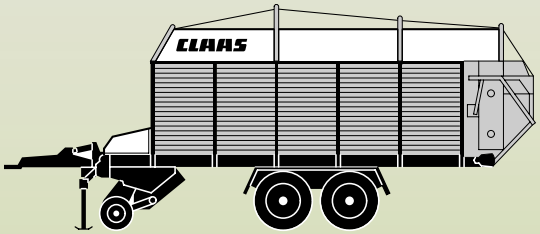
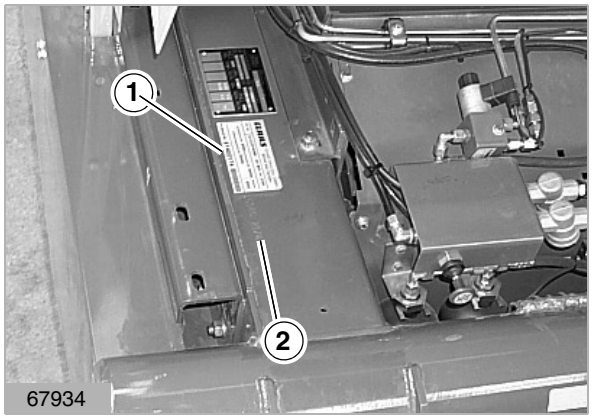
CLAAS



QUANTUM 6800 S
QUANTUM 5500 S-18
QUANTUM 5500 S-16
QUANTUM 5500 S
QUANTUM 4500 S

Operator's manual

SERVICE & PARTS



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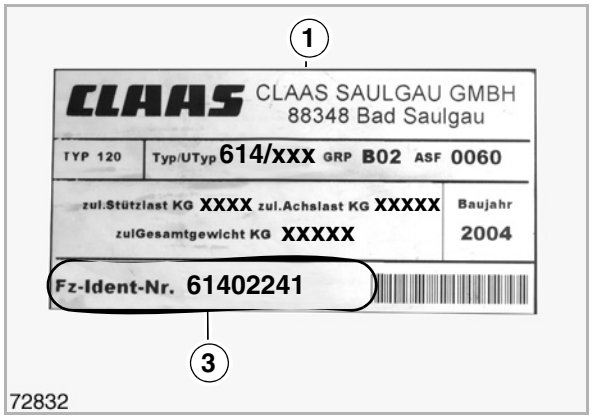


2

IDENTIFICATION PLATE

The machine number (Fz-Ident-Nr) (3), the model and the serial number are required with all orders for spare parts and technical inquiries. This is necessary in order to ensure correct delivery of spare parts.

The identification plate (1) with the machine number (Fz-Ident-Nr.) (3) is attached to the front right of the machine frame.

Machine number

The machine number (2) is also punched on the right side of the machine frame.

(Fig. 1)

ROAD TRANSPORT

Observe the applicable regulations in your country.

In other countries observe the relevant national or state regulations.

NOTE!

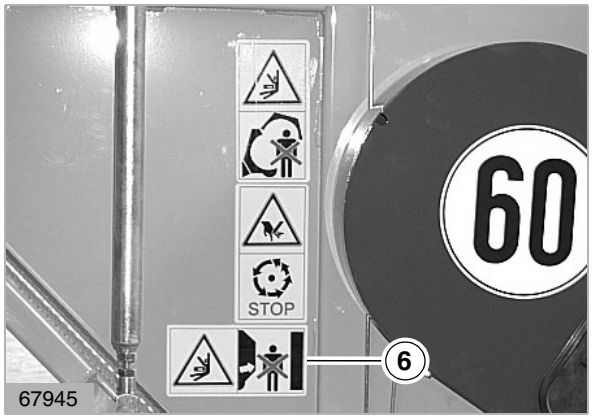
The following sections are applicable for the Federal Republic of Germany only.

Trailers with a speed up to 25 km/h require an operating permit.

The machine operator must have a driver's licence and the copy of the general operating permit issued by the federal motor vehicles office.

Trailers with a speed over 25 km/h must be registered.

The vehicle operator must have a driver's licence, the registration certificate and the test booklet.



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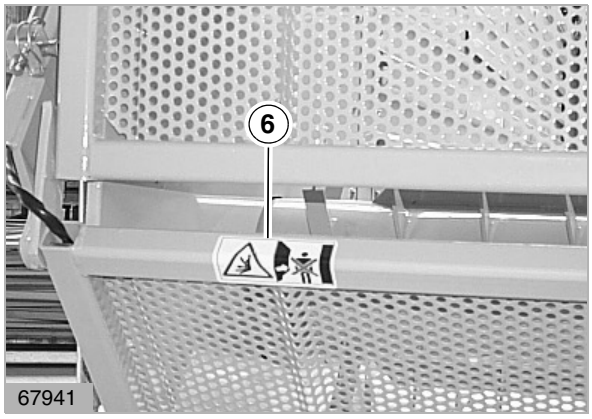

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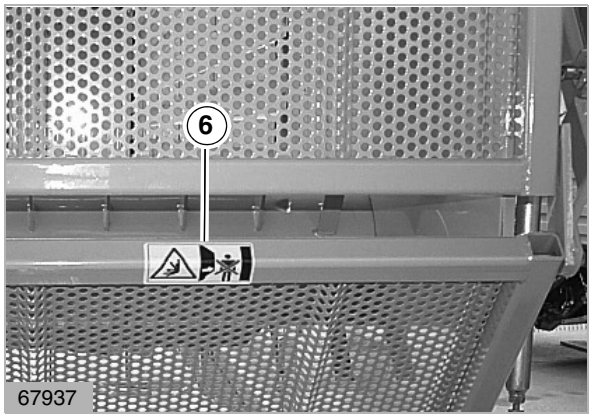

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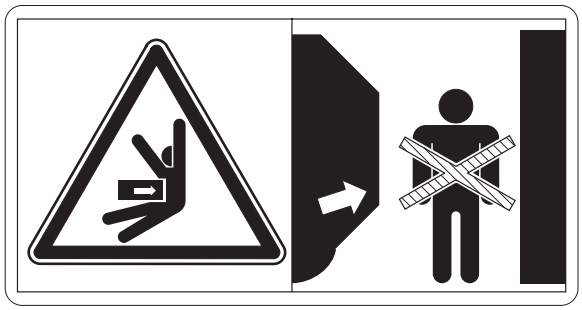
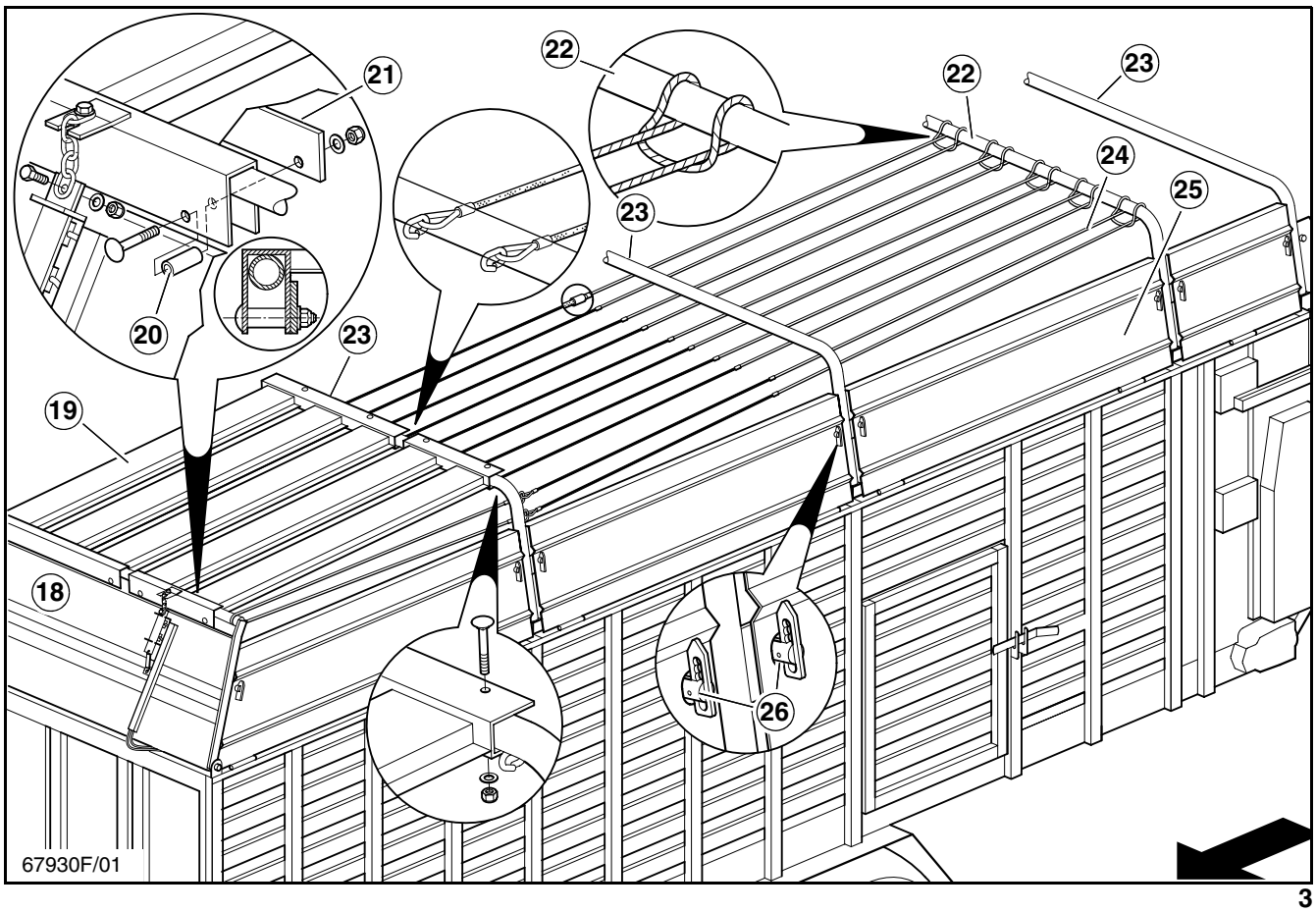


20

Safety decal 514 884.1 (6)

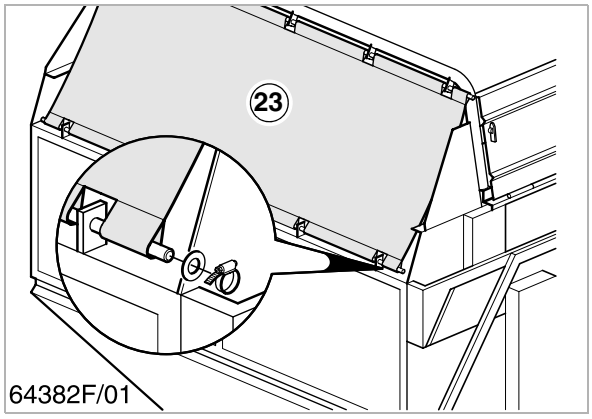
Always keep well clear of the path of the tailgate when the tractor engine is running.

(Fig. 16, 17, 18, 19, 20)



3

QUANTUM 5500 S-16 / 5500 S up to 614 0 02242



4

QUANTUM 5500 S-16 / 5500 S up to 614 0 02242

Fold up front plate (18), hoops (22, 23) and folding hinged plates (25). Lock hinged plates with the journals (26).

Wind tension ropes (24) around the hoops at the rear and attach at the front to the hooks of the bracket.

Connection plates (21) and spacer bushings (20) are used to attach the top plates (19) together.

(Fig. 3)

Install the rear protective cloth (23) as shown in (Fig. 4).

(Fig. 3, 4)

COUPLING MACHINE FOR THE FIRST TIME

1. Couple machine or alter coupling to suit – see *Coupling to the tractor*, page 8.3.
2. Adjusting or installing universal drive shaft – see *Drive shaft*, page 8.10.
3. Adjusting and connecting hydraulic system of self-loading forage wagon to the tractor – see *Hydraulic system*, page 8.16.
4. Match the braking system of the self-loading forage wagon to the tractor/towing vehicle.

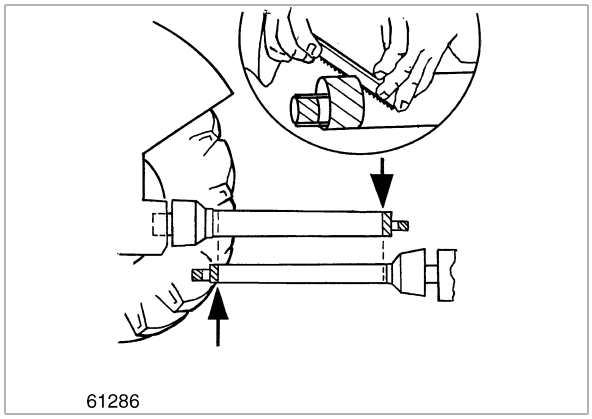
   Every tractor/towing vehicle has a different control system for the braking unit and different pressures in the braking system. The braking system must be matched to this (tow matching).

ATTENTION!

A braking system which is not matched will lead to increased wear on the braking system. It degrades the braking performance and thus reduces safety while driving.

- Match the tow.
- The tow matching should only be carried out by an authorised workshop or by a braking specialist.

5. Connecting brake system:
   - *Air brake system*, see page 8.19
   - *Hydraulically operated brake system*, see page 8.20
6. Check the brakes before every journey.
7. Connecting electrical system – see *Electrical system*, page 8.13.
8. Carrying out procedures in *Check and observe the following points prior to operation*, page 8.1.
9. Putting machine into operation – see *Operation of self-loading forage wagon*, page 9.16.



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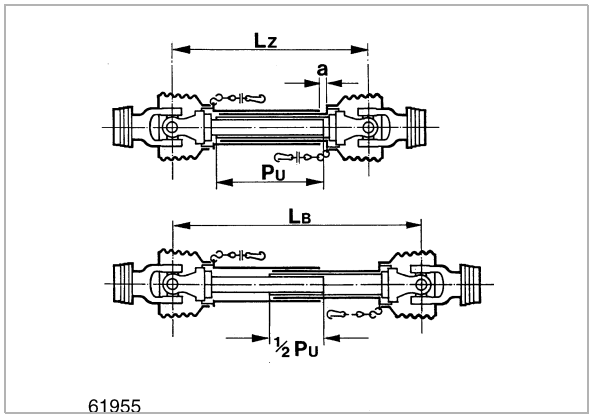


17

Drive shaft

The drive shaft with the cam-type cut-out clutch must be located on the machine side.

DANGER!

Risk of injury by universal drive shaft coming loose during operation.

– Check that all locks are securely engaged before starting work with the PTO drive shaft.

Adjusting the universal drive shaft

Pull drive shaft sections apart and connect both sections to the PTO stub shafts. Hold the two sections of the universal drive shafts together in the shortest operating position and mark them.

(Fig. 16)

Observe the maximum permissible shaft length **(LB)**. Try to have the maximum possible overlap of the profile tubes.

During operation the universal drive shaft overlap **(PU)** must never be less than 50% of the overlap when the tubes are fully compressed **(LZ).**

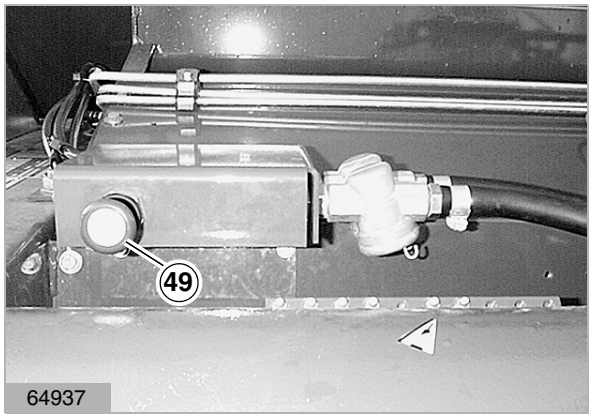
The universal drive shaft halves must not bottom against each other at the shortest operating position. A minimum clearance of **(a) = approx. 40 mm** must still be available.

(Fig. 17)

Cut the male and the female guard tubes uniformly. Cut the same length from the male and female profile tubes. File the cut area to remove any metal burrs, remove any metal filings. Grease the sliding surfaces of the profile tubes.

(Fig. 16)

without ABS



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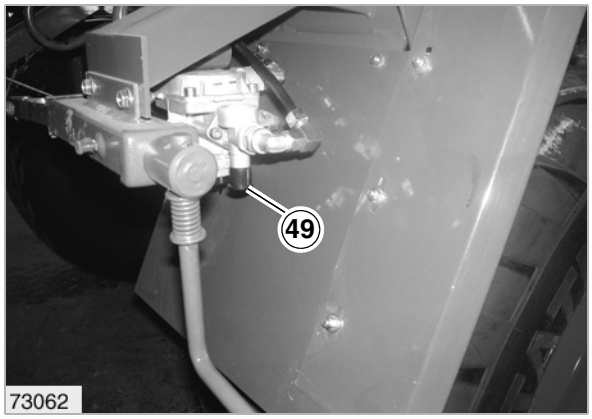
with ABS



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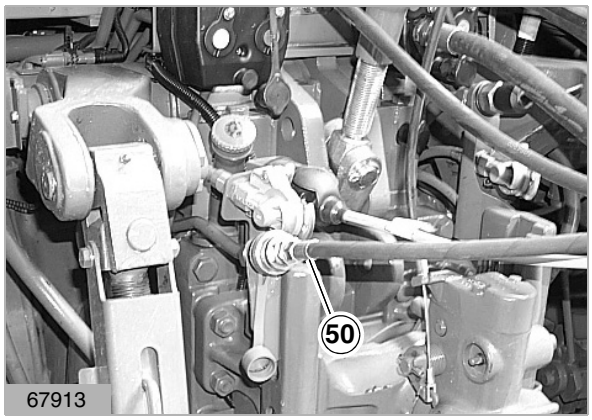


37

Towing with tractors without air brake system

If the compressed air pressure in the pressure vessel is at least approx. 4 bar, the brake on the self-loading forage wagon can be released with the compressed air hoses disconnected. If the pressure is below 4 bar, the brake cannot be operated with the push button (49). In this case the system must be refilled. Proceed as follows to release the brake:

- Before releasing the brake make sure that the self-loading forage wagon cannot move. Attach self-loading forage wagon to the tractor.
- Release brake by pressing the push button (49) on the reversing valve (release valve).

After manoeuvring actuate brake again as follows:

- Pull out push button (49) to the stop.

When the pressure hoses are connected to the tractor again the push button is automatically pushed out again.

(Fig. 35)

Hydraulically operated brake system

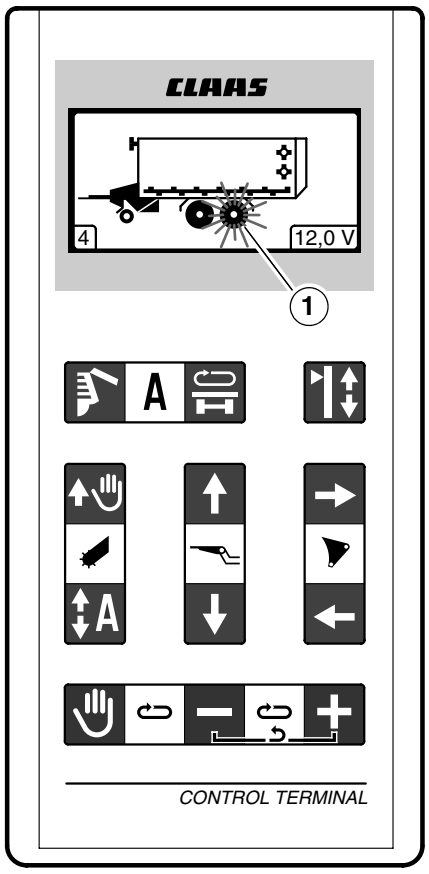
ATTENTION!

Look out for pinch and crush points when connecting the hydraulic line.

– Lay out the hydraulic line so it cannot be pinched or crushed during operation.

Connect the hydraulic hose (50) for the hydraulically operated brake to the matching quick release coupling on the tractor.

(Fig. 37)



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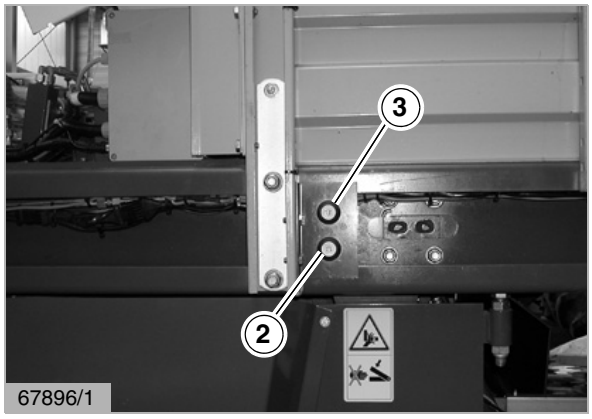


3

Knife frame

Open knife frame 1st position

Close knife frame 1st position

Open knife frame 2nd position (2) (Fig. 3)

Close knife frame 2nd position (3) (Fig. 3)

A Unloading operation

Unloading operation start/stop
Standard steering axle locked

Direction of rotation cross conveyor belt
Standard steering axle lock/release

Articulated drawbar

Articulated drawbar up

Articulated drawbar down

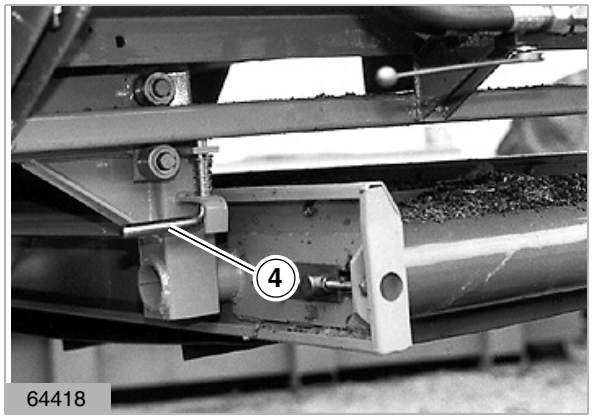
Indicator light (1)

- flashing: Standard steering axle locked

NOTE!

The steering axle cannot be locked with the forced steering system (optional equipment).

(Fig. 2, 3)



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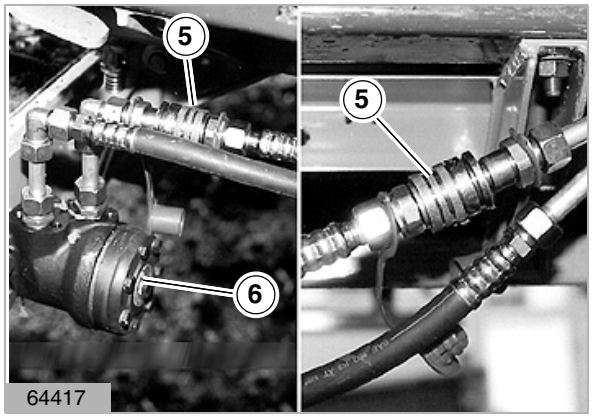

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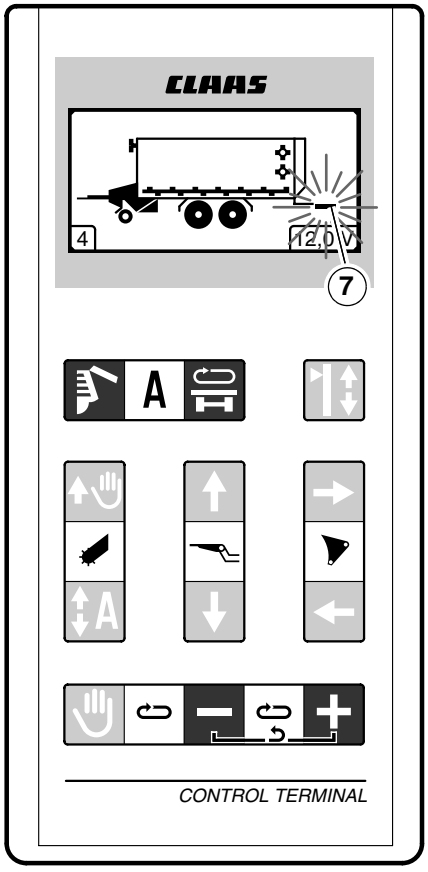


22

Unloading with cross conveyor

(Optional equipment, only available ex-works)

DANGER!

The drive and the engine must always be switched off when working on the self-loading forage wagon.

– Switch off engine.

– Depressurise hydraulic system.

– Remove the ignition key.

Before starting to unload pull out the cross conveyor and lock it with the pin (4).

Connect the hydraulic hoses (5) to the hydrostatic motor (6) and the self-loading forage wagon.

Open the lower tailgate and lock it to the frame of the cross conveyor.

(Fig. 20, 21)

Switch on the power take-off for unloading with the cross conveyor and press this key. The cross conveyor icon (7) lights in the display. The cross conveyor and the shredder drums start up and the floor conveyor switches on after a short delay.

Press this key again to stop unloading.

If the shredder drums are blocked by the forage (cut-out clutch on the universal drive shaft is triggered), the floor conveyor switches off. It can then be reversed.

Press these keys to reverse the floor conveyor.

After reversing increase the floor conveyor speed again with this key.

Reduce the floor conveyor speed with this key.

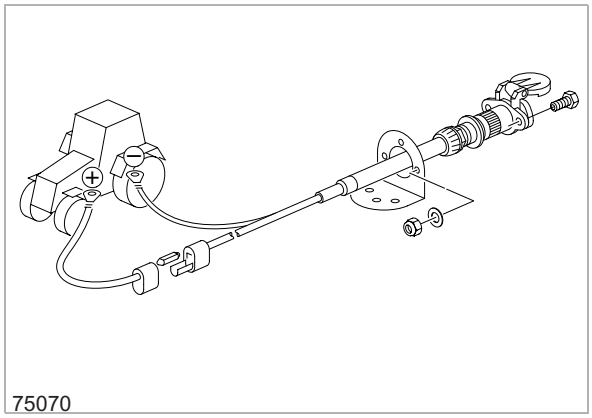
If this key is pressed during unloading, the set floor conveyor speed is saved for subsequent unloading processes.

Press this key to change the direction of rotation of the cross conveyor (Fig. 22).

(Fig. 20, 21, 22)

OPTIONAL EQUIPMENT

Tractor electrical system power supply



36

DANGER!

Overloaded or inadequate wiring can cause electrical faults and may cause wiring fires.

– Observe maximum load of accessory socket.

– Do not exceed maximum power consumption of self-loading forage wagon – see *Specifications*, page 6.1.

– If necessary, upgrade wiring.

NOTE!

If the voltage drop in the tractor power supply is too high, correct functioning of the electro-hydraulic operation cannot be assured.

The voltage must be at least 10.8 V for correct operation of the solenoid valves on the self-loading forage wagon (measured at the solenoids).

If necessary install the 6-quadrat cable with 2-pole socket (available from the spare parts department).

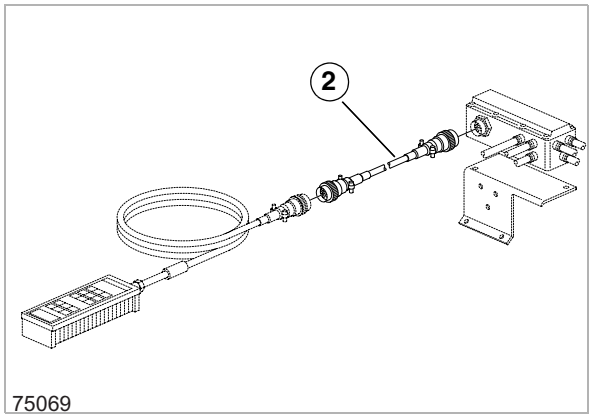
Order no.: 0011 708.0

Connection

Lay out cable (black) with 16 A in-line fuse from the 2-pole socket to the tractor battery (or to the starter if the battery is not possible) and connect it securely.

Connect earth cable (brown) to the tractor chassis.

(Fig. 36)



37

Operating unit extension cable

The extension cable (2) for the operating unit can be obtained from CLAAS spare parts department.

Order no.:

extension cable, 2 m	0920 144.0
extension cable, 7 m	0920 919.0

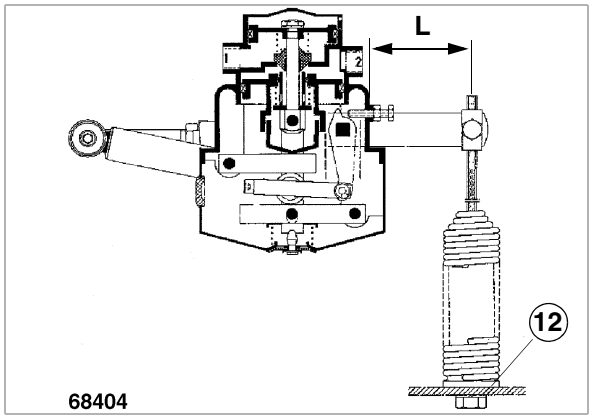
(Fig. 37)

Adjusting the brake - checking the brake cylinder piston stroke

All new self-loading forage wagons are equipped with a fully operational brake system.

During the first few miles of driving the brake linings are adapted to the drums and play gradually increases. For this reason the brake must be readjusted after the first 20 operating hours. The brakes must also be readjusted every 80 hours to compensate for natural wear of the brake linings.

Only two thirds of the stroke of the brake cylinder may be used. If this range is exceeded the brake system must be readjusted or repaired by a specialist brake workshop.



6

Brake regulator

The automatic load-controlled brake regulator (ALB) ensures that the brake pressure, i.e. the braking force, is automatically regulated to match the actual load of the self-loading forage wagon.

A 5 mm thick washer (12) is located under the tension spring of the control rope to compensate for the compression of the vehicle's springs caused by strain. If the vehicle's springs are compressed by about 5 mm, the washer must be removed.

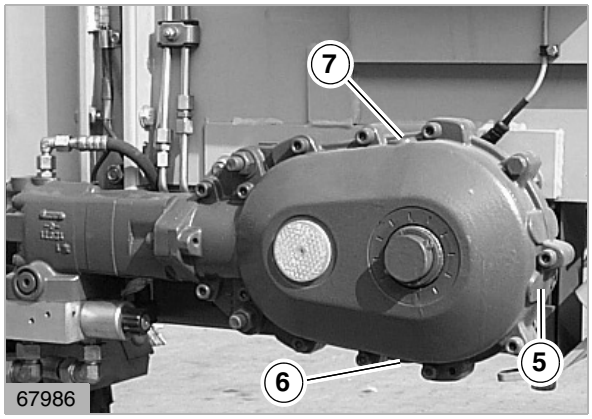
The lever length (dimension **L**see identification plate of the ALB regulator) must be adjusted as specified by the manufacturer.

(Fig. 6)

Brake linings

Replace brake linings when required. Use only original brake linings approved by the manufacturer.

Otherwise the operating approval will be cancelled.



25

Floor conveyor drive with 2-speed motor

QUANTUM 5500 S-16 / 5500 S / 4500 S
(roller floor shaft ø 40 mm)

Filling capacity: 1.5 litres.

QUANTUM 6800 S / 5500 S-18
S / S (roller floor shaft ø 45 mm)

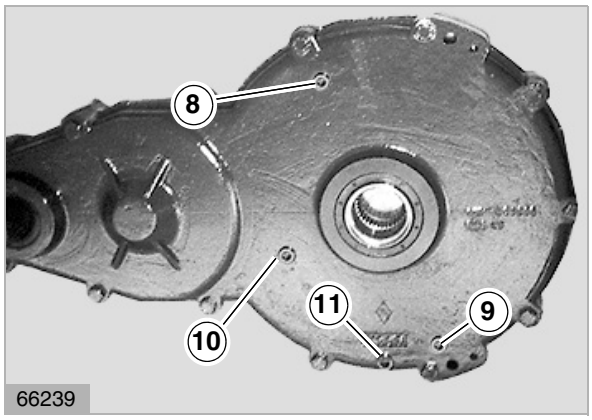
Filling capacity: 1.5 litres.

5 = oil level check plug

6 = oil drain plug

7 = oil filler and breather

(Fig. 25)



26

Rotor drive

QUANTUM 5500 S-18
(up to serial no.: 614 0 2201)
(gearbox part no.: 973 112.0)

Filling capacity: 10.0 litres.

8 = oil filler and oil level check plug

9 = oil drain plug

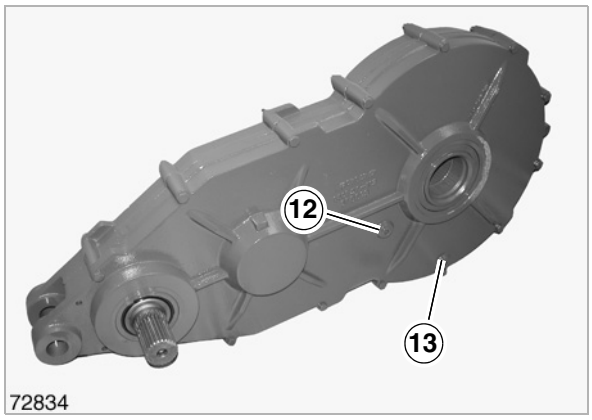
QUANTUM 5500 S-16, 5500 S / 4500 S
(up to serial no. 614 0 2224)
(gearbox part no.: 971 953.0)

Filling capacity: 3.5 litres

10 = oil filler and oil level check plug

11 = oil drain plug

(Fig. 26)



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QUANTUM 5500 S-16 / 5500 S / 4500 S
(from serial no.: 614 0 2225)
(gearbox part no.: 973 492.0)

Filling capacity: 6.5 litres

12 = oil filler and oil level check plug

13 = oil drain plug

(Fig. 27)

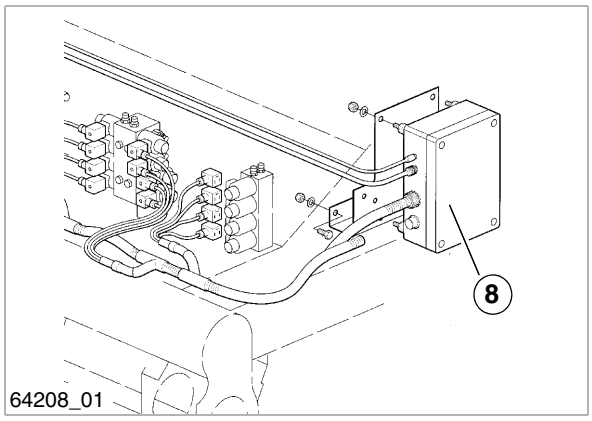
Operator:

- Touch the lowered support foot with the hand.

Proceed as follows to replace the PSD (programmable module):

- Unscrew the cover (8) from the self-loading forage wagon central electric system.

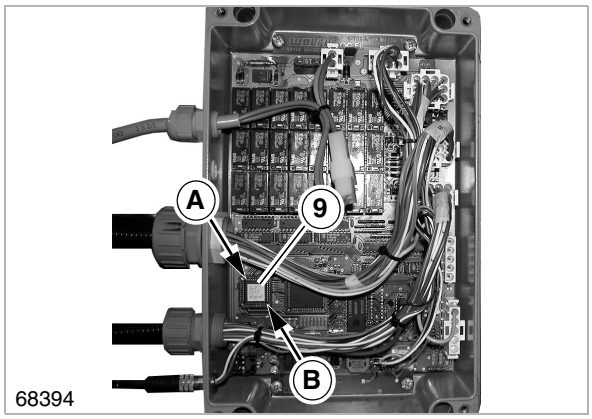
(Fig. 51)



51

- The PSD (9) is located in the bottom left-hand corner of the power board.

(Fig. 52)

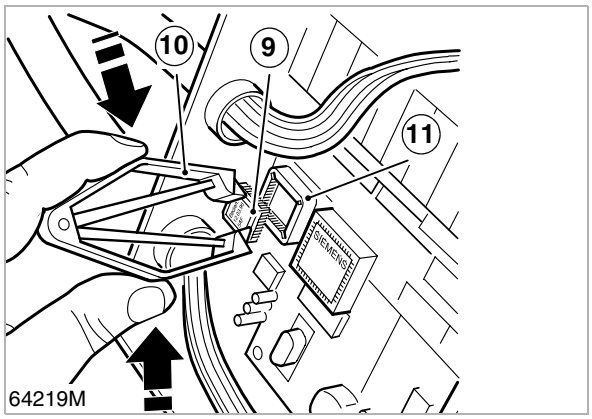


52

- Use a special PLCC IC extractor tool (10) to remove the PSD (9) from the holder (11).
- Insert the extractor tool (10) with the metal tips into the holder (A and B). Carefully press the extractor tool (10) together with your fingers. This will remove the PSD (9) from the holder (11).
- Insert the new PSD (350 861) into the holder by hand (without the extractor tool).

The PLCC IC extractor tool (10) is available from specialist electronics suppliers (e.g.: Conrad Electronic order no. 14 91 70 - 44)

(Fig. 52, 53)



53

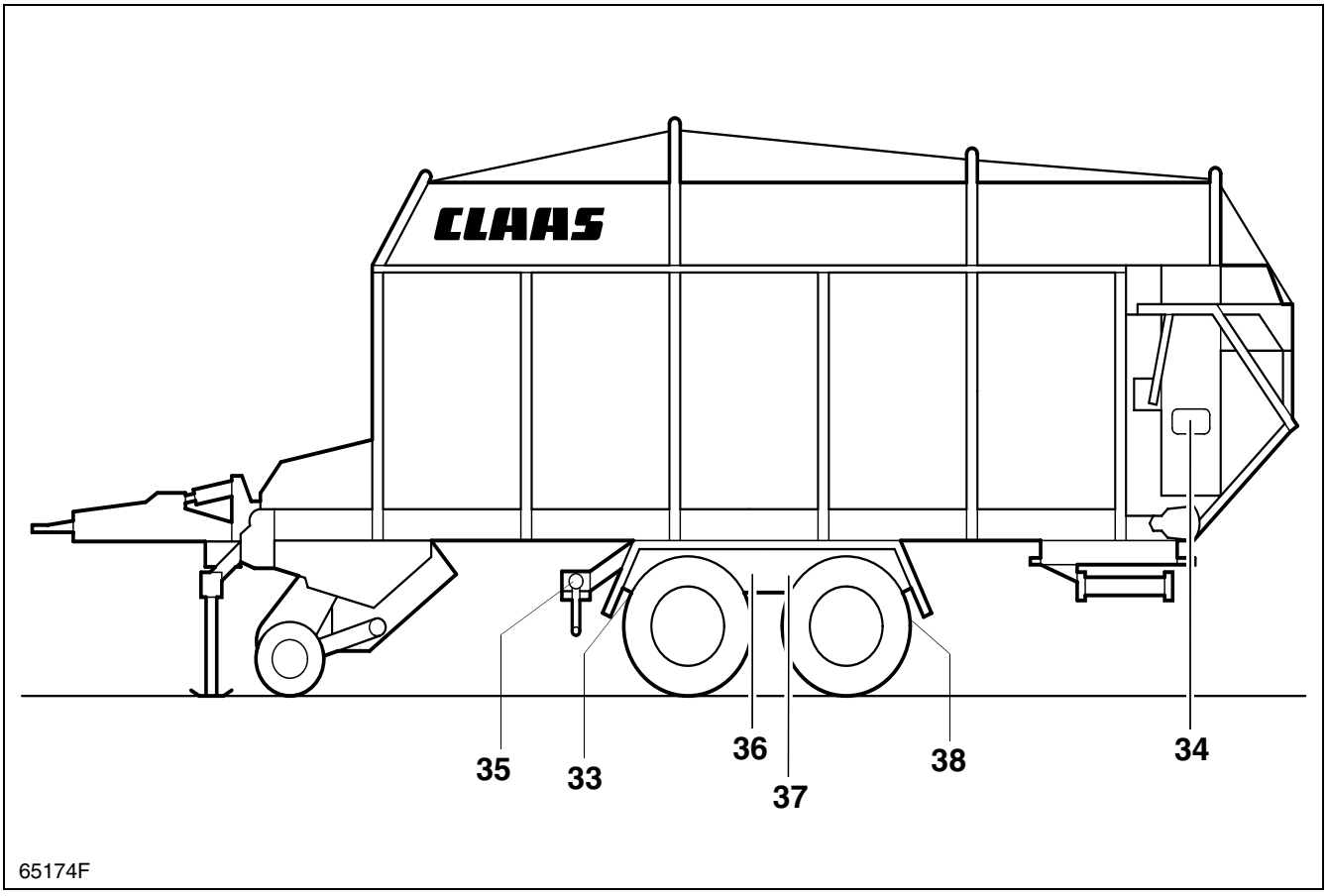
LUBRICATION CHART

Component	Fill quantity	Specification of lubricant type	Viscosity/ SAE-class
Gearbox			
Main gearbox (1000 rpm gearbox)	5.50 litres	Hypoid-gearbox oil (MIL-L-2105B) API-GL-5-90	SAE 90
Floor conveyor gearbox	1.65 litres		
Floor conveyor drive with 2-speed motor	1.50 litres		
Rotor drive			
QUANTUM 5500 S-18 (up to serial no.: 614 0 2201) (gearbox part no.: 973 112.0)	10.00 litres	Hypoid-gearbox oil (MIL-L-2105B) API-GL-5-90	SAE 90
QUANTUM 5500 S-16, 5500 S / 4500 S (up to serial no. 614 0 2224) (gearbox part no.: 971 953.0)	3.50 litres		
QUANTUM 5500 S-16 / 5500 S / 4500 S (from serial no.: 614 0 2225) (gearbox part no.: 973 492.0)	6.50 litres		
QUANTUM 6800 S, QUANTUM 5500 S-18 (from serial no.: 614 0 2202) (gearbox part no.: 973 301.1)	8.00 litres		
Shredder drum drive			
Shredder drum drive (front right)	2.00 litres	Hypoid-gearbox oil (MIL-L-2105B) API-GL-4-90	SAE 90
Shredder drum drive (rear right)	1.00 litres		
Forced steering system	5.00 litres	Multi-grade hydraulic oil ISO-VG 46 DIN 51 524 Part3[1]	ISO-VG 46

1. When selecting the hydraulic oil note the following:
   Setting point: < -25°C (DIN ISO 3016)
   Viscosity 0°C: < 600 cSt. DIN 51 562
   Viscosity 40°C: max. 50,6 cSt. DIN 51 562
   Viscosity index: >170 DIN ISO 2909
   The oil must have detergent properties.

NOTE!

The quantities quoted are approximate values, and the definitive oil level value is given by the oil level check.



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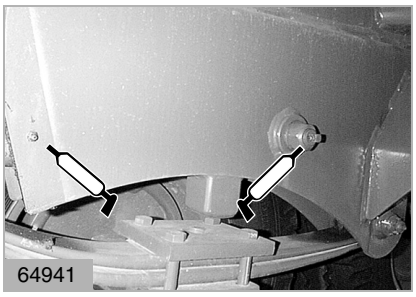
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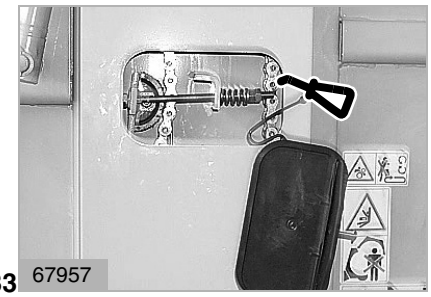
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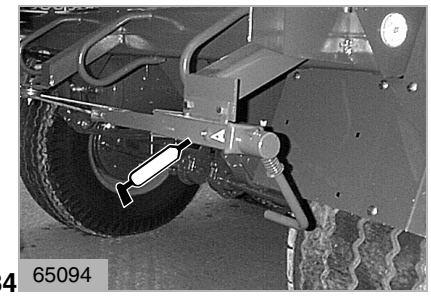
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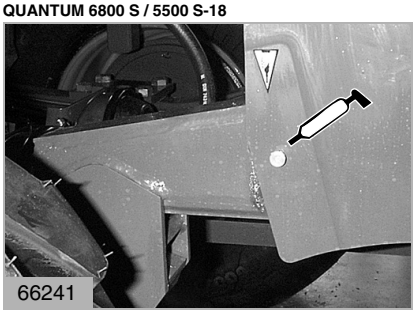
QUANTUM 6800 S / 5500 S-18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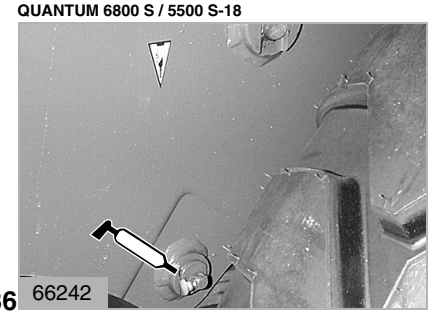
QUANTUM 6800 S / 5500 S-18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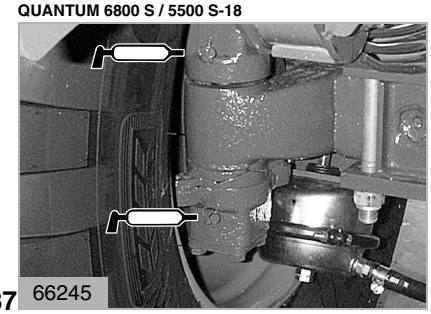
QUANTUM 6800 S / 5500 S-18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