Operator‘s manual

Translation of the original Operating Manual

Nr. **99+1662.EN.80U.0**

Chassis Nr.

Silage trailer

FARO 3510 L / D

(Type 1681 : + . . 00001)

FARO 4010 L / D

(Type 1682 : + . . 00001)

FARO 4010 L / D Combiline

(Type 1662 : + . . 00001)

FARO 4510 L / D

(Type 1683 : + . . 00001)

FARO 5010 L / D

(Type 1684 : + . . 00001)

FARO 8010 L

(Type 1688 : + . . 00001)

FARO 10010 L

(Type 1689 : + . . 00001)

Pöttinger - Trust creates Affinity - since 1871

"Quality pays for itself." Therefore we apply the highest quality standards to our products which are constantly monitored by our in-house quality management and our management board. Because the safety, perfect function, highest quality and absolute reliability of our machines in operation are the core competencies for which we stand.

There may be deviations between these instructions and the product as we are constantly developing our products. Therefore no claims may be derived from the data, illustrations and descriptions. Please contact your Specialist Service Centre for any binding information about specific features of your machine.

We would ask you to please understand that changes to the scope of supply with regard to form, equipment and technical specifications are possible at any time.

Product liability, information obligation

Product liability obliges manufacturers and dealers to issue operating instructions for the machine at the point of sale and to instruct the customer on the operation, safety and maintenance regulations governing the machine.

Confirmation is required to prove that the machine and the operating instructions have been properly handed over. For this purpose you have received a confirmation e-mail from Pöttinger. If you have not received this mail, please contact your local dealer. Your dealer can fill in the handover declaration online.

For the purposes of product liability law, every farmer is an entrepreneur.

In the terms of product liability law, damage to property is any damage arising due to the machine, but not to the machine, and an excess (500 euros) exists for this liability.

Corporate damage to property within the terms of the product liability law is excluded from this liability.

Be advised! The operating instructions must also be handed over with any subsequent machine sale or transfer and the transferee must be instructed in the regulations stated.

Refer to PÖTPRO for additional information about your machine:

Are you looking for suitable accessories for your machine? No problem! All the information you require is here at your disposal. Scan the QR code on the machine's type plate or look under www.poettinger.at/poetpro

And if we don't have what your looking for, then your Specialist Service Centre is there for you with help and advice.

(EN) INSTRUCTIONS FOR PRODUCT HANDOVER

PÖTTINGER Landtechnik GmbH
Industriegelände 1
A-4710 Grieskirchen
Tel. 07248 / 600 -0
Telefax 07248 / 600-2511

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

Please check. [X]

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

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Table of contents

Recommendations for work safety

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

Introduction

Dear Customer

These Operating Instructions are intended to allow you to familiarise yourself with the implement and provide you with clear information on safe and correct handling, care and maintenance. Thus please take the time to read these Instructions.

These Operating Instructions comprise part of the implement. They are to be kept at a suitable location and accessible to staff over the entire service life of the implement. Instructions based on the national provisions regarding protection against accidents, road traffic and environmental protection are also to be applied additionally.

Any persons commissioned with the operation, maintenance or transport of the implement must read and understand these Instructions, in particular the safety information, prior to starting work. Any warranty claims lapse on non-observance of these Instructions.

In case you have questions related to this operation manual or further questions about this implement, please contact your dealer.

Care and maintenance performed in good time and scrupulously according to the maintenance intervals specified ensure operational and traffic safety as well as the reliability of the implement.

Use only the original spare parts and accessories from Pöttinger or accepted by Pöttinger. For those parts reliability, safety and suitability for Pöttinger machines can be assured. Warranty claims lapse if non-approved parts are used. The use of original parts is also recommended after the warranty period has expired to maintain the performance of the implement in the long term.

Product liability legislation obliges the manufacturer and the authorised dealer to issue Instructions when selling implements and to instruct customers in the use with reference to the safety, operating and maintenance regulations. Confirmation in the form of a declaration of transfer is required to verify that the implement and Instructions have been transferred correctly. The declaration of transfer was attached to the implement on delivery.

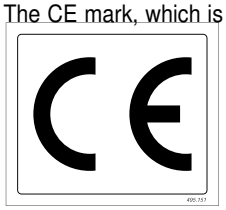
Every self-employed person and farmer is an entrepreneur within the meaning of the product liability legislation. In accordance with the laws of product liability, entrepreneurial property damages are excluded from the liability. All damage to property within the meaning of the product liability legislation is regarded as damage caused by the implement but not to the implement.

These Operating Instructions are integral part of the implement delivery scope. You should therefore hand them over to the new owner if ownership of the implement is transferred. Train and instruct the new owner in the regulations stated.

The Pöttinger Service-Team wishes you good luck.

CE mark

The CE mark, 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 (see Attachment)

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

Safety hints:

These Operating Instructions contain the following Figures:

DANGER

If you do not follow the instructions in a text section with this marking, there is a risk <u>of fatal or life-threatening injury.</u>

- All instructions in such text sections must be followed!

WARNING

If you do not observe the instructions marked this way, there is the risk of a severe injury.

- All instructions in such text sections must be followed!

CAUTION

If you do not observe the instructions marked this way, there is the risk of an injury.

- All instructions in such text sections must be followed!

NOTE

If you do not observe the instructions marked this way, there is the risk of material damage.

- All instructions in such text sections must be followed!

TIP

The text sections marked in this way provide you with special recommendations and advise regarding the economical use of the implement.

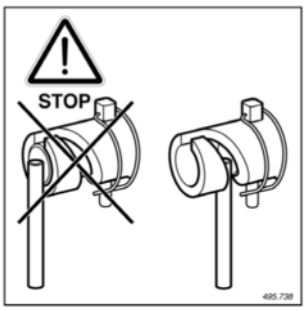
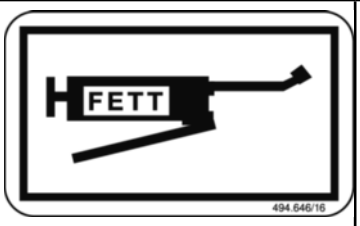
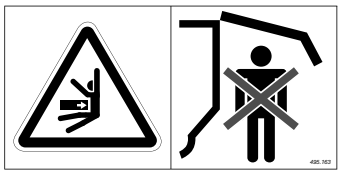
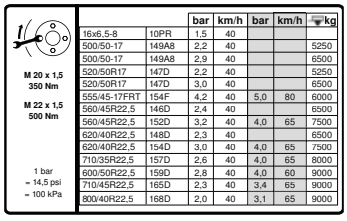
ENVIRONMENT

The text sections marked in this way provide practices and advice on environmental protection.

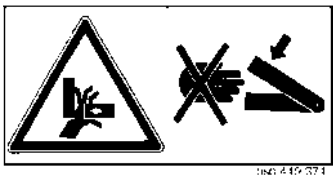
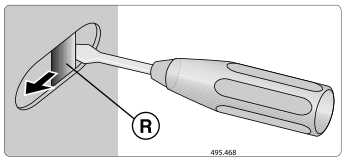
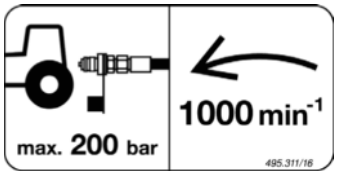
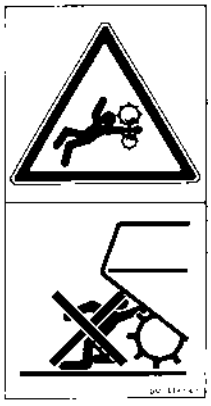
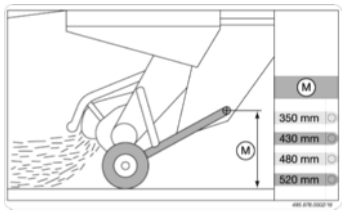
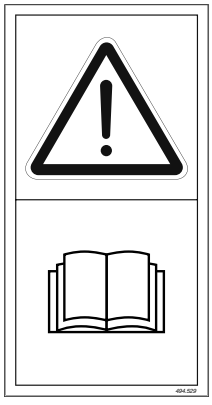
The features marked as (optional) are only available as standard with specific implement versions or are only offered for specific versions as optional equipment or are only offered in certain countries.

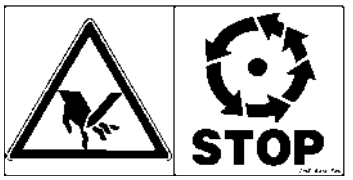
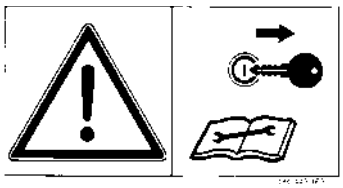
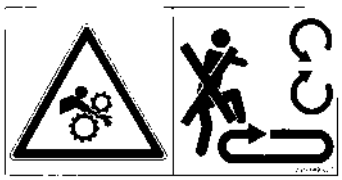
Figures may deviate from your implement in detail and are to be taken as illustrations of operating principle.

Designations such as right and left always apply as the direction of travel unless the text or illustrations clearly show otherwise.

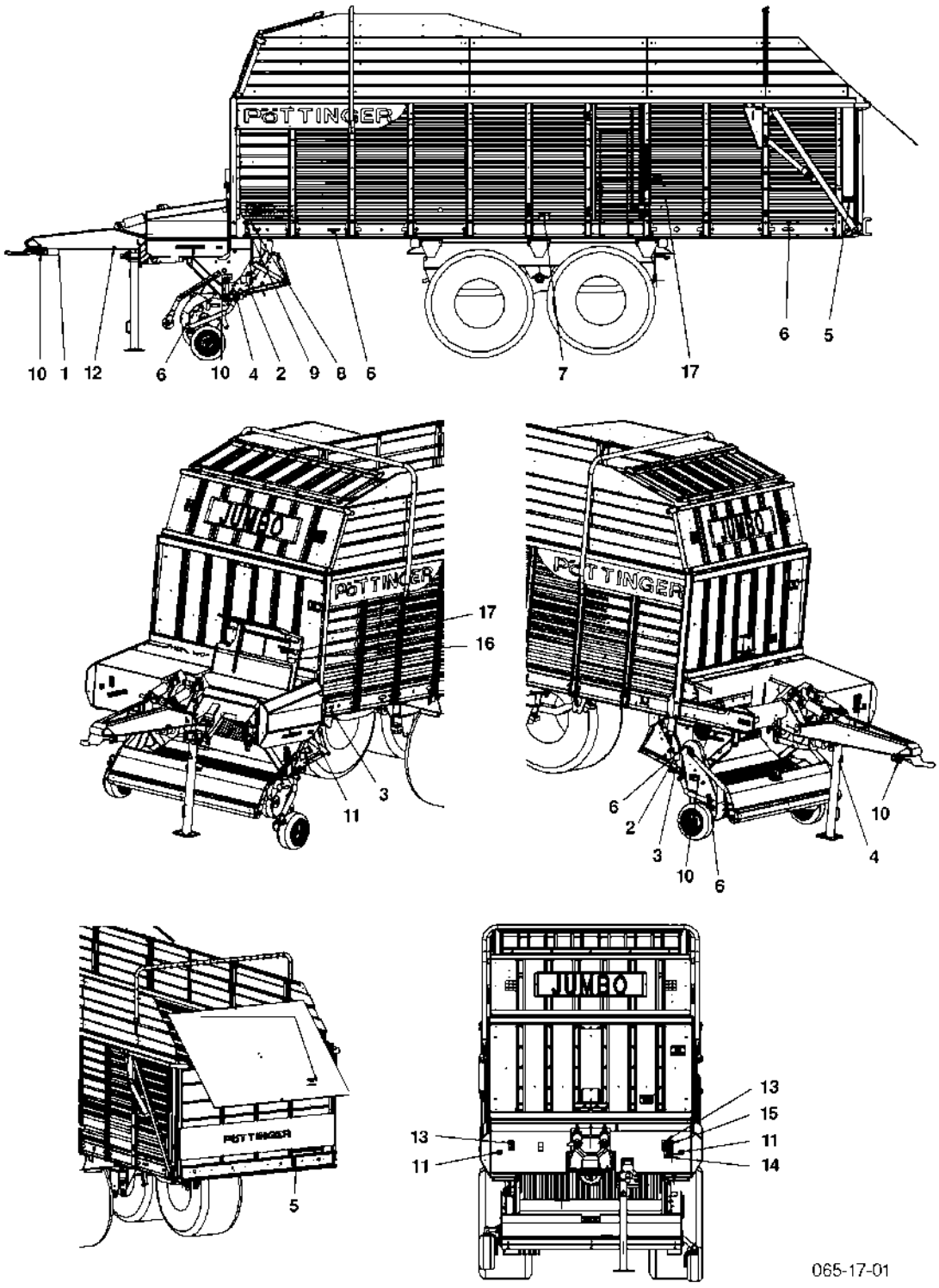
1		Secure your right to product liability by signing the declaration of transfer.
2		Make sure that the bolts are locked in place.
3		Warning - danger zone!
4		Lubricating position
5		Stay clear of gate swinging area while tractor engine is running. Access only allowed when safety lock is applied.
6		Tyre pressure table
7		

		bar	km/h	bar	km/h	kg
16x6,5-8	10PR	1,5	40			
500/50-17	149A8	2,2	40			5250
500/50-17	149A8	2,9	40			6500
520/50R17	147D	2,2	40			5250
520/50R17	147D	3,0	40			6500
555/45-17FRT	154F	4,2	40	5,0	80	6000
560/45R22,5	146D	2,4	40			6500
560/45R22,5	152D	3,2	40	4,0	65	7500
620/40R22,5	148D	2,3	40			6500
620/40R22,5	154D	3,0	40	4,0	65	7500
710/35R22,5	157D	2,6	40	4,0	65	8000
600/50R22,5	159D	2,8	40	4,0	60	9000
710/45R22,5	165D	2,3	40	3,4	65	9000
800/40R22,5	168D	2,0	40	3,1	65	9000

8		
9		Never reach into the crushing danger area as long as parts may move.
10		
11		
12		Never reach into the pick-up area as long as tractor engine is running with PTO connected.
13		Pick-up adjusting height
14		Consult the manual!

15		Do not touch any moving machine parts. Wait until they have stopped completely.
16		Shut engine off and remove key before carrying out maintenance or repair work.
17		Turn engine off and remove key before carrying out any adjustment, service or repair work.

Position of the warning signs



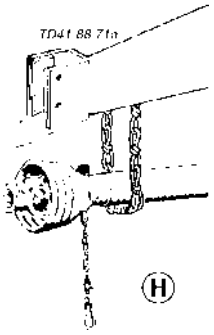
Tips for coupling and uncoupling the trailer

- Danger of injury exists when coupling machines to the tractor!
- During coupling do not enter the area between the trailer and the tractor as long as the tractor is moving.
- Nobody is allowed to stand between tractor and trailer without the tractor being secured against rolling using parking brake and/or wheel chocks!
- Attach and detach drive shaft only when motor has stopped.
- The cardan shaft must properly engage during coupling.

Tips for parking the device

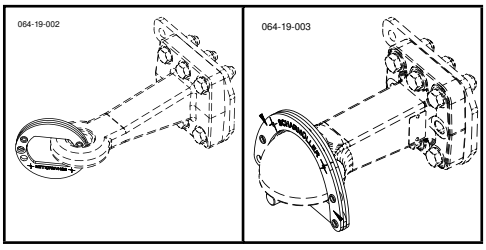
- When parking the trailer, the cardan shaft must be properly stowed or secured with a chain.

  Do not use safety chain (H) to suspend the cardan shaft.



- Secure machine with the anti-theft device

1. Fit anti-theft device to the coupling.
2. Secure anti-theft device with a padlock.



Use the trailer only as intended.

Intended use: see chapter "Technical Data".

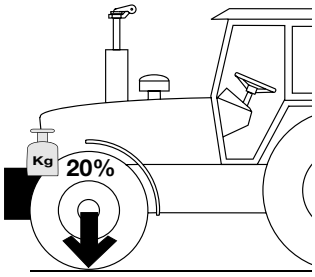
- Do not exceed the performance limits (permissible axle load, bearing load, total weight) of the trailer. The corresponding data is listed on the right side of the trailer.
- In addition, observe the power range limits of the tractor in use.
- The trailer may not be used to transport persons, animals or objects.

Tips for driving with the trailer

The coupled trailer influences the driving properties of the towing vehicle.

- Tipping hazard when working on slopes.
- Driving style must be adapted to the specific terrain and ground conditions.
- Comply with the max. speed limit (depending on the trailer equipment).

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



- Pay attention to the height of the trailer (in particular when driving through low passages, under bridges, overpasses, etc.)
- How the trailer is loaded impacts the driving properties of the towing vehicle.

Road travel

- Observe the statutory regulations for your country.
- Travelling on public roads is only permitted with the tailgate closed, the steps folded up and the cutting unit folded in at the side. In this case, the lighting equipment must be mounted vertically to the carriageway.

Before initial operation

TIP

The following list should make the trailer's initial operation easier for you. More precise information can be found in the corresponding chapters and the appendix to this manual.

1. Before commencing work, the operator must become familiarised with all of the operating equipment and functions. Learning these during operation is too late! Danger to life
2. Also observe the tips in the respective chapters and in the supplement to this operating manual. (Various hazards)
3. Observe the safety tips attached to the trailer. An explanation of the meanings of the individual graphic warning symbols can be found in the chapter "Warning symbols". (Various hazards)
4. The vehicle is to be tested for road worthiness and operating safety before each operation. Danger to life
5. Direct all persons out of the danger area before activating the hydraulic devices and turning on the drive. The danger of being crushed or cut exists in the Pick-up, cutting unit, tailgate and upper extension areas. (Danger to life)
6. Before starting the vehicle, the driver must ensure that nobody will be endangered and that no obstructions exist. If the driver's sight and overall view of the roadway directly behind the trailer is impeded, then guidance is required when reversing. (Danger to life)

Checking before initial operation

1. Check that all safety equipment (coverings, casings, etc.) are in proper order and fitted in position on the trailer.
2. Grease the trailer in accordance with the lubrication chart. Check the gearbox for leaks and the oil level.
3. Check that tyres have the correct air pressure.

WARNING

Risk of serious injury caused by exploding or damaged tyres.

- Never exceed the maximum tyre pressure stipulated by the manufacturer.
- Regularly check the air pressure.
- A list on the topic of air pressure is given in the chapter “Wheels and tyres”.

4. Check that wheel nuts are sitting firmly.
5. All swivelling parts (tailgate, adjusting lever, cutting unit, etc.) must be secured against dangerous position changes.
6. For the cutting unit:
   - the retaining bolts on the left and right are secured
   - the blade overload safety device is clean
   - the ground clearance is sufficient and the cutter beam is fully retracted.
   - blade wear
7. Secure trailer only using the fixtures provided.
8. Make the electrical connections to the tractor and check their functionality. Take note of the tips in the operating manual!
9. Connect hydraulic lines to tractor.
   - Check hydraulic hoses for damage and wear.
   - Ensure the correct connection.
10. Carry out adaptation to the tractor:
    - Drawbar height
    - Brake cable location (if available)
    - Install the hand brake lever in the tractor cabin (if available)
    - Cut drive shaft to the correct length and check the function of the overload safety (see supplement).
11. Ensure the correct p.t.o.-r.p.m..
12. Check parking brake and service brake functions.

Safety hints:

⚠ DANGER

Danger to life caused by vehicles and trailers that are not safe for driving on the road.

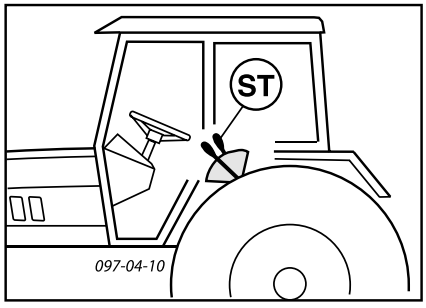
- Check the functionality of lighting!
- Check the functionality of the brakes!
- Check the functionality and integrity of the protective covers!

Connecting hydraulic hoses

❗ NOTE

Risk of damage to the hydraulic block.

- Install - if not present - a pressure-free return to the tractor.



- Switch off pto before attaching
- Bring the control unit lever (ST) in floating position (neutral position).
- Ensure clean plug connections

Tractor limit values:

- Maximum hydraulic pressure: 200 bar
- Maximum flow through amount: 90 l/min

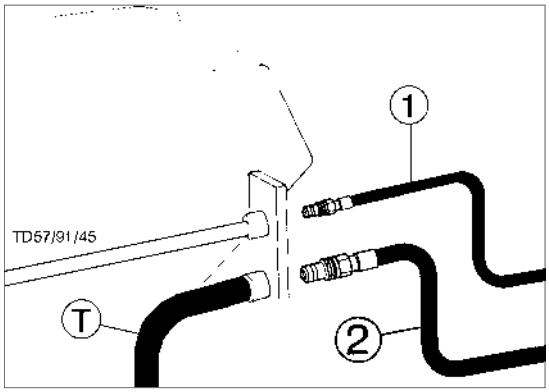
  Exception:

  Jumbo 7210 Combiline: 130 l/min)

  Jumbo 10010 Combiline: 130 l/min

Type of hydraulic connection

Single-acting servo



If the tractor is equipped only with single-acting servos, it is absolutely necessary for your specialised workshop to install an oil return pipe (T), if it does not already exist.

- Connect the oil return hose (2) to the tractor's oil return line (T).
- Connect pressure line (1) to the single-acting servo.

Dual-acting servo

- As with the single-acting control device, connect the oil return pipe (2) to the tractor's oil return pipe (T).
- Connect pressure pipe (1). (The pressure line is the one going to the pressure filter on the implement)

Connect to Load Sensing (LS)

When connecting the hydraulic pipes, the tractor must be turned off.

- Connect the oil return pipe (T) (largest coupling diameter)
- Couple the Load Sensing (LS) line to the LS-connector on the tractor (smallest coupling diameter).
- Connect the pressure pipe (P) (medium coupling diameter)

Position for the closed hydraulic system and LS

with tractors with constant pressure pump, for example: John Deere, CASE - MAXXUM, CASE - MAGNUM, FORD SERIES 40 SLE

Before coupling, the screw (7) on the hydraulic block is to be screwed completely in (7b).

Standard position for the open hydraulic system

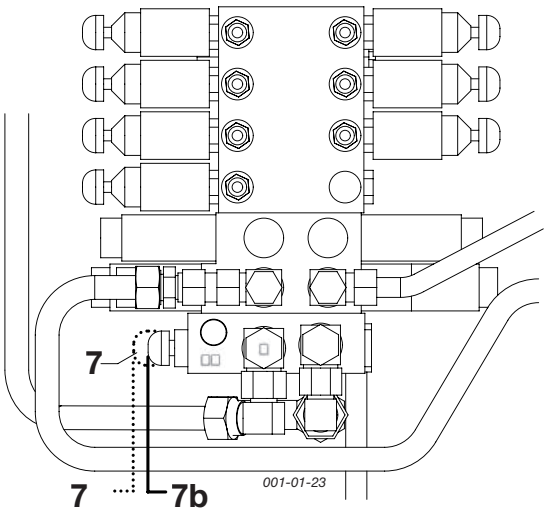
With tractors with constant current pump.

The position of the screw (7) is factory set (7a).

NOTE

Risk of damage to the hydraulic block caused by accelerated wear of the hydraulic oil.

- Check the overpressure valve of the tractor hydraulics and, if necessary, let the oil cool down.



7a Standard position for the open hydraulic system

7b Position for tractors with closed hydraulic system and LS system

LS = Load sensing valve

Connect to tractor

Operation:

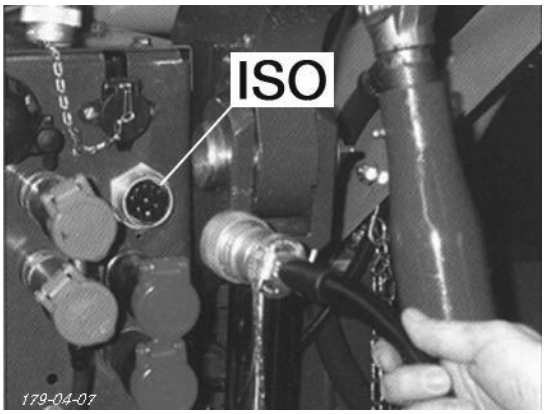
- Connect 2-pin plug to the DIN 9680 socket at tractor

Lighting:

- Connect 7-pin plug at tractor
- Check function of lighting at trailer.

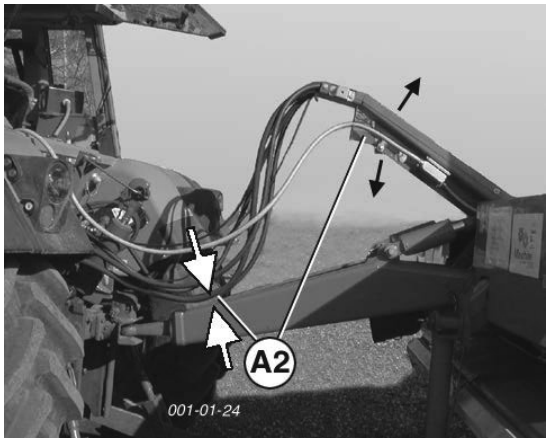
For tractors with Isobus control

- Connect the 9-pin ISO plug to the ISObus socket on the tractor.



Adjust hose holder

- Adjust hose holder so that there is sufficient distance between hydraulic lines and drawbar (A2).



Cardan shaft

NOTE

Risk of damage to the device and/or to the cardan shaft.

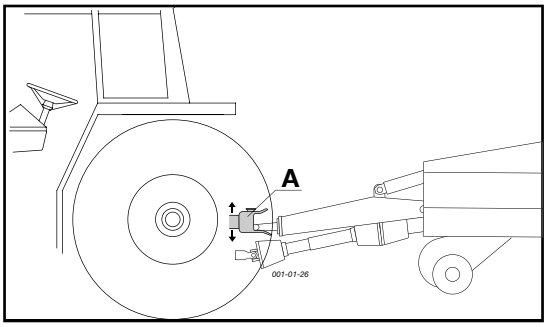
- Adjust the length of the cardan shaft to the tractor if necessary. (See Annex "Cardan shaft")

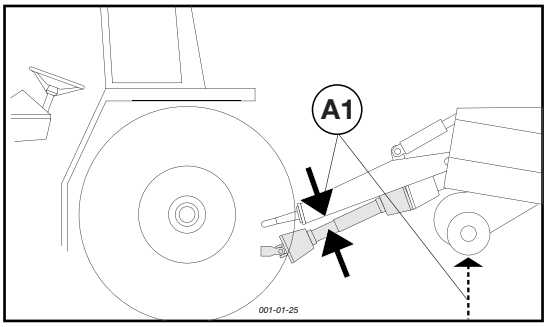
Correct adjustment, installation and maintenance of the PTO drive shaft is the requirement for a long service life.

The details for this are described in the section “PTO Drive Shaft” and it is imperative to adhere to them.

Adjust trailer coupling

Attach the trailer coupling (A) at the tractor so that there is sufficient distance between cardan shaft and drawbar (A1) when the trailer is attached, especially on pivoting.





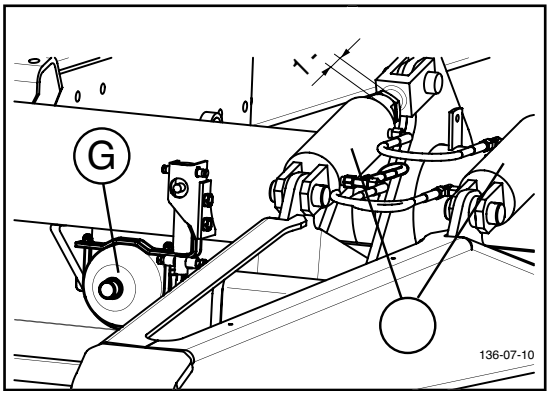
Vibration damping

Standard fitting for JUMBO, TORRO

Optional for EUROPROFI, FARO, PRIMO

Important! To ensure that vibration absorption functions properly:

- The cylinder (K) may not be completely retracted for road transport
- Extend cylinder (K) approx. 1 - 2 cm



Preload pressure in gas container (G):

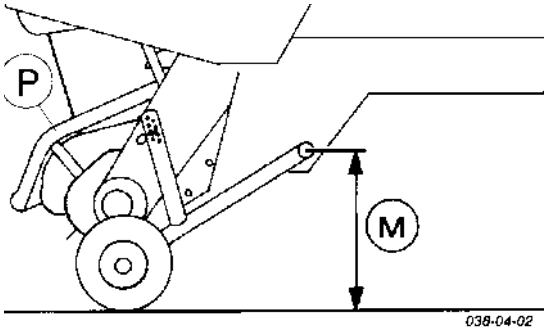
Type	Fill pressure
PRIMO, FARO	50 bar
EUROPROFI	70 bar
TORRO	80 bar
JUMBO (2 t hitching)	100 bar
JUMBO (3 t and 4 t hitching)	90 bar

- Pressure change - see Chapter "MAINTENANCE"

Adjust pivoting drawbar

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

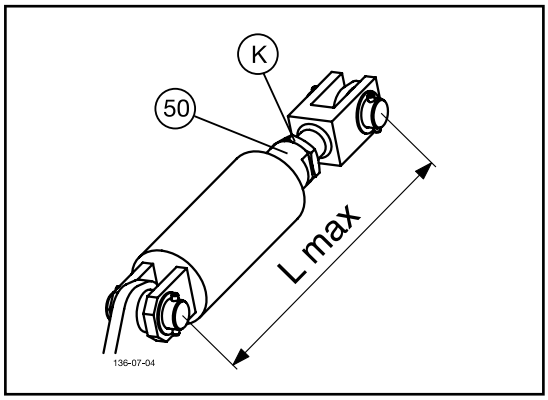
- See Chapter "Pick-up" for adjustment dimension (M)



Starting situation:

- Trailer coupled to tractor.
- Both hydraulic cylinder pistons of the pivoting drawbar must be completely retracted.

Adjustment process:



- Release locknuts (K) at the threaded spindles.
- By turing the cylinder pistons (50), screw the threaded spindle in or out until the dimension (M) is reached.

NOTE

Material damage caused by incorrect setting for the threaded spindle.

- Do not exceed the maximum limit (L max) given in the table!

Type	Part No.	L max
EUROBOSS, BOSS ALPIN Single-action	442,092	570 mm
EUROBOSS, BOSS ALPIN Dual-action	442,841	570 mm
BOSS JUNIOR	442,047	560 mm
PRIMO, FARO EUROPROFI, TORRO, JUMBO (2 t hitching)	442,240	555 mm
TORRO 3t (3 t hitching)	442,858	540 mm
JUMBO 3t and 4t (3 t and 4 t hitching)	442,858	540 mm

- The maximum adjustment range may not exceed (L max see Table)
- Adjustment is to be performed alternately on both hydraulic cylinders.
- Both hydraulic cylinders must be set at the same length.
- Retighten locknuts (K).

Locking the trailing front axle

⚠ DANGER

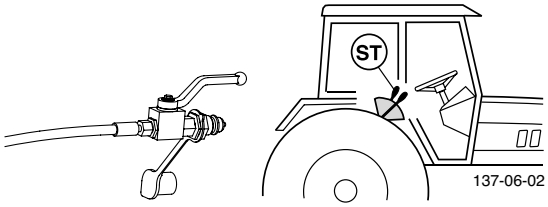
Life-threatening danger exists through machine tipping over. Lock the steering axle in the following situations:

- when travelling straight ahead quickly at 30 km/h or more
- with unpaved surfaces
- in sloped areas
- on relief of the front axle by pivoting drawbar operation
- when driving over the drive-in silo
- when the side guide of the non-steering axle is no longer sufficient

Trailing steering axle operation

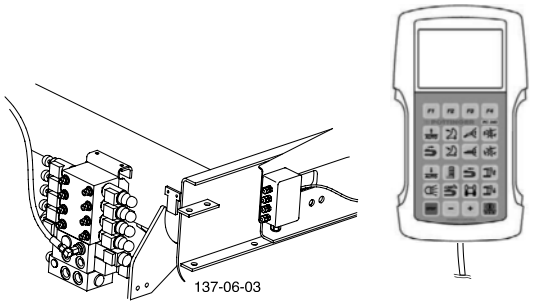
The trailing front axle is operated differently depending on tractor and wagon equipment.

For tractors without the Load sensing system



- connect additional hydraulic line to tractor
- open or close the trailing front axle using control (ST)

For tractors with the Load sensing system



- hydraulic line is connected to hydraulic block
- operation takes place through the “POWER CONTROL” or the “ISOBUS terminal”
  (see description of the relevant Control)

Adjusting the drawbar

- The permissible load on the coupling point should be taken from the vehicle type plate.
- The permissible DC value should be taken from the drawbar type plate or tow eye type plate.
- The tightening torque of the fastening bolts of the trailer coupling rings:
  - M16x1,5 10.9 250 Nm
  - M20x1,5 10.9 460 Nm

Driving with a tipped drawbar

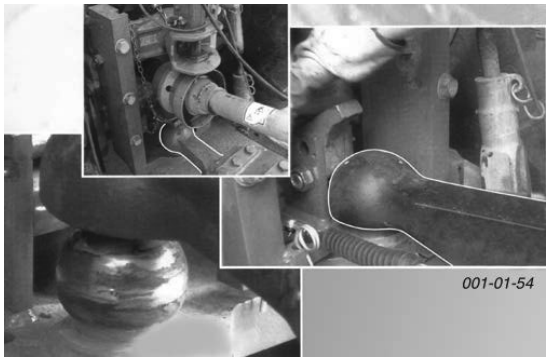
Only short distances on even stretches in a tipping situation (to unload) are permitted. Tipping slightly (during travel) is permitted without reservation.

When travelling in an angled state, take particular care that the upward angular movements of the towing rings/ traction coupling ball are limited.

Traction coupling ball

Note:

- The traction-coupling ball may only be connected with coupling ball type 80, as produced by Scharmüller (Kugelkupplungsprofi) GmbH or other approved coupling balls (80 mm ball diameter) that are suited for secure connection and locking.



Maintenance of the traction coupling ball

In addition to the general vehicle maintenance

- grease the contact surfaces at the point of coupling
- inspect the fixing bolts of the traction coupling ball on a firm seating
- renew damaged, malformed or worn traction coupling balls.
  - Only allow exchanges to be carried out by specialists!

⚠ DANGER

Danger to life caused by incorrect repair of a damaged towing eye.

- Have the damaged towing eye exchanged by a specialist workshop. Unauthorized repairs to the safety-critical parts will lead to loss of warranty.
- Damaged parts must always be exchanged with the original Pöttinger parts.
- Never attempt to bend or weld the damaged parts.

Adjusting the pivoting drawbar

Requirement:

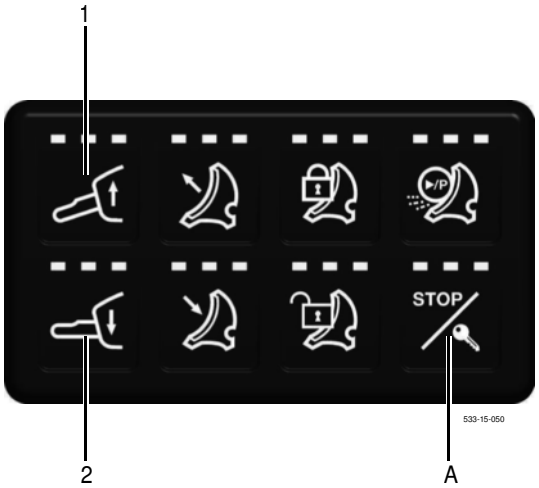
All hydraulic and electrical cables have to be already connected (see chapter "First installation on the tractor")

Adjust pivoting drawbar:

Set desired height of the pivoting drawbar via the keys on the terminal or the external keypad.

Operation of the external keypad:

The external keypad is left in the direction of travel above the cutting unit.



The external keypad has been secured against unintentional activation.

1. Hold the button (A) down for 3 seconds. Afterwards, the function keys are ready to use for 5 seconds. (The left LED above a key glows as long as the key is ready for use.)
2. Use the function key while the LED is lit in order to activate a function. This automatically extends the operational capability of the external keypad for 30 seconds.

Function keys

Raising pivoting drawbar (1)

Press the key (1) to raise the front part of the trailer. The front part of the loading wagon is lifting as long as you keep the key pressed.

Lower pivoting drawbar (2)

Press the key 2 to lower the front part of the trailer. The front part of the loading wagon lowers as long as you keep the key pressed.

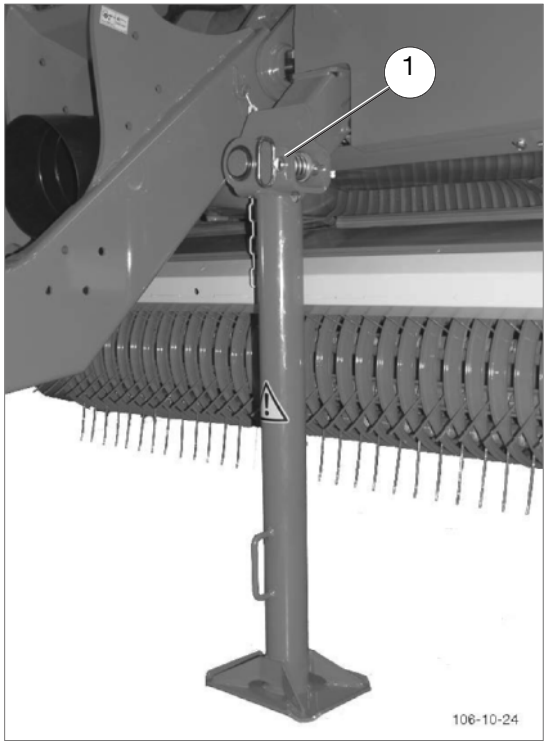
Fold up support stand

DANGER

Life-threatening danger exists if another person starts up the tractor and drives away or actuates the control lever of the hydraulic system while you are working between the tractor and the machine.

- Shut off engine and remove key before entering the zone between the tractor and the machine.

- Couple the trailer to tractor
- Take load off jackstand by using pivoting drawbar (see chapter “Explanation of control panel function”).
- Pull out locking bolt (1), swing jack stand up and lock again.
- Make sure bolt (1) is properly locked in!



Fold in the support leg

DANGER

Life hazard - the machine starts to roll

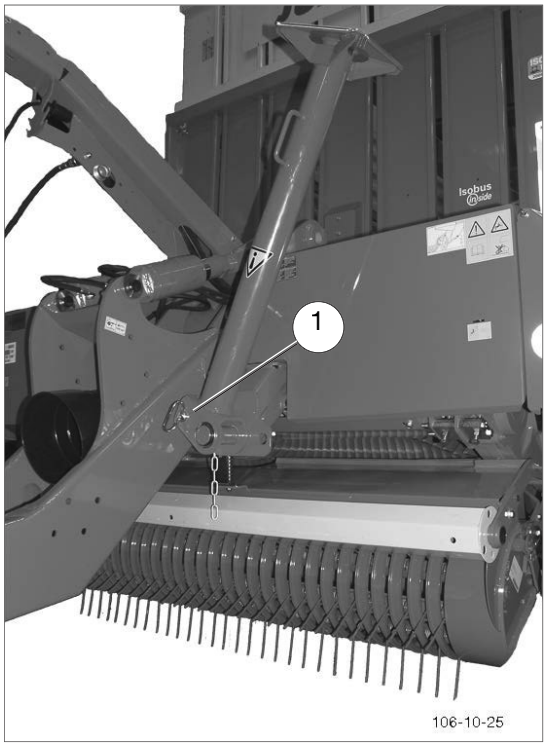
- Only park implement on even, solid ground.
- Pulling the emergency brake
- Secure machine with wheel chock against rolling away.

DANGER

Life hazard - the machine starts to tilt

- Only park implement on even, solid ground.
- If the ground is soft, the support stand area is to be enlarged appropriately using suitable material (e.g. wooden planks).
- Do not work under the machine without it being supported safely.

- Raise the trailer a little using the pivoting drawbar.
- Pull out locking bolt (1), swing jack stand down and lock again.
- Make sure bolt (1) is properly locked in!
- Lower the trailer using the pivoting drawbar.
- Uncouple hydraulic- and electric lines and detach trailer.



General safety information

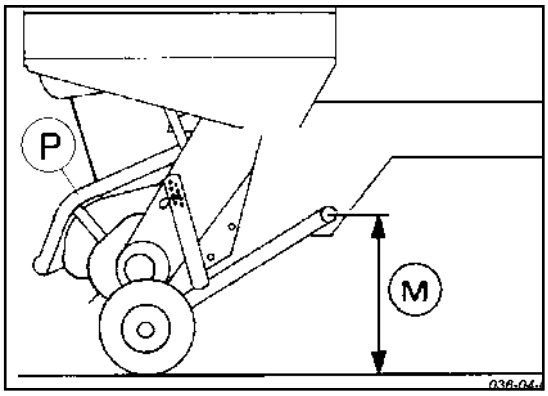
⚠ WARNING

Risk of serious injury through crushing caused by the moving pick-up

- Do not reach into the hazard zone of the pick-up, if it is not certain that the pick-up can no longer move. (Turning off the tractor, uncoupling the hydraulic hoses and the cardan shaft)

Setting pick-up pivoting range

To allow pick-up to work properly, the height (H) of coupled trailer must be correctly set (pick-up pivoting range).



Dimension (M) = 480 mm

TIP

Reduce this dimension by 1 -2 cm (M = 460 -470 mm) for uneven ground

- See Chapter "Initial attachment to the tractor" for adjustment procedure

⚠ CAUTION

Risk of injury caused by a rotating pick-up tines.

- Operate the machine only with a correctly installed deflector plate.

Adjusting pick-up relief

Version - mechanical relief

The spring pre-tension can be changed for optimum pick-up support.

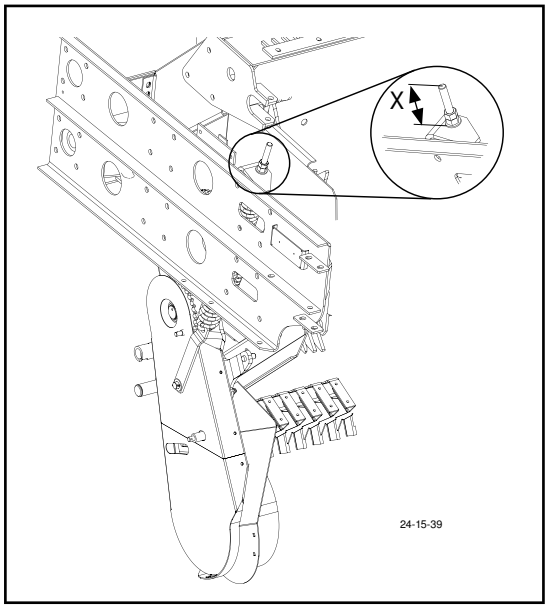
- Pick-up is supported too lightly (bounces):
  - reduce dimension (X)

- Pick-up is supported too heavily:
  - Increase dimension (X)

Factory settings:

Factory settings without sensing roller X = 75 mm

Factory settings with sensing roller X = 100 mm

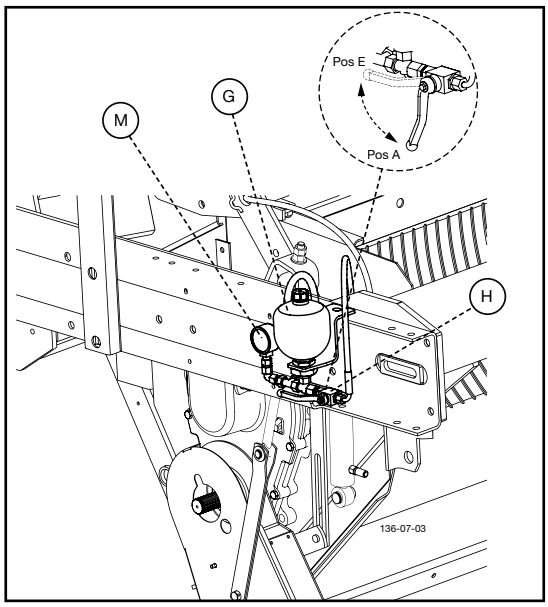


Hydraulic relief version

Adjustment process:

- Open (pos. E) stop valve (H)
- Raise pick-up
- Close (pos. A) stop valve (H)
- Lower pick-up
- Set required system pressure (approx. 27 bar) by opening stop valve (H) briefly according to manometer (M)

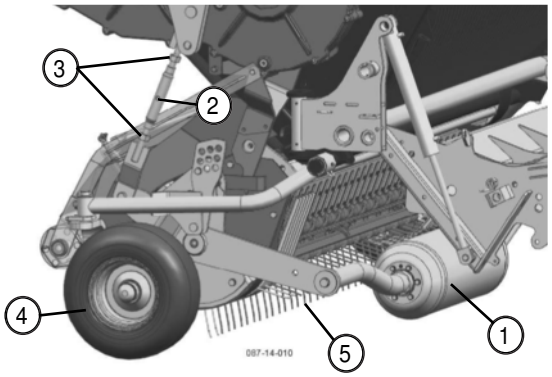
  The higher the pressure, the greater the relief.



Preload pressure in the gas container (G):

- 10 bar nitrogen (N)

Sensing roller (optional)



Key:

1...Sensing roller
2. Adjustment spindle (on both sides)
3. Nuts for adjustment spindle
4. Front jockey wheel
5. Tines of pick-up

Setting:

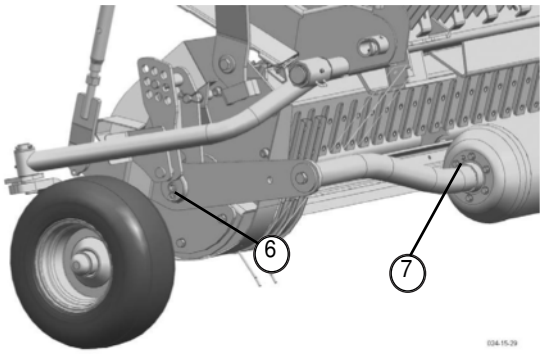
The sensing roller (1) should be set 2cm higher than the lowest point in the circuit characterised by the pick-up tines.

TIP

The distance to ground must be set equally on the left and right sides of the sensing roller.

Turn spindles (2) to adjust the feeler wheel chassis and lock in the required position at the top and bottom with the two nuts (3) (M20).

Maintenance:



In the sensing roller bearing there is a lubrication nipple (6) on both the left and right sides of the self-loading trailer.

There is a lubrication nipple (7) on both the left and right sides of the sensing roller.

The sensing roller lubricating nipples must be smeared in the same interval as the lubricating nipples of the front feeler wheels.

General safety information

DANGER

Danger to life caused by failure to lock the retaining bolts (E2) of the cutting unit.

- Before any operation or transportation check that the cutting unit retaining bolts are locked.

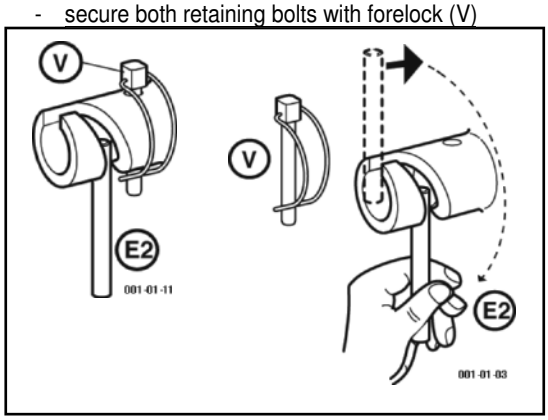
CAUTION

Injury hazard caused by sharp edges

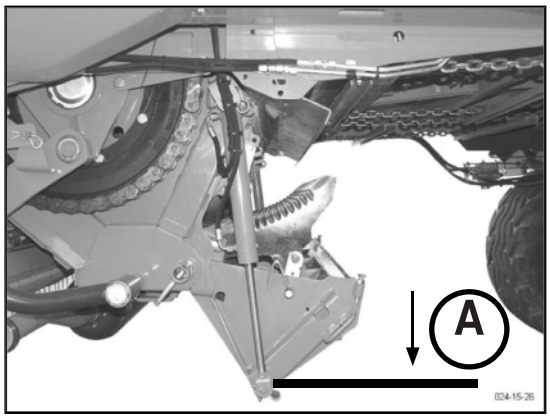
- Do not hold cutter by the cutting edge!
- Use safety gloves!

Checking before operation

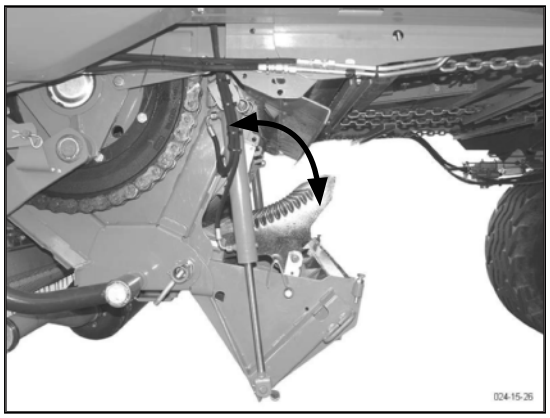
- retaining bolts (E2) on the right and left secured
  - Position E2
  - on the left and right side of the vehicle
  - secure both retaining bolts with forelock (V)



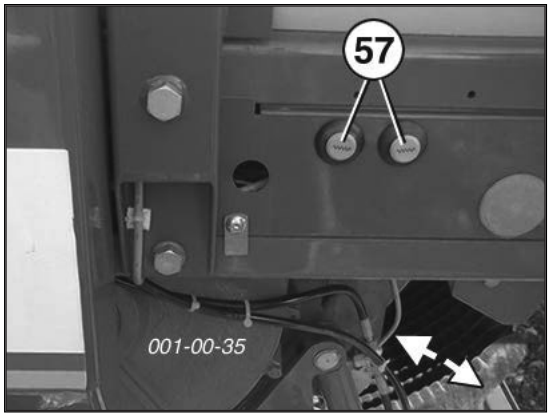
- Cutter wear
- Blade overload safety to be checked for dirt build-up
- sufficient ground clearance (A)



Folding the cutter beam using the external keypad



For maintenance work on the cutting unit and the cutter beam, the cutter beam can be swung in or out using both buttons (57).



TAKE NOTE

Property damage through the collision of the cutter with the press rotor

- Use these buttons only when the loading channel is empty and the press drive is turned off!
- Before folding make sure that the cutters are not damaged, unlocked and there are no bent parts

NOTE

Material damage caused by hardened dirt on the cutting unit.

- Before parking the wagon, swing the cutter beam out one more time. This helps to remove the dirt.

Unfolding the cutter beam in case of blockage

- Press and hold the  button on the operating device, and at the same time switch on the p.t.o.drive.

  With working cardan shaft, the cutter beam will be swung out by the feed pressure of the loaded material.

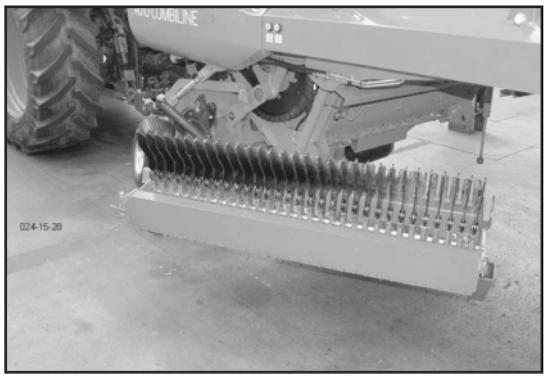
- After removing the blockage swing the cutter beam in again.

TIP

Regularly remove dirt that has collected between locking lever and cutter beam so that locking device functions perfectly again.

Pivot the knife bank out.

Swinging the cutter unit onto the left hand side of the vehicle

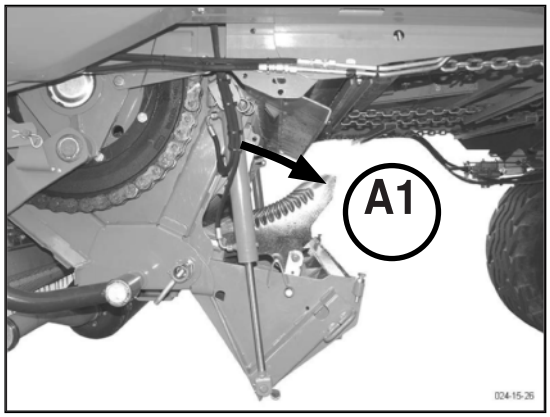


1. Hold down the external button to swing out the cutter beam (A1)

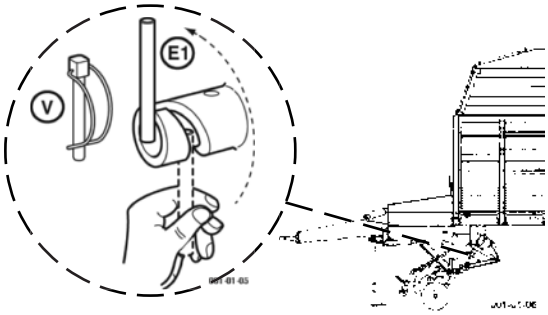
NOTE

Property damage through insufficient ground clearance.

- Do not operate the machine and do not drive around if the cutter beam is fully extended.

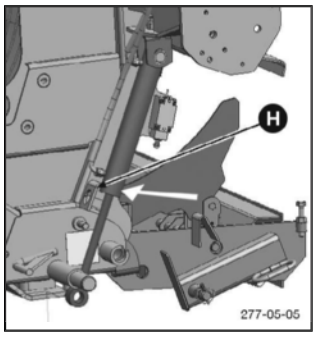


2. Unlock the retaining bolt on the left and right side
- Remove the linchpin (V) and unlock the bolt (E1)
- Re-lock the bolt (E1) using the linchpin (V).

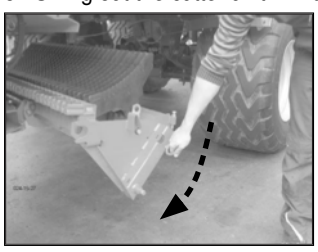


3. Loosen the hydraulic cylinder from the bolt.
   (right and left side)

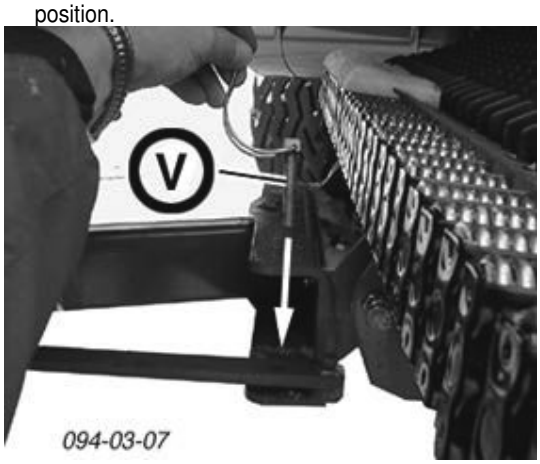
4. Swing the left hydraulic cylinder to the front and lock in the holder (H).



5. Swing out the cutter unit in maintenance position.



6. Lock the cutter unit with the linchpin (V) in maintenance position.



Swivel in the cutter unit

WARNING

Risk of serious injury caused by the cutter bar crushing the hand during swivelling.

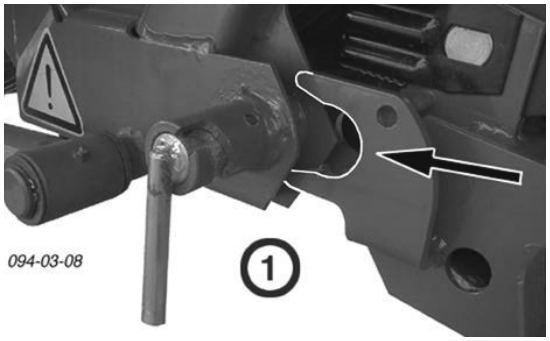
- Do not reach between the machine and the cutter bar when the cutter bar is being swivelled or raised.

Swinging cutter beam back in takes place in reverse sequence.

Remedying malfunctions

1. The swing-in position can not be reached:

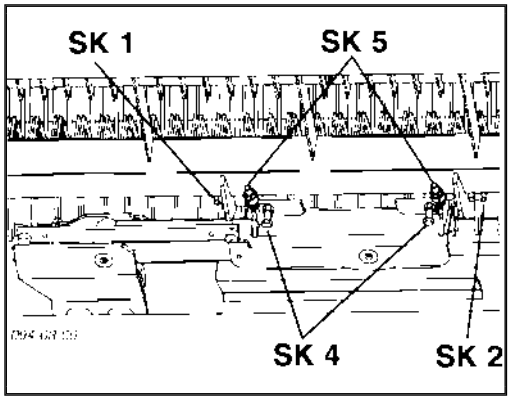
- The setting should be such that when the cutting unit is swung in, the frame tube fits easily into the opening on the press frame (1).



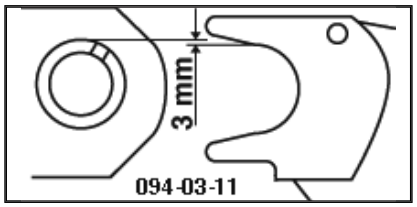
Adjustment via a screw (SK-4) on the swivel axis of the cutter bar.

Adjustment

1. Release the locknut for the screw SK-4
2. Rotate screw (SK-4) accordingly.



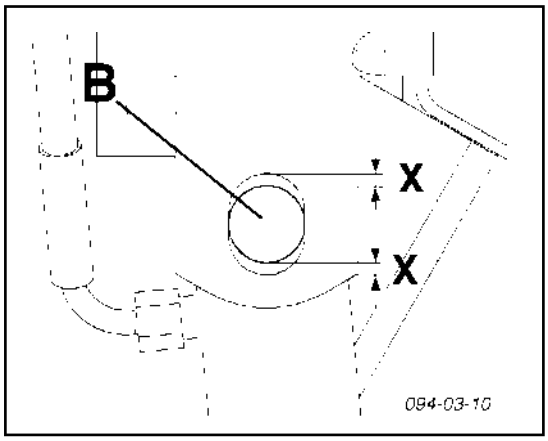
The setting should be so that when the cutter beam is swung back in, the frame tube is able to fit into the opening as closely to the middle as possible (see sketch).



3. Secure screw (SK-4) with lock nuts

2. The hydraulic cylinder (when swinging out the cutter unit) cannot be released from the bolt

- Adjust the bolt so that when the cutter beam is swung out there is equal clearance above and below (X and X)



Adjustment

1. Swing the cutter beam out using the external keypad.
2. Adjust the retaining bolt of the hydraulic cylinder to the middle, using the screw (SK-5) below the cutter beam.

3. The cutter beam cannot be swung in or out without collision

• Adjust the cutter beam so that the there is equal clearance from the cutter to the feed tines on the right and the left side.

Adjustment

1. Release the locknuts for the screws SK-1 and SK-2
2. Slightly unscrew bolt (SK-1, SK-2) on one side.

Moving the cutter beam to the left:

- first of all, loosen the bolt (SK-1) on the left-hand side of the vehicle
- then tighten the bolt (SK-2) on the right-hand side of the vehicle. By screwing this screw in, the cutter bar can be moved until the blades are positioned centrally between the feed tines of the press rotor.

Moving the cutter beam to the right:

- first loosen the bolt (SK-2) on the right-hand side of the vehicle
- then tighten the bolt (SK-1) on the left-hand side of the vehicle.

3. Screw in both bolts (SK-1 and SK-2) until tight.

TIP

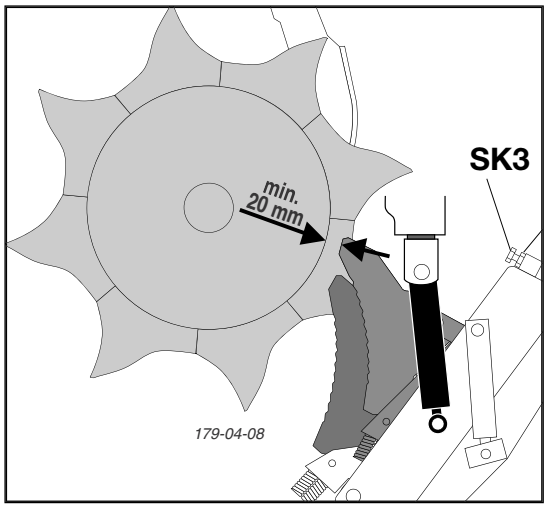
Re-tighten the screws only a little bit.

4. Secure both bolts (SK-1 and SK-2) with lock nuts

4. Blockage occurs frequently

• The distance between the blades and the press rotor should be at least 20 mm.

- Adjust the stop screw (SK-3) accordingly.



Check

1. Fold the cutter bar in (working position)
2. Carry out visual check

   The distance between the blades and the press rotor should be at least 20mm.

Set distance

1. Release the locknuts for both screws SK-3

- on the left and right sides of the cutter bar

2. Turn the bolts (SK-3) until the correct distance (20 - 30 mm) is reached.

- Adjust both stop screws in such a way that the cutting beam is not obstructed when swung into its working position.

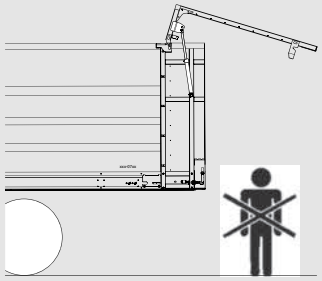
3. Secure bolts SK-2 with locknuts

Safety advice

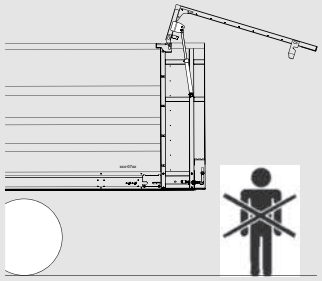
WARNING

Risk of serious injury caused by a moving tailgate.

- Do not enter or stand in the danger area between the opened tailgate and the machine.



- Do not enter or stand in the swivelling area of the closed tailgate.



- If you are not the driver: Talk with the tractor driver if you must enter the danger area.
- If you are the driver: Switch off the tractor and remove the key before entering the danger area.
- Ensure that no one is standing in the tailgate's swivel range.

TIP

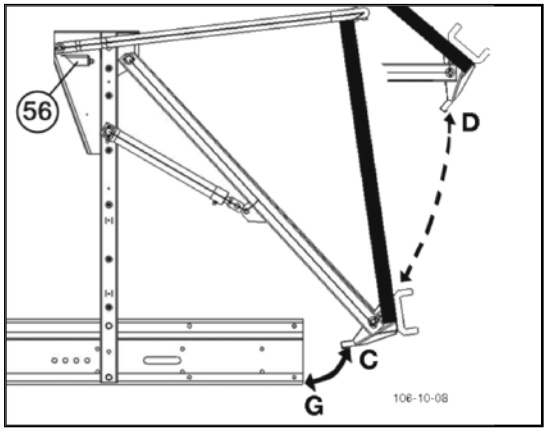
Make sure the tailgate is closed before driving off.

TIP

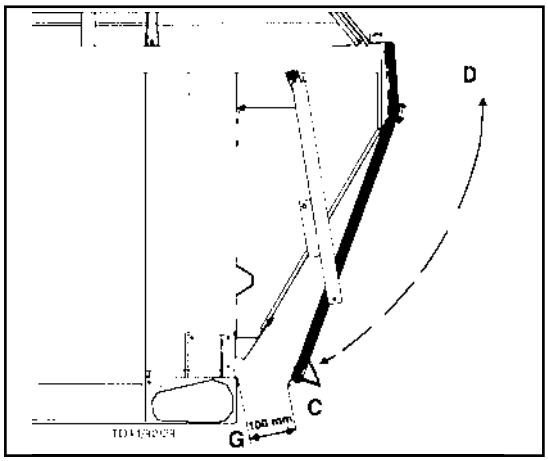
An acoustic signal sounds as long as the tailgate is moving during opening or closing.

Safety device

Lowering the tailgate to position "C" is pressureless as only the tailgate's tare weight is used.



Once in position (C), switch (56) triggers the hydraulic function and the tailgate is closed under pressure (G).

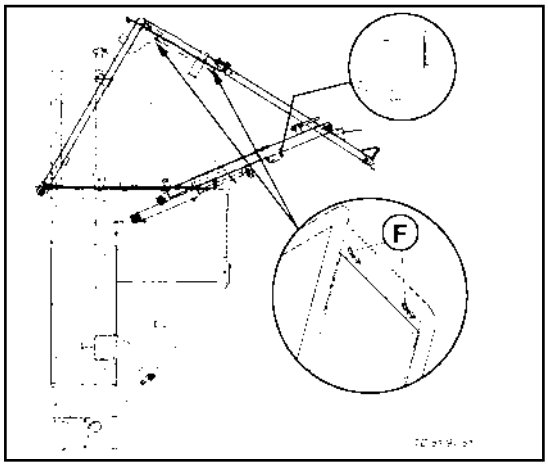


Unloading using dosing rollers (Profiline)

Variations

1. Normal dosing

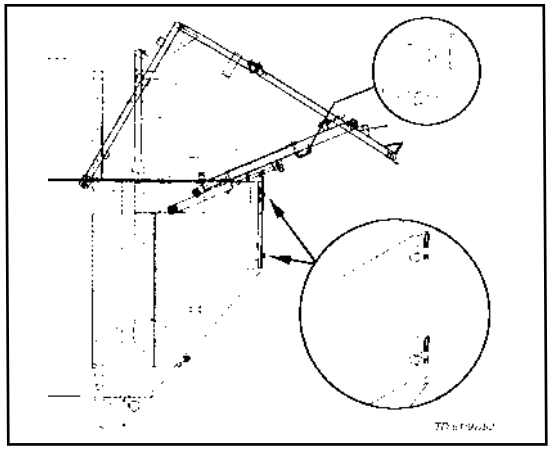
- Rear metal section fixed to swivel bracket
  - Secure (left and right) with spring pins (F)



2. Fine dosing

- Rear metal section fixed to side walls
  - Secure (left and right) with spring pins (F)
- Fix the tarpaulin (if available) to the eyelets at the top of the rear metal section.

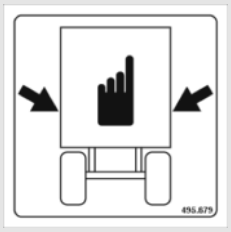
  The forage falls evenly distributed to the ground as with standard dosing.



NOTE

Material damage due to the tailgate warping

- Always insert the bolts on the left and right sides of the trailer in the same way (normal and fine dosing) to prevent the tailgate from warping.
- Before any hydraulic swivelling of the tailgate, make sure that the pins on the left and right are identically positioned.

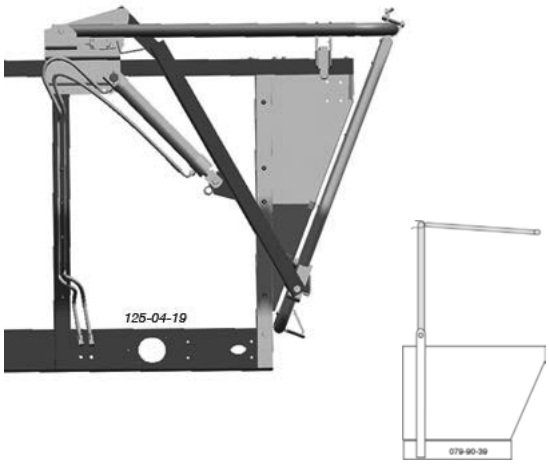


Variations

Fixed tailgate strut

- The tailgate and the tube bracket swivel all the way to the top when opening.

  For operation see
  - Select Control pre-switching or
  - Direct Control operation
  - Power control

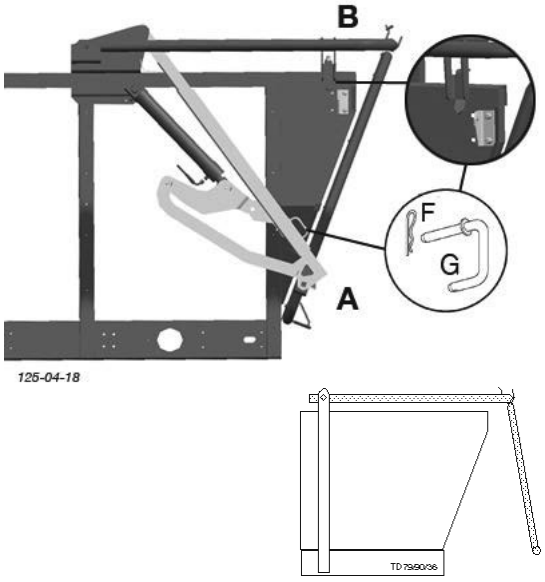


Adjustable tailgate strut

- Open or close the whole tailgate as with rigid tailgate strut

In addition, there is the option

- to lock the tubular frame against swinging up
  - by repositioning both hooks (G)
  - from position (A) to position (B)
- When opening, only the tailgate swings backward.

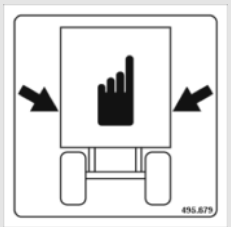


For operation see
- Select Control pre-switching or
- Direct Control operation
- Power control

NOTE

Material damage due to the tailgate warping

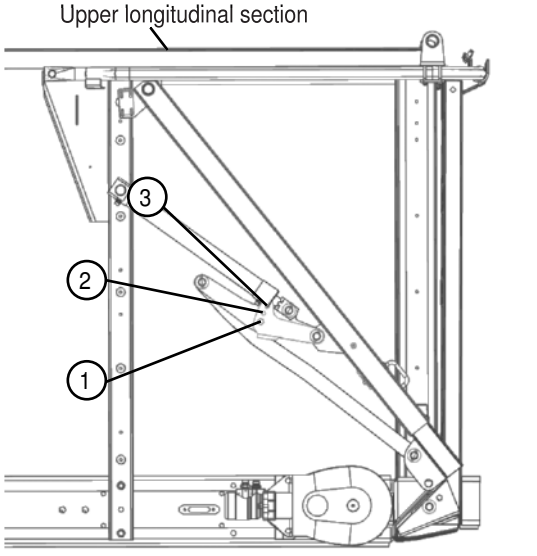
- Always insert the bolts on the left and right sides of the trailer in the same way (Position A, B) to prevent the tailgate from warping.
- Before any hydraulic swivelling of the tailgate, make sure that the pins on the left and right are identically positioned.



Adjusting the final height of the open tailgate (optional)

(only for Profiline)

Pin the open tailgate's final height in the correct hole on the rocker.



598-13-01

Hole 1 - 265mm above the upper longitudinal section

Hole 2 - 365mm above the upper longitudinal section

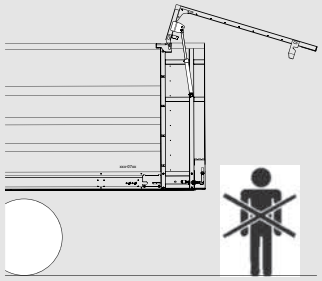
Hole 3 - 465mm above the upper longitudinal section

Safety advice

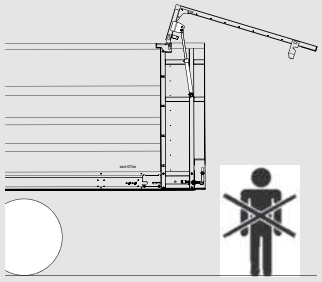
WARNING

Risk of serious injury caused by a moving tailgate.

- Do not enter or stand in the danger area between the opened tailgate and the machine.



- Do not enter or stand in the swivelling area of the closed tailgate.



- If you are not the driver: Communicate with the driver of the tractor when you must enter the danger area.
- If you are the driver: Switch off the tractor and remove the key before entering the danger area.
- Ensure that no one is standing in the tailgate's swivel range.

TIP

Make sure the tailgate is closed before proceeding.

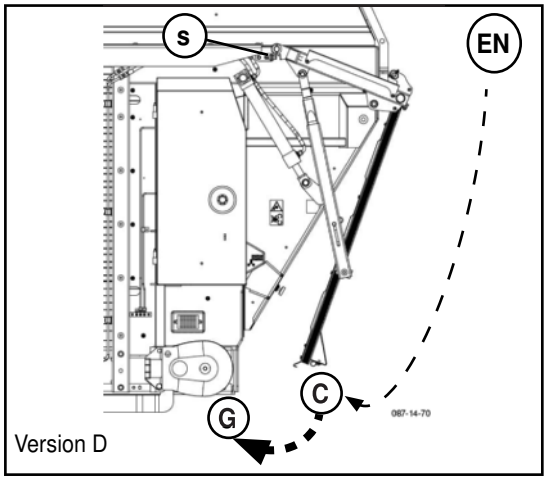
TIP

If the tailgate moves during opening or closing, an acoustic signal sounds.

Closing the tailgate (Combiline)

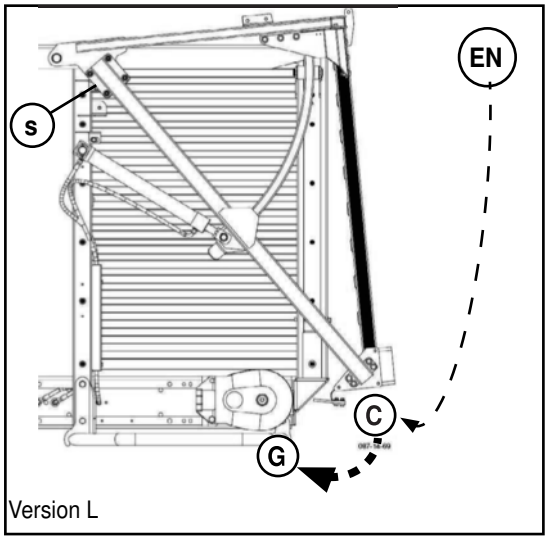
Press key to close tailgate.

- No pressure is required to lower the tailgate from position D to position C as the tailgate's own weight is sufficient.



Version D

- Only in position C is the hydraulic function triggered via sensor B5 (S) and the tailgate is closed under pressure (position G).



Version L

Tailgate closing pressure

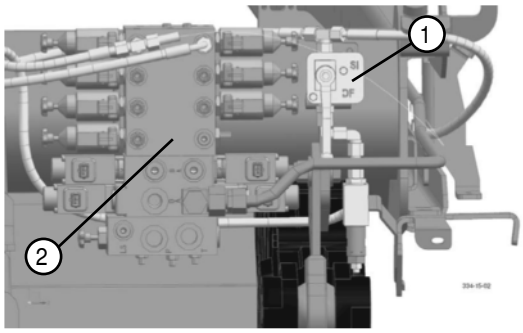
Adjustment - only with version 1

The tailgate closing pressure depends on the type of load. The stronger the loading material force is against the tailgate, the higher the closing pressure should be, so as not to loose any loading material. Therefore there are 2 different settings

SI = Silage

DF = Dry fodder

The switching valve (1) is located at front left of the trailer next to the hydraulic block (2).

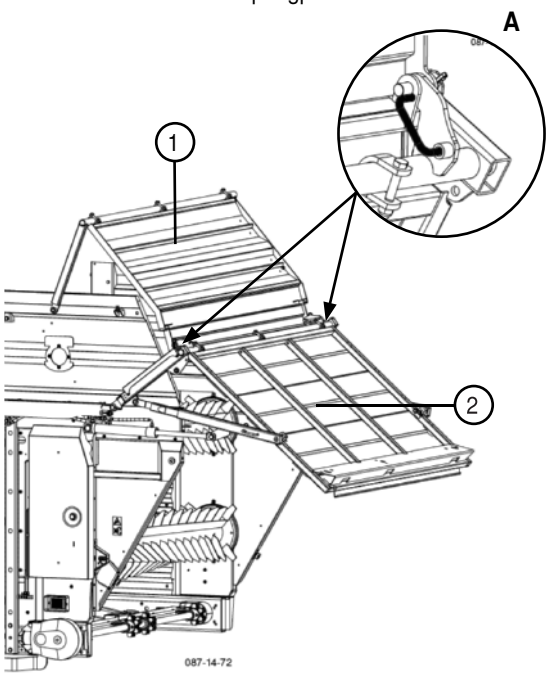


Unloading using dosing rollers (Combiline)

Variations

1. Quick unloading

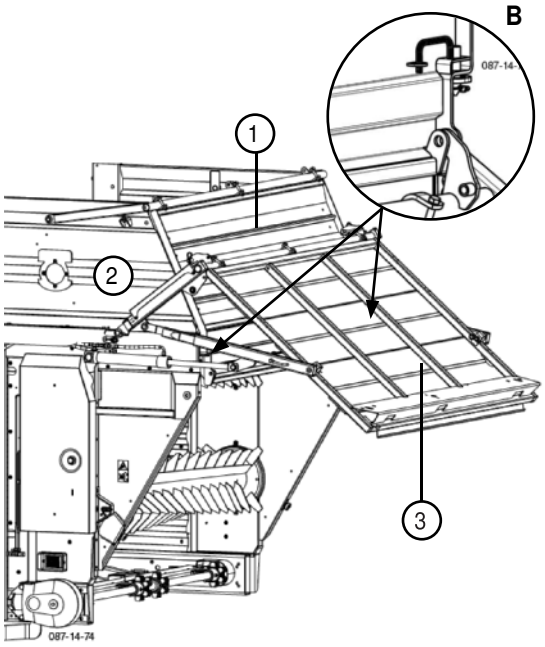
- Lock the upper (1) and lower tailgate (2) with the hooks (A) left and right. This way the upper and lower tailgates can only be moved together. (See Figure)
- Pin the hook with the springpin



2. Fine dosing

- Pin the upper tailgate (1) with hook (B) left and right onto the side walls (2). This way only the lower tailgate (3) can be moved. (See figure
- Pin the hook with the spring pin.

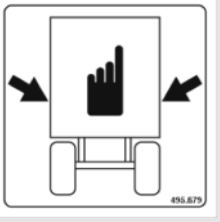
The fodder falls onto the floor more evenly than than with quick unloading.



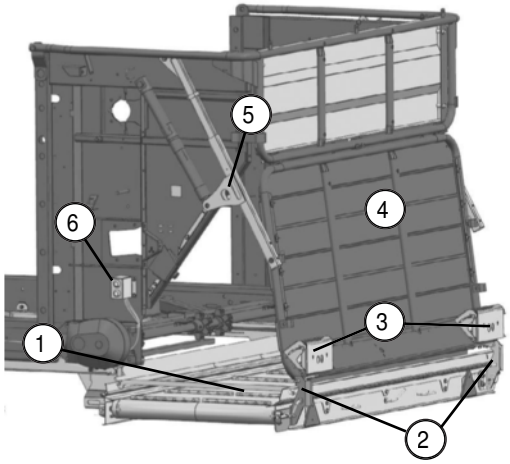
NOTE

Material damage caused by twisting of the tailgate

- The bolts on the left and right of the trailer must always be set the same (normal, fine dosing) in order to prevent twisting of the tailgate.
- Before any hydraulic swivelling of the tailgate make sure that the bolts on the left and right side are set the same.



Wide cross conveyor Overview:



Explanation:

1… Cross conveyor belt
2. Safety hook
3. Rear lights
4… Tailgate
5… Structural tube / strut
6. Tailgate keys

TIP

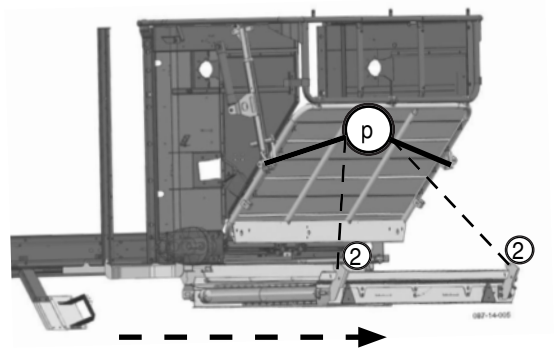
In serial production the machine is adjusted for operation without a cross conveyor.

Changing to operation with cross conveyor

1. Manually push out cross conveyor (1) to the back.

   The end position sensor detects the point at which the cross conveyor is completely extended. When the cross conveyor is completely extended, operation of the tailgate is only possible using the tailgate keys (5) at the rear of the trailer. The tailgate can no longer be operated from the control terminal.)

2. Place bar of position (P) at the safety hook (2) of the tailgate at cross conveyor. Re-position bars left and right.

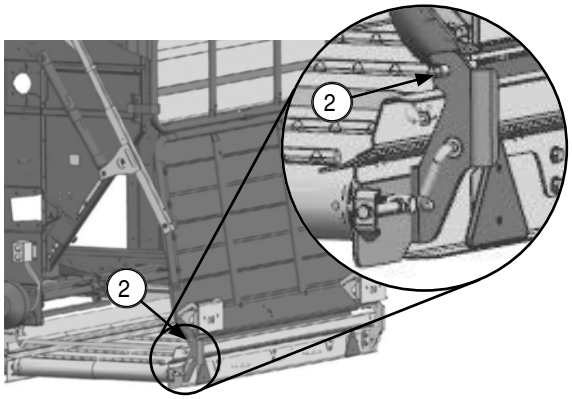


TAKE NOTE

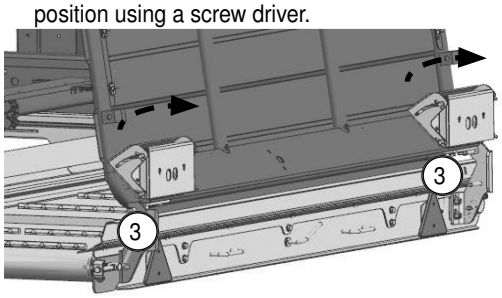
Material damage due to components colliding.

- Secure the bar using the spring pin!

3. Fit and secure structural tube (5) at position (P).
4. Extend the tailgate completely using the tailgate keys (6) behind the trailer until the tailgate has engaged in the safety hooks (2) at the cross conveyor.



5. Fit tarpaulin at the non-unloading side.
6. Set up both rear lights (3) vertical and fix in vertical position using a screw driver.



Changing to operation without cross conveyor

Perform steps 1-6 analogously in reverse order.

Control:

The cross conveyor is controlled via the control system

See respective Control chapter

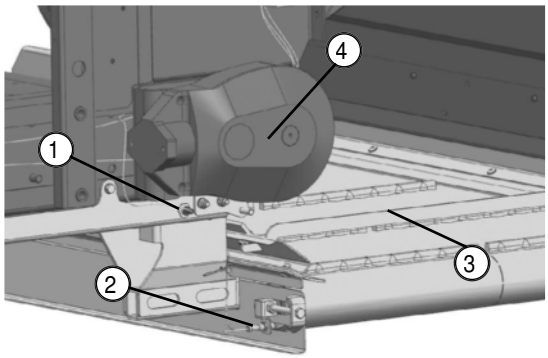
Alarm messages:

See respective Control chapter

Maintenance:

Sensor setting:

The sensors are located on the left in driving direction.



Explanation:

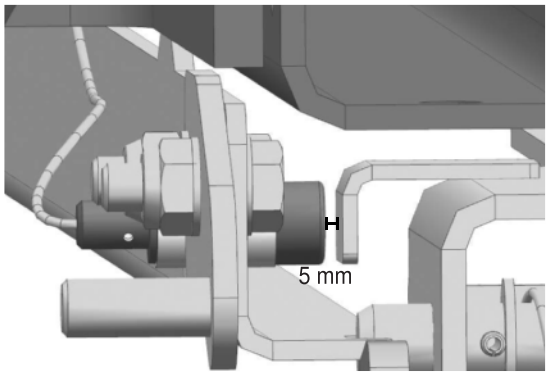
1… End position sensor

2...Speed sensor

3...Cross conveyor

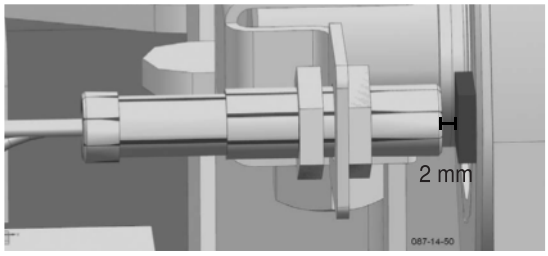
4...Scraper floor motor

1. End position sensor: monitors whether the cross conveyor has reached working position.



Setting: approx. 5mm gap

2. Speed sensor: monitors the movement of the cross conveyor



Setting: approx. 2 mm away from magnet

Removal of discharge beaters (only for Profiline)

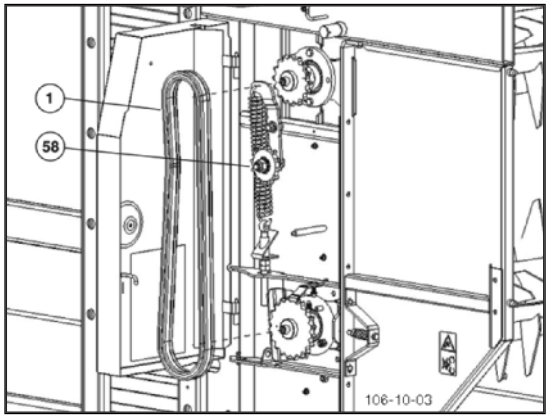
NOTE

Material damage caused by negligent dismantling of load-bearing elements.

- The discharge beaters of FARO COMBILINE are load-bearing elements. Do not dismantle the discharge beaters if you own a FARO COMBILINE!

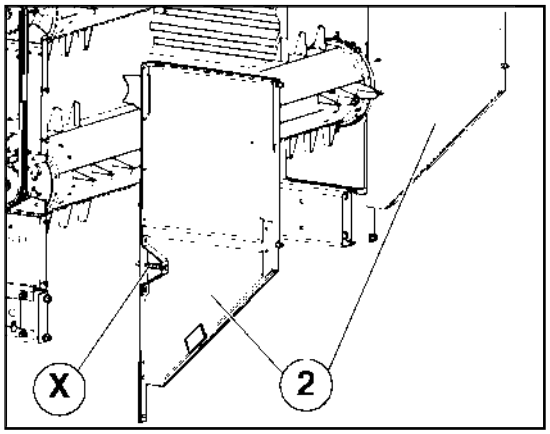
1. Open trailer tailgate.

2. Loosen chain tension (58) and remove drive chain (1).



3. Remove panels (2) left and right.

Be advised! Do not change the torque pre-tensioning (X).



4. Dismantling the upper discharge beater

Remove the following screws, left and right:

- three screws (SK-3) on the flange bearing
- two screws (SK-2) on the guard ring

5. Remove lower discharge beater

- Remove two bolts (SK-2) at protective ring, left and right

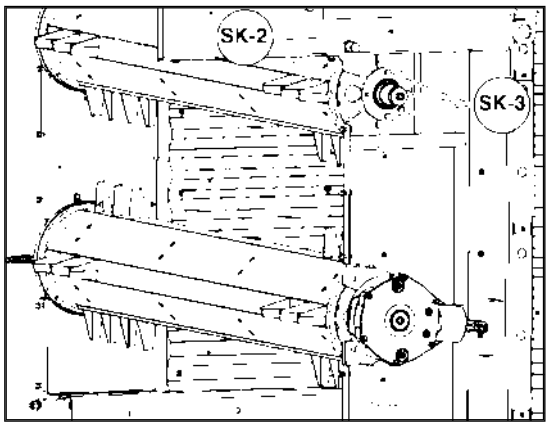
DANGER

Danger to life caused by catching and pulling-in body parts, hair and clothing.

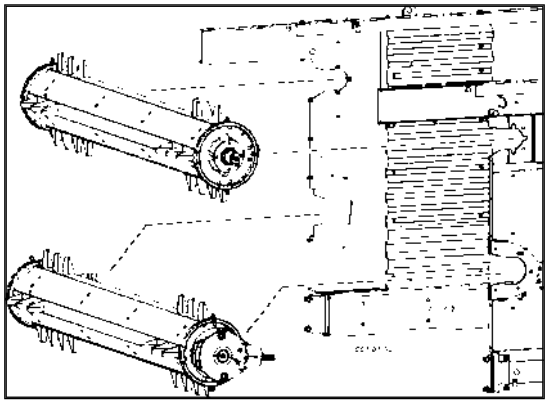
- Tie back long hair when carrying out repairs or maintenance.
- Wear tight, functional clothing when carrying out repairs or maintenance.
- Before carrying out repairs or maintenance, wait for the rotating parts to stop completely.
- Turn the motor off and remove the key.

Be advised!

Do not reach into regulating roller area while drive motor is still running.



6. Push out discharge beaters to the back.



7. Re-attach panels (2) left and right.

8. Adjusting switch

- See next page

General safety information

⚠ WARNING

Risk of serious injury through crushing and catching body parts between the tractor and the implement.

- Do not enter the area between the tractor and the implement while the tractor or the implement is moving.
- Order other people not to enter the area between the tractor and the implement or to accordingly leave this area.
- Place the tractor and the implement on flat, solid ground.
- Brake the tractor and the implement and secure with wheel chocks
- Turn off the tractor engine and pull out the ignition key - only now may you enter the area between the tractor and the implement.

⚠ WARNING

Risk of serious injury through the drawing-in of clothing or body parts.

- Start to attach or detach the cardan shaft only when the cardan shaft has stopped.

⚠ WARNING

Risk of serious injury caused by lifting heavy and unwieldy parts.

- Modification requires the work of at least two persons.

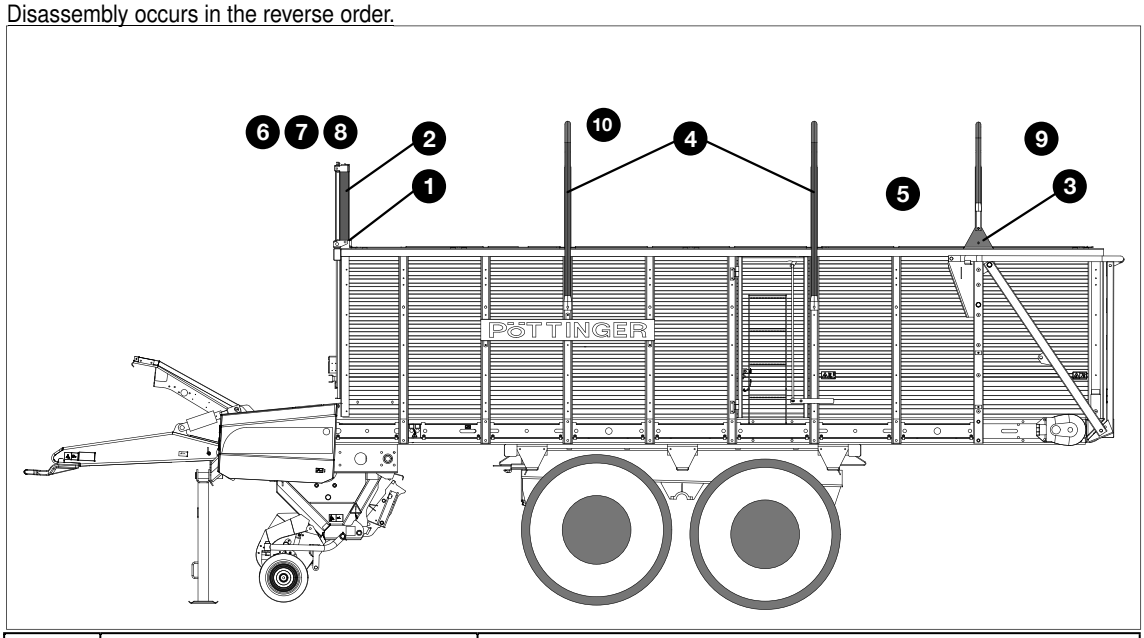
⚠ WARNING

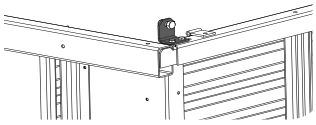
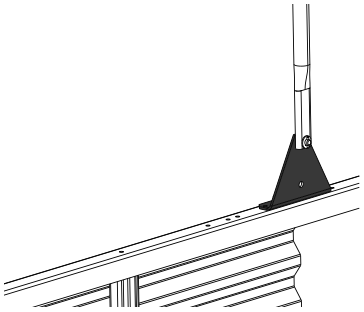
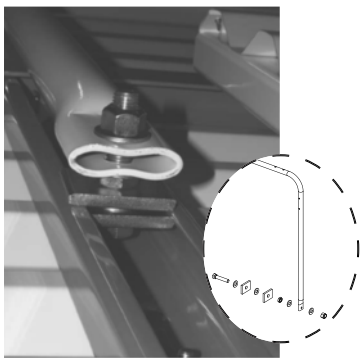
Risk of serious injury caused by collision with bridges or house roofs during road traffic.

- Comply with the legal limit for vehicle height.

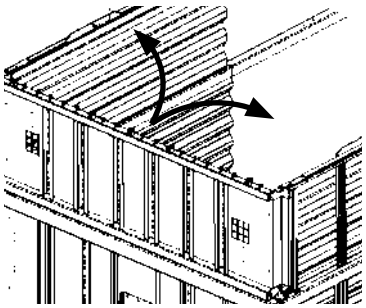
Assembling the top frame section (Profiline)

Disassembly occurs in the reverse order.



Step	Detail	Comment
1		Install corners for mounting front wall according to detail 1. Pay attention to position of the corner.
2		Position front wall and screw to the corners
3		Install corner for mounting rear bracket according to detail 3. Pay attention to position of the corner. Attach the bracket to the corner.
4		Install centre bracket. Pay attention to the order of the assembly parts! (see section picture) On side wall rail, brackets in top position are movable. Screw tight only when step 5 is completed.

5



Fold up the side walls and screw with clamps.

6

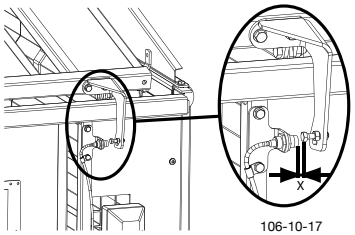
Automatic loading

Hang the automatic loading flap onto the front wall and secure with the linchpin.

7

Hang the automatic loading flap onto the clamps on the side wall and secure with the linchpin.

8



Attach the sensor (incl. cable) and switching bracket of the top automatic loading mechanism.

Adjust the desired switching release using the screw in the slot of the switching bracket.

Top slot: max. load

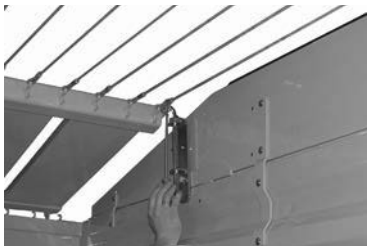
Bottom slot: min. load

Switching gap (X): 3 ... 5 mm

9

Install tarpaulin between rear bracket and back wall and secure with linch pin.

10



Install rope.

TIP

If rope is placed in water before installation, it becomes more tensile.

OPTION: Top profile

For automatic loading to function it is important that screws between the top profile and automatic loading flap are not too tight.

Hydraulic front cover (optional) - Combiline

The front cover can be set up hydraulically for chaffing with lateral loading or for wagon loading.

Operating takes place via the terminal in the tractor cabin.

Folding (chaffing)

1. Swivel down flap (1)

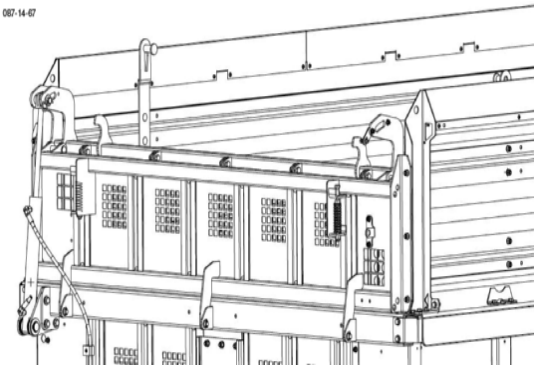
Unfolding (wagon loading)

2. Swivel up flap (1)

Chaffing - Lateral loading - Combiline

- Flap (1) in chaffing position - folded down
- Cover press while in chaffing mode, see next page

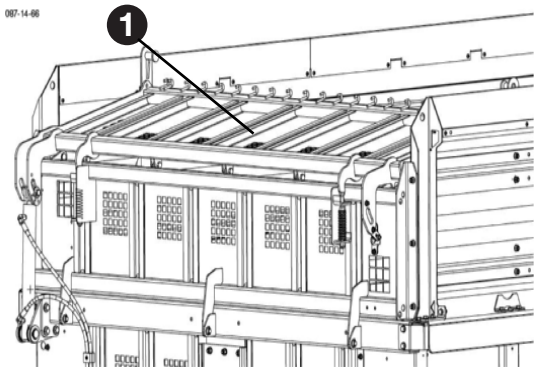
087-14-67



Wagon loading - Combiline

- Flap (1) in wagon loading position - unfolded.
- Wagon loading automatic

087-14-66

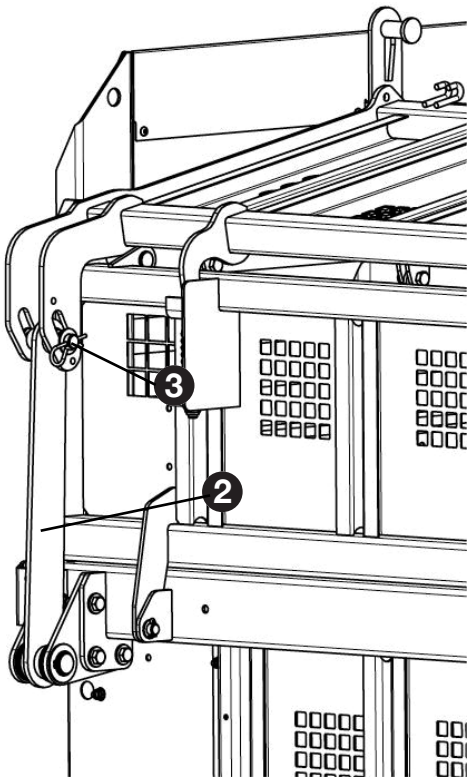


Mechanical front cover (series) - Combiline

The mechanical front cover is designed for wagon loading. The front cover is held in position by a bar (2), instead of a hydraulic cylinder.

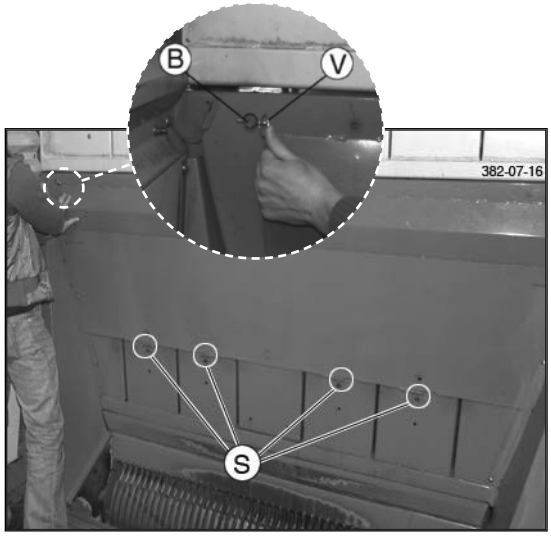
If you remove the linchpin with bolt (3) left and right, the front flap will fold down.

087-14-068



Cover plate for press [1)]

We recommend the use of the cover plate for chaffing. Thus the chaff cannot escape through the press channel.

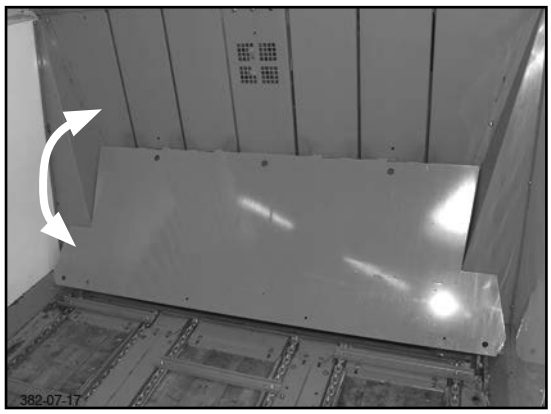


Initial fitting:

1. Pin the cover on the bolts (B) (left and right).
2. Fasten with the linchpins (V).
3. Fit the hinges (S) on the lower side and screw.

Chaffing

- Remove linchpin (V)
- Fold down the cover



Wagon loading

- Fold down the cover and fasten it with the linchpins (V).

or

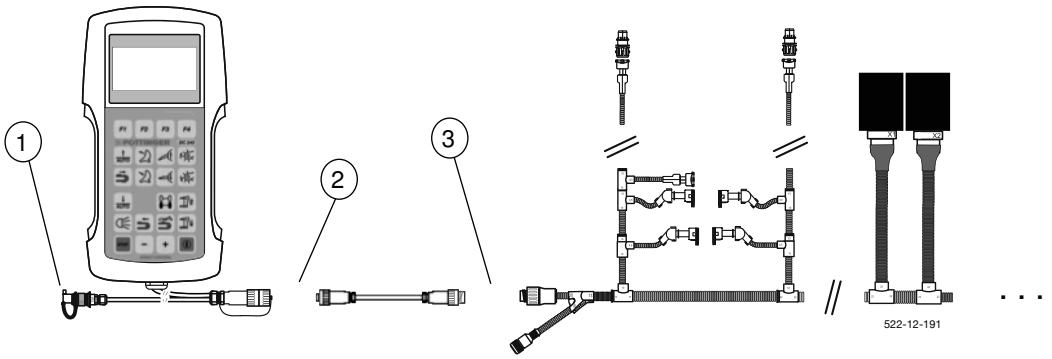
- Detach cover.

[1)] Optional extra

Extension

The following plug connections must be checked to ensure proper function of the control unit:

1. Supply voltage 12 Volt from tractor
2. Connection - control panel to extension cable
3. Connection - extension cable to cable harness with CAN I/O Modules



Control console

The software version of the control panel (V x.xx) is shown after voltage supply and switch-on of the control panel.

Meaning of keys

Function keys

F1, F2, F3, F4 - context-sensitive functions

Keys for loading functions:

1 - Automatic loading
2 - Swing in cutting unit
3 - Raise pivoting drawbar
4 - Raise pick-up
5 - Scraper floor back push
6 - Swing out cutting unit
7 - Lower pivoting drawbar
8 - Lower pick-up

Keys for unloading functions:

9 - Automatic unloading
10 - Steering axle control
11 - Open rear wall
12 - Working and loading space floodlight
13 - Scraper floor forward speed
14 - Scraper floor start and scraper floor speed
15 - Close rear wall
16 - STOP
17 - Scraper floor speed -1
17 - Scraper floor speed +1
19 - On/Off

Direct control initial operation

Switch on the control panel by
- shortly pressing the key I/O 

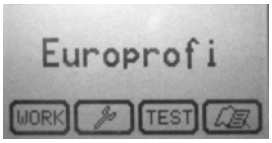
The start screen appears briefly.

Display in the start screen:

- Software version

The start menu is then accessed:

Display in start menu:



F1 F2 F3 F4

- Implement type set (in this case: Europrofi)
- Function keys

Function keys

Press (F1) briefly to access the Work menu.


Press (F2) briefly to access the Set menu.
Press (F2) for 10s to access the Configuration menu.

Press (F3) briefly to access the Test menu.


Press (F4) briefly to access the Data menu.

TIP

Only the functions activated in the CONFIG menu appear in the display

WORK menu loading function

- Press the 

in the Start menu to access the Work menu.
- Press 

in the Work menu to return to the Start menu.

1. Automatic loading

(Optional extra)

Press key
- Automatic loading is switched on or off
- Active automatic loading is shown in the display

The automatic loading can only be switched on or off with the rear wall closed!

Control of automatic loading via
- Level flap bottom
- Level flap top

- Scraper floor drive is switched on automatically
- Load material is moved back slightly
- Procedure is repeated until the load space is full

A full message is sent when the forage
- presses against the rear wall

When the trailer is full,
- Full appears in the display.
- Counter for the number of loads increases by one.

TIP

The load count takes place either via the "Full" message or via the status sequence "Tailgate closed --> Tailgate open--> Scraper floor back run 10 seconds"

- Scraper floor cannot be driven further backwards. (until the rear wall is completely open for unloading)

TIP

Automatic loading is not possible with trailers with folding forage top assembly.

- When the wagon is full, automatic loading is switched off automatically
- After unloading, automatic loading is reactivated automatically

Setting remains the same after switching the system on and off.

2. Load scraper floor

As long as the key remains depressed

- The scraper floor moves at maximum speed from the pick-up to the rear wall.

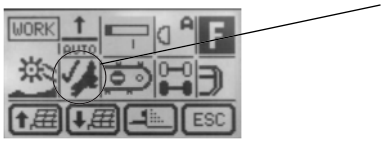
The scraper floor no longer moves (STOP display):

- as soon as the wagon full message F appears.
- as soon as the key is released

(can also be used for brief switching to maximum speed during unloading.)

3. Fold in / activate the cutting unit in the conveyor channel

(Optional extra)



As long as the key is kept depressed

- the knives move into the conveyor channel
- for EUROPROFI: Swivel the cutting unit under the loading carriage manually, so that it is folded onto the frame and the sensor "Cutting unit in catch hook" is active. Press the key [Fold in cutting unit] to lock the knives and to fold them into the conveyor channel.

Shown in display:

- Cutter unit folded out or sensor B19 not coupled
- Cutter unit completely folded in/ active / locked

4. Fold out the cutting unit in the conveyor channel

As long as the key is kept depressed

- the knives move out of the conveyor duct
- for Faro: this happens **without pressure**. If pressureless folding out is not possible, use external cutting unit key.
- For Euroboss, Europrofi and Primo: the blades move under pressure out of the feed channer.
- for Europrofi: The knives move until sensor B16 (cutting unit obstruction) switches.
- Shown in display: (see cutter unit activation/ folding in)

TIP

The symbol „Cutter unit folded out“ begins to blink and you can hear an acoustic signal (five beeps), when the pick-up is lowered with cutter unit folded out.

5. Lower pivoting drawbar

As long as the key is kept depressed

- The front section of the wagon is lowered
- Scraper floor is not switched off during lowering of the pivoting drawbar
- No display in Work menu

6. Raising pivoting drawbar

As long as the key is kept depressed

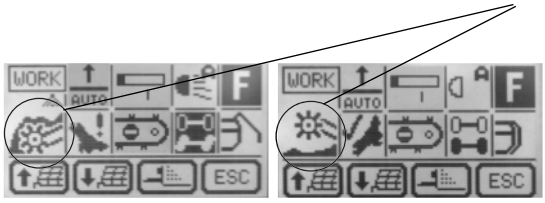
- Front section of the wagon is raised
- No display in Work menu

7. Raising pick-up

As long as the key is kept depressed

- Pick-up moves up

8. Lowering pick-up



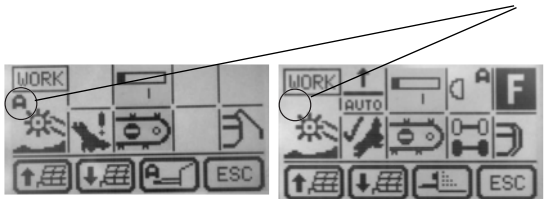
Briefly press key

- Pick-up moves down and remains in float position
- Start the delay interval for the start of the articulated drawbar automatic operation (only for the option articulated drawbar automatic operation)
- Shown in display

Pick-up raised

Pick-up lowered

9. Articulated drawbar automatic operation (optional)



Press shortly the key [Articulated drawbar automatic operation] to activate the articulated drawbar automatic operation

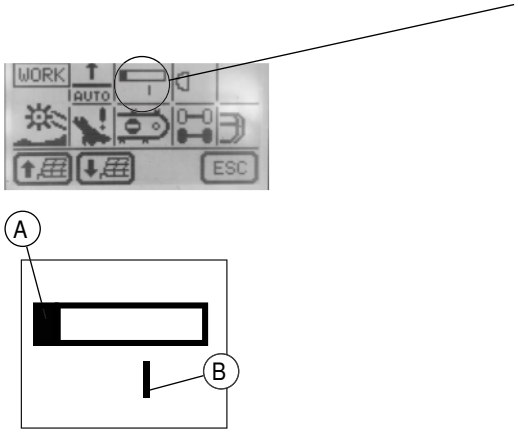
Display:

Articulated drawbar automatic operation active	A
Articulated drawbar automatic operation not active	

By pressing the key, the display will show "A" for the articulated drawbar automatic operation. The automatic control of the articulated drawbar begins however, after the pick-up starts to lower. This delay can be set in the Set Menu (standard setting: two seconds after activation of the key [Lower pick-up])

If the keys [Lift articulated drawbar] and [Lower articulated drawbar] are used to operate the drawbar manually, the articulated drawbar automatic operation turns off.

10. Current rotor capacity - optional equipment (only EUROPROFI)



Display:

Current rotor capacity	A
Release torque for the scraper floor start.	B

- **The release torque (A) for the scraper floor start can be set in the Start menu.**

Function keys:

Raise forage top assembly - only if nothing in display when Configuration menu activated (equipment on request)

Lower forage top assembly - only if nothing in display when Configuration menu activated (equipment on request)

Dosing auxiliary unit on/off - switches a 12 V output to control a dosing pump or a valve for automatic dosing.

Maximum load of this output 3 A

(equipment on request)

Display:

Pivoting drawbar automatic system (only Euroboss)

Move front cover downwards: for wagon loading

Move front cover upwards: for chaffing

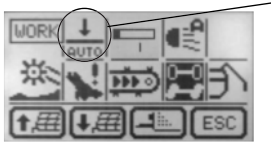
ESC one menu level up (in this case: Start menu)

WORK menu unload functions

- Press the key WORK in the Start menu to access the Work menu.
- **Press key ESC in the Work menu to return to the Start menu.**

1. Automatic unloading

AUTO



Press key for 1 second

- Automatic unloading is switched on or off automatically

  The automatic unloading system is also switched off using the key "Close rear wall".
- Active automatic unloading system is shown in the display

Function sequence of automatic unloading system

TIP

The function "Start automatic unloading" is activated only after a 0.8-seconds delay (safety device for road transport).

1. Opening the rear wall

TIP

The rear wall must be opened completely

If the rear wall is not opened completely after having operated the key, set the parameter "Rear wall opening time" to the hydraulics of your tractor. You can find parameter "Rear wall opening time" in the Set menu.

If the machine is fitted with a "Rear wall opening" sensor, you can switch on the scraper floor only when the rear wall opening sensor is active.

The parameter "Rear wall opening time" is absent in this case.

2. Scraper floor starts with the last speed saved. If the key "Close rear wall" is pressed briefly during unloading:

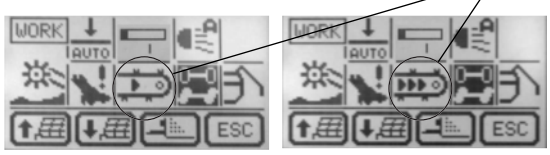
- The scraper floor stops.
- Symbol flashes on display
- Opened rear wall is slowly lowered.

- Hydraulic system to close rear wall is activated under pressure.
- The rear wall is only closed after the exclamation mark has disappeared from the display.

TIP

The current scraper floor speed, activated after 10 seconds of scraper floor return travel in automatic unloading mode, is saved. For the next unloading process the scraper floor begins to move at this speed automatically.

2. Unloading scraper floor / 2-stage motor



Briefly press key

- Scraper floor is switched on or over
- Shown in display
  - slow or fast

In the slow stage - tortoise

- Adjustment of speed is possible by pressing the "+" or "-" key.

In the fast stage - hare (equipment on request two-stage motor)

- Scraper floor runs at maximum speed
- No change to speed is possible

Stop the scraper floor with the key "Stop", or "Scraper floor forward running"

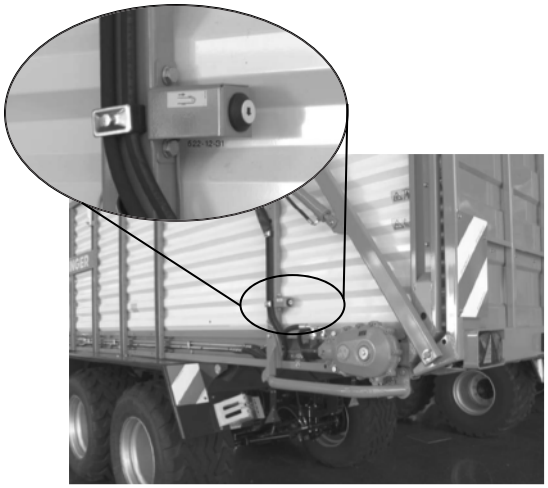
Brief raising of scraper floor back run on

- Raising the pick-up
- Opening the rear wall
- Folding the knives in
- Lowering or uprighting the forage top assembly
- Blocking the jockey steering axle

The scraper floor only starts if there are no other hydraulic functions running and the rear wall is open.

Scraper floor rear key: (equipment on request)

As an alternative to the Direct Control, the scraper floor can also be controller from the rear of the trailer.



Press once - starts scraper floor

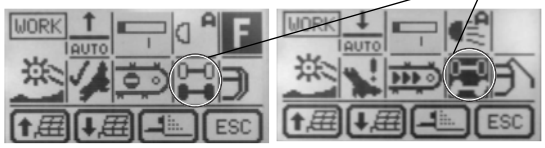
Press again - switches scraper floor off again.

Keep depressed for 3 sec - switches to maximum speed (with 2-stage motor at hare stage)

TIP

The scraper floor can only be operated using the rear key when the rear wall is open.

3. Jockey steering axle



Press key

- Jockey steering axle is released or blocked.
- Shown in display:

Released

Blocked

TIP

The hydraulic blocking process takes some time.

- During this time the "Clear symbol" is blinking on display.
- Additionally, the keypad is blocked for other hydraulic functions.

The blocking process may be interrupted by pressing key again.

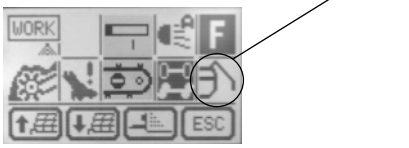
When enough pressure has accumulated, you will see the "Blocked symbol".

DANGER

Danger to life if steering axle is not locked

- Lock the steering axle in the following situations:
  - for fast, straightforward runs exceeding 30 km/h
  - when driving in reverse
  - on earth roads
  - on inclines
  - on relief of the front axle by pivoting drawbar operation
  - on overrunning of the horizontal silo
  - when the side guide of the non-steered axle is no longer sufficient

4. Opening the rear wall



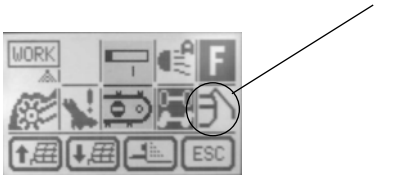
As long as the key is kept depressed

- Rear wall opens
- unclosed rear wall is shown in display

TIP

The function "Opening rear wall" is activated only after a delay of 0.8 seconds (safety device for road transport).

5. Closing rear wall



Briefly press key

- Scraper floor drive stops.
- Rear wall is lowered slowly. (without shed feeding rear wall) or

  Rear wall is lowered with 40 bar pressure (with shed feeding rear wall)
- When the rear wall reaches the lower section (opening approx. 10 cm)
  - the tractor hydraulic system is switched to
  - Rear wall is closed by tractor hydraulic pressure.

TIP

Automatic closing process

During closing, the symbol "Closing rear wall" is blinking on display.

You can stop rear wall closing automatically with the keys , , AUTO or STOP

6. Stop

One brief press of the key

- Stops all drives and functions that are controlled by Direct Control.
- Switches off the automatic functions active at that moment.

7. Reducing scraper floor speed

Use to execute the selected function

- Reduce value

8. Increasing scraper floor speed

Use to execute the selected function

- Increase the value

9. Working and loading space floodlight

(equipment on request)

Switches between the following functions

OFF	Floodlight switched off	
ON	Floodlight switched on continuously	
AUTOMATIC	Floodlight is switched on automatically with open rear wall.	

Function keys:

Raise forage top assembly - only if activated in Configuration menu (equipment on request)

Lower forage top assembly - only if activated in Configuration menu (equipment on request)

Dosing auxiliary unit on/off - switches the automatic dosing of additives. Additives only dosed when pick-up lowered.

Display:

(equipment on request)

Pivoting drawbar automatic system (only Euroboss)

Move front cover downwards: for chaffing

Move front cover upwards: for trailer operation

ESC one menu level up (in this case: Start menu)

SET menu

- Press key in the Start menu to access the Set menu.

Press key ESC in the Set menu to return to the Start menu.

Set menu 1:

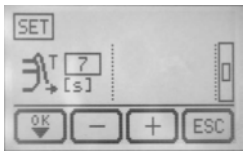
Display:

Display lighting setting: shown in per cent increments

Keypad lighting on/off

The keypad lighting is switched off automatically on restart of the control system

Set menu 2:

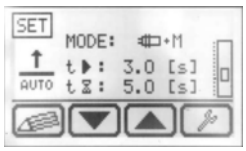


Display:

Setting the opening time of the rear wall in automatic unloading mode (from 5s - 10s), only when there is no integrated "Rear wall opening" sensor.

Set menu 3:

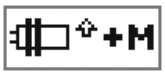
(only Europrofi)



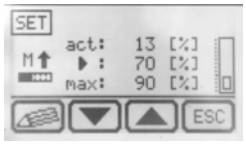
Display:

Switching mode for the automatic loading. The loading sensor has three modes. Without the loading torque sensor, only mode 1 is available.	Mode
Scraper floor delay (adjustable). If you set a value of 0.0 seconds, the scraper floor will run as long as the switch-on condition for the respective mode is fulfilled.	t ►
The time delay, from fulfilling the switch-on condition for the each mode to the start of the scraper floor drive (adjustable).	t ⧖

Switching mode for the automatic loading:

Mode 1: 	Turned on by upper or lower sensor. If started by upper sensor, start with the time delay. If started by lower sensor, the scraper floor starts immediately.
Mode 2: 	Turned on by upper or lower sensor or the loading moment sensor. The sensor that switches first will switch on the scraper floor. The delay becomes active when the upper sensor or the loading switching limit of the loading sensor switches [f].
Mode 3: 	Turned on by the upper sensor AND the loading moment sensor must have exceeded the loading threshold. If both conditions are fulfilled, the scraper floor switches on after the time delay. When the maximum switching limit of the loading moment sensor is reached (without turning on the upper sensor) the scraper floor will be switched on immediately.

Set menu 4 - Adjusting the loading threshold: (only Europrofi)



Display

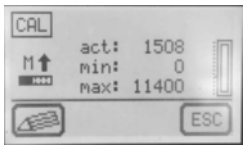
[a] Current value at the loading moment sensor as percentage (Display)

[b] Loading switching limit as percentage (adjustable)

[c] Maximum value at the loading moment sensor as percentage (adjustable)

Set menu 4.1:

- Calibrating the loading moment sensor



Display

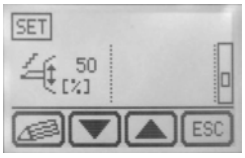
current value at the loading moment sensor (Display)	act:
Minimum value at the loading moment sensor (adjustable)	min:
Maximum value at the loading moment sensor (adjustable)	max:

Calibrating the minimum value of the loading moment sensor:

1. Park the tractor
2. Let the pick-up completely stop.
3. Reduce the current value at the loading moment sensor by 100 and enter the resulting value as the minimum value.

Additional pages for the option articulated drawbar control (only for EUROBOSS and BOSS ALPIN)

Set menu 5:



Display:

Set the drive speed of the articulated drawbar: the higher the value, the quicker the drawbar drive. Setting range 0%-100% 

Set menu 6:

Display:

current pick-up angle — act:

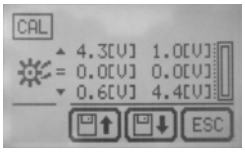
Pick-up angle in loading position: Setting the reference value. — set:

Delay after the articulated drawbar automatic mode takes over the articulated drawbar control. Runs after pressing the [Lower pick-up] key. — Δt:

Hysteresis angle: Prevents a permanent starting and stopping of the articulated drawbar in case of mild floor unevenness. Only when the angle deviation is higher than the set angle, the drawbar starts to move. — Δ:

Set menu 6.1 Calibration:

Press the key  in the Start menu to reach the calibration menu of the angle sensors.



In this mask you can identify errors of the angle sensor.

values of the angle sensors, if the pick-up is in top position	▲
current angle sensor values (must change when the pick-up position changes!)	=
values of the angle sensors, if the pick-up is in lowest position	▼

If you replace an angle sensor, both sensors must be recalibrated. To this end:

Raise pick-up completely. Press shortly the key  for "Save up-position".

- Lift the drawbar and lower the pick-up, so as the latter does not touch the floor. Press shortly the key  for "Save up-position".

Function keys:

 Edit menu entry

 scroll one page down

 scroll one page up

 Save the voltage values for the angle sensor "Articulated drawbar - Up-position" (only for option Articulated drawbar control)

 Save the voltage values for the angle sensor "Articulated drawbar - Down-position" (only for option Articulated drawbar control)

 one menu level up (in this case: Start menu)

The function of the function keys changes when a menu entry is edited.

 saves the current value of the parameter (and jumps within the row one parameter on.

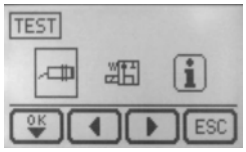
 changes the value of the parameter

 changes the value of the parameter

 one menu level back (in this case: Set menu)

Test menu

- Press key TEST in the Start menu to access the Test menu.
- Press key ESC in the Test menu to return to the Start menu.



Display:

Sensor test menu

Valve test menu

Information menu

Function keys

Confirm the selection and menu change

Scroll left

Scroll right

ESC one menu level up (in this case: Start menu)

1. Sensor test menu

- Press key in the Test menu to access the Senor test menu.
- Press key ESC in the Sensor test menu to return to the Test menu.

Display:

All sensors divided into rows

List of all possible sensors:

B1… Speed sensor

B2… Cutting unit sensor

B3… Sensor automatic loading up

B4… Sensor automatic loading down

B5… Sensor rear wall

B6… Sensor full message (either the oil pressure sensor OR the Euroboss sensor)

B7… Sensor load space door

B16 Cutter unit pivot limiter

B17 Rear wall open sensor

B19 Cutter unit in catch hook

S1… External key swing in cutting unit

S2… External key swing out cutting unit

S3… Scraper floor rear key

Function keys

one row down

one row up

ESC one menu level up (in this case: Start menu)

1. Select the row in which the sensor you wish to test is located.
2. Activated sensors, keys or switches have a black background.

2. Valve test menu

- Press key in the Test menu to access the Valve test menu.
- Press key ESC in the Valve test menu to return to the Test menu.

Display:

All valves divided into rows

List of all possible valves:

Y1… Directional control valve scraper floor forward run

Y2... Directional control valve scraper floor back run
Speed is adjustable in per cent

Y3…	Lowering directional control valve	
Y4…	Raising directional control valve	
Y5…	Poppet valve pick-up	
Y7+Y8…	Poppet valve pivoting draw-bar	
Y11+Y12…	Poppet valve cutting unit	
Y13+Y14…	Poppet valve rear wall	
Y15…	Poppet valve two-stage motor	
Y16…	Poppet valve steering axle	
Y17+Y18…	Poppet valve forage top assembly	
Y20…	Poppet valve rear wall dbv 40bar	
Y22 +Y23...	Fold front cover upwards and backwards	

TIP

All outputs are switched off again when the menu is left.

Function keys:

 selects the row currently shown

 one row down

 one row up

 one menu level up (in this case: Test menu)

The function keys have different meanings in the row.

 saves the current status of the valve (energised/deenergised) and jumps within the row one valve on.

 changes the status of the valve

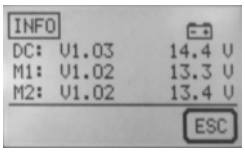
 changes the status of the valve

 one menu level back (in this case: Valve test menu)

1. Select the row in which the valve you wish to test is located.
2. Change the status of the valve you wish to change
3. Save the current status of the valve.

3. Information menu

- Press key  in the Test menu to access the Info menu.
- Press key  in the Info menu to return to the Test menu.



The Info menu provides information on the software version installed and the current voltage

Display:

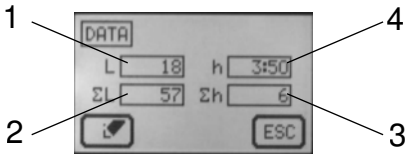
DC... Direct Control
M1... CAN I/O Module 1
M2... CAN I/O Module 2
M3... CAN I/O Module 3

Function keys:

 one menu level back (in this case: Test menu)

Data menu

- Press key in the Start menu to access the Work menu.
- **Press key ESC in the Data menu to return to the Start menu.**



Display:

1. Part counter load (L)
2. Total counter Load ∑L)
3. Total counter hours (∑h)
4. Part counter hours (h)

Function keys:

Delete the part counter for hours and load
Press (F1) for 3s to delete both part counters.
A single bleep signals completed deletion.

ESC one menu level up (in this case: Start menu)

The hour counter counts as soon as and as long as the cardan shaft is running.

The load counter counts one load, if:

- the Full message occurs
  on the following sequences:
  Rear wall open and 10s scraper floor back run active

Configuration menu

- Press key in the Start menu for 10 seconds to access the Configuration menu.
- **Press key ESC in the Configuration menu to return to the Start menu.**

Display:

All the possible equipment elements are shown in the Configuration menu. You can add the new equipment element you have bought to the control system here.

The equipment element is active when a tick is shown next to it.

The equipment element is inactive and thus unavailable to the control system when a cross is shown next to it.

TIP

You cannot control a new equipment element if it is not activated in the Configuration menu.

Equipment elements:

Machine type	Faro, Primo, Europrofi, Euroboss,
Automatic loading system	AUTO
2-stage motor	
Dosing auxiliary unit	
Steering axle	
Lighting system	
Forage top assembly	
Rear wall sensor loading full	
Automatic articulated drawbar control (only Euroboss)	
Front cover	
Rear wall open sensor	
Current rotor capacity (only Europrofi)	M

The function keys allow you to add new equipment elements to the wagon control system or to delete equipment elements no longer present.

Function keys:

selects the row currently shown

one row down

one row down

ESC one menu level back (in this case: Start menu)

The function keys have different meanings in the row.

OK saves the activation status of the current equipment element and jumps within the row to the next equipment element.

activates or deactivates the equipment element

activates or deactivates the equipment element

ESC one menu level back (in this case: Configuration menu)

Special configuration menu:

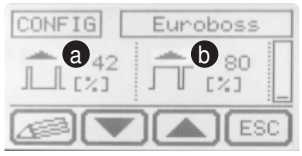
Only if you have a code known to the service technician can you reach the menu part reserved to service.

Adjusting the AUTOTAST function:

Only for service technicians

Adjust the value (Min a, Max b) using the characteristic curve of the proportional valve.

Screen "Raise":



- if the minimum value (a) is set too high, it can occur that the target value is exceeded. Stabilizing control occurs. In extreme cases the tractor-trailer combination starts to rock.
- if the minimum value (a) is set too low, it can occur that the target value is no longer attained.
- if the maximum value (B) is set too low, it can occur that the driving speed is too low.

Test:

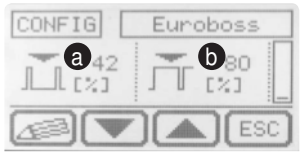
1. Bring the drawbar in minimum position.
2. Lower pick-up.
3. Switch on AUTOTAST

Does compensating control occur?

Is the target value reached?

Is the driving speed high enough?

Screen "Lower":



- if the minimum value (a) is set too high, it can occur that the target value is exceeded. Stabilizing control occurs. In extreme cases the tractor-trailer combination starts to rock.
- if the minimum value (a) is set too low, it can occur that the target value is no longer attained.
- if the maximum value (B) is set too low, it can occur that the driving speed is too low.

Test:

1. Bring the drawbar in maximum position.
2. Lower pick-up.
3. Switch on AUTOTAST

Does compensating control occur?

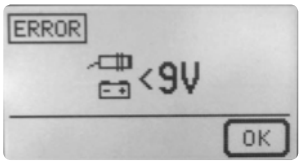
Is the target value reached?

Is the driving speed high enough?

Diagnostic function

On detecting an error

- An alarm mask appears
- An alarm is heard
- the corresponding symbol is shown



Acknowledging errors:

If an error message appears instead of the Start menu (see Diagnostic menu):

1. Remedy the malfunction
2. Press F4 until "ACK" appears on the display to acknowledge the error.

Ignoring errors:

If you cannot remedy the malfunction in situ, you can ignore the error until the next restart of the control system.

1. Press F4 until "OFF" appears.

⚠ DANGER

Danger to life caused by further operation with ignored error messages.

- Before working with ignored fault messages, always contact our client service and discuss the situation. The Pöttinger company does not assume any warranty liability for functionality if error messages are ignored.

Cutting unit monitoring

is activated when the "Lower pick-up" key is pressed with the cutting unit swung out

Indicated by:

- acoustic signal
- five blinks of the symbol 

Rear wall monitoring

is activated when the scraper floor back running is in operation and/or you press the scraper floor back running key, without having completely opened the rear wall. (Sensor B17)

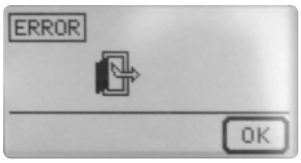
Indicated by:

- acoustic signal
- five blinks of the symbol 

Check the setting of the Full message sensor

Entrance door monitoring

All hydraulic functions stop and the following diagnostic message appears as soon as the entrance door is opened:



This message is acknowledged by closing the door.

WARNING

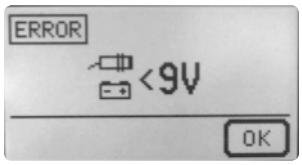
Risk of serious injury caused by entering the loading area while the scraper floor or the dosing rollers have not completely stopped.

- Enter the loading area only when the tractor engine has completely stopped and the drive shaft is uncoupled.
- Enter the loading area only when the scraper floor and the dosing rollers have stopped.
- Before closing the access door, always look around and make sure that no one is present in the loading room.

Sensor voltage

Malfunction at sensor power supply

Causes
- too low voltage on module CAN I/O
- CAN I/O module failure



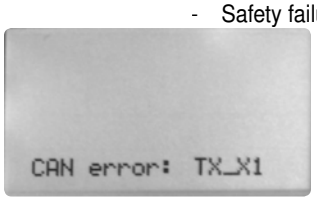
TIP

Check the voltage supply in the Test menu if there are problems with the power supply.

CAN I/O defect

The connection to a CAN I/O module is interrupted. The following diagnostic notice appears:

Causes:
- Connection to CAN module x interrupted
- Module x failure
- Safety failure.



in the figure the connection to module X1 is interrupted

Possible modules:

X1...standard control module 1

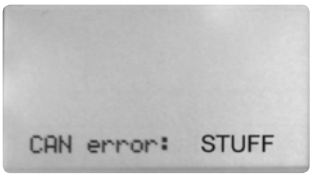
X2...control module 2

X3...articulating drawbar control

TIP

Call customer service!

STUFF

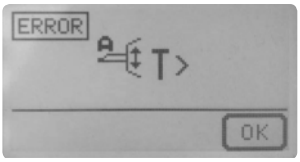


1. Control the bus connection between the operating part and the extension module.
2. Check the voltage supply to tractor

   In case that the voltage supply to tractor is insufficient, replace the cables on the tractor side from the battery to the 3-pin socket with more powerful cables (at least ∅ 2.5mm²).

Time out

If the articulated drawbar takes more than 8 seconds to go into the reference position, the following error notification appears.



Possible causes:

- no oil supply
- set increase in the Set menu
- The PWM value from the special settings is too low (modifications may only be made by the service technicians of the Pöttinger company).

Terminal performance features

Electrical connection

The power supply for the entire electronic system (job calculator and terminal) is conducted through a plug (compliant with DIN 9680) from the tractor's 12V onboard electrical system. These 3-pin plugs may also be 2-pin versions as only two main wires (+12 V, ground) are required.

NOTE

Property damage exists through other types of plugs.

- Only use genuine Pöttinger plugs or plugs of the same type.

Technical data

Operating voltage:	+10V ..... +15V
Operating temperature range:	-20°C .... +60°C
Storage temperature:	-30°C .... +70°C
Degree of protection:	IP65
Fuse:	10A multifuse in an operating voltage plug

Function

All the functions of your implement can be directly controlled through the Power Control Terminal. Moreover, the Power Control Terminal has a big display for information regarding the current operating status as well as various menus and alarm messages. A prerequisite is a single-acting hydraulic circuit with depressurised return or load sensing.

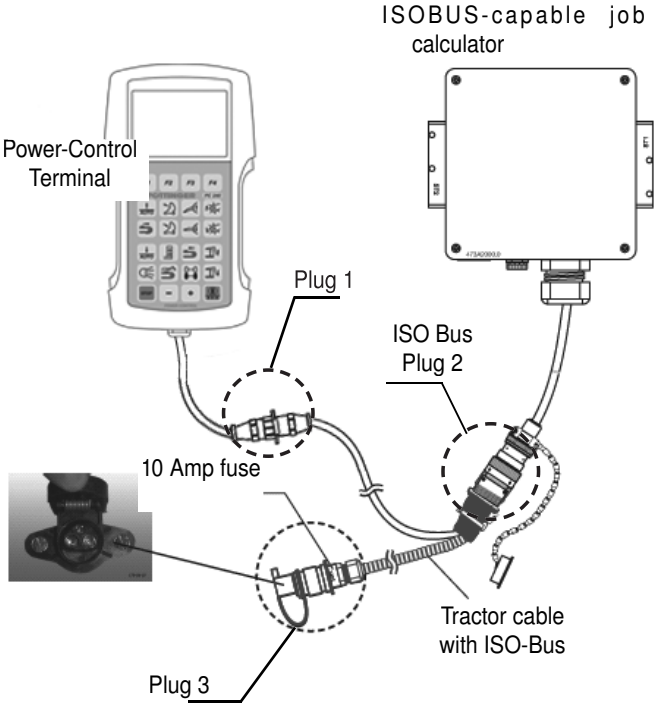
Initial start

Initial operation of the Power Control Terminal

1. Position the Power Control Terminal in tractor cabin where it can be clearly seen. (To secure the terminal there is a holder on the back.
2. Connect terminal to tractor cable with plug 1.
3. Direct the job computer cable from the machine into the tractor cab and connect it with the tractor cable via the ISOBUS plug (2). (Make sure the cables are properly routed!)
4. Connect the tractor cable plug (3) to the tractor's 12V power supply.

To activate terminal, press key "I/O"  .

To deactivate terminal, press key "I/O"  for three seconds.



Key assignment

Function keys

[a] Function key 1*
[b] Function key 2*
[c] Function key 3*
[d] Function key 4*

Loading function keys

[e] Automatic loading
[f] Fold in cutter unit
[g] Extend pivoting drawbar – raise trailer
[h] Raise pick-up
[i] Scraper floor back running / loading
[j] Fold out cutting unit
[k] Retract pivoting drawbar – lower wagon
[l] Lower pick-up

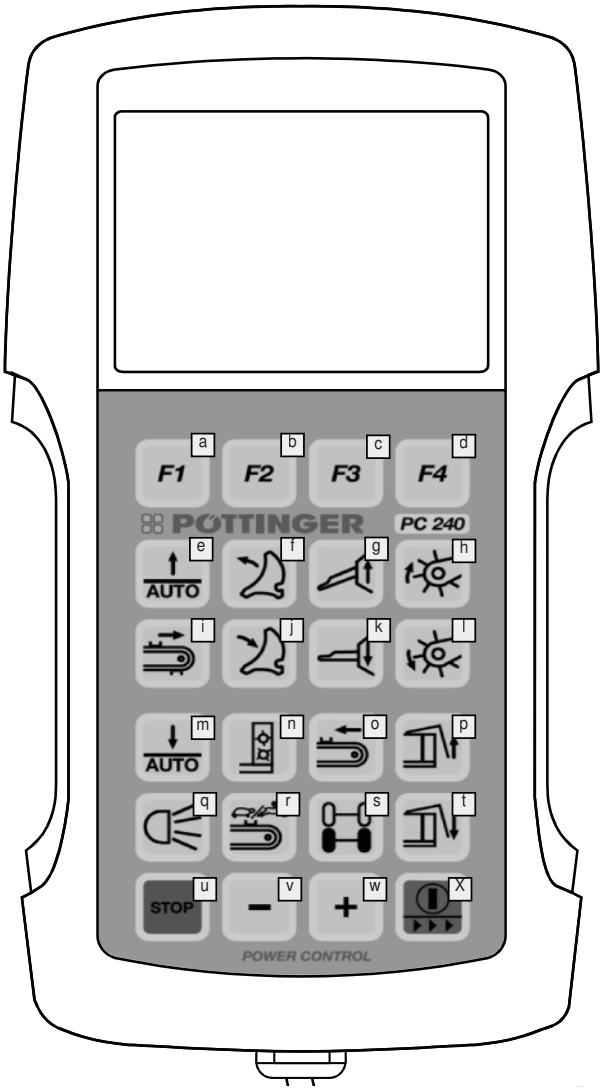
Unloading function keys

[m] Automatic unloading
[n] Dosing rollers on - off
[o] Scraper floor forward running
[p] Open tailgate
[q] Lighting
[r] Unloading scraper floor
Optional 2-stage motor slow – fast
[s] 1) Lock - unlock steering axle
2) Electronic positive steering (optional) lock - unlock
[t] Close tailgate
[u] STOP
[v] Decrease value
Reducing scraper floor speed
[w] Increase value
Increasing scraper floor speed
[X] On-Off / Menu change

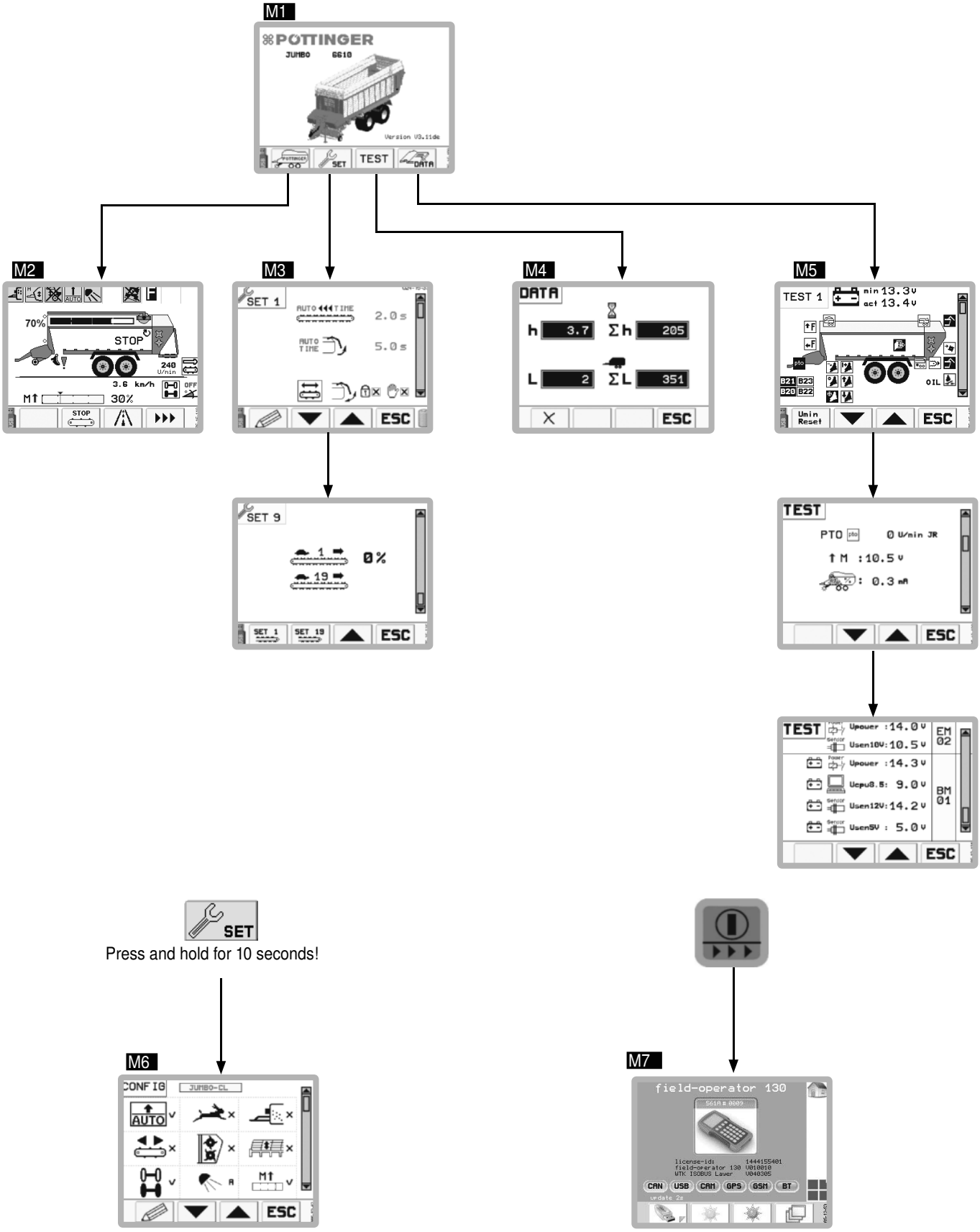
Press the On/Off key for a longer time to turn on the Power Control Terminal.

Press the [On/Off] key to reach the next system menu.

Press and hold the On/Off key for a longer time to turn off the Power Control Terminal.*



Menu tree


M1
POTTINGER
JUMBO 6610
TEST
DATA
M2
70%
STOP
3.6 km/h
30%
M3
SET 1
2.0 s
5.0 s
ESC
SET 9
0%
M4
DATA
h 3.7
Σh 205
L 2
ΣL 351
ESC
M5
TEST 1
min 13.3 v
act 13.4 v
ESC
TEST
PTO 0 U/min JR
M :10.5 v
: 0.3 mA
ESC
TEST
Upower :14.0 v
Usen10V:10.5 v
Upower :14.3 v
Ucpu8.5: 9.0 v
Usen12V:14.2 v
Usen5V : 5.0 v
EM 02
BM 01
ESC
SET
Press and hold for 10 seconds!
M6
CONFIG
JUMBO-CL
ESC
M7
field-operator 130
CAN USB CAN GPS GSM BT

General safety information

DANGER

Life-threatening danger exists through the simultaneous operation on tractor and external keys.

- When operating the external buttons, please ensure that nobody is operating the device via the tractor terminal cabin simultaneously, and vice versa. If operating the device at the same time is unavoidable, special care must be taken. A responsible agreement between the persons involved must be carried out beforehand.
- Pressing a key on the external keypad extends the operational readiness of this key by 30 seconds. Make sure that no one is pressing the keys on the external keypad while they are in the danger zone.

DANGER

Life-threatening danger exists through entering the machine's danger areas. (e.g. between machine and tractor, at the rear of the machine, under the machine, ...)

- When operating the device, make sure that nobody is in a danger zone. One example: Danger of injury exists if someone is located at the rear of the trailer and someone in the tractor cab triggers a switching function (open tailgate, switch on drive,. . .)

NOTE

Property damage caused by moisture penetrating the operating terminal.

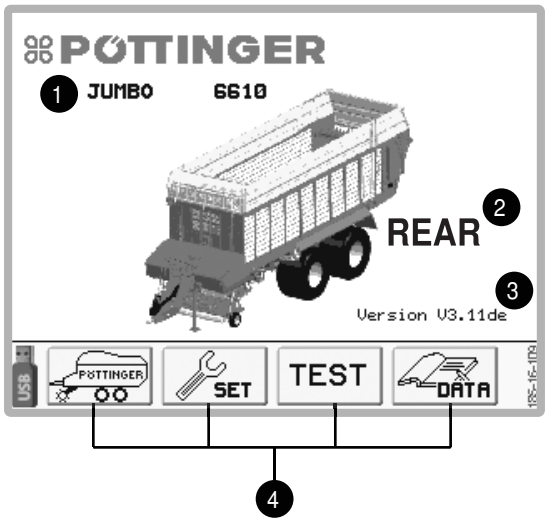
- Do not leave the control terminal out in the weather.

Menus

Start menu

M1

After turning on the Power Control Terminal the Start menu appears.



Display:

1 … Loading vehicle type
2 ... Rear wheel operation on
3 ... Software version
4 ... Function keys

TIP

Function keys are used differently in every menu. The configuration is listed separately for each menu.

Function keys:

... Work menu M2

... Set menu M3 / prolonged pressing: Configuration menu M6

... Data menu M4

... Test menu M5

Rear operation:

Rear wheel operation means:

1. To be connected to the rear socket with a wired terminal or
2. radio operation with a wireless terminal. The wireless terminal is not in the loading station.

When the terminal is in rear wheel mode, the word "HECK" (1) appears in the start menu. If you do not use the rear wheel mode, you will not see any writing in position 1.

In rear wheel mode the following hydraulic functions are locked:

1. Pickup
2. Cutting unit
3. Automatic loading
4. Scraper floor retracting when loading

Work menu

M2

TIP

Any menu can be exited by pressing the ESC key.

ESC

TIP

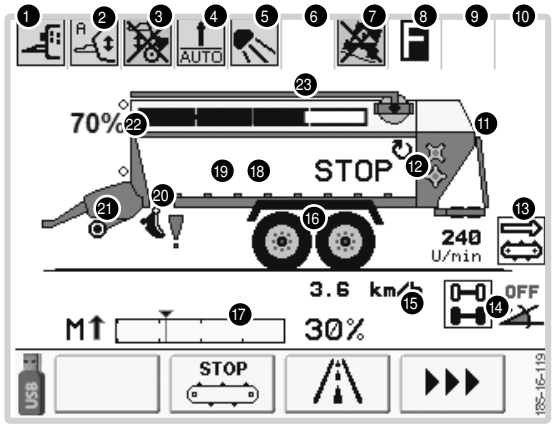
The STOP key stops all hydraulic functions and switches off the dosing rollers.

STOP

In Start menu, press function key F1 to go into Work menu.

Press function key F4, to return to the Start Menu.

Display:



TIP

If a symbol in the bar 1-7 is not shown, the related hardware is not installed or it is not configured in the configuration menu.

1. Dosing agent attachment active / inactive

	active - dosing agent is added as long as the pick-ups are in working position.
	Inactive - dosing agent is not added

2. Automatic control of the loading position active / inactive

A	automatic control of the pivoting drawbar loading position active
	Automatic loading position control inactive

TIP

The function will only be executed as long as the cardan shaft is running.

The automatic loading position control ensures that when the [Pick-up] key is pressed and held, the pick-up and the pivoting drawbar reach their positions consecutively.

Operation:

- Press and hold the [Lower pick-up] key in order to
  1. Lower the pick-up (latching).
  2. A signal tone sounds to indicate that the drawbar will now be lowered.
  3. Lower drawbar to loading position (use key)

TIP

After lowering the pick-up, a signal tone sounds to indicate that the drawbar will now be lowered:

- Release the [Lower pick-up] key if you do not wish to further lower the pick-up.
- Press and hold the [Lower pick-up] key if the drawbar is to be lowered to the loading position.

- Press and hold the [Raise pick-up] in order to
  1. Raise the pick-up (use key).
  2. A signal tone sounds to indicate that the drawbar will now be raised.

TIP

The time delay for this signal is set in the Set menu (see chapter "Set menu").

3. Raise the drawbar to the road transport position (use key)

3. AUTOTAST pivoting drawbar

	AUTOTAST pivoting drawbar active
	AUTOTAST pivoting drawbar inactive

TIP

The function will only be executed as long as the cardan shaft is running.

The AUTOKEY pivoting drawbar control ensures that the drawbar always runs parallel to the pick-up.

Briefly pressing Key [ ] activates the AUTOKEY pivoting drawbar control.

Pressing the key rearranges the indication on the display (position 3 in the work menu). The automatic pivoting drawbar control starts only after lowering the pick-up and the time delay expires. This delay can be set in the Set Menu (standard setting: two seconds after activation of the key [Lower pick-up])

If the keys [Raise pivoting drawbar] and [Lower pivoting drawbar] are used to manually operate the drawbar, then the AUTOKEY pivoting drawbar control turns off.

4. Automatic Loader- unloader

AUTO	Automatic charging active
AUTO	Automatic charging inactive
AUTO	Automatic unloading system active

5. Lighting system

	Light on		Light off
A	Automatics on Light on	A	Automatics off Light off

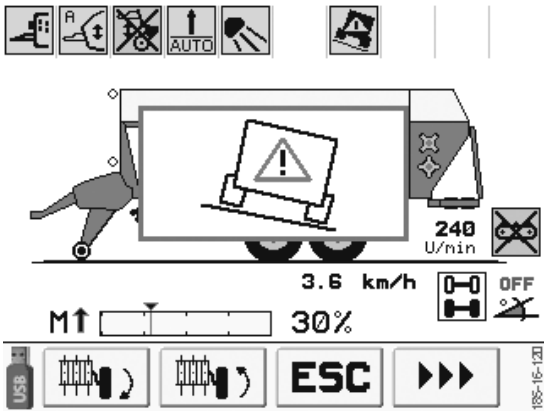
6. Position currently not occupied

7. Inclination angle monitoring

	Inclination angle monitoring active
	Inclination angle monitoring inactive

Inclination angle warning

For active inclination angle monitoring and exceedance of the inclination angle configurable in the set menu, there is an inclination angle warning in the work menu.



TIP

This notification does not have any safety task. It only serves to inform the driver about the inclination state of the device.

The limit belonging to the notification is set by the driver.

The driver is responsible for any inclination changes done by himself.

8. "Full" notification

F	If the symbol is displayed, the trailer is full.

9. Position currently not occupied.

10. Error message positive steering components

See chapter Electronic positive steering (EZL) - fault messages

11.Tailgate

Open		Closed	
open		Close	
Lock		Tailgate fixing active	
			not available*

***without dosing rollers**

12. Dosing roller off / on / not available

	Dosing roller, off		Dosing roller, on
	not dosing rollers		

13. Cross conveyor status

	The cross conveyor belt (mechanical or hydraulic) switched off.
	Mechanical cross conveyor runs in the direction set
	Hydraulic cross conveyor direction, right
	Hydraulic cross conveyor direction, left
240 RPM	Speed of the cross conveyor belt

14. Trailing status manual

	Steering axle continually unlocked
	Steering axle is just being locked
	Steering axle is locked

DANGER

Danger to life if steering axle is not locked

- Lock the steering axle in the following situations:
  - for fast, straightforward runs exceeding 30 km/h
  - on earth roads
  - on inclines
  - on relief of the front axle by pivoting drawbar operation
  - on overrunning of the horizontal silo
  - when the side guide of the non-steered axle is no longer sufficient

14A. Trailing axle automatic (with Isobus connection) or intelligent trailing axle

The speed signal required for automatic operation is available only if the Power Control Terminal is connected to the tractor via the ISOBUS cabin socket or if a speed sensor is installed on the wheel.

Configure this option in the configuration menu

	Steering axle manually unlocked
	Steering axle is being locked automatically For settings see SET menu
	Steering axle manually locked

14B. Display of the current slope inclination (for intelligent trailing axles)

The automatic trailing axle and the inclination sensor are activated in the configuration menu, otherwise this feature is not available and the angle sign is not displayed.

	The current slope inclination is smaller than the limit which you have set for the automatic locking of the steering axle.
	The current slope inclination is bigger than the limit which you have set for the automatic locking of the steering axle. In automatic mode the steering axle would then be locked.

TIP

This notification does not have any safety task. It only serves to inform the driver about the inclination state of the device.

The limit belonging to the notification is set by the driver.

The driver is responsible for any inclination changes done by himself.

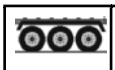
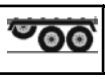
14C. Electronic positive steering (EZL, optional)

	Positive steering locked. Axles are in the centre position		Electronic positive steering active

15. Current speed of device

The current speed is only displayed when the Power Control Terminal is connected to the tractor via the ISObus cabine socket or if the loading vehicle has an intelligent trailing axle.

16. Lift axle status

	Lift axle lowered		Lift axle raised
	no lift axle		

TIP

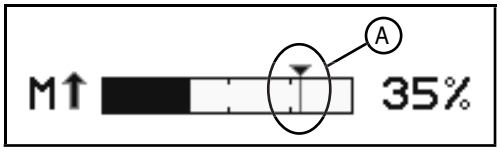
If the bearing load is too high, the lift axle cannot be raised. If the bearing load exceeds the critical level - while the lift axle is raised - then the lift axle will automatically be lowered.

TIP

Only Tridem models have a lift axle.

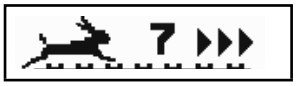
17.Current rotor capacity

(only shown with lowered pick-up) current state of the loading sensor



When the pick-up is lowered, the release torque (A) for the scraper floor can be adjusted using the [+] and [-] keys.

18. Scraper floor status



Stop / forward / reverse

STOP	Stopped	◀◀◀	Reverse
▶	Slow forward	▶▶▶	Fast forward
7	Speed		

Speed level

	Slow		Fast

TIP

The scraper floor always moves at maximum speed when loading.

19. Weight display

13450 kg	Display of the weight of the current additional load. (only with weighing device)

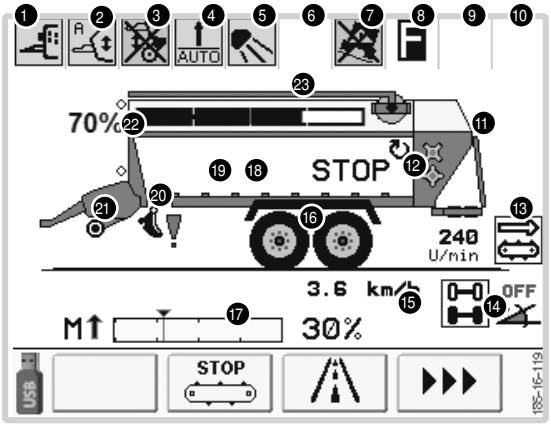
20.Cutter unit position swivelled out / in

	Cutting unit swivelled in
	Cutting unit swivelled in
	Cutting unit position unknown - Fault with the cutting unit monitoring (only TORRO) Swivelling the cutting unit is only possible with the external keypad and on demand.

NOTE

Material damage due to components colliding

- Do not swivel the cutting unit while the cutting unit symbol is blinking. (with automatic knife grinding device)



21. Pick-up position, raised/lowered

	Raised		Lowered

WARNING

Risk of serious injury through the drawing-in of clothing or body parts.

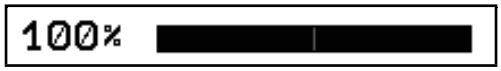
- Do not operate the machine if the deflector plate or the side casings are dismantled.
- Do not change the settings of the deflector plate while the pick-up is turning and the cardan shaft is connected.

21A.Pick-up Super Large 2360: Feeler wheel position

	Position for road transport		Midway position or sensor fault

An acoustic warning signal also occurs with an "Midway position or sensor fault".

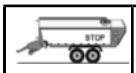
22. Full level display (optional)



The fill level display always shows the highest measured value.

When the tailgate is closed after unloading, the fill level display value is reset to the current value.

23.Load safeguard, front / rear

	Front (End position)		Rear (End position)

If the load safeguard travels forward or backward, or is located in the midway position, the symbols will blink.

NOTE

Property damage through the collision of the load safeguard with the surrounding objects

- Do not activate the load safeguard in road traffic.
- Activate the load safeguard only at a standstill.
- Do not activate the load safeguard in the vicinity of high-voltage lines or trees, under bridges, in tunnels or in rooms that are lower than or equally high as the highest possible total height of the machine.
- If the load safeguard clamp is in midway position, it is possible that the maximum transport height has been exceeded.

TIP

The load safeguard can only be operated with the tailgate closed.

Function keys


Blade sharpening unit menu - see Autocut operating instructions


Raise dry fodder top frame - only if activated in configuration menu.


Lower dry fodder top frame - only if activated in configuration menu.


Dosing agent additive on/off - switches automatic dosing agent additive unit. Dosing agent is added only when pick-up is lowered


Close load safeguard*


Open load safeguard*


Fold front covers** forward


Fold front covers** up


Fold upper front covers down - the front cover moves as long as the key is pressed.


1. Fold upper front covers up - the front cover moves as long as the key is pressed.
2. Further function keys - press key briefly.


Further function keys

Go up one menu level (here: Start menu)


Swivel feeler wheels into working position (hold depressed until process is completed).


Swivel feeler wheels into road operation (hold depressed until process is completed).


Approach the road position of the pivoting drawbar


Raise lift axle (cautiously)


Lower lift axle (cautiously)


AUTOKEY pivoting drawbar control, on/off


Weighing unit menu display


Terminal change key

- Hold down key for 2 seconds to operate the Pöttinger controlling on a different terminal

Note: Each terminal must be assigned its own VT number Refer to the terminal's operating instructions.

* Load safeguard can only be controlled when the tailgate is closed.

** Bottom front covers can be operated only when the load safeguard is open. Front flaps are only available for Jumbo Combiline.

Hydraulically controlled cross conveyor

1. Automatic unloading with cross conveyor.

1. Press the corresponding key AUTO, AUTO to start automatic unloading with cross conveyor.

   For the function sequence see Hard keys Automatic Unloading System

2. Manual cross conveyor operation.

TIP

The tailgate must be open to be able to manually start the cross conveyor.

1. Press key to access the cross conveyor menu.

TIP

There are only 3 seconds to enter the direction of the cross conveyor. If no value is entered, the preselection will be deleted after three seconds.

2. Press the corresponding direction key , to enter the chosen cross conveyor direction. The cross conveyor starts upon keystroke without delay.
3. Use key STOP to stop the cross conveyor function at any time.

Mechanical cross conveyor

(only Euroboss)

TIP

When using the cross conveyor, ensure that the tailgate is always open as far as possible. Thereby ensuring there is no gap between the tailgate and the cross conveyor.

1. Automatic unloading with cross conveyor.

1. Press key M AUTO to start automatic unloading with cross conveyor.

TIP

Manually selecting a direction is not possible with a mechanical cross conveyor. Re-position the PTO to change the direction

2. Manual cross conveyor operation.

TIP

The tailgate must be open to be able to manually start the cross conveyor.

1. Press key to set the cross conveyor in motion.
2. Use key STOP to stop the cross conveyor function at any time.

Function sequence of automatic unloading system

1. Open the tailgate 1)
2. Switch on cross conveyor 2)
3. Scraper floor is briefly switched to forward running 3)
   - Fodder pressure at dosing roller is reduced
4. Switch on dosing rollers 3)
5. Scraper floor is unloaded at the speed last saved.

1) Only for trailers without cross conveyor or with stationary cross conveyor

2) Only for trailers with cross conveyor

3) only for trailers with dosing rollers

Functional sequence when automatic unloading is interrupted:

Briefly press key [Close tailgate] during an automatic unloading procedure in order to interrupt the automatic unloading.

1. Symbol in display starts flashing
2. Opened tailgate is slowly lowered.
3. Unloading is interrupted!

   Switching off the:
   - Scraper floor drive
   - Discharge beaters
   - Cross conveyor
4. Hydraulic to lock the tailgate is activated.

   The tailgate is only closed and locked when the symbol in the display goes out.

TIP

The function "Start automatic unloading system" becomes active only after the button is held down for 1 second. (Safety measure for road travel).

Function keys:

Automatic unloading with cross conveyor / left running

Automatic unloading with cross conveyor / right running


Cross conveyor preselection


Direction selection, left


Direction selection, right

Cross conveyor stop

Hard keys: Loading

Automatic loading

Press the key [Automatic loading] to switch automatic loading on or off.

Switching the automatic loading on or off is only possible with the tailgate closed!

Control of automatic loading via

- Full level flap, down
- Full level flap, up
- Load torque sensor

Automatic loading function sequence:

- Scraper floor drive is switched on automatically
- Load material is moved back a short distance
- The procedure is repeated until the loading space is full

The trailer is full when the fodder presses

- Against the lower dosing roller or
- Against the tailgate (trailer without dosing equipment)

When the trailer is full,

- "Full" appears in the display.
- Counter for the number of loads increases by one.

TIP

The automatic loading only needs to be switched on once. After the “Full” notification it is automatically paused, however, after unloading it is switched on again automatically.

The automatic loading settings are located in the SET menu. The setting remains unchanged even after switching the system on and off.

TIP

Counter for the number of loads increases:

- “Full” notification or
- sequence of the following states: "Tailgate closed --> Tailgate open --> Scraper floor reverse for 10 seconds".

Scraper floor back run

Press the key [Scraper floor back run] to let the scraper floor run at maximum speed in the loading direction (e.g.: toward the tailgate). The scraper floor moves as long as the key is pressed. Except when the trailer is full.

Fold in cutting unit

Press the key [Fold in cutter unit] to retract the cutter unit. The cutter unit moves in the direction of the conveyor duct until end position is reached as long as the key is pressed. (same function as on external keypad). As long as the target position has not been reached, you will see the cutter unit with the last position on display. See work menu point 20

Swivelling in is possible only if:

- Sensor B19 "Cutter unit in arrester hooks" is active (only for TORRO series xx10 and EUROPROFI series xx10). This means that the cutting unit has been folded back to swivel-out position correctly.
- The blade sharpening unit (optional) is in the park position.

The function "Fold in cutting unit" is also available via the external keypad left in the direction of travel above the pick up.

Fold out cutting unit

Press the key [Fold out cutting unit] to fold out the cutting unit. The cutting unit moves out of the conveyor duct to the end position, as long as the key is pressed. As long as the end position has not been reached, the cutting unit will be seen on the display.

The function "Fold down cutting unit" is also available via the external keypad left in the direction of travel above the pick up.

Raise pivoting drawbar

Press the key [Raise pivoting drawbar] to raise the front part of the trailer. The front part of the trailer will lift as long as the key remains pressed.

The function "Lift pivoting drawbar" is also available via the external keypad left in the direction of travel above the pick up.

Lower pivoting drawbar

Press the key [Lower pivoting drawbar] to lower the front part of the trailer. The front part of the trailer will lower as long as the key remains pressed.

The function "Lower pivoting drawbar" is also available via the external keypad left in the direction of travel above the pick up.

Lift pick-up

Press the key [Raise pick-up] to lift the trailer pick-up. The pick-up lifts as long as the key remains pressed.

If the automatic control of the loading position is active, the pivotal drawbar is also controlled with the pick up. Hold the key.

Lower pick-up

Press the key [Lower pick-up] to lower the ltrailer pick-up to end position. Then the pick-up remains in the floating position.

If the automatic control of the loading position is active, the pivotal drawbar is also controlled with the pick up. Hold the key.

TIP

If the the cuttingunit is folded out and the pick-up is lowered, an acoustic alarm signal will sound and the symbol on display blinks three times.

Stop

- Stops all hydraulic functions and disconnects the dosing rollers.
- Switches off the currently active automatic functions.

Hard keys: Unloading

Automatic unloading

Press the key [Automatic unloading] until a signal tone is heard. Only after that:

- Automatic unloading switched on or off
- Active automatic unloading shown on display

A. Function sequence of automatic unloading system:

TIP

Before starting automatic unloading you must:

1 . Bring the cross conveyor to the working position

2 . Secure the tailgate

1. Switch on cross conveyor
2. Scraper floor is switched to forward run (only for trailers with dosing rollers)

   The time is adjustable in the SET menu under "Scraper floor lead time".

   - Fodder pressure at diosing roller is reduced
   - Warning appears in display
3. Switch on dosing rollers (only for trailers with dosing rollers)
   - Warning appears in the display
4. Switch on cardan shaft at tractor
5. Scraper floor is unloaded at the speed last saved.

B. Functional sequence when automatic unloading is interrupted:

Briefly press key  [Close tailgate] during an automatic unloading procedure in order to interrupt the automatic unloading.

TIP

As with all hydraulic functions, the automatic unloading can be interrupted with the STOP button. It results in the cancellation of all other controllable hydraulic functions, and the tailgate does not close.

1. Symbol on display starts flashing.
2. Opened tailgate is slowly lowered.
3. Unloading is interrupted!

   Switching off the:
   - Scraper floor drive
   - Dosing rollers
4. Hydraulic to lock the tailgate is activated.

   The tailgate is only closed and locked when the symbol in the display goes out.

TIP

The function "Start automatic unloading system" becomes active only after the button is held down for 1 second. (Safety measure for road travel).

TIP

A U T O M A T I C U N L O A D I N G :
The current scraper floor speed is automatically saved after a running time of 10 seconds and is used for the subsequent unloading procedure!

Dosing rollers on/off

Press the key [Dosing rollers on/off] to switch dosing rollers on or off. Switched on dosing rollers are shown on the display.

- Dosing rollers can only be switched on when the tailgate is open.
- If the rear wall closes, the dosing rollers switch off automatically.

Scraper floor forward running

Press the [Scraper floor forward running] key to let the scraper floor run at maximum speed against the loading direction (i.e.: the pick-up direction). The scraper floor moves as long as the key remains pressed.

TIP

If the [Scraper floor forward running] key is pressed while the scraper floor is running back, the scraper floor will stop. Press the key again to restart the forward running.

Opening the tailgate

Press the key [Open tailgate] to open the tailgate automatically. The tailgate opens as long as the key remains pressed.

- When the tailgate is opening or closing, it is displayed on screen.
- Note! The function "Open tailgate" is activated after an 8 sec. delay. This is a safety function for road transport.

WARNING

Risk of serious injury caused by a moving tailgate.

- Ensure that no one is standing in the tailgate's swivel range.

Close tailgate

Press the key [Close tailgate] briefly to close the tailgate automatically. The tailgate is lowered slowly and without pressure, and in the final stage it is closed and locked using pressure. Activated scraper floors, dosing rollers and cross conveyors are switched off

WARNING

Risk of serious injury caused by a moving tailgate.

- Ensure that no one is standing in the tailgate's swivel range.

TIP

As long as the closing process takes place without pressure, the symbol "Close tailgate" blinks on the display. If the tailgate is closed and locked with pressure, the symbol stops blinking and an arrow is displayed to indicate locking.

TIP

If the rear wall is being opened or closed, an acoustic signal is heard during the entire procedure.

Hard keys: General functions

Light on/off

Press the key [Light on/off] once to switch on machine lighting.

Press the key [Light on/off] twice to activate automatic lighting. The light will be automatically switched on when the tailgate opens.

Press the key [Light on/off] one more time to switch off lighting or automatic lighting.

Unload scraper floor / 2-stage motor

Press the key [Unload scraper floor/2 stages] to switch on scraper floor. Press the key again to change the speed level (slow/fast).

In slow mode (turtle): Change the speed using the [+] or [-] key.

In fast mode (hare):

- Scraper floor runs at maximum speed
- Speed display value stays the same.
- 2-stage motor version: The 2-stage motor valve is activated.

TIP

When the "sensor monitored rear wall opening" in configuration menu is activated, the scraper floor can only be switched on after the sensor has triggered. That is, after the rear wall is completely open.

Trailing steering axle on/off

Press the key [Steering axle on/off] to unlock or to lock the trailing steering axle. The current state of the steering axle is shown on the display.

Beware! If the trailing axle locking function is interrupted by another function, the axle will subsequently be locked again.

Beware! Before road transport, check the function of the trailing steering axle (lock for short reverse runs).

When using the trailing axle automatic or the intelligent trailing axle, this key can be used to switch between the ON - AUTO - OFF functions. see 14A. Trailing axle automatic or intelligent trailing axle

⚠ DANGER

Danger to life if steering axle is not locked

- Lock the steering axle in the following situations:
  - for fast, straightforward runs exceeding 30 km/h
  - on earth roads
  - on inclines
  - on relief of the front axle by pivoting drawbar operation
  - on overrunning of the horizontal silo
  - when the side guide of the non-steered axle is no longer sufficient

Electronic positive steering (EZL) on/off

To centre and lock the electronic positive steering, depress the [Electronic positive steering on/off] key until the symbol [Axle locked] appears in the display.

The symbol [Axle locked] flashes while the axle is straightening.

If the [Electronic positive steering on/off] key is released before the axles are centred, the control automatically jumps to road operation mode.

Briefly press the [Electronic positive steering on/off] key to change to road operation mode. The symbol in the display changes to road operation.

SET menu

M3

Diverse speeds, lead times and switch-on points can be set in the Set Menu.

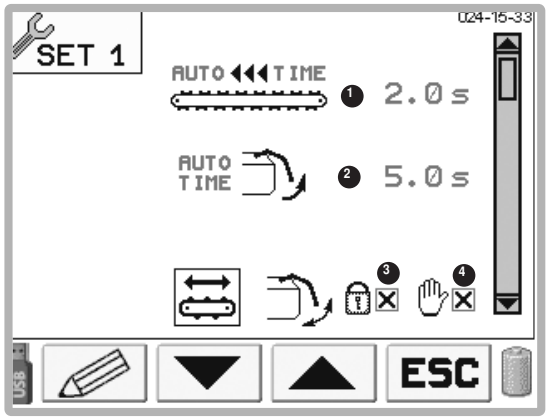
- Press function key F2 in the start menu to access the set menu.
- Press the function key F4 to go back to start menu.

TIP

Before initial operation of the control, some settings must be made to enable correct function.

Confirm this changed setting by pressing the OK key.

Set menu 1:



1 Scraper floor running time for the automatic unloading

(Only for trailers with dosing rollers.)

This forward running time serves to relieve the dosing rollers when the automatic unloading is active. After the tailgate has been opened, the scraper floor conveys fodder to the dosing rollers for the time period set.

Adjustment range: 0.1 - 3 sec

(Standard value 0.7 seconds)

2 Time needed for tailgate to open

(with active automatic unloading)

This opening time specifies how long it takes to open the tailgate hydraulically.

Adjustment range:

Trailer with dosing roller: 1 - 10 sec

Trailer without dosing rollers: 5 -10 sec

TIP

When the "sensor monitored tailgate opening" is active, the timer does not trigger. The tailgate keeps opening until the sensor reacts.

3 Securing the tailgate

(with active automatic unloading)

The tailgate securing device fixes a discharge width during automatic unloading for all trailers whether mechanical or hydraulic cross conveyor.

While the tailgate securing device is functioning, the tailgate cannot be moved using the [Tailgate open/ close] key. However, automatic unloading can still be stopped with this key.

TIP

When using the cross conveyor, ensure that the tailgate is always open as far as possible. Thereby ensuring there is no gap between the tailgate and the cross conveyor.

TIP

(Only for trailers with hydraulic cross conveyor.)

There are two keys at the rear of the trailer which enable the tailgate to be moved while the fixing device is active. These keys have no function unless the tailgate fixing is active.

Adjustment range active / inactive.

For hydraulic cross conveyor:

If the cross conveyor is brought into position physically, a sensor switches the parameter "Tailgate fixing" to active, then back again to inactive when the cross conveyor is returned to the transport position.

This parameter can be switched manually in the Set menu if there is a problem with the sensor.

For mechanical cross conveyor:

Switch on/off the tailgate fixing in the set menu 1 via this field.

4 Tailgate float position (only EUROBOSS)

TIP

This function is only active as long as the Set menu has been accessed and the function is switched on with a tick. The function is automatically deactivated when the Set menu is exited.

The tailgate float position function helps when adjusting the tailgate securing position, because the hydraulic cylinders responsible for opening the tailgate are placed in the float position. This makes it easier to move the tailgate manually and therefore easier to place it in the correct position for securing.

Function keys

 ... Edit menu entry

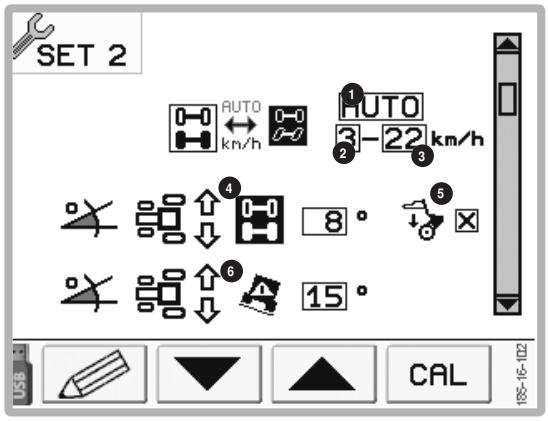
 ... scroll down

 ... scroll up

ESC ... change to a superior menu

(here: Start menu)

Set menu 2:



1 Steering axles operating mode

- Manual operation (MANUAL)

  The steering axle is released manually in the WORK menu.

  The AUTO function is not available in the WORK menu.

- Automatic operation: (AUTO)

  The steering axle is either released and locked depending on the speed or with the intelligent trailing axle. For the intelligent trailing axle the inclination sensors (4, 5) are required.

  In the work menu the automatic decisions can be reset manually.

2 **Lower limit for automatic operation**

The lower limit is adjustable between 0 and 3 km/h.

3 **Upper limit for automatic operation**

The upper limit is adjustable between 10 and 25 km/h

4 **Limit of the lateral ground inclination for axle locking in automatic mode**

If the angle of the ground inclination is bigger than the set value, the steering axle will be locked.

0° means that the axle locking is switched off.

5 **Limitations of the steering axle lock**

✓ = Locking of the steering axle due to exceeding the (configurable) limit value only works with lowered pickup

x = no limitations of the lock

6 **Limit of the lateral ground inclination for warning messages**

If the angle of the ground inclination is bigger than the set value, the warning message will be displayed.

0° means that the warning message is switched off.

TIP

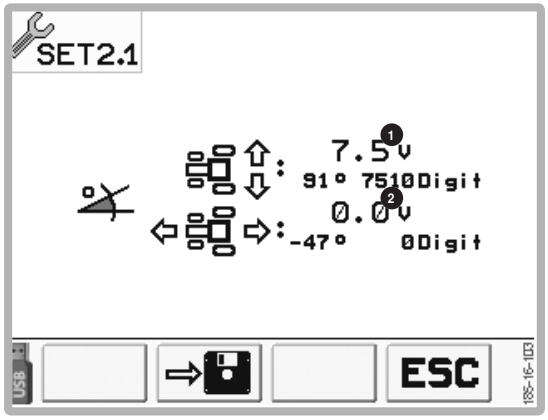
The inclination limits (4, 5) belong to the information displays in the work menu.

These information displays are to support the driver.

The driver is still responsible for any inclination changes done by himself.

Speed	Condition of steering axle
Negative (reverse)	Locked
< lower limit	Locked
> Lower limit and < Upper limit	**Released**
> Upper limit	Locked

Set menu 2.1: Calibration menu for inclination sensor



1 **current value for the lateral inclination**

2 **current value for the lateral inclination in the direction of travel**

Function keys:

 ... Calibrate the inclination sensor

1. Put down the device sidewise and horizontal in the direction of travel
2. Keep key pressed for 2 sec

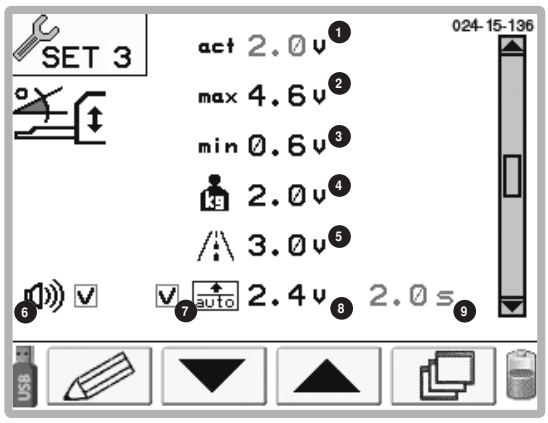
The sensors for the lateral inclination and inclination in the direction of travel are calibrated to 0°.

ESC ... change to a superior menu

(here: Start menu)

Set menu 3

(only if drawbar sensor has been configured)



1 Current tension on the pivoting drawbar
2 Maximum tension on the pivoting drawbar
3 Minimum tension on the pivoting drawbar
4 Tension value for weighing unit
5 Tension in transport position
6 Acoustic warning when the automatic pivoting drawbar begins to move, on (✓)/off (×)
7 Automatic control of the loading position of the pivoting drawbar.

When the "automatic control of loading position" is activated (✓ = active), then every time the key  [Lower pick-up] is pressed, the load position will be approached, provided it has not already been reached. When pressing the key [Lift pick-up], the drawbar goes ito street position after the delay period.

TIP

This function is only active as long as the cardan shaft is turned on.

8 Tension in loading position (adjustable)
9 Delay interval for the automatic control of the pivoting drawbar in street position ("0.0" = start of street position is switched off. At a value of ≥ 0.1 the delay is switched on.)

Save tension values

Using keys [Raise pivoting drawbar] and [Lower pivoting drawbar], the current tension value (1) can be changed.

Save the tension value for the current position (2-6) with the function keys (see table "Function keys").

These keys are accessible via the [Continue] key on the display.

Function keys

 ... Raise the pivoting drawbar and save the maximum value

 ... Lower the pivotingdrawbar and save the minimum value

 ... save current value for weighing unit

 ... Save transport position

 ... Save loading position

 ... Edit menu entry

 ... scroll down

 ... scroll up

 ... Other function keys

ESC ... go to superior menu (here: Start menu)

Controlling the loading position (7)

When the "Controlling the loading position" is active (✓ = active), then every time the key  [Lower pick-up] is pressed, the load position will be approached, provided it has not already been reached. When pressing the key [Raise pick-up], the drawbar goes in street position after the delay period.

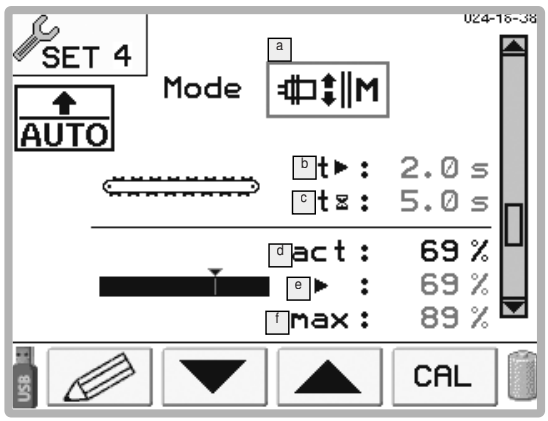
TIP

The triggering of both positions is performed cautiously, that is, the pivoting drawbar is only moved as long as the relevant key remains pressed.

Modifying vtension values in loading position (8)

1. Press [].
2. Change the value with the keys [−] or [+].
3. Press the function key [OK] to save the value.
4. Press ESC to exit the change screen.

Set menu 4: Automatic loading



Display

a Sensors that switch on automatic loading. There are three modes for the load torque sensor. Without the loading moment sensor only the first mode is available:

Switch-on conditions:

Mode 1:	The upper and the lower sensor must react so that the scraper floor switches on. The upper sensor starts the scraper floor with the time delay. The lower sensor starts the scraper floor immediately.
Mode 2:	The upper and the lower sensor, or the load torque sensor must react so that the scraper floor switches on. The sensor that reacts first will switch on the scraper floor. The time delay becomes effective when switching via the upper sensor or the load switching limit f of the loading moment sensor.
Mode 3:	In order for the scraper floor to switch on, the upper sensor must react and the value of the loading moment sensor must be above the value of the load switching limit. If this condition is fulfilled, the scraper floor switches on after the time delay. If the maximum switching value of the loading moment sensor is reached, the scraper floor will start immediately.

b Scraper floor delay (adjustable). If a value of 0.0 seconds is set, the scraper floor will run as long as the switch-on condition for the respective mode is fulfilled.

c The delay period between fulfilling the switch-on condition for the respective mode until the start of the scraper floor displacement. (adjustable)

The lower sensor and the maximum switching value of the loading moment sensor are the exceptions to this delay period.

d Current measured value of the load torque sensor

e Loading switching limit (adjustable). Switching on with this value takes place after the time delay c.

TIP

Adapting the load switching limit is also possible in the Work menu.

f Maximum switching limit of the loading moment sensor (adjustable). Switching-on with this value takes place immediately.

Set menu 4.1: Calibration menu for the loading moment sensor

Display

a Current value at the loading moment sensor

b Minimum value at the loading moment sensor (with empty trailer) Basic setting: 530

c Maximum value at the loading moment sensor

Basic setting:

Jumbo	**675**
Torro	**650**
Europrofi	**630**

Function keys:

... Edit menu entry

... scroll down

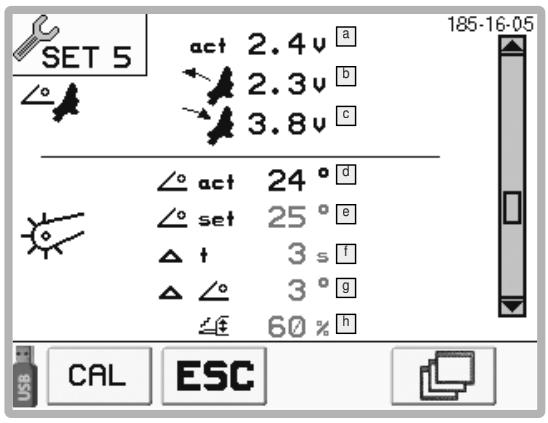
... scroll up

CAL ...Calibration menu for the loading moment sensor

ESC ... go to superior menu (here: Start menu)

Set menu 5:

Calibrate angle sensor B2



1. Press the [Further function keys] key until the functional keys shown in the image above can be seen.
2. Hold the key [Retract cutting unit] pressed until the tension value does not change any more. Then the value for the fully retracted cylinder is saved.
3. Hold the key [Extend cutting unit] pressed until the tension value does not change any more. Then the value for the fully extended cylinder is saved.

Display

a Current value at angle sensor B2

b Tension value at angle sensor B2 when the hydraulic cylinder is fully retracted.

c Tension value at angle sensor B2 when the hydraulic cylinder is fully extended

d Current pick-up angle

e Pick-up angle in loading position: Setting the reference value.

f Time delay after the pivoting drawbar automatic mode takes over the pivoting drawbar control. Runs after pressing the [Lower pick-up] key

g hysteresis angle: Prevents the pivoting drawbar from continuously raising and lowering with minor surface unevenness. Only when the angle deviation is greater than the angle set here will the drawbar start to move.

h Setting the pivoting drawbar traversing speed: The greater the value, the faster the drawbar operates. Setting range 0%-100%

Set menu 5.1:

Calibrate the angle sensor

Calibrate the angle sensor

NOTE

Material damage caused by replacement of the angle sensor while retracting the pick-up

- **If an angle sensor is replaced, both sensors must be recalibrated.**

1. Press the [Further function keys] key until the functional keys shown in the image above can be seen.
2. Press and hold the [Retract cutting unit] key until the tension value does not change any more. Then the value for the fully retracted cylinder is saved.
3. Press and hold the [Retract cutting unit] key until the tension value does not change any more. Then the value for the fully extended cylinder is saved.

Display

In this mask angle sensor faults can be identified.

a Values of angle sensors with pick-up at the top

b Current angle sensor value (must change when the pick-up position changes!)

c Value of the angle sensors with pick-up right down

d Value for minimum valve opening when raising the drawbar

e Value for the maximum valve opening when raising the drawbar

f Value for the minimum valve opening when lowering the drawbar

g Value for the maximum valve opening when lowering the drawbar

Function keys

... Raise pick-up and save tension value

... Lower pick-up and save tension value

... Retract cutting unit and save value

... Extend cutting unit and save value

... scroll down

... scroll up

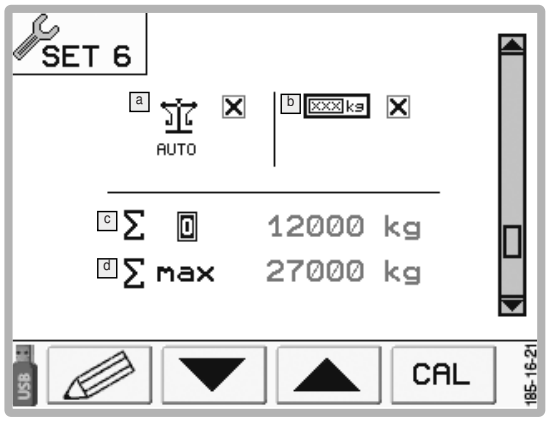
CAL ... Calibration menu for sensor

... other function keys

ESC ... go to superior menu (here: Start menu)

Set menu 6:

Weighing unit



Display

a Auto-weighing - see BA auto-weighing

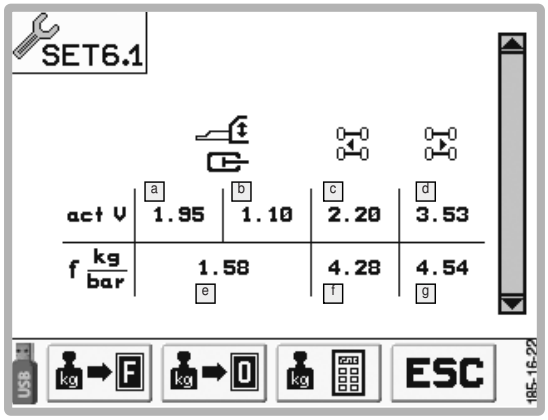
b External display (not available)

c Tractor/trailer combination tare weight

d Max. total weight of tractor/trailer combination (compare

Set menu 6.1:

Weighing unit calibration menu



Display:

Current tension value:

a B11 Drawbar, piston-side

b B14 Drawbar, ring-side

c B12 Chassis, left

d B13 Chassis, right

Current conversion factors:

e Drawbar

f Chassis, left

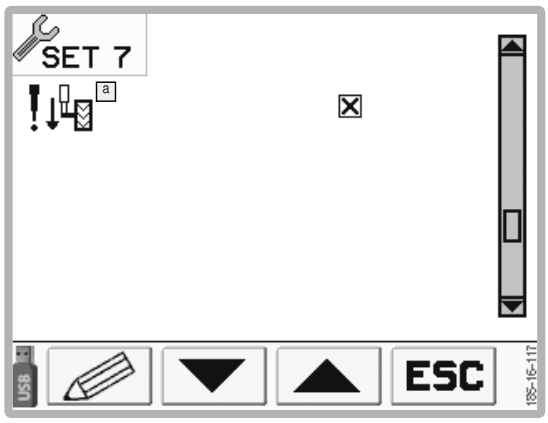
g Chassis, right

Function keys

kg→F	Carry out FULL-weighing (press and hold key for 2 secs.)
kg→0	Carry out ZERO-weighing (press and hold key for 2 secs.)
kg	Process calibration values and finish the procedure.
ESC	Go up one menu level

Set menu 7:

switch on the inclination angle warning

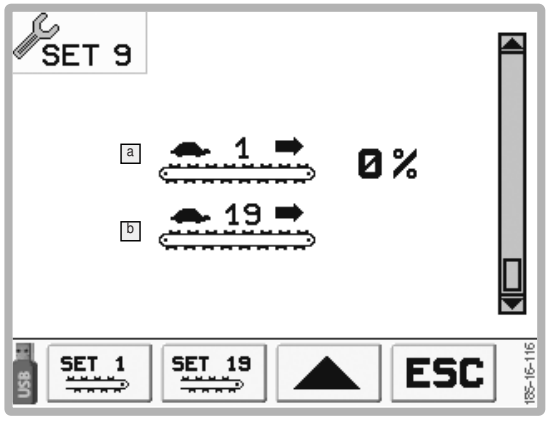


Display:

a inclination angle warning in the work menu on (✓)/ off(×)

Set menu 9:

Calibrate scraper floor



1. Press key [Set 1] to set the lowest speed.
2. To change the speed, press the hard keys [+] or [-] on the terminal. Set the lowest recognisable speed.
3. Press the key [Set 19] to set the highest speed.
4. To change the speed, press the hard keys [+] or [-] on the terminal. Set the fastest recognisable speed.
5. Press the key [Stop] to save the values and stop the scraper floor.

Display

a Scraper floor speed Step 1

b Scraper floor speed Step 19

Function keys

SET 1 ... setting minimum speed

SET 19 ... setting maximum speed

▲ ... scroll up

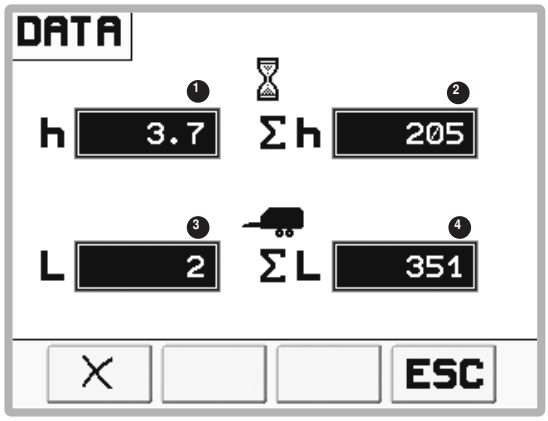
ESC ... go to superior menu (here: Start menu)

Data Menu

M4

- In the start menu press the function key F3 to access the Set menu.
- Press the function key F4 to return to the Start menu

Display:



1 ... Partial hours counter
2 ... Total hours counter
3 ... Loads day counter
4 ... Load total counter

TIP

Counter for the number of loads increases:

- "Full" notification or
- sequence of the following states: "Tailgate closed --> Tailgate open --> Scraper floor reverse for 10 seconds"

Function keys:

... Resetting both partial counters

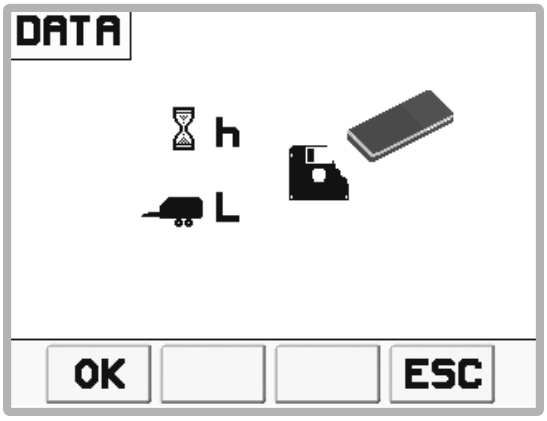
ESC ... change to superior menu (here: Start Menu)

Resetting both partial counters:

TIP

It is not possible to reset one partial counter without the other. Partial counters can only be reset together.

1. Press the function key [ ] to reset both partial counter to nil.
   A new screen appears.



2. Press function key [OK] to confirm the procedure or press function key [ESC] to interrupt the procedure and return to the previous menu.

Test menu

M5

In the Test Menu, be informed of the current condition and the displayed values of the sensors. This might be very useful for troubleshooting.

- Press function key F3 in the Start menu to reach the Test menu.
- Press function key F4 to return to the Start menu.

Display:

A symbol with black background indicates that

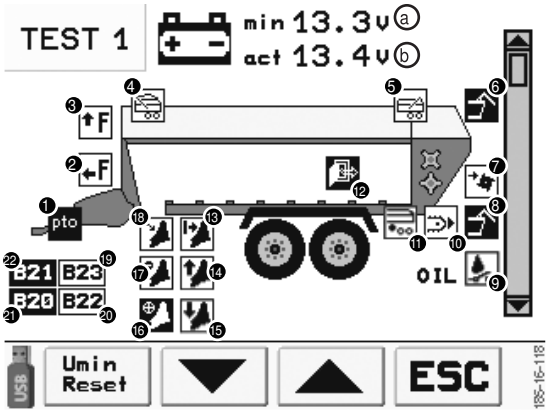
- An inductive sensor is assigned
- A Hall sensor is assigned.
- A mechanical switch / key has been activated.

TIP

When a sensor or switch signal changes, the symbol is shown inverted.

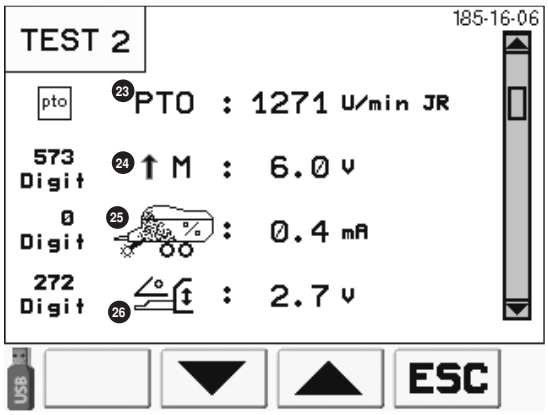
A suitable signal change frequency can cause the symbol to flash. However, a flashing symbol does not necessarily mean a malfunction.

Sensors:

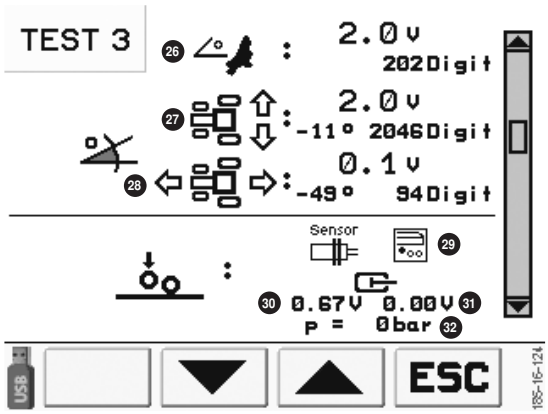


1	PTO shaft speed	B1
2	Full level flap - bottom	B4
3	Full level flap, top	B3
4	Load safeguard system, front	B30
5	Load safeguard system, rear	B31
6	Tailgate opening monitoring	B17
7	Pressure on dosing rollers	B6
8	Tailgate	B5
9	Oil pressure switch	S7
10	Scraper floor rear switch	S3
11	Lifting axle	B10
12	Loading room door	B7
13	Key for blade release	S4
14	External cutting unit switch, on	S1
15	External cutting unit switch, off	S2
16	Cutting unit in arrester hook	B19 + B24
17	Swivelling limitation	B16
18	Cutting unit status	B2
19	Feeler wheel sensor road transport, left*	B22
20	Feeler wheel sensor road transport right*	B23
21	Feeler wheel sensor working position left*	B20
22	Feeler wheel sensor working position right*	B21
a	The smallest measured voltage (rpm) since system start	
b	Present voltage (V)	

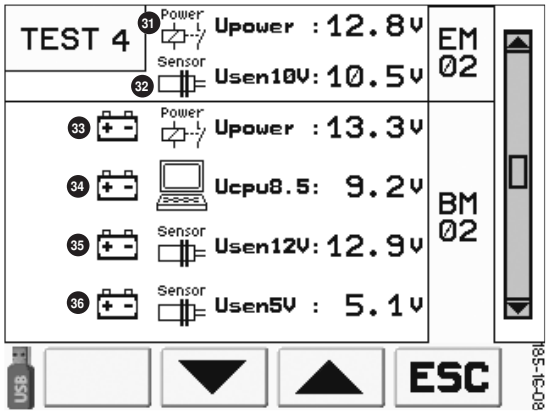
* The position of the sensors is described in the Chapter "Pick-up".



23	PTO shaft speed	B1
24	Loading moment sensor (max. 10 V)	B9
25	Full level sensor (4-20 mA)	B11
26	Drawbar angle sensor (0-5 V)	B8



26	Cutting unit angle sensor	...B2
27	lateral inclination angle sensor	...B25.1
28	Inclination angle sensor in the direction of travel	...B25.2
29	Lift axle status sensor	...B10
30	Voltage value Pressure sensor Drawbar Piston	...B11
31	Voltage value Pressure sensor Ringside	...B14
32	Calculated drawbar pressure	



EM02: Job calculator extension module (plug ST2)

31 Power supply voltage, extension module
Nominal value: >12 V

32 Stabilized sensor voltage
Nominal value = 10.5 V

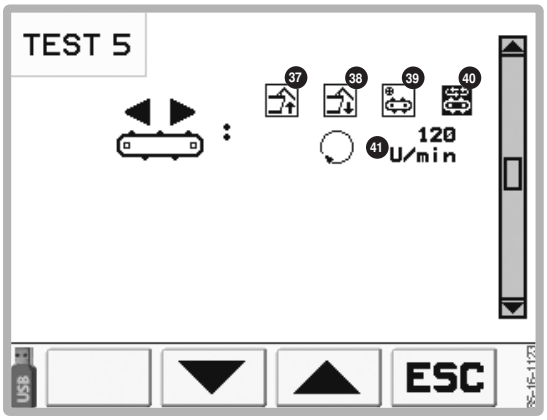
BM01: Basic module (plug ST1)

33 Voltage supply BM
Nominal value: >12 V

34 Processor voltage BM
Nominal value: >8.5 V

35 Non-stabilized sensor voltage
Nominal value: >12 V

36 Stabilized sensor voltage
Nominal value = 5.0 V



37	Button	...S50
	Open tailgate	
38	Button	...S51
	Close tailgate	
39	Cross conveyor in working position	...B52
40	Speed sensor Cross conveyor	...B53
41	current speed cross conveyor	

Function keys

U min Reset	Set the minimum voltage value (a) to the present value (b)
▼	Scroll down
▲	Scroll up
ESC	go to superior menu (here: Start menu)

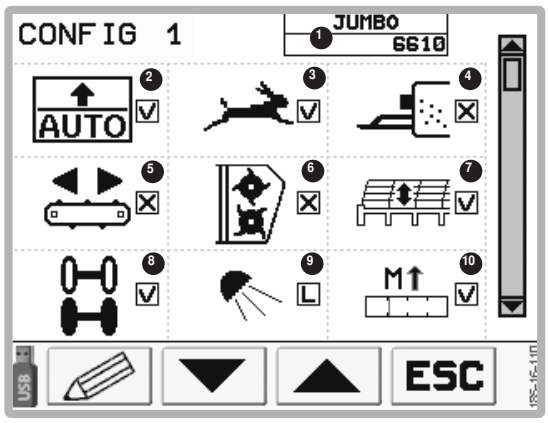
Configuration menu

M6

Disclose the equipment your trailer is provided with in the Configuration Menu. This menu is needed only when additional equipment is added to, or removed from, the trailer. Otherwise, the correct configuration has been factory set.

- In the Start menu, press the function key F2 for 10 seconds to access the Configuration menu.
- Press function key F4 to return to the Start menu.

Display:



1… Set machine type

2… Automatic loading

3… Scraper floor, stage 2

4… Fodder additive system

5… Cross conveyor: ×... no cross conveyor

m...mechanic / h...hydraulic / h1...hydraulic cross conveyor 890 mm

6... Dosing rollers

7... hydraulic dry forage extension (cannot be used simultaneously with a load protection. The symbol is therefore crossed out when the load protection is configured.

8... Trailing steering axle: L...lifting axle ×...not available / ✓...available

9. Work lighting (consisting of the loading space lighting and possibly reversing lights)

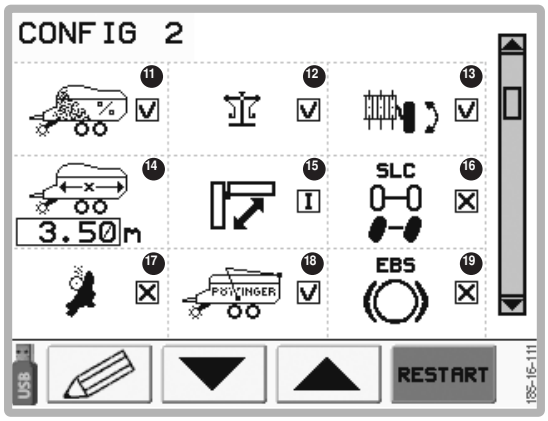
L ...LED light

H ...Halogen headlights

X ... no working lights

10.. Loading moment sensor

(= active, available / = inactive, not available)



11... Full level sensor

12... Weighing unit

13... Feeler wheel swivelling for Pick-up Super large 2360

14... Trailer length (for full level sensor)

15... Front cover (operated via the terminal)

1... one hydraulic front cover

2...two hydraulic front covers

X...no hydraulic front cover

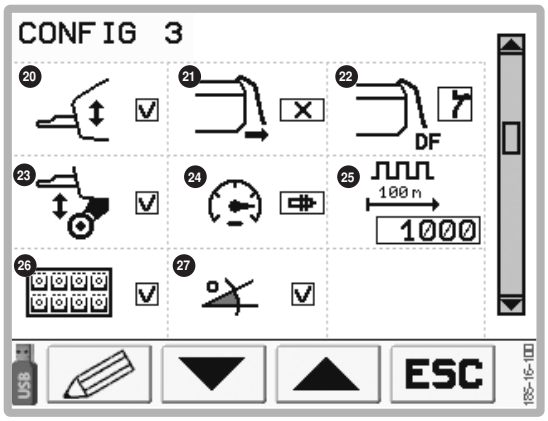
16... Electronic positive steering

17... Automatic blade sharpening unit

Autocut

18... load protection (can not be used synonomously with hydraulic dry forage extension. The symbol is therefore crossed out when the hydraulic dry forage extension is configured.

19... Electrical brake system



20 Automatic loading position control

21 Sensor monitored tailgate opening (✓ = active, available / × = inactive, not available / S = Service information)

22 Full-notification sensor types
1. via oil pressure switch (S7)
2. via break contact. Full-notification when ontact sensor is interrupted (B6)
3. via N/O contact Full-notification with closed contact (B6)

23 AUTOKEY pivoting drawbar control (✓ = active / × = inactive)

24 Speed signal source (iso = ISOBUS/ × = no speed signal) = intelligent trailing axle)

25 Impulses per 100 metre

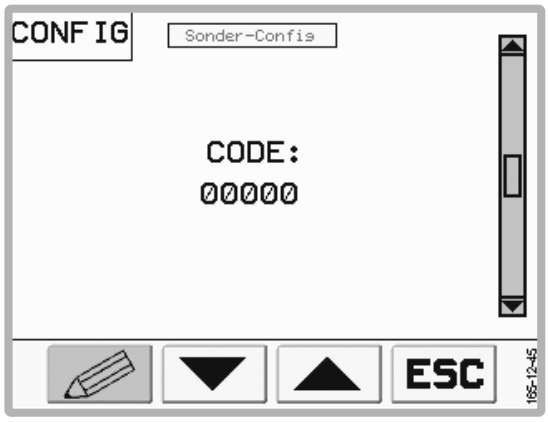
26 external keypad (✓ = active, available / × = inactive, not available)

27 inclination sensor (✓ = active, available / × = inactive, not available)

(= active, available / = inactive, not available)

TIP

Screen 4 is reserved for service staff



Function keys

... Edit menu entry

... scroll down

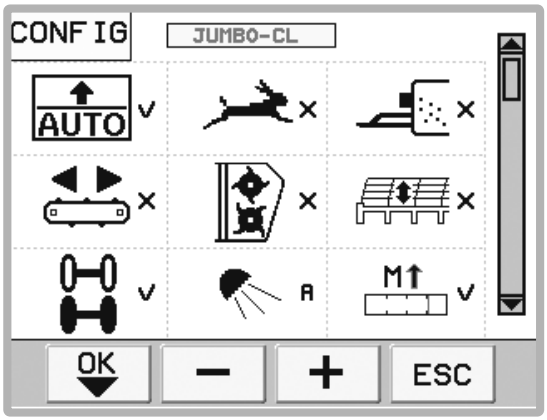
... scroll up

ESC ... go to superior menu (here: Start menu)

RESTART ... saves the changed equipment and restarts the software. This symbol only appears when the equipment has been changed.

Changing the equipment

1. Press function key [ ] to change equipment.
2. Press function key [OK] until the cursor has reached the value to be changed.
3. Change value using keys [−] and [+] until the required value is reached.
4. Press function key [OK] to save the value and to select the next value.
5. Press ESC to exit the change screen.



Function keys

OK ... save the current value and change to the next variable

− ... change the current variable value down

+ ... change the current variable value up

ESC ... change to superior menu

(here: Configuration Menu)

TIP

After an equipment change, the [ESC] key in the configuration menu is replaced by the [Restart] key. The changes made become effective only after the terminal has been restarted with [Restart].

TIP

To cancel changes, please alter the equipment again, and then press the [Restart] key in the configuration menu.

System Menu

M7

Change the display brightness in the System Menu. All other functions are for service personnel only.

Press the key briefly to access the System Menu.

Press the key once again to return to the previous menu.

TIP

When the display brightness falls below 60%, the Power Control Terminal keyboard lighting switches on automatically.

Function keys:

... only for service personnel

... Adjust screen brighter

... Adjust screen darker

... only for service personnel

Diagnosis function

With faults, the corresponding alarm message is displayed and an acoustic warning signal is audible.

TIP

When a fault occurs, every required function can be manually switched by using the emergency operation (see chapter "Electro-hydraulics")

TIP

Confirm a fault with key [ACK] ACK

TIP

The diagnostics function can be switched off for each individual sensor with the [Switch off] key until the next system start!

The alarms for the power supply cannot be switched off!

Function keys:

... The relavent alarm notification is suppressed until the next system restart.

ACK ... Confirm the fault. If the fault repeats itself, another alarm will be set off.

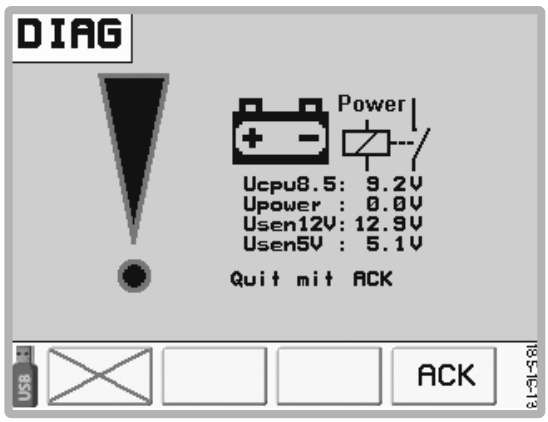
Alarm messages

Malfunction at switch output

(Example: Poppet valve on dosing roller)

Causes: - Short circuit
- Current too low
- Valve not plugged in

Malfunction in the job calculator voltage supply



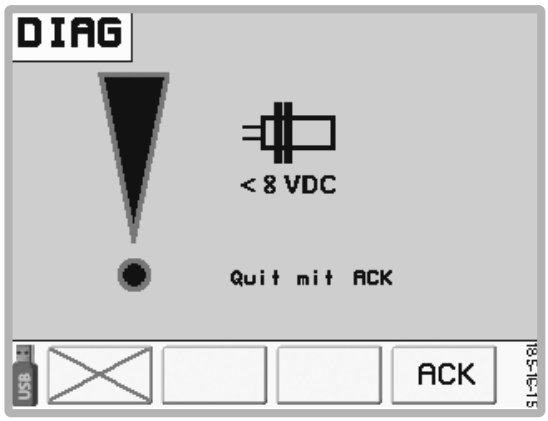
Causes:

- Insufficient power at the job calculator
- Wiring fault
- Contact fault
- Short circuit
- Faulty job calculator

TIP

If there are problems with the voltage supply, refer to the page "Voltage supply" in the Test menu.

Malfunction in the voltage supply for the sensors



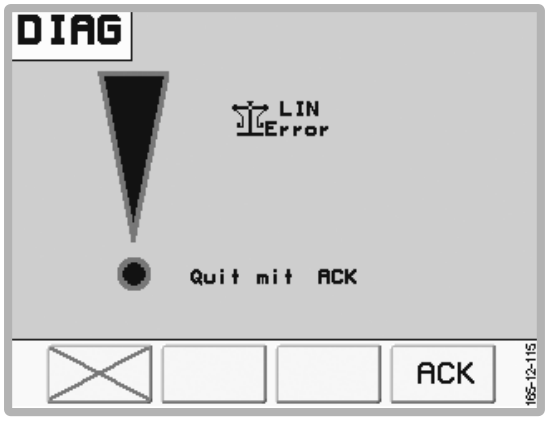
Causes:

- Wiring fault
- Contact fault
- Short circuit
- Faulty sensor

TIP

If there are problems with the voltage supply, refer to the page "Voltage supply" in the Test menu.

Function failure at Bus connection to an extension module (LIN Error):



1. Extension module Weighing unit
2. Extension module Load safeguard device
3. Extension module Feeler wheel swivelling
4. Job calculator Blade sharpening
5. Extension module Cross conveyor 890 mm

Causes: - Wiring fault
- Extension module or job calculator faulty
- Malfunction in power supply

TIP

The Bus connection fault is also shown in the work menu, top right.

Cutting unit monitoring 1:

Swivelling the cutting unit in is not possible.

- Sensor B19 delivers no signal (EUROPROFI, TORRO). This sensor checks if the cutting unit is sitting in the arrester hooks.

  Counter-measures:
  - Check the cutting unit function
  - Check the sensor function
- Sensor B24 delivers no signal (TORRO). This sensor checks the cutting unit locking mechanism.

  Counter-measures:
  - Check the cutting unit function
  - Check the sensor function

Cutting unit monitoring 2:

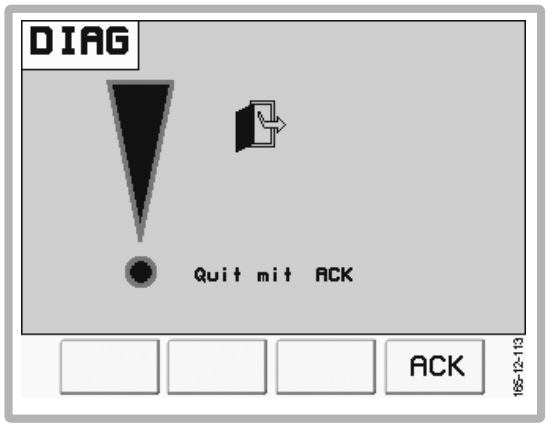
Angle sensor B2 delivers no signal

Causes:

- Sensor too far away from magnets
- Faulty cable
- Faulty sensor
- Faulty power supply

Monitoring alarms

Loading area monitoring



As soon as the climbing aid for the loading area door is unfolded, all hydraulic functions stop, the dosing rollers are uncoupled and the diagnostic notification above appears.

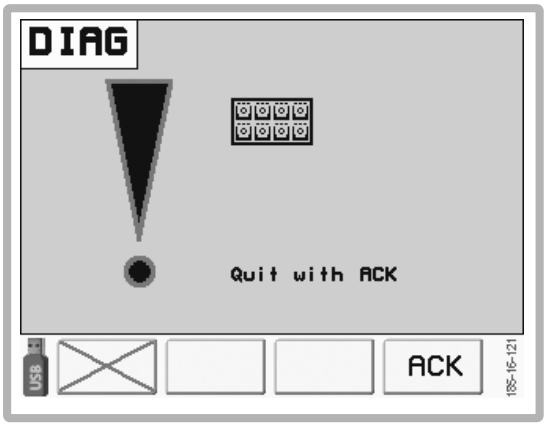
When the climbing aid is folded up, this notification is acknowledged.

⚠ WARNING

Risk of serious injury caused by entering the loading area while the scraper floor or the dosing rollers have not completely stopped.

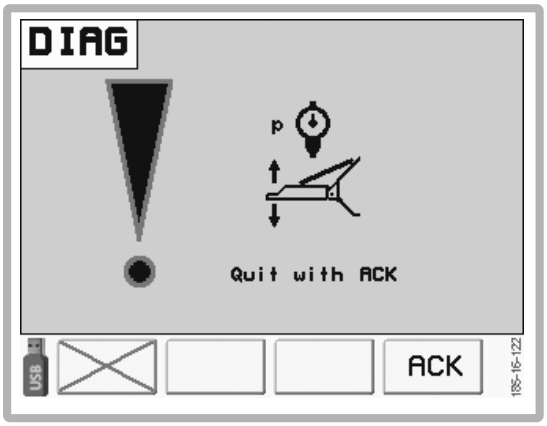
- Enter the loading area only when the tractor engine has completely stopped and the drive shaft is uncoupled.
- Enter the loading area only when the scraper floor and the dosing rollers have stopped.
- Before closing the access door, always look around and make sure that no one is present in the loading room.

Monitoring external keypad



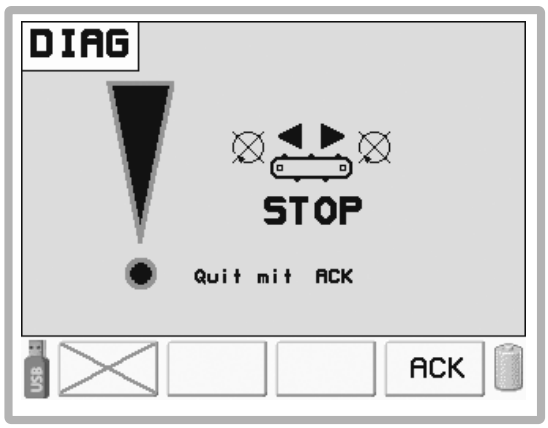
- Faulty Cabling
- Faulty sensor
- Faulty power supply (LEDs of the keys are glowing)

Pressure sensor monitoring



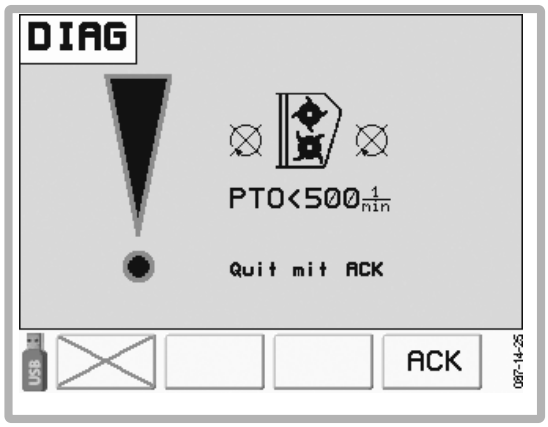
- Check the pressure levels in the calibration menu of weighing
- Faulty cable
- Faulty sensor
- Faulty power supply

Cross conveyor monitoring



If the cross conveyor belt speed sensor registers no speed 1 second after switching on the cross conveyor, the following error message appears.

Automatic unloading monitoring (for trailers with dosing rollers)



Cardan shaft stationary or turns too slowly!

Automatic unloading appears and the cardan shaft has not yet been started:

1. Start the cardan shaft from the tractor.
2. The notification disappears automatically, when rotation speed is exceeded.

The sensor is faulty if:

1. The message does not disappear during the start of automatic unloading.
2. The message appears during the automatic unloading operation but after the cardan shaft has been switched on.

Function keys:

 ... The relavent alarm notification is suppressed until the next system restart.

ACK ... Confirm the fault. If the fault repeats itself, another alarm will be set off.

Electronic positive steering (EZL) - fault messages

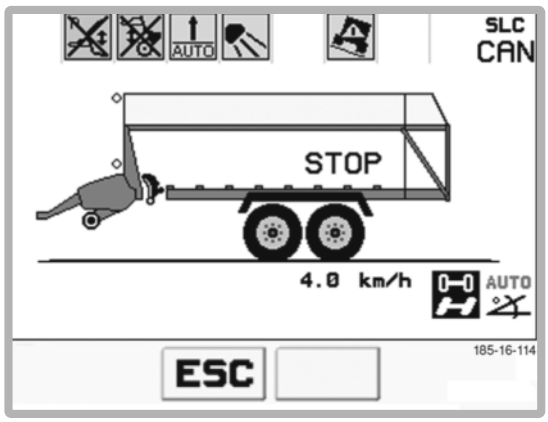
These fault messages concern only the Jumbo trailer.

Steering computer fault:

Electronic positive steering symbol flashes.

1. Check steering computer and remedy fault
2. Consult a workshop if the fault cannot be remedied. Drive at max. 10 km/h.

Data connection interrupted:



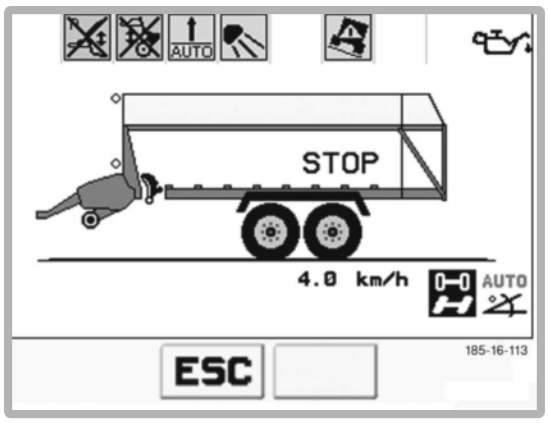
The positive control fault symbol and CAN symbol SLC CAN are blinking alternately.

1. Restore data connection.

   a) Check power supply at steering computer. The steering computer is connected to the main computer via the supply cable

   b) Check the CAN bus connection in the cable harness distributor box on the trailer for correct wiring.
2. Consult a workshop if the fault cannot be remedied. Drive at max. 10 km/h.

Missing hydraulic supply:



The positive control fault symbol and the oil can symbol are blinking alternately.

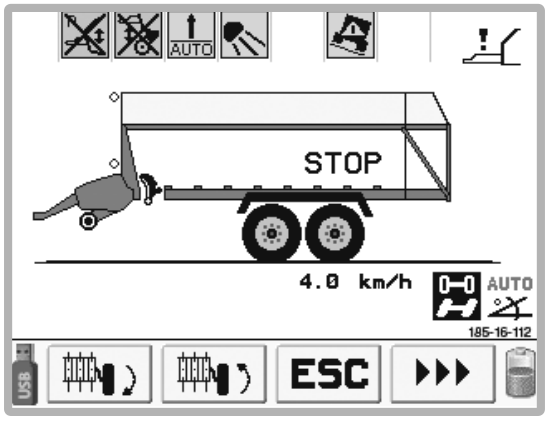
1. Check hydraulic supply. The tractor must be running for this.
2. If the fault is still showing, drive to a workshop at max. 10 km/h.

Collision monitoring indication

TIP

The collision monitor must be activated in the menu "Special Setup - Collision alarm" on the steering computer by entering the maximum angle.

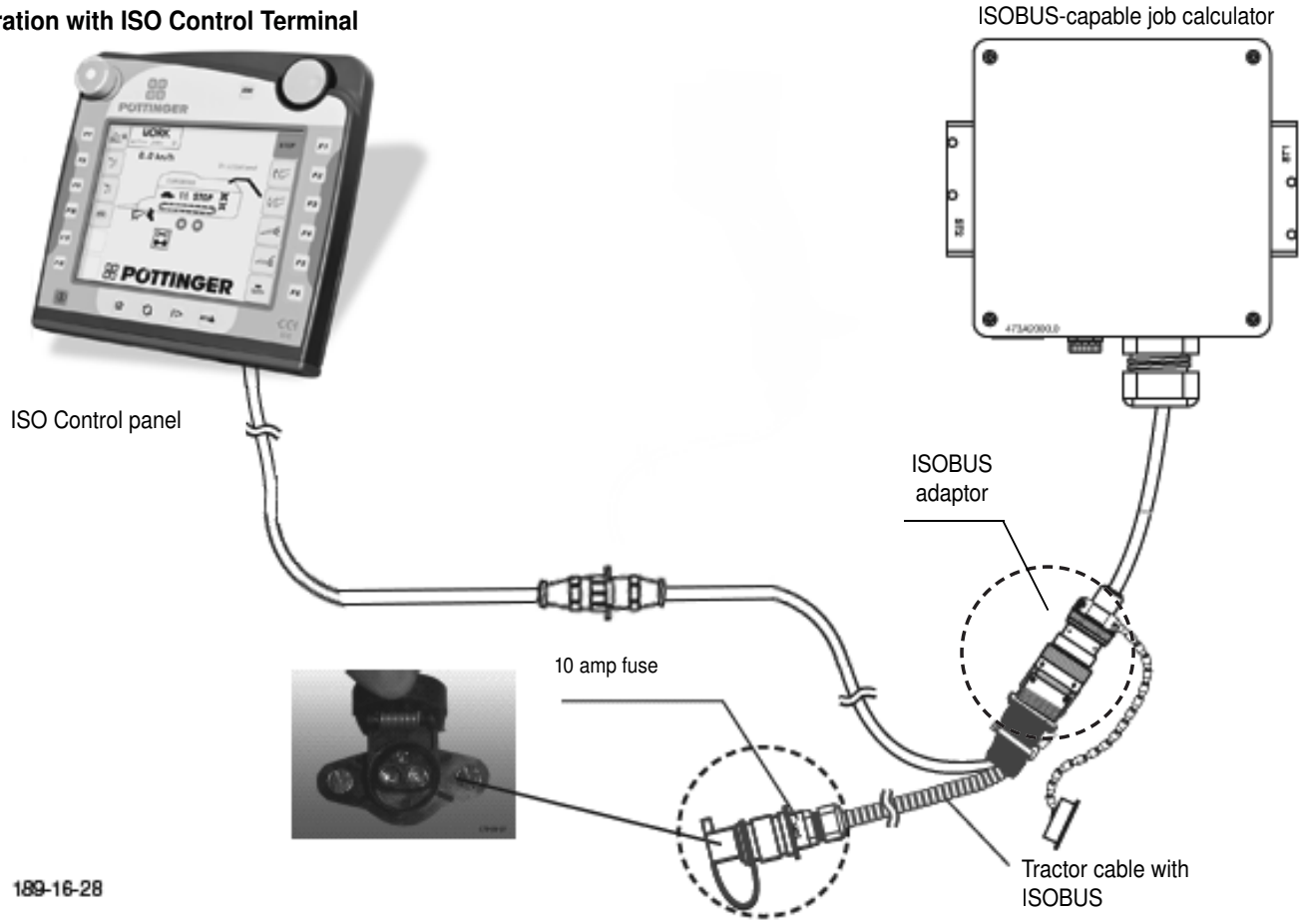
The positive control fault symbol and the drawbar symbol are blinking alternately. An acoustic signal is audible.



The maximum lock was exceeded. A collision of the tractor's rear wheels with the trailer is imminent. Straighten up!

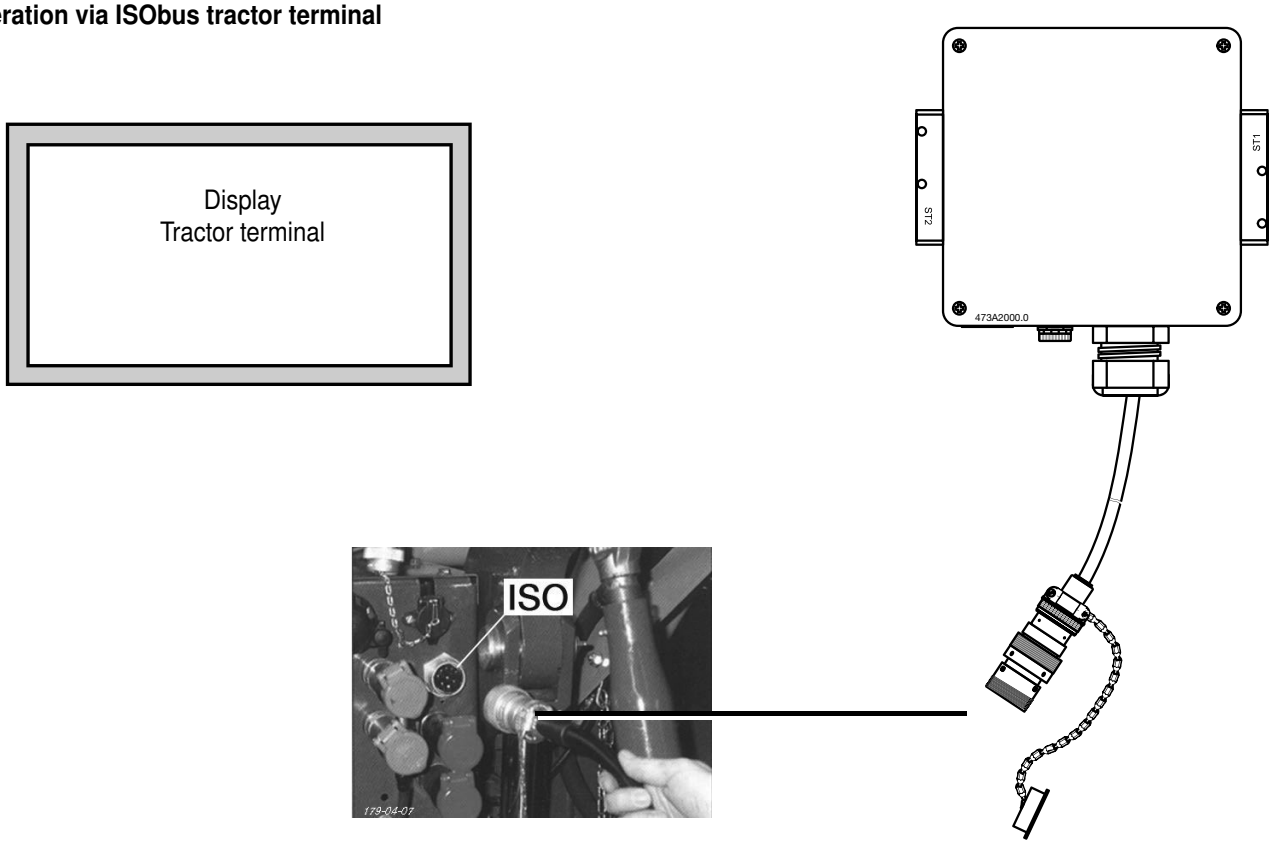
Variant

Operation with ISO Control Terminal

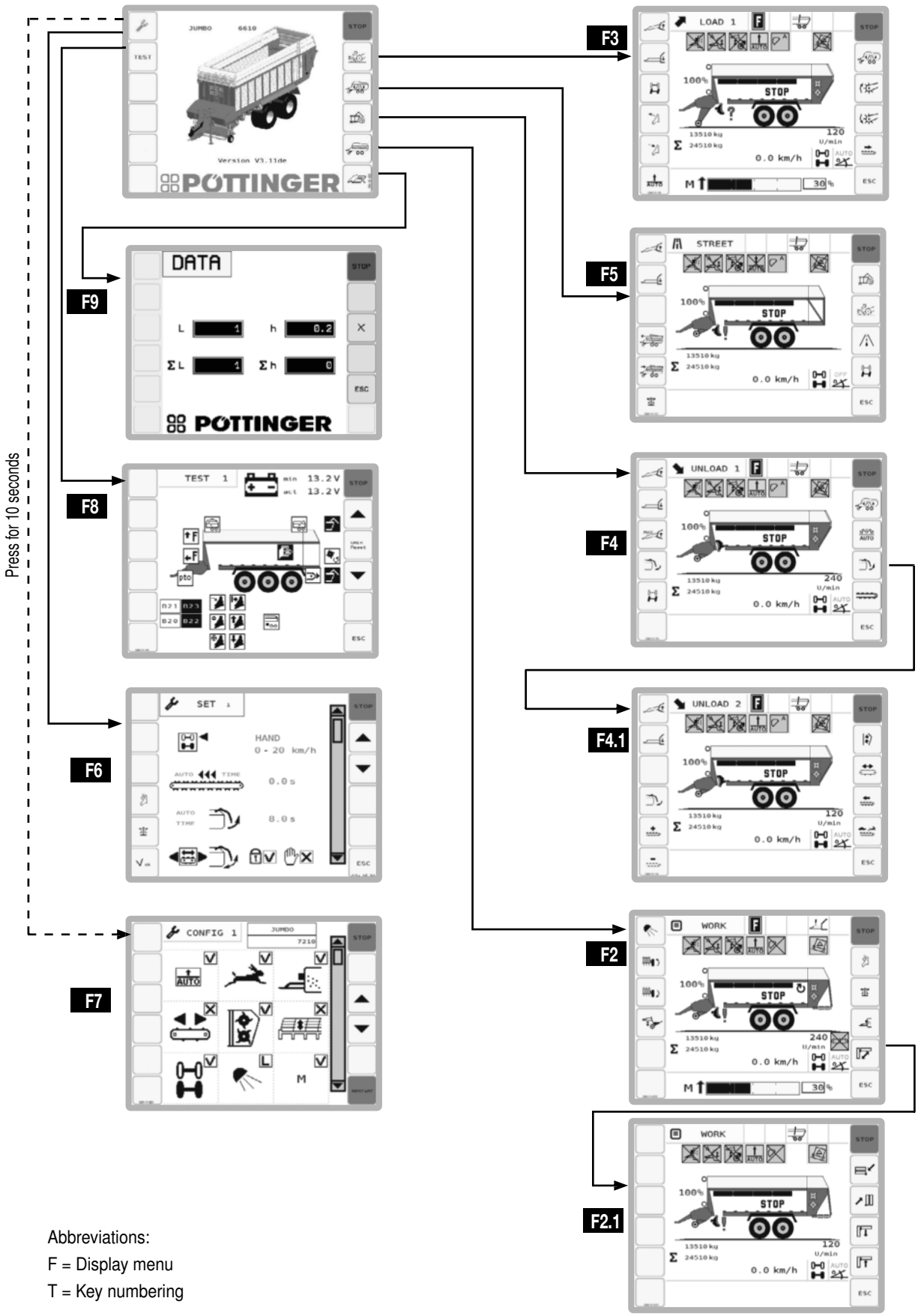


Variant

Operation via ISObus tractor terminal



Operation structure - trailer with ISOBUS solution



Abbreviations:

F = Display menu

T = Key numbering

Before starting

TIP

The settings in the SET menu are to be checked and adjusted as required prior to the initial operation of the machine.

TIP

The following operating instructions refer to wagons with all additional equipment.

TIP

Any menu can be exited by pressing the ESC key.

ESC

TIP

The STOP key stops all hydraulic functions and switches off the dosing rollers.

STOP

General safety information

DANGER

Life-threatening danger exists through the simultaneous operation on tractor and external keys.

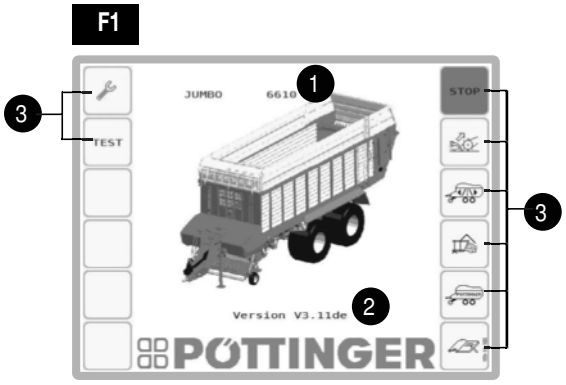
- When operating the external buttons, please ensure that nobody is operating the device via the tractor terminal cabin simultaneously and vice versa. If operating the device at the same time is unavoidable, special care must be taken. Scrupulous consultation between those involved must take place in advance.
- Pressing a key on the external keypad extends the operational readiness of this key by 30 seconds. Make sure that no one is pressing the keys on the external keypad while they are in the danger zone.

DANGER

Life-threatening danger exists through entering the danger area between the machines.

- Ensure that nobody is in the danger area between the machines when operating the device!

Start menu



Display:

1 …. Loading vehicle type

2 ... Software version

3 ... Function keys

TIP

Function keys are used differently in every menu. The configuration is cited separately for each menu.

Function keys

STOP	STOP
	Basic settings F2
	Loading menu F3
	Unloading menu F4
	Transport menu F5
	Set menu F6 Press the key for 10 secs. in order to reach the Configuration menu F7
TEST	Test menu F8
	Data menu F9
	Terminal change key • Hold down key for 2 seconds to show the Pöttinger controlling on a different terminal. Note: Each terminal must be assigned its own VT number Refer to the terminal's operating instructions.

Basic settings menu

- Press function key  in the start menu to reach the Basic settings menu.
- Press function key  to return to the Start menu.

Display:

The display is identical for all self-loading trailers and depends solely on the configuration.

TIP

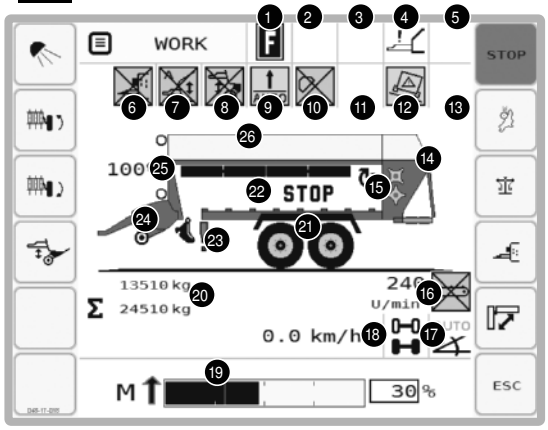
When a softkey is grey, it cannot be activated at the moment.

If such a key is pressed, a window appears showing the reason for the block.

TIP

All optional fittings that interfere with the operation must be configured in the Configuration menu (F7).

F2



1 "Full" message

F	If the symbol is displayed, the trailer is full.

2 no use at this point

3 no use at this point

4 Error message positive steering components

See chapter Electronic positive steering (EZL) - fault messages

5 no use at this point

TIP

If a symbol in the bar 6-13 is not shown, the related hardware is not installed or it is not configured in the configuration menu.

TIP

The functions from bar 6-13 can be switched on and off by touching the symbol on the touchscreen or via the scroll wheel.

6 Dosing agent attachment active / inactive

	aktive - dosing agent is added as long as the pickups are in working position.
	Inactive - dosing agent is not added

7. Automatic control of the loading position active / inactive

	automatic control of the pivoting drawbar loading position active
	automatic loading position control inactive

TIP

The function will only be executed as long as the cardan shaft is running.

The automatic loading position control ensures that when the [Pick-up] key is pressed and held, the pick-up and the pivoting drawbar reach their positions consecutively.

Operation:

- Press and hold the [Lower pick-up] key in order to
  1. Lower the pick-up (latching).

TIP

After lowering the pick-up, a signal tone sounds to indicate that the drawbar will now be lowered.

- Release the [Lower pick-up] key if you do not wish to further lower the pick-up.
- Press and hold the [Lower pick-up] key if the drawbar is to be lowered to the loading position.

2. Lower drawbar to loading position (use key)

- Press and hold the [Raise pick-up] in order to
  1. Raise the pick-up (use key).

TIP

After lowering the pick-up, a signal tone sounds to indicate that the drawbar will now be raised.

- Release the [Raise pick-up] key if you do not wish to further raise the pick-up.
- Press and hold the [Raise pick-up] key if the drawbar is to be lowered to the road transport position.

TIP

The time delay for this signal is set in the Set menu (see chapter "Set menu").

3. Raise the drawbar to the road transport position (use key)

8 AUTOTAST pivoting drawbar

	AUTOTAST pivoting drawbar active
	AUTOTAST pivoting drawbar inactive

TIP

The function will only be executed as long as the cardan shaft is running.

The AUTOKEY pivoting drawbar control ensures that the drawbar always runs parallel to the pick-up.

Briefly pressing Key  activates the AUTOKEY pivoting drawbar control.

Pressing the key rearranges the indication on the display (position 3 in the work menu). The automatic pivoting drawbar control starts only after lowering the pick-up and the time delay expires. This delay can be set in the Set Menu (standard setting: two seconds after activation of the key [Lower pick-up])

If the keys [Raise pivoting drawbar] or [Lower pivoting drawbar] are used to manually operate the drawbar, then the AUTOKEY pivoting drawbar control turns off.

9 Automatic loader and unloader

	Automatic charging active
	Automatic charging inactive
	Automatic unloading system active

10 Lighting

	Light on		Light off
	Automatics on Light on		Automatics off Light off

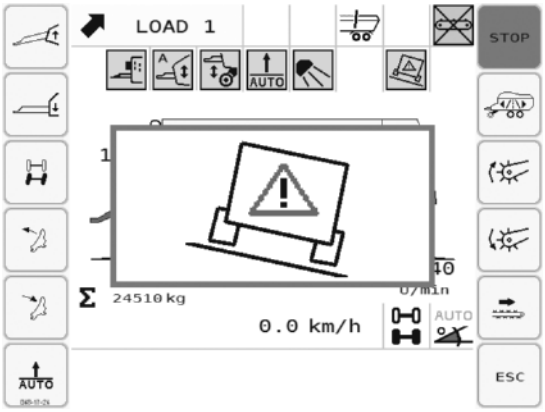
11 not in use at the moment

12 Inclination angle monitoring

	Inclination angle monitoring active
	Inclination angle monitoring inactive

Inclination angle warning

For active Inclination angle monitoring and exceedance of the inclination angle configurable in the set menu, there is an inclination angle warning in the work menu.



TIP

This notification doesn not have any safety task. It only serves to inform the driver about the inclination state of the device.

The limit belonging to the notification is set by the drive.

The driver is responsible for any inclination changes done by himself.

13 not in use at the moment

14 Tailgate

Open		Closed	
open		Close	
Lock		Tailgate fixing, active	
			not available*

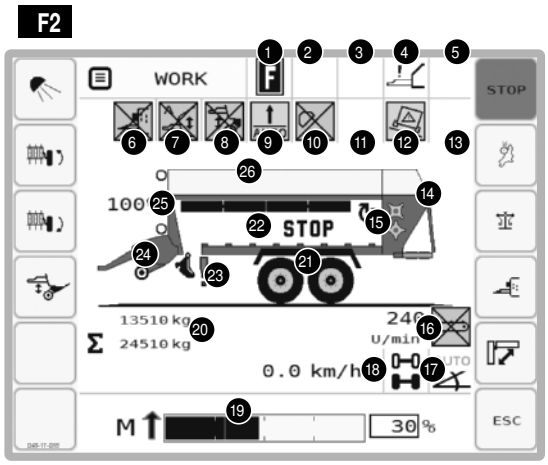
* without dosing rollers

15 Dosing roller off / on / not available

	Dosing roller, off		Dosing roller, on
	not dosing rollers		

16 Cross conveyor status

	The cross conveyor belt (mechanical or hydraulic) switched off.
	Mechanical cross conveyor runs in direction set
	Hydraulic cross conveyor direction right
	Hydraulic cross conveyor direction left
240 RPM	Speed of the cross conveyor belt



17.Trailing status manual

MAN	Steering axle set on active
MAN	Steering axle is just being locked
MAN	Steering axle is locked

DANGER

Danger to life if steering axle is not locked

- Lock the steering axle in the following situations:
  - for fast, straightforward runs exceeding 30 km/h
  - on unpaved roads
  - On inclines
  - when the front axle is relieved through pivoting drawbar operation
  - when driving over the drive-in silo
  - when the side guide of the non-steering axle is no longer sufficient

17A. Trailing axle automatic (with Isobus connection) or intelligent trailing axle

The speed signal necessary for the automatic is only available when the tractor has an ISOBUS control unit (=TECU) or a speed sensor is installed on the wheel.

Set this option in the configuration menu

ON	Steering axle manually set on active
AUTO	Steering axle is set on active automatically
OFF	Steering axle manually locked
AUTO	Steering axle is being locked automatically For settings see SET menu

17B. Display of the current slope inclination (for intelligent trailing axles)

Precondition for the display of the current inclination is that the automatic trailing axle and the inclination sensor in the configuration menus are active. Otherwise, this function is not available, and the inclination will not be displayed.

	The current slope inclination is smaller than the limit which you have set for the automatic locking of the steering axle.

	The current slope inclination is bigger than the limit which you have set for the automatic locking of the steering axle. In atomatic mode the steering axle would be locked then.

TIP

This notification does not have any safety task. It only serves to inform the driver about the inclination state of the device.

The limit belonging to the notification is set by the driver.

The driver is responsible for any inclination changes done by himself.

17C. Electronic positive steering (EZL, optional)

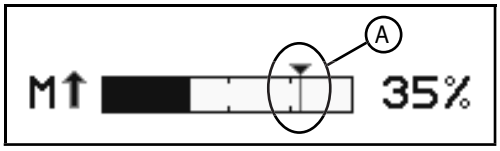
	Positive steering locked. Axles are in the centre position		Electronic positive steering active

18 Current speed

The current speed can only be displayed if the tractor has ISOBUS control unit and provides the speed signal through ISOBUS.

19. Current rotor capacity

(only shown with lowered pick-up) current state of the loading sensor

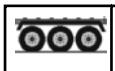
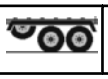


When the pick-up is lowered, the release torque (A) can be chosen and adjusted by touching the display or the selection wheel on the terminal.

20 Weight display

13510 kg	Display of the weight of the current additional load. (only with weighing device)
∑ 24510 kg	Display of the current total weight of the combination (empty weight + additional weight) (only with weighing device)

21 State of the lift axle

	Lift axle lowered		Lift axle raised
	no lift axle		

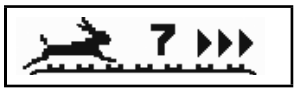
TIP

If the bearing load is too high, the lift axle cannot be raised. If the bearing load exceeds the critical level - while the lift axle is raised - then the lift axle will automatically be lowered.

TIP

Only Tridem models have a lift axle.

22 Scraper floor status



Speed level

	Slow		Fast

7	Speed

Stop / forward / reverse

STOP	Stopped		Reverse
	Slow forward		Fast forward

TIP

The scraper floor always moves at maximum speed when loading.

23 Cutter unit position swivelled out / in

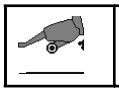
	Cutting unit swivelled in
	Cutting unit swivelled in
	Cutting unit position unknown - Fault with the cutting unit monitoring (only TORRO) Swivelling the cutting unit is only possible with the external keypad and on demand.

NOTE

Material damage due to components colliding

- Do not swivel the cutting unit while the cutting unit symbol is blinking. (with automatic knife grinding device)

25 Pick-up position, raised/lowered

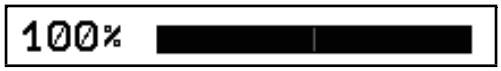
	Raised		Lowered

25A Pick-up Super Large 2360: Feeler wheel position

	Position for road transport		Midway position or sensor fault

An acoustic warning signal also occurs with an "Midway position or sensor fault".

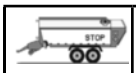
26. Fill level display (optional)



The fill level display always shows the highest measured value.

When the tailgate is closed after unloading, the fill level display value is reset to the current value.

27. Load safeguard, front / rear

	Front (End position)		Rear (End position)

If the load safeguard travels forward or backward, or is located in the midway position, the symbols will blink.

NOTE

Property damage through the collision of the load safeguard with the surrounding objects

- Do not activate the load safeguard in road traffic.
- Activate the load safeguard only at a standstill.
- Do not activate the load safeguard in the vicinity of high-voltage lines or trees, under bridges, in tunnels or in rooms that are lower than or equally high as the highest possible total height of the machine.
- If the load safeguard clamp is in midway position, it is possible that the maximum transport height has been exceeded.

TIP

The load safeguard can only be operated with the tailgate closed.

Possible keys:

	STOP

	Steering axle AUTO / ON / OFF (option) When using the trailing axle automatic or the intelligent trailing axle, this key can be used to switch between the ON - AUTO - OFF functions. see 14A. Trailing axle automatic or intelligent trailing axle When using the electronic steering axle (optional), this key can be used to switch between locked / active.
	Raise pick-up [1] (Display )
	Lower pick-up / bring pivoting drawbar in loading position automatically [1)] **TIP** If the cutter unit is folded out and the pick-up is lowered, you will hear an acoustic alarm signal and the symbol on display blinks three times.
	Swivel feeler wheels into working position (depress until process is completed)[2)]
	Swivel feeler wheels into road operation position (depress until process is completed)[2)].
	Select headlights (Display )
	Feed additive distributor (Display )
	Raise dry fodder top-frame
	Lower dry fodder top-frame
	Close load safeguard
	Open load safeguard
	Open front cover menu **F2.1**
	AUTOKEY pivoting drawbar control, on/off
	Weighing unit menu display
	Go up one menu level

1) With a standard pick-up. And with Pick-up Superlarge, when the feeler wheels are in the working position.

2) Only visible when the pick-up is in the working position and a Pick-up Superlarge is configured.

These keys disappear as soon as the feeler wheels have been put in the road position.

Function sequence: Automatic control of the loading or transport position

TIP

The function will only be executed as long as the cardan shaft is running.

The automatic loading position control ensures that when the [Pick-up] key is pressed and held, the pick-up and the pivoting drawbar reach their positions consecutively.

Operation:

- Press and hold the [Lower pick-up] key to
  1. Lower the pick-up (cautiously).
  2. A signal tone sounds to indicate that the drawbar will now be lowered.
  3. Lower drawbar to loading position (cautiously)

TIP

After lowering the pick-up, a signal tone sounds to indicate that the drawbar will now be lowered:

- Release the [Lower pick-up] key if you do not wish to further lower the pick-up.
- Press and hold the [Lower pick-up] key if the drawbar is to be lowered to the loading position.

- Press and hold the [Raise pick-up] to
  1. Raise the pick-up (cautiously).
  2. A signal tone sounds to indicate that the drawbar will now be raised.

TIP

The time delay for this signal is set in the Set menu (see chapter "Set menu").

  3. Raise the drawbar to the road transport position (cautiously)

Function sequence for AUTOKEY pivoting drawbar control:

TIP

The function will only be executed as long as the cardan shaft is running.

The AUTOKEY pivoting drawbar control ensures that the drawbar always runs parallel to the pick-up.

Briefly pressing Key  activates the AUTOKEY pivoting drawbar control.

Pressing the key rearranges the indication on the display. The symbol for AUTOKEY pivoting drawbar control is displayed.

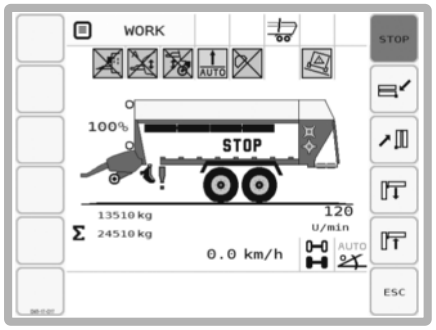
The automatic pivoting drawbar control starts only after lowering the pick-up and the time delay expires. This time delay can be set in the Set Menu (standard setting: two seconds after pressing of the key [Lower pick-up])

If the keys [Raise pivoting drawbar] and [Lower pivoting drawbar] are used to manually operate the drawbar, then the AUTOKEY pivoting drawbar control turns off.

Front flap menu

- Press function key  in the Basic settings menu to reach the Front cover menu.
- Press function key  to return to the Basic settings menu.

F2.1



Display:

Like the Basic setting menu

Possible keys:

	Fold front flaps[1)] forward.
	Fold front flaps[1)] up.
	Fold top front flaps[1] down.
	Fold top front flaps[1] up.
	Go up one menu level (here: Basic settings menu)

1) The front flap moves as long as the key is depressed.

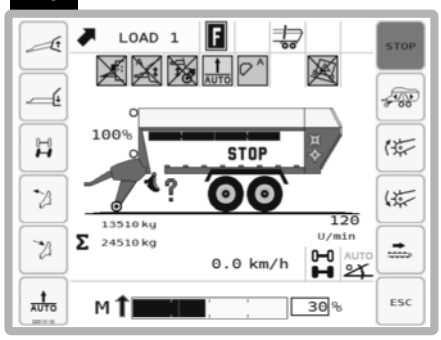
TIP

Keys  and  are locked as long as the load safeguard device is closed.

Loading menu

- Press function key in the Start menu to reach the Loading menu.
- Press function key ESC to go back to the start menu.

F3



TIP

This Loading menu is available in the standard version and in the chopped version. The chopped state must be activated in the set menu.

Display:

Like the Basic setting menu

Possible keys:

STOP	STOP
	Transport menu F5
	Raising pick-up (Display) (Standard version)
	Lower pick-up / bring pivoting drawbar in loading position automatically. [2] (Standard version) **WARNING** **Risk of serious injury through the drawing-in of clothing or body parts.** • Do not operate the machine if the deflector plate or the side casings are dismantled. • Do not change the settings of the deflector plate while the pick-up is turning and the cardan shaft is connected.
	Fold front flaps up. (Chopping mode)
	Fold front flaps forward. (Display) (Chopping mode)
	Scraper floor return (Display ▸▸▸)
	Steering axle AUTO / ON / OFF (option) When using the trailing axle automatic or the intelligent trailing axle, this key can be used to switch between the ON - AUTO - OFF functions. see 14A. Trailing axle automatic or intelligent trailing axle When using the electronic steering axle (optional), this key can be used to switch between locked / active.
	Pivoting drawbar - lift trailer The movement stops as soon as the key is released. The function "Lift pivoting drawbar" is also available via the external keypad left in the direction of travel above the pick up.
	Pivoting drawbar - lower trailer The movement stops as soon as the key is released. The function "Lower pivoting drawbar" is also available via the external keypad left in the direction of travel above the pick up.
	Press the key [Fold in cutter unit] to retract the cutter unit. The cutter unit moves in the direction of the conveyor duct until end position is reached as long as you keep the key pressed. (same function as on external keypad). As long as the end position has not been reached, you will see the cutter unit on display. Swivelling in is possible only if: - The blade sharpening unit (optional) is in the park position. - Sensor B19 "Cutter unit in arrester hook" is active (only for TORRO series xx10 and EUROPROFI series xx10). This means that the cutter unit has been folded back to swivel-out position correctly. - The sensor B24 "blade-locking system" must be active! This means that the cutters are locked correctly (only TORRO). The function "Fold in cutting unit" is also available via the external keypad left in the direction of travel above the pick up.
	Press the key [Fold out cutter unit] to fold out the cutter unit. The cutter unit moves out of the conveyor duct to end position, as long as you keep the key pressed. As long as the end position has not been reached, you will see the cutter unit on display. The function "Fold down cutting unit" is also available via the external keypad left in the direction of travel above the pick up.

AUTO	Activate / deactivate automatic loading (Display AUTO)
ESC	Go up one menu level

2) only if the automatic loading position control has been configured and is active.

Automatic loading function sequence:

Press the key [Automatic loading] to switch automatic loading on or off.

Switching the automatic loading on or off is only possible with the tailgate closed!

Control of automatic loading via

- Filling level flap down
- Full level flap, up
- Load torque sensor

Automatic loading function sequence:

- Scraper floor drive is switched on automatically
- Load material is moved back slightly
- The procedure is repeated until the loading space is full

Wagon is full when the fodder presses

- against the lower discharge beater or
- against the rear wall (wagon without discharge beater unit)

When the trailer is full,

- "Full" notification appears in the display.

TIP

The automatic loading only needs to be switched on once. After the “Full” notification it is automatically paused, however, after unloading it is switched on again automatically.

- Counter for the number of loads increases by one.

TIP

Counter for the number of loads increases:

- “Full” notification or
- sequence of the following states: "Tailgate closed --> Tailgate open --> Scraper floor reverse for 10 seconds"

The automatic loading settings are located in the SET menu. The setting remains unchanged even after switching the system on and off

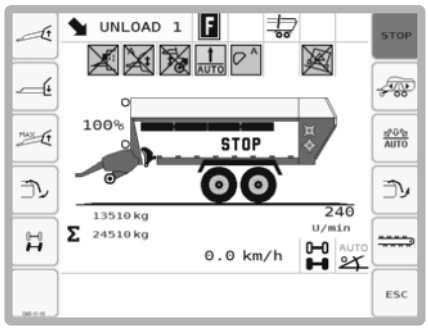
Unloading menu

Press function key in the start menu to go to the unloading menu.

- Press function key ESC to go back to the start menu.

Unloading menu

F4



Display:

Like the basic setting menu

Possible keys:

STOP	STOP
	Transport menu **F5**
A	Start automatic unloading without cross conveyor
AUTO	Change to menu **F4.2** Automatic unloading (only with a configured cross conveyor)
	Approach the maximum drawbar position [1]
	Pivoting drawbar - lift trailer The movement stops as soon as the key is released The function "Lift pivoting drawbar" is also available via the external keypad left in the direction of travel above the pick up.
	Pivoting drawbar - lower trailer The movement stops as soon as the key is released The function "Lower pivoting drawbar" is also available via the external keypad left in the direction of travel above the pick up.
	Open tailgate - time delay (Display) **WARNING** **Risk of serious injury caused by a moving tailgate.** • Ensure that no one is standing in the tailgate's swivel range.
	Change to Scraper floor menu **F4.1**
	Close tailgate (Display) **WARNING** **Risk of serious injury caused by a moving tailgate.** • Ensure that no one is standing in the tailgate's swivel range.
	Steering axle AUTO / ON / OFF (option) AUTO only possible if "Automatic" has been selected in the Set menu. or Electronic steering axle (option) locked / active
ESC	Go up one menu level

1) Only if the drawbar sensor has been configured.

2) For trailers with dosing roller

Functional routine of automatic unloading without cross conveyor

TIP

Before starting automatic unloading you must:

1 . Bring the cross conveyor to the working position

2 . Secure the tailgate

1. Scraper floor is switched to forward run (only for trailers with dosing rollers)

   The time is adjustable in the SET menu under "Scraper floor lead time".

   - Fodder pressure at diosing roller is reduced
   - Warning appears in display
2. Switch on dosing rollers (only for trailers with dosing rollers)
   - Warning appears in display
3. Switch on cardan shaft at tractor
4. Scraper floor is unloaded at the speed last saved.

TIP

A U T O M A T I C U N L O A D I N G :
The current scraper floor speed is automatically saved after a running time of 10 seconds and is used for the subsequent unloading procedure!.

Cancelling the automatic unloading

Briefly press key [Close tailgate] during an automatic unloading procedure to cancelthe automatic unloading.

TIP

As with all hydraulic functions, the automatic unloading can be interrupted with the STOP button. It results in the cancellation of all other controllable hydraulic functions, and the tailgate does not close.

1. Symbol in display starts flashing
2. Opened tailgate is slowly lowered.
3. Unloading is cancelled!
   Switching off the:
   - Scraper floor drive
   - Dosing rollers2
4. Hydraulic to lock the tailgate is activated.
   The tailgate is only closed and locked when the symbol in the display goes out.

TIP

The function "Start automatic unloading system" becomes active only after the button is held down for 1 second. (Safety measure for road travel).

TIP

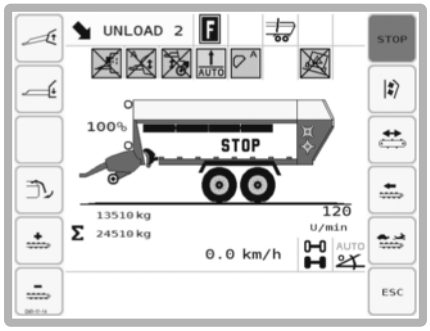
A U T O M A T I C U N L O A D I N G :
The current scraper floor speed is automatically saved after a running time of 10 seconds and is used for the subsequent unloading procedure!

Scraper floor menu

Press function key in the Unloading menu in order to reach the Scraper floor menu.

- Press the function key ESC to return to the Unloading menu **F4** .

F4.1



TIP

If "Sensor-monitored tailgate opening" is active, then the scraper floor can only be switched on with the tailgate completely open.

Display:

Like the basic setting menu

Possible keys:

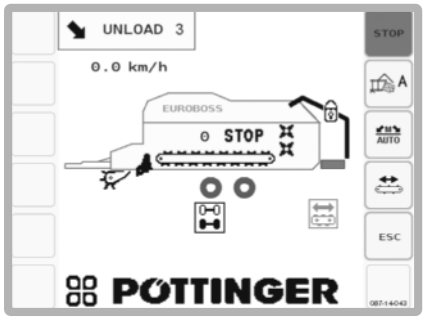
STOP	STOP
	Scraper floor switch-over (slow/ fast)(display /) **TIP** When "fast" is selected with this key and the optional 2-stage motor is configured, the 2-stage motor is automatically switched on
	Increase speed (stepped 0-20)
	Decrease speed (step 0-20)
	Scraper floor forward run (display indication) **TIP** If the [Scraper floor forward running] key is pressed while the scraper floor is running back, the scraper floor will stop. Press the key again to restart the forward running.

	Manual cross conveyor direction choice: If the [ ] key is pressed, two directional selector keys for the cross conveyor belt are displayed for three seconds. Press the relevant button for the desired direction. After the selection of the direction or expiry of three seconds, the keys return to the respective normal functions. **TIP** Manually selecting a direction is not possible with a mechanical cross conveyor. Re-position the PTO to change the direction
	Pivoting drawbar - lift trailer The movement stops as soon as the key is released The function "Lift pivoting drawbar" is also available via the external keypad left in the direction of travel above the pick up.
	Pivoting drawbar - lower trailer The movement stops as soon as the key is released The function "Lower pivoting drawbar" is also available via the external keypad left in the direction of travel above the pick up.
	Close tailgate (Display) **WARNING** **Risk of serious injury caused by a moving tailgate.** • Ensure that no one is standing in the tailgate's swivel range. **TIP** As long as the closing process takes place without pressure, the symbol "Close tailgate" blinks on the display. If the tailgate is closed and locked with pressure, the symbol stops blinking and an arrow is displayed to indicate locking. **TIP** If the rear wall is being opened or closed, an acoustic signal is heard during the entire procedure.
ESC	Go up one menu level

Unloading menu with cross conveyor

- In the Unloading menu, press the function key in order to reach the Unloading menu with the cross conveyor belt.
- Press the function key to return to the Unloading menu **F4** .

F4.2



Display:

Like the basic setting menu

Possible keys:

STOP	STOP
A	Automatic unloading, when the cross conveyor is not used.
AUTO	Automatic unloading with mechanical cross conveyor
	Manual coupling and starting of the mechanical cross conveyor belt
AUTO	Automatic unloading with hydraulic left-running cross conveyor.
AUTO	Automatic unloading with hydraulic right-running cross conveyor
ESC	Go up one menu level

Functional sequence of automatic unloading with cross conveyor

TIP

Before starting automatic unloading you must:

1. Bring the cross conveyor to the working position

2 . Secure the tailgate

1. Switch on cross conveyor
2. Scraper floor is switched to forward running (the time is adjusted in the Set menu under "Scraper floor lead time").
   - Fodder pressure at dosing roller is reduced
3. Switch on discharge beaters
   - Warning appears in the display
4. Switch on cardan shaft at tractor
5. Scraper floor is unloaded at the speed last saved.

TIP

A U T O M A T I C U N L O A D I N G : If the scraper floor speed is maintained for 10 seconds, it is automatically saved and used for the subsequent unloading procedure!

Functional sequence with interruption / ending of automatic unloading:

Briefly press the key  [Close tailgate] during automatic unloading to interrupt automatic unloading.

TIP

The automatic unloading can be interrupted with the STOP button. This results in the cancellation of all other controllable hydraulic functions. Take note! The tailgate does not close!

1. Symbol in display starts flashing
2. Opened tailgate is slowly lowered.
3. Unloading is interrupted!

   Switching off the:
   - Scraper floor drive
   - Discharge beaters
   - Cross conveyor
4. Hydraulic to lock the tailgate is activated.

   The tailgate is only closed and locked when the symbol in the display goes out.

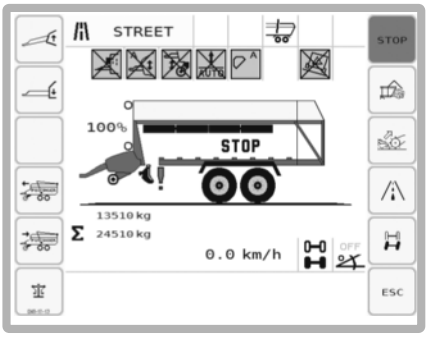
TIP

The function "Start automatic unloading system" becomes active only after the button is held down for 1 second. (Safety measure for road travel).

Transport menu

- Press function key in the Start menu to reach the Loading menu.
- Press the function key ESC to return to the Start menu.

F5



Display:

Like the basic setting menu

Possible keys:

STOP	STOP
	Change to Unloading menu **F3**
	Change to Loading menu **F4**
	Start the drawbar road position
	Steering axle AUTO / ON / OFF (option) When using the trailing axle automatic or the intelligent trailing axle, this key can be used to switch between the ON - AUTO - OFF functions. see 14A. Trailing axle automatic or intelligent trailing axle When using the electronic steering axle (optional), this key can be used to switch between locked / active.
	Raise lift axle (cautiously) (option)
	Lower lift axle (cautiously) (option)
	Pivoting drawbar - lift trailer The movement stops as soon as the key is released. The function "Lift pivoting drawbar" is also available via the external keypad left in the direction of travel above the pick up.
	Pivoting drawbar - lower trailer The movement stops as soon as the key is released. The function "Lower pivoting drawbar" is also available via the external keypad left in the direction of travel above the pick up.
	Raise hydraulic dry fodder top-frame / Close load safeguard device*
	Lower hydraulic dry fodder top-frame / Open load safeguard device*
ESC	Go up one menu level

* Depending on whether the load safeguard device or dry fodder top-frame have been configured.

SET menu

Several speeds, lead times and operating points can be set in the Set Menu.

- Press function key in the Start menu to reach the Set menu.
- Press the function key ESC to go back to start menu.

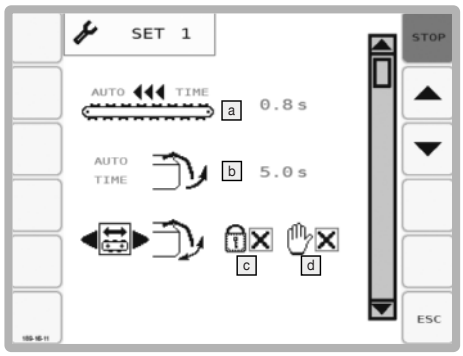
TIP

Before initial operation of the control, some settings must be made to enable correct function.

Confirm this changed setting by pressing the OK key.

Set menu 1:

F6



Symbol meaning:

a Scraper floor lead time for automatic unloading

(only for trailers with dosing rollers)

This lead time is used to unload the dosing rollers in the automatic unloading mode. After the tailgate has been opened, the scraper floor conveys fodder to the dosing rollers for the time period set.

- Setting range 0.1 - 3 sec
- (Standard value 0.7 seconds)

b Tailgate opening time (with automatic unloading)

- Enter here how long it takes to open the tailgate hydraulically.

Adjustment range:

Trailer with dosing roller: 1 - 10 sec

Trailer without dosing rollers: 5 -10 sec

TIP

When the "sensor monitored tailgate opening" is active, the timer does not trigger. The tailgate keeps opening until the sensor reacts.

c tailgate fixing (only vehicles with dosing rollers)

(with active automatic unloading)

The tailgate fixing serves to set an outlet width during the automatic unloading, for all self-loading trailers with cross conveyor belt.

While the tailgate securing device is functioning, the tailgate cannot be moved using the [Tailgate open/ close] key. However, automatic unloading can still be stopped with this key.

TIP

When using the cross conveyor, ensure that the tailgate is always open as far as possible. Thereby ensuring there is no gap between the tailgate and the cross conveyor.

TIP

(Only for trailers with hydraulic cross conveyor.)

There are two keys at the rear of the trailer which enable the tailgate to be moved while the fixing device is active. These keys have no function unless the tailgate fixing is active.

Adjustment range active / inactive.

For hydraulic cross conveyor:

If the cross conveyor is brought into position physically, a sensor switches the parameter "Tailgate fixing" to active, then back again to inactive when the cross conveyor is returned to the transport position.

This parameter can be switched manually in the Set menu if there is a problem with the sensor.

For mechanical cross conveyor:

Manually switch on/off the tailgate fixing through this field.

d Tailgate floating position (only EUROBOSS)

TIP

This function is only active as long as the Set menu has been accessed and the function is switched on with a tick. The function is automatically deactivated when the Set menu is exited.

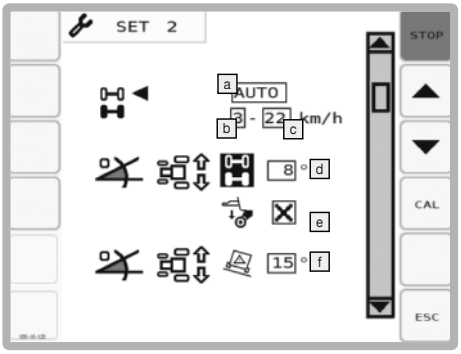
The tailgate float position function helps when adjusting the tailgate securing position, because the hydraulic cylinders responsible for opening the tailgate are placed in the float position. This makes it easier to move the tailgate manually and therefore easier to place it in the correct position for securing.

Function keys

STOP	STOP
▲	Previous Set menu Change to the top mask
▼	Next Set menu Change to the bottom mask
ESC	Go up one menu level

Set menu 2:

Steering axle operation



a **Steering axle operation mode**

- **Manual operation (MANUAL)**

The steering axle is released manually in the Work menu.

The AUTO function is not available in the Work menu .

- **Automatic operation: (AUTO)**

The steering axle is either released and locked depending on the speed or with the intelligent trailing axle. For the intelligent trailing axle the inclination sensors (d, e) are required.

In the work menu the decisions of the automatic can be reset manually.

b Lower limit for automatic operation

The lower limit is adjustable between 0 and 3 km/h.

c Upper limit for automatic operation

The upper limit is adjustable between 10 and 25 km/h

d Limit of the lateral ground inclination for axle locking in the mode "intelligent trailing axle"

If the angle of the ground inclination is bigger than the set value, the steering axle will be locked.

0° means that the axle locking is switched off.

e Limitations of the steering axle lock

= Locking of the steering axle due to exceeding the (configurable) limit value only works with lowered pickup

x = no limitations of the lock

f Limit of the lateral ground inclination for warning messages

If the angle of the ground inclination is bigger than the set value, the warning message will be displayed.

0° means that the warning message is switched off.

TIP

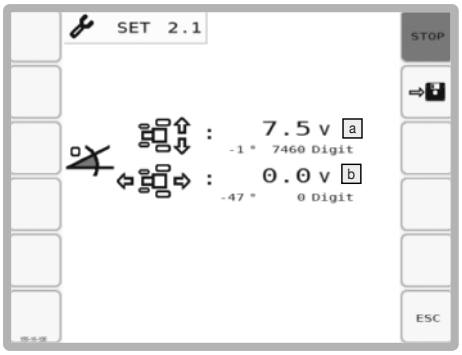
The inclination limits (d, e) belong to the information displays in the work menu.

These information displays are to support the driver.

The driver is still responsible for any inclination changes done by himself.

Speed	Condition of steering axle
Negative (reverse)	locked
minimum lower limit	locked
Between lower and upper limit	**Open**
maximum upper limit	locked

Set menu 2.1: Calibration menu for inclination sensor



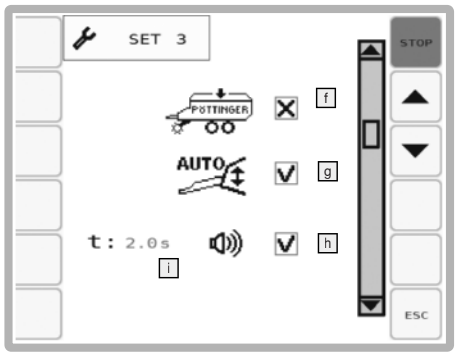
a current value for the lateral inclination

b current value for the lateral inclination in the direction of travel

Function keys

STOP	STOP
▲	Previous Set menu Change to the top mask
▼	Next Set menu Change to the bottom mask
ESC	Go up one menu level

Set menu 3:



Display:

f Chopping mode: If the chaffing mode is activated (= active), then the [Front covers] keys are visible instead of the [Lift pick-up] /[Lower pick-up] keys in the Work menu .

g Automatic control of the pivoting drawbar loading position
When the "automatic control of loading position" is activated (= active), then every time the key [Lower pick-up] is pressed, the load position will be approached, provided it has not already been reached. When pressing the key [Lift pick-up], the drawbar goes ito street position after the delay period.

TIP

This function is only active as long as the cardan shaft is turned on.

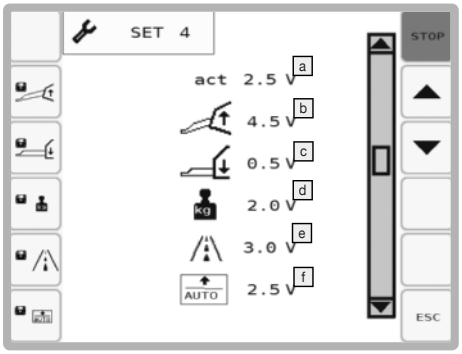
h Acoustic warning signal at the beginning of the automatic pivoting drawbar movement, in ( )/out ( )

i Time delay for the automatic control of the pivoting drawbar in street position ("0.0" = start of street position is off. Starting from value ≥ 0.1 the delay is switched on.)

Function keys

STOP	STOP
▲	Previous Set menu Change to the top mask
▼	Next Set menu Change to the bottom mask
ESC	Go up one menu level

Set Menu 4 (only if drawbar sensor is configured)



Display

a Current voltage at the pivoting drawbar
b Maximum voltage at the pivoting drawbar
c Minimum voltage at the pivoting drawbar
d Voltage in weighing position
e Voltage in transport position
f Voltage in loading position

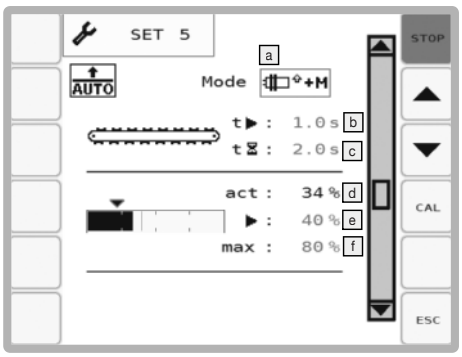
Function keys:

STOP	STOP
▲	Previous Set menu Switch to upper mask
▼	Next Set menu Switch to bottom mask
ESC	Go up one menu level
	Lift the articulated drawbar and save the maximum value
	Lower the articulated drawbar and save the minimum value
	Save current tension as value for weighing unit
	Save current tension as transport position
	Save current tension as loading position

Save tension values

1. Set current value with / keys
2. Save with the corresponding key
   (Exception maximum and minimum value: Depress key until maximum and minimum value is held for 2 sec. Value is saved automatically. and a signal is audible)

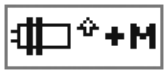
Set menu 5: Automatic loading



Display

a Sensors that switch on the automatic loading. The loading sensor has three modes. Without the loading sensor only the first mode is available:

Switch-on conditions:

Mode 1: 	The upper (B3) and the lower (B4) sensor must react so that the scraper floor switches on. The upper sensor starts the scraper floor with the time delay. The lower sensor starts the scraper floor immediately.
Mode 2: 	The upper (B3) and the lower (B4) sensor, or the loading moment sensor must react so that the scraper floor switches on. The sensor that reacts first will switch on the scraper floor. The time delay becomes effective when switching via the upper sensor or the load switching limit f of the loading moment sensor.
Mode 3: 	In order for the scraper floor to switch on, the upper sensor (B3) must react and the value of the loading moment sensor must be above the value of the load switching limit. If this condition is fulfilled, the scraper floor switches on after the time delay. When the maximum switching limit of the loading moment sensor is reached, the scraper floor will be switched on immediately.

TIP

The scraper floor and the dosing rollers may not be turned on until the door to the loading room is closed and the climbing aid is properly folded up.

b Scraper floor delay (adjustable). If a value of 0.0 seconds is set, the scraper floor will run as long as the switch-on condition for the respective mode is fulfilled.

c The delay period between fulfilling the switch-on condition for the respective mode until the start of the scraper floor displacement. (adjustable)

The lower sensor and the maximum switching value of the loading moment sensor are the exceptions to this delay period.

d Current measured value of the load torque sensor

e Loading switching limit (adjustable). Switching on with this value takes place after the time delay c.

TIP

Adapting the load switching limit is also possible in the Work menu.

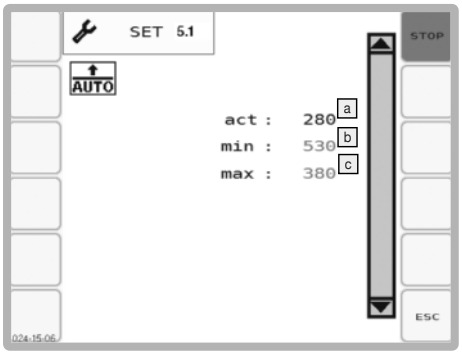
f Maximum switching limit of the loading moment sensor (adjustable). Switching on with this value takes place immediately.

Function keys:

STOP	STOP
▲	Previous Set menu Change to the top mask
▼	Next Set menu Change to the bottom mask
CAL	Calibration menu for the loading moment sensor
ESC	Go up one menu level

Set menu 5.1:

Calibration menu for the loading moment sensor



Display

a Current value at the loading moment sensor

b Minimum value at the loading moment sensor (with empty trailer) Basic setting: 530

c Maximum value at the loading moment sensor

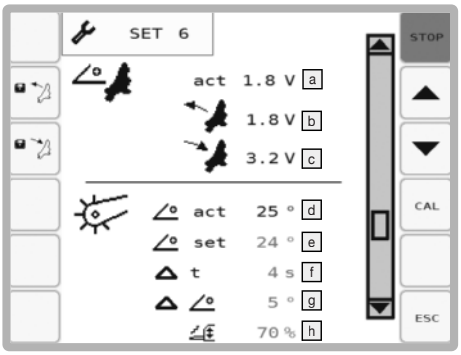
Basic setting:

Jumbo	**675**
Torro	**650**
Europrofi	**630**

Function keys:

STOP	STOP
ESC	Go up one menu level

Set menu 6: Calibrate angle sensor B2



1. Hold the key [Retract cutting unit] pressed until the tension value does not change any more. Then the value for the fully retracted cylinder is saved.
2. Hold the key [Extend cutting unit] pressed until the tension value does not change any more. Then the value for the fully extended cylinder is saved.

Display

a Current value at angle sensor B2

b Tension value at angle sensor B2 when the hydraulic cylinder is fully retracted.

c Tension value at angle sensor B2 when the hydraulic cylinder is fully extended

d Current pick-up angle

e Pick-up angle in loading position: Setting the reference value.

f Time delay after the pivoting drawbar automatic mode takes over the pivoting drawbar control. Runs after pressing the [Lower pick-up] key

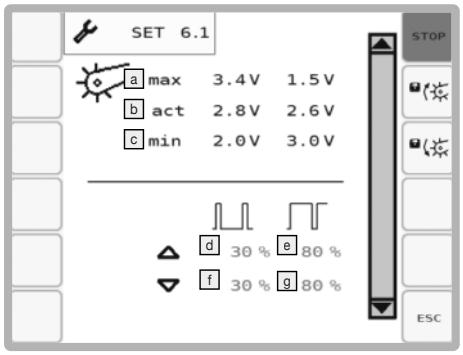
g hysteresis angle: Prevents the pivoting drawbar from continuously raising and lowering with minor surface unevenness. Only when the angle deviation is greater than the angle set here will the drawbar start to move.

h Setting the pivoting drawbar traversing speed: The greater the value, the faster the drawbar operates. Setting range 0%-100%

Function keys

STOP	STOP
▲	Previous Set menu Change to the top mask
▼	Next Set menu Change to the bottom mask
	Retract cutting unit and save value
	Extend cutting unit and save value
CAL	Calibration menu for the loading moment sensor
ESC	Go up one menu level

Set menu 6.1: Calibrate the angle sensors



NOTE

Material damage caused by replacement of the angle sensor while retracting the pick-up

- If an angle sensor is replaced, both sensors must be recalibrated.

1. Press the [Further function keys] key until the functional keys shown in the image above can be seen.
2. Press and hold the [Retract cutting unit] key until the tension value does not change any more. Then the value for the fully retracted cylinder is saved.
3. Press and hold the [Retract cutting unit] key until the tension value does not change any more. Then the value for the fully extended cylinder is saved.

Display:

In this mask angle sensor faults can be identified.

a Values of angle sensors with pick-up at the top

b Current angle sensor value (must change when the pick-up position changes!)

c Value of the angle sensors with pick-up right down

d Value for the minimum valve opening when raising the drawbar

e Value for the maximum valve opening when raising the drawbar

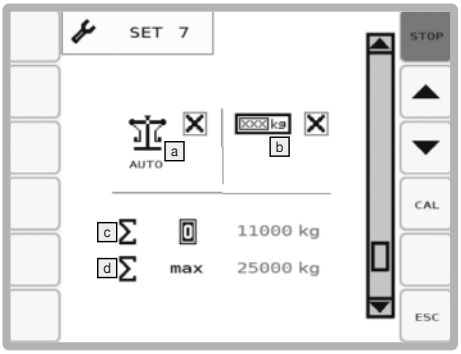
f Value for the minimum valve opening when lowering the drawbar

g Value for the maximum valve opening when lowering the drawbar

Function keys

STOP	STOP
	Raise pick-up and save tension value
	Lower pick-up and save tension value
ESC	Go up one menu level

Set menu 7: Weighing unit



Display

a Auto-weighing - see BA auto-weighing

b External display (not available)

c Tractor/trailer combination tare weight

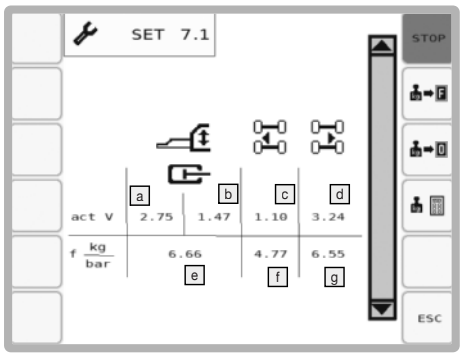
d Max. total weight of tractor/trailer combination (refer to the notes for the working mask)

The maximum load capacity is obtained from the values of c and d. If this, and with this the maximum total weight of the tractor/trailer combination set here, is exceeded, this is indicated in the Work menu where the weight indicator is coloured red and a signal tone is heard.

Function keys:

STOP	STOP
	Previous Set menu Change to the top mask
	Next Set menu Change to the bottom mask
CAL	Calibration menu for weighing unit
ESC	Go up one menu level

Set menu 7.1: Calibration menu for weighing unit



Display:

Current tension value:

a B11 Drawbar, piston-side

b B14 Drawbar, ring-side

c B12 Chassis, left

d B13 Chassis, right

Current conversion factors:

e Drawbar

f Chassis, left

g Chassis, right

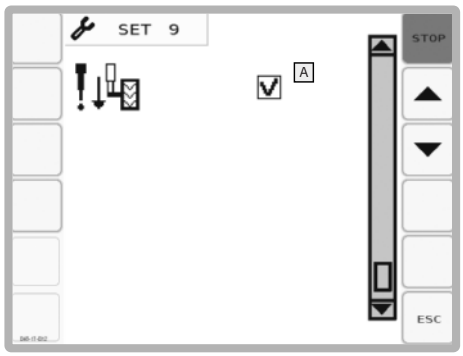
Function keys:

STOP	STOP
	Carry out FULL-weighing (press and hold key for 2 secs.)
	Carry out ZERO-weighing (press and hold key for 2 secs.)
	Process calibration values and finish the procedure.
CAL	Calibration menu for the weighing unit. See chapter "Weighing unit"
ESC	Go up one menu level

Set menu 8:

not in use at the moment

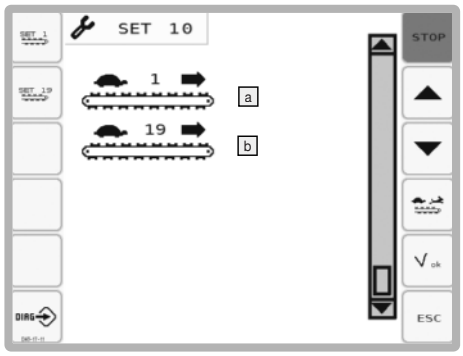
Set menu 9: switch on the inclination angle warning



Display:

a inclination angle warning in the work menu on ( )/ off( )

Set menu 10: Calibrate scraper floor



Display

a Scraper floor speed Step 1

b Scraper floor speed Step 19

Function keys

STOP	STOP
▲	Previous Set menu Switch to upper mask
▼	Next Set menu Switch to bottom mask
ESC	Go up one menu level
SET 1	Calibrating the min. speed:
SET 19	Calibrating the max. speed:
V ok	OK key To confirm changed settings

Calibrate scraper floor

1. Press key [Set 1] to set the lowest speed.
2. To change the speed, press the hard keys [+] or [-] on the terminal. Set the lowest recognisable speed.
3. Press the key [Set 19] to set the highest speed.
4. To change the speed, press the hard keys [+] or [-] on the terminal. Set the fastest recognisable speed.
5. Press the [OK] key to save the values and stop the scraper floor.

Configuration menu

Enter the equipment provided in the trailer in the Configuration menu. This menu is needed only when additional equipment is added to, or removed from, the trailer. Otherwise, the correct configuration has been factory set.

- In the Start menu, press the function key for 10 seconds to access the Configuration menu.
- Press function key ESC to return to the Start menu.

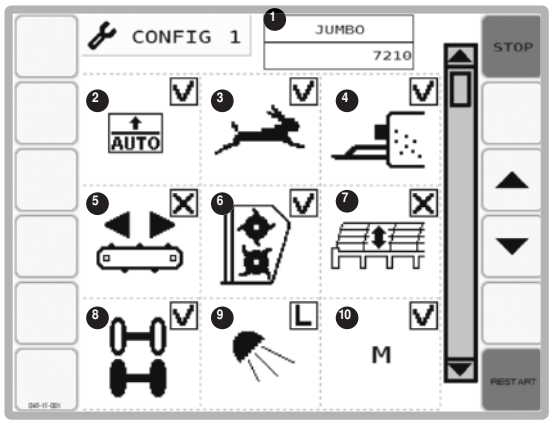
TIP

Switch to the individual functions with the "Down ▼ " or "Up ▲ " keys

The functions can be switched on or off with the "+ (YES)" and "- (NO) " keys.

Display:

F7



1… Set machine type

2… Automatic loading

3… Scraper floor, stage 2

4… Fodder additive system

5… Cross conveyor: ×...no cross conveyor
m...mechanical / h...hydraulic / h1...hydraulic cross conveyor 890 mm

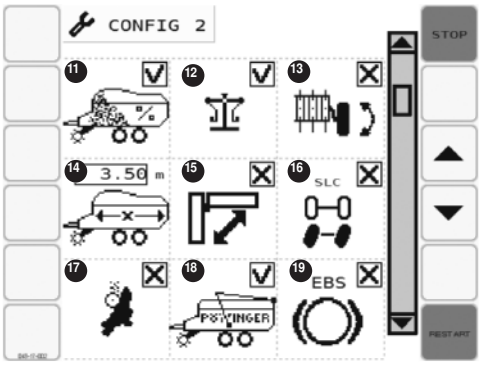
6... Dosing rollers

7... hydraulic dry forage extension (can not be used synonomously with a load protection. The symbol is therefore crossed out when the load protection is configured.

8... Trailing steering axle: L...Lift axle
× ...not available / ✓ ...available

9. Work lighting (consisting of the loading space lighting and possibly reversing lights)
L ...LED light
H ...Halogen headlights
X ... no working lights
Beware! For additional headlights e.g. on the axle, a relay circuit is needed!

10.. Loading moment sensor



11... Full level sensor

12... Weighing unit

13... Feeler wheel swivelling for Pick-up Super large 2360

14... Trailer length (for full level sensor)

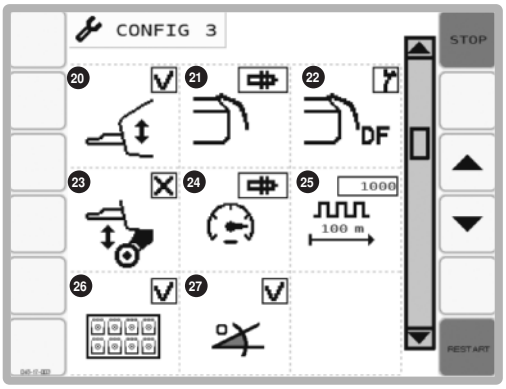
15... Front cover (operated via the terminal)
1...one front cover
2...two front covers
X...no front cover

16... Electronic positive steering

17... Automatic blade sharpening unit
Autocut

18... load protection (can not be used synonomously with hydraulic dry forage extension. The symbol is therefore crossed out when the hydraulic dry forage extension is configured.

19... Electrical brake system



20 Automatic loading position control

21 Sensor monitored tailgate opening (✓ = active, available / × = inactive, not available / S = Service information)

22 Full-notification sensor types

1. via oil pressure switch (S7)
2. via break contact. Full-notification when ontact sensor is interrupted (B6)
3. via N/O contact Full-notification with closed contact (B6)

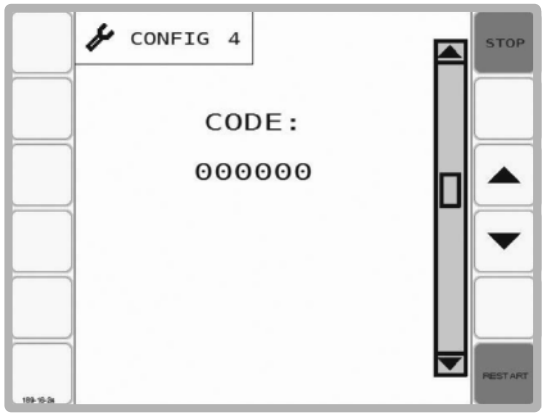
23 AUTOKEY pivoting drawbar control (✓ = active / × = inactive)

24 Speed signal source (iso = ISOBUS/ × = no speed signal) = intelligent trailing axle)

25 Impulses per 100 metre

26 external keypad (✓ = active, available / × = inactive, not available)

27 inclination sensor (✓ = active, available / × = inactive, not available)



TIP

Screen 4 is reserved for service staff

Function keys

STOP	STOP
▲	Switch between masks, back
▼	Switch between masks, forward
RESTART	[Restart] saves the changed equipment and restarts the software. This symbol only appears when the equipment has been changed.

TIP

After an equipment change, the [ESC] key in the configuration menu is replaced by the [Restart] key. The changes made become effective only after the terminal has been restarted with [Restart].

TIP

To cancel changes, please alter the equipment again, and then press the [Restart] key in the configuration menu.

Test Menu

In the Test Menu, be informed of the current condition, and the displayed values, of the sensors. This might be very useful for troubleshooting.

- Press function key TEST in the Start menu to reach the Test menu.
- Press function key ESC to return to the Start menu.

Display:

A symbol with black background indicates that

- An inductive sensor is assigned
- A Hall sensor is assigned.
- A mechanical switch / key has been activated.

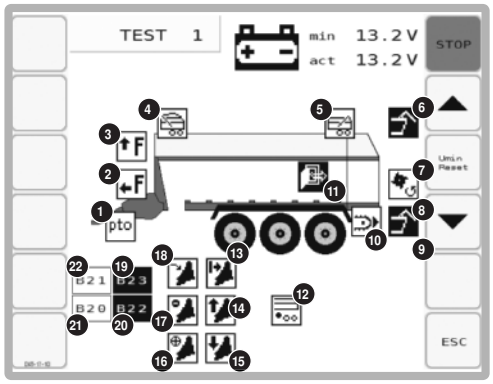
TIP

When a sensor or switch signal changes, the symbol is shown inverted.

A suitable signal change frequency can cause the symbol to flash. However, a flashing symbol does not necessarily mean a malfunction.

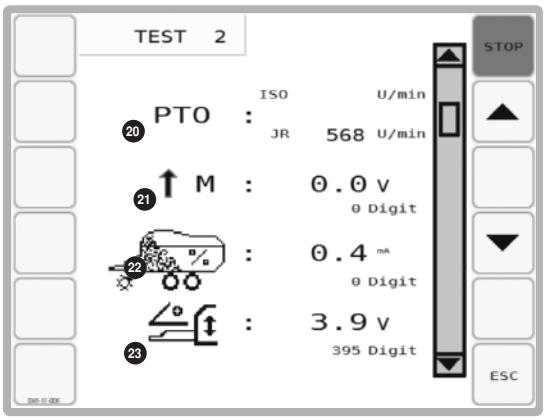
Sensors:

F8

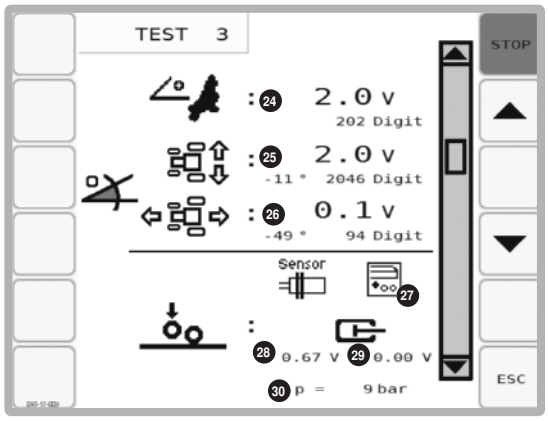


❶	PTO shaft speed	...B1
❷	Full level flap - bottom	...B4
❸	Full level flap, top	...B3
❹	Load safeguard system, front	...B30
❺	Load safeguard system, rear	...B31
❻	Tailgate opening monitoring	...B17
❼	Pressure on dosing rollers	...B6
❽	Tailgate	...B5
❾	Oil pressure switch	...S7
❿	Scraper floor rear switch	...S3
⓫	Loading room door	...B7
⓬	Lifting axle	...B10
⓭	Key for blade release	...S4
⓮	External cutting unit switch, on	...S1
⓯	External cutting unit switch, off	...S2
⓰	Cutting unit in arrester hook	...B19 + B24
⓱	Cutting unit swivel limitation	...B16
⓲	Cutting unit status	...B2
⓳	Feeler wheel sensor road transport ,left	...B22*
⓴	Feeler wheel sensor road transport, right	...B23*
㉑	Feeler wheel sensor working position, left	...B20*
㉒	Feeler wheel sensor working position, right	...B21*
ⓐ	Smallest measured voltage (rpm) since system start	
ⓑ	Present voltage (V)	

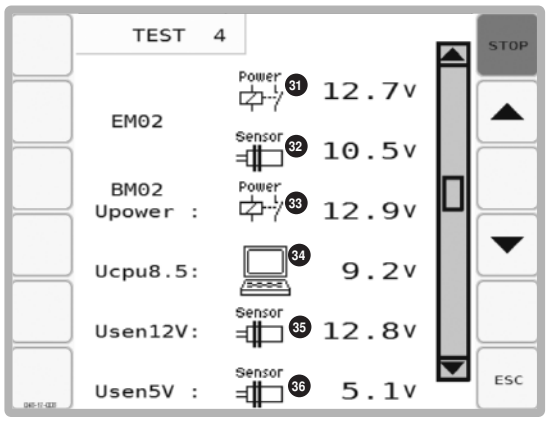
*The sensors situation is described in the chapter "Pick-up".



⓴	PTO shaft speed	...B1
㉑	Loading moment sensor (max. 10 V)	...B9
㉒	Full level sensor (4-20 mA)	...B11
㉓	Drawbar angle sensor (0-5 V)	...B8



24 Cutting unit angle sensor (B2)
25 lateral inclination angle sensor (B25.1)
26 Inclination angle sensor in the direction of travel (B25.2)
27 Lift axle sensor status (B10)
28 Voltage value Pressure sensor Drawbar Piston (B11)
29 Voltage value Pressure sensor Ring-side
30 Calculated drawbar pressure



EM02: Job calculator extension module (plug ST2)

31 Power supply voltage, extension module
Nominal value: >12 V

32 Stabilized sensor voltage
Nominal value = 10.5 V

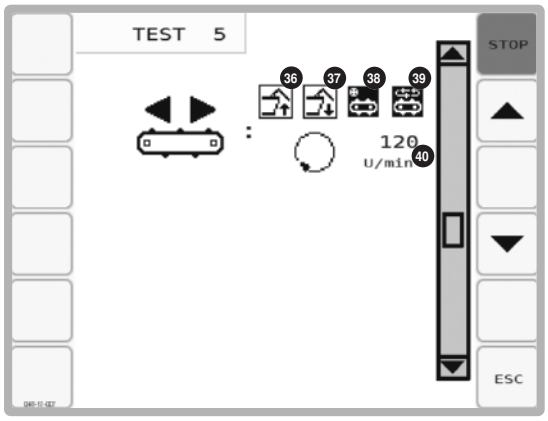
BM01: Basic module (plug ST1)

33 Voltage supply BM
Nominal value: >12 V

34 Processor voltage BM
Nominal value: >8.5 V

35 Non-stabilized sensor voltage
Nominal value: >12 V

36 Stabilized sensor voltage
Nominal value = 5.0 V



36 Button - Open tailgate (S50)
37 Button - Close tailgate (S51)
38 Cross conveyor in working position (B52)
39 Speed sensor Cross conveyor (B53)
40 current speed cross conveyor

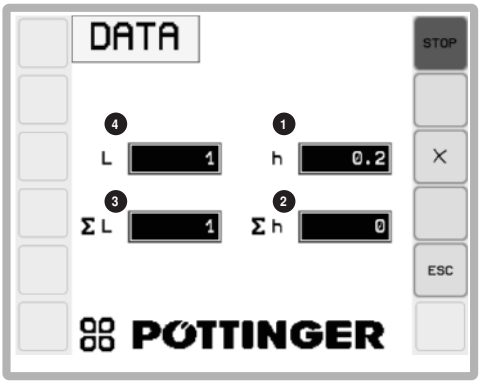
Function keys:

STOP	STOP
▲	Switch between masks, back
▼	Switch between masks, forward
Umin Reset	To set the minimum voltage value (a) to the present value (b)
ESC	[Restart] saves the changed equipment and restarts the software. This symbol only appears when the equipment has been changed.

Data menu

- Press function key in the Start menu to reach the Data menu.
- Press function key ESC to return to the Start menu.

F9



Display:

1 ... Partial hours counter
2 ... Total hours counter
3 ... Loads day counter
4 ... Load total counter

TIP

Counter for the number of loads is increased by:

- "Full" notification or
- sequence of the following states: "Tailgate closed --> Tailgate open --> Scraper floor reverse for 10 seconds"

Function keys:

STOP	STOP
×	... resetting both partial counters
ESC	Go back one level.

TIP

It is not possible to reset one partial counter without the other. Partial counters can only be reset together.

Tips on dealing with faults

TIP

When a fault occurs, every required function can be manually switched by using the emergency operation (see chapter "Electro-hydraulics")

TIP

Confirm a fault with key [ACK] ACK

TIP

The diagnostics function can be switched off for each individual sensor with the [Switch off] key until the next system start!

The alarms for the power supply cannot be switched off!

Diagnosis menu

When a fault is recognised,

- An alarm mask is overlayed
- An alarm tone is audible

Function keys

T1	Stop
T2	Confirmation of warning message. If the fault reoccurs, another alarm will be set off.
T5	Suppression of warning message until next system start

Alarm messages:

Malfunction at switch output

(Example: Pick-up)

Causes:
- Short circuit
- Current too low
- Valve not plugged in

Malfunction in the job calculator voltage supply

Causes:
- Insufficient power at the job calculator
- Wiring fault
- Contact fault
- Short circuit
- Faulty job calculator

TIP

If there are problems with the voltage supply, refer to the page "Voltage supply" in the Test menu.

Malfunction in the voltage supply for the sensors

Causes:
- Wiring fault
- Contact fault
- Short circuit
- Faulty sensor

TIP

If there are problems with the voltage supply, refer to the page "Voltage supply" in the Test menu.

Malfunction at the Bus connection to an extension module (LIN error):

1. Extension module Weighing unit
2. Extension module Load safeguard device
3. Extension module Feeler wheel swivelling
4. Job calculator blade sharpening

Causes:
- Wiring fault
- Extension module or job calculator faulty
- Malfunction in power supply

TIP

An error in the BUS-connection is also shown in the Basic setting menu, bottom left.

Cutting unit monitoring 1:

Swivelling the cutting unit in is not possible.

- Sensor B19 delivers no signal (EUROPROFI, TORRO). This sensor checks if the cutting unit is sitting in the arrester hooks.

  Counter-measures:
  - Check the cutting unit function
  - Check the sensor function
- Sensor B24 delivers no signal (TORRO). This sensor checks the cutting unit locking mechanism.

  Counter-measures:
  - Check the cutting unit function
  - Check the sensor function

Cutting unit monitoring 2:

Angle sensor B2 delivers no signal

Causes:
- Sensor too far away from magnets
- Faulty cable
- Faulty sensor
- Faulty power supply

Monitoring alarms

Isobus - stop - alarm

(only Pöttinger CCI Terminal)
from software version 2.10

The following screen appears if the Stop key (1) is pressed.

All hydraulic functions and the operating console are locked.
To continue work, first release the Stop key. (1)

Loading area monitoring

As soon as the climbing aid for the loading area door is unfolded, all hydraulic functions stop, the dosing rollers are uncoupled and the diagnostic notification above appears.

When the climbing aid is folded up, this notification is acknowledged.

⚠ WARNING

Risk of serious injury caused by entering the loading area while the scraper floor or the dosing rollers have not completely stopped.

- Enter the loading area only when the tractor engine has completely stopped and the drive shaft is uncoupled.
- Enter the loading area only when the scraper floor and the dosing rollers have stopped.
- Before closing the access door, always look around and make sure that no one is present in the loading room.

Monitoring external keypad

- Faulty Cabling
- Faulty sensor
- Faulty power supply (LEDs of the keys are glowing)

Pressure sensor monitoring

- Check the pressure levels in the calibration menu of weighing
- Faulty cable
- Faulty sensor
- Faulty power supply

Cross conveyor monitoring

If the cross conveyor belt speed sensor registers no speed 1 second after switching on the cross conveyor, the following error message appears.

Automatic unloading monitoring (for trailers with dosing rollers)

Cardan shaft stationary or turns too slowly!

If this message appears during the start of automatic unloading and the cardan shaft has not yet started:

1. Start the cardan shaft from the tractor.
2. The notification disappears when the rotation speed is exceeded

The sensor is faulty if:

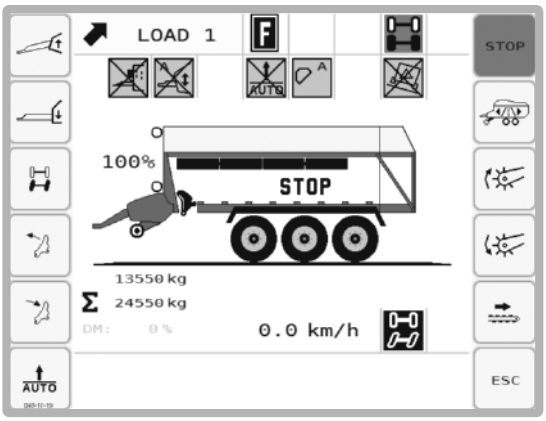
1. The message does not disappear during the start of automatic unloading.
2. The message appears during operation of automatic unloading but after the cardan shaft has been switched on.

Electronic positive steering* (EZL) - error notifications

The following error notifications exist only for the Jumbo trailer.

Steering computer fault:

Electronic positive steering symbol flashes.

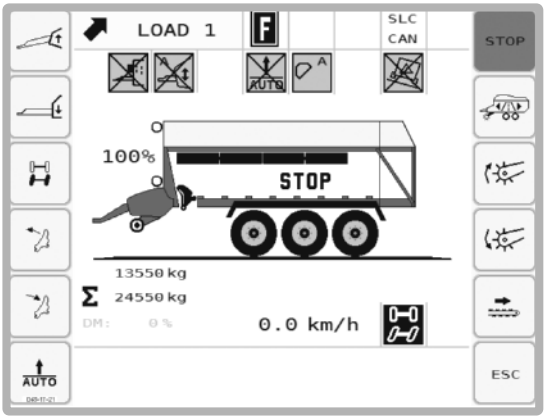


1. Check steering computer and remedy fault
2. Consult a workshop if the fault cannot be remedied. Drive at max. 10 km/h.

Data connection interrupted:

Positive steering fault symbol and

CAN symbol SLC CAN flash alternately.



1. Restore data connection.

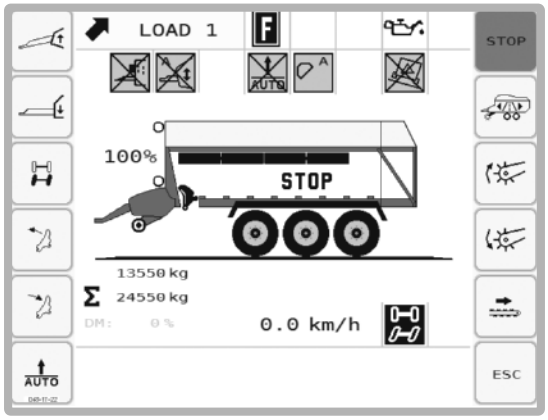
   a) Check power supply at steering computer. The steering computer is connected to the main computer via the supply cable

   b) Check the CAN bus connection in the cable harness distributor box on the trailer for correct wiring.
2. Consult a workshop if the fault cannot be remedied. Drive at max. 10 km/h.

Missing hydraulic supply:

Positive steering fault symbol and

oil can symbol flash alternately.



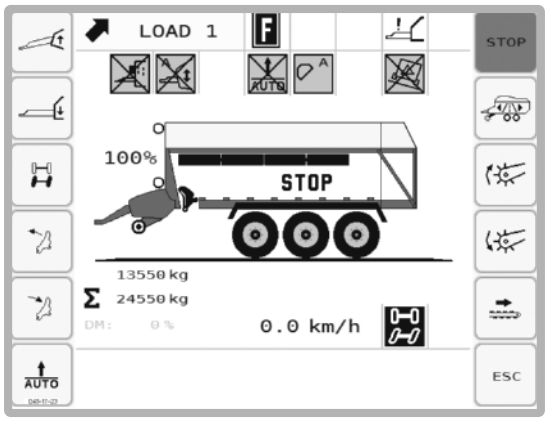
1. Check hydraulic supply. The tractor must be running for this.
2. If the fault is still showing, drive to a workshop at max. 10 km/h.

Collision monitoring indication

TIP

The collision monitor must be activated in the menu "Special Setup - Collision alarm" on the steering computer by entering the maximum angle.

The positive control fault symbol and the drawbar symbol are blinking alternately. An acoustic signal is audible.



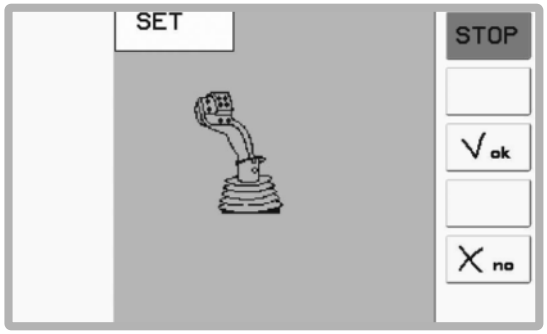
The maximum lock was exceeded. A collision of the tractor's rear wheels with the trailer is imminent. Straighten up!

Isobus "Auxiliary" function (AUX)

Some Isobus terminals support the function "Auxiliary" (AUX). This function allows assignment of the programmable keys of an auxiliary tool (e.g. joystick) with various functions of the control system. One key can also be assigned at several levels.

How to assign the individual functions to the keys can be found in the operating instructions for your terminal.

When a programmable key is pressed for the first time, the release mask will appear on the screen.



Press the key [ok] to release the auxiliary tool. Or press key [no] to refuse release and interrupt the operating procedure.

Functions that can be assigned to the auxiliary tool:

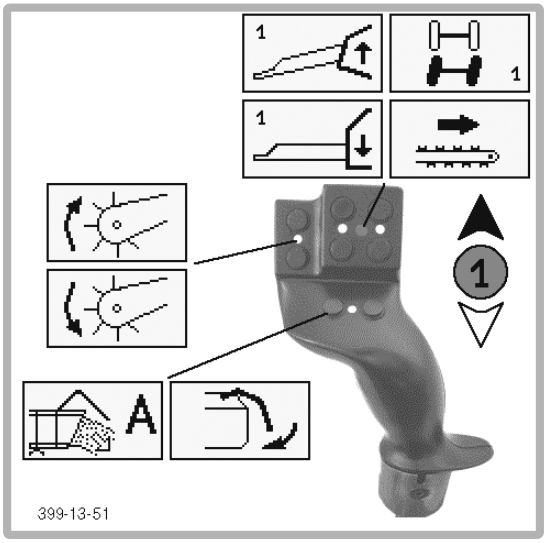
STOP	Stop
	Scraper floor return
	Raise / lower pivoting drawbar
	Raise / lower pick-up
	Raise / lower cutting unit
	Open / lock trailing axle or electronic positive steering
A	Automatic unloading
	Open / close tailgate
	Scraper floor forward run
	Two-stage motor
	Fold front flaps forward
	Fold front flaps up
	Fold top front flap down
	Fold top front flap up
AUTO	Automatic unloading with cross conveyor / without cross conveyor
	Open / close load safeguard device
	Light on / off / automatic

TIP

For further information on the functions, see chapter Isobus Terminal, Front Covers, Loading and Unloading Menu.

Possible assignment of a WTK multifunction lever:

At level 1.



TIP

For further information, please refer to the operating instructions for the terminal being used.

General safety information

- When you use the terminal in wireless operation always maintain visual contact with the moving parts of the implement.
- Do not remain in the hazard area during work or operation of the implement. Instruct other persons to leave the hazard area
- Die Bedienung des Schneidwerkes oder der Pick- up ist im Funk-Betrieb nicht möglich.
- Operation in the holder is equivalent to operation via cable connection. However operation in the holder is possible despite lack of Bluetooth connection or uncharged or missing battery. Operation of the cutting unit and pick-up is only possible in operation in the holder.
- The field operator 130 is intended for mobile use as a control terminal in agricultural work.
- The manufacturer is not responsible for the unit being installed or used not as intended.
- The manufacturer is not liable for any risks or injury to persons or damage to property arising from use not as intended.
- Use of the unit as intended presumes complete knowledge of the current Operating and Assembly instructions for the implement.
- Any unauthorised modifications to the original state of the implement exclude any liability on the part of the manufacturer.
- The relevant accident prevention regulations apply (UVV).
- If you are unsure after reading the Operating and Assembly Instructions, contact your authorised dealer or the manufacturer.

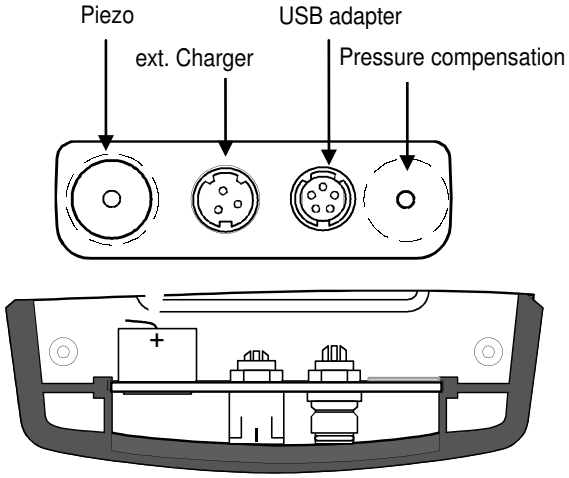
Information for the retrofitting of the "Field operator" in the implement

- The field operator 130 fulfills the statutory regulations concerning the electromagnetic compatibility of equipment (EMVG) of 24.09. 1998. The basis is provided by Guideline 95/54/EG on amendment of Guideline 72/245/EWG. The product standard used for testing is: DIN_EN ISO14982 agricultural and forestry machinery, electromagnetic compatibility, testing procedure and evaluation criteria with testing of:
- Immunity:
  - Line-bound disturbances (test impulse 1,2,3a,3b,4,5 according to ISO 7637-1)
  - Immunity to narrow-band HF field according to DIN-EN ISO 14982
  - Immunity to discharge of static electricity according to ISO/TR10605
- Interference emission:
  - Electromagnetic interference emission according to DIN-EN ISO 14982

Maintenance instructions

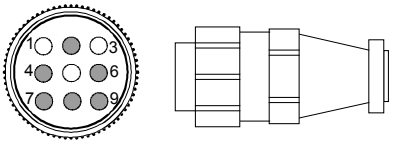
- Always switch the unit off for any maintenance or repair work required.
- Only perform electrical welding work on the implement or attachments with the power supply to the terminal disconnected.

Connections



Holder connection cable for ISOBUS cable harness

View on components side



31-14-001

Installation in vehicle

To ensure correct function of the terminal, make sure that the corresponding electrical connections are fulfilled.

The field operator 130 has an operating voltage range of:

- Input voltage - ECU_PWR 10.5 V … 16.0 V (battery voltage)
- Switch on voltage - TBC_PWR 6.0 V … 16.0 V (ignition voltage)

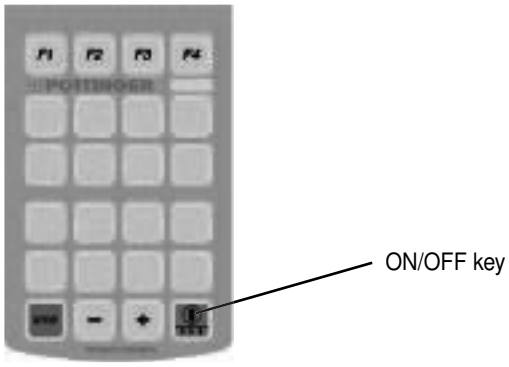
The ECU_PWR connection should be linked permanently to the battery voltage (if necessary via main switch).

NOTE

Material damage when turning on the holder caused by overvoltage.

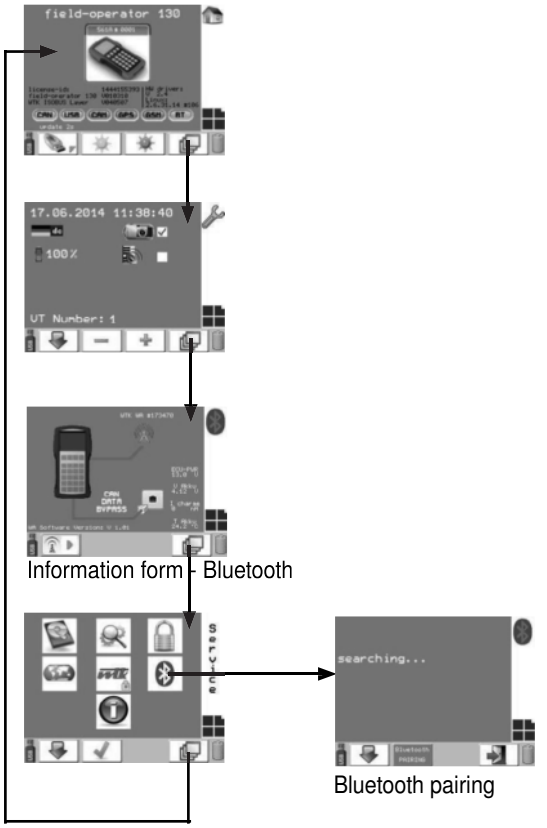
- The holder must be turned on via the TBC_ PWR connection (ignition voltage).

The operating panel is switched in any case via the ON/OFF key!



- The ON/OFF key must be pressed for at least 0.5 seconds for switch-on!
- The ON/OFF key must be pressed for at least 3 seconds for switch-off!
- The ON/OFF key must be pressed for at least 0.5 seconds to change between implement and system menu.

System menu



- Press the [Continue] key to access the next screen
- In the case of options, press the [Arrow] key to select the required option
- Press the [Confirm] key to confirm your selection.

Wireless connection

Pairing

Pairing secures point to point connections. Data transfer only takes place between paired participants.

Wireless equipment comprises a control panel and a holder among other things. A Bluetooth receiver is integrated in the terminal and holder respectively. Both partners are already paired in condition as delivered.

"Bluetooth pairing" must be changed in the service form to create a new connection pair (control terminal - holder). See Section "System"!

The control terminal starts to list all the Bluetooth receivers in wireless range when the form appears! This procedure lasts 10 seconds and takes place every time the form is called up.

Search for units ...

after 10 sec

Listing of all Bluetooth receivers found

Receivers already paired are shown in green. If a different receiver is to be paired, then it is selected with the [Arrow key] and confirmed with the [Pairing key] Bluetooth PAIRING.

NOTE

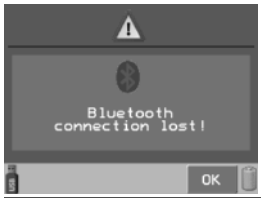
Material damage caused by pairing unknown devices

- Only carry out pairing with another WTK device.

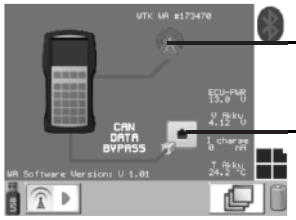
Range

Data transfer between control terminal and job computer is a wireless connection according to the Bluetooth standard V2.1. The jardware is subject to Bluetooth Class 1 with a wireless range of approx. 150m depending on local conditions.

An alarm message appears on the display if the wirless connection is disrupted:



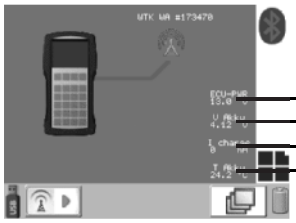
Info form - Bluetooth



Status of wireless connection

Status of line-bound CAN connection

The data is transferred via the line if the terminal is in the holder! The implement can still be operated if the wireless connection is disrupted (inser terminal in holder)!



Input voltage 10.5 ... 16V

Battery voltage

Charging current

Battery temperature

Data transfer is effected exclusively via wireless if the terminal is removed from the holder!

Status of the wireless connection:

Error in forming connection

Pairing

No unit connected

Search for receivers

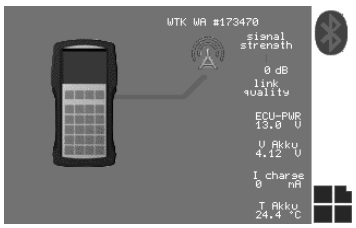
Wireless connection established

Test programme “Quality of wireless connection”

This programme serves to establish the Bluetooth wireless quality and is started with and stopped again with !

TIP

The implement cannot be operated while the test programme is running!



"Signal strength“

Is the receiving signal strength. A deviation of 0dB is optimum! The value may be above or below the optimum and is shown in bar charts with deviation from the green, mean line. bB values can also be used for increased readability.

"Link quality“

A complete bar means optimum transmission quality, i.e. no error during transfer. The shorter the bar is, the poorer the quality and the more errors occur.

The test programme is stopped automatically when the form is quit!

Battery status information

The charge status of the battery is shown bottom right in the display.

- The battery is charged
- The battery is only at half capacity
- The battery only has low capacity and should be recharged soon
- The battery is almost completely empty and must be recharged

Once the battery has reached a certain status, the display outputs a charging recommendation: The battery symbol appears. An acoustic signal is also output.

If the battery only has a low residual capacity, the terminal is switched off after 1 minute to avoid exhaustive discharge. (Alarm message in the display)

If [ ] is shown above the battery symbol, the battery is charging.

If [ ] is shown above the battery symbol, the battery is trickle charging.

TIP

If the unit has to be stored for a longer period, a charge status of approx. 80% is recommended because lithium ion batteries self-drain.

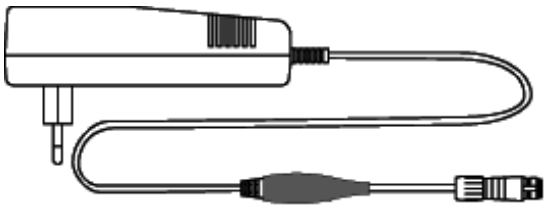
Changing a defective battery

If the battery is defective, change it by opening the battery compartment at the back of the terminal

Loosen the 4 screws of the cover, disconnect the defective battery and remove it. Connect and insert the new battery. Position the cover of the battery compartment and screw shut.

Only special batteries recommended by the manufacturer may be used. Order this battery through the Pöttinger spare part warehouse.

External charging adapter



The terminal must be connected at the mains adapter for charging. The mains adapter is to be plugged in at a 230V socket. As soon as voltage is available, the terminal switches on and starts charging regardless of the current capacity. The battery is completely charged and then supplied with trickle voltage The charging status of the battery is shown in the terminal display.

Retainer

There is a multi-colour LED at the top of the holder. This provides information on the status of the wireless module.

LED status:

green... ready for operation

red ... Error

blue... there is a wireless connection

blue flashing... data is being transferred

Loading procedure general

Important information:

- A sticker placed on the shaft provides information about the rotation speed of the p.t.o shaft (540 rpm / 1000 rpm) and the rotation direction for which your trailer is equipped.
- Therefore, ensure a universal shaft with the correct overload safety (see parts list) is used so that no unnecessary damage is caused to the trailer through overloading.

  Shaft overload safety, see chapter "Technical Data".
- Always adapt driving speed to the surrounding conditions.
- When driving uphill and downhill, as well as cross slopes, avoid sudden cornering (danger of tipping over).
- Short cutting at low r.p.m., high speed and large forage quantity (swath).

Loading green fodder

(only if it is intended for such use)

- Green fodder is usually taken from the swath.
- The mowed swath is gathered by the stem head. Therefore, the deflector plate (52) must be set low (position T).

Loading dry fodder

- Dry fodder is gathered from the swath according to purpose.
- The swath is not too small for selection in order to achieve a short loading time.
- The deflector plate (52) must be hung high (position H).

Pick-up setup

DANGER

Life-threatening danger exists if another person starts up the tractor and drives away or actuates the control lever of the hydraulic system while you are engaged in maintenance.

- Shut off engine and remove key before performing maintenance or repair work.
- Before maintenance, service and modification work, turn driving motor off and remove universal drive.

DANGER

Life hazard - the machine starts to tilt

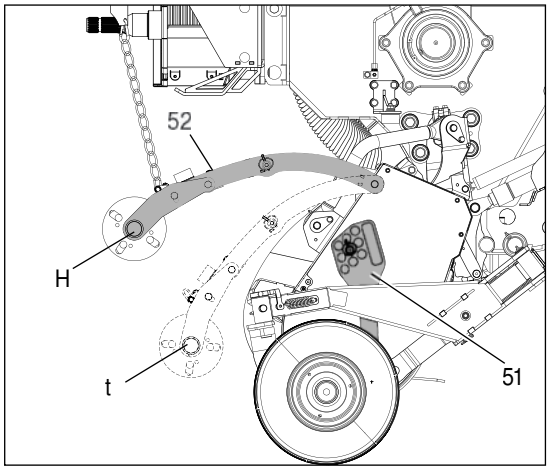
- Before maintenance and repair works park the implement on even, solid ground.
- Do not work under the machine without it being supported safely.

WARNING

Risk of serious injury caused by a moving pick-up.

- Beware of possible crushing locations and the up and down movements of the pick-up.

1. Raise the pick-up slightly and pin the adjusting strut (51), left and right, in the same position.



2. Secure with linchpin.

   High position: for high stubble and tough bumpy ground.

   Low position: for short green fodder and even ground.

Deflector plate setup (52)

- For smaller swaths and short chaff, set deflector plate low (position T).
- For larger swaths set deflector plate high (position H).

Starting the loading process

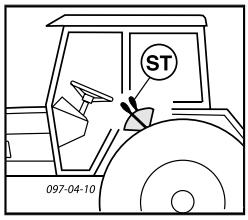
1. Switch on p.t.o. shaft on tractor.

2. Lower pick-up.

Caution! Pick-up and press gear drive is switched on automatically.

3. From the control unit, bring lever (ST) to "ON" position and secure it.

Consequently, the trailer control unit will be supplied with hydraulic oil.

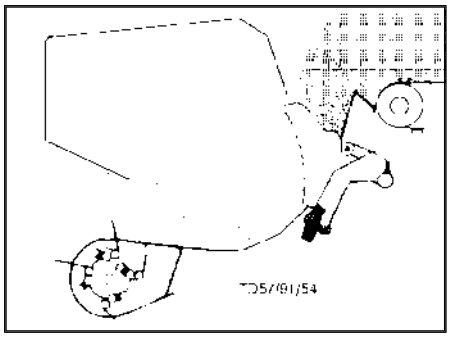


4. Observe r.p.m. of the p.t.o shaft

- Loading with medium shaft r.p.m.

Bear in mind during loading!

- Raise pick-up only when the conveyor channel is empty.



- Reduce motor r.p.m. when cornering.
- Switch off the shaft and raise pick-up when tight cornering.
- Avoid uneven loading! Important, due to possible shaft overload (see information on the drawbar concerning the permitted bearing load).
- To better fill the loading area, let the scraper floor run briefly or turn on the automatic loading (see chapter "POWER CONTROL").
- Watch the trailer fill indicator (FULL).

NOTE

Material damage to the chassis, frame, drawbar or the tyres caused by exceeding the permissible axle load or the permissible total weight.

- Comply with the permissible axle load and the permissible total weight
- If the harvested crop has a high moisture content, please observe the higher specific weights.

	TS- content	Specific weight
Dry fodder and straw	--	approx. 100kg/ m3
Grass silage "dry"	approx. 40%	approx. 250 kg/ m3
Grass silage "moist"	approx. 30%	approx. 400 kg/ m3
Maize silage	approx. 30%	approx. 400 kg/ m3

Wagon unloading

Unloading with discharge beaters (variant D)
Open the tailgate

- Switch on power take-off shaft drive
- Unload discharge beaters
- Switch on automatic unloading

  or
- Switch on discharge beater drive
- Switch on scraper floor drive
- Adjust the scraper floor speed (see “POWER CONTROL”)

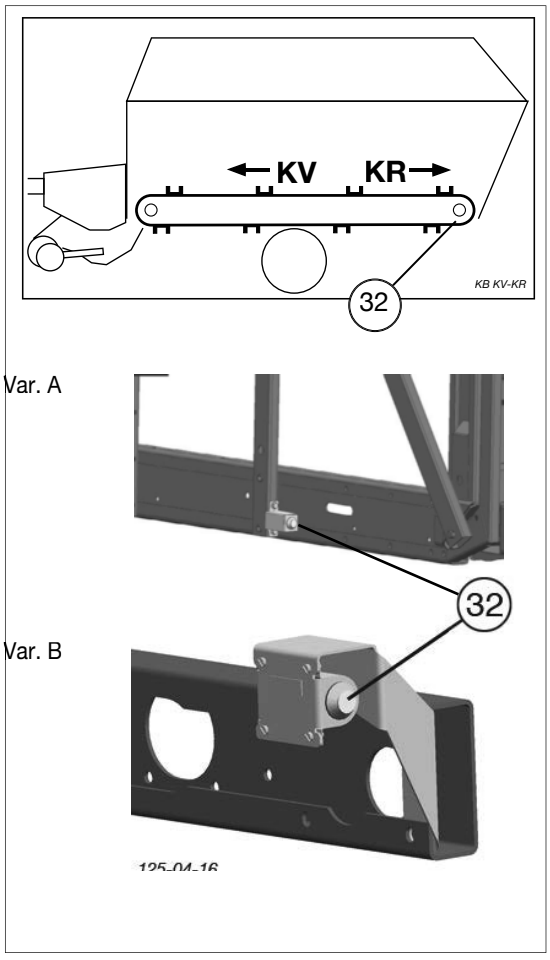
Unloading without discharge beaters (variant L)

- Open rear wall
- Switch on scraper floor drive

Pressure key at the rear (32)

- To switch the scraper floor drive on and off.
- In loading mode the pressure key (32) is locking.
- In unloading mode (rear wall open, scraper floor in operation) the pressure key is locking

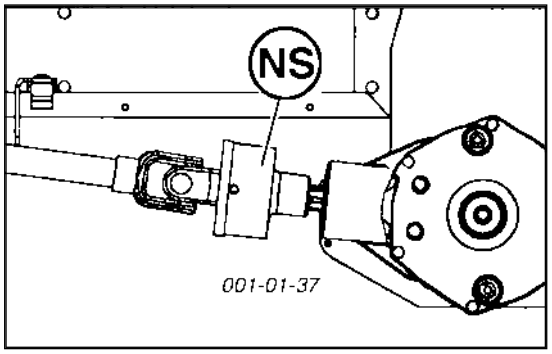
  If you press the key one more time, the scraper floor switches off.



TIP

The scraper floor drive is automatically interrupted when a different function is selected.

Regulating equipment shut-off clutch (NS)



When the discharge beaters are overloaded, e.g. in case of too high scraper floor speed, the shut-off clutch interrupts the torque (= 12 00 Nm).

- Shut off shaft drive.
- Switch on scraper floor forward running for a short time.

  The scraper floor is running forwards (KV). Thus the pressure on the discharge beaters decreases.
- Switch shaft drive back on.
- Set scraper floor speed

  (See "POWER CONTROL")

Ending unloading

- Switch off scraper floor drive.
- Close rear wall.

Road drive

Beware! Road drives only with rear wall closed.

Safety advice

DANGER

Life-threatening danger exists through moving or rotating parts

Carry out maintenance works on the machine only when:

- It has been parked securely on level, firm ground.
- It has been secured against rolling with wheel chocks.
- The tractor engine is turned off and the pto shaft is stationary.
- All moving or rotating parts (especially the mowing disks) have come to a halt. (Hearing test!)
- The tractor's ignition key has been removed.
- If necessary, remove the cardan shaft.

Life-threatening danger exists when under the machine.

- Support the sub-areas you are under in an adequate way.

WARNING

Risk of serious injury through escaping oil.

- Pay attention to scuffed or clamped hose areas.
- Clean the couplings of the oil hoses and the oil sockets prior to each connection!
- Wear the relevant protective clothing.

NOTE

Material damage due to impurities that have penetrated into the hydraulic system

- Clean the couplings of the oil hoses and the oil sockets prior to each connection!

General maintenance information

Please observe the information below to maintain the machine in good condition even after a long period in operation:

- Re-tighten all bolts after the first hours in operation.

The following should be checked in particular:

Blade bolt connections on the mowers

Tine bolt connections on the rake and tedder

Spare parts

a. Genuine parts and accessories are specially designed for the machines.

b. We expressly draw your attention to the fact that genuine parts and accessories not supplied by us, have not been tested and approved by us.

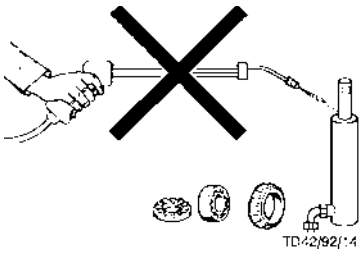
c. Under certain circumstances, the installation and/or use of such products may negatively modify or impair the specified structural properties of the machine. The manufacturer accepts no liability for any damage caused through the use of non-genuine parts and accessories.

d. Any unauthorised modifications and/or fitting of components and attachments to the machine negates any liability on the part of the manufacturer.

Cleaning of machine parts

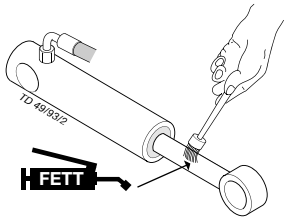
Be advised! Do not use high-pressure cleaners for the cleaning of bearing and hydraulic parts.

- Danger of rust!
- After cleaning, lubricate the machine according to the lubrication plan and carry out a brief test run.
- Cleaning pressure being too high may damage the paint.



Parking in the open

Clean and protect the piston rods with grease prior to longer periods parked out in the open



Winter storage

- Clean machine thoroughly prior to winter storage.
- Park protected against the weather.
- Change or top up gear oil.
- Protect exposed parts from rust.
- Lubricate all greasing points.
- Disconnect terminal, store dry and protected from frost.

Articulated shafts

- See information in the supplement

Please observe the following for maintenance!

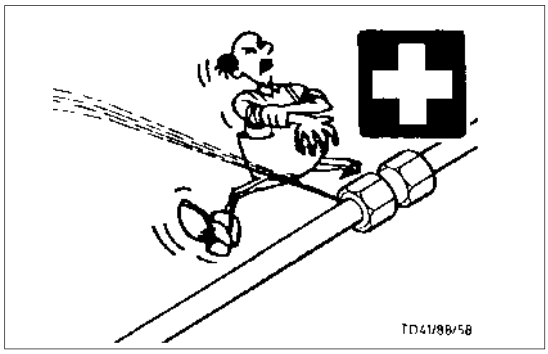
The directions in these Operating Instructions apply.

If no particular instructions are available here, then the information in the instructions supplied by the respective cardan shaft manufacturer apply.

Hydraulic unit

Caution: injury and infection hazard!

Liquids escaping at high pressure may penetrate the skin. Therefore seek immediate medical help!



Make sure that the hydraulic system is suited to the tractor before connecting the hydraulic lines.

After the first 10 hours of operation and every 50 hours in operation thereafter

- Check hydraulic unit and piping for leaks and if necessary re-tighten bolt connections.

Prior to every startup

- Check hydraulic hoses for wear.

  Replace any worn or damaged hydraulic hoses immediately. The replacement hoses must meet the manufacturer's technical requirements.

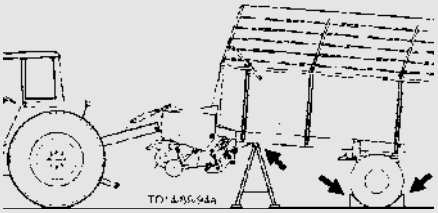
Hose lines are subject to natural ageing. The period of use should not exceed 5 – 6 years.

Safety information

DANGER

Life hazard when staying under the machine.

- Support the areas you are under in an adequate way.
- Stop the machine with brakes and additionally secure it with wheel chocks.



DANGER

Danger to life during welding work

- Disconnect all lines and cables to the tractor
- Disconnect the cardan shaft.
- Uncouple the trailer from the tractor.

WARNING

Risk of serious injury exists caused by rotating parts behind the protective cover

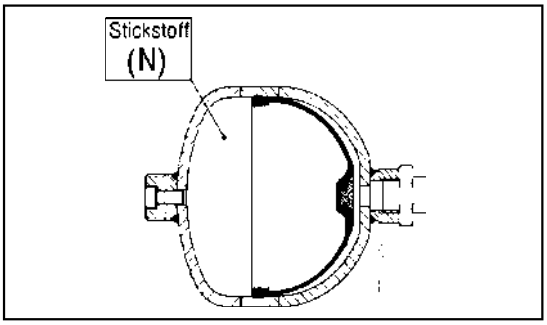
- Wait until the rotating parts come to a complete standstill.
- Make sure that third parties cannot inadvertently active the movement of the parts. (Park the tractor and pull out the key, uncouple the cardan shaft)

Gas container

DANGER

Life-threatening danger caused by bursting container.

- Do not carry out any welding, soldering or mechanical work on/to the hydraulic pressure tank is not permitted.



Note

- All gas containers have a slight pressure decrease after a certain time according to the manufacturer's information.
- Gas loss (nitrogen) per year is approx. 2-3 %.
- It is recommended that the container pressure is checked and corrected if necessary after 4-5 years.

DANGER

Danger to life caused by escaping gas.

- Do not independently change the pressure in the container. This work must only be carried out by customer service or in a specialist workshop.
- To reduce or increase the preload pressure, you need a special filling and verification device.

- A special filling and test device is required to reduce or increase the preload pressure in the gas container.

Overload clutch

Important!

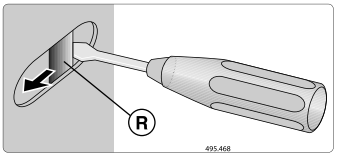
The warranty on the implement lapses if the torque set for the overload clutch is changed without authorisation.

Adjusting the brakes

See Chapter "Axles and axle units"!

Opening the side covers

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



Closing the side covers

Swivel the cover down, the bar "R" locks in automatically and secures the cover against unwanted opening.

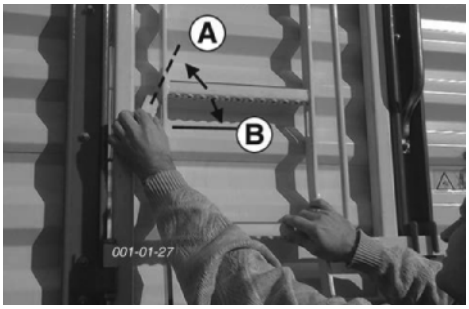
Entering the loading area

WARNING

Risk of serious injury caused by entering the loading area while the scraper floor or the dosing rollers have not completely stopped.

- Enter the loading area only when the tractor engine has completely stopped and the drive shaft is uncoupled.
- Enter the loading area only when the scraper floor and the dosing rollers have stopped.

1. Use climbing aid (10).
   - Open lock (A)
   - Swivel climbing aid down (10).



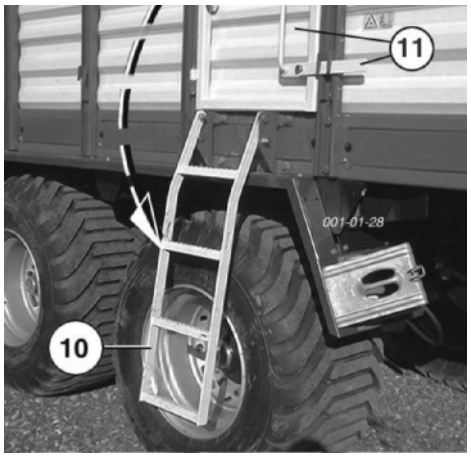
2. The access door in the side wall must only be opened with the drive motor switched off (11).

TIP

The scraper floor and the discharge beaters may not be turned on until the door to the loading room is closed and the climbing aid is properly folded up.

3. Do not enter the loading area when the p.t.o. is connected and the drive motor is running.

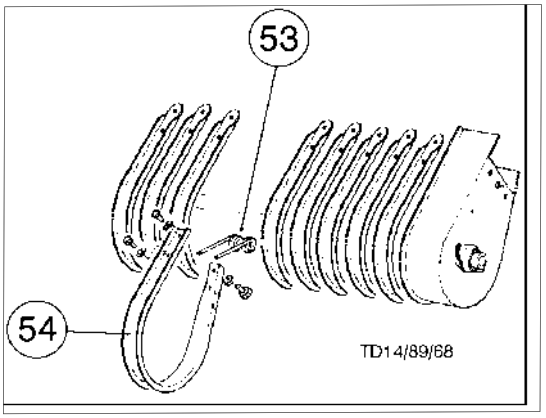
4. Prior to putting the trailer into operation
   - Swivel climbing aid up (10) and lock (B).



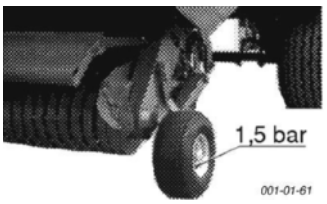
   - Secure the lock with linchpin

Pick-up

- Broken tines (53) can be replaced after removing the allocated scraper bar (54) without dismantling the pick-up.

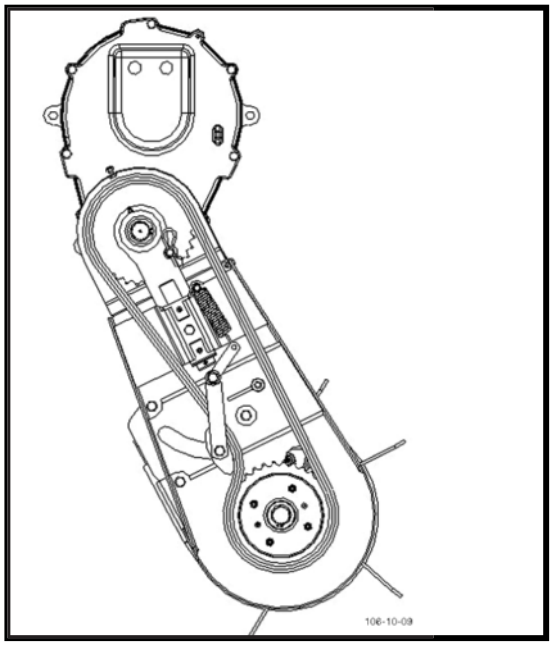


Air pressure



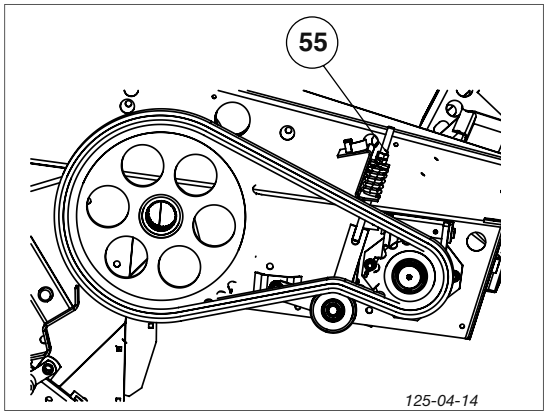
Pick-up drive chain

- Remove the chain guard, clean and oil the chain 1x year.



Baler:

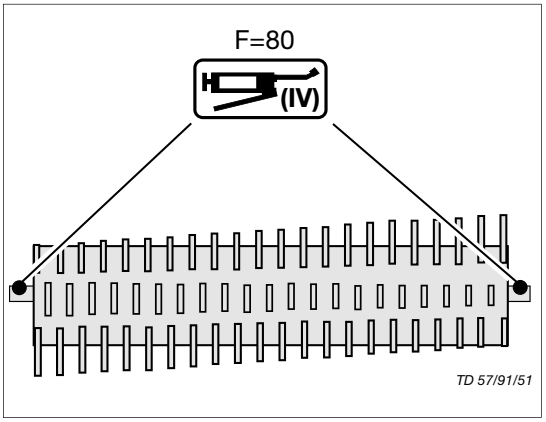
- The drive chain is retensioned at the tensioning screw (55) after loosening the locknuts.



- Spring adjustment dimension is 75 mm.
- Retighten locknuts after tensioning the chain.
- Retension every 80 loads!

Main bearing

- Lubricate the two main bearings every 80 loads.



Cutting unit

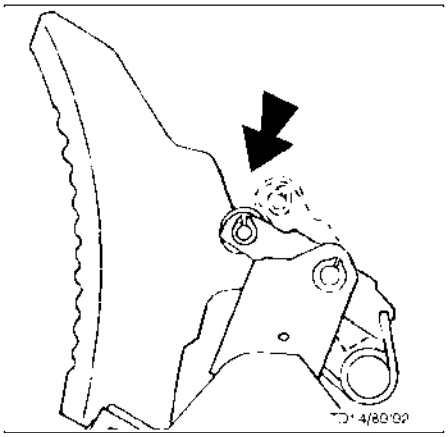
CAUTION

Injury hazard caused by sharp edges

- Do not hold cutter by the cutting edge!
- Use safety gloves!

Cutter installation

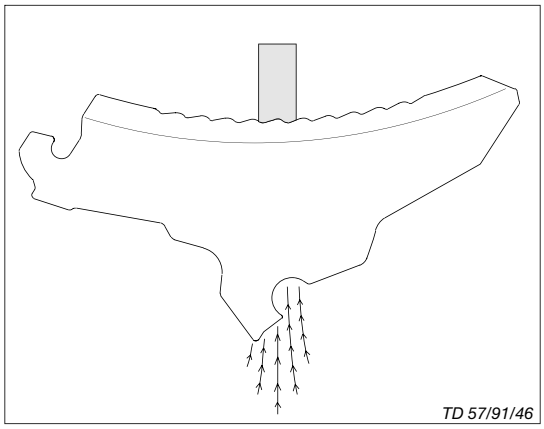
- Ensure that the roller of the locking lever engages in the depression at the cutter



Sharpening removed knives

Well sharpened cutters save energy and ensure good cutting quality.

- Remove individual cutters and resharpen with wet sharpening device.



CAUTION

Risk of injury during sharpening caused by sparks

- Use safety goggles!

NOTE

Property damage caused by incorrect sharpening

- Only sharpen the smooth side of the cutter

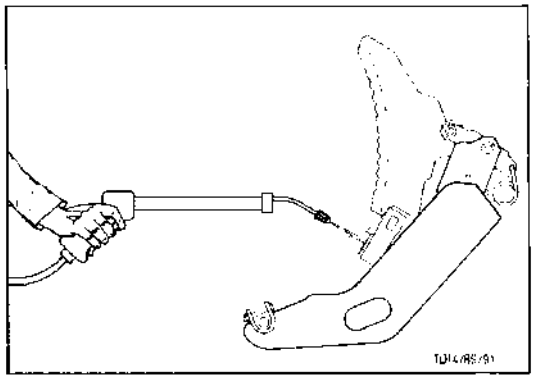
TIP

Efficient sharpening without excessive heating (tarnishing) guarantees the cutter a longer working life.

Cutter securing device:

To ensure perfect blade safety function, we recommend regular cleaning.

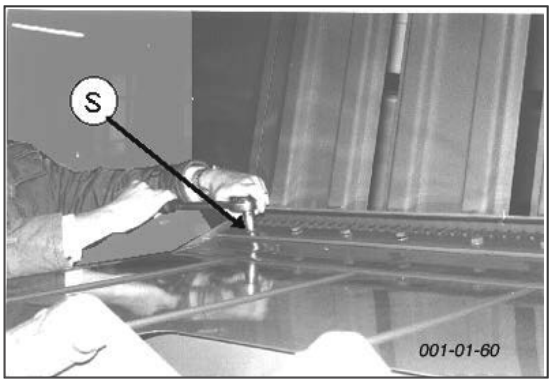
- Clean the compression springs with a high-pressure cleaner.



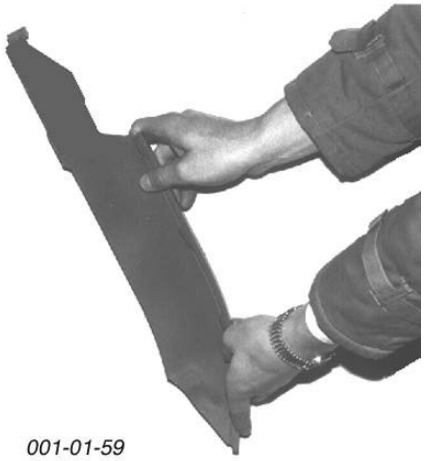
- Oil knives and securing elements before over-winter storage!

Removing a scraper

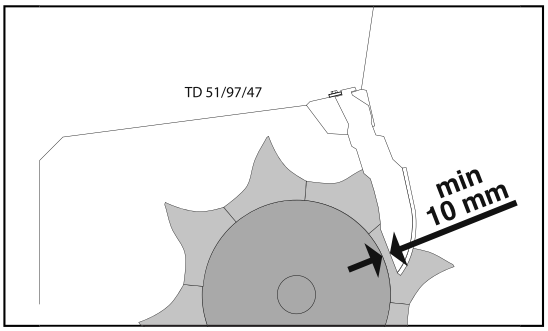
- Loosen bolts (S) and remove plates.
- Pull the scraper down and outwards in the loading area



Removed scraper



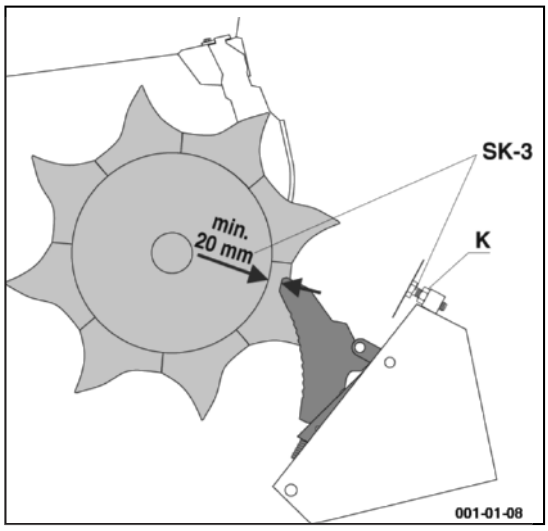
Settings



NOTE

Material damage due to components colliding.

- Check distance (10 mm) between scraper and rotor cylinder after 200 runs.



Transmission

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

Fill in oil according to lubrication chart.

Topping up oil

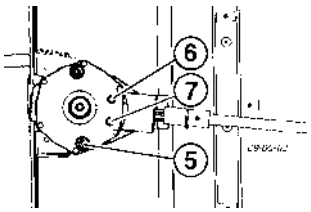
- Screw out the oil fill screw (6).
- Check the oil level at the level screw (7).

Oil change

- Open oil drain screw (5).
- Drain old oil and dispose of properly.

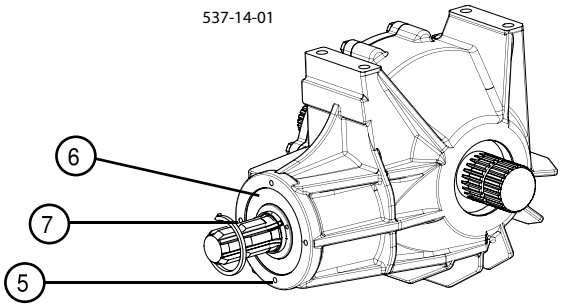
Rear dosing drive:

1.0 litre SAE 90



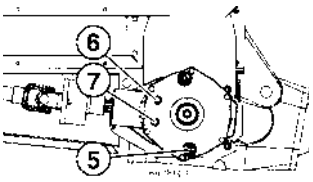
Input gear:

2.1 lire SAE 140



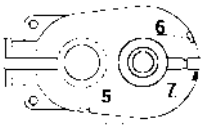
Front dosing drive:

1.0 litre SAE 90



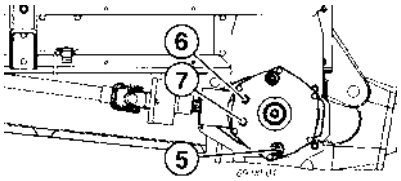
Scraper floor gear:

1.5 litres SAE 90



Side gear:

1.0 litre SAE 90



Chains

WARNING

Risk of serious injury through the drawing-in of clothing or body parts into the scraper floor

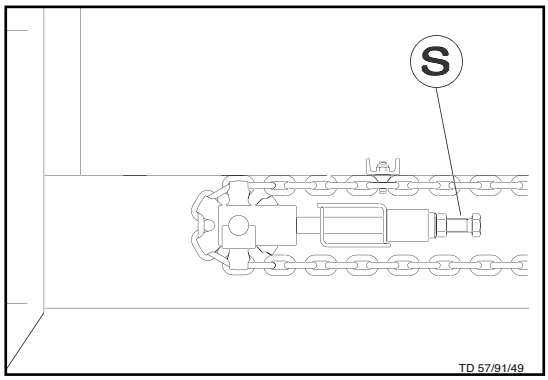
- Uncouple the hydraulic lines between the tractor and the machine to prevent unintentional starting caused by third parties.
- Only start maintenance work when the scraper floor has stopped.

Scraper floor chains

The four scraper floor chains must be tensioned equally but not too taut. They should sag slightly.

Retensioning scraper floor chains

- The tensioning screws (S) are underneath the platform.

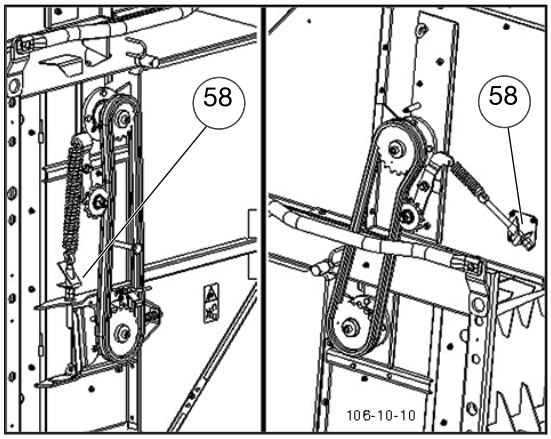


If the tensioning length is no longer sufficient, remove chain links.

- Always remove an even numbered link (2, 4,....) from the four chains.

Drive chains for dosing rollers

- Oil and check chain tension every 40 runs.
- The drive chain is normally retensioned using spring tension. It is possible to alter the tension slightly using the tensioning screw (58). Retighten locknut and security nut after tensioning the chain.



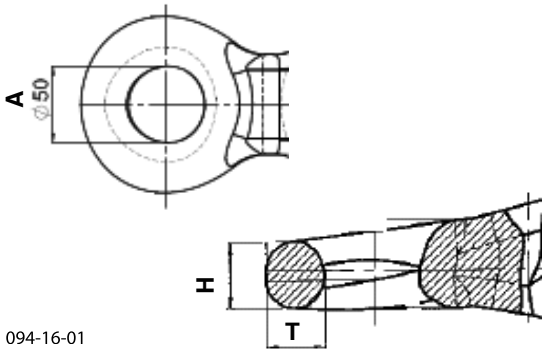
Towing eye wear 548.76.421.0 (optional extra)

Check once a month

Exchange the ctowing eye as soon as:

- the eye diameter is greater than the wear limit
- Ring height or ring depth are less than the given wear limit.

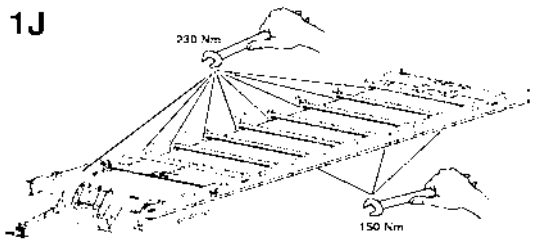
	Nominal size [mm]	Wear limit [mm]
Eye diameter A	50	51.5
Front ring height H	35	31.5
Ring depth T	31	28.5



Frame bolt fittings

Once a year, check

- Bolt connections (1J) for tightness
- Tightening torque (Nm) of bolts

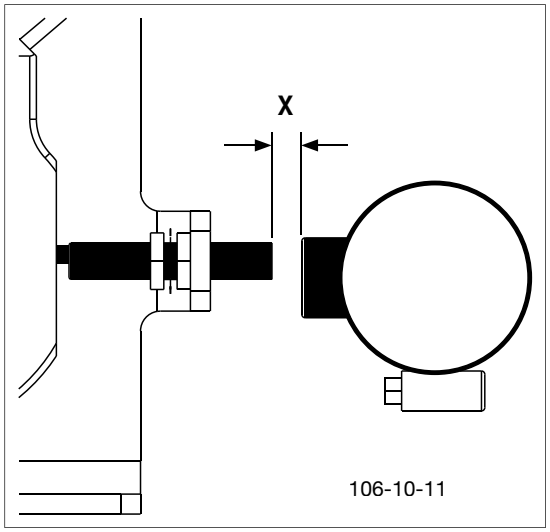


Adjustment dimension for sensors

Speed sensor

The speed sensor is mounted on the drive shaft to the left of the input gearbox.

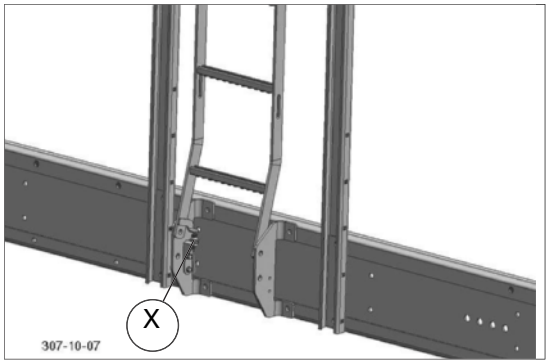
Setting measurement (X): 2…. 4 mm



Access door

The sensor for monitoring the access door is mounted on the access ladder bracket.

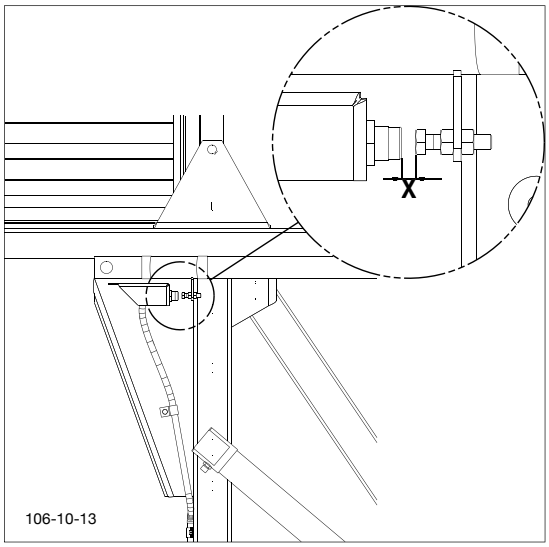
Setting measurement (X): 6 ... 10 mm



Tailgate (only Profiline)

The sensor for monitoring the tailgate is mounted on the rear upright on the left.

Setting measurement (X): 6 ... 10 mm

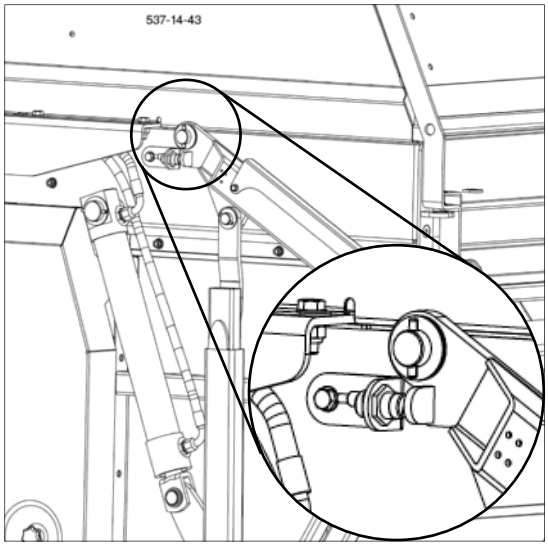


Tailgate - B5 (only Combiline)

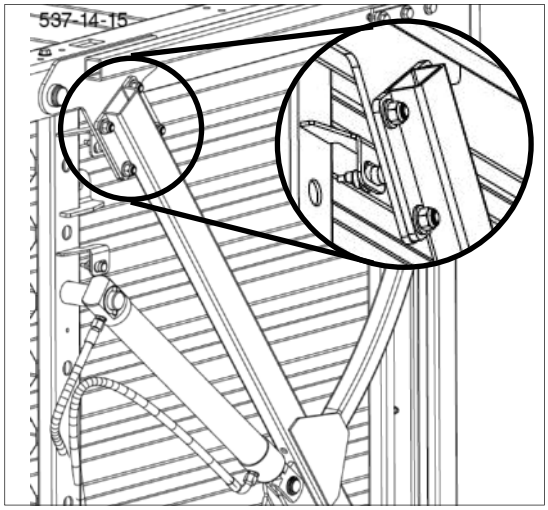
The sensor for monitoring the tailgate is mounted on the rear upright on the left.

Setting measurement (X): 5 ... 7 mm

Version D:



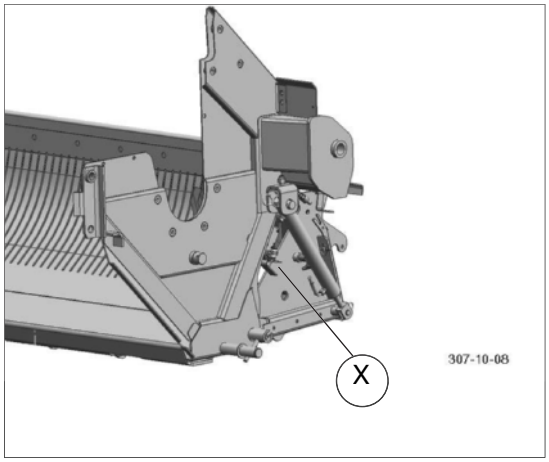
Version L:



Cutting unit

The sensor for monitoring the cutting unit is mounted on the press frame on the left.

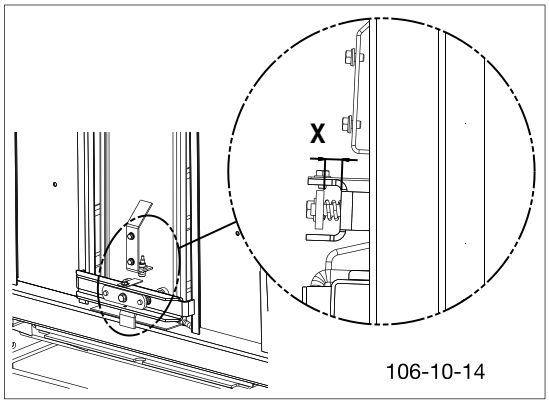
Setting measurement (X): 6 ... 10 mm



Lower automatic loader

The sensor for monitoring the lower automatic loader is mounted on the lower front wall.

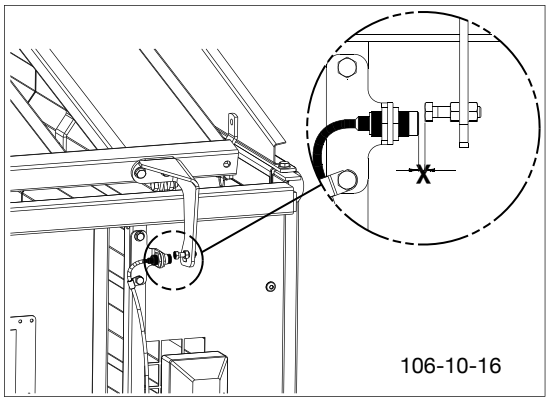
Setting measurement (X): 6 ... 10 mm



Upper automatic loader (Profiline)

The sensor for monitoring the upper automatic loader is mounted on the upper front wall flap.

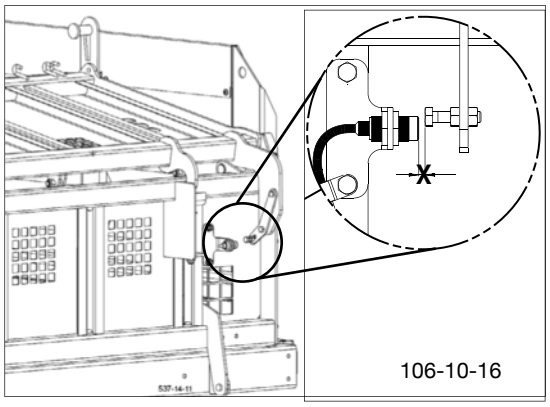
Setting measurement (X): 6 ... 10 mm



Automatic loading up - B3 (Combiline)

The sensor for monitoring the upper automatic loader is mounted on the upper front wall flap.

Setting measurement (X): 5 ... 7 mm

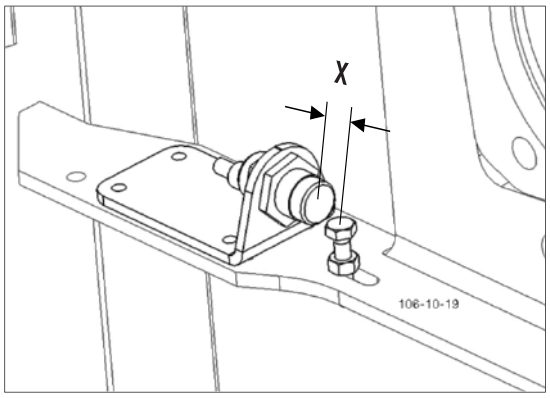


Dosing roller monitoring

The sensor for monitoring the dosing rollers is mounted on the left-hand side wall.

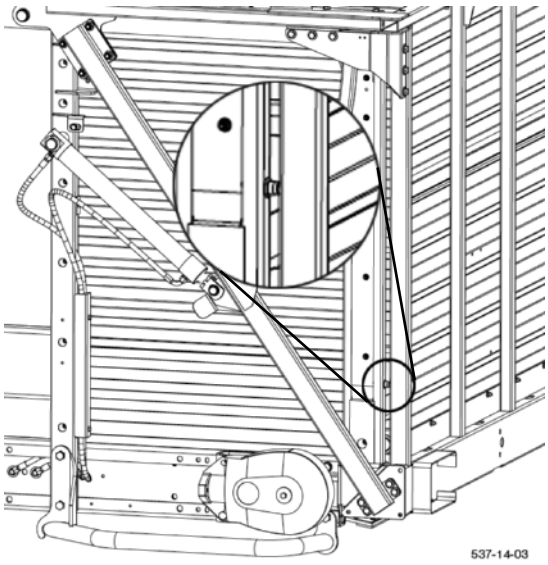
(Details see section on “Dosing rollers”)

Setting dimension (X): 5 ... 7 mm



"Full" tailgate notification (only version L) - B6

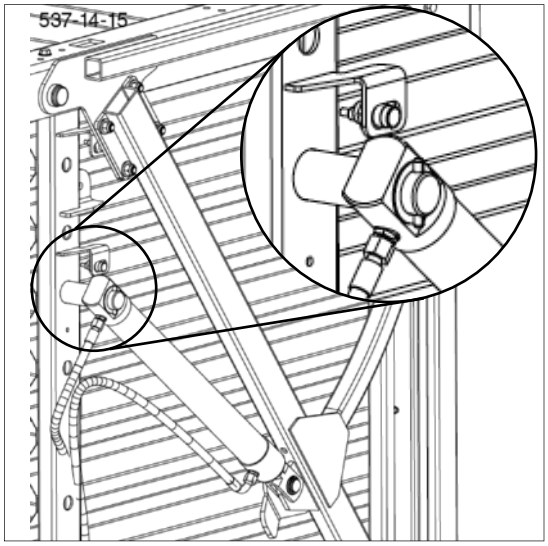
Setting dimension (X): 3 mm



"Tailgate open" sensor (only version L) - B17

The monitoring sensor for tailgate contact pressure is fitted on the left side, in the lower area.

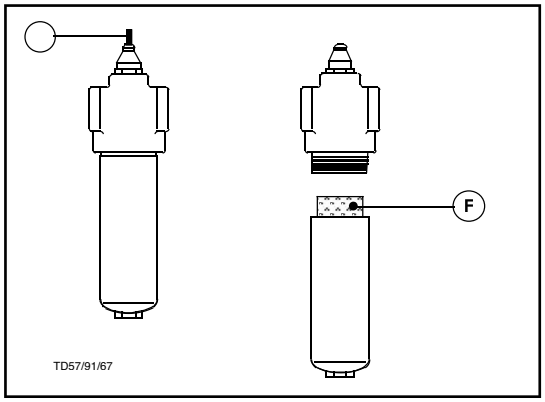
Setting dimension (X): 5 ... 7 mm



Filter change

The red tip (50) indicates that the oil filter (F) is soiled. The tip is pushed out more or less depending on how much the filter is soiled. Change filter (F) at maximum soiling indicator.

- Observe hydraulic oil change according to tractor instructions.

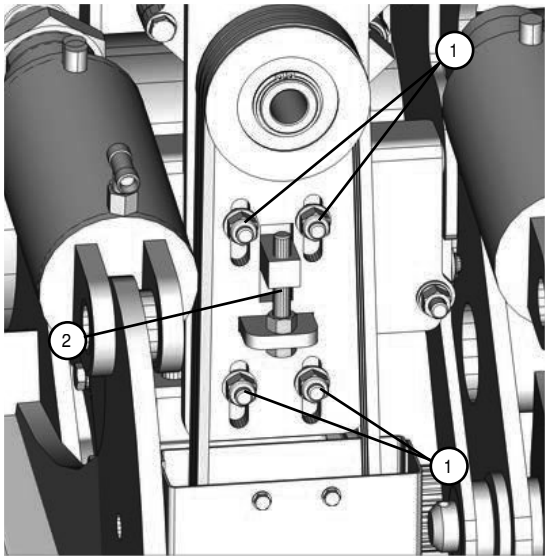


Self-powered cross conveyor

(Optional extra)

Setting the V-belt.

1. Remove the upper cover (screwed)
2. 4. Loosen the retaining screws (1)
3. Set V-belt tension using the countered setting screw (2)
4. Retighten the retaining screws
5. Refit the upper cover.



Safety of the electric equipment

NOTE

Material damage to the control unit caused by overvoltage

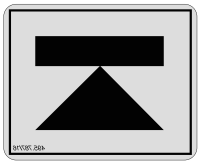
- Disconnect voltage to the control unit before starting installation work or repair work for the machine. Surges can damage the electronics particularly during welding work.

Disposal of old equipment

Dispose of equipment at the end of the service life according to the statutory waste material disposal.

Lifting points for lifting jacks

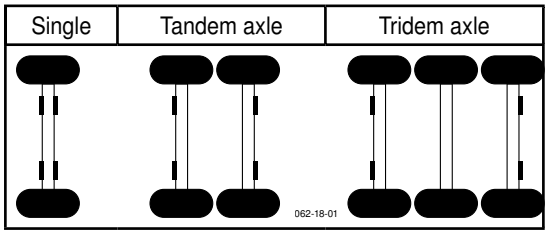
The lifting points for lifting jacks are located at the axles in the vicinity of the tyres. The lifting points are marked with a sticker.



The stickers are indicated in the table below by a thick line.

The position of the lifting points depends on the type of the axle. The stickers are always visible from the front and from the back.

1. Place the lifting jacks under the sticker at the square element of the axle.



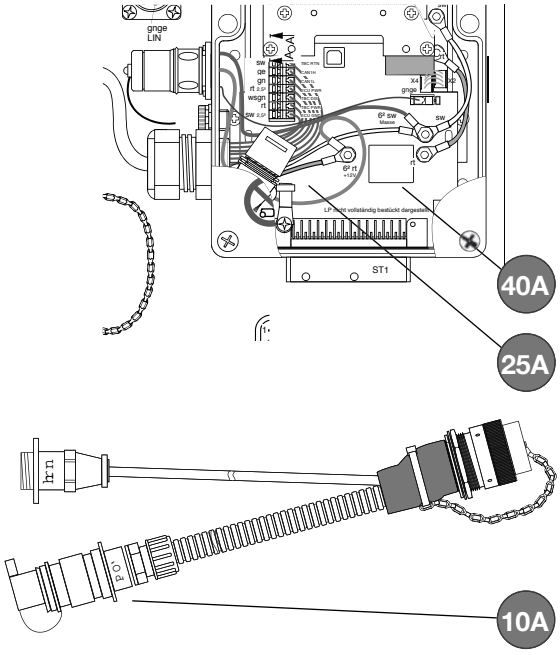
Protecting the electrical system

A 10A fuse protects the electrical unit for the operation functions.

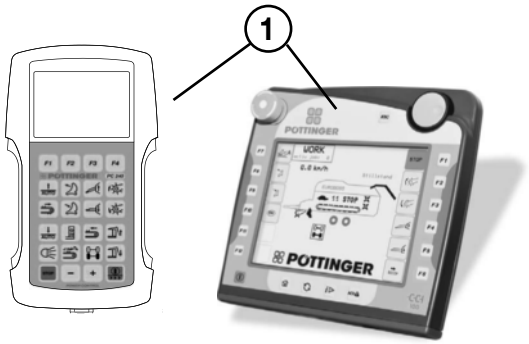
- The fuse is installed in the 3-pin plug in the electrical supply line.

A 25A fuse protects the valve outputs in the job calculator.

- The fuse is installed in the job computer.

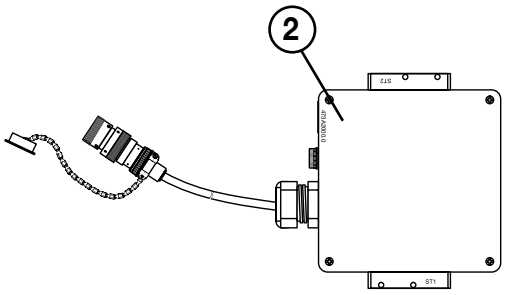


Caring for electronic components



- Protect the operating panel (1) against water
  - Do not place outdoors
  - Store in a dry room when not in use for longer periods

- Cleaning the operating panel (1)
  - Use a soft cloth and a mild household cleaning agent
  - Do not use solvents
  - Do not immerse control panel in liquid!



- Cleaning the job computer (2)
  - Do not spray job processor with high-pressure cleaner

Adjusting and checking the hydraulic chassis [1)]

(optional equipment)

Adjustment and initial operation

DANGER

Danger to life for more than person, if several persons are simultaneously working on the machine and operating it.

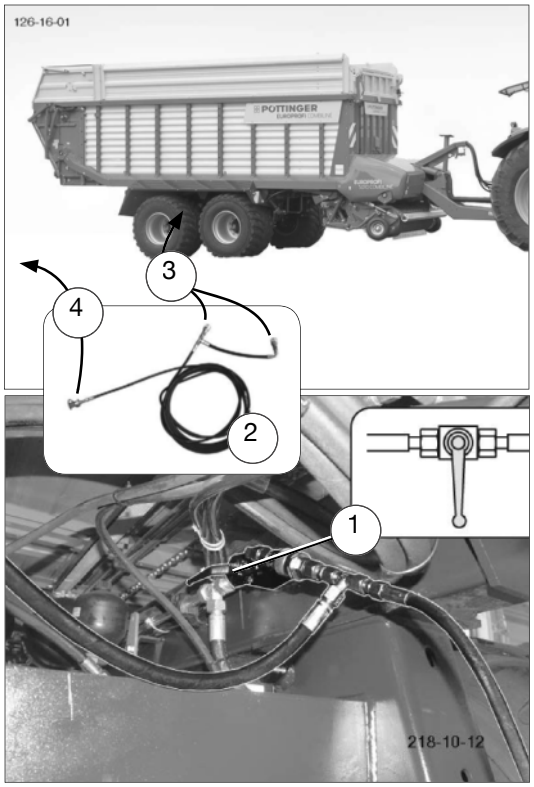
- Each person must at all times know what the others are doing. The areas of responsibility are to be clearly defined and the working procedures must be agreed upon.

DANGER

Life hazard when staying under the machine.

- Support the areas you are under in an adequate way.
- Stop the machine with brakes and additionally secure it with wheel chocks against rolling away.

The hydraulic chassis settings must be checked and/or readjusted prior to the harvest season, or if the body is noticeably slanting or the road handling performance is affected.



Adjustment process:

TAKE NOTE

Material damage when driving with the trailer above 4 m height through an underpass.

- Adjust the hight of the traielr with the shut-off valves (1) below the trailer according to the reference measurement.

Firstly, all the chassis cylinders are filled using the hydraulic filling hose (2) included in the delivery, then the level is regulated with the shut-off valves (1) until the chassis is adjusted according to reference measurement X.

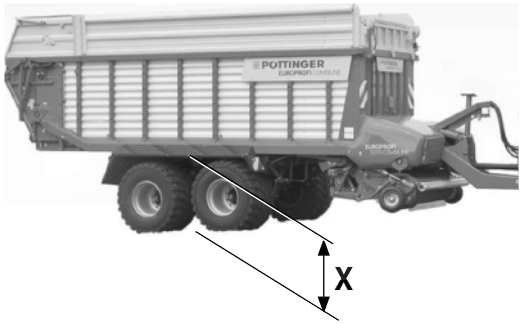
TIP

The shut-off valves (1) can remain closed when filling.

1. Park the empty machine on a stable, even surface and secure it against rolling off.
2. Connect both filling hose couplings (3) to the hydraulic chassis cylinder couplings.
3. Connect the filling hose to a tractor servo (4).
4. Fill the cylinder to the maximum.
5. Move the tractor servo to the "float" position.
6. Simultaneously open both the shut-off valves (1) under the trailer's hydraulic chassis. Simultaneously close both shut-off valves when the reference measurement X is reached.

Reference measurement X

(from ground up to bottom edge of main chassis beam)



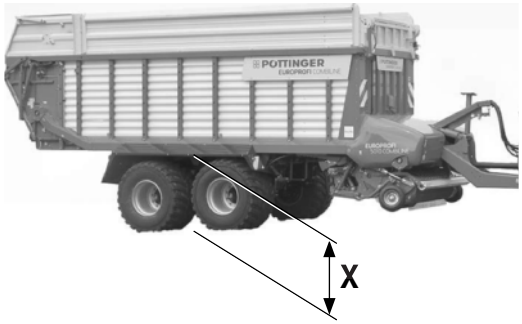
	Reference measurement X
Tandem 16 to axle load (centre distance: 1300 mm)	
Tyres 22.5"	1180 mm
Tandem 18 to axle load (centre distance: 1450 mm)	
Tyres 22.5"	1280 mm

6. Close shut-off valves and uncouple filling hose.
7. Seal the couplings with the dust caps.

Checking the hydraulic chassis:

Reference measurement X

(from ground up to bottom edge of main chassis beam)



	Reference measurement X
Tandem 16 to axle load (centre distance: 1300 mm)	
Tyres 22.5"	1180 mm
Tandem 18 to axle load (centre distance: 1450 mm)	
Tyres 22.5"	1280 mm

TIP

Before checking the hydraulic chassis, make sure that the tyre pressure is correct.

The hydraulic chassis settings must be checked or readjusted prior to the harvest season, or if the body is noticeably slanting or the road handling performance is affected.

For this, the trailer must be empty and standing on firm, even ground! Take measurement X from ground up to bottom edge of main chassis beam.

Check the measurement X on both sides!

TIP

For a tandem axle the measurement X should be measured between the wheels.

General safety information

WARNING

Risk of serious injury through the drawing-in of hair, clothing or body parts.

- Close all of the covers of the cross conveyor drive before switching on the drive.
- Conversely: Switch off the drive and wait until all the rotating parts stop before opening the covers above them. For example: for maintenance.

Internal hydraulic supply for cross conveyor belt

For tractors without LS-hydraulics, unloading using the cross conveyor belt is not possible without an internal supply (parallel operation necessary)

In this case an internal hydraulic supply can be fitted to the wagon for the cross conveyor belt.

Unloading with a cross conveyor

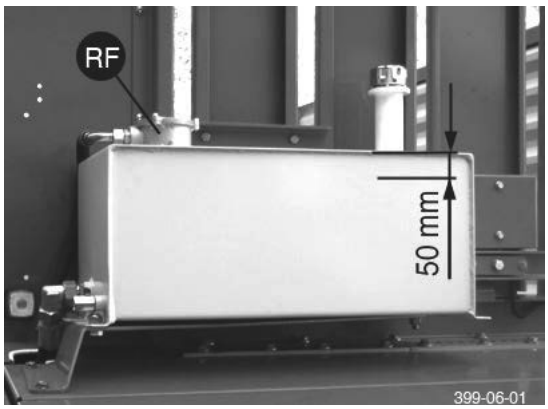
When unloading using the cross conveyor belt the cardan shaft should be operating at 1000 r.p.m.

Oil tank

Oil: Hydraulic oil (See page “Fuels”)

Quantity: 50 litres

(Level approx. 50 mm below top of tank)



- Observe hydraulic oil change according to tractor instructions.

Filter change

Change runback filter (RF) at regular intervals

Pump

WARNING

Risk of serious injury through the drawing-in of hair, clothing or body parts.

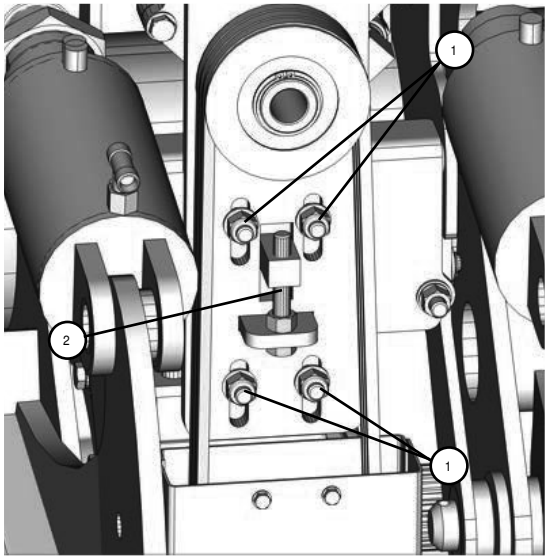
- Switch off the p.t.o. drive and pull the cardan shaft off from the tractor.
- Wait until the rotating parts have stopped moving before approaching the pump.

Change V-belts

1. **Uncouple cardan shaft (GW)**
2. Remove guard pot (4 screws).
3. Dismantle the upper cap
4. Dismantle the lower cap
5. Loosen the retaining screws (1)
6. Loosen the fastening screws (2)
7. Pull the console downwards until you can remove the V-belt.
8. Change V-belts
9. Mount again the parts in logical order

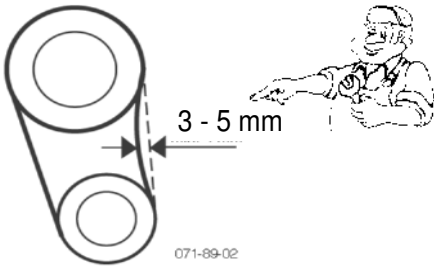
Setting the V-belt.

1. Remove the upper cap (screwed)
2. 4. Loosen the retaining screws (1)
3. Set the V-belt tension with the help of the countered setting screw (2)
4. Retighten the retaining screws
5. Mount back the upper cap.



Correct V-belt tension

The belts for the cross conveyor must be pressed in 3 - 5 mm when they are under tension.



General safety

DANGER

Danger to life caused by incorrect work performed on the brakes

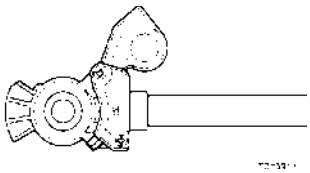
- Have all brake unit maintenance and repair work carried out by a break specialist or our customer service centre.

TIP

There is a special maintenance manual for the "300 x 200" high-speed axle which can be obtained from our customer service office.

Coupling the air 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" and "Brakes" (coloured yellow) to "Brakes".
- Damaged sealing rings must be replaced.



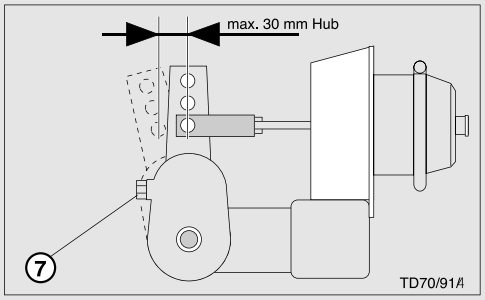
ABS (Anti Blocking System) power supply

(equipment on request)

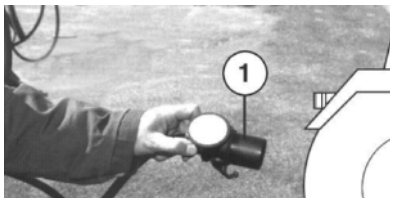
DANGER

Life-threatening danger through non-functioning ABS

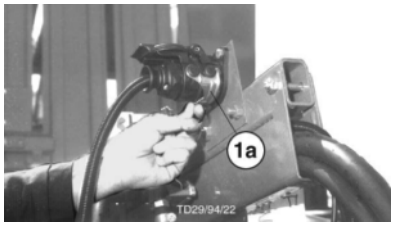
- Ensure that the electricity supply for the machine is plugged in.
- Observe the maintenance intervals
- Adjust the brakes to max. 30 mm stroke, see chapter "Brake settings"



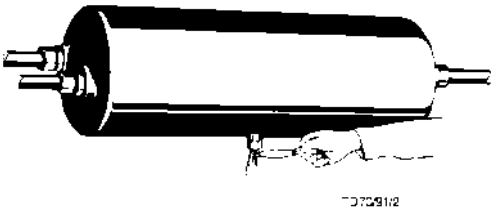
- Before travel connect the plug (1) to the tractor.



- When garaging the wagon connect the plug into the console socket. The plug is secured against coming loose by the swivel clamp (1a).



- Before the first run of the day, drain the water from the air tank.
- Only drive off when the air pressure in the braking system has reached 5.0 bar.



Be advised!

In order to guarantee correct function of the brakes, the maintenance intervals, as well as the brake settings (stroke max. 30 mm) must be complied with.

Service and maintenance on the air brake unit

Draining water from the air reservoir

The air tank is to be drained of water daily. Using a piece of wire, turn bolt on drain valve in a sideways direction. When dirty, unscrew drain valve from the tank and clean.

Line filter cleaning

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:

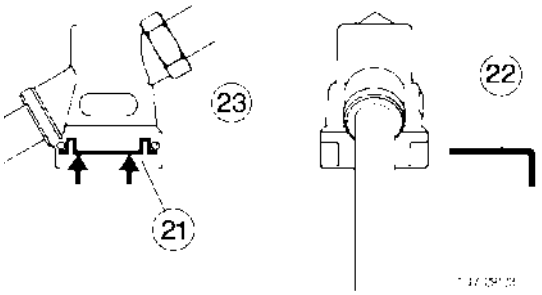
a) Push in the locking tappet (21) on both flaps and take out the slider (22).

b) Take out the locking tappet with O ring (23), the compression spring and the sinter filter cartridge.

c) The sinter filter insert must be washed with nitro cleaning agent and dried with compressed air. Damaged filter cartridges are to be replaced.

d) Reassembly is in reverse order, but ensure that O-ring (23) does not jam guiding slots of slider!

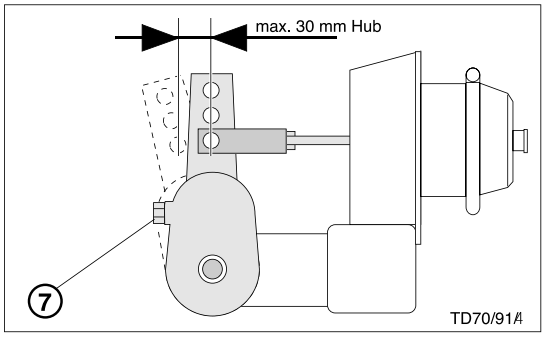
Brake settings



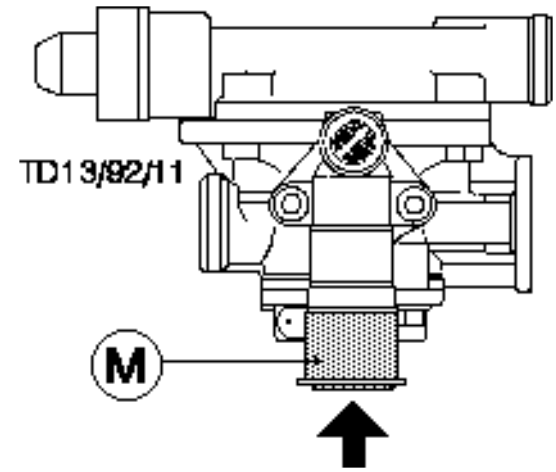
The piston stroke in the brake cylinder may not be greater than 30 mm. Therefore it must be checked from time to time and if necessary readjusted.

Adjustment

- Setting is performed using the setting screw (7).
- When reset, the piston stroke should be 12 -15 mm.



Release position on the brake unit



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

- Press control button (M) until stop. Brakes are now released.
- Pull out operating button (M) until stop. The vehicle will brake again using the stored compressed air coming from the air reservoir.
- When connecting brake hoses, control button (M) is automatically pushed out by the stored compressed air coming from the towing vehicle.

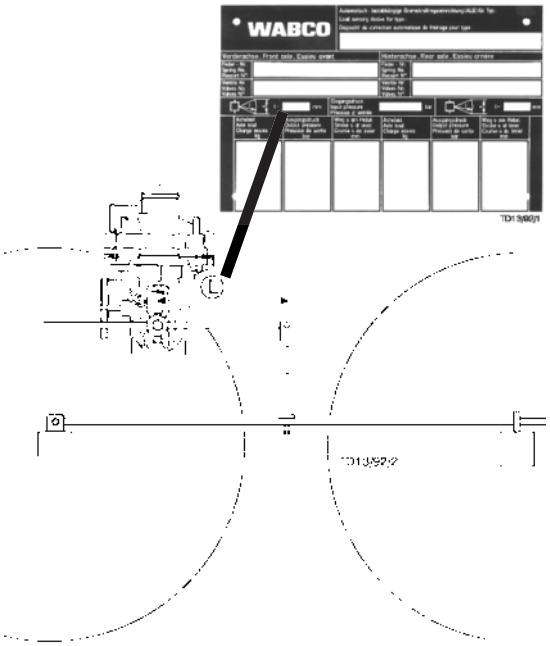
ALB-regulator (for equipment with an automatic brake pressure regulator) 1)

With the help of the ALB-regulator the desired brake force is automatically regulated, depending on the loading state of the vehicle.

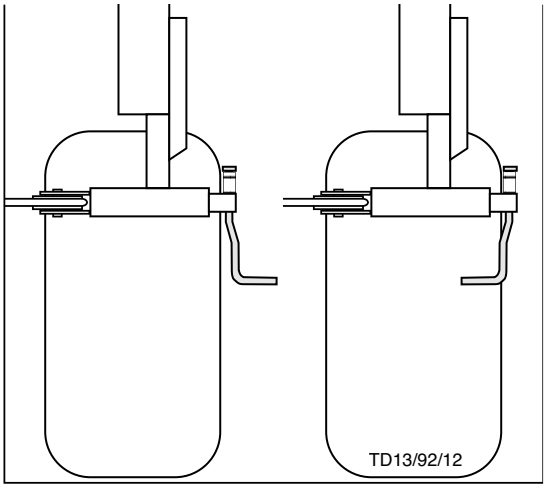
Adjustment

The adjusting measurement (L) cannot be modified. 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



The wagon is kept in position with the parking brake for parking.

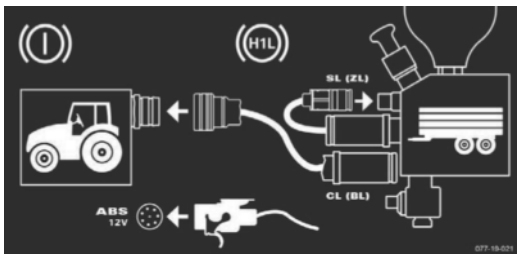
- Set the brake pressure regulator to "release" and disconnect brake hoses from towing vehicle.

Initial operation

Carry out the following steps to connect:

- Couple the trailer to the tractor and secure them against rolling away (apply the parking brake of both machines, chocks the wheels,...)
- Clean plug sockets before connecting.
- Connect the tractor to the trailer hydraulically and electrically.

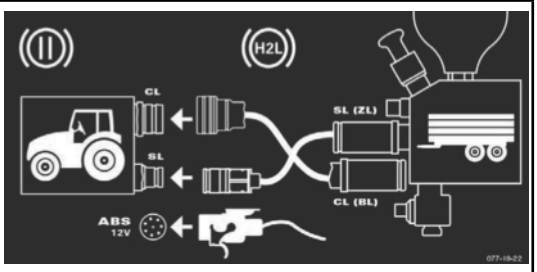
For tractors with a single line brake system:



► Couple brake line "BL (CL)" and ABS plug connection to the corresponding sockets on the tractor.

► Bridge connection "ZL (SL)" to connection "Zp".

For tractors with a dual-line brake system:



► Couple brake line "BL (CL)", additional line "ZL (SL)" and ABS plug connection to the corresponding sockets on the tractor.

- Switch on tractor ignition.

  The tractor ABS indicator light glows.
- Start tractor.
- Apply the tractor's service brake for 10 seconds until the tractor's ABS indicator light goes out.

WARNING

Risk of serious injury or injury resulting in death due to brake operation failure.

Before every departure:

- Adjust the brake force regulator (if manually operated) according to the load
- Carry out a 10-second brake check

- Remove wheel chocks if necessary.
- Release the trailer's parking brake.
- Release the tractor's parking brake.
- Move off slowly and carry out control braking.

The tractor/trailer team is ready to go.

Park tractor/trailer and secure

TIP

Beforehand, check whether the tractor parking brake can hold the tractor/trailer on an incline by itself by operating the test switch in the tractor.

For any tractor information, refer to the manufacturer's documentation.

When parking and securing the tractor/trailer:

- Apply the tractor's parking brake.
- Apply the trailer's mechanical parking brake.
- Chock the wheels if necessary.
- Turn tractor off.

The tractor/trailer team is now parked and secured against rolling.

Relocate machine

ENVIRONMENT

If your machine is equipped with a manual regulator for the braking force, the return line must be connected to the tractor, even if the machine is relocated for a short time. The manual regulator requires a leaking-oil line and this flows into the return line.

Uncouple the trailer

⚠ WARNING

Risk of serious injury or injury resulting in death due to brake operation failure.

Before uncoupling:

- Apply the mechanical park brake
- Depressurize the accumulator

To uncouple the tractor:

- Apply the tractor's parking brake.
- Apply the trailer's mechanical parking brake.
- Secure the trailer by chocking the wheels.
- Depressurize the accumulator via the drain valve (2) on the emergency brake valve.
- Uncouple all connections (brake line "BL (CL)", additional line "ZL (SL)" and ABS plug connection) from the corresponding sockets on the tractor.
- Hose lines and electrical connection lines must be stored clean and dry, and protected from the weather.
- Uncouple trailer from tractor.
- The trailer has now been separated from the tractor and is secured against rolling.

The tractor is ready to go.

Resuming operation after a malfunction

⚠ WARNING

Risk of serious injury or injury resulting in death due to the vehicle (trailer) rolling off.

- Secure the trailer against rolling. Apply the mechanical park brake and chock the wheels appropriately.

Releasing an emergency brake after the brake line has been torn off:

1. The brake line has been torn out of the emergency brake valve coupling (defined breaking point) through increased tensile load.
2. An emergency stop has been triggered

To release the brake:

- Secure the tractor/trailer against unintentional rolling (apply parking brake, chock the wheels, ...).
- Reinsert the brake line into the coupling on the emergency brake valve. This is possible without tools and when pressure still exists.
- Start the tractor and apply the service brake. The coupling is unlocked and the hose connection is ready for operation again.
- Open the drain valve on the emergency brake valve. The trailer's brakes are released.
- Check that the additional cable and ABS plug connections fit correctly. Insert again if necessary.
- Carry out all work steps for initial operation (see chapter "Initial operation").

The tractor/trailer team is ready to go.

Releasing an emergency brake without tractor

⚠ WARNING

Risk of serious injury or injury resulting in death due to the vehicle (trailer) rolling off.

Carry out all work in compliance with the safety instructions specified below:

- Comply with the regulations listed in chapter "Maintenance" for all work on/with the emergency brake valve.
- Refrain from any unsafe working practices. Troubleshooting and maintenance may only be carried out by trained specialists.
- Only carry out work in accordance with the instructions in this operating manual.
- Comply with the relevant national and locally applicable occupational safety regulations.
- Wear the stipulated personal protective equipment.
- Secure the vehicle (trailer) against rolling (apply mechanically operated brake and chock the wheels).

The following aids are required to release an emergency brake without tractor:

1. Catch basin for hydraulic oil (volume approx. 5 l)
2. Suitable hose line with an inside diameter of 6 mm.

To release the brake:

- Secure the trailer against unintentional rolling (apply parking brake, chock the wheels, ...).
- Push the hose line onto the emergency draining nozzle (1) and guide the free end of the hose into the catch basin.

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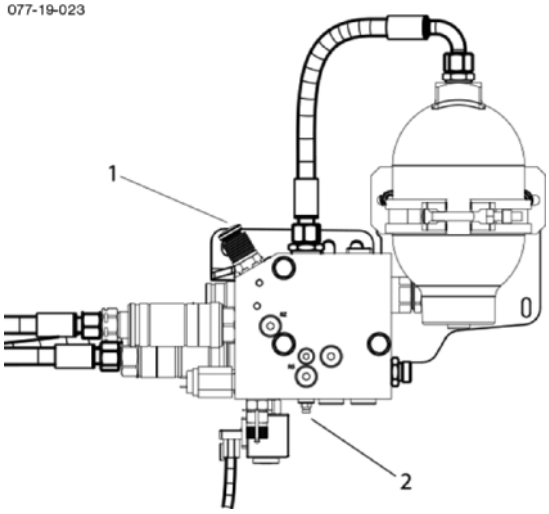


- Loosen the emergency drain nozzle (1) and open the drain valve (2).

The brake system is depressurized and the brake is released.

General tips

TIP

After cleaning the vehicle with a high pressure cleaner, all lubrication points must be re-greased.

TIP

Lubricate the grease nipple with Li-Grease (IV) until fresh grease flows from the bearings.

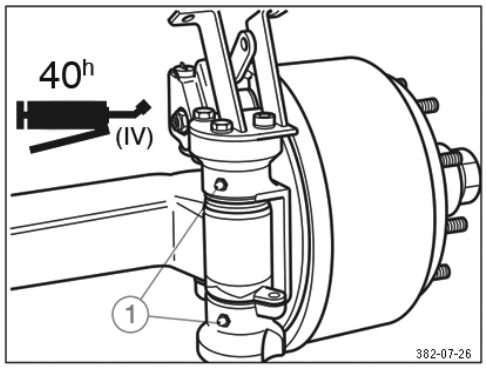
For heavy operation, adequately grease the lubricating points frequently.

Lubrication points

① Steering arm bearing, top and bottom

(only with steering axles)

- after 40 hours of operation



NOTE

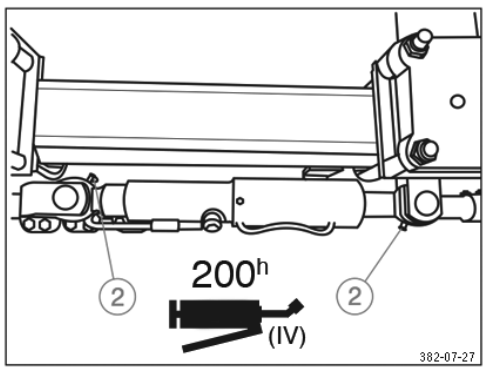
Risk of damage to property due to inadequate lubrication.

- Lift the steering axle with the jack at the lifting points provided before lubricating the steering pin bearing.

② Fixings for cylinder heads

(only with steering axles)

- every 200 operating hours

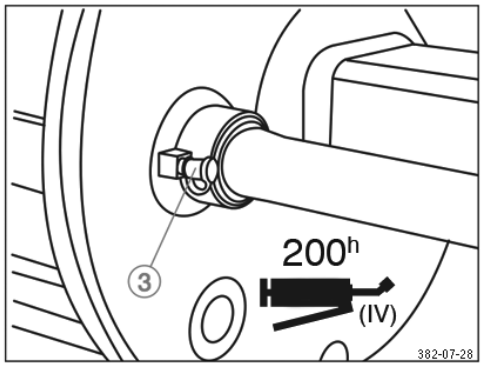


Always make sure that there is no air in the cylinder and the supply line.

③ Bearings of brake shafts

- every 200 operating hours

(and before operation after a long downtime)

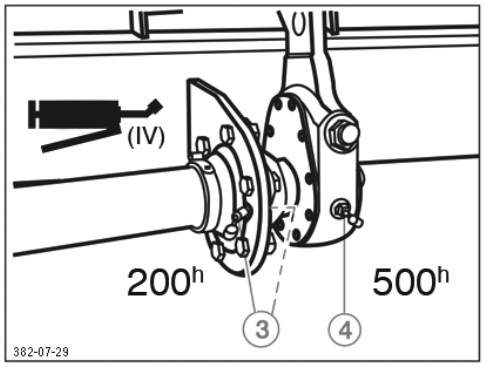


Take care that no grease or oil enters the brakes. Bearings for the brakes are unsealed on some models.

Use only lithium saponified grease with a drop point above 190 °C.

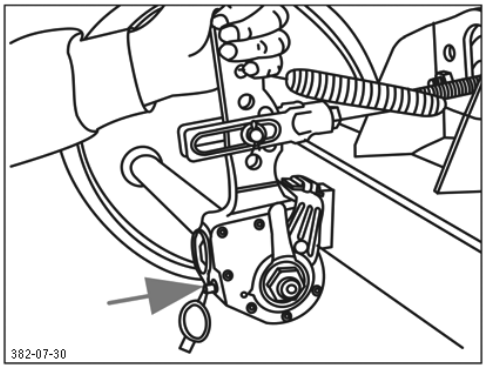
④ Rod adjuster

- every 500 operating hours
- annually at the latest



⑤ Automatic rod adjuster

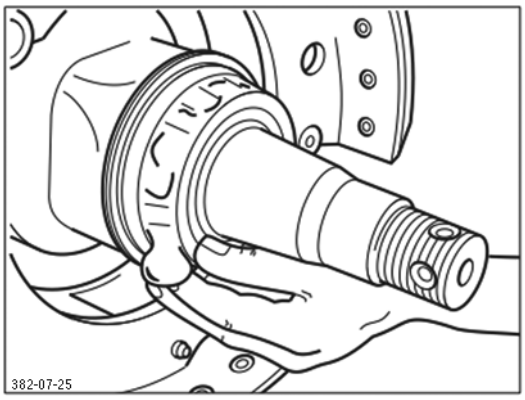
- with every brake lining change
- every 500 operating hours
- annually at the latest



- Remove rubber sealing cap.
- Lubricate with Li-Grease (IV) until sufficient fresh grease flows from the regulating screw.
- Unscrew the regulating screw approx. one turn using a ring spanner.
- Actuate the brake lever repeatedly by hand. In so doing automatic adjustment should take place easily. Repeat often if necessary.
- Replace rubber sealing cap.
- Lubricate with Li-Grease (IV) once again.

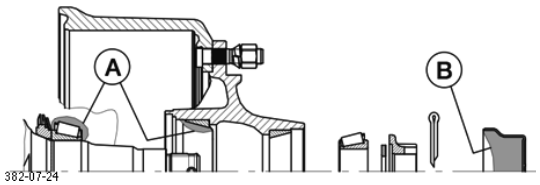
⑥ Changing grease in the wheel hub bearing

- every 1000 operating hours
- annually at the latest



- Jack vehicle up securely and release brakes.
- Remove wheels and dust caps.
- Remove split pin and unscrew the axle nut.
- Using a suitable puller, remove the wheel hub with brake drum, tapered roller bearing as well as seals from the steering knuckle.
- Remove wheel hub and bearing cage markers so that they won't be transposed when assembling.
- Clean the brakes and check for wear, damage and function, and replace worn parts.

  The inside of the brake (A) must be kept free of grease and impurities.
- Thoroughly clean the wheel hubs inside and outside. Remove old grease completely. Thoroughly clean bearing and seals (diesel) and check if reusable.
- Before assembling the bearing, lightly grease the bearing seats and assemble all parts in reverse order



Grease quantities per tapered roller bearing	
Inside A	Outside B
170 g	300 g
Pack grease into the free space between tapered roller bearing and cage. Apply the rest of the grease in the bearing outer ring of the hub.	Grease for the outside tapered roller bearing is pressed into the bearing when the grease-filled hub cap is screwed in.

NOTE

Property damage caused by incorrect grease and too much grease.

- Only use Li-Grease (IV) with a drop point above 190° for greasing the wheel hub bearing.

NOTE

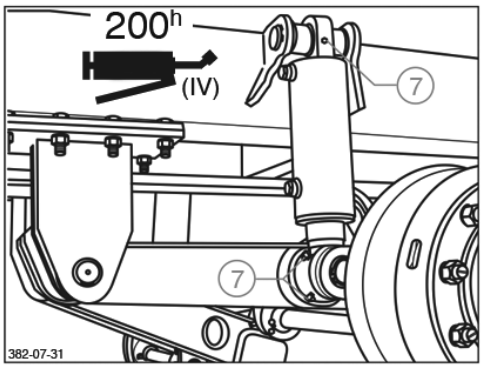
Property damage caused by incompatible grease.

- Do not use any lithium saponified grease in places that require sodium saponified grease, and vice versa.

⑦ Damping zylinder, top and bottom

(only with hydraulic running gear)

- every 200 operating hours

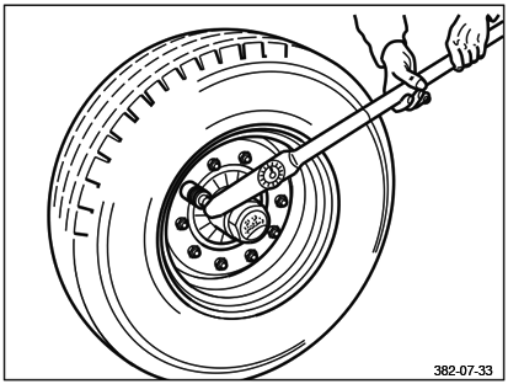


Always make sure that there is no air in the cylinder and the supply line.

Maintenance work on wheels and brakes

1 Check wheel nuts for tightness

- after the first load run
- after every wheel change
- every 500 operating hours
- annually



Tighten wheel nuts crosswise with torque wrench.

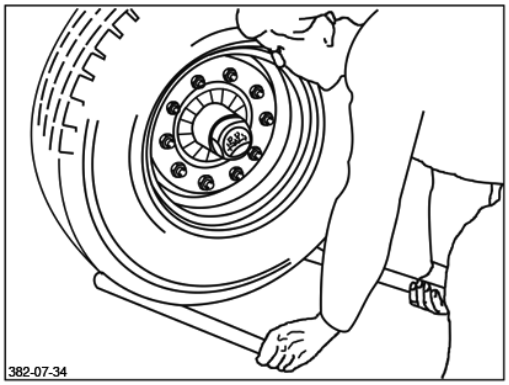
For tightening torque see chapter “WHEELS AND TYRES”.

2 Check wheel hub bearing play

- every 200 operating hours

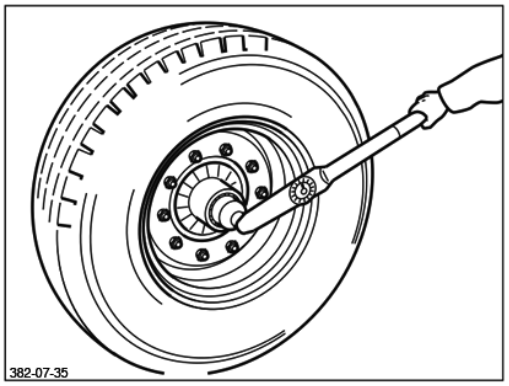
To check the wheel hub bearing play:

- Raise axles until tyres are clear of ground.
- Release brakes.
- Place lever between tyre and ground and check the play.

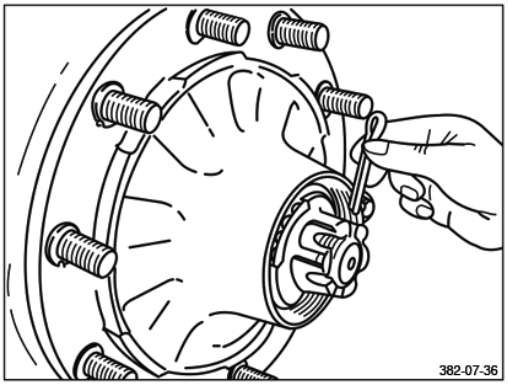


When bearing play can be felt:

1. Unscrew hubcap.



2. Remove split pin from crown nut.
3. Tighten the crown nut with 150 Nm using a torque wrench and simultaneously turn the wheel hub. (If using a standard wrench, tighten crown nut until the movement of the wheel hub is slightly braked).



4. Turn crown nut back to the next possible split pin hole. When the holes are identical, return to the next hole (max. 30°).
5. Insert split pin and bend slightly.
6. Fill hub cap with some Li-Grease (IV).
7. Smear the cap thread all around with Li-Grease (IV). Screw cap in with a tightening torque of 500 Nm.

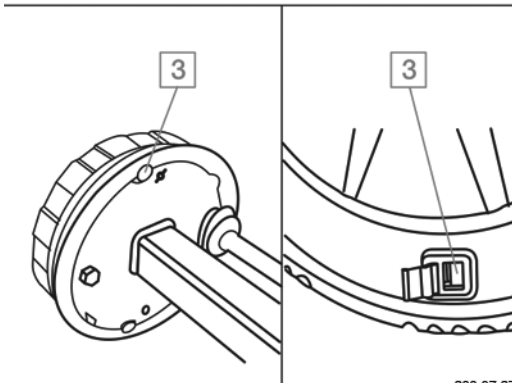
3 Brake pad check

TIP

Depending on the function, the wear and function of the brakes must be checked continuously and readjusted if necessary.

An adjustment is necessary when approx. 2/3 of the maximum cylinder travel is utilized with full braking. To do this, jack up the axle and secure against any unintentional movement.

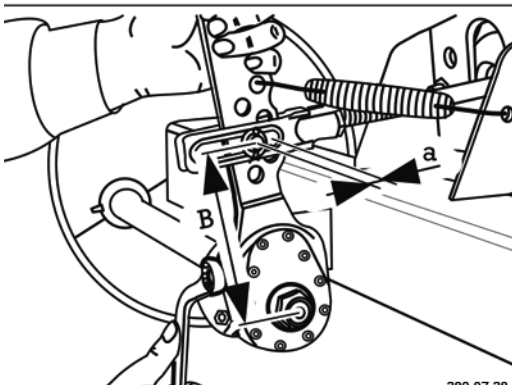
- every 200 operating hours



- Open the viewing hole by pulling out the rubber stopper (if present).
- The brake pad must be replaced when the residual lining thickness is
  a) 5 mm with riveted linings
  b) 2 mm with glued linings
- Reinsert the rubber stopper.

4 Setting the rod adjuster

- every 200 operating hours



- Manually actuate the rod assembly in the direction of pressure.

  If the cylinder rod free travel is 35 mm, the wheel brake must be readjusted.
- Adjust regulating screw

  Set free travel ”a” at 10 - 12 % of the connected brake lever length "B".

  e.g. Brake lever length 150 mm

  Free travel 15 - 18 mm

5 Setting the automatic rod adjuster

- every 500 operating hours
- annually at the latest

- The base setting takes place similarly to the standard setting.

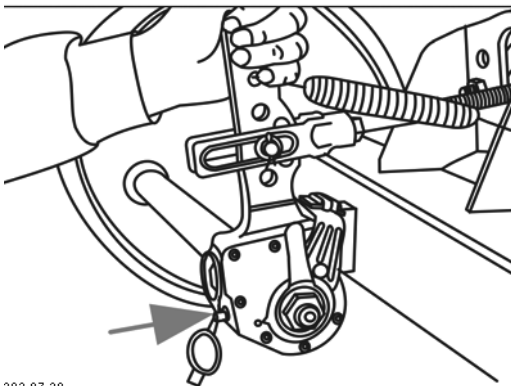
  Resetting takes place automatically at approx. 15° cam turn.

  The ideal lever position is at approx. 15° before the right angle to the actuation direction (cannot be influenced due to cylinder mounting).

6 Check the automatic rod adjuster function

- with every brake lining change
- every 500 operating hours
- annually at the latest

1. Remove rubber sealing cap.
2. Turn the adjusting screw (arrow) back anticlockwise approx. 3/4 of a turn using a ring spanner. A free run of at least 50 mm with a 150 mm lever length must exist.



3. Actuate the brake lever repeatedly by hand.

   In so doing automatic adjustment should take place easily. Gear coupling engagement can be heard, and with the return stroke the adjusting screw turns slightly clockwise.
4. Replace rubber sealing cap.
5. Grease with Li-Grease (IV).

Maintenance work on the hydraulic running gear

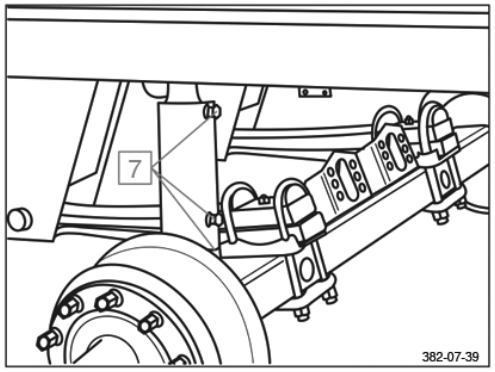
NOTE

Property deterioration through damage or wear

- Check all components for damage and wear every 200 operation hours.

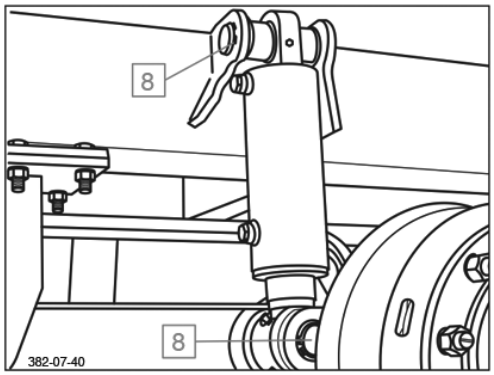
7 Check damping cylinder for condition and impermeability

- every 500 operating hours
- annually at the latest



8 Check damping cylinder mounting

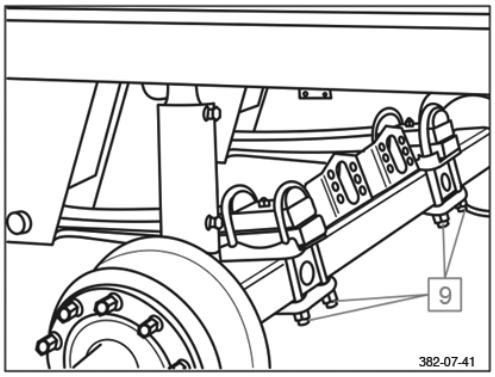
- every 500 operating hours
- annually at the latest



Check damping cylinder mounting for tightness and wear.

9 Spring connection

- initially after the first load run
- every 200 operating hours



- Check the spring stirrup lock nuts for tightness.
  - If the screw connection is loose, tighten the nuts alternately and in several stages.

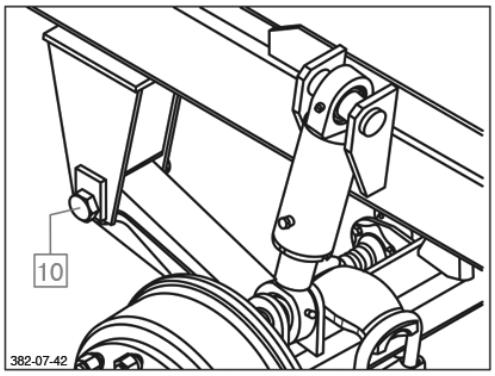
  Nothing is to be welded to the spring!

  Tightening torque with torque wrench:

  M 24 = 650 Nm

10 Spring bolt

- initially after the first load run
- every 500 operating hours

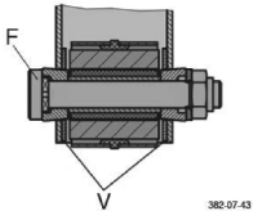


- Check bushings.

  With brakes applied, move the wagon back and forth somewhat or move the spring eyes with the assembly lever. With that, no play must be noticeable in the spring eye. Spring bolts can become damaged through loose fixings.
- Check lateral wearing discs (V) in the support.
- Check lock nut M 30 on the spring bolts (F) for tightness.

Tightening torque with torque wrench:

M 30 = 900 Nm



TIP

The service life of rubber-steel bushing bearings depends on the firm seating of the inner steel bushing.

Overview

Lubrication and maintenance work

See previous pages for an extensive description.

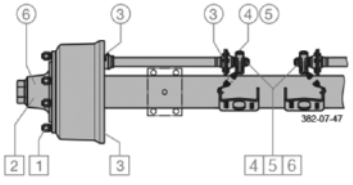
○ **Lubricate**
□ **Maintenance**

	Variant	After the **first** load run	Every **40** operating hours	Every **200** operating hours	Every **500** operating hours (annually)	Every **1000** operating hours (annually at the latest)
Grease with special long-life grease (IV)						
① Steering arm bearing, top and bottom	2		○			
② Fixings for cylinder heads	2			○		
③ Brake shaft bearings, outside and inside	1, 2, 3			○		
④ Rod adjuster	1, 2, 3				○	
⑤ Automatic rod adjuster	1, 2, 3				○	
⑥ Changing grease in the wheel hub bearing, Check tapered roller bearing for damage and wear.	1, 2, 3					○
⑦ Damping cylinder, top and bottom	3			○		
⑧ Support axle, bottom and sides	4	○		○		

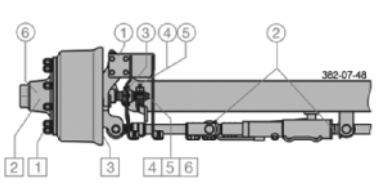
Maintenance

Visual check Check all components for damage and wear.				□		
1 Check wheel nuts for tightness	1, 2, 3	□			□	
2 Check wheel hub bearing play	1, 2, 3			□		
3 Brake pad check	1, 2, 3			□		
4 Setting the rod adjuster	1, 2, 3			□		
5 Setting the automatic rod adjuster	1, 2, 3				□	
6 Checking the automatic rod adjuster function	1, 2, 3				□	
7 Check damping cylinder for condition and impermeability	3,				□	
8 Check damping cylinder mounting	3				□	
9 Check spring connection for tightness	3	□		□		
10 Check spring bolts for tightness	3	□			□	

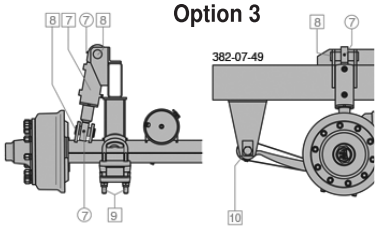
Option 1



Option 2



Option 3

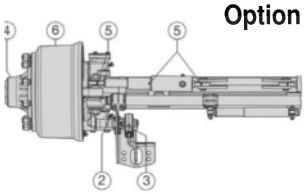


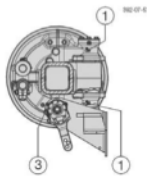
Overview **Lubrication and maintenance work** See previous pages for an extensive description. ○ **Lubricate** □ **Maintenance**	Variant	After the **first** load run	Every **40** operating hours	Every **200** operating hours	Every **500** operating hours (annually)	Every **1000** operating hours (annually at the latest)
Grease with special long-life grease (IV)						
① Steering arm bearing, top and bottom	4		○			
② Brake shaft bearings, outside and inside	4			○		
③ Rod adjuster	4			○		
Automatic rod adjuster	4				○	
④ Change wheel hub bearing grease, check tapered roller bearings and shaft sealing ring	4					○
with tyre pressure control system.	4				○	
⑤ Steering cylinder heads	4			○		
⑥ Brake shoe bearing	4					○

Maintenance

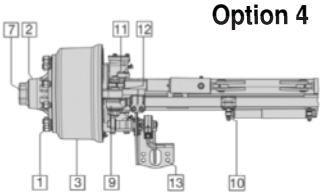
Visual check Check all components for damage and wear.	4			□		
1 Check wheel nuts for tightness	4	□			□	
2 Check wheel hub bearing play	4	□			□	
3 Brake pad check	4			□		
4 Setting the rod adjuster	4			□		
5 Setting the automatic rod adjuster	4				□	
6 Checking the automatic rod adjuster function	4				□	
7 Check caps for tightness	4			□		
8 Check shaft thrust washers and thrust washers	4					□
9 Check steel-rubber bushings on the tie rod end for wear	4				□	
10 Check shock absorber fastenings for tightness	4				□	
11 Check the tightening torque of the steering elements	4				□	
12 Check steering angle	4				□	
13 Check the tightening torque of the brake elements	4				□	

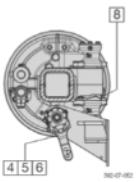
Option 4





Option 4





DANGER

Life-threatening danger from rotating machine parts!

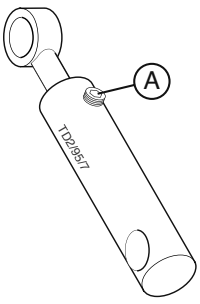
- Switch off engine and remove ignition key prior to any adjustment, maintenance or repair work.

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 -blunt knives	-Declutch and start off again at low revs. -If necessary remove foreign body and sharpen knives. -When pressing channel is blocked release cam type closure on the cutter bar, switch on press (cutter bar swings out automatically), swing cutter bar back in.
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 -Check height setting at hitch
Forage is picked up soiled.	- Jockey wheels set too low	-Check jockey wheel setting.
Hydraulic mechanism moves jerkily.	-Air in lines or cylinders	-Loosen bleed screws (A) and bleed lines
Poor braking.	-Brake linings worn	-Adjust or replace linings



Disruptions and remedies for electrical failures

When a disturbance occurs in the electrical system then the desired hydraulic function can be carried out using an emergency action.

DANGER

Life-threatening danger exists when entering the danger zones.

- When operating the device, make sure that nobody is in a danger zone.

NOTE

Property damage through the collision with surrounding objects.

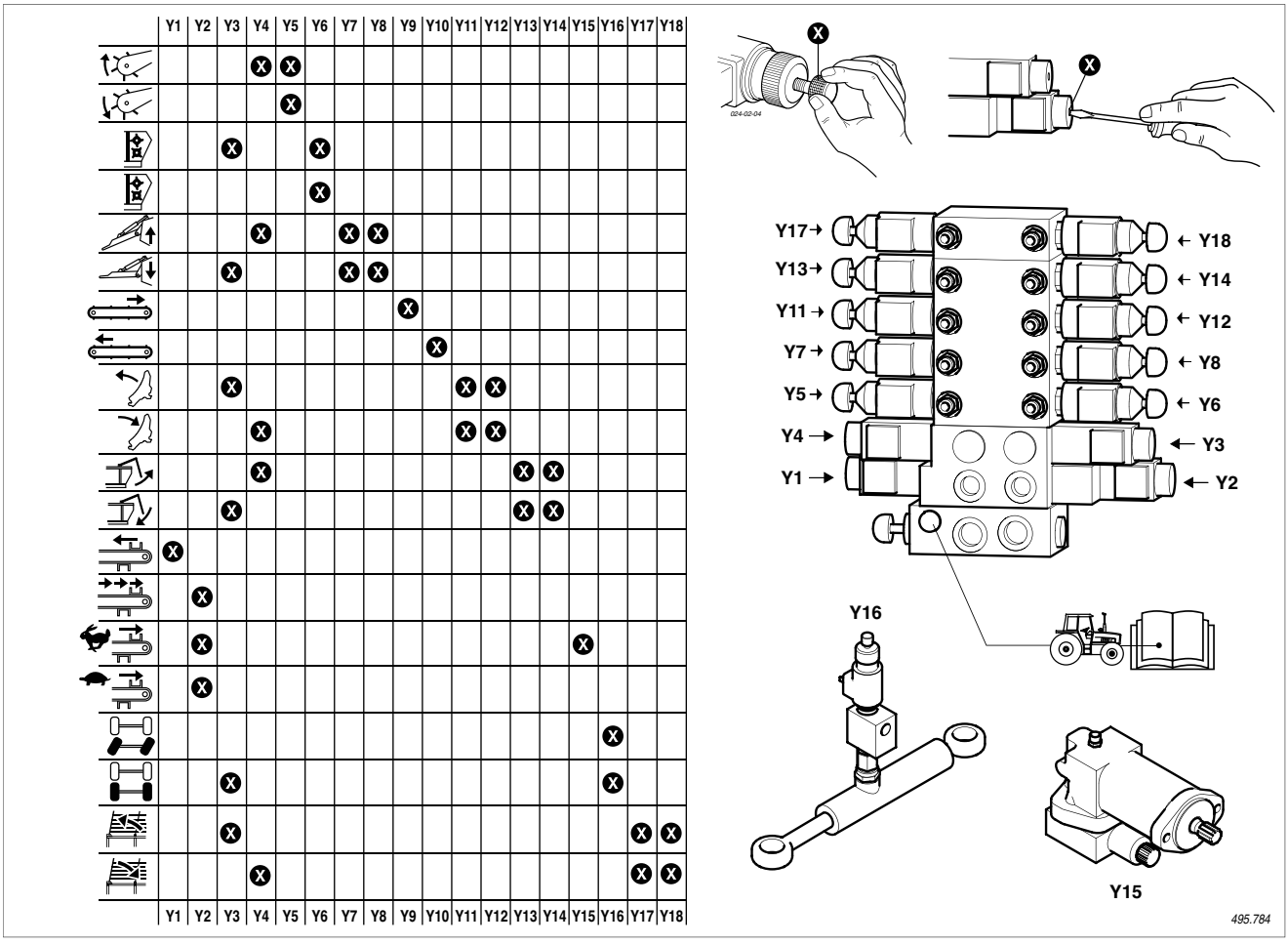
- Be aware of the danger clearances for all lifting and lowering operations, or switching on and off procedures.

The hydraulic block is located under the left front protective cover.

To carry out the desired hydraulic function

- Screw the allocated valve button in
- Actuate servo-valve on tractor
- The hydraulic function is carried out
- Finally, screw the allocated valve button out.

Version with “POWER-CONTROL”

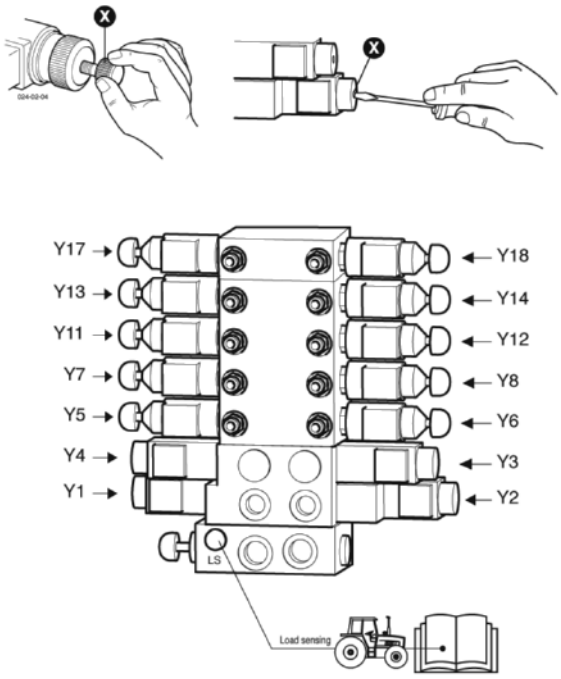


±2

Version with “DIRECT-CONTROL”

Up to 2006 model

	Remark	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y11	Y12	Y13	Y14	Y17	Y18
					X	X									
						X									
	1,5 s				X		X								
STOP	2 s						X								
					X			X	X						
				X				X	X						
				X						X	X				
					X					X	X				
				X								X	X		
					X							X	X		
		X													
			X												
				X										X	X
					X									X	X
		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y11	Y12	Y13	Y14	Y17	Y18



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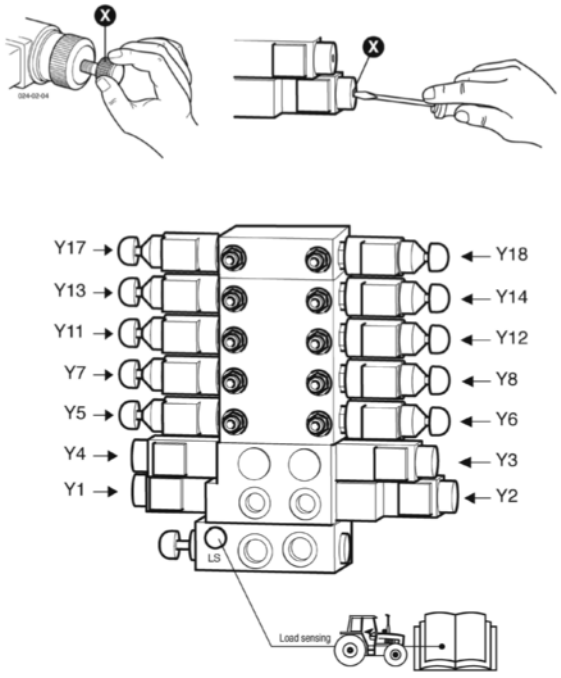
From 2006 model

	Remark	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y11	Y12	Y13	Y14	Y17	Y18
					X	X									
						X									
					X			X	X						
				X				X	X						
				X						X	X				
					X					X	X				
					X							X	X		
				X								X	X		
		X													
			X												
				X										X	X
					X									X	X
		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y11	Y12	Y13	Y14	Y17	Y18



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Technical data

Type L = without dosing device Type D = with dosing device

Designation			FARO 3510 Type 1681	FARO 4010 Type 1682	FARO 4510 Type 1683	FARO 5010 Type 1684	FARO 8010 Type 1688	FARO 10010 Type 1689	FARO 4010 CL Type 1662
Overall length	Type L	[mm]	7780	8460	9140	9140	10790	11990	8400
Type D		[mm]	8250	8930	9610	9610	--	--	8880
Overall width (with standard tyres)		[mm]	2420				2550	2550	2510
Lowered height frame up	with top	[mm]	3560	3560	3560	3760	3980	3980	3825
	with top	[mm]	--	--	--	--	--	4000	3550
frame down									
Track width		[mm]	1850					1950	1950
Platform height - with 17" - tyres		[mm]	1250					--	--
- with 22" - tyres			1370					1370	1440
Pick-up width		[mm]	1850						
No. of cutters (max.)			31	31	31	31	11	11	31
Cutter spacing		[mm]	45	45	45	45	135	135	45
Capacity		[m³]	35	40	45	50	80	100	40
Volume according to DIN 11741		[m³]	24	27	30	33	48	52	23
Type L		[m³]	23	26	29	32	--	--	22
Type D									
Drive shaft torque limiter			1600 Nm / 1000 min^{-1}						
Tyres			500 / 50 - 17 8L						560 / 45R 245
Weight (Standard fitting)	Type L	[kg]	5550	5650	5800	5850	6550	7700	6350
	Type D	[kg]	5950	6050	6200	6350	--	--	6850
Maximum bearing load			2 t	2 t	2 t	2 t	2 t	2 t	2 t
Continuous sound emmission level			<70 dB(A)						

All data subject to change without notice

Connections required

- 1 dual-acting hydraulic plug connection
  Min. operating pressure: 150 bar
  Operating pressure max.: 200 bar
- 7-pin connection for the lighting (12 volt)
- 2-pin (12 volts) connector

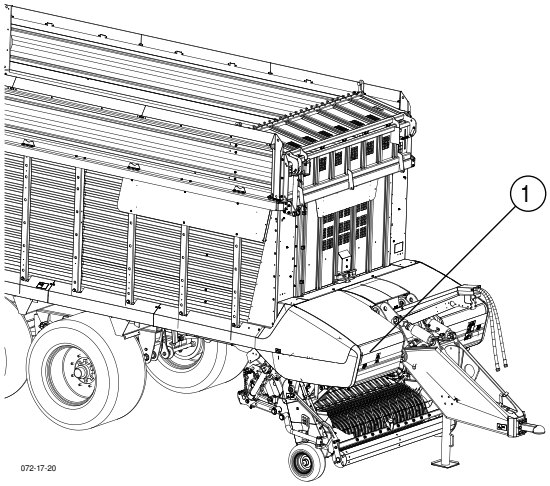
Position of type plate

The chassis number is engraved on the type plate shown opposite. Warranty claims, enquiries and spare part orders cannot be processed without the chassis number.

Please enter the name on the title page of the Operating Instructions when accepting the vehicle / machine.

Type plate position

The type plate is located under the right-hand (in the direction of travel) front cover.



Use of the trailer as intended

The loading carriage "FARO (Type 1662, 1681, 1682, 1683, 1684, 1688, 1689)" is only intended for use in customary agricultural work.

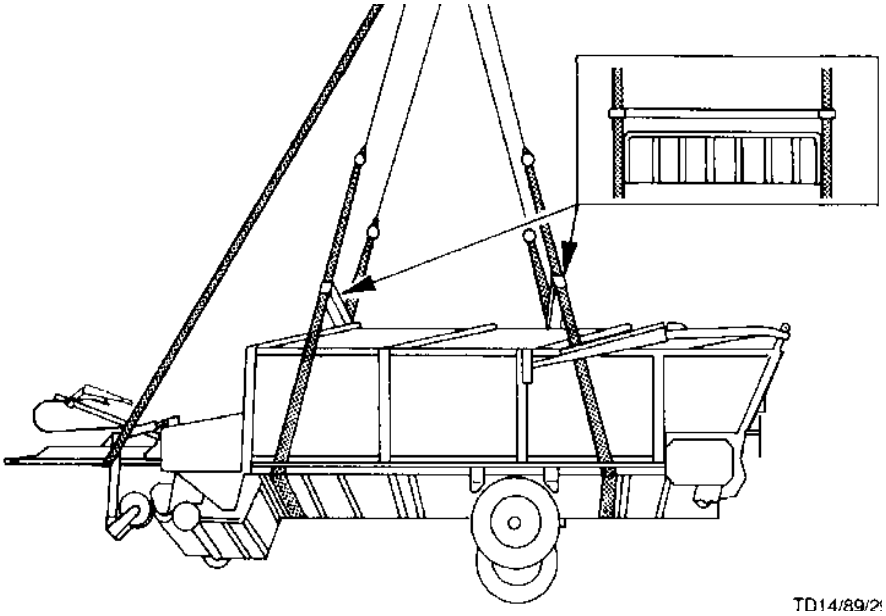
- For loading, transporting and unloading of roughage and straw (also in chopped state)
- Types 1662, 1681, 1682, 1683, 1684 are also suitable for loading, transporting and unloading of green fodder and wilted silage (also in chopped state)

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

Any other use outside the intended activities (e.g. transport of wood chips) is not considered as an intended use.

The manufacturer accepts no liability for any damage arising as a result thereof. The user accepts sole responsibility.

Correct loading:



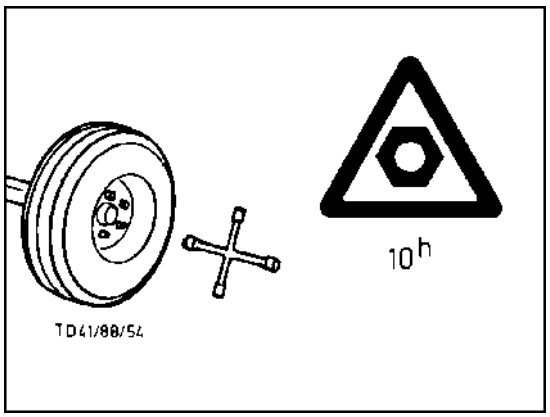
Tightening torque

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

⚠ DANGER

Danger to life caused by loose wheels.

- Retighten wheel nuts after the first 10 hours in operation.
- Similarly, after a wheel change, tighten the wheel nuts after 10 hours of operation.



Air pressure

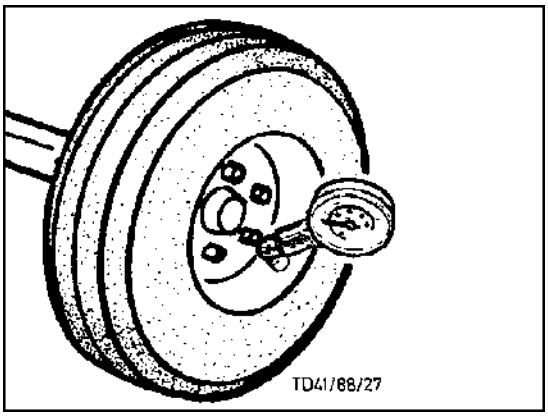
- Ensure correct tyre pressure!
- Regularly check tyre air pressure according to the chart!

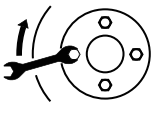
  Danger of bursting when pumping up or when tyre pressure is too great!

⚠ CAUTION

Risk of injury caused by bursting tyres

- Do not exceed the recommended value when inflating your tyres.





M 20 x 1,5
350 Nm

M 22 x 1,5
500 Nm

1 bar
= 14,5 psi
= 100 kPa

		bar	km/h	bar	km/h	kg
16x6,5-8	10PR	1,5	40			
500/50-17	149A8	2,2	40			5250
500/50-17	149A8	2,9	40			6500
520/50R17	147D	2,2	40			5250
520/50R17	147D	3,0	40			6500
555/45-17FRT	154F	4,2	40	5,0	80	6000
560/45R22,5	146D	2,4	40			6500
560/45R22,5	152D	3,2	40	4,0	65	7500
620/40R22,5	148D	2,3	40			6500
620/40R22,5	154D	3,0	40	4,0	65	7500
710/35R22,5	157D	2,6	40	4,0	65	8000
600/50R22,5	159D	2,8	40	4,0	60	9000
710/45R22,5	165D	2,3	40	3,4	65	9000
800/40R22,5	168D	2,0	40	3,1	65	9000

495.808.402/19

SUPPLEMENT

The original cannot be copied ...

EN

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

TIP

This operating manual contains this symbol at all points relating to the safety of persons.

1.) Operating instructions

a. The operating instructions are an important part of the machine. Make sure that the operating instructions are always on hand when operating the machine.

b. Keep the operating instructions as long as the machine is in your possession.

c. Pass the operating instructions on to the buyer when selling the machine or changing the operator.

d. Make sure that all safety and warning symbols remain attached on the machine and keep them readable. The hazard warnings provide important information for a safe operation and, thus, your safety.

2.) Qualified personnel

a. Only persons of legal age who are mentally and physically able and have been trained or familiarized accordingly is allowed to operate this machine.

b. Persons not yet trained, familiarized or under training or in a general education must only operate this machine under the supervision of an experienced person.

c. Inspection, setting and repair work must only be performed by authorized persons.

3.) Performing maintenance work

a. These instructions only refer to service, maintenance and repair operations the user is able to carry out without assistance. Any work beyond this scope has to be carried out at authorized workshops only.

b. Repairs on the electrical and hydraulic system, preloaded springs, pressure accumulators, etc. require sufficient knowledge, correct tools and protective clothing and, thus, must only be performed at authorized workshops.

4.) After maintenance work on brakes

a. After each repair of the brakes, a functional check or a test drive must be carried out to ensure that the brakes function properly. New drums or brake linings only have optimum braking effect after a few braking operations. Violent braking should be avoided.

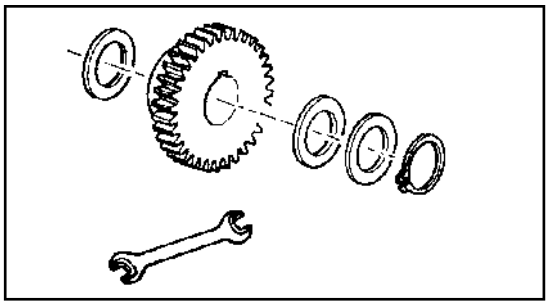
5.) Modification work

a. Do not undertake any unauthorised additions, modifications or alterations to the machine. This also applies to the installation and setting of safety devices as well as welding or drilling in stress-bearing parts.

6.) Appropriate use

a. see technical data

b. Intended use also includes compliance with the manufacturer's stipulated operating, maintenance and service conditions.



7.) Spare parts

a. **Original parts and accessories** are specially designed for the machines and their equipment.

b. We expressly draw your attention to the fact that genuine parts and accessories not supplied by us, have not been tested and approved by us.

c. Under certain circumstances, the installation and/or use of such products may negatively modify or impair the specified structural properties of the machine. The manufacturer accepts no liability for any damage caused through the use of non-genuine parts and accessories.

d. Unauthorised changes as well as the use of components or attachments on the machine lead to the exclusion of manufacturer's liability.

8.) Safety devices

a. All protection devices must remain on the machine and be maintained in proper condition. Replacement of worn or damaged covers or guards is required in good time.

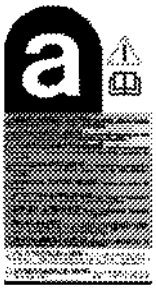
9.) Before starting work

a. Before commencing work, the operator must familiarise with all of the operating devices and functions. The learning of these is too late after having already commenced operation!

b. Before every putting into operation check the vehicle or the implement for traffic and operating safety.

10.) Asbestos

a. Certain sub-supplied components of the vehicle may contain asbestos due to technical reasons. Please observe the marking of spare parts.



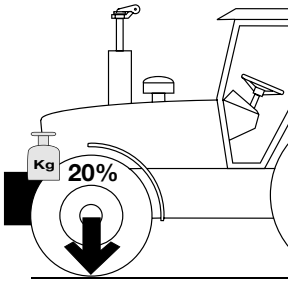
11.) Transport of people prohibited

a. The transport of people on the machine is not permitted.

b. The machine may only be driven on public roads when in the position stipulated for road transport.

12.) 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 the road and auxiliary equipment. The driving must be adapted to the corresponding terrain and ground conditions.

c. When driving through curves with a connected implement, observe the radius and swinging mass of the implement!

d. When travelling in a curve with attached or semi-mounted implements, take into account the working range and swing mass of the implement!

13.) General

a. Before attaching implements to the three-point linkage, move system lever into a position whereby unintentional raising or lowering is ruled out!

b. Danger of injury exists when coupling implements to the tractor!

c. Danger of injury through crushing and cutting exists in the three-point linkage area!

d. Do not stand between the tractor and the 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 allowed to stand between tractor and implement without the 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 the universal drive.

14.) Cleaning the implement

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

General tips

DANGER

Danger to life caused by operation of the cardan shaft with damaged or insufficient protective devices.

- Check the completeness and functionality of protective devices of the cardan shaft before first use.
- Replace damaged or faulty parts only with genuine parts.
- Do not operate the machine without complete and undamaged protective devices.
- Do not operate the machine without a correctly installed holding chain for the cardan shaft protection.
- Ensure that the protection also fully covers the drive.

WARNING

Risk of serious injury caused by burning.

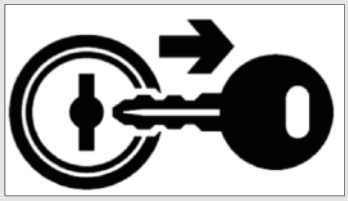
- Do not touch the cardan shaft, in particularly the couplings of the cardan shaft, immediately after operation.

DANGER

Life hazard due to mobile or rotating parts

- Do not stay within the hazard area of the rotating parts.

- Before maintenance or repair work: Switch off the engine, remove the ignition key, and wait until all moving parts have completely stopped.

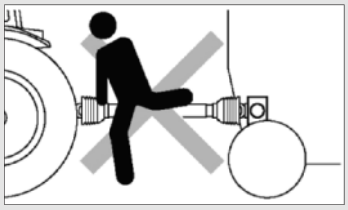


- Wear tightly-fitting and suitable clothing.

NOTE

Risk of material damage caused by mechanic pressure.

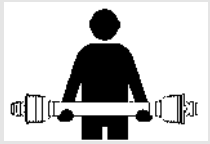
- Do not climb unto the cardan shaft. Do not use the cardan shaft as a climbing aid.



NOTE

Risk of material damage caused by loose cardan shaft parts falling to the ground

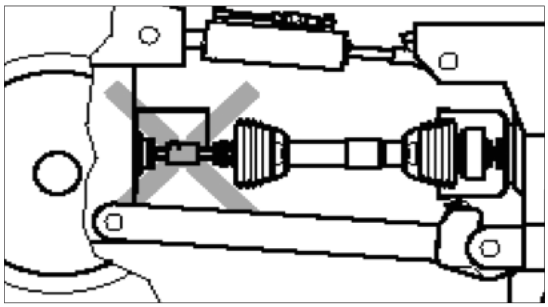
- Transport the cardan shaft only horizontally. Otherwise the cardan shaft can fall apart and cause accidents.



TIP

Comply with the maximum permissible rotational speed depending on the operational length according to the data provided by the cardan shaft manufacturer.

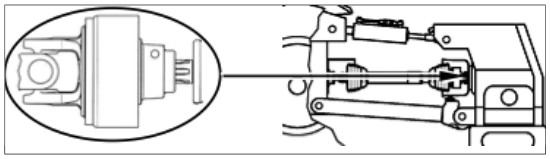
It is not allowed to use profile extensions/adapters for the cardan shaft.



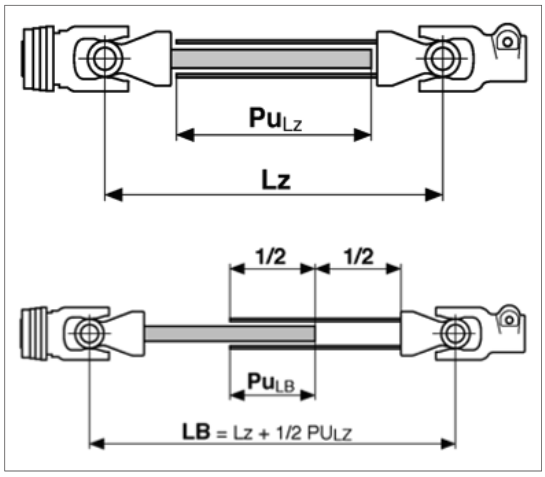
Handling instructions

Make sure that the cardan shaft connections are secure.

With a cardan shaft between tractor and machine, the overload and overruning clutches must always be installed on the side of the machine.



Ensure the proper coverage of the sliding profile in the work and transport position.



TIP

Every cardan shaft is supplied with the original manual.

Adapting the cardan shaft

DANGER

Danger to life caused by incorrect or inexperienced work with the cardan shaft.

- Have the cardan shaft shortened by a specialist workshop.
- Unautorized modifications to the cardan shaft exlude any liability for the manufacturer.

Determining the correct length:

TIP

- Try to achieve the greatest possible profile overlap (PU)!
- During transport and when the drive is switched off, the profile overlap must be at least 100 mm

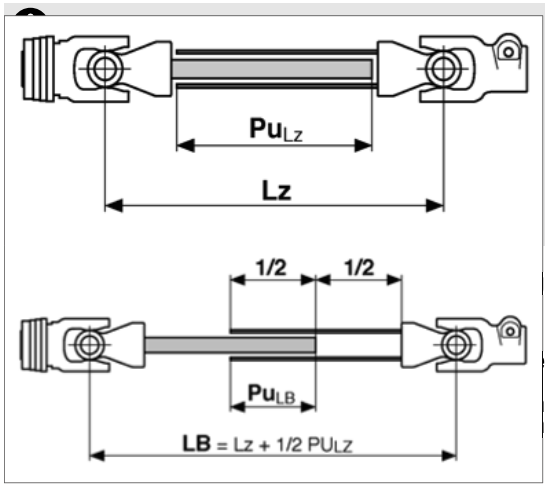
Pull the two halves of the shaft apart and hold them next to each other in the shortest operating position of tractor and implement.

1. The shortest cardan shaft distance is obtained at maximum turn and, depending on the trailer and drawbar type, maximum lifted or lowered drawbar.
2. Note that apart from the horizontal angle changes of the drawbar, the terrain can also lead to shortening of the cardan shaft distance. Therefore include another 2-5 cm for driving over hummocks and through hollows.

Shortening:

1. Remove protective tube.
2. Shorten the section tube, deburr and clean.

3. Shorten the protective tube by the same length as the corresponding section tube.



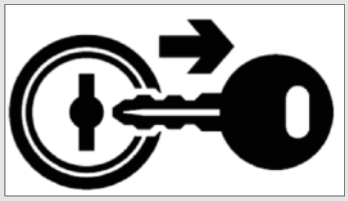
LZ = cardan shaft pushed together
LB = cardan shaft in operation
Pu = profile overlap

Construction of the cardan shaft

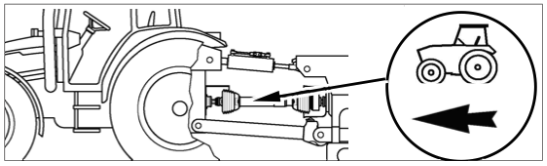
DANGER

Life hazard due to mobile or rotating parts

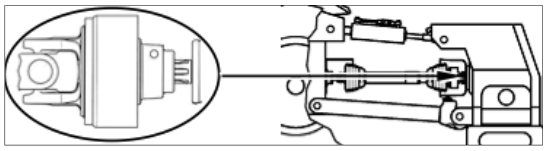
- Before maintenance or repair work: Switch off the engine, remove the ignition key, and wait until all moving parts have completely stopped.



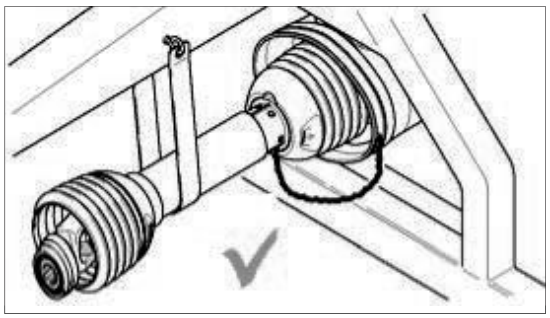
- Comply with the safety instructions.
- Clean and grease the tractor and the machine PTO.
- The tractor symbol on the cardan shaft's protective tube indicates the connection to the tractor.



- The overload and overruning clutches must always be installed on the side of the machine.



- To facilitate the coupling process, the guard cone can be pushed back.
- Before first operation, check the cardan shaft length in all operational situations in order to prevent compression or insufficient profile overlap.
- Hang the holding chain of the cardan shaft so that there is sufficient pivoting space in all operational situations.



Attach at a straight angle to the cardan shaft, as far as possible.

- For the full protection version, loosen and pull back the cone.
- Install the cardan shaft to the machine.
- Push the full protection cone onto the adapter on the machine side until both locks audibly engage.

Installing the cardan shaft onto the transmission

Attaching with conical clamp screws:

- Loosen clamp screw
- Push cardan shaft on until the drilled hole of the clamp fork and the coupling are above the annular groove
- Insert clamp screw
- Position shim with nut and tighten

Recommended tightening torques:

- 150 Nm for profile 1 3/8" z6 and z21
- 220 Nm for profile 1 3/4" z6 and z20

DANGER

Danger to life caused by loosening of the connection between the cardan shaft and the transmission during driving

- Before each use and in regular intervals verify the tightness of the connections and screws, tighten after 5 hours after initial use!

Maximum permitted joint angle

Single cardan joint:

- Work with limited but even angles (L1 = L2) The angles in the cardan joint may be very great in curves; however they may not exceed 45° even if they are even. Switch the PTO off if the angles are too great or uneven.

Wide-angle constant velocity joint:

NOTE

Risk of property damage caused by excessive angle of the cardan shaft

- Do not operate the cardan shaft in the long-term with an angle exceeding 80°.
- Do not store the cardan shaft with an angle exceeding 80°.

NOTE

Risk of property damage caused by constant angle of the cardan shaft.

- Changing the angle for the cardan shaft distributes the oil in the joint. Do not drive constantly with the same cardan shaft angle setting.

- In long-term operation and working with a load do not exceed 25°.
- For brief operation and without a load (for example, driving through a corner) larger cardan shaft angles may be used. (80° or 50° depending on the cardan shaft type).

  Exact angle data can be found in the manufacturer's operating instructions.

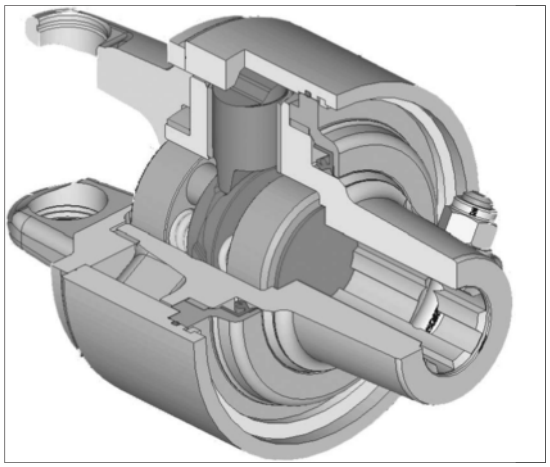
Cardan shaft with a wide-angle constant velocity joint and a simple cardan joint

- In long-term operation do not exceed the angles given below for the cardan joint. This will allow preventing uneven movements.

Rotations	Angle
540 min^{-1}	16°
1000 min^{-1}	9°

- The cardan joint must always be installed on the side of the machine.
- In the case of cardan shafts with a wide-angle joint, the pivot point between tractor and implement must be the same as the pivot point of the wide-angle joint.

Cam clutch coupling



- When exceeding the preset torque, the overload interrupts the power train.
- Automatic restarting (torque build-up) through turning off the PTO.

TIP

Switching-on is also possible by decreasing the p.t.o. r.p.m.

- Avoid turning off for more than 10 sec! 1000 rpm can cause damage to the coupling or the machine!

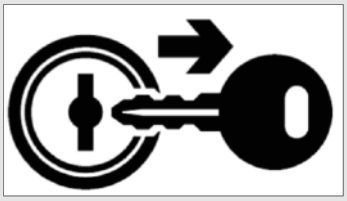
Greasing interval: maintenance-free

Removal of cardan shaft

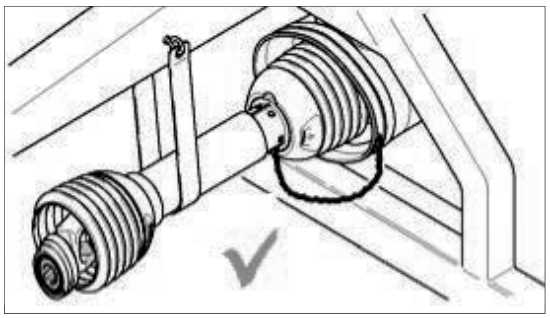
DANGER

Life hazard due to mobile or rotating parts

- Before maintenance or repair work: Switch off the engine, remove the ignition key, and wait until all moving parts have completely stopped.



- Pull the cardan shaft off from the tractor PTO and place in the appropriate holder.



The storage point for the cardan shaft must be located in the front third of the shaft.

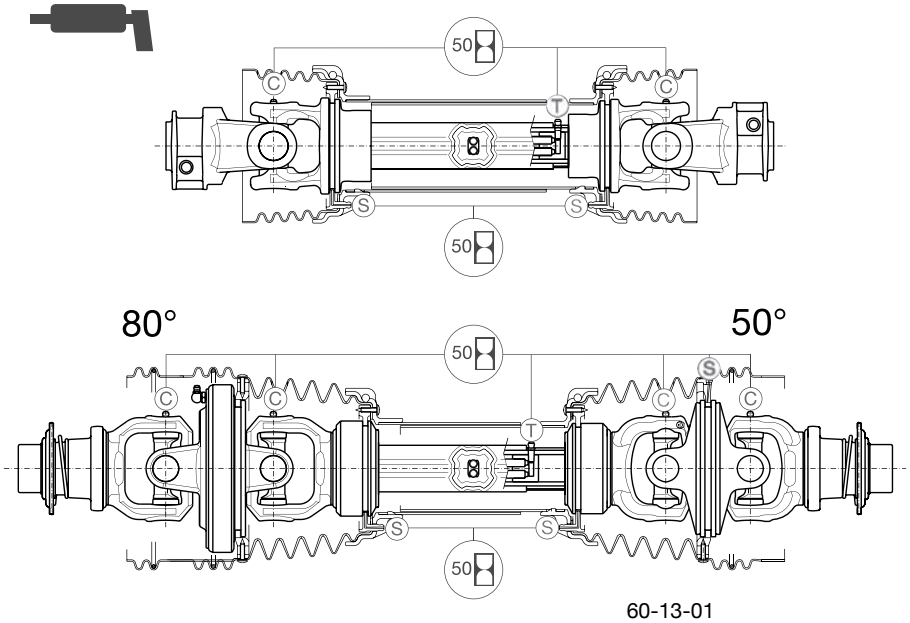
TIP

The holding chain for the cardan shaft serves as a twist protection for the guard and may not be used for hanging the cardan shaft!

- During longer standstill clean and grease cardan shaft.

Lubrication

Lubrication intervals in hours and approximate grease amounts



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	S1	S2	S4	S5	S6	H7	S8	H8	S9	SH	S0
Cardan joints Ⓒ	4g	7g	10g	13g		18g	22g		26g	28g	30g
Slide rings of the protective device Ⓢ	6g										
Section tube T	12g		20g				32g				
Wide-angle joint 80° 80°		20g	30g		60g		80g		100g	160g	
Wide-angle joint 50° 50°			5g		6g		7g		8g		

Lubrication of the section tube (without grease nipple)

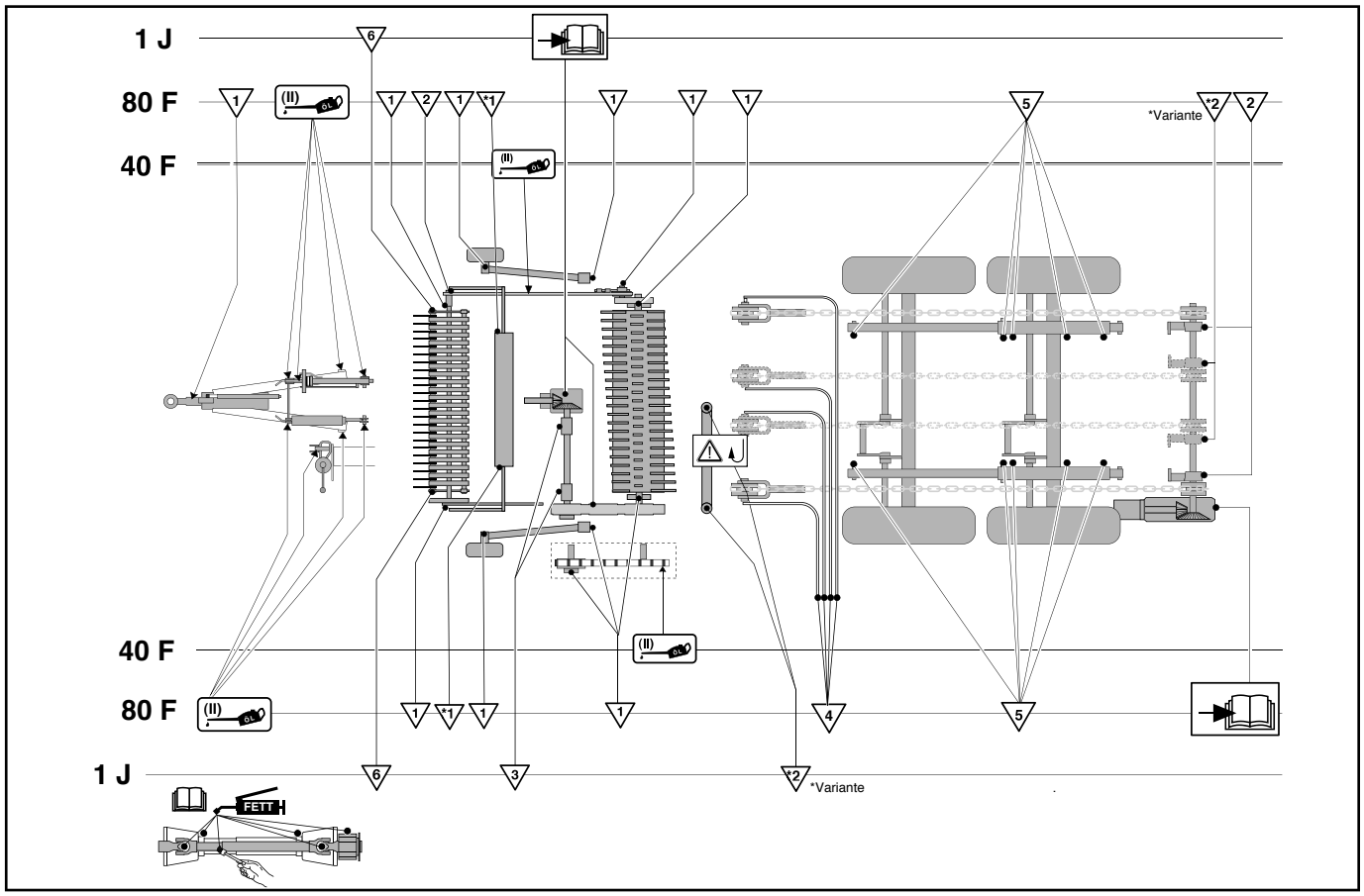
Pull the cardan shaft apart into 2 halves and grease it manually unless a corresponding lubrication nipple is available.

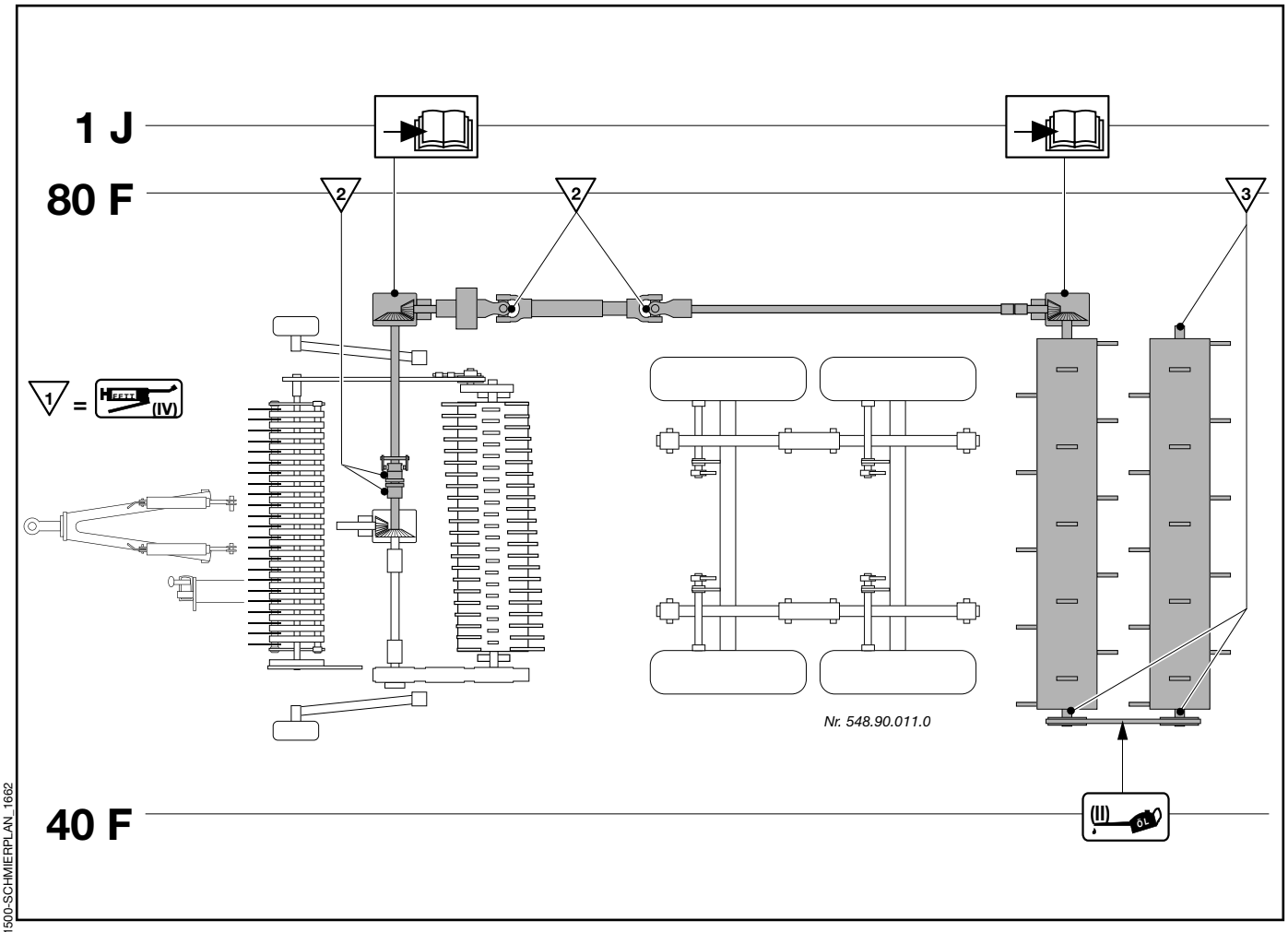
Lubrication of the section tube (using grease nipple)

Lubricate the section tube using the lubrication nipple located near the inner fork at the implement.

Lubrication chart

X^{h}	after every X hours operation
40 F	all 40 loads
80 F	all 80 loads
1 J	once a year
100 ha	every 100 hectares
BB	if necessary
	GREASE
	Oil
 =	Number of grease nipples
 =	Number of grease nipples
(III), (IV)	see supplement „Lubrificants“
[l]	Litre
– – – –	Variation
	See manufacturer’s instructions
↺	Rotations per minute
	Always screw in measuring stick up to stop.





1500-SCHMIERPLAN_1662

EN

Lubricants

Edition 2013

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.

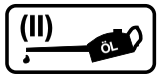
The applicable lubricants are symbolized (eg. “III”). According to this lubricant product code number the specification, quality and brandname of oil companies may easily be determined. The listing of the oil companies is not said to be complete.

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.

Corrosion protection: Fluid 466

Lubricant indicator	**I**				**V**	**VI**	**VII**
required quality level niveau	HYDRAULIKöL HLP DIN 51524 Teil 2 See notes: * ** ***	motor oil SAE 30 according to API CD/SF	gear oil, SAE 90 resp. SAE 85 W-140 according to API-GL 4 or API-GL 5	lithium grease	transmission grease	complex grease	gear oil SAE 90 resp. SAE 85 W-140 according to API-GL 5

Company	I	(II)	III	(IV)	V	VI	VIII	NOTATIONS
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	* The international specification J 20 A is necessary for compound operation with wet brake tractors. ** HLP-(D) + HV hydraulic oils *** HLP + HV hydraulic oils with a vegetable oil basis, biodegradable and therefore environmentally friendly.
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	
AVIA	AVILUB RL 32/46 AVILUB VG 32/46	MOTOROIL HD 30 MULTIGRADE HDC 15W-40 TRACTAVIA HF SUPER 10 W-30	GETRIEBEÖL MZ 90 M MULTIHYP 85W-140	AVIA MEHRZWECKFETT AVIA ABSCHMIERFETT	AVIA GETRIEBEFLIESSFETT	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 FLM PLANTOGEL 2 N	GETRIEBEFLIESSFETT NLGI 0 RENOLIT DURAPLEX EP 00 PLANTOGEL 00N	RENOPLEX EP 1	HYPOID 85W-140	
BP	ENERGOL SHF 32/46/68	VISCO 2000 ENERGOL HD 30 VANELLUS M 30	GEAR OIL 90 EP HYPOGEAR 90 EP	ENERGREASE LS-EP 2	FLIESSFETT NO ENERGREASE 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	CASTROLGREASE LM	IMPERVIA MMO	CASTROLGREASE 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-90	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 G O	MULTIMOTIVE 1	TRANSELF TYP B 90 85W-140 TRANSELF TYP BLS 80 W-90	
ESSO	NUTO H 32/46/68 NUTO HP 32/46/68	PLUS MOTORÖL 20W-30 UNIFARM 15W-30	GEAROIL GP 80W-90 GEAROIL GP 85W-140	MULTI PURPOSE GREASE H	FIBRAX EP 370	NEBULA EP 1 GP GREASE	GEAR OIL GX 80W-90 GEAROIL GX 85W-140	
EVVA	ENAK HLP 32/46/68 ENAK MULTI 46/68	SUPER EVVAROL HD/B 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	
FUCHS	• TITAN HYD 1030 • AGRIFARM STOU MC 10W-30 • AGRIFARM UTTO MP • PLANTOHYD 40N ***	• AGRIFARM STOU MC 10W-30 • TITAN UNIVERSAL HD	• AGRIFARM GEAR 80W90 • AGRIAFRM GEAR 85W-140 • AGRIFARM GEAR LS 90	• AGRIFARM HITEC 2 • AGRIFARM PROTEC 2 • RENOLIT MP • RENOLIT FLM 2 • PLANTOGEL 2-N	• AGRIFARM FLOWTEC 000 • RENOLIT SO-GFO 35 • RENOLIT DURAPLEX EP 00 • PLANTOGEL 00N	• RENOLIT DURAPLEX EP 1	• AGRIFARM GEAR 8090 • AGRIFARM GEAR 85W-140 • AGRIFARM GEAR LS90	
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	GETRIEBEFLIESSFETT PLANTOGEL 00N	RENOPLEX EP 1	HYPOID EW 90 HYPOID 85W-140	
MOBIL	DTE 22/24/25 DTE 13/15	HD 20W-20 DELVAC 1230 SUPER UNIVERSAL 15W-30	MOBILUBE GX 90 MOBILUBE HD 90 MOBILUBE HD 85W-140	MOBILGREASE MP	MOBILUX EP 004	MOBILPLEX 47	MOBILUBE HD 90 MOBILUBE HD 85W-140	
RHG	RENOLIN B 10/15/20 RENOLIN B 32 HVI/46HVI	EXTRA HD 30 SUPER HD 20 W-30	MEHRZWECKGETRIEBEÖISAE90 HYPOID EW 90	MEHRZWECKFETT RENOLIT MP DURAPLEX EP	RENOSOD GFO 35	RENOPLEX EP 1	HYPOID EW 90	

Company	I	(II)	III	(IV)	V	VI	VIII	NOTATIONS
SHELL	TELLUS S32/S46/S68 TELLUS T 32/T46	AGROMA 15W-30 ROTELLA X 30 RIMULA X 15W-40	SPIRAX 90 EP SPIRAX HD 90 SPIRAX HD 85/140	RETINAX A ALVANIA EP 2	SPEZ. GETRIEBEFETT H SIMMNIA GREASE O	AEROSHELL GREASE 22 DOLIUM GREASE R	SPIRAX HD 90 SPIRAX HD 85W-140	* The international specification J 20 A is necessary for compound operation with wet brake tractors. ** HLP-(D) + HV hydraulic oils *** HLP + HV hydraulic oils with a vegetable oil basis, biodegradable and therefore environmentally friendly.
TOTAL	AZOLLA ZS 32, 46, 68 EQUIVIS ZS 32, 46, 68	RUBIA H 30 MULTAGRI 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 HVLP 32 ** ULTRAPLANT 40 ***	SUPER HPO 30 STOU 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-PLEX EP 2 PLANTOGEL 2 N	RENOLIT LZR 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 HR 32/46 *** HYDROLFLUID *	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	
MOTOREX	COREX HLP 32 46 68** COREX HLPD 32 46 68** COREX HV 32 46 68** OEKOSYNT 32 46 68***	EXTRA SAE 30 FARMER TRAC 10W/30	GEAR OIL UNIVERSAL 80W/90 GEAR OIL UNIVERSAL 85W/140	FETT 176 GP FETT 190 EP FETT 3000	FETT 174	FETT 189 EP FETT 190 EP FETT 3000	GEAR OIL UNIVERSAL 80W/90 GEAR OIL UNIVERSAL 85W/140	

Emergency brake valve

Purpose:

The emergency brake valve increases the safety of a trailer/tractor unit. An independent rollaway is prevented e.g. with a broken hitch or other conditions.

Function:

As break-away brake: If an implement detaches itself unintentionally from the tractor, the hydraulic hose and the electrical plug, respectively the rip cord will snap. Emergency braking is triggered by interrupting the electrical circuit or by manual action. The break-away coupling at the drawbar serves as predetermined breaking point and avoids the unintentional escape of oil.

⚠ DANGER

Life-threatening danger exists due to implement rolling off.

- When the machine is parked and secured against rolling, apply the parking brake.

Coupling the emergency brake valve to tractor:

- Connect the hydraulic tractor terminal to the imachine.
- Attach the breakaway cable to the tractor and the machine, or connect the electrical cable to the machine.
- Before driving off: Floor the brakes for 10 seconds to fully charge the hydraulic accumulator. If the machine is equipped with braking force regulator, set it to full capacity

⚠ DANGER

Life hazard - due to implement rolling off. The electrical emergency brake valve is unlocked through power supply.

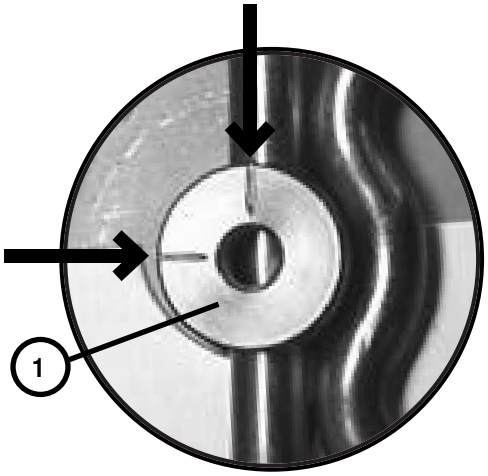
- Switch on the lighting!

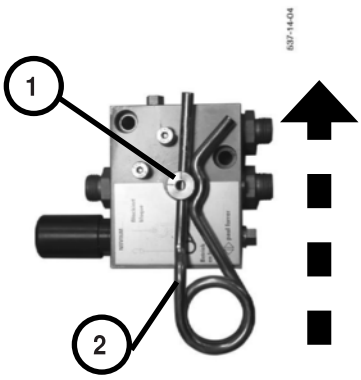
Uncoupling the emergency brake valve from tractor:

- Apply the parking brake on the machine to secure it against rolling away.
- Reduce the excessive oil pressure before uncoupling the machine by pressing the button on the emergency brake valve or by operating the emergency brake lever. Otherwise, recoupling is not possible due to the pressure of the oil remaining in the system.
- Detach the hydraulic hose from the tractor connection.
- Disconnect either the electrical cable or the brakeaway cable.

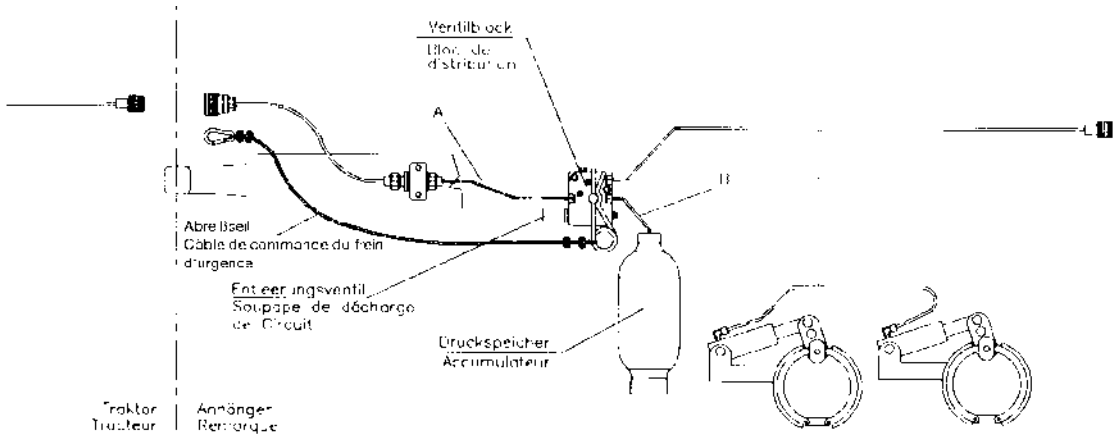
Recouple the emergency brake valve after emergency braking

Observe the marking on the valve pin (1). This must be at the quarter-past-twelve position when fitting the linchpin. And the linchpin (2) must be inserted from left to right through the valve pin (1).





Emergency brake valve for trailers triggered mechanically



The CE norm is not valid in the United States of America and Canada.

EC Conformity Declaration

Original Conformity Declaration

Name and address of the manufacturer:

PÖTTINGER Landtechnik GmbH
Industriegelände 1
AT - 4710 Grieskirchen

Machine (interchangeable equipment):

self-loading wagon	FARO 3510 L/D	4010 L/D	4010 CL	4510 L	8010 L	10010 L
Type	1681	1682	1662	1683	1688	1689
Serial no.						

The manufacturer declares that the machines adhere to all relevant provisions in the following EU directive:

machinery 2006/42/EG

In addition to this, the manufacturer also declares adherence to the other following EU directives and/or relevant provisions

Electromagnetic compatibility 2014/30/EU

Source of applied, harmonised norms:

EN ISO 12100 EN ISO 4254-1

Source of applied miscellaneous technical norms and / or specifications:

Person responsible for documentation:

Konrad Mallinger
Industriegelände 1
A-4710 Grieskirchen

Markus Baldinger,
CTO R&D

Jörg Lechner,
CTO Production

Grieskirchen, 01.08.2016

DE

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EN

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FR

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La PÖTTINGER Landtechnik GmbH è costantemente al lavoro per migliorare i suoi prodotti mantenendoli aggiornati rispetto allo sviluppo della tecnica.

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I dati tecnici, le misure e i pesi non sono impegnativi. Non rispondiamo di eventuali errori. Ristampa o traduzione, anche solo parziale, solo dietro consenso scritto della

NL

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Technische gegevens, maten en gewichten zijn niet bindend. Vergissingen voorbehouden.

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As características técnicas, as dimensões e os pesos não são vinculativos.

PÖTTINGER
Landtechnik GmbH
Industriegelände 1
A-4710 Grieskirchen
Telefon: +43 7248 600-0
Telefax: +43 7248 600-2513
e-Mail: info@poettinger.at
Internet: http://www.poettinger.at

PÖTTINGER Deutschland GmbH
Verkaufs- und Servicecenter Recke
Steinbecker Strasse 15
D-49509 Recke
Telefon: +49 5453 9114-0
Telefax: +49 5453 9114-14
e-Mail: recke@poettinger.at

PÖTTINGER Deutschland GmbH
Servicecenter Landsberg
Spöttinger-Straße 24
Postfach 1561
D-86 899 LANDSBERG / LECH
Telefon:
Ersatzteildienst: +49 8191 9299 - 166 od. 169
Kundendienst: +49 8191 9299 - 130 od. 231
Telefax: +49 8191 59656
e-Mail: landsberg@poettinger.at

Pöttinger France S.A.R.L.
129 b, la Chapelle
F-68650 Le Bonhomme
Tél.: +33 (0) 3 89 47 28 30
e-Mail: france@poettinger.at