is engaged using servo-control (ST) on tractor.



Note:

- If tractor is to be parked with implement attached, electro-hydraulic operation lever is to be shifted into neutral position "C".

This prevents battery discharge.



Safety tips



Please take particular care when the operating elements on the trailer and the tractor are to be used simultaneously by more than one person. A conscientious arrangement should be made by those concerned before operation.

An example:

Danger of injury arises if a person stands at the rear of the trailer and somebody in the tractor cabin activates a switching function (opening the tailgate, switch on the driving gear, ...).

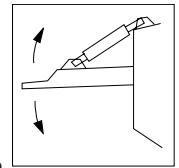
Pivoting drawbar

1. Lever on control panel in position "A".
2. Engage servo-control (ST) on tractor.



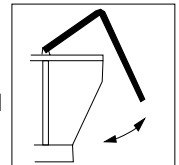
Attention!

Do not engage pivoting drawbar when implement is standing on supporting wheel.

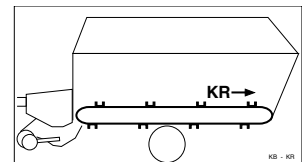


Tailgate

1. Lever on control panel in position "D".
2. Engage servo-control (ST) on tractor.
Automatic unlocking, raising/lowering and shutting of tailgate.

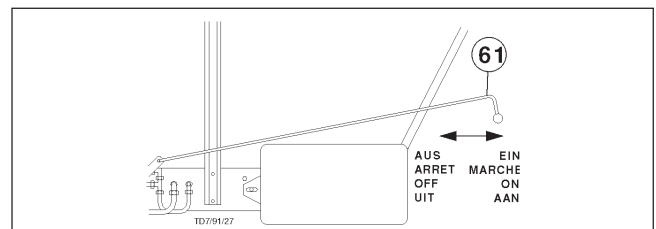


Scraper floor reverse run (KR)



Front operation

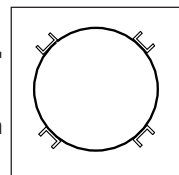
1. Shift lever (61) to the "ON" position.



2. Lever on control panel in neutral position "C".
3. Engage servo-control (ST) on tractor.

Rear operation

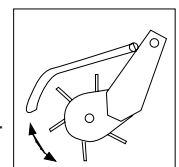
1. First shift the lever (61) into the "OFF" position.
2. Lever on control panel in neutral position "C".
3. Engage servo-control (ST) on tractor.
4. Switch scraper floor drive "on" or "off" with lever (61).



Pick-up

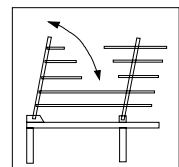
1. Lever in position "E".
2. Engage servo-control (ST) on tractor.
Raising or lowering pick-up.

In doing so loading unit operation and pick-up are automatically switched on or off.



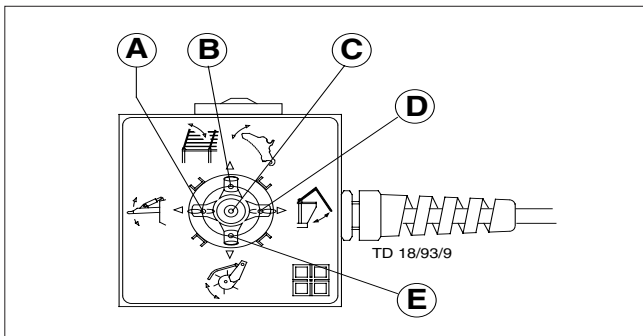
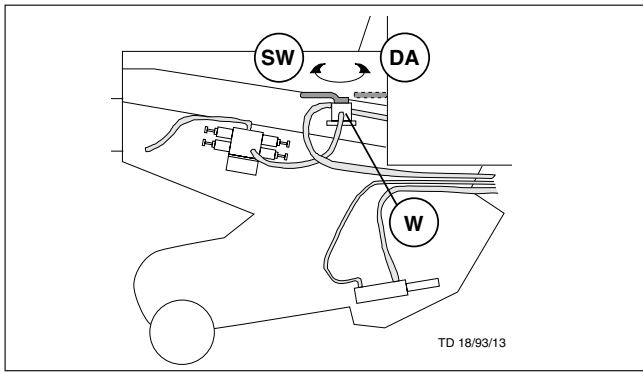
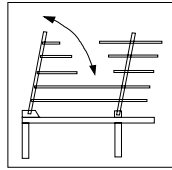
Dry forage extension

1. Lever on control panel in position "B".
2. Engage servo-control (ST) on tractor.
Folding extension up or back gradually.



Dry forage extension

- Lever (W) in position "DA".
- Lever on control panel in position "B".
- Engage servo-control (ST) on tractor.
Folding extension up or back gradually.



Swivelling cutter unit

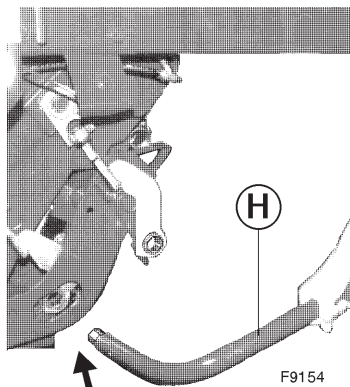


Caution!

Do not reach into swivel range of cutter bar when swivelling in / out.

- Lever (W) in position "SW".
- Lever on control panel in position "B".
- Engage servo-control (ST) on tractor.
Both cutter bars swivel in resp. out.

- When only one cutter bar is needed for mowing, the lower cutter bar can be swivelled out using the accompanying lever (H).

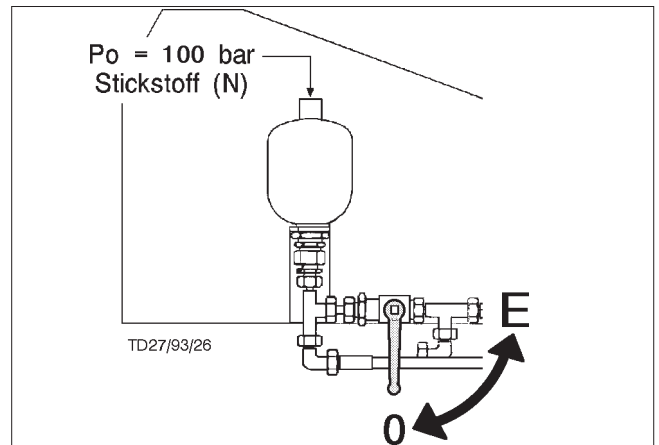


Obstructions when swivelling

- Remove foreign body from swivel range.
- If the cutter bars do not swivel in properly, then a pressure loss in the cutter unit hydraulic could be the cause.

Remedy by hydraulically filling the reservoir

- Move lever to position "E" on 3-way valve.
- Actuate servo-valve. The cutter bar is swivelled out hydraulically.
- Leave servo-valve (ST) in the press position for a few seconds while moving the lever on the 3-way valve to position "0".



- If obstruction cannot be removed then check gas fill pressure (100 bar nitrogen) in hydroreservoir.

Alteration of gas container pressure

- This work may only be carried out by customer service or a specialist.
- In order to reduce or increase the pressure in the gas container a special filling and checking device is necessary.



Note

- According to manufacturer's information all gas containers have a slight pressure drop after a certain amount of time.
- The gas loss (nitrogen) amounts to 2-3 % per year.
- After 4-5 years it is recommended that container pressure be checked and if necessary corrected.

Maintenance



Beware!

No welding, soldering or mechanical works of any kind may be carried out on the container.

- Hydraulic oil change according to tractor manual.
- Before welding on trailer disconnect all plugs from tractor and disconnect trailer.

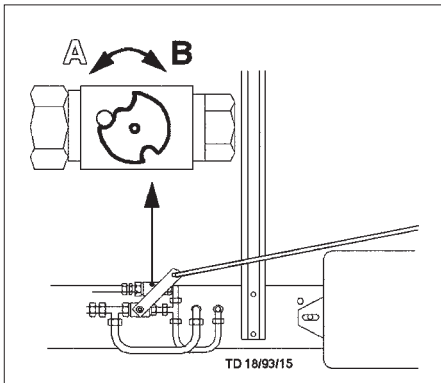
Trouble shooting



Beware!

Whenever eliminating trouble it is essential to turn off power take-off.

During all these raising and/or lowering, turning on and off processes mind safety distances!



Lowering the pick-up

- Loosen lock nut^c (G).
- Screw in screw (H) on valve "Y1".
- Shift servo-control (ST) on tractor to lowering or "floating" position. Pick-up is then lowered.
- Screw out screw (H) and lock with nut^c (G).

Raising the pick-up

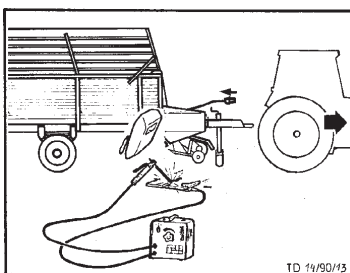
- If valve (Y5) is installed, upper control cock at rear of implement must be shifted to position "B".
- Loosen lock nut^c (G).
- Screw in screw (H) on valve "Y1".
- Shift servo-control (ST) on tractor to raising position. Pick-up is then raised.
- Screw out screw (H) and lock with nut^c (G).

Lowering the pivoting drawbar

- Loosen lock nut^c (G).
- Screw in screw (H) on valve "Y2".
- Shift servo-control (ST) on tractor to lowering or "floating" position. Pivoting drawbar is then lowered.
- Screw out screw (H) and lock with nut^c (G).

Raising the pivoting drawbar

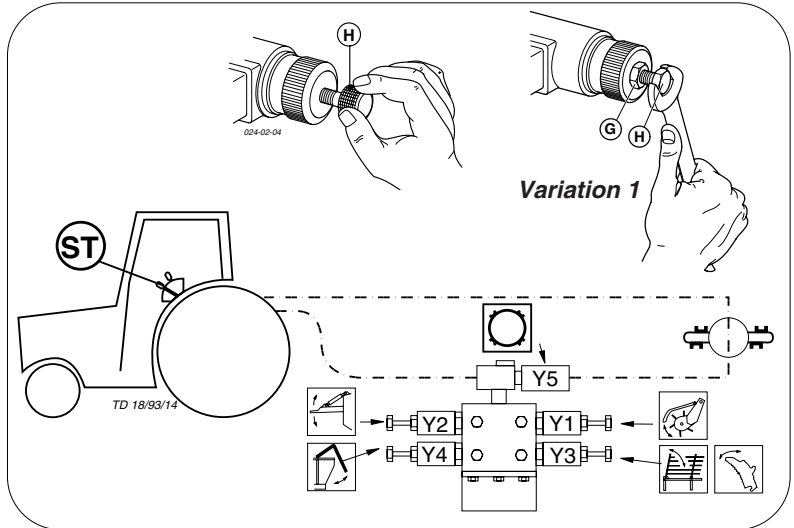
- If valve (Y5) is installed, upper control cock at rear of implement must be shifted to position "B".
- Loosen lock nut^c (G).
- Screw in screw (H) on valve "Y2".
- Shift servo-control (ST) on tractor to raising position. Pivoting drawbar is then raised.
- Screw out screw (H) and lock with nut^c (G).



Maintenance

- Hydraulic oil change according to tractor manual.
- Before welding on trailer disconnect all plugs from tractor and disconnect trailer.

Emergency handling of hydraulic valves in case of power break down



Lowering the dry forage extension

- Loosen lock nut^c (G).
- Screw in screw (H) on valve "Y3".
- Shift servo-control (ST) on tractor to lowering or "floating" position. Dry forage extension is then lowered.
- Screw out screw (H) and lock with nut^c (G).

Raising the dry forage extension

- If valve (Y5) is installed, upper control cock at rear of implement must be shifted to position "B".
- Loosen lock nut^c (G).
- Screw in screw (H) on valve "Y3".
- Shift servo-control (ST) on tractor to raising position. Dry forage extension is then raised.
- Screw out screw (H) and lock with nut^c (G).

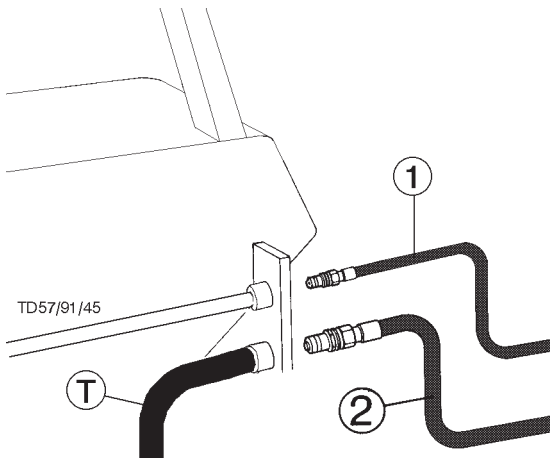
Opening the tailgate

- If valve (Y5) is installed, upper control cock at rear of implement must be shifted to position "B".
- Loosen lock nut^c (G).
- Screw in screw (H) on valve "Y4".
- Shift servo-control (ST) on tractor to raising position. Tailgate then opens.
- Screw out screw (H) and lock with nut^c (G).

Closing the tailgate

- Loosen lock nut^c (G).
- Screw in screw (H) on valve "Y4".
- Shift servo-control (ST) on tractor to lowering or "floating" position. Tailgate then closes.
- Screw out screw (H) and lock with nut^c (G).

Hydraulic connection



Single-action control unit

Should the tractor only have a single-action servo-valve, then it is absolutely necessary to have an oil-return pipe (T) fitted by a specialist.

- Connect pressure hose (1) to the single-action control unit.
- Couple the oil-return hose (2) (with the greater diameter) to the tractor's oil-return system.

Double-action control unit

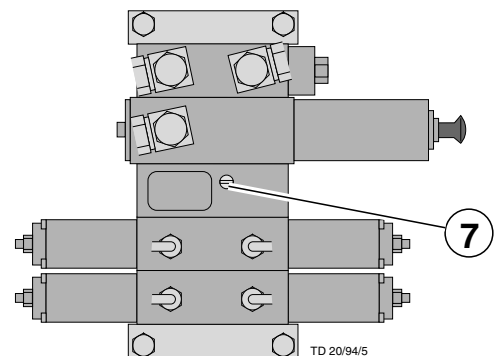
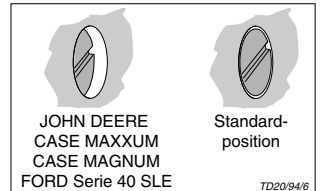
- Connect pressure line (1) and oil-return pipe (2) (pipe with the greater diameter is the oil-return pipe).

Note:

If oil should become warm during operation then a single-action control unit should be connected (see above).

Standard position: with tractors with an open hydraulic system

- e.g. a standard tractor with a gear pump.
- The position of the slotted screw (7) is set in the factory. The slotted screw (7) must be screwed out to the point where the screw head is level with the surface (6) of the hydraulic block.



Tip! If the tractor has a closed hydraulic system and the unit is operating in this position, then the hydraulic oil will heat up (particularly due to the constant pumping of the maximum amount of oil).

Remedy: Modify the system on the trailer or decrease the amount of oil being pumped at the tractor as written below.

Take care! with tractors with a closed hydraulic system

- JOHN-DEERE, FORD Serie 40 SLE
CASE-MAGNUM, CASE-MAXXUM
- Before coupling, the slotted screw (7) on the hydraulic block is to be screwed completely in.



Power supply

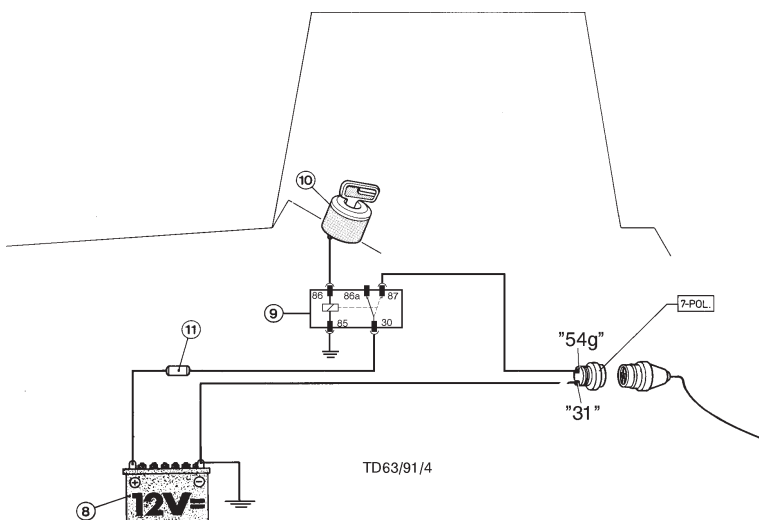
- Power (8) 12V is supplied via relay (9) connected to the ignition (10).
- Lead diameter 2,5 mm², fuse 16A (11).
- Power for the trailer is supplied via socket "54g" (+pole) and "31" (-pole).

This modification is to be carried out only by specialized workshops.

- Don't connect directly to ignition.
- Don't connect directly to battery (danger of fire and/or damage of electrical equipment).

Establishing electric connection

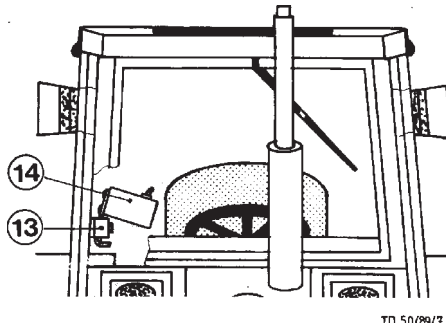
- After completing above mentioned work connect 7-pole plug from trailer with socket.
- Check lights.



Installation and check of comfort operation

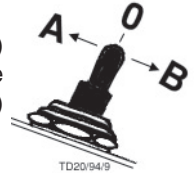
Installation

- Mount supplied bracket (13) for comfort operating with two hexagon screws within driver's vision and reach in tractor cabin.
- Insert front control panel (14) in bracket.



2. Operating switch

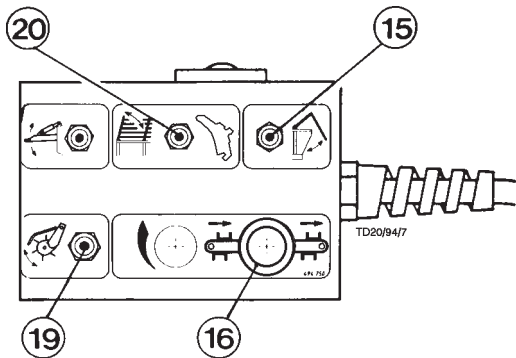
- All switches, except switch (19) which is for the Pick-up lift, are to be briefly switched down (B) (switch off or lower position).



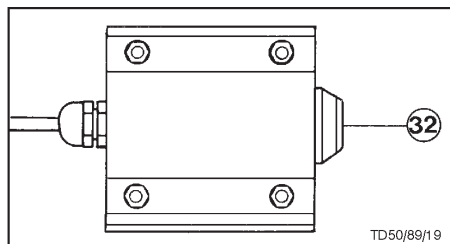
Check switch-off functions

1. The scraper floor drive must be switched off.

- The press-button (16) on the control panel must not be depressed (OFF- position).



- Likewise, the press-button (32) in the switch box located rear left of the trailer must not be depressed (OFF- position).



Control lamp: The control lamp which is intergrated in the press-button (16) lights up when either of the press-buttons (16, 32) is depressed (scraper floor drive is switched on).

Safety tips



Please take particular care when the operating elements on the trailer and the tractor are to be used simultaneously by more than one person. A conscientious arrangement should be made by those concerned before operation.

An example:

Danger of injury arises if a person stands at the rear of the trailer and somebody in the tractor cabin activates a switching function (opening the tailgate, switch on the driving gear, ...).

Pick-up lift

- Moving the switch (19) down (B) lowers the Pick-up.

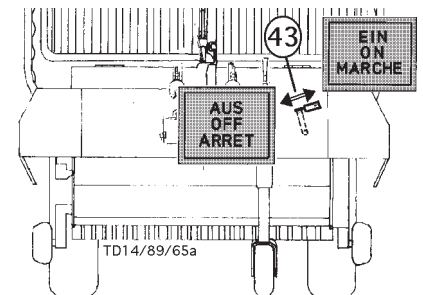
Caution!



If the lever (43) is in the "ON" position then the loading unit and Pick-up drive will automatically switch on when lowering.

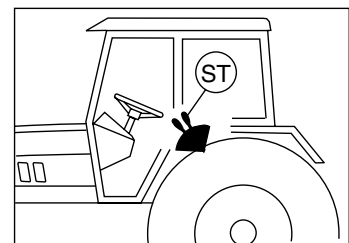


Therefore always stay at a safe distance if the drive shaft is coupled to the tractor and the p.t.o. drive is switched on.



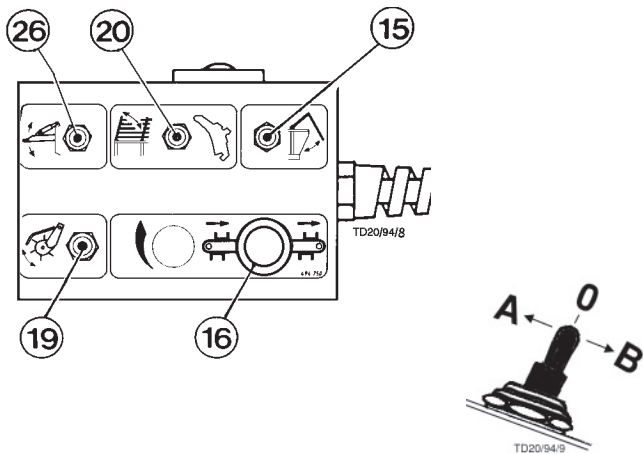
3. Engage control valve.

- Move lever (ST) to "ON" position and secure.



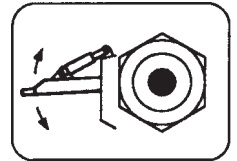
In so doing the trailer's control block is supplied with oil.

- By using a switch (15, 20, ...) on the control panel the relative hydraulic function takes place.



Hydraulic drawbar switch (26)

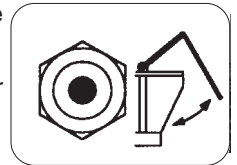
- Pushed up (A) - drawbar rises.
- Pushed down (B) - drawbar drops.



On the road hydraulic drawbar cylinder must be completely retracted.

Rear gate lifting switch (15)

- Switch (15) pushed up (A) - rear gate is released and opened.
- Switch (27) pushed down (B) - rear gate is lowered.

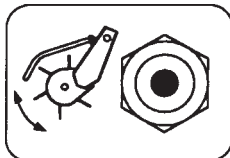


Persons to leave pivoting area!

Functions

Pick-up switch (19)

- Pushed down (B) - pick-up drops and remains in floating position.
- Pushed up (A) - pick-up rises (feed and pick-up drive stop automatically).

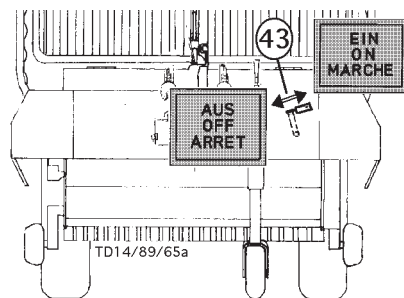


Caution!



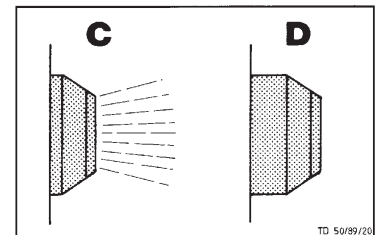
If the lever (43) is in the "ON" position then the loading unit and Pick-up drive will automatically switch on when lowering.

Therefore always stay at a safe distance if the drive shaft is coupled to the tractor and the p.t.o. drive is switched on.



Scraper floor drive push-button front (16) and rear (32)

- When pressing push-button (32/16) it remains in position (C) and moving floor drive is turned on.

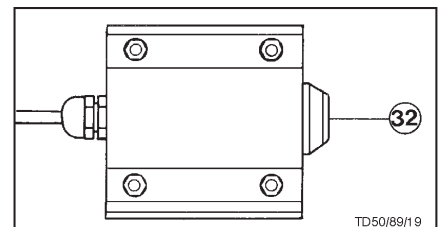


Integrated control lamp (16) at front control panel lights up.

- Pressing the push-button again turns off the moving floor drive (D).

- The control lamp in push-button (16) must go out.

If the control lamp remains lit up nevertheless, then the second push-button (32) is still depressed and the scraper floor is still operating!



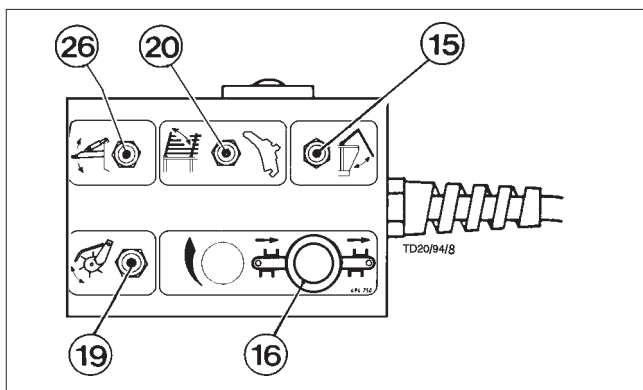
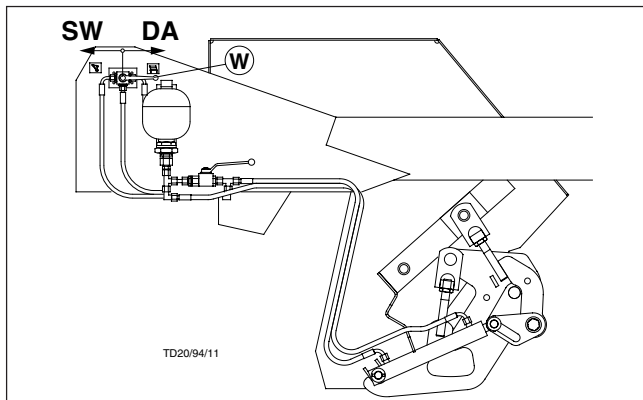
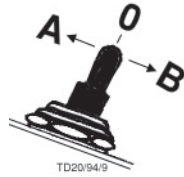
General hints



Selecting another function in addition to the moving floor feed will automatically interrupt the moving floor feed.

Dry forage extension

- Lever (W) in position "DA".
- Move switch (20) to position "A".
Dry forage extension folds up.
- Move switch (20) to position "B".
Dry forage extension folds down.

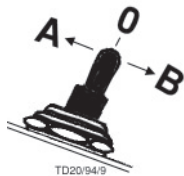


Swivelling cutter unit

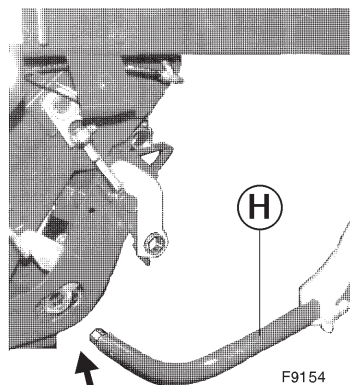


Caution!
Do not reach into swivel range of cutter bar when swivelling in / out.

- Lever (W) in position "SW".
- Move switch (20) to position "B".
Both cutter bars swivel out.
- Move switch (20) to position "A".
Both cutter bars swivel in.



- When only one cutter bar is needed for mowing, the lower cutter bar can be swivelled out using the accompanying lever (H).

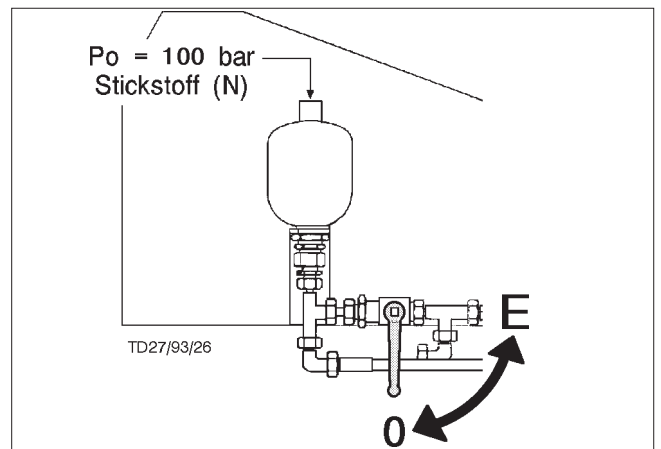


Obstructions when swivelling

- Remove foreign body from swivel range.
- If the cutter bars do not swivel in properly, then a pressure loss in the cutter unit hydraulic could be the cause.

Remedy by hydraulically filling the reservoir.

- Move lever to position "E" on 3-way valve.
- Actuate servo-valve (ST).
- Move switch (20) on control panel to position "B".
The cutter bar is swivelled out hydraulically.
- Leave switch (20) and servo-valve (ST) in the press position for a few seconds while moving the lever on the 3-way valve to position "0".



- If obstruction cannot be removed then check gas fill pressure (100 bar nitrogen) in hydroreservoir.

Alteration of gas container pressure

- This work may only be carried out by customer service or a specialist.
- In order to reduce or increase the pressure in the gas container a special filling and checking device is necessary.



Note

- According to manufacturer's information all gas containers have a slight pressure drop after a certain amount of time.
- The gas loss (nitrogen) amounts to 2-3 % per year.
- After 4-5 years it is recommended that container pressure be checked and if necessary corrected.

Maintenance



Beware!
No welding, soldering or mechanical works of any kind may be carried out on the container.

- Hydraulic oil change according to tractor manual.
- Before welding on trailer disconnect all plugs from tractor and disconnect trailer.

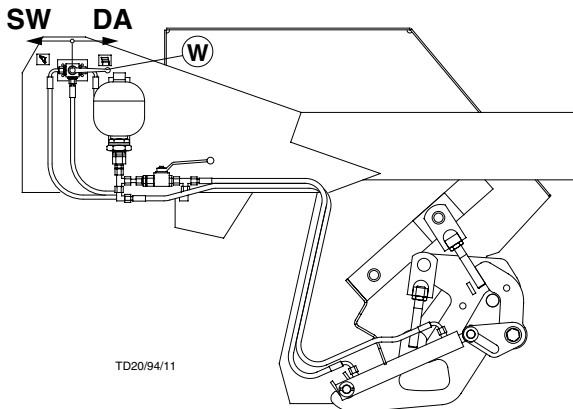
Trouble shooting



Beware!

Whenever eliminating trouble it is essential to turn off power take-off.

No welding, soldering or mechanical works of any kind may be carried out on the gas container.



During all these raising and/or lowering, turning on and off processes mind safety distances!

Lowering the pick-up

- Loosen lock nut (G).
- Screw in screw (H) on valve "Y1".
- Shift servo-control (ST) on tractor to lowering or "floating" position. Pick-up is then lowered.
- Screw out screw (H) and lock with nut (G).

Raising the pick-up

- Loosen lock nut (G).
- Screw in screw (H) on valve "Y1".
- Shift servo-control (ST) on tractor to raising position. Pick-up is then raised.
- Screw out screw (H) and lock with nut (G).

Lowering the pivoting drawbar

- Loosen lock nut (G).
- Screw in screw (H) on valve "Y2".
- Shift servo-control (ST) on tractor to lowering or "floating" position. Pivoting drawbar is then lowered.
- Screw out screw (H) and lock with nut (G).

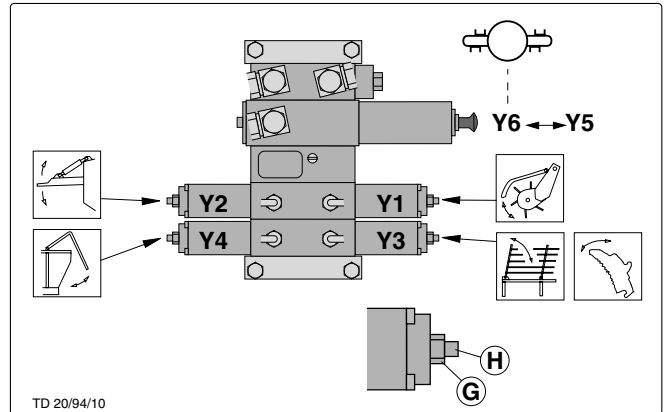
Raising the pivoting drawbar

- Loosen lock nut (G).
- Screw in screw (H) on valve "Y2".
- Shift servo-control (ST) on tractor to raising position. Pivoting drawbar is then raised.
- Screw out screw (H) and lock with nut (G).

Lowering the dry forage extension

- Lever (W) in position "DA".
- Loosen lock nut (G).
- Screw in screw (H) on valve "Y3".
- Shift servo-control (ST) on tractor to lowering or "floating" position. Dry forage extension is then lowered.
- Screw out screw (H) and lock with nut (G).

Emergency handling of hydraulic valves in case of power break down (- Baujahr 1997)



Raising the dry forage extension

- Lever (W) in position "DA".
- Loosen lock nut (G).
- Screw in screw (H) on valve "Y3".
- Shift servo-control (ST) on tractor to raising position. Dry forage extension is then raised.
- Screw out screw (H) and lock with nut (G).

Swivelling the cutter unit out

- Shift servo-control (ST) on tractor to locking position.
- Lever (W) in position "SW".
- Loosen lock nut (G).
- Screw in screw (H) on valve "Y3".
- Shift servo-control (ST) on tractor to raising position. Cutter unit then swivels out.
- Screw out screw (H) and lock with nut (G).

Swivelling the cutter unit in

- Lever (W) in position "SW".
- Loosen lock nut (G).
- Screw in screw (H) on valve "Y3".
- Shift servo-control (ST) on tractor to lowering or "floating" position. Cutter unit then swivels in.
- Screw out screw (H) and lock with nut (G).

Opening the tailgate

- Loosen lock nut (G).
- Screw in screw (H) on valve "Y4".
- Shift servo-control (ST) on tractor to raising position. Tailgate then opens.
- Screw out screw (H) and lock with nut (G).

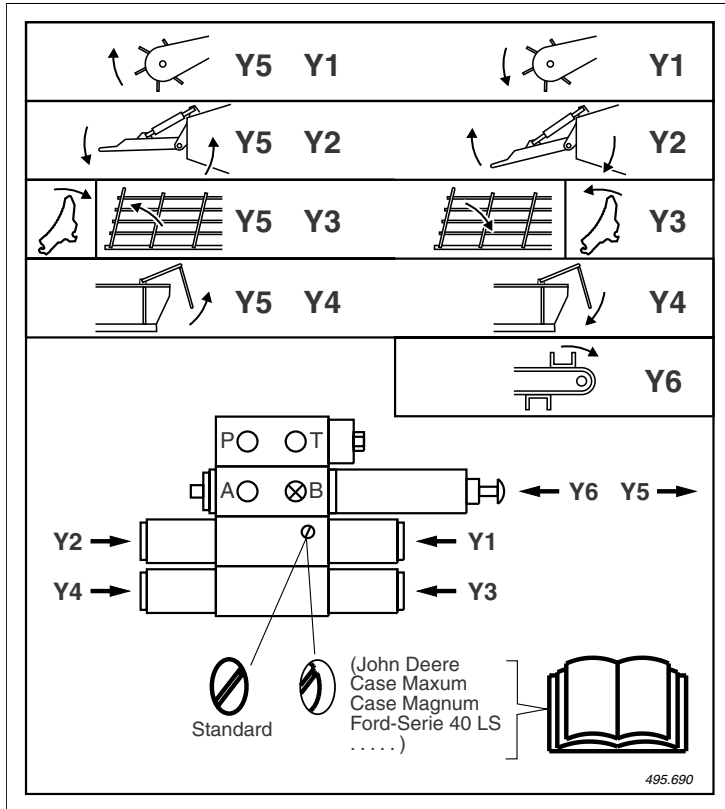
Closing the tailgate

- Loosen lock nut (G).
- Screw in screw (H) on valve "Y4".
- Shift servo-control (ST) on tractor to lowering or "floating" position. Tailgate then closes.
- Screw out screw (H) and lock with nut (G).

Switching on scraper floor drive

- Set the button in position „Y6“.

Emergency handling of hydraulic valves in case of power break down (+ Baujahr 1998)



Lowering the dry forage extension

- Lever (W) in position "DA".
- Shift servo-control (ST) on tractor to lowering or "floating" position. Dry forage extension is then lowered.

Raising the dry forage extension

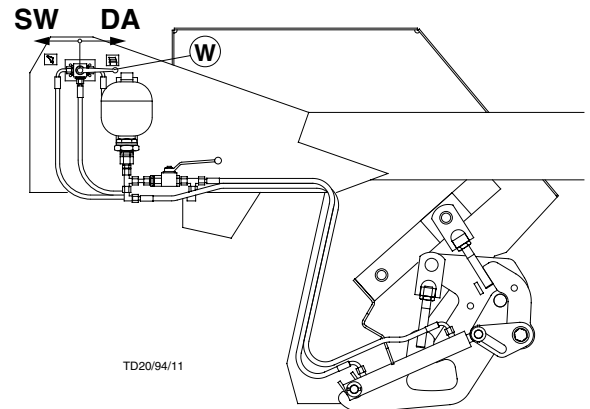
- Lever (W) in position "DA".
- Shift servo-control (ST) on tractor to raising position. Dry forage extension is then raised.

Trouble shooting

Beware!

Whenever eliminating trouble it is essential to turn off power take-off.

No welding, soldering or mechanical works of any kind may be carried out on the gas container.



During all these raising and/or lowering, turning on and off processes mind safety distances!

Safety tips:



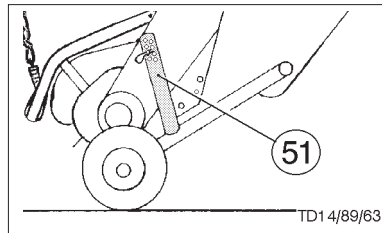
- Turn off the drive motor and take off the drive shaft when carrying out all adjustment work.
- Faults in the Pick-up area are to be eliminated only when the drive motor has been stopped.

Adjusting the pick-up

1. Raise pick-up slightly and secure with adjusting struts (51), left and right sides in same position.
2. Secure with linch pin.

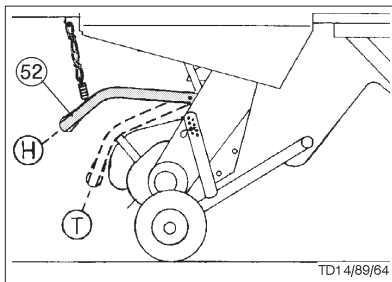
High adjustment:
with tall stubble and extremely uneven ground.

Low Adjustment:
with short green fodder and even ground.



Impact deflector adjustment (52)

- In low position (T) for small swaths and short fodder.
- In high position (H) for high swaths.



Loading process in general

Important tips:

- A transfer, which is located on the drawbar, tells which p.t.o.-r.p.m. (540 rpm/1000 rpm) your trailer is equipped for.
- Therefore take care that a drive shaft with the correct overload safety is used (see spare parts list), so that no unnecessary damage is caused to the trailer through overloading.
- Always adapt driving speed to the surroundings.
- Avoid making sudden curves when driving through hills and valleys, and when transversing slopes (danger of tipping).

Loading green fodder

- As a rule green fodder is collected in swaths.
- Cut swaths collected are always stalk heads.
- Set deflector (52) low position (T).

Loading dry fodder

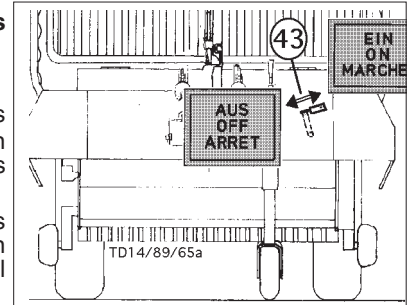
- Correct dry fodder collection is in swaths.
- Don't make swaths too small in order to save loading time.
- Set deflector (52) in the position (H).

Starting the loading process

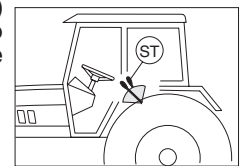
1. Move control lever (43) for pick-up and conveyor drive to "ON" position.
2. Switch on tractor's p.t.o..
3. Lower pick-up.

Take care! Doing this automatically switches on the Pick-up and press drive.

When switch lever „43“ is in the „OFF“ position then the Pick-up and press will not be activated.



4. When loading, switch control unit (ST) to "lower" or "float" and in doing so the pick-up regulates itself to the uneven ground.

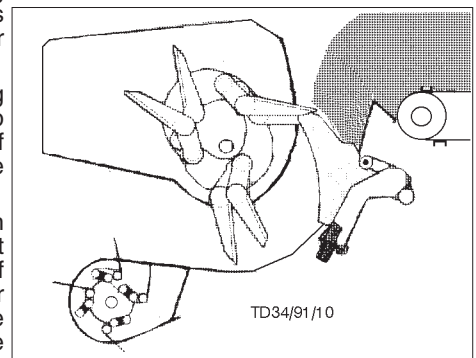


5. Observe p.t.o.-r.p.m.

- Load using average p.t.o.-r.p.m. (400-450 rpm).

To observe during the loading process!

- Only raise pick-up when loading channel is empty.
- When driving through curves reduce motor r.p.m.
- When driving through sharp curves switch off p.t.o. and raise pick-up.
- Avoid uneven loads! Important because of possible drawbar overloading (see details on the drawbar concerning permitted support load).
- To optimally fill the loading space, switch the scraper floor on briefly (do not let it run continually).
- Watch the trailer fill indicator ⁽¹⁾.
- Observe the permitted axle load and total weight!



Finishing the loading process

1. Raise Pick-up.

Doing this automatically switches off the Pick-up and conveyor drive.

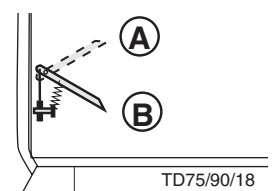
2. Move the switch lever „43“ to the „OFF“ position.

This position is for your safety. Doing this prevents the Pick-up and press from being unintentionally activated, e.g. when lowering the Pick-up while the p.t.o. is running.

Trailer fill indicator ⁽¹⁾

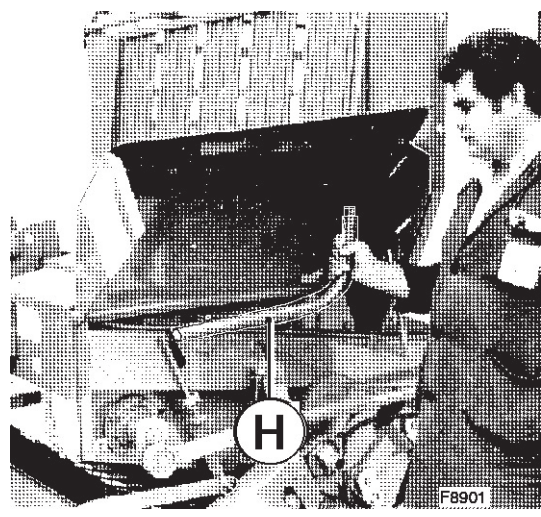
A = not full; B = full

Switch off scraper floor drive when indicator is in the „B“ position.

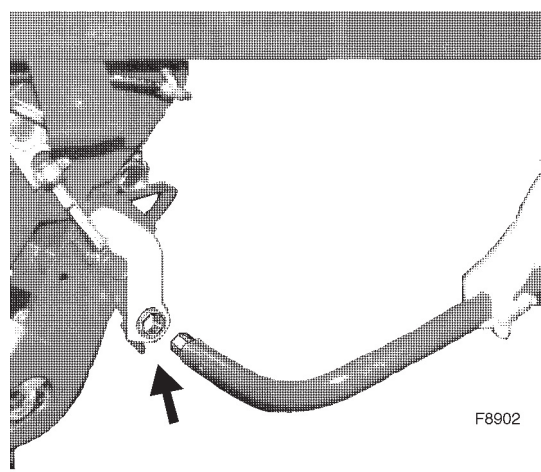


Swivelling cutter unit in and out

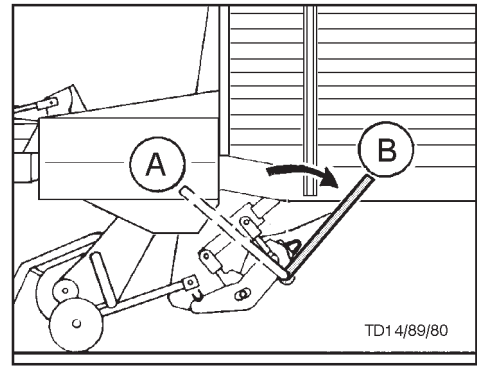
Lever (H) is located underneath front collapsible side guard.



- Insert lever (H) into hexagonal socket on cutter bar.

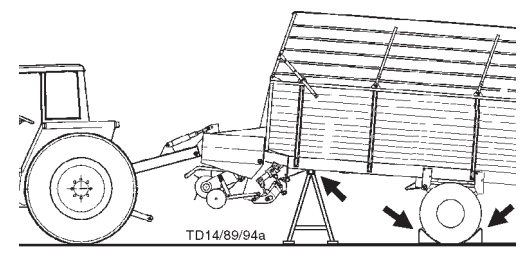


- Push lever forward (position A) and in so doing cutter unit swivels out.
- Push lever backward (position B) and in so doing cutter unit swivels in.



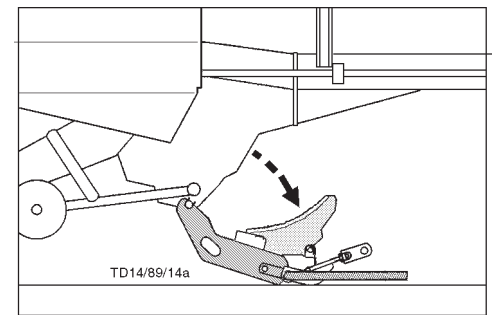
! Safety points

- Turn engine off when adjustment, service and repair work is to be done.

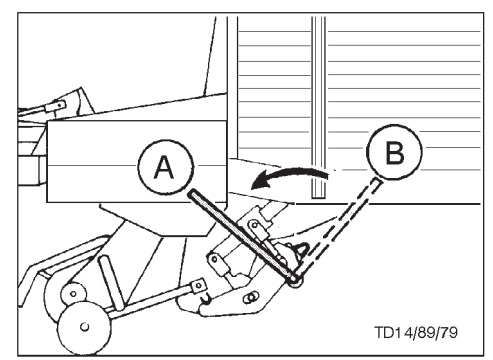


- Do not work under the machine without safe support.

Folding cutter bar down

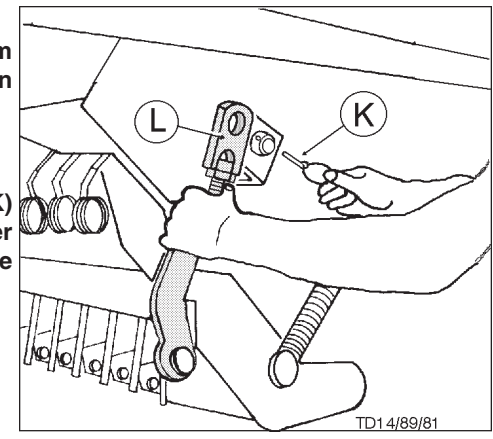


- Only necessary for maintenance and conversion work!

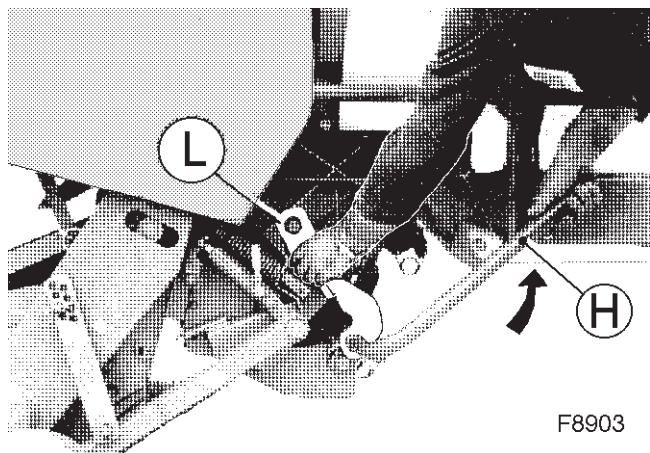


- 1. Swivel cutter bar out using lever (H)**
lever should be in position A.
- 2. Remove lever (H) from socket and secure it in position B.**

- 3. Loosen linch pin (K) on right side of trailer first, then remove securing bracket (L).**



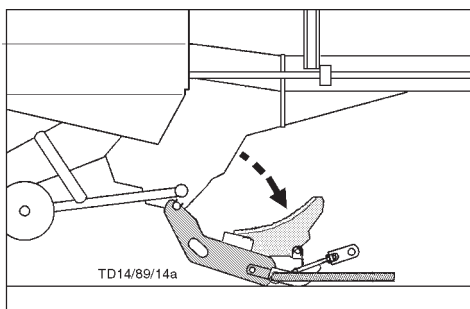
4. Lift cutter unit using lever (H) to relieve load.



5. Pull out linch pin and remove securing bracket (L).

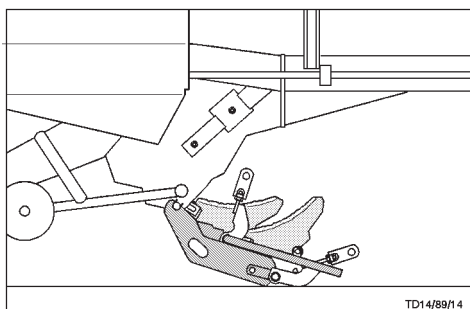


Caution!
Cutter unit folds down automatically under its own weight.
Take care that your hand is not crushed between lever and floor!

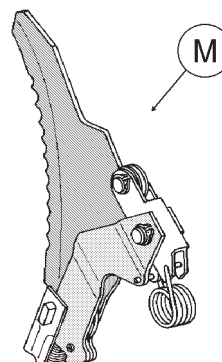


Folding two cutter bars down

- As described previously, swivel upper cutter bar down first then lower cutter bar.



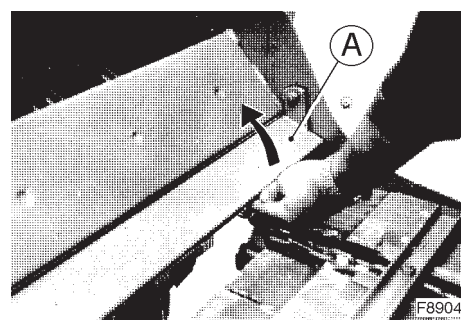
Quick-insert cutters (M)



TD14/89/82

Handling quick-insert cutters

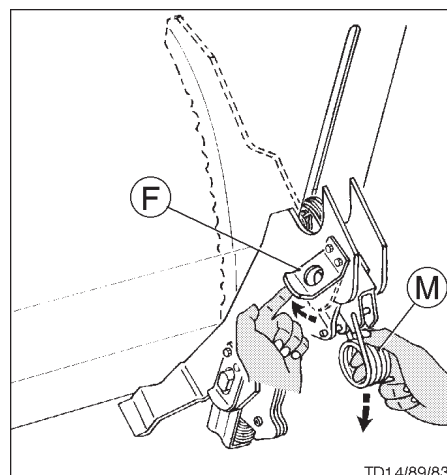
- With a **low loading trailer**, quick-insert cutters (M) are accessible from loading area after folding cover plate (A) up.



- With a **high loading trailer**, quick-insert cutters (if existing) are accessible from underneath.

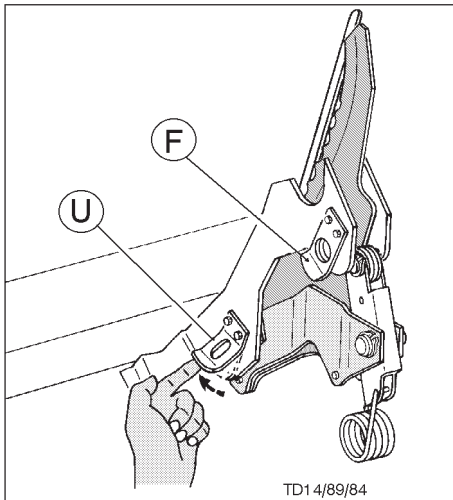
Swivelling out a quick-insert cutter

1. Push leaf spring (F) away to the side.
2. Pull cutter (M) down gently and remove.



Removing a quick-insert cutter

1. Push leaf spring (F) away to the side and swivel cutter out.
2. Push lower leaf spring (U) away to the side and remove complete individual cutter by sliding down.



Installing a quick-insert cutter

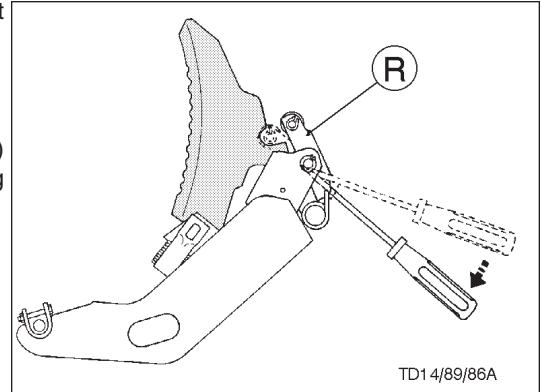
- When installing complete individual cutter ensure that both leaf springs (F/U) catch.

Cutter bar

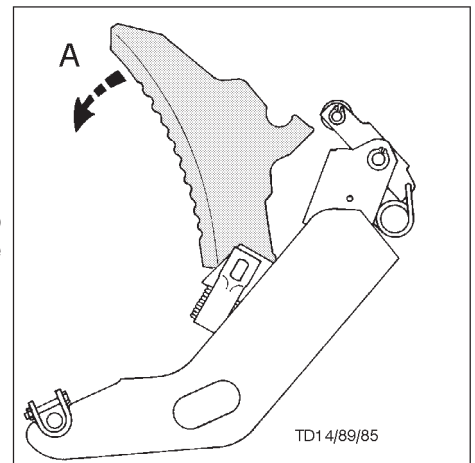
Removal and installation of a cutter

Removing a cutter from a swivelled out cutter bar.

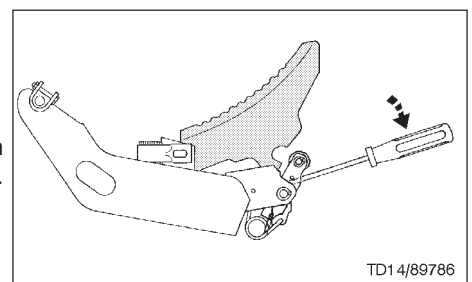
1. Pull catch lever (R) down using screwdriver.



2. Swivel cutter up (position A) and remove by pulling backwards.

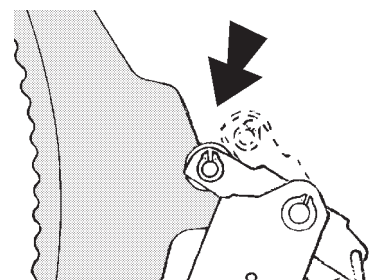


Removing a cutter from a swivelled up cutter bar.



Cutter installation

- Take care that catch lever caster rests properly in cutter recess.



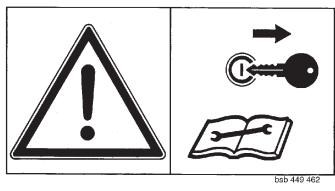
Maintenance

Well ground cutters save energy and provide good cutting quality.

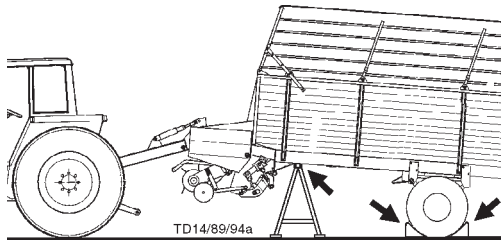


Safety points

- Turn engine off when adjustment, service and repair work is to be done.



- Do not work under the machine without safe support.



- Wear protective glasses.

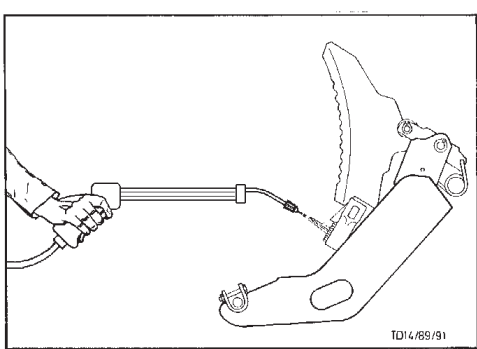


Caution!

*Only grind the smooth side of the cutter
Sensible grinding without heating (tarnishing) the cutter guarantees a long life.*

Cutter safeguard

Regularly cleaning is recommended to guarantee the perfect function of the cutter safeguard.

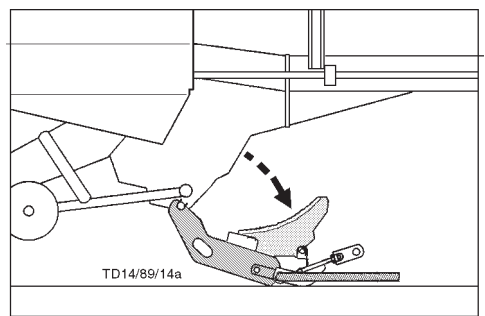


- Clean pressure springs with high pressure cleaner.
- Oil cutter and safeguard element before winter storage!

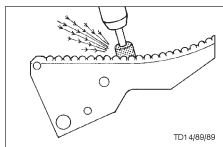
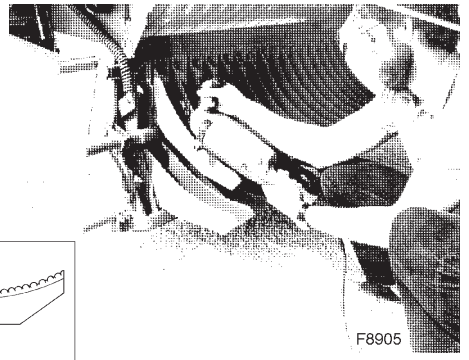


Direct grinding of cutter on cutter bar

1. Swivel cutter bar down to the ground.

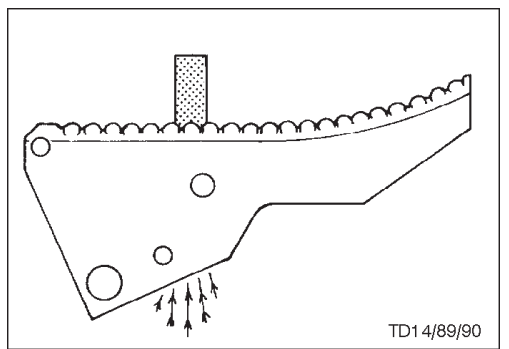


2. Grind cutter in installed position with hand grinder.



Grinding of removed cutters

- Remove individual cutter and grind with hand grinder.

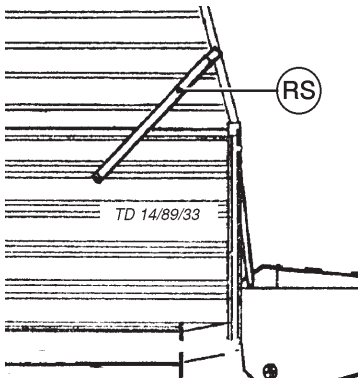


Mechanical adjustment

- Instead of the mechanical adjusting unit the trailer can also be fitted with a hydraulic one (see the relevant chapter in this operating manual).

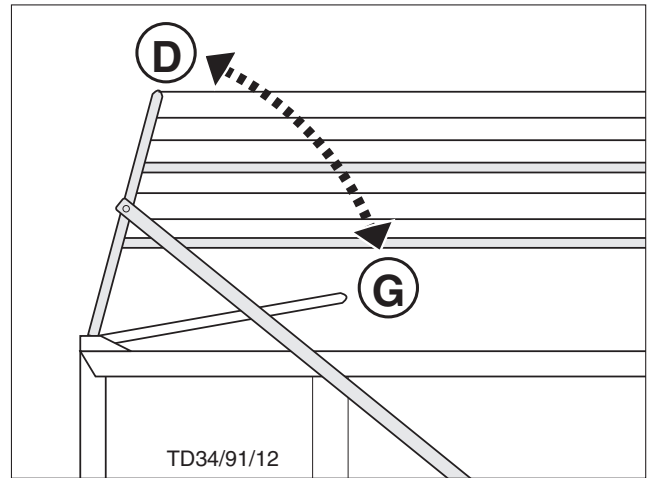
Folding dry forage extension up/down

1. Unlock right support strut (RS).

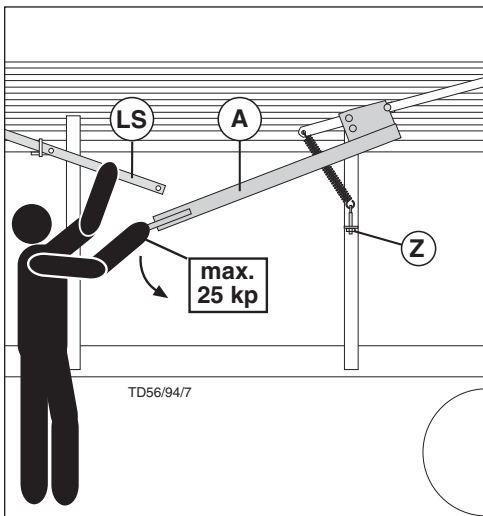


D = Dry forage position

G = Dried silage and green forage position

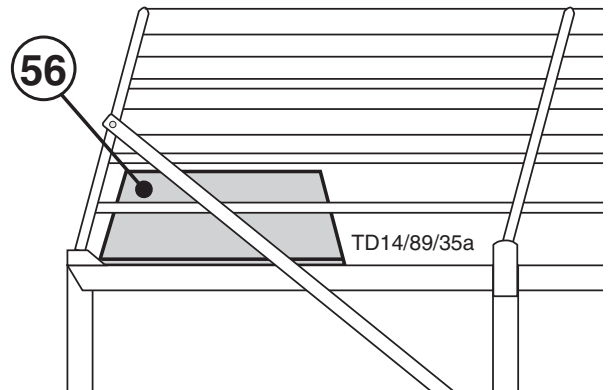


2. Attach tailgate raising lever (A) to dry forage extension.



Sliding plates (56)

- With low entrances it may be necessary to remove both sliding plates (56).



3. Unlock left support strut (LS) while holding lever (A) firmly.

Take care!
 The dry forage extension can fold together itself a little under its own weight. Be aware of lever's (A) and support strut's jib range.

4. Always hold lever (A) firmly when adjusting and manoeuvre extension slowly!
5. Secure left support strut (LS) first, then right support strut (RS).
6. Detach lever (A).

Top ropes

- When loading chaff, remove top ropes.



Safety tip

Adjusting the relieving spring

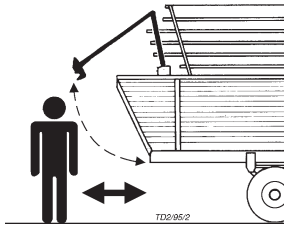
The operating force on lever (A) should not exceed 25 kp (245 N).

From there adjust the relieving spring tension (Z) accordingly.

Opening the tailgate

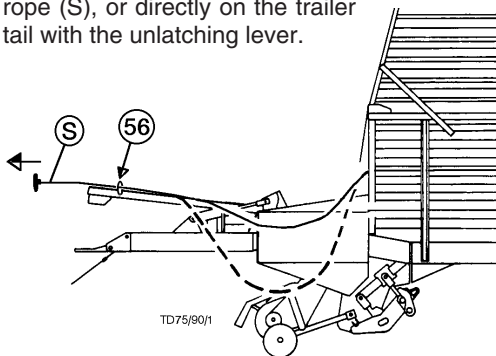


Nobody should be within the swinging range of the tailgate when opening and closing!



Opening tailgate mechanically ^(S) (Pos.P)

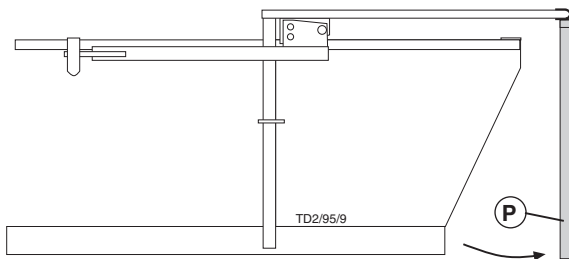
1. The latching hooks are released by pulling the rope (S), or directly on the trailer tail with the unlatching lever.



Take care!

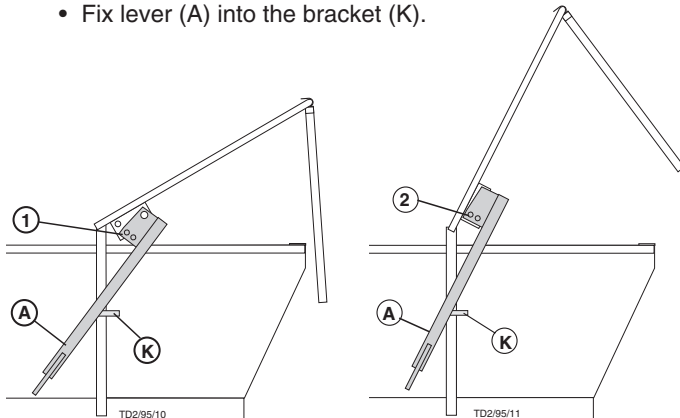
Limit rope sag with the rope clamp (56) so that it cannot be caught by the Pick-up when slack.

2. When the latching hooks have been released the tailgate swings automatically into position "P".



3. The tailgate can then be swung up using the lever (A).

- Fix lever (A) into the bracket (K).

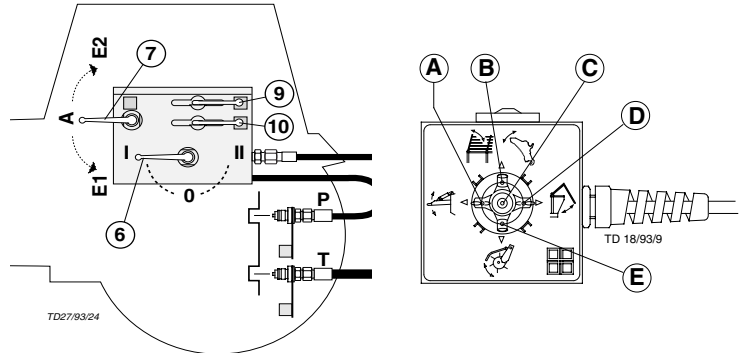


The lever (A) can be secured in 2 positions. The tailgate can be opened to a greater or lesser width depending on the position selected.

Opening and closing tailgate hydraulically ^(W)

Releasing the latching hooks and opening the tailgate is carried out hydraulically.

1. On the switch box in the tractor cabin move the lever to the "E2" position or push the switch to position "D".



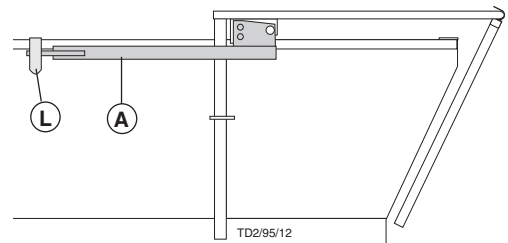
2. Actuate the control panel (ST).
3. The latching hooks are released and the tailgate swings automatically into position "P".
4. Then the tailgate swings up.

The tailgate can be opened to a greater or lesser width depending on how long the control panel is activated.

Closing the tailgate

Closing the tailgate with the lever ^(S)

1. Bring the tailgate into position "P" with the lever (A) and then secure the lever (A) behind the bracket (L).



2. Close the tailgate by hand.
3. Check that both latching hooks are properly engaged.

Closing the tailgate hydraulically ^(W)

1. On the switch box in the tractor cabin move the lever to the "E1" position or push the switch to position "D".
2. Actuate the control panel until the tailgate is closed.
3. Check that both latching hooks are properly engaged.

Travelling on public roads

- Travelling on public roads must only be undertaken with the tailgate closed. Lighting devices must be fixed vertically to the road.

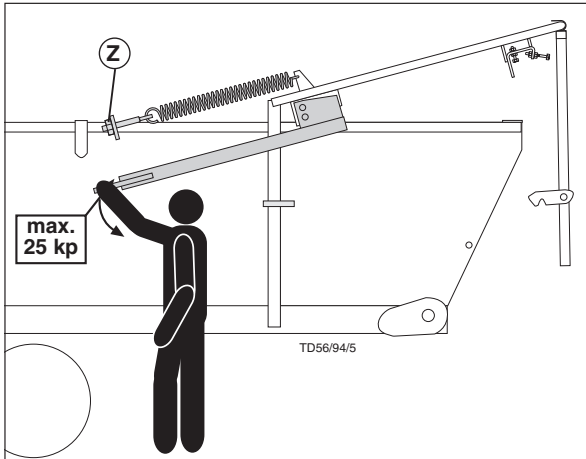


Safety tip

Adjusting the relieving spring

The operating force on lever (A) should not exceed 25 kp (245 N).

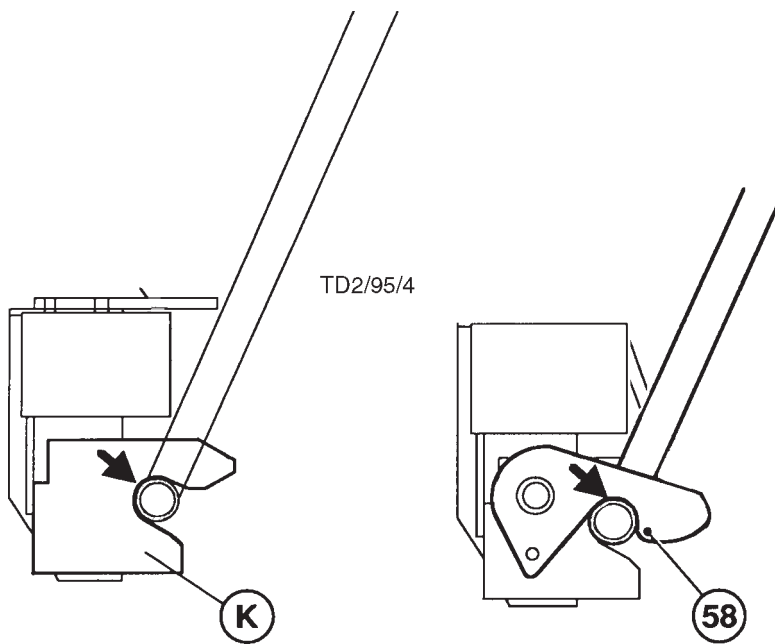
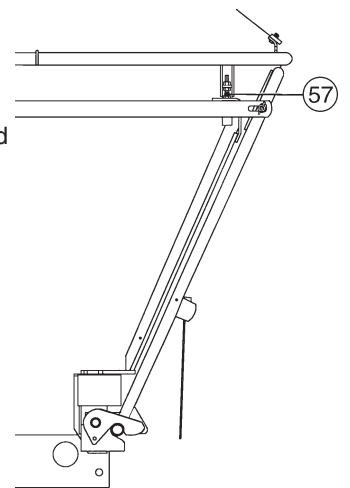
From there adjust the relieving spring tension (Z) accordingly.



Adjustments

So that the opening and closing of the tail gate functions properly, set the adjusting screws left and right according to the following sequence.

- Turn the hexagonal screw (57) until the lower pipe of the tail gate fits into the slotted plate (K).



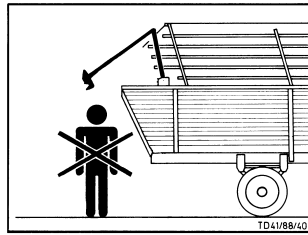
Hydraulic opening and closing of the tail gate

Nobody should be within the swinging range of the tail gate when opening and closing!

Do not stand underneath the raised tail gate!

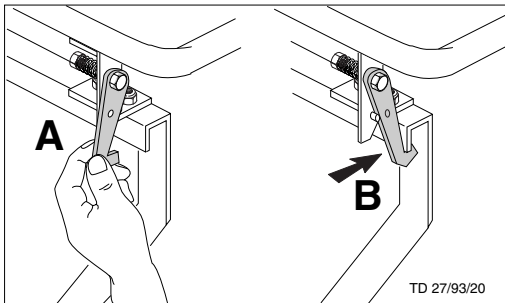
- Opening and closing is effected hydraulically from the tractor seat.

In doing so, the locking hooks (58) are unlocked and locked automatically.

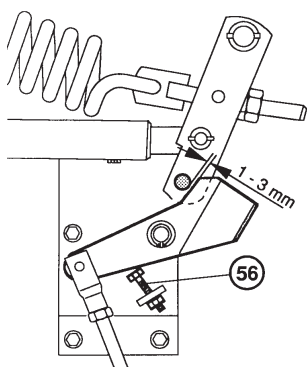
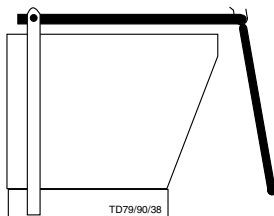


Unloading with lowered top frame

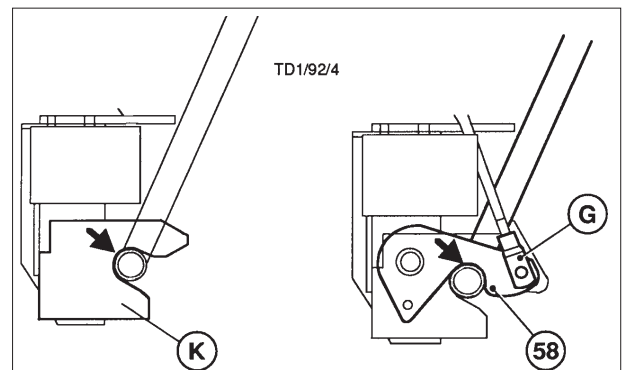
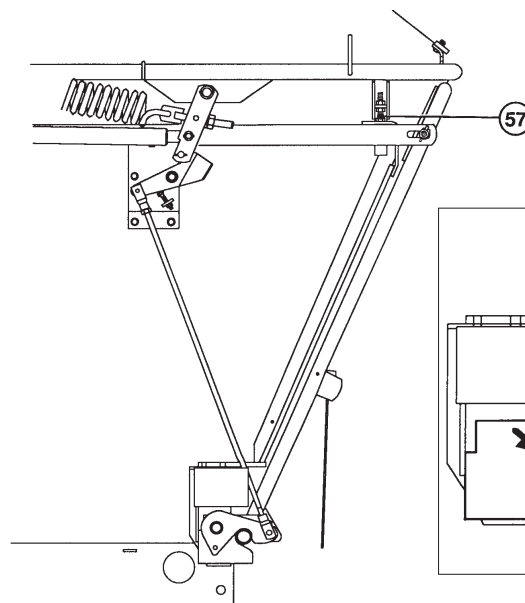
- Lock tubular frame against raising (hook left and right into position B).



- The tail gate swings backwards when opening.

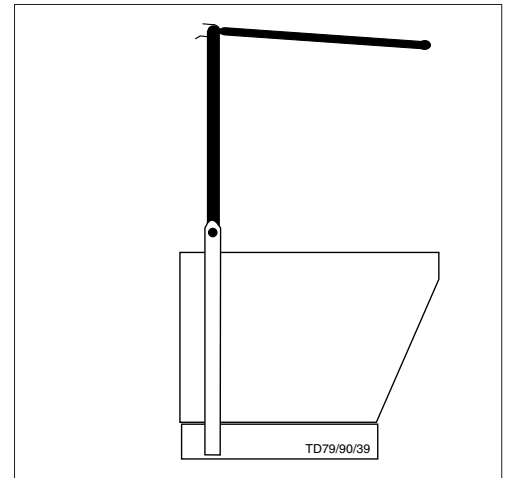


TD1/92/3



TD1/92/4

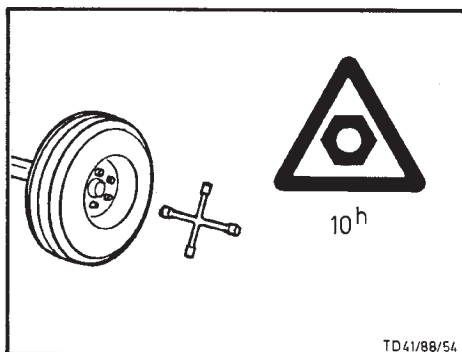
Unloading with raised top frame



- Unlock tubular frame to raise (hook left and right into position A).
- The tail gate and the tubular frame swing all the way to the top when opening.

Adjustments

- So that the opening and closing of the tail gate functions properly, set the adjusting screws left and right according to the following sequence.
 - Turn the hexagonal screw (57) until the lower pipe of the tail gate fits into the slotted plate (K).
 - Set a gap (1-3 mm) by means of the hexagonal screw (56).
 - Slip the yoke end of the frame (G) from the pin and turn it until the hooks (58) rest, without play, on the pipe.
 - Check that all lock nuts are firmly fixed.



General

Check regularly that wheel nuts are firmly tightened (see table for screw starting torque)!

Attention!

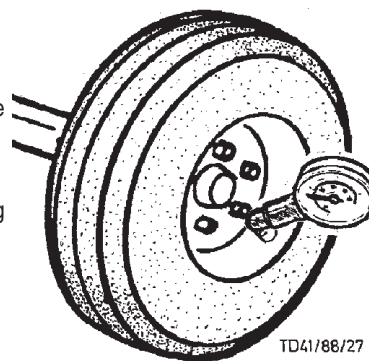
After the first 10 hours of operation retighten wheel nuts.

- If a wheel has been changed retighten the wheel nuts after 10 hours of operation also.

- Pay attention to correct tyre pressure!

- Regularly check tyre air pressure according to the chart.

Danger of bursting exists when pumping up tyres and with high tyre pressure!



Tyre size	Ply rating	Air pressure (bar)	Starting torque	Highest permitted speed
3,50-6	4 PR	3,00		
4,00-6	4 PR	2,50		
4,00-8	4 PR	2,50		
5,00-8	6 PR	4,00		
5,00-15 AM (M137C)		1,00		
7,00-12	6 PR	3,00		
10,0/80-12	6 PR	3,00	200 Nm	
10,0/80-12	8 PR	4,20	200 Nm	
10,0/75-15,3	6 PR	3,10	200 Nm	
10,0/75-15,3	8 PR	4,20	320/200** Nm	
10,0/75-15,3	10 PR	5,20	320/200** Nm	
11,5/80-15,3	8 PR	3,70	320/200** Nm	
11,5/80-15,3	10 PR	4,60	320/200** Nm	
11,5/80-15,3	12 PR	5,00	320/200** Nm	
12,0-18		5,70	320 Nm	
13,0/55-16	10 PR	3,90	320 Nm	
13,0/55-16	12 PR	4,70	320 Nm	
15,0/55-17	8 PR	2,90	320/200** Nm	
15,0/55-17	10 PR	3,50	320/200** Nm	30 km
15,0/55-17	12 PR	4,30	320/200** Nm	
15 x 6 - 6	4 PR	1,00		
15 x 6 - 6	4 PR	1,20		
16 x 6,5-8	4 PR	1,50		
19,0/45-17	10 PR	3,00	320 Nm	
205 R 14 C	8 PR	3,00	320 Nm	
205 R 14 C*	8 PR	4,25	320 Nm	
325/65 R 18	16 PR	5,70	320 Nm	
335/65 R 18 XP 27		5,0	320 Nm	
500/40-17	10 PR	2,90	320 Nm	40 km
500/50-17	10 PR	2,75	320 Nm	30 km
500/50-17	10 PR	3,75	320 Nm	40 km
500/50-17	14 PR	5,0	320 Nm	65 km

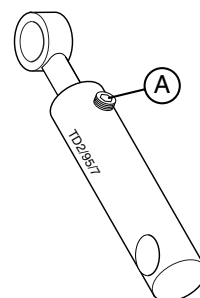
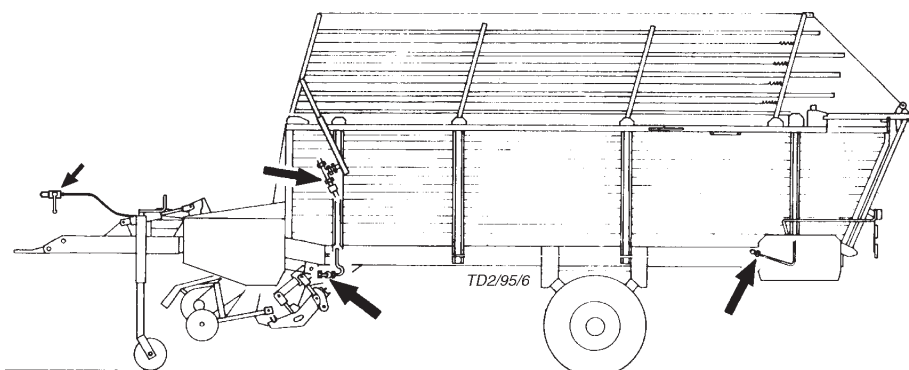
** 200Nm only for 5-hole rims

* Only for WID M with built-on motor

Troubleshooting

Any machine is liable to develop faults now and again. The list below is intended to make curing them easier. Never delay in finding a remedy.

Faults	Causes	Remedies
Torque limiter on driveshaft triggered.	Too much forage at once, large foreign body or blunt knives.	Declutch and start off again at low revs. If necessary remove foreign body and sharpen knives.
A transmission runs hot.	No lubrication.	Top up or replace oil.
Scraper floor chain runs noisily (ticking over).	Chain too loose or too taut.	Check chain tension.
Noise from transmission chain.	Chain loose.	Check chain tension regularly (5 to 8 mm play), tighten if necessary.
Forage jams.	Travel speed too high, trailer hitched up too low.	Set drawbar to correct height.
Poor cutting quality.	Blunt knives, p.t.o. speed too high.	Sharpen knives in time or replace them. Drive at lower revs, so that larger wads of forage are picked up.
Jockey wheels do not reach ground.	Pick-up set wrong.	Adjust jockey wheels and check height setting at hitch.
Forage is picked up soiled.	Jockey wheels set too low.	Check jockey wheel setting.
Hydraulic mechanism move jerkily.	Air in lines or cylinders.	Loosen bleed screws (A) and bleed lines.
Tailgate does not swing.	Coil (→) dirty.	Undo union nut (→) on cylinder, drain a little oil and replace nut, if necessary bleed air off and clean coil.
Poor braking.	Brake linings worn.	Adjust or replace linings.

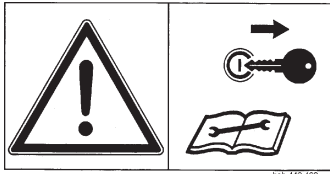


Advice for general maintenance

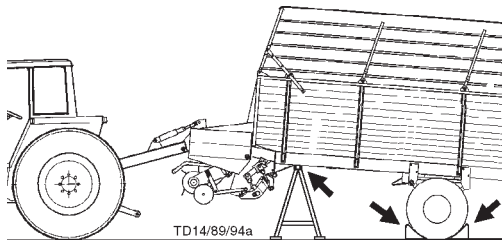
In order to keep the implement in good condition even after a longer service life, please observe the following advice.

Safety points

- Turn engine off when adjustment, service and repair work is to be done.



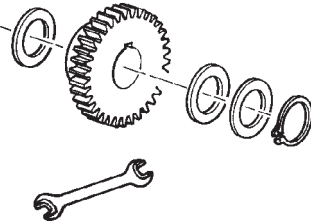
- Do not work under the machine without safe support.



- Retighten all screws after the first hours of operation.

Spare parts

- a. The **original components and accessories** have been designed especially for these machines and appliances.
- b. We want to make it quite clear that components and accessories that have not been supplied by us have not been tested by us.
- c. The installation and/or use of such products can, therefore, negatively change or influence the construction characteristics of the appliance. We are not liable for damages caused by the use of components and accessories that have not been supplied by us.
- d. Alterations and the use of auxiliary parts that are not permitted by the manufacturer render all liability invalid.



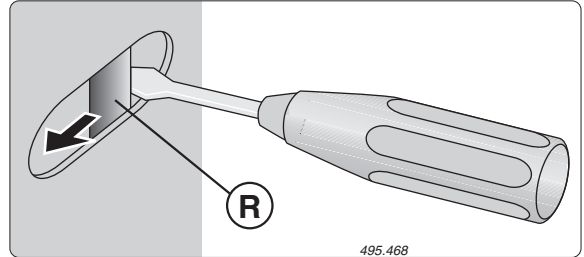
Asbestos

- Certain sub-supplied components of the vehicle may contain asbestos due to technical reasons. Observe the warning on spare parts.



Opening the side protectors

Open the locking bar "R" with a suitable aid (e.g. screw driver) and simultaneously swing the protector up.



Closing the side protectors

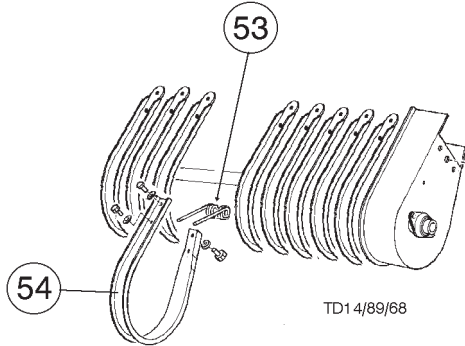
Swing the protector down, the locking bar engages automatically and locks the protector against unintentional opening.

Take care when entering the loading area

1. Secure the opened tailgate against unintentional closing (e.g. with a prop).
2. Use a suitable climbing aid (e.g. a stable ladder).
3. Do not enter the loading area when the p.t.o. is connected and the drive motor is running.
4. Access door (only on trailers with metering rollers)
The access door in the left side wall must only be opened when the drive motor is stopped.

Pick-up

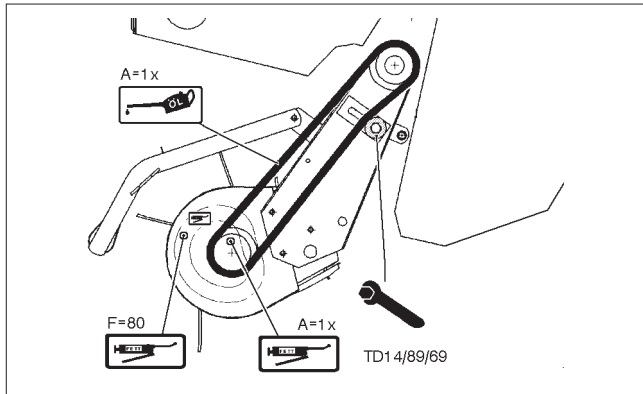
- Broken tines (53) can be replaced after removing the



corresponding stripper guard (54) without disassembling the pick-up.

Pick-up drive chain

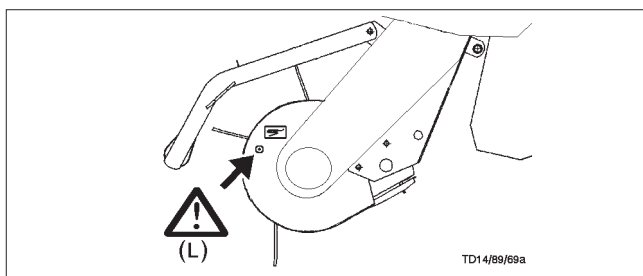
- Oil chain and check chain tension every 40 runs.
- Once a year remove chain guard, clean and oil chain as well as lubricating free-wheel.



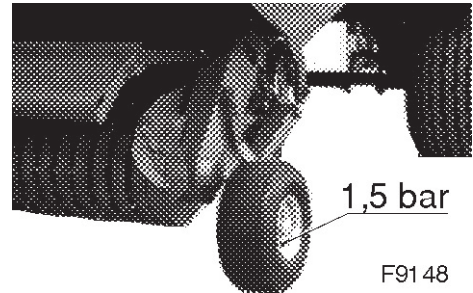
Cam wheel

- For technical reasons the lubricating point (L) on the left front plate of the pick-up drum must then be greased if the pick-up is in operation.

In order to prevent possible accidents proceed with great care.

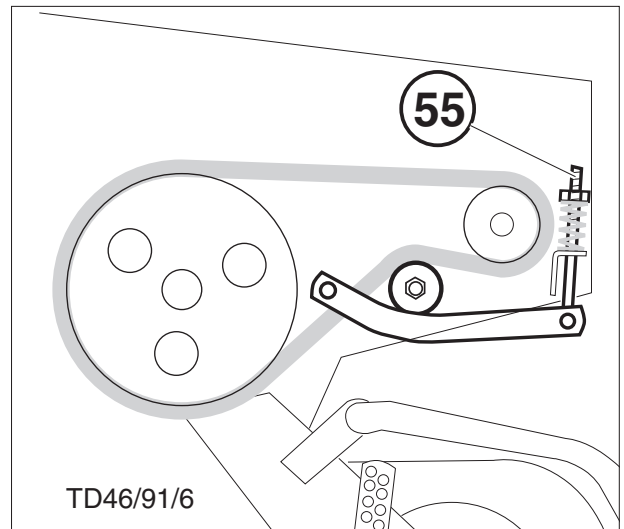


Tyre pressure



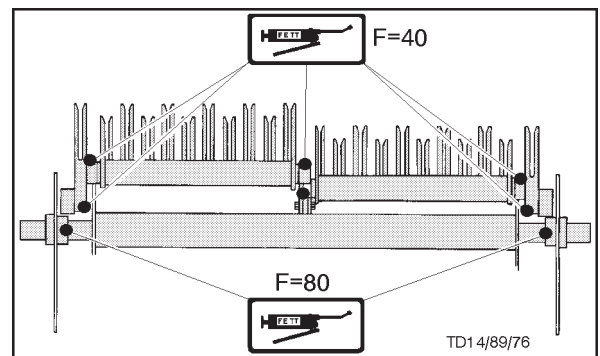
Press

- Regulation of drive chain tension takes place through the tensioning screw (55) after loosening lock nut.
- Tighten lock nut after tensioning chain.



Conveyor combs and main bearing

- F = 40** The conveyor comb housing should be greased every 40 runs.
- F = 80** Both main bearings should be greased every 80 runs.

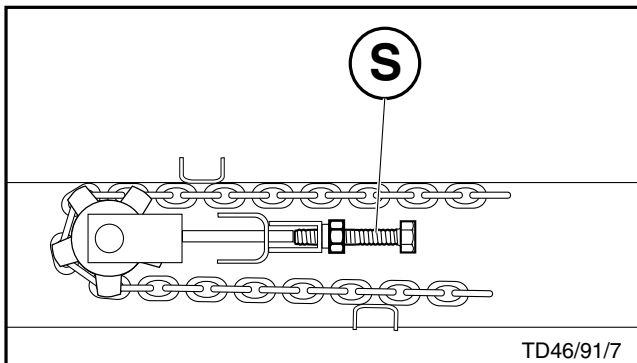


Scraper floor chains

- Both scraper floor chains must be tensioned simultaneously but not strained. They should sag slightly.

Retensioning of scraper floor chains

- The tensioning screw (S) is located under the platform.
- If length of tensioning screw is no longer adequate, then remove chain links. Always remove even numbered links (2, 4, 6,...) from both chains.

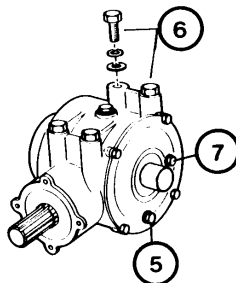


Starting transmission

Change or at least top-up transmission oil once a year.

Topping-up oil

- To pour in oil unscrew one of either fastening screws (6).
- Check the oil level at the level screw (7).

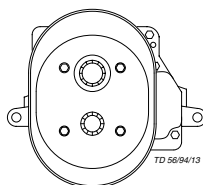


Changing oil

- Open oil outlet screw (5).
- Drain old oil and dispose of as allowed by law.
- Pour in 1,0 ltr of oil according to lubrication chart.

Cutter gears

- 0,25 l HD SAE 90

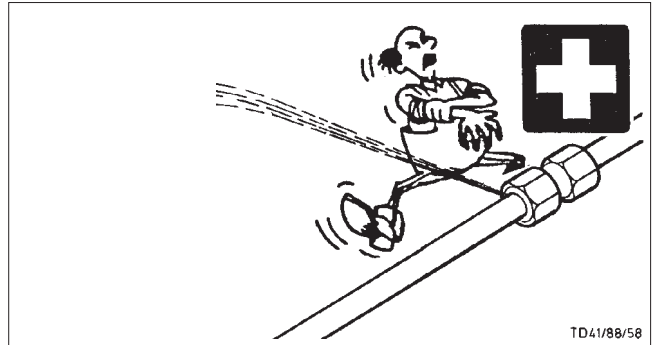


Hydraulic unit



Caution! Danger of injury or infection!

Under high pressure, escaping fluids can penetrate the skin. Therefore seek immediate medical help!



After the first 10 operating hours and then every consecutive 50 operating hours

- Check the hydraulic unit and lines for tightness and retighten screw connections if necessary.

Before operation

- Check hydraulic hoses for wear. Replace worn or damaged hydraulic hoses immediately. The replacement hoses must meet the manufacturer's technical requirements.

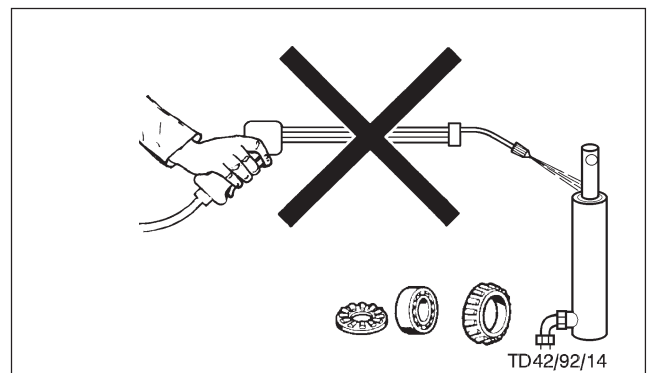


Cleaning of machine parts

Attention!

Do not use high-pressure washers for the cleaning of bearing- and hydraulic parts.

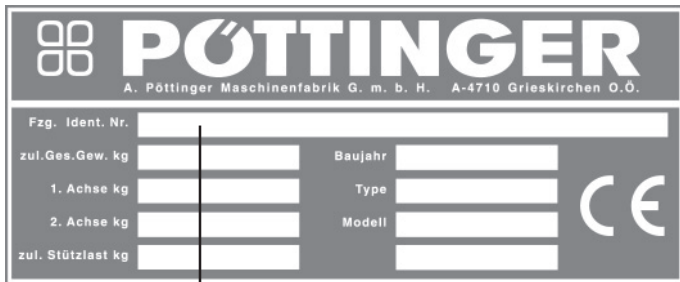
- Danger of rust!



- After cleaning, grease the machine according to the lubrication chart and carry out a short test run.
- Cleaning with too high pressure may do damage to varnish.

Brake adjustment

See chapter "Brake unit"!



Ihre/Your/Votre
Masch.Nr. / Fgst.Ident.Nr.

Position of Vehicle Identification Plate

The factory number is imprinted on the accompanying Vehicle Identification Plate (as shown) and on the frame. Guarantee issues and further inquiries cannot be processed without the factory number being stated.

Please enter the number onto the front page of the operating manual immediately after taking delivery of the vehicle/implement.

Technical data

PROFI GP I
(Type 537)

PROFI GP II
(Type 539)

Overall length	7560 mm	7960 mm
Overall width	2465 mm	2465 mm
Height with extension up	- single axle 3235 mm	3235 mm
	- tandem axle 3285 mm	3285 mm
Height with extension down	- single axle 2300 mm	2300 mm
	- tandem axle 2350 mm	2350 mm
Platform height	1035 mm	1035 mm
Load area	4650x1600 mm	5050x1600 mm
Pick-up width	1650 mm	1650 mm
No. of cutters	31	31
Cutter spacing	40 mm	40 mm
Capacity		
Dry forage after average pressing	32 m ³	35 m ³
Volumes according to DIN 11741	20,9 m ³	22,8 m ³
Weight (without cutters)	2300 kg	2400 kg
Tyres (standard)	15,0/55-17	15,0/55-17
Permanent sound emission level	82,3 dB(A)	82,3 dB(A)

All data subject to alteration without notice.

The defined use of the trailer

The trailer "PROFIGP" is intended solely for normal use in agricultural work.

- For the loading, transporting and unloading of roughage, green forage, silage and straw.

Any other uses outside of these are regarded as undefined.

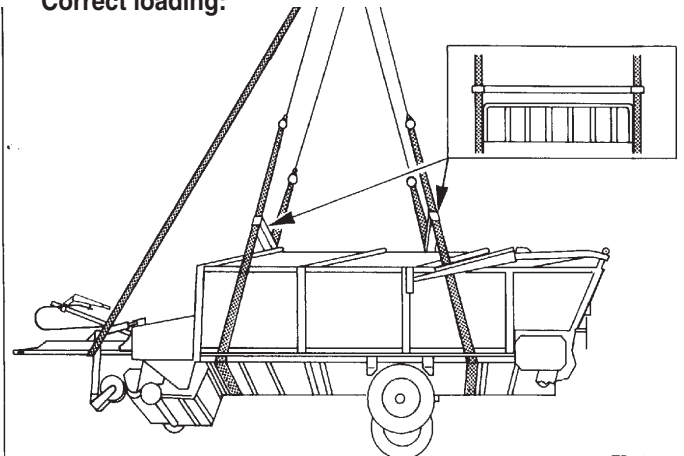
The manufacturer takes no responsibility for any resulting damage which occurs henceforth. The risk is carried by the user alone.

- The keeping of operating, service and maintenance requirements laid down by the manufacturer also come under the heading of "defined use".

Optional equipment

- Cutter unit with 12 cutters
- Ensiling cutter unit with 15 cutters
- Axles and tyres: see spare parts list!
- Hydraulic pivoting drawbar
- Operating comfort:
 - Hose for system tractor
 - Hydraulic dry forage extension
 - Electro-hydraulic standard operation
 - Electric scraper floor preselection
 - Extension lead for system tractor
- Dry forage extension sliding plates
- Cutting drive for 2. pressing speed

Correct loading:



TN14/R9/2

SUPPLEMENT

The original cannot be copied

Things will run better with
genuine Pöttinger parts

Original
inside



- **Quality and precise fitting**
 - Operating safety.
- **Reliable operation**
- **Longer lasting**
 - Economy
- **Guaranteed availability** through your Pöttinger Sales Service.

The decision must be made, "original" or "imitation"? The decision is often governed by price and a "cheap buy" can sometimes be very expensive.

Be sure you purchase the "Original" with the cloverleaf symbol!


PÖTTINGER



Recommendations for work safety

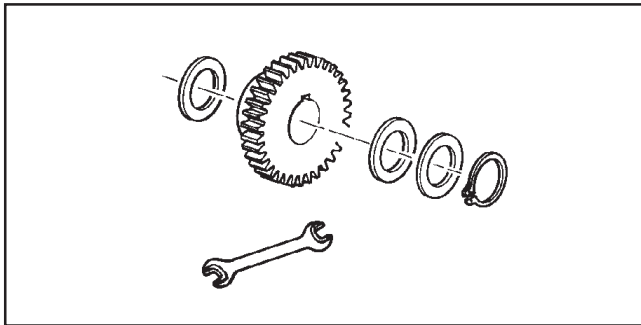
All points referring to safety in this manual are indicated by this sign.

1.) Defined use

- a. See "Technical Data".
- b. The keeping of operating, service and maintenance requirements layed down by the manufacturer also come under the heading of "defined use".

2.) Spare parts

- a. The **original components and accessories** have been designed especially for these machines and appliances.
- b. We want to make it quite clear that components and accesories that have not been supplied by us have not been tested by us.
- c. The installation and/or use of such products can, therefore,



negatively change or influence the construction characteristics of the appliance. We are not liable for damages caused by the use of components and accessories that have not been supplied by us.

- d. Alterations and the use of auxiliary parts that are not permitted by the manufacturer render all liability invalid.

3.) Protection devices

All protection devices must remain on the machine and be maintained in proper condition. Punctual replacement of worn and damaged covers is essential.

4.) Before starting work

- a. Before commencing work, the operator must be aware of all operating devices and functions. The learning of these is too late after having already commenced operation!
- b. The vehicle is to be tested for traffic and operating safety before each operation.

5.) Asbestos

- Certain sub-supplied components of the vehicle may contain asbestos due to technical reasons. Observe the warning on spare parts.

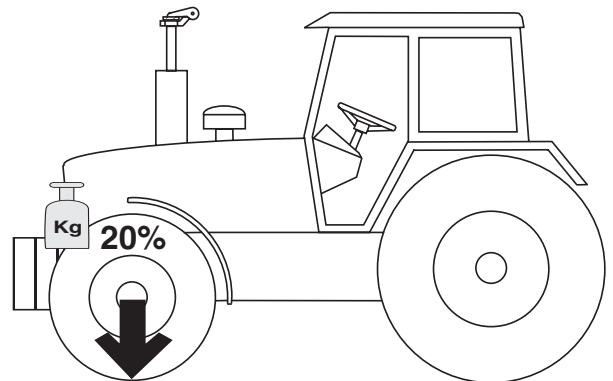


6.) Transport of persons prohibited

- a. The transport of persons on the machine is not permitted.
- b. The machine may only be driven on public roads when in the position stipulated for road transport.

7.) Driving ability with auxiliary equipment

- a. The towing vehicle is to be sufficiently equipped with weights at the front or at the rear in order to guarantee the steering and braking capacity (a minimum of 20% of the vehicle's tare weight on the front axle).



- b. The driving ability is influenced by ground conditions and by the auxiliary equipment. The driving must be adapted to the corresponding terrain and ground conditions.
- c. When driving through curves with a connected appliance, observe the radius and swinging mass of the appliance.
- d. When travelling in a curve with attached or semimounted implements, take into account the working range and swing mass of the implement!

8.) General

- a. Before attaching implement to three-point linkage, move system lever into a position whereby unintentional raising or lowering is ruled out!
- b. Danger of injury exists when coupling implement to tractor!
- c. Danger of injury through crushing and cutting exists in the three-point linkage area!
- d. Do not stand between tractor and implement when using three-point linkage external operation!
- e. Attach and detach drive shaft only when motor has stopped.
- f. When transporting with raised implement, secure operating lever against lowering!
- g. Before leaving tractor, lower attached implement to the ground and remove ignition key!
- h. Nobody is to stand between tractor and implement without tractor being secured against rolling using parking brake and/or wheel chocks!
- i. For all maintenance, service and modification work, turn driving motor off and remove universal drive.

9.) Cleaning the machine

Do not use high-pressure washers for the cleaning of bearing- and hydraulic parts.

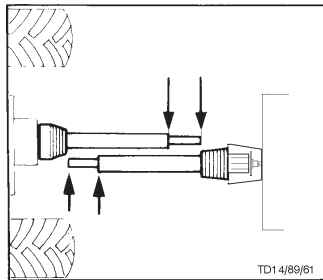


DRIVESHAFT

Important! Only use the indicated or accompanying drive shaft, otherwise the right to claim under guarantee for any possible damage does not exist.

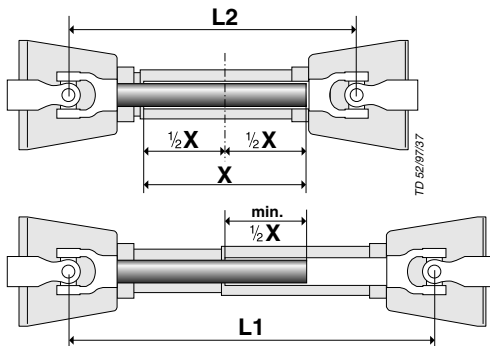
Matching driveshaft to tractor

To determine the actual length required, hold the two halves of the driveshaft side by side.



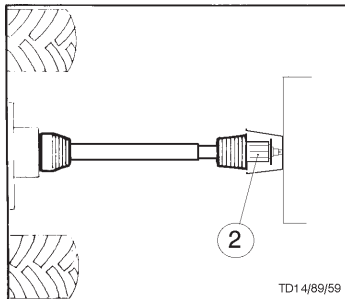
Procedure for cutting to length

- To determine length required, set implement in closest working position (L2) to tractor, hold driveshaft halves side by side and mark off.



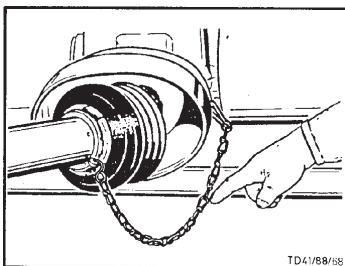
Important!

- Note the maximum operating length (L1)
- Try to attain the greatest possible shaft overlap (min. 1/2 X)!
- Shorten inside and outside tube guard by the same amount.
- Fit torque limiter (2) of drive shaft to implement end of driveshaft!
- Always check that drive shaft locks are securely engaged before starting work.



Retaining chain

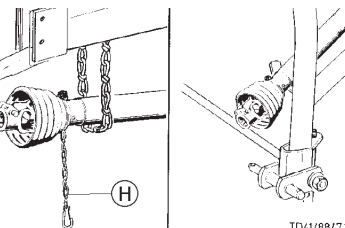
- Use chain to prevent tube guard from rotating.
- Take care that chain does not impede driveshaft pivoting.



Rules for working

Never exceed the maximum p. t. o. speed when using the implement.

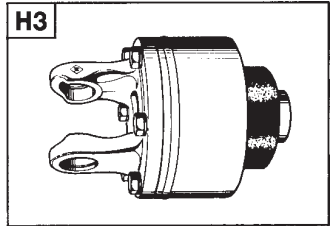
- When the p.t.o. is switched off, the implement hitched up may not stop at once. Do not go close to the implement until all motion has stopped; only then may work be done on it.
- When the implement is parked, either remove the driveshaft and store it, or secure it with a chain. (Do not use retaining chain (H) for this).



1) How a cam type cut out safety clutch works:

This overload clutch switches the torque transmitted to zero if overloaded. To revert to normal operation, stop the p.t.o. drive briefly.

The clutch reengages at a speed below 200 rpm.



IMPORTANT !

The overload clutch on the driveshaft is not a "Full up" indicator. It is purely a torque limiter designed to protect the implement against damage.

Driving the right way will avoid triggering the clutch too often, and thus causing unnecessary wear on it and the implement.

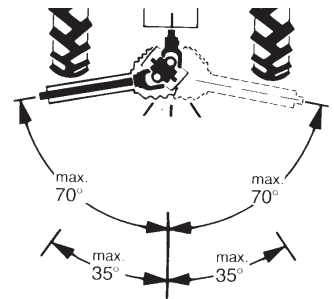
2) Wide-angle joint :

Maximum angle of deflection when working/stationary : 70°

3) Standard joint :

Maximum angle of deflection when stationary: 90°

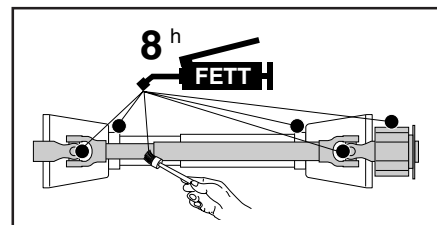
Maximum angle of deflection when working: 35°



Maintenance

Replace worn-out covers/guards at once.

- Lubricate with a brand-name grease before starting work and every 8 hours worked.
- Before any extended period of non-use, clean and lubricate driveshaft.



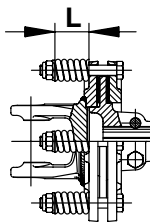
For winter working, grease the tube guards, to avoid them freezing together.

• Important for driveshafts with friction clutch

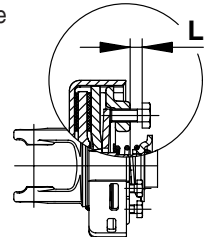
Prior to initial operation and after long periods out of use, check friction clutch for proper function.

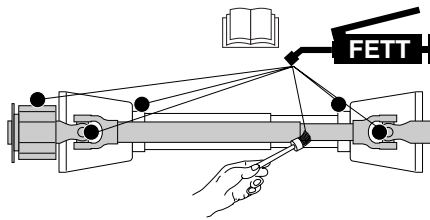
- Measure dimension „L“ at compression spring of K90, K90/4 and K94/1 or at set screw of K92E and K92/4E.
 - Loosen screws to release the pressure on the friction disk.
 - Tighten set screws to dimension „L“.
- Clutch is ready for use.

K90, K90/4, K94/1



K92E, K92/4E





(D) Schmierplan

8 ^h	alle 8 Betriebsstunden
20 ^h	alle 20 Betriebsstunden
40 F	alle 40 Fahren
80 F	alle 80 Fahren
1 J	1 x jährlich
100 ha	alle 100 Hektar
FETT	FETT
▽	= Anzahl der Schmiernippel
(IV)	Siehe Anhang "Betriebsstoffe"
Liter	Liter
*	Variante
	Siehe Anleitung des Herstellers

(F) Plan de graissage

8 ^h	Toutes les 8 heures de service
20 ^h	Toutes les 20 heures de service
40 F	Tous les 40 voyages
80 F	Tous les 80 voyages
1 J	1 fois par an
100 ha	tous les 100 hectares
FETT	GRAISSE
▽	= Nombre de graisseurs
(IV)	Voir annexe "Lubrifiants"
Liter	Litre
*	Variante
	Voir le guide du constructeur

(GB) Lubrication chart

8 ^h	after every 8 hours operation
20 ^h	after every 20 hours operation
40 F	alle 40 operations
80 F	alle 80 operations
1 J	once a year
100 ha	every 100 hectares
FETT	GREASE
▽	= Number of grease nipples
(IV)	see supplement "Lubricants"
Liter	Litre
*	Variation
	See manufacturer's instructions

(NL) Smeerschema

8 ^h	alle 8 bedrijfsuren
20 ^h	alle 20 bedrijfsuren
40 F	alle 40 wagenladingen
80 F	alle 80 wagenladingen
1 J	1 x jaarlijks
100 ha	alle 100 hektaren
FETT	VET
▽	= Aantal smeernippels
(IV)	Zie aanhangsel "Smeermiddelen"
Liter	Liter
*	Varianten
	zie gebruiksaanwijzing van de fabrikant

(S) Smörjschema

8 ^h	Varje 8:e driftstimme
20 ^h	Varje 20:e driftstimme
40 F	Varje 40:e lass
80 F	Varje 80:e lass
1 J	1 x årligen
100 ha	Varje 100:e ha
FETT	FETT
▽	= Antal smörjnippel
(IV)	Se avsnitt "Drivmedel"
Liter	liter
*	Utrustningsvariant
	Se tillverkarens anvisningar

(N) Smøreplan

8 ^h	Hver 8. arbeidstime
20 ^h	Hver 20. arbeidstime
40 F	Hvert 40. lass
80 F	Hvert 80. lass
1 J	1 x årlig
100 ha	Totalt 100 Hektar
FETT	FETT
▽	= Antall smørenipler
(IV)	Se vedlegg "Betriebsstoffe"
Liter	Liter
*	Unntak
	Se instruksjon fra produsent

(I) Schema di lubrificazione

8 ^h	ogni 8 ore di esercizio
20 ^h	ogni 20 ore di esercizio
40 F	ogni 40 viaggi
80 F	ogni 80 viaggi
1 J	volta all'anno
100 ha	ogni 100 ettari
FETT	GRASSO
▽	= Numero degli ingrassatori
(IV)	vedi capitolo "materiali di esercizio"
Liter	litri
*	variante
	vedi istruzioni del fabbricante

(E) Esquema de lubricación

8 ^h	Cada 8 horas de servicio
20 ^h	Cada 20 horas de servicio
40 F	Cada 40 viajes
80 F	Cada 80 viajes
1 J	1 vez al año
100 ha	Cada 100 hectáreas
FETT	FETT
▽	= Número de boquillas de engrase
(IV)	Véase anexo "Lubrificantes"
Liter	Litros
*	Variante
	Véanse instrucciones del fabricante

(P) Plano de lubrificação

8 ^h	Em cada 8 horas de serviço
20 ^h	Em cada 20 horas de serviço
40 F	Em cada 40 transportes
80 F	Em cada 80 transportes
1 J	1x por ano
100 ha	Em cada 100 hectares
FETT	Lubrificante
▽	= Número dos bocais de lubrificação
(IV)	Ver anexo "Lubrificantes"
Liter	Litro
*	Variante
	Ver instruções do fabricante

(CZ) Mazací plán

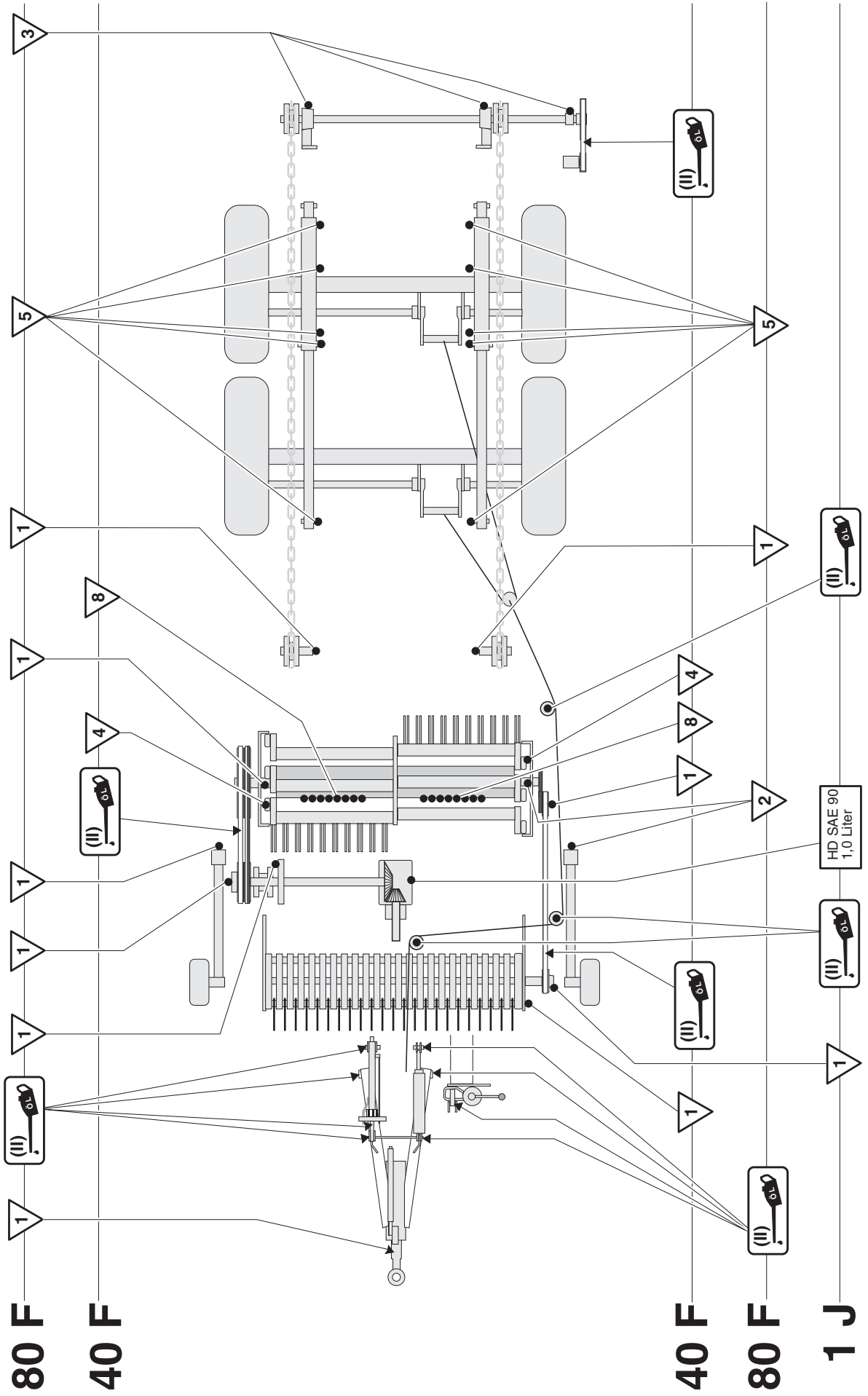
8 ^h	každých 8 hodin
20 ^h	každých 20 hodin
40 F	každých 40 vozů
80 F	každých 80 vozů
1 J	1 x ročně
100 ha	po 100 ha
FETT	TUK
▽	= Počet mazacích hlaviček
(IV)	Viz kapitola "Mazací prostředky vydání"
Liter	litru
*	Varianta
	viz. příručka výrobce

(H) Kenési terv

8 ^h	minden 8 üzemóra után
20 ^h	minden 20 üzemóra után
40 F	minden 40 menet után
80 F	minden 80 menet után
1 J	1-szer évente
100 ha	minden 100 Hektár után
FETT	ZSÍR
▽	= A zsírzógombok száma
(IV)	Nézd a "Kenőanyagok" c. fejezetet
Liter	Liter
*	Változat
	Nézd a gyártó utasításait!

(RUS) Схема смазки

8 ^h	через каждые 8 часов работы
20 ^h	через каждые 20 часов работы
40 F	через каждые 40 подвоя
80 F	через каждые 80 подвоя
1 J	1 раз в год
100 ha	через каждые 100 га
FETT	СМАЗКА / OIL МАСЛО
▽	= количество смазочных ниппелей
(IV)	См. приложение «Эксплуатационные материалы»
Liter	литр (количество масла, жидкость,...)
*	Вариант
	Смотри руководство изготовителя



Leistung und Lebensdauer der Maschine sind von sorgfältiger Wartung und der Verwendung guter Betriebsstoffe abhängig. Unsere Betriebsstoffauslistung erleichtert die richtige Auswahl geeigneter Betriebsstoffe.

Im Schmierplan ist der jeweils einzusetzende Betriebsstoff durch die Betriebsstoffkennzahl (z.B. "III") symbolisiert. Anhand von "Betriebsstoffkennzahl" kann das geforderte Qualitätsmerkmal und das entsprechende Produkt der Mineralölfirmen festgestellt werden. Die Liste der Mineralölfirmen erhebt keinen Anspruch auf Vollständigkeit.

Getriebeöl gemäß Betriebsanleitung - jedoch mindestens 1 x jährlich wechseln.
- Ölablaßschraube herausnehmen, das Altöl auslaufen lassen und ordnungsgemäß entsorgen.

Vor Stilllegung (Winterperiode) Ölwechsel durchführen und alle Fettschmierstellen abschmieren. Blanke Metallteile außen (Gelenke, usw.) mit einem Produkt gemäß "IV" in der umseitigen Tabelle vor Rost schützen.

The performance and the lifetime of the farm machines are highly depending on a careful maintenance and application of correct lubricants. Our schedule enables an easy selection of selected products.

The applicable lubricants are symbolized (eg. "III"). According to this lubricant product code number the specification, quality and brand name of oil companies may easily be determined. The listing of the oil companies is not said to be complete.

Gear oils according to operating instructions - however at least once a year.

- Take out oil drain plug, let run out and duly dispose waste oil.

Before garaging (winter season) an oil change and greasing of all lubricating points has to be done. Unprotected, blanc metal parts outside (joints, etc.) have to be protected against corrosion with a group "IV" product as indicated on the reverse of this page.

Le bon fonctionnement et la longévité des machines dépendent d'un entretien soigneux et de l'utilisation de bons lubrifiants. Notre liste facilite le choix correct des lubrifiants.

Sur le tableau de graissage, on trouve un code (p.ex. "III") se référant à un lubrifiant donné. En consultant ce code on peut facilement déterminer la spécification demandée du lubrifiant. La liste des sociétés pétrolières ne prétend pas d'être complète.

Pour l'huile transmission consulter le cahier d'entretien - au moins une fois par an.

- Retirer le bouchon de vidange, laisser l'huile s'écouler et l'éliminer correctement.

Avant l'arrêt et hiver: vidanger et graisser. Métaux nus à l'extérieur protéger avec un produit type "IV" contre la rouille (consulter tableau au verso).

L'efficienza e la durata della macchina dipendono dall'accuratezza della sua manutenzione e dall'impiego dei lubrificanti adatti. Il nostro elenco dei lubrificanti Vi agevola nella scelta del lubrificante giusto.

Il lubrificante da utilizzarsi di volta in volta è simbolizzato nello schema di lubrificazione da un numero caratteristico (per es. "III"). In base al "numero caratteristico del lubrificante" si possono stabilire sia la caratteristica di qualità che il progetto corrispondente delle compagnie petrolifere. L'elenco delle compagnie petrolifere non ha pretese di completezza.

Motori a quattro tempi: bisogna effettuare il cambio dell'olio ogni 100 ore di funzionamento e quello dell'olio per cambi come stabilito nel manuale delle istruzioni per l'uso (tuttavia, almeno 1 volta all'anno).

- Togliere il tappo di scarico a vite dell'olio; far scolare l'olio e eliminare l'olio come previsto dalla legge anti-inquinamento ambientale.

Effettuare il cambio dell'olio ed ingrassare tutte le parti che richiedono una lubrificazione a grasso prima del fermo invernale della macchina. Proteggere dalla ruggine tutte le parti metalliche esterne scoperte con un prodotto a norma di "IV" della tabella riportata sul retro della pagina.

Prestaties en levensduur van de machines zijn afhankelijk van een zorgvuldig onderhoud en het gebruik van goede smeermiddelen.




Dit schema vergemakkelijkt de goede keuze van de juiste smeermiddelen.

Olíe in aandrijvingen volgens de gebruiksaanwijzing verwisselen - echter tenminste 1 x jaarlijks.

- Ölablaßschraube herausnehmen, das Altöl auslaufen lassen und ordnungsgemäß entsorgen.

Voor het buiten gebruik stellen (winteperiode) de olie-wissel uitvoeren en alle vetnippel smeerpunten doorsmeren. Blanke metaaldelen (koppelingen enz.) met een produkt uit groep "IV" van de navolgende tabel tegen corrosie beschermen.

Betriebsstoff-Kennzahl Lubricant indicator Code du lubrifiant Numero caratteristico del lubrificante Smeermiddelen code	I	(II)	(III)	LI-FETT (DIN 51 502, KP 2K)	V	VI	VII
gefordertes Qualitätsmerkmal required quality level niveau de performance demandé caratteristica richiesta di qualità verlangte kwaliteitskenmerken	HYDRAULIKÖL HLP DIN 51524 Teil 2 Siehe Anmerkungen * ** ***	Motoröl SAE 30 gemäß API CD/SF motor oil SAE 30 according to API CD/SF huile moteur SAE 30 niveau API CD/SF oilo motore SAE 30 secondo specifiche API CD/SF	Getriebeöl SAE 90 bzw. SAE 85 W-140 gemäß API-GL 4 oder API-GL 5 gear oil, SAE 90 resp. SAE 85 W-140 according to API-GL 4 or API-GL 5 huile transmission SAE 90 ou SAE 85 W-140, niveau API-GL 4 ou API-GL 5 olio per cambi e differenziali SAE 90 o SAE 85W-140 secondo specifiche API-GL 4 o API-GL 5	LI-FETT (DIN 51 502, KP 2K) lithium grease graisse au lithium grasso al litio	Getriebeöl SAE 90 (DIN 51 502: GOH) transmission grease graisse transmission grasso fluido per riduttori e motoriduttori	Komplexfett (DIN 51 502: KP 1F) complex grease graisse complexe grasso a base di saponi complessi	Getriebeöl SAE 90 bzw. 85 W-140 gemäß API-GL 5 gear oil SAE 90 resp. SAE 85 W-140 according to API-GL 5 huile transmission SA 90 ou SAE 85 W-140, niveau API GL 5 olio per cambi e differenziali SAE 90 o SAE 85 W-140 secondo specifiche API-GL 5

Firma Company Société Societá	I				V	VI	VII	ANMERKUNGEN
AGIP	OSO 32/46/68 ARNICA 22/46	MOTOROIL HD 30 SIGMA MULTI 15W-40 SUPER TRACTOROIL UNIVERS. 15W-30	ROTRA HY 80W-90/85W-140 ROTRA MP 80W-90/85W-140	GR MU 2	GR SLL GR LFO		ROTRA MP 80W-90 ROTRA MP 85W-140	* Bei Verbundarbeit mit Nabdbremsen- schleppern ist die internationale Spezifikation J 20 A erforderlich
ARAL	VITAM GF 32/46/68 VITAM HF 32/46	SUPER KOWAL 30 MULTI TURBORAL SUPER TRAKTORAL 15W-30	GETRIEBEÖL EP 90 GETRIEBEÖL HYP 85W-90	ARALUB HL 2	ARALUB FDP 00	ARALUB FK 2	GETRIEBEÖL HYP 90 GETRIEBEÖL HYP 90 EP MULTIHYP 85W-140 EP	
AVIA	AVILUB RL 32/46 AVILUB VG 32/46	MOTOROIL HD 30 MULTIGRADE HDC 15W-40 TRACTAVIA HF SUPER 10 W-30 TRACTAVIA HF SUPER 10 W-30	GETRIEBEÖL MZ 90 M MULTIHYP 85W-140	AVIA MEHRZWECKFETT AVIA ABSCHMIERFETT	AVIA GETRIEBEFLEISSFETT	AVIALUB SPEZIALFETT LD	GETRIEBEÖL HYP 90 EP MULTIHYP 85W-140 EP	
BAYWA	HYDRAULIKÖL HLP 32/46/68 SUPER 2000 CD-MC * HYDRA HYDR. FLUID * HYDRAULIKÖL MC 530 ** PLANTOHYD 40N ***	SUPER 2000 CD-MC SUPER 2000 CD HD SUPERIOR 20 W-30 HD SUPERIOR SAE 30	SUPER 8090 MC HYPOID 80W-90 HYPOID 85W-140	MULTI FETT 2 SPEZIALFETT FILM PLANTOGEL 2 N	GETRIEBEFLEISSFETT NLGI 0 RENOLIT DURAPLEX EP 00 PLANTOGEL 00N	RENOPLX EP 1	HYPOID 85W-140	** Hydrauliköle HLP-(D) + HV *** Hydrauliköle auf Pflanzenölbasis HLP + HV Biologisch abbaubar, deshalb besonders umwelt- freundlich
BP	ENERGOL SHF 32/46/68	VISCO 2000 ENERGOL HD 30 VANELLUS M 30	GEAR OIL 90 EP HYPOGEAR 90 EP	ENERGEGREASE LS-EP 2	FLIESSFETT NO ENERGEGREASE HTO	OLEX PR 9142	HYPOGEAR 90 EP HYPOGEAR 85W-140 EP	
CASTROL	HYSPIN AWS 32/46/68 HYSPIN AWH 32/46	RX SUPER DIESEL 15W-40 POWERTRANS	EPX 80W-90 HYPOY C 80W-140	CASTROL GREASE LM	IMPERVIA MMO	CASTROL GREASE LMX	EPX 80W-90 HYPOY C 80W-140	
ELAN	HLP 32/46/68 HLP-M M32/M46	MOTORÖL 100 MS SAE 30 MOTORÖL 104 CM 15W-40 AUSTROTRAC 15W-30	GETRIEBEÖL MP 85W-90 GETRIEBEÖL B 85W-90 GETRIEBEÖL C 85W-140	LORENA 46 LITORA 27	RHENOX 34		GETRIEBEÖL B 85W-90 GETRIEBEÖL C 85W-140	
ELF	OLNA 32/46/68 HYDRELF 46/68	PERFORMANCE 2 B SAE 30 8000 TOURS 20W-30 TRACTORELF ST 15W-30	TRANSELF TYP B 90 85W-140 TRANSELF EP 90 85W-140	EPEXA 2 ROLEXA 2 MULTI 2	GA O EP POLY GO	MULTIMOTIVE 1	TRANSELF TYP B 90 85W-140 TRANSELF TYP BLS 80 W-90	
ESSO	NUTO H 32/46/68 NUTO HF 32/46/68	PLUS MOTORÖL 20W-30 UNIFARM 15W-30	GEARÖL GP 80W-90 GEAROIL GP 85W-140	MULTI PURPOSE GREASE H	FIBRAX EP 370	NEBULA EP 1 GP GREASE	GEAR OIL GX 80W-90 GEAR OIL CX 85W-140	* When working in conjunction with wet- brake tractors, the international specification J 20 A is necessary.
EVVA	ENAK HLP 32/46/68 ENAK MULTI 46/68	SUPER EWAROL HDB SAE 30 UNIVERSAL TRACTOROIL SUPER	HYPOID GA 90 HYPOID GB 90	HOCHDRUCKFETT LT/SC 280	GETRIEBEFETT MO 370	EVVA CA 300	HYPOID GB 90	
FINA	HYDRAN 32/46/68	DELTA PLUS SAE 30 SUPER UNIVERSAL OIL	PONTONIC N 85W-90 PONTONIC MP 85W-90 85W-140 SUPER UNIVERSAL OIL	MARSON EP L 2	NATRAN 00	MARSON AX 2	PONTONIC MP 85W-140	** Hydraulic oil HLP-(D) + HV.
FUCHS	RENOLIN 1025 MC *** TITAN HYDRAMOT 1030 MC ** RENOGEAR HYDRA * PLANTOHYD 40N ***	TITAN HYDRAMOT 1030 MC TITAN UNIVERSAL HD	RENOGEAR SUPER 8090 MC RENOGEAR HYPOID 85 W-140 RENOGEAR HYPOID 90	RENOLIT MP RENOLIT FILM 2 RENOLIT ADHESIV 2 PLANTOGEL 2 N	RENOSOD GFO 35 DURAPLEX EP 00 PLANTOGEL 00N	RENOPLX EP 1	RENOGEAR SUPER 8090 MC RENOGEAR HYPOID 85W-140 RENOGEAR HYPOID 90	
GENOL	HYDRAULIKÖL HLP 32/46/68 HYDRAMOT 1030 MC * HYDRAULIKÖL 520 *** PLANTOHYD 40N ***	MULTI 2030 2000 TC HYDRAMOT 15W-30 HYDRAMOT 1030 MC	GETRIEBEÖL MP 90 HYPOID EW 90 HYPOID 85W-140	MEHRZWECKFETT SPEZIALFETT GLM PLANTOGEL 2 N	GETRIEBEFLEISSFETT PLANTOGEL 00N	RENOPLX EP 1	HYPOID EW 90 HYPOID 85W-140	*** Hydraulic oil with vegetable oil base HLP + HV is bio-degradable and is therefore especially safe for the environment.
MOBIL	DTE 22/24/25 DTE 13/15	HD 20W-20 DELVAC 1230 SUPER UNIVERSAL 15W-30	MOBILUBE GX 90 MOBILUBE HD 90 MEHRZWECKGETRIEBEÖL SAE 90 HYPOID EW 90	MOBIL GREASE MP	MOBILUX EP 004	MOBILPLEX 47	MOBILUBE HD 90 MOBILUBE HD 85W-140	
RHG	RENOLIN B 10/15/20 RENOLIN B 32 HV/46HV1	EXTRA HD 20 SUPER 20 W-30	MEHRZWECKGETRIEBEÖL SAE 90 HYPOID EW 90	MEHRZWECKFETT RENOLIT MP DURAPLEX EP	RENOSOD GFO 35	RENOPLX EP 1	HYPOID EW 90	
SHELL	TELLUS S32/S 46/S68 TELLUS T 32/146	AGROMA 15W-30 ROTELLA X 30 RIMULUX 15W-40	SPIRAX 90 EP SPIRAX HD 90 SPIRAX HD 85/140	RETNAX A ALVANIA EP 2	SPEZ. GETRIEBEFETT H SIMMUNA GREASE O	AEROSHELL GREASE 22 DOLIUM GREASE R	SPIRAX HD 90 SPIRAX HD 85W-140	
TOTAL	AZOLLA ZS 32, 46, 68 EQUIVIS ZS 32, 46, 68	RUBIA H 30 MULTI TAGRI TM 15W-20	TOTAL EP 85W-90 TOTAL EP B 85W-90	MULTIS EP 2	MULTIS EP 200	MULTIS HT 1	TOTAL EP B 85W-90	
VALVOLINE	ULTRAMAX HLP 32/46/68 SUPER TRAC FE 10W-30 ULTRAMAX HYP 32 10W-30 ULTRAMAX ULTRAPLANT 40 ***	SUPER HPO 30 TOP 15W-30 SUPER TRAC FE 10W-30 ALL FLEET PLUS 15W-40	HP GEAR OIL 90 oder 85W-140 TRANS GEAR OIL 80W-90	MULTILUBE EP 2 VAL-PLX EP 2 PLANTOGEL 2 N	RENOLIT LZB 000 DEGRALUB ZSA 000	DURAPLEX EP 1	HP GEAR OIL 90 oder 85W-140	
VEEDOL	ANDARIN 32/46/68	HD PLUS SAE 30	MULTIGRADE SAE 80/90 MULTIGEAR B 90 MULTIGEAR C SAE 85W-140	MULTIPURPOSE			MULTIGEAR B 90 MULTI C SAE 85W-140	
WINTERSHALL	WIOLAN HS (HG) 32/46/68 WIOLAN HVG 46 *** WIOLAN HF 32/46 *** HYDROFLUID *	MULTI-REKORD 15W-40 PRIMANOL REKORD 30	HYPOID-GETRIEBEÖL 80W-90, 85W-140 MEHRZWECKGETRIEBEÖL 80W-90	WIOLUB LFP 2	WIOLUB GFW	WIOLUB AFK 2	HYPOID-GETRIEBEÖL 80W-90, 85W-140	

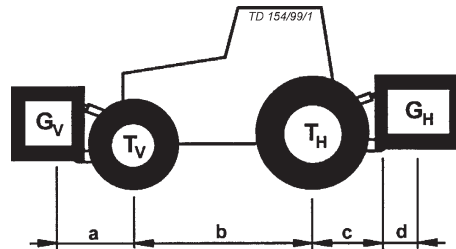
Combination of tractor and mounted implement



The mounting of implements on the front or rear three point linkage shall not result in exceeding the maximum permissible weight, the permissible axle loads and the tyre load carrying capacities of the tractor. The front axle of the tractor must always to be loaded with at least 20 % of the unladen weight of the tractor.

Make sure before buying an implement that these conditions are fulfilled by carrying out the following calculations or by weighing the tractor/implement combination.

Determination of the total weight, the axle loads, the tyre load carrying capacity and the necessary minimum ballasting



For the calculation you need the following data:

T_L [kg]	unladen weight of tractor	①	a [m]	distance from centre of gravity for combined front mounted implement/front ballast to front axle centre	② ③
T_V [kg]	front axle load of unladen tractor	①			
T_H [kg]	rear axle load of unladen tractor	①	b [m]	Tractor wheelbase	① ③
G_H [kg]	combined weight of rear mounted implement/rear ballast	②	c [m]	distance from rear axle centre to centre of lower link balls	① ③
G_V [kg]	combined weight of front mounted implement/front ballast	②	d [m]	distance from centre of lower link balls to centre of gravity for combined rear mounted implement/rear ballast	②

- ① see instruction handbook of the tractor
- ② see price list and/or instruction handbook of the implement
- ③ to be measured

Consideration of rear mounted implement and front/rear combinations

1. CALCULATION OF MINIMUM BALLASTING AT THE FRONT $G_{V \min}$

$$G_{V \min} = \frac{G_H \cdot (c + d) - T_V \cdot b + 0,2 \cdot T_L \cdot b}{a + b}$$

Record the calculated minimum ballasting which is needed at the front of the tractor into the table.

Front mounted implement

2. CALCULATION OF THE MINIMUM $G_{H \min}$

Record the calculated minimum ballasting which is needed at the rear of the tractor into the table.

$$G_{H \min} = \frac{G_V \cdot a - T_H \cdot b + 0,45 \cdot T_L \cdot b}{b + c + d}$$

3. CALCULATION OF THE REAL FRONT AXLE LOAD $T_{V\text{tat}}$

(If with the front mounted implement (G_V) the required minimum front ballasting ($G_{V\text{min}}$) cannot be reached, the weight of the front mounted implement has to be increased to the weight of the minimum ballasting at the front!)

$$T_{V\text{tat}} = \frac{G_V \cdot (a + b) + T_V \cdot b - G_H \cdot (c + d)}{b}$$

Record the calculated real front axle load and the permissible front axle load of the tractor into the table.

4. CALCULATION OF THE REAL TOTAL WEIGHT G_{tat}

(If with the rear mounted implement (G_H) the required minimum rear ballasting ($G_{H\text{min}}$) cannot be reached, the weight of the rear mounted implements has to be increased to at least the weight of the minimum ballasting at the rear!)

$$G_{\text{tat}} = G_V + T_L + G_H$$

Record the calculated real and the permissible total weight given in the instruction handbook for the tractor into the table.

5. CALCULATION OF THE REAL REAR AXLE LOAD $T_{H\text{tat}}$

Record the calculated real and the permissible rear axle load given in the instruction handbook for the tractor into the table.

$$T_{H\text{tat}} = G_{\text{tat}} - T_{V\text{tat}}$$

6. TYRE LOAD CARRYING CAPACITY

Record double the value (two tyres) of the permissible load carrying capacity into the table (see for instance documentation provided by the tyre manufacturer).

Table

	Real value according to calculation		Permissible value according to instruction handbook		Double permissible tyre load carrying capacity (two tyres)
Minimum ballasting front/rear	/ kg		---		---
Total weight	kg	≤	kg		---
Front axle load	kg	≤	kg	≤	kg
Rear axle load	kg	≤	kg	≤	kg

The minimum ballasting has to be attached to the tractor either in form of a mounted implement or ballasting weight!

The calculated values must be less or equal (<) the permissible values!

EC Certificate of Conformity

conforming to EEC Directions 98/37

We ALOIS PÖTTINGER Maschinenfabrik Gesellschaft m.b.H.

(name of supplier)

A-4710 Grieskirchen; Industriegelände 1

(full address of company - where this concerns authorized agents within the Common Market, also state the company name and manufacturer)

declare in sole responsibility, that the product

Ladewagen PROFI GP I Type 537

Ladewagen PROFI GP II Type 539

(make, model)

to which this certificate applies, conforms to the basic safety and health requirements of EEC Directions 98/37,

(if applicable)

and to the other relevant EEC Directions.

(title and/or number and date of issue of the other EEC Directions)

(if applicable)

To effect correct application of the safety and health requirements stated in the EEC Directions, the following standards and/or technical specifications were consulted:

EN 292-1 : 1991

EN 292-2 : 1991

(title and/or number and date of issue of standards and/or specifications)



pa. Ing. H. Menzl
Entwicklungsleitung

Grieskirchen, 29.10.2002

(Place and date of issue)

(Name and job function of authorized person)

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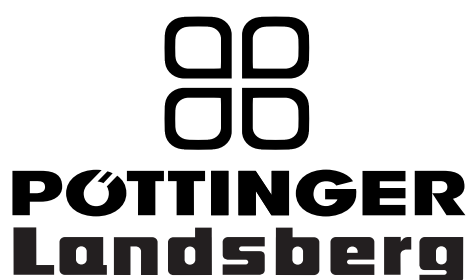
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