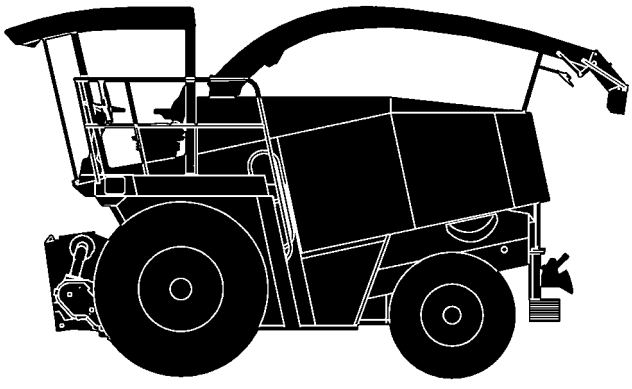
BETRIEBSANLEITUNG
OPERATOR'S MANUAL
NOTICE D'UTILISATION
BRUGSANVISNING
INSTRUKTIONSBOK
KÄYTTÖOHJE
INSTRUKSJONSBOK
MANUAL DE INSTRUCCIONES
LIBRETTO D'USO
MANUAL DE INSTRUÇÕES
GEBRUIKSAANWIJZING
HASZNÁLATI UTASITÁS

CLAAS



CLAAS JAGUAR 880
CLAAS JAGUAR 860
CLAAS JAGUAR 840
CLAAS JAGUAR 820

Identification plate

(up to machine no. ...)

The identification plate is attached under the operator's platform on the right hand side of the machine.

(Fig. 1)

1

Identification plate

(from machine no. ...)

The identification plate is located on the R/H side on the cooler compartment.

(Fig. 2)

2

The serial number is stamped on the frame on the R/H side of the machine next to the rear wheel.

(Fig. 3)

3

Identification plate – chopper unit

The identification plate is attached on the L/H side at the front of the feed roller housing.

(Fig. 4)

4

514 799.0 (30)

Stay well clear of folding area of front attachment.

8-row maize header

514 805.0 (36)

Fully lower stand and secure in position before entering area of potentional hazard.

8-row maize header

514 824.0 (2)

DANGER: Do not go near feed mechanisms of front mounted harvesting units before the drive has been disengaged, the engine shut off and the ignition key removed. Wait for all mechanisms to stop and only then attempt to correct any problems.

CLAAS JAGUAR 880 / 860

Specifications being determined on a machine equipped with 24.5 R 32 167 A 8 and 16.9-24 tyres, with water-magnesium chloride liquid ballast, full fuel tank, 8-cylinder V-engine, cab.

Feed mechanism

Compression rollers – top	2
Compression rollers – bottom	2
Metal detector in front feed roller	standard
Shearbar Shearbar for maize (optional extra)	2 sides – usable
Change of speed of feed drive	reversing gearbox, 2-range selection standard – manual shifting option – electro-hydraulic remote control
Speed of front attachment feed drive	2 speeds (dependent on lengths of cut)
Reversing	2 shift positions – feed, reverse (automatic control from high to low)
Feed mechanism engagement / disengagement	belt-operated clutch (electro-hydraulic controlled)

Chopping unit

width 750 mm

Chevron design cutting cylinder	diameter 630 mm speed 1200 rpm
Knives Knives for maize (optional extra)	either 24 or 12 knives can be used
Knife sharpening	elektro-hydraulic operated
Remote controlled knife sharpening (optional extra)	
Concave plates:	
Plain concave plate (standard equipment) Concave plate with 4 rasp bars (optional extra) Friction-type concave plate for whole crop harvesting (GPS, optional extra)	

CLAAS JAGUAR 840

Engine	MERCEDES OM 402 LA
Cubic capacity	12763 cm^3
Maximum no load speed	2184 rpm
Rated speed	2100 rpm
Slow idling speed	1100 rpm
Power rating	268 kW (364 DIN HP)
Coolant	approx. 48 litres
Alternator	90 A

Fuel tank

Capacity	815 Liter
Additional tank (optional extra)	150 Liter
Battery	2 x 12 Volts, 110 Ah
Starter	24 Volts series/parallel relay
Electrical system	12 Volts
Ground drive	hydrostatic controlled by lever on operator's platform 3 speed ranges in both forward and reverse 1st and 2nd speed range for field operations 3rd speed range for road travel

Ground speeds

Speed ranges	on 24.5 R 32 167 A 8 / 30.5 R 32 166 A 8 / 24.5-32 tyres
Forward travel	1. from 0 to 9.7 km/h 2. from 0 to 14.8 km/h 3. from 0 to 20.0 km/h (from 0 to 25.0 km/h)
Reverse travel	maximum 14.4 km/h (18.0 km/h)
	Figures in brackets are only applicable for certain countries. In countries with a speed limit of 20 km/h or 25 km/h for agriculture motor vehicles, the hydrostatic ground drive system incorporates a device that limits the ground speed accordingly.

Front wheel drive	via final drive gears in oil bath
Steering	hydrostatic

Brakes

Foot brake	hydrostatic disc brake, designed to work indepently when the pedal lock is removed
Handbrake	mechanical, indipendent of foot brake

CLAAS JAGUAR 820

Dimensions of forage harvester

Track width	front	with 24.5 R 32 167 A 8 tyres	2350 mm
		with 30.5 R 32 166 A 8 tyres	2496 mm
		with 24.5 - 32 12 PR tyres	2350 mm
	rear	rear axle	
		with 14.9 - 28 tyres	2333 mm
		with 16.9 - 24 tyres	2336 mm
		with 500/60-26.5 tyres	2343 mm
		rear wheel drive axle	
		with 14.9 - 28 tyres	2378 mm
		with 16.9 - 24 tyres	2379 mm
		with 500/60-26.5 tyres	2381 mm
Width over tyres	front	with 24.5 R 32 167 A 8 tyres	2990 mm
		with 24.5 - 32 12 PR tyres	2990 mm
		with 30.5 R 32 166 A 8 tyres	3295 mm
	rear	rear axle	
		with 14.9 - 28 tyres	2780 mm
		with 16.9 - 24 tyres	2790 mm
		with 500/60 - 26.5 tyres	2850 mm
		rear wheel drive axle	
		with 16.9 - 24 tyres	2840 mm
		with 500/60 - 26.5 tyres	2900 mm
Wheel base			2800 mm
Ground clearance			
Basic machine (up to the bottom edge of the reversing gear box)			375 mm

Turning circle diameter conforming to DIN 70020

Clockwise turning circle with rear wheel drive axle:

Machine	without front end attachment	12 600 mm
	with 3.00 m / 2.20 m pick-up attachment	12 600 mm
	with 4.5 m folding cutterbar	13 700 mm
	with Multimaster	13 200 mm
	with maize header	12 900 mm

Anti-clockwise turning circle with rear wheel drive axle:

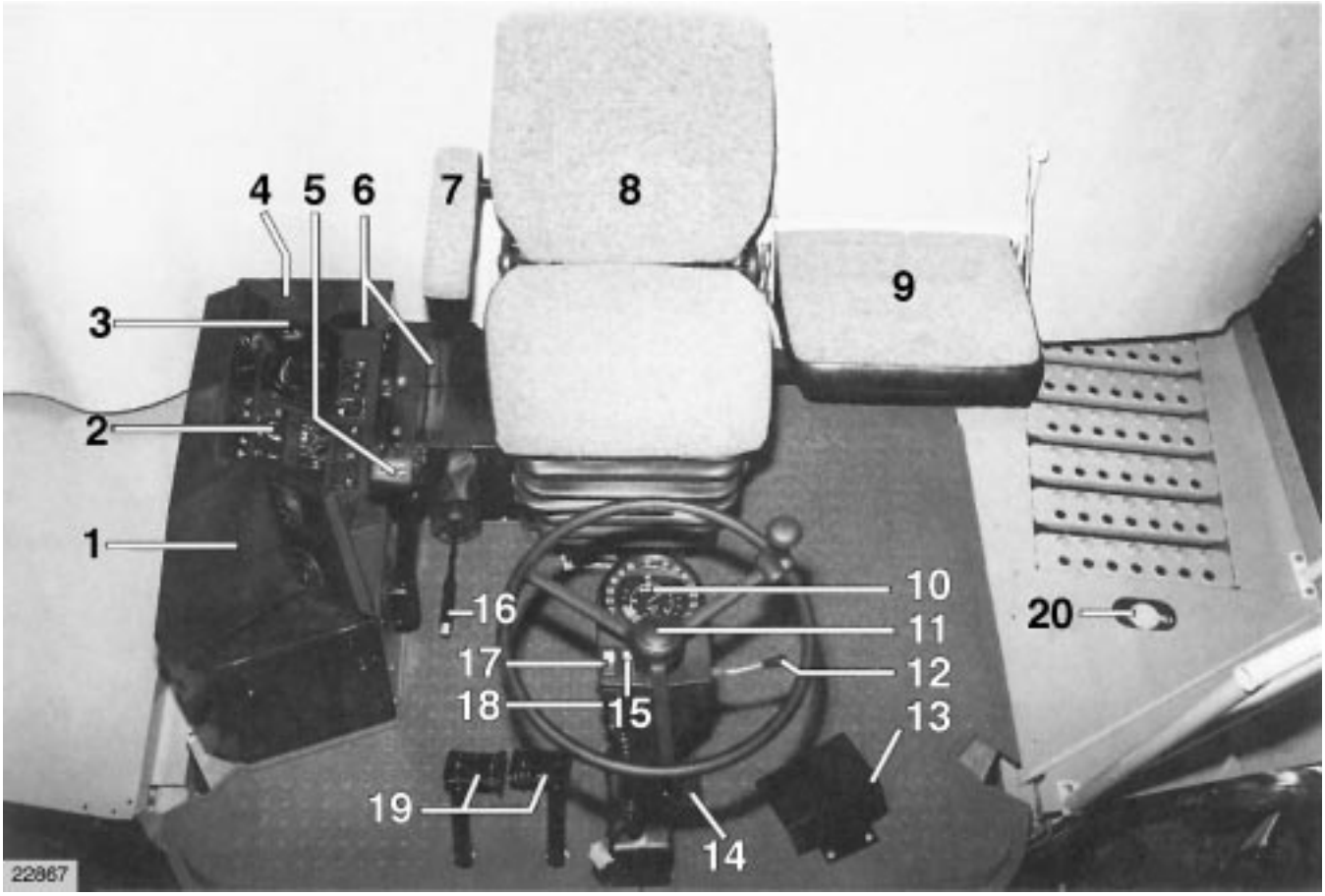
Machine	without front end attachment	13 250 mm
	with 3.00 m / 2.20 m pick-up attachment	13 250 mm
	with 4.5 m folding cutterbar	14 350 mm
	with Multimaster	13 850 mm
	with maize header	13 550 mm

Clockwise turning circle with standard axle:

Machine	without front end attachment	12 350 mm
	with 3.00 m / 2.20 m pick-up attachment	12 350 mm
	with 4.5 m folding cutterbar	13 450 mm
	with Multimaster	12 950 mm
	with maize header	12 650 mm

Anti-clockwise turning circle with standard axle:

Machine	without front end attachment	12 300 mm
	with 3.00 m / 2.20 m pick-up attachment	12 300 mm
	with 4.5 m folding cutterbar	13 400 mm
	with Multimaster	12 900 mm
	with maize header	12 600 mm

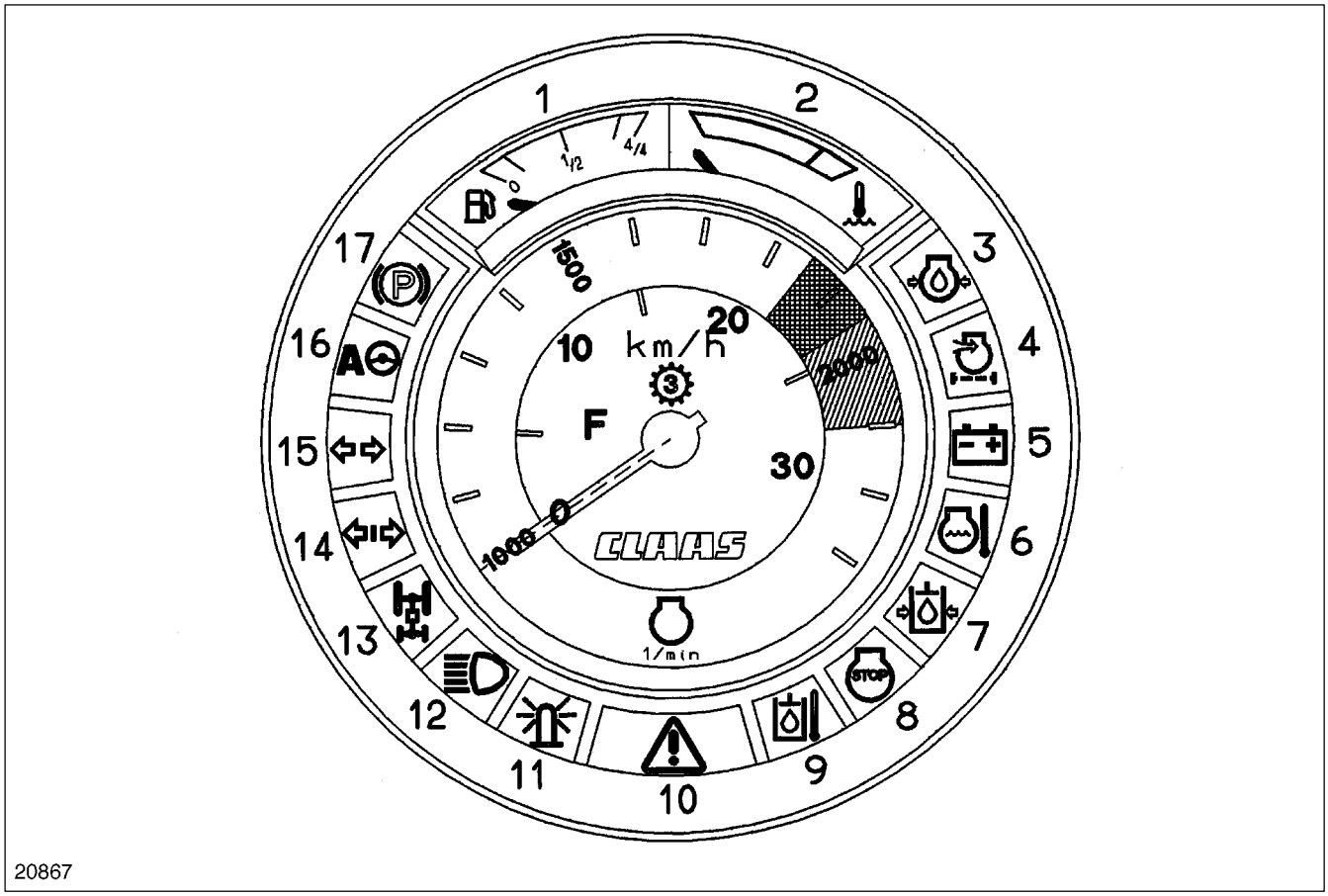


1

OPERATOR'S PLATFORM

1 Operations display screen
2 Switch console
3 Gear shift lever
4 Space planned for CB-radio
5 Multi function handle / hydrostatic drive lever
6 Storage compartments
7 Adjustable armrest
8 Comfort driver's seat
9 Passenger seat (optional extra)
10 Vehicle information unit
11 Steering wheel
12 Switch for turn flasher and horn
13 Pedal, upper discharge chute swing
14 Steering column locking pedal
15 Windscreen wiper switch
16 Handbrake
17 Switch, vehicle lighting
18 Ignition switch
19 Foot brake pedals
20 Container for windscreen washer fluid

(Fig. 1)



11

VEHICLE INFORMATION UNIT

1 Fuel gauge
2 Engine temperature
3 Oil pressure (engine), light-red
4 Air cleaner, light-red
5 Charge light, light-red
6 Coolant water temperature, light-red
7 Charge pump hydraulic pressure, light-red
8 Engine cut-off system activated, engine problems, light-red
9 Hydraulic oil temperature, light-red (Hydrostatic drive)
10 Hazard warning light, light-red
11 Warning beacon, light-red
12 High beam indicator light, blue
13 CLAAS 4-trac system, green
14 Turn indicator (trailer), green
15 Turn indicator, green
16 CLAAS Autopilot, green
17 Parking brake, light-red
wear indicator for disk brakes
18 Windscreen wiper switch
19 Switch for vehicle lighting and master switch for work lamps

12

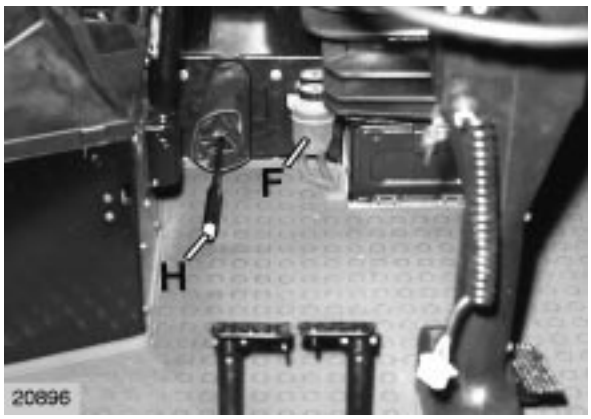
Handbrake:

Brake action of handbrake (H) is independent of foot brake action. The handbrake should be effective after pulling the lever up the first three to four teeth in the segment. Always check that the ratchet locks securely in the segment. This is essential to safety, especially when the machine has been in service for a prolonged period of time.

F = Reservoir for brake fluid

(Fig. 33)

Fully release handbrake before starting to drive.



33

Stopping the engine

(Engine with engine cut-off system)

Move rocker switch (13) to the slow idling speed position.

With the engine slow idling, disengage the main drive. Shut off the ignition and remove the ignition key.

(Fig. 34)

34

Stopping the engine

(Engine without engine cut-off system)

Set rocker switch (13) to the »slow idling speed« position.

Disengage the main drive with the engine running at slow idling speed.

Stop the engine by operating switch-off bowden cable (Z).

Withdraw the ignition key.

(Fig. 34 and 35)

35

WARNING: Before stopping a turbocharged engine, allow the engine to slow idle for a few minutes. Failure to do so causes damage to the turbocharger compressor wheel.

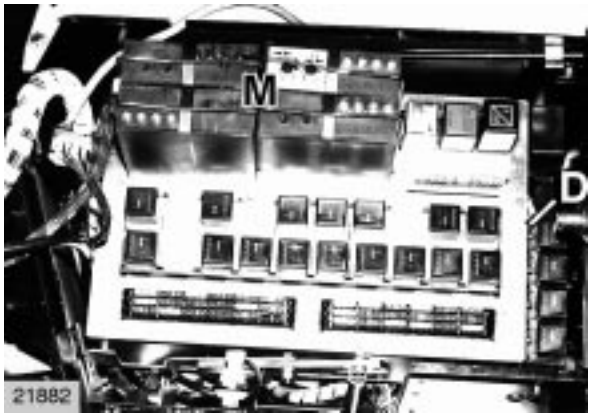
Fold instrument panel (A) to the front and remove the protective cover.

(Fig. 57)

57

Loosen and remove all the plug-in type modules (M). Release the terminal box by twisting lock (D). Fold up the box.

(Fig. 58)



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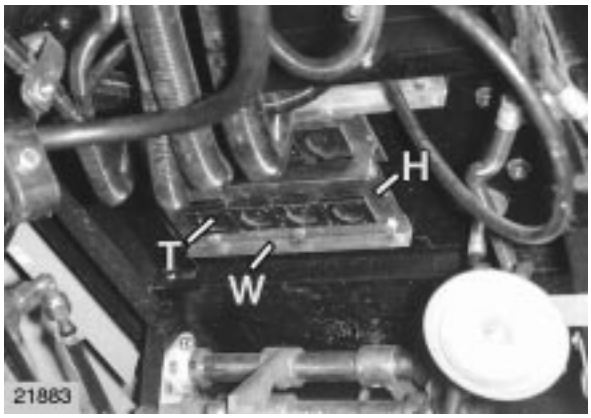
Undo bracket (W) under the operator's platform and loosen support plate (H). Remove grommet (T).

(Fig. 59)

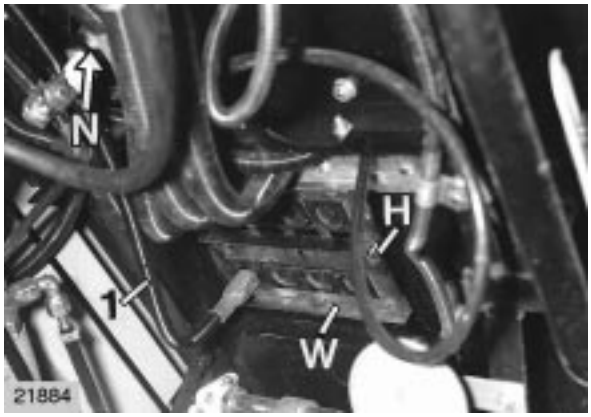


59

Attach bracket (4) at (N) using hex. bolt (5). Secure wiring loom (1) to bracket (4) using clamp (6) and hex. bolt (5).

Feed wiring loom (1) upward to the central electrics. Secure the grommet of the wiring loom in position using support plate (H) and bracket (W). Secure the wiring loom with cable straps (7).

(Fig. 60)



60

FRONT ATTACHMENTS

8-row, 6-row, 4-row maize picker head

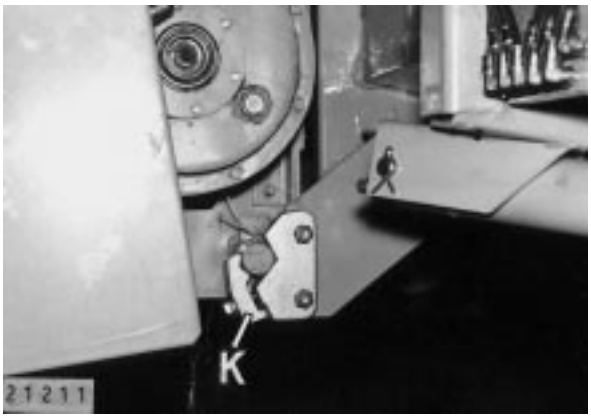
Installing the maize header

1. Drive the harvester as close as possible to the front attachment so that the coupling lugs (F) of the feeder housing are under the mounting holes (G) of the attachment. Raise the attachment with the machine hydraulics.
2. Switch off the engine and remove the ignition key.
3. Lower both stands (Z) until they touch the ground and secure in the next possible holes. **Do not apply any load on the stands.**
4. Safely support the maize header at the front too.
5. Secure the attachment to the mounting shaft on both sides using clamps (K) and hex. bolts.

(Fig. 1, 2 and 3)

1

2



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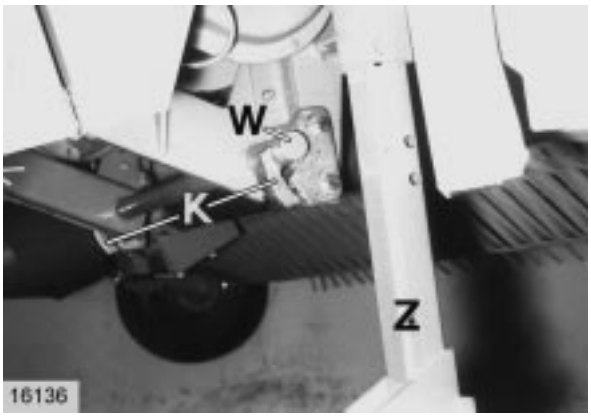
Connecting the universal drive shaft

1. Fully raise the front attachment.
2. Switch off the engine and remove ignition key.
3. Lower the R/H stand until it touches the ground and secure the stand in position.
4. Press in locking pin (1) and push the universal shaft onto the P.T.O. stub shaft of the speed-selection and reversing gearbox, taking care that locking pin (1) engages correctly.
5. Secure chain (G) for the guard of the universal drive shaft to the speed-selection and reversing gearbox.

4

3. Lower the R/H stand until it touches the ground and secure in the next possible bore. **Do not apply load on the stand.**
4. Secure the front attachment on both sides with clamps (K) and hex. bolts to mounting shaft (W).

(Fig. 29)



29

Connection of the universal drive shaft

1. Raise the front attachment.
2. Turn off the engine and remove ignition key.
3. Lower R/H stand (Z) until it touches the ground and secure the stand in position.
4. Connect the universal drive shaft (G) to the P.T.O. shaft of the front attachment. Press in locking pin (1) and push the univesal drive shaft onto the P.T.O. shaft of the speed selection and reversing gearbox, taking care that locking pin (1) engages correctly.

30

5. Raise stands (Z) fully on both sides and secure with pins (S).
6. Connect the hydraulic hoses for the pick-up crop press to the quick-release couplings (29).

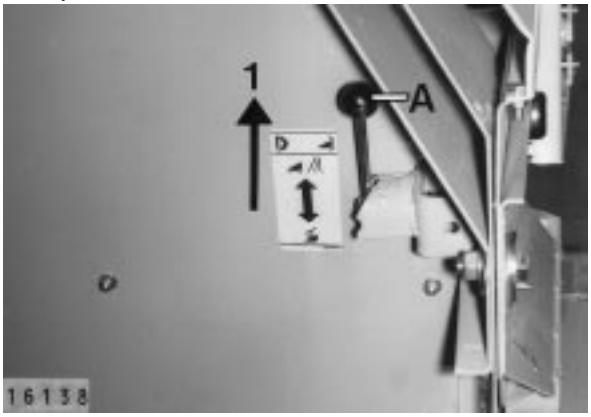
(Fig. 29, 30 and 31)

31

Transport and attaching position

The pick-up must be locked for transport to prevent it from pivoting to the left or right and prevent bouncing.

Pick-up 3.00 m



32

4

Maintenance – front attachments

Suspension springs

3.00 m / 2.20 m PICK-UP

Adjusting the suspension springs

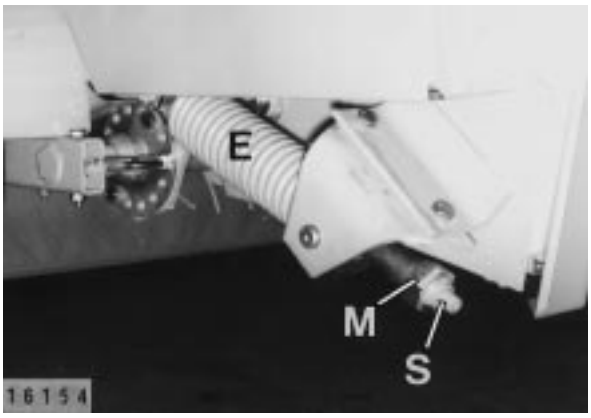
Adjust springs (E) with the pick-up attached to the machine. Lower the pick-up to the ground until the red mark on the upper frame is opposite the red mark on the pick-up's main frame (1 and 2). With the pick-up set as above, the ground pressure exerted by the pick-up should be about 50 kg and a person should be able to lift the pick-up by hand with an effort of 50 kg.

The suspension springs are set at the factory. The springs must only be readjusted when their original setting was changed.

The spring setting can be adjusted at adjuster tube (M).

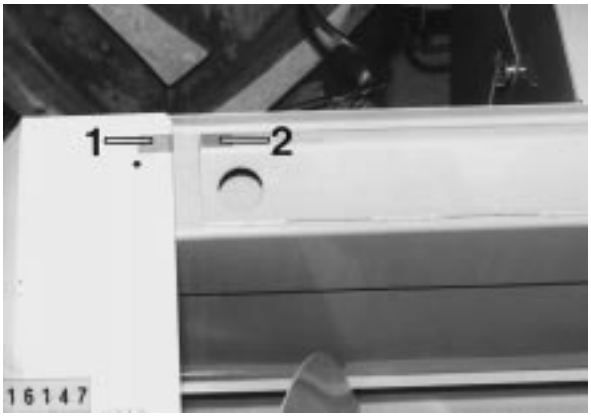
Note that the adjuster tubes are secured by expansion pins (S).

(Fig. 18 and 19)



18

(up to machine no. ...)



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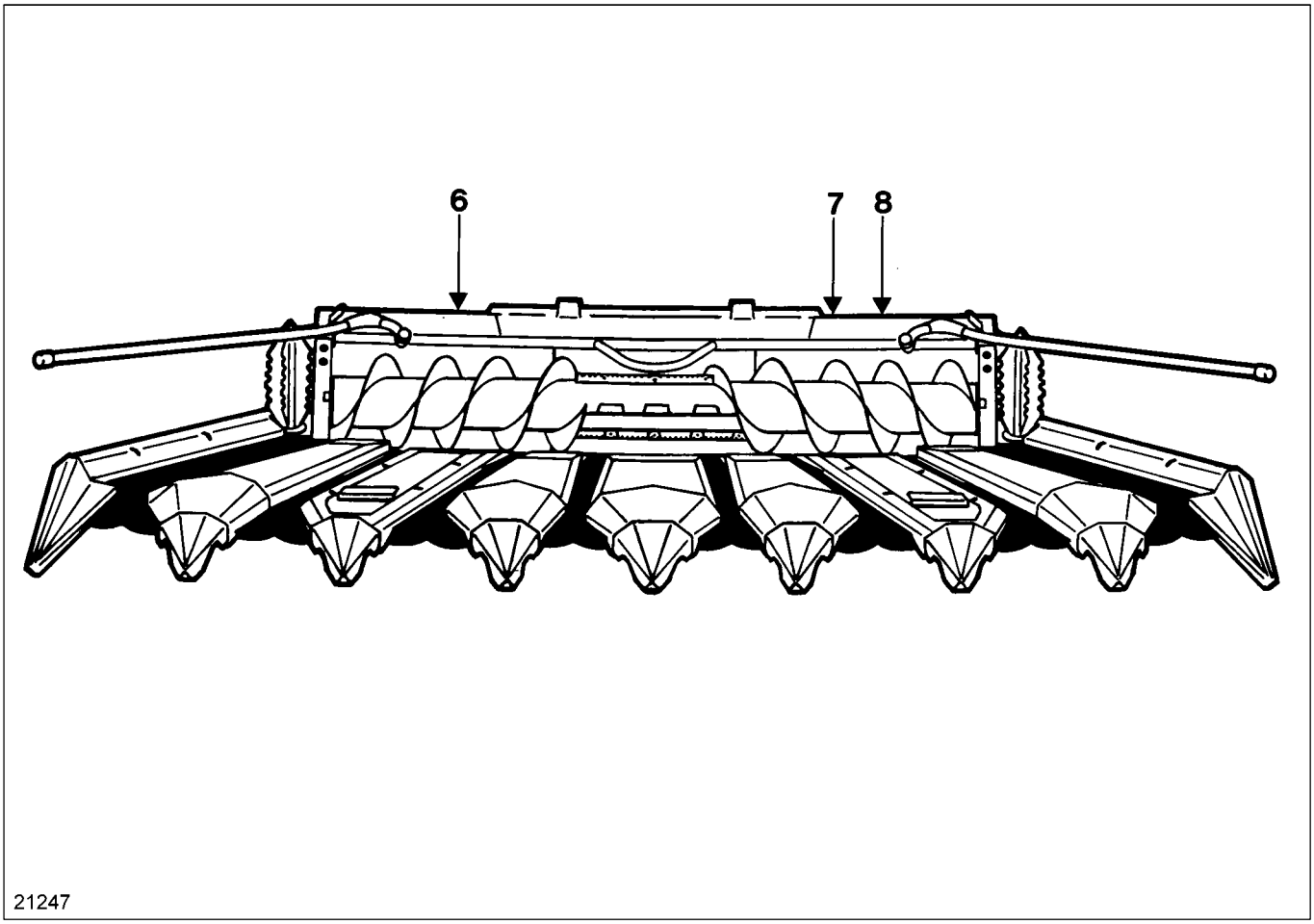

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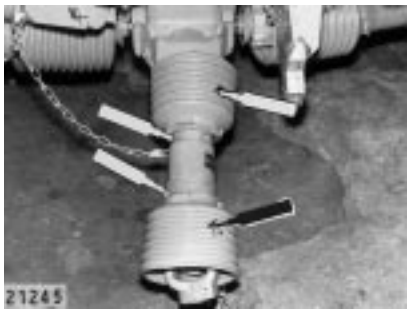

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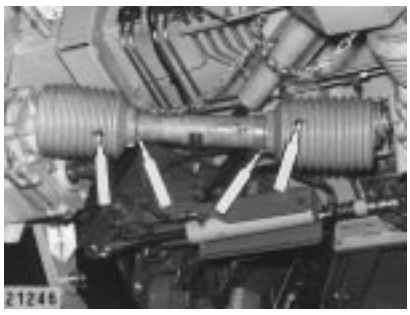


8

h100

Pick-up

3.00 m / 2.20 m

4. Turn on switch (L) for the sharpening mechanism, by positioning it to »E« for ON.

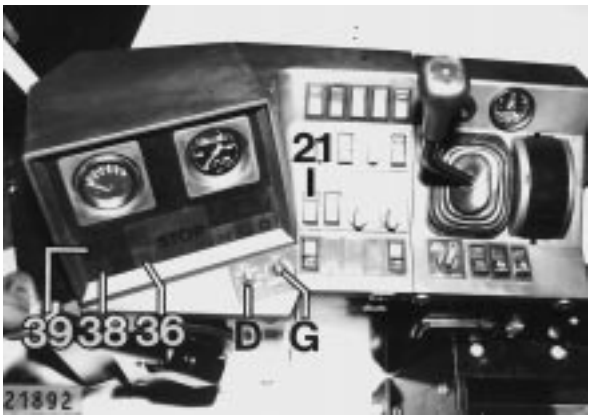
   The grindstone is automatically moved to the other side throughout the width of the cutting cylinder by way of a solenoid valve and double-acting hydraulic cylinder. At the stop on the other side, the grindstone's direction of travel is changed. The stone returns to the other side. Changing the direction of travel sets the grindstone automatically one notch closer to the cutting cylinder. This process repeats until the sharpening mechanism is switched off.

(Fig. 2)

IMPORTANT: As soon as the sound of grinding becomes less or stops completly during the grinding process the grindingstone has to be reset.

Switching off the sharpening mechanism:

To turn off the sharpening mechanism set the switch (L) to the OFF position. Wait until the grindstone has reached its park position on the right hand side and only then shut the cutting knife housing cover. The cover is shut by pushing lever (G) backward.



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IMPORTANT: Before switching off the main drive reset the shearbar (Fig. 3).

Adjusting the shearbar:

See pages 6.9 and 6.10 (Fig. 12, 13 and 14)

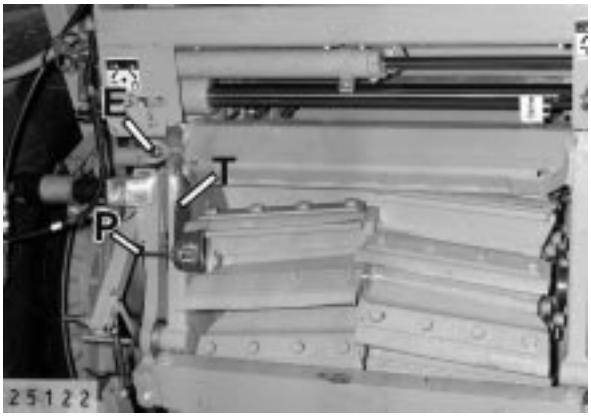
1. Sharpen knives (when knives have to be adjusted).
2. Remove feed roller housing.
3. Back off shear bar at the clamping bolts.
4. Reset shear bar according to (Fig. 12). See page 6.6 for machines with electric shear bar adjustment.

5. Gloves must be worn when carrying out work on the cutting cylinder – **danger of injury!**

Bolt the cutting cylinder locking catch (T) in position on the right hand side with the clamping bolt (E).

To do this, position the locking catch between the knife carriers and secure with the latch (P).

(Fig. 19)

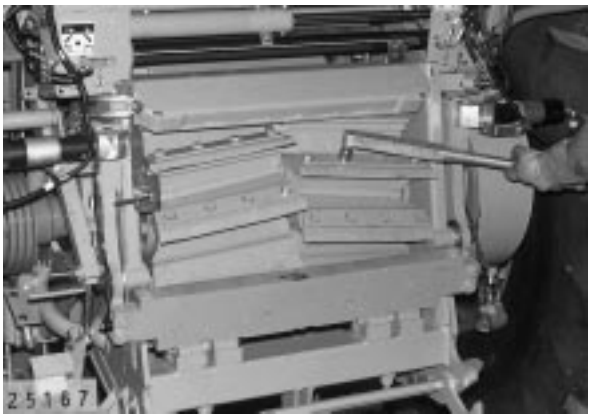


19

6. Loosen all the knives and set them to the shear bar. Tighten the knife attaching bolts to a torque of **270 ± 15 Nm** (199 ± 11 ft lb).
7. Remove the cutting cylinder lock.
8. Back off and set the grindstone as shown in (Fig. 15) so that measurement (W) is 21 mm. (Measurement (W) is the basic setting of the grindstone).
9. Re-attach and pivot the feed roller housing back in position.
10. Grind the cutting knives.
11. Now reset the shearbar. To do this disengage the main drive and stop the engine. With a feeler gauge check that the shearbar is parallel to the cutting knives.

    If the shearbar should not be parallel, readjust as necessary.

    This means detaching the feed roller housing.



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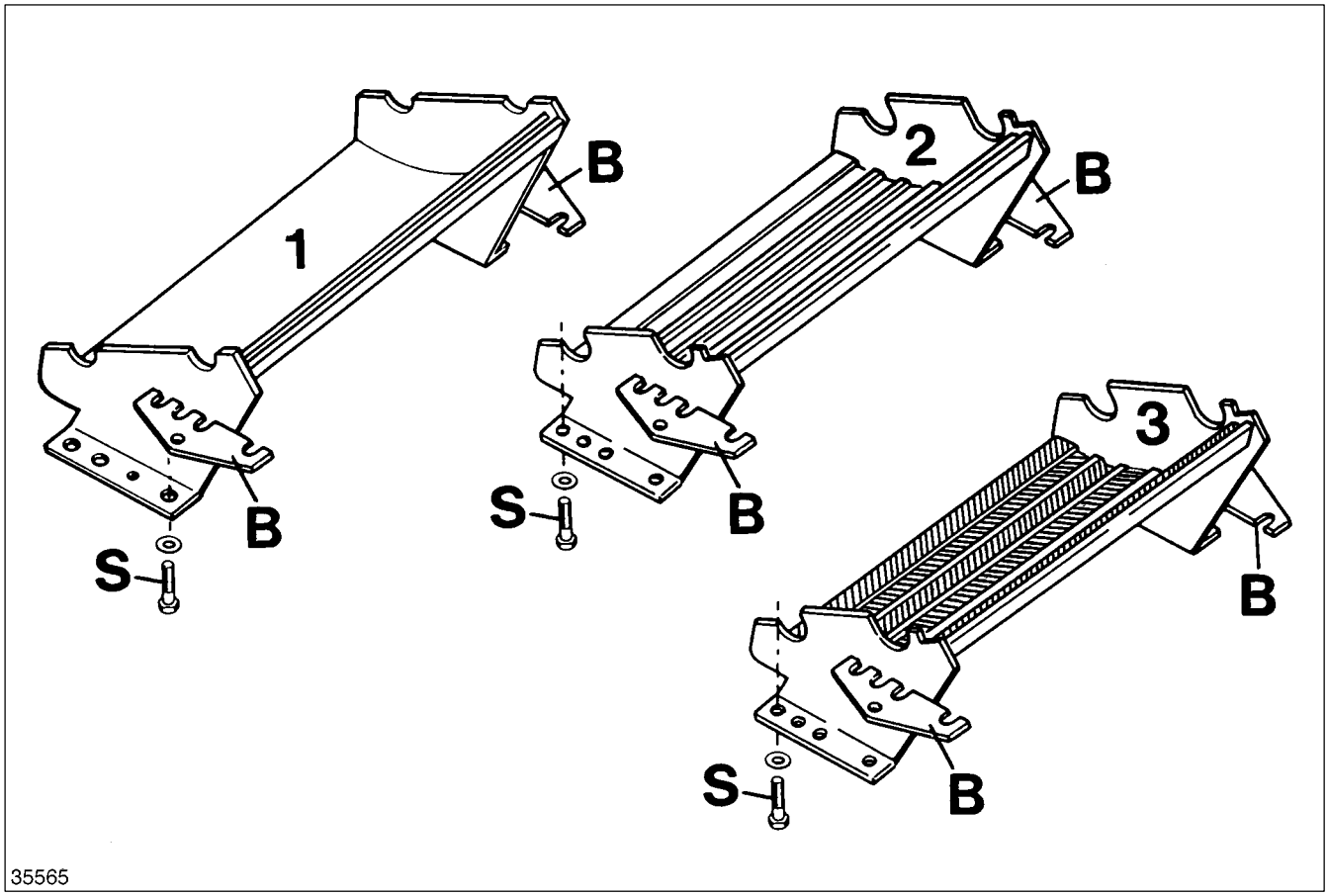

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CONCAVE PLATES

1 = Plain concave plate (standard equipment)

For use:

a) with corn cracker, for maize silage
b) without corn cracker, for grass silage or similar crops

2 = Concave plate with 4 rasp bars (optional extra)

Use for maize silage:

a) without corn cracker
b) with corn cracker, useful for conditioning stalks

3 = Concave plates with micro-profile rasp bars (optional extra)

Use for:

Whole Crop Silage

a) without corn cracker
b) with corn cracker, by favourable harvesting conditions

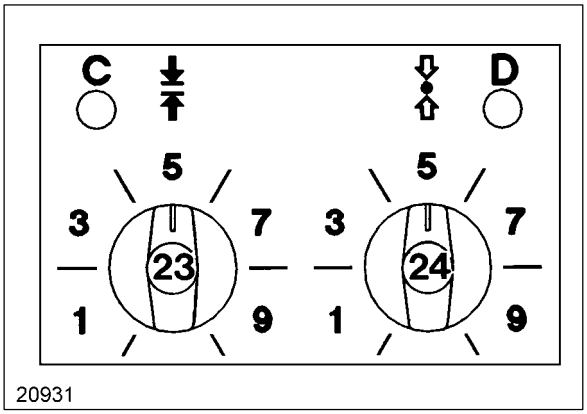
Ground Ear Maize
with corn cracker

Cob Corn Mix
with corn cracker

(Fig. 46)

Note! The numbers 0 – 10 as well as the graduation on the potentiometers (23 and 24) and the indicator gauge (1) are not actual heights, but only intended for reference to enable the operator to establish the preferred settings.

(Fig. 63 and 65)

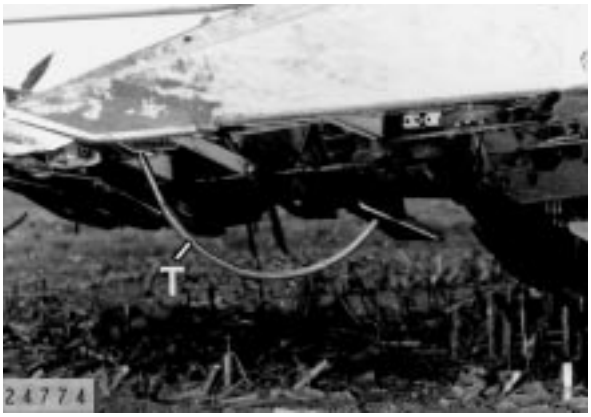


65

To program a second cutting height:

– Start the engine
– Switch on the safety rocker switch (12) and the main switch (22).
– Set the rotary switch of the potentiometer (24), to the required cutting height, eg. to pos. »5«.
– Press the push button (8) until the indicator light (D) flashes.

(Fig. 63, 64 and 65)



66

Operation example:

– Start the engine.
– Switch on safety rocker switch (12) and main switch (22).
– Switch on main drive (14).
– Set potentiometer to pos. »4«.
– Touch push button (8).

The front attachment will be lowered or raised to the height as pre-set (pos. »4« on the potentiometer)

If the second programmed cutting height (pos. »5« on the potentiometer) is desired, touch the push button (8) again. The front attachment will then be raised to the second cutting height position.

Touch the push button (8) once = maize header will be brought to the position pre-selected on the potentiometer (24).

Touch the push button (8) twice = the front attachment will be brought to the second programmed cutting height position.

(Fig. 63, 64 and 65)

Problems and Remedy (Auto sharpening)

7

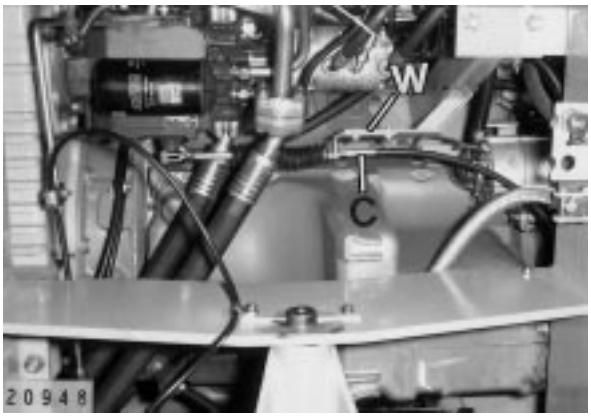
Maintenance – basic machine

Adjusting hydrostatic pump

If an absolute stop of the machine is not obtained with the ground speed control lever in neutral position, reset the hydrostatic pump by adjusting the bracket (W) in its slots. The bracket retards Bowden cable (C).

Always ensure that the threaded end engages in the yoke by at least 6 mm.

(Fig. 9)



9

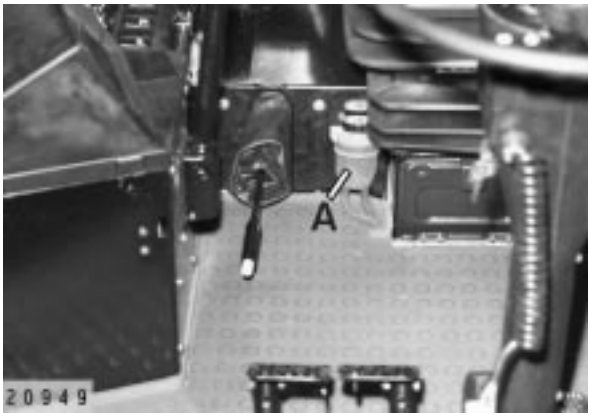
FOOT BRAKES / BRAKE FLUID

Regularly check the level of the brake fluid in the reservoir and top up as necessary. Use only the recommended brake fluid.

Adjustment, repairs and service work on the brake system must be performed only by specialist workshops. Renew the brake fluid every 2 years and have the brake system bled.

A = Brake fluid reservoir

(Fig. 10)



10

TRANSMISSIONS

Dispose of the old oil in a way that is harmless to the environment and in accordance with existing environmental regulations.

For oil quality and quantities refer to »Lubricants Chart«.

Ground drive change-speed transmission

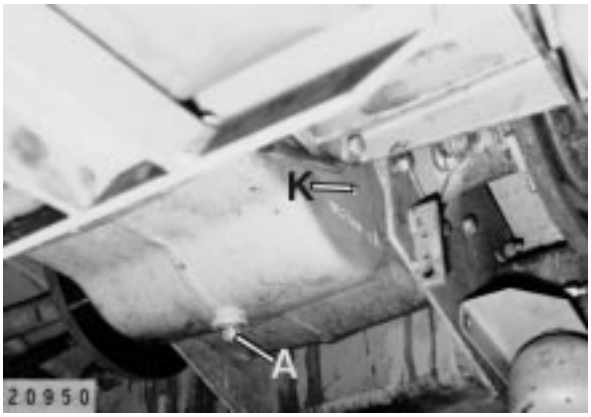
Checking oil level

K = Oil level check plug

Oil change

A = Oil drain plug and magnet

(Fig. 11)

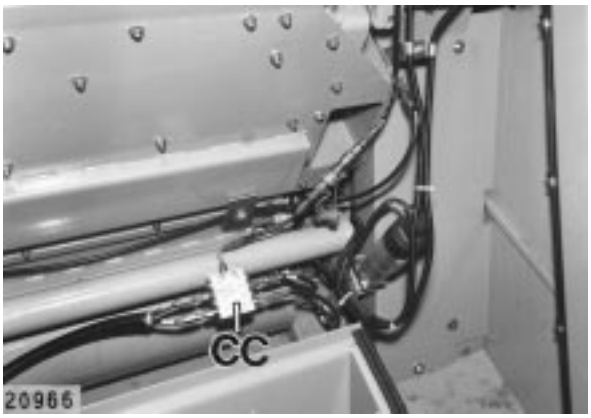


11

Greasing corn cracker
(machines with central lubrication system)

The corn cracker can be greased with a grease gun via bank (CC).

(Fig. 42)



42

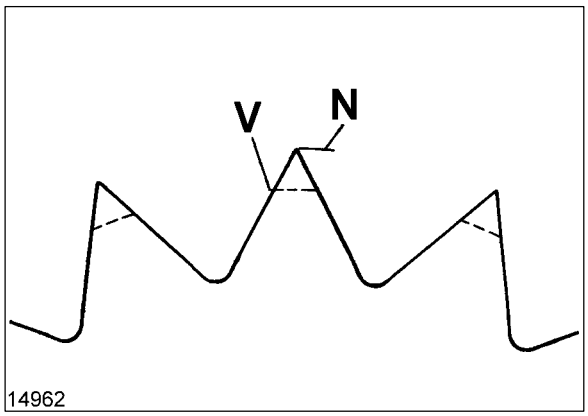
Checking corn cracker rollers

Worn corn cracker rollers cause blockages and poor chopping quality.

After the maize harvest, check corn cracker rollers for wear and have rollers replaced, if necessary.

N = New roller tooth
V = Worn roller tooth

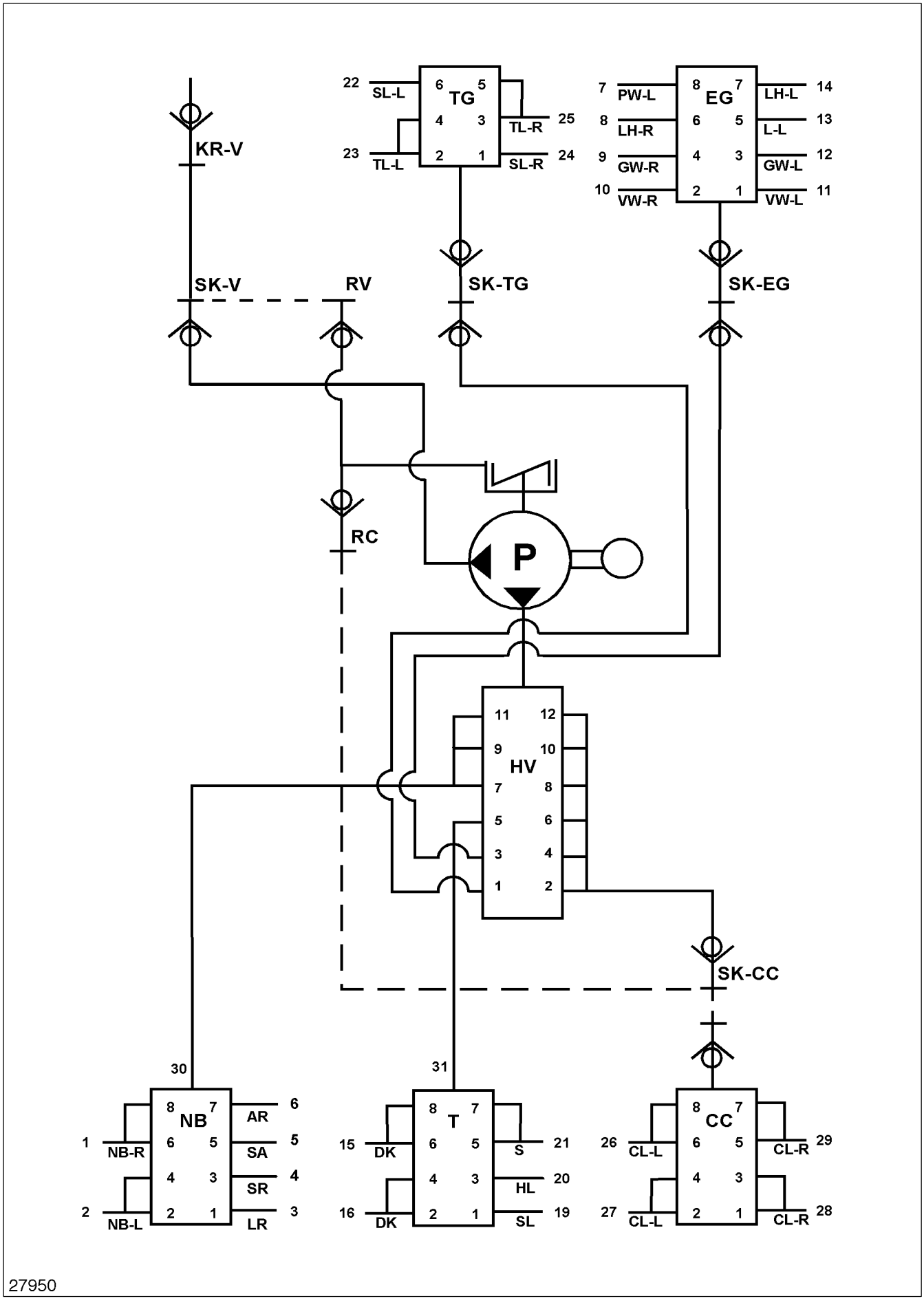
(Fig. 43)

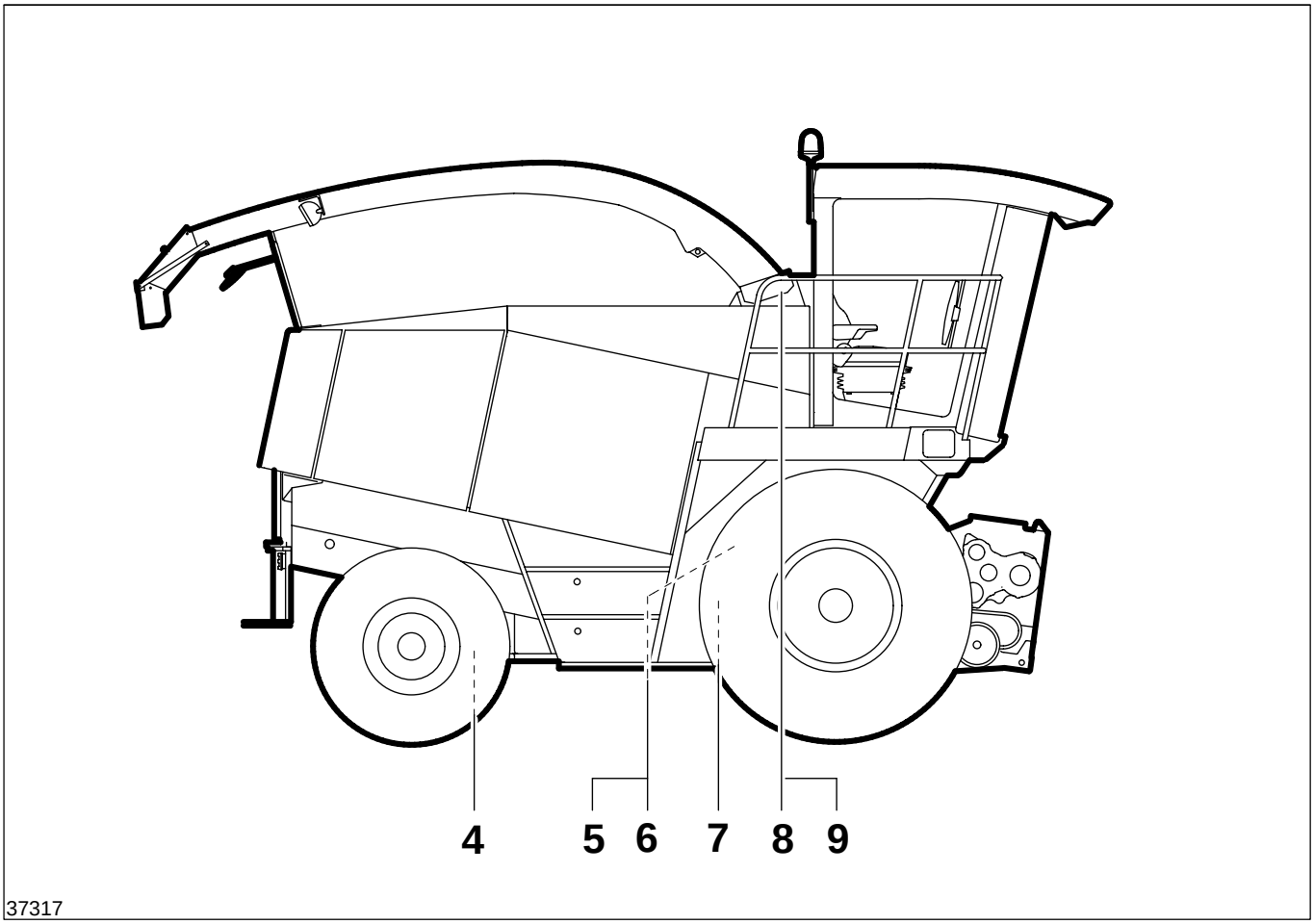


43

8

Central lubrication system

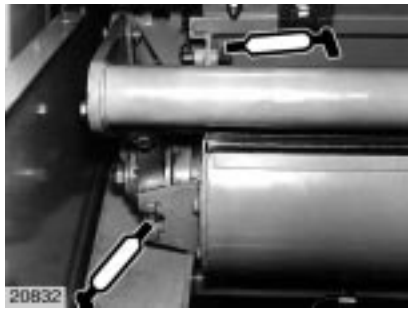

KR-V
SK-V
RV
SK-TG
SK-EG
RC
P
HV
SK-CC
TG
22 SL-L
23 TL-L
25 TL-R
24 SL-R
EG
7 PW-L
8 LH-R
9 GW-R
10 VW-R
14 LH-L
13 L-L
12 GW-L
11 VW-L
NB
30
1 NB-R
2 NB-L
6 AR
5 SA
4 SR
3 LR
T
31
15 DK
16 DK
21 S
20 HL
19 SL
CC
26 CL-L
27 CL-L
29 CL-R
28 CL-R
27950



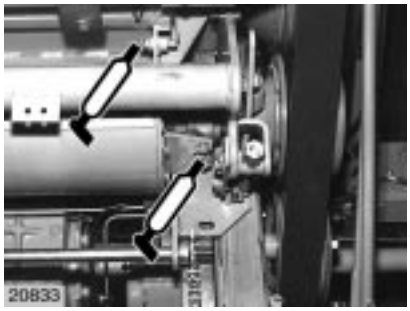
37317

h10

● 4



■ ● Z 5



■ ● Z 6

● 7

Z 8

9

10
Maintenance – engine

Filling in engine oil

Fill in engine oil up to the FULL mark (maximum) on the oil level dipstick. Screw the filler cap back on to the oil filler neck.

IMPORTANT: Turn over the engine with the starter motor only until the oil pressure warning light (3) in the vehicle information unit goes out.

Engine with automatic engine cut-off:

Remove fuse (S) for automatic engine cut-off from the central electrics.

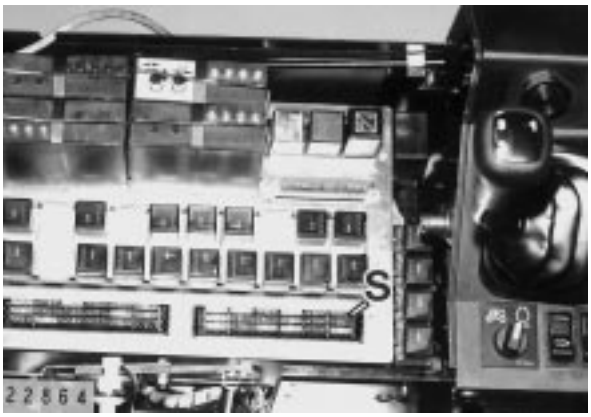
Engine without automatic engine cut-off:

Pull the shut-off bowden cable.
This is essential to prevent sudden firing of the engine!

The starter must not be operated any longer than 10 seconds. Then reinstall the fuse (on engines with automatic engine cut-off) and run the engine briefly at slow idling speed. Stop the engine and check the engine and the oil filter for leaks.

After approx. 5 minutes, recheck the level of the oil in the engine and replenish engine oil to the upper mark of the dipstick, if required.

(Fig. 16)



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