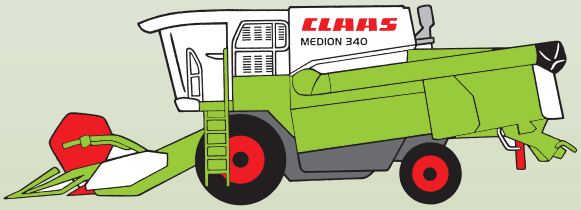
CLAAS

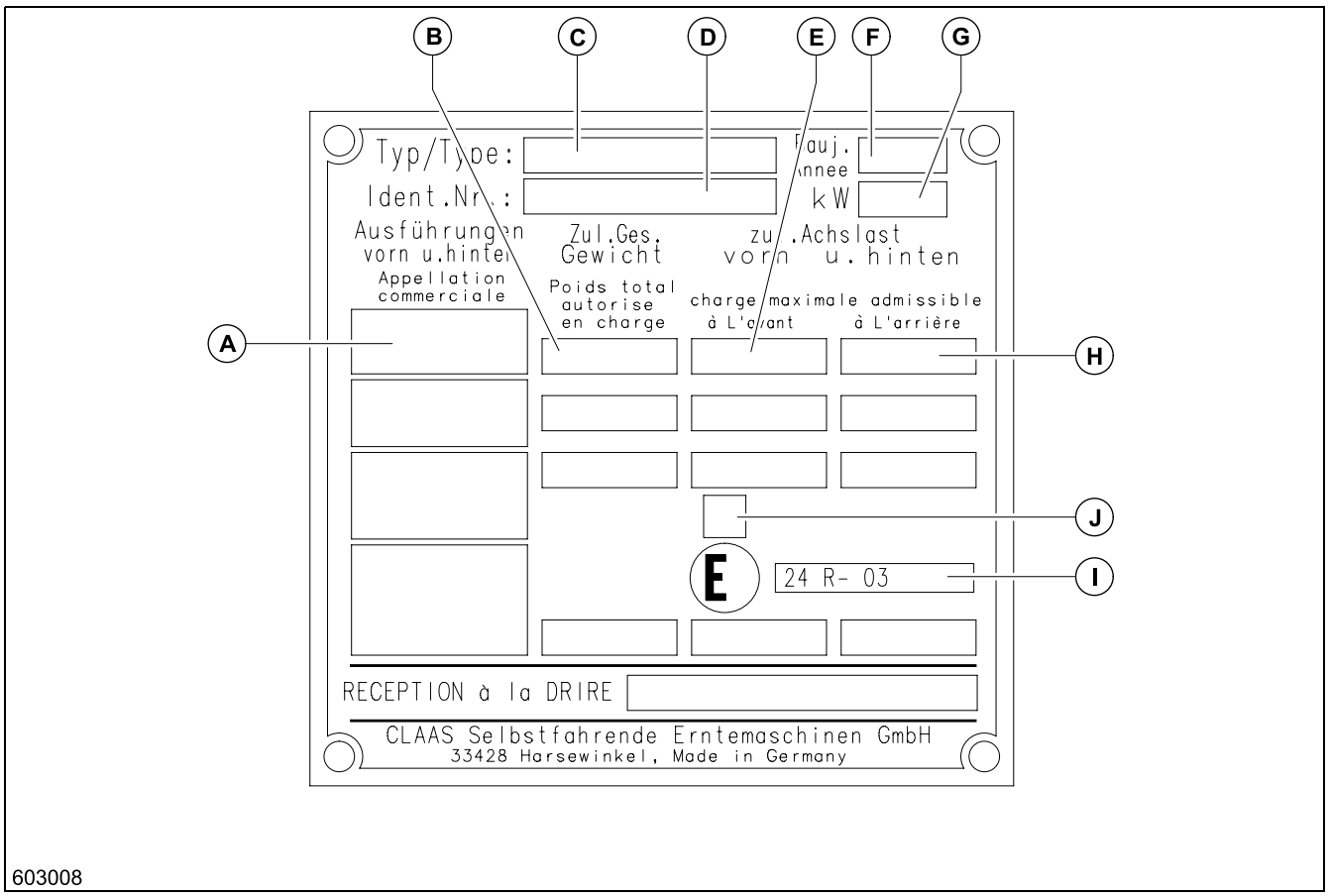


MEDION 340
MEDION 330
MEDION 320
MEDION 310

Operator's Manual

SERVICE & PARTS

9. Maintenance – basic machine, cutterbar

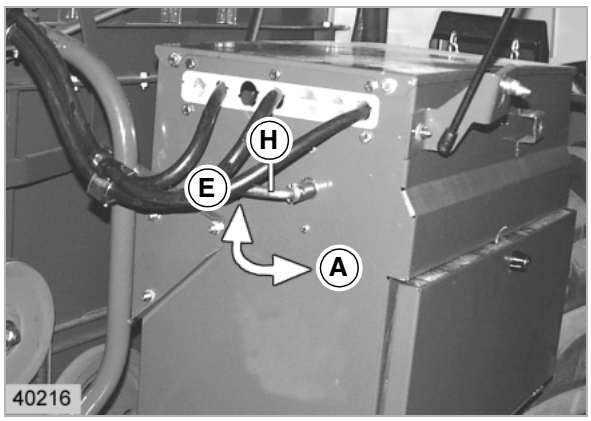


1

IDENTIFICATION PLATE / SERIAL NUMBER

A = Optional equipment
B = Authorised gross weight
C = Type
D = Identification no. (serial number of machine)
E = Authorised front axle load
F = Year of manufacture
G = Rated capacity of combine harvester (kW)
H = Authorised rear axle load
I = Approval no. according to ECE-R 24
J = Absorption coefficient according to ECE-R 24

(Fig. 1)



4

Battery isolating switch

Isolating switch (H) cuts off the electrical power supply to the whole machine.

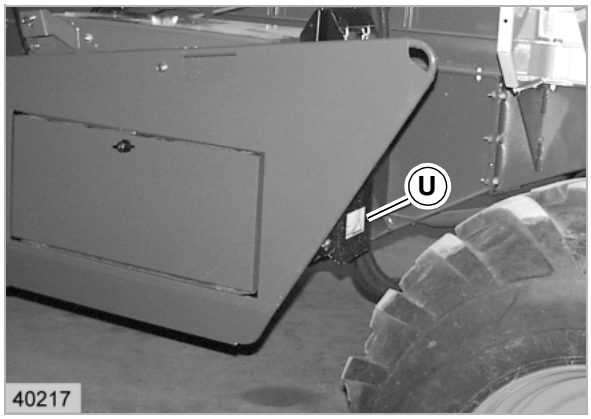
E = ON (switch on by turning clockwise)
A = OFF (switch off by turning anti-clockwise)

Turn off the isolating switch in case of emergency and after a day's work has been completed.

Caution!

Do not turn off the battery isolating switch while the engine is running.

(Fig. 4)



5

Wheel chock

(not for all countries)

At least one wheel chock (U) must be carried along on the combine at all times.

The wheel chock is located behind the sheet metal covering on the left hand side of the machine.

(Fig. 5)

6

Apply a wheel chock

Always position the wheel chock in front of or behind a traction wheel (depending on the slope of the ground).

Always position the wheel chock so that the machine cannot roll away.

Completely open the wheel chock and place it as close to the traction wheel as possible.

(Fig. 6)

31

32

0516 033.0 (16)

Keep hands away from rotating augers.

(Fig. 31, 32)

71

72

73

0516 044.0 (34)

Do not allow riders on access ladder or platform.

(Fig. 71, 72, 73)

CLAAS MEDION 340

Engine	MEDION 340 DaimlerChrysler OM 906 LA Exhaust gas level 2	MEDION 340 DaimlerChrysler OM 906 LA Exhaust gas level 3a
Cubic capacity cm³	6370	6370
Maximum no-load speed rpm	2288 $^{+20}_{-30}$	2288 $^{+20}_{-30}$
Rated speed (full load) rpm	2200	2200
Slow idling speed rpm	1350 ± 25	1350 ± 25
Reduced speed rpm in 3rd gear at 20 km/h	1632 $^{+20}_{-30}$	1632 $^{+20}_{-30}$
Reduced speed rpm in 3rd gear at 25 km/h	2032 $^{+20}_{-30}$	2032 $^{+20}_{-30}$
Power (EWG 80/1296) kW (HP)	190 (258)	190 (258)
Power (ECE R 24) kW (HP)	180 (245)	180 (245)
Coolant	approx. 36.5 litres	approx. 36.5 litres
Alternator	150 A	150 A
Battery	12 volts, 110 Ah	12 volts, 110 Ah
Fuel tank capacity	500 litres	500 litres

Ground drive

hydrostatic
controlled by a lever in the cab

Manual gearbox

3 gear ranges in both forward and reverse
1st and 2nd gear range: field operations
3rd gear range: road travel

Ground speeds

Gear ranges

with 30.5 R 32 / 24.5 R 32

1st gear	from 0 to	7.6 km/h	
2nd gear	from 0 to	12.3 km/h	
3rd gear	from 0 to	20.0 km/h	(from 0 to 25.0 km/h)

with 23.1 R 30

1st gear	from 0 to	7.2 km/h	
2nd gear	from 0 to	11.7 km/h	
3rd gear	from 0 to	20.0 km/h	(from 0 to 25.0 km/h)

The reverse speeds are approximately 70% that of the forward speeds.

Ground speeds in brackets apply to certain countries only.

In countries with a speed limit of 20 km/h for agricultural 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

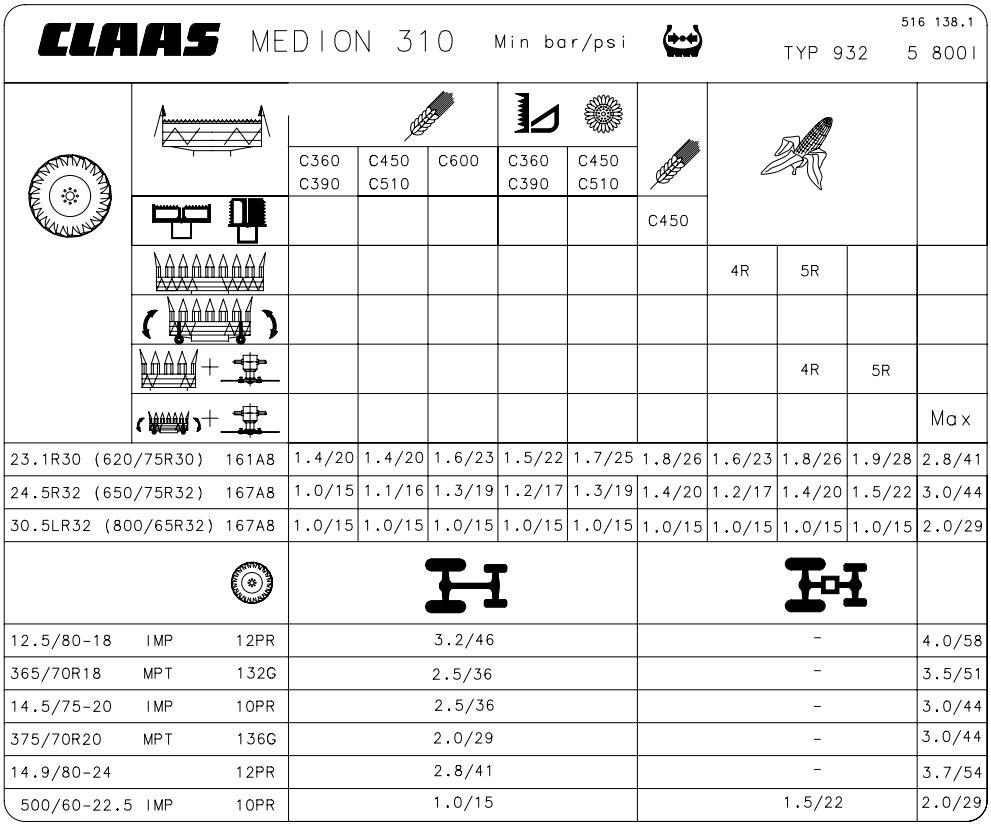
hydraulic, designed to work independently when the pedal lock is removed

Hand brake

mechanical, independent of foot brake

CLAAS MEDION 330 / 320 / 310

Tyres and tyre pressures MEDION 310



603661

Torque settings for the wheel bolts

Drive axle — wheel nuts with thrust piece H 22
DIN 74361-H22-10-DAC500B-TNT = 700 Nm

Caution!

Flange nuts with "Dacromet coating" (silvery grey) must only be torqued to **700 Nm**.

Rear axle — wheel bolts M 18 x 1.5 = 325 Nm

Rear drive axle — wheel bolts M 22 x 1.5 - 8.8 and
special lock washers C 22.5 DIN 74361
(Limes type conical spring washer) = 520 Nm

Weights

The total weight of the machine can be determined by adding together the weights according to the options fitted – see page 5.4.1, *Front attachments – weights and dimensions*.

Basic machine without front attachment	10098 kg
Straw chopper	290 kg
with straw spreader	+ 129 kg

Threshing mechanism

The threshing drum and main concave perform the threshing. The grain together with the chaff and short straw is delivered by the concave onto the preparation floor of the sieve pan. The impeller guides the remaining grains with the straw onto the straw walkers.

A deflector curtain behind the impeller holds back bouncing grains and deflects the kernels down onto the front of the straw walkers.

Straw walkers

The straw walkers separate the remaining grain from the straw. The straw leaves the combine via the straw hood. It may be further processed by mounted attachments (e.g. straw chopper). The separated grains pass over the under-walker return floor also to the sieve pan. Crankshafts with agitator tines intensify the loosening of the straw on the straw walkers.

Cleaning unit

The swinging movement loosens the grain / chaff / short straw mixture on the preparation floor and at the same time transports it to the sieves.

The wind created by the cleaning fan carries all the light material (chaff) out of the rear of the machine. The grain falls through the upper and lower sieves into the trough of the grain auger and are transported into the grain tank by the grain elevator. All parts which are heavier than the chaff and larger than the grain pass over the upper and lower sieves into the trough of the returns auger. From here they are returned to the threshing mechanism by the returns elevator for further threshing. When the grain tank unloading tube is swung out, the grain tank can be emptied within a short time directly into a waiting wagon alongside the forage harvester.

Disawning

For crop and fruit types which are difficult to disawn, additional disawner filler rasp bars can be placed in the preconcave.

Reactivate fully automatic operation:

Fully automatic operation is reactivated by pressing button (13) again. LED (10) lights up.

Manual blower operation is now shut off, the setting is stored and activated after 5 seconds. Automatic control system with blower is in operation. The blower speed is automatically set depending on the difference between the setpoint and actual values.

Note: The blower speed can also be adjusted to "0". This makes a discharge of the battery impossible.

Activating ECON operating mode

Example:

Press button (14).

LED (12) indicates ECON operating mode.

Fully automatic operation is shut off. LED (10) does not light up any more.

The set setpoint temperature of 21 °C is displayed in the display (8).

At present, the evaporator blower speed is indicated to be 40% on the LED bar display (6) (4 bars light up).

In the ECON operating mode, the air-conditioning compressor is shut down.
Automatic operation is not active any more.
The evaporator blower and the heater are controlled automatically in ECON mode as well!

Deactivating ECON operating mode

Example:

Press button (14).

ECON operating mode is shut off.

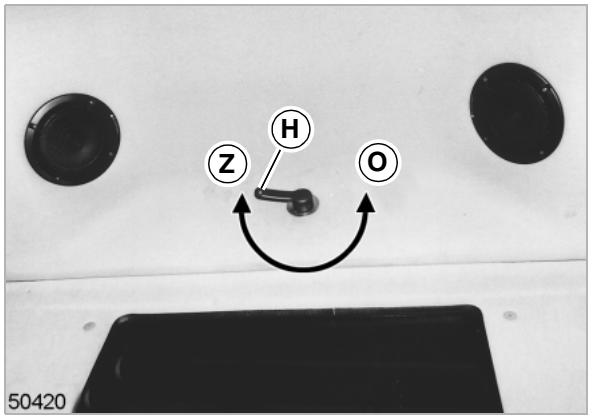
Fully automatic operation is indicated. LED (10) lights up.

The set setpoint temperature of 21 °C is displayed.

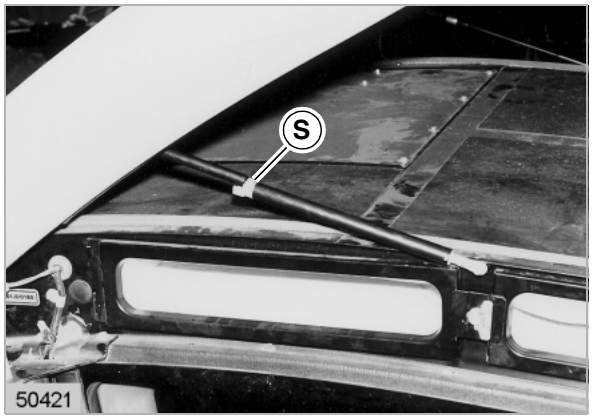
The current evaporator blower speed is indicated to be 40%.

The air-conditioning compressor is switched on. Automatic operation is active. In case of outside temperatures below 10 °C, the automatic control unit shuts off the compressor.

Note: ECON mode should be used only when the outside temperature is approx. 8 °C below the cab temperature.



6



7

Opening and closing the cab roof

Opening the cab roof

Turn the lever (H) anti-clockwise to position (O).

Now fully lift up the cab roof until the left-hand gas operated strut is blocked by lock (S).

(Fig. 6, 7)

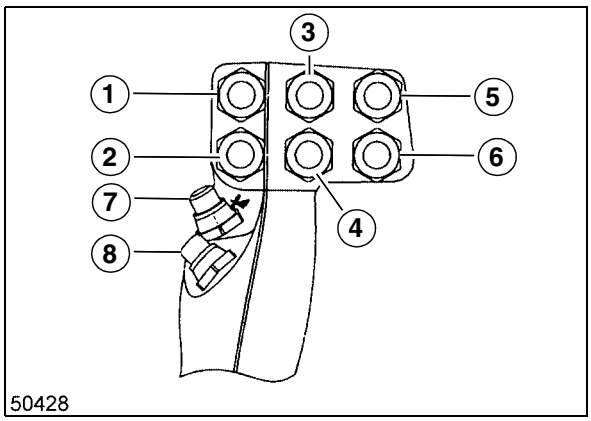
Closing the cab roof

Lift the lock (S) on the gas strut.

Then push down the cab roof.

Turn the lever (H) clockwise to position (Z). The cab roof is now locked.

(Fig. 6, 7)

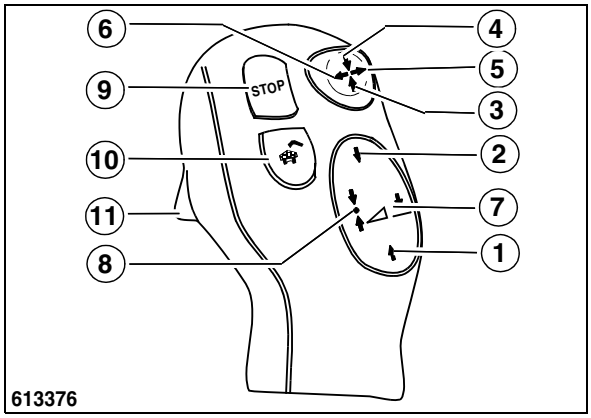


9

Multifunction lever
(up to serial no. ...)

1 Raise front attachment,
CLAAS Contour system OFF or
CLAAS Auto-Contour OFF
2 Lower front attachment
[only with engine running – the cutterbar cylinder lines are automatically kept closed when the engine is stopped (safety measure).]
3 Raise reel
4 Lower reel
5 Reel forward
6 Reel backward
7 Preset height control ON
8 CLAAS Contour system ON
or CLAAS Auto-Contour ON

(Fig. 9)

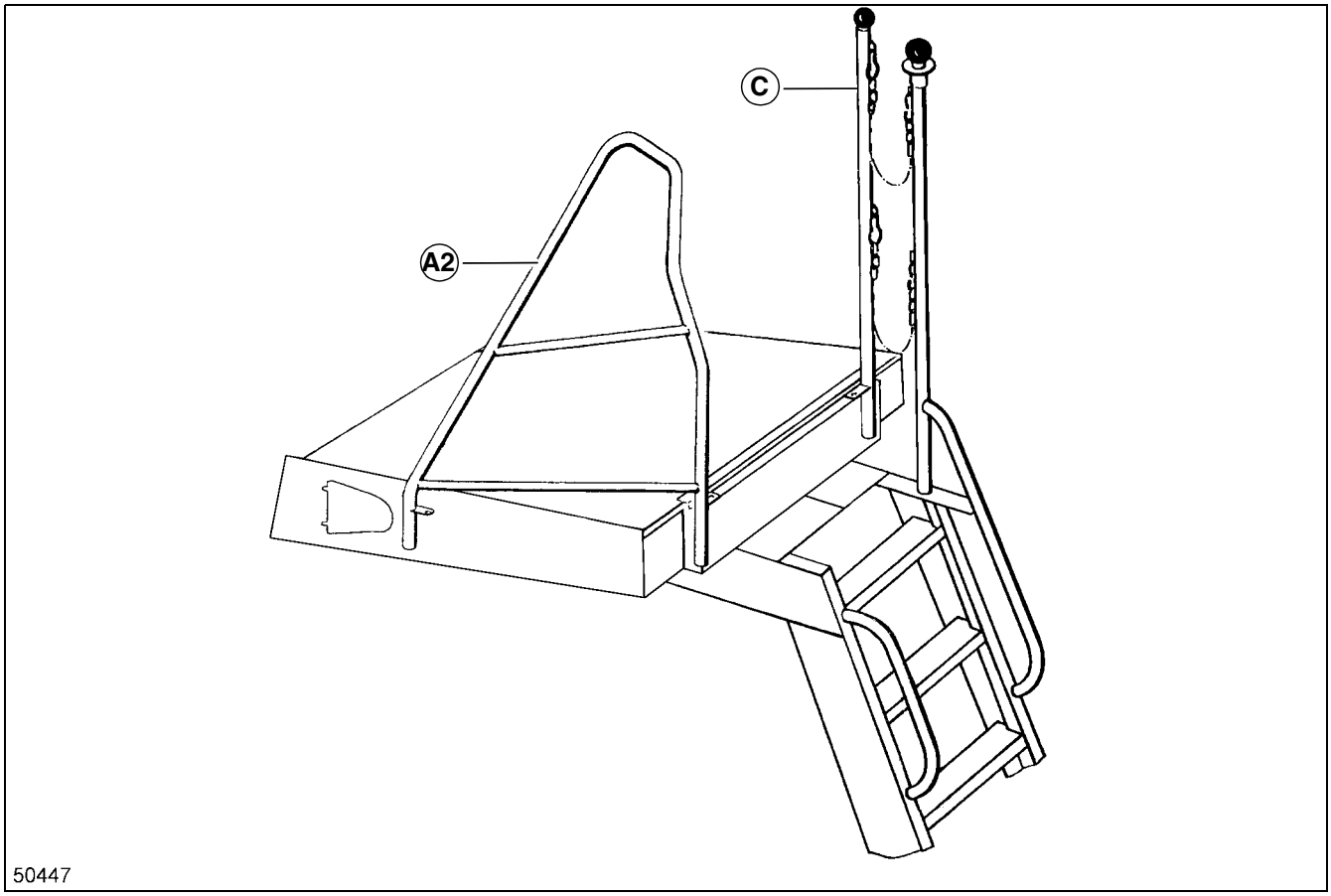


10

Multifunction lever
(from serial no. ...)

1 Raise front attachment,
CLAAS Contour system OFF or
CLAAS Auto-Contour OFF
2 Lower front attachment
[only with engine running – the cutterbar cylinder lines are automatically kept closed when the engine is stopped (safety measure).]
3 Raise reel
4 Lower reel
5 Reel forward
6 Reel backward
7 Preset height control ON
8 CLAAS Contour system ON
or CLAAS Auto-Contour ON
9 Front attachment STOP
10 Grain tank unloading ON / OFF
11 Swinging the grain tank unloading tube

(Fig. 10)



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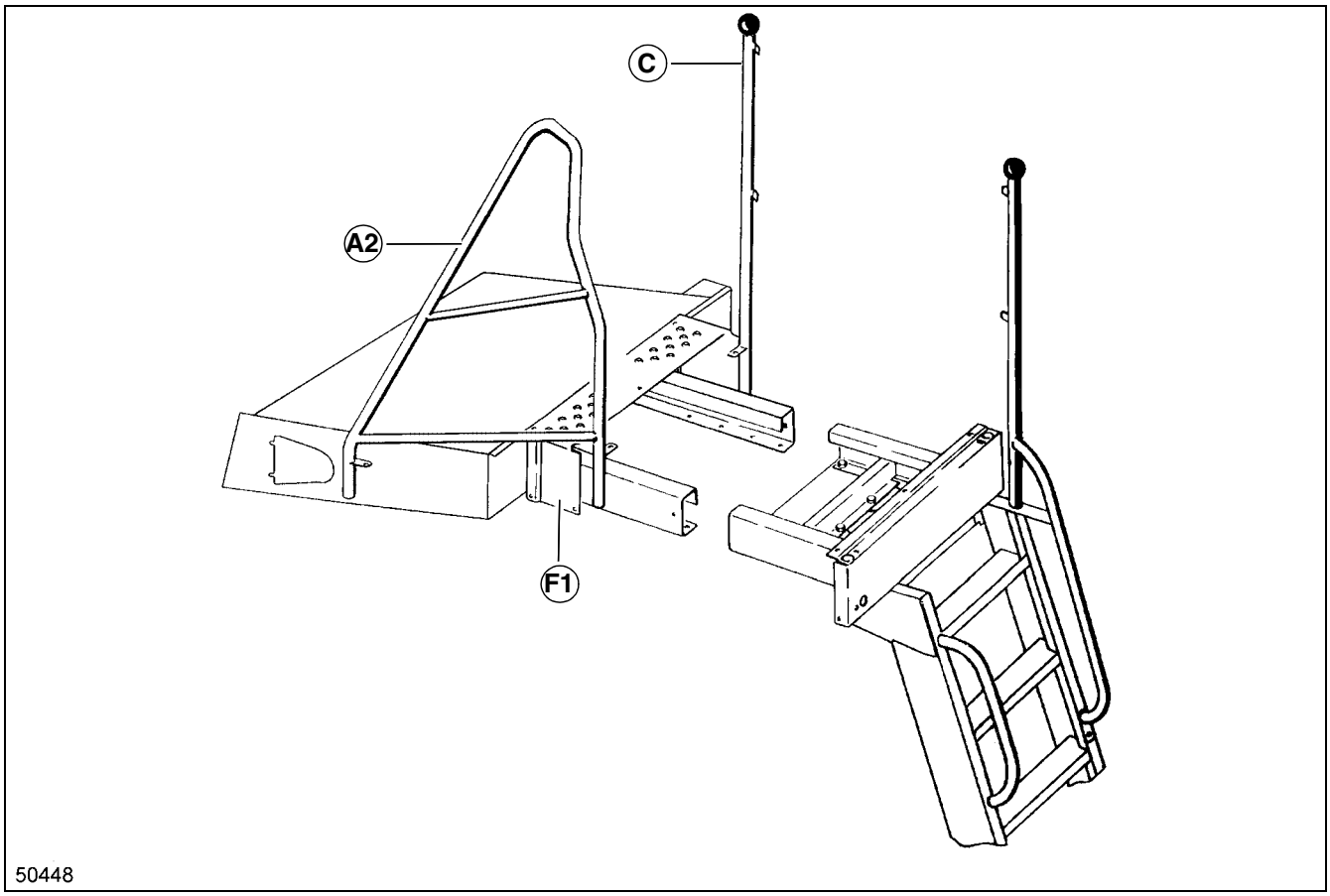


27

When entering a maize field, first steer the machine manually until normal row-by-row operation is achieved.

After approx. 1 metre, the CLAAS Autopilot can be engaged by pressing the foot switch (F, Fig. 13) to the stop and promptly releasing it again (the indicator light in the vehicle information unit comes on).

The steering wheel must no longer be moved during and after this.

The CLAAS Autopilot now guides the machine along the maize rows by way of the touch sensor arms.

The system keeps the machine also on course when there are short gaps within the rows.

For overriding the CLAAS Autopilot system or to switch off the automatic control at the end of the field, turn the steering wheel quickly one quart of a turn. The machine may now be steered manually as usual.

Where row spacings give trouble, better results may be obtained by passing the "contact row" not exactly midway between the sensor arms. To keep the machine automatically on the selected "off centre course" when using the CLAAS Autopilot, the centralising switch (50) should be dislocated from the indicated centre position as required.

At the end of the fieldwork, immediately switch off the CLAAS Autopilot by switching off the rocker switch (51) and by lowering the safety bracket (S) into lock position over the foot switch to prevent accidental engagement of the CLAAS Autopilot while driving on roads.

(Fig. 12, 13)

Safety shut-off system:

The operator’s seat is equipped with a safety shut-off system. As soon as the driver leaves the seat, the CLAAS Autopilot will be switched off.

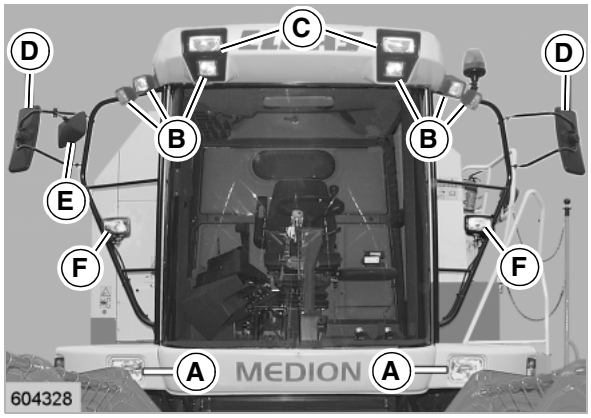
CAB AND LIGHTING

Cab

Standard combine specifications include a cab with ventilation system / filters.

The following optional extras are available for this cab:

- Heater
- Air conditioner or
- Heater and air conditioner



1

The use of these variations make combine operations much easier since the driver is protected from dust, heat and cold.

(Fig. 1)

Headlights, worklights and mirrors

A = Two headlights

B = Six work lights on the top of the cab to illuminate the front attachment

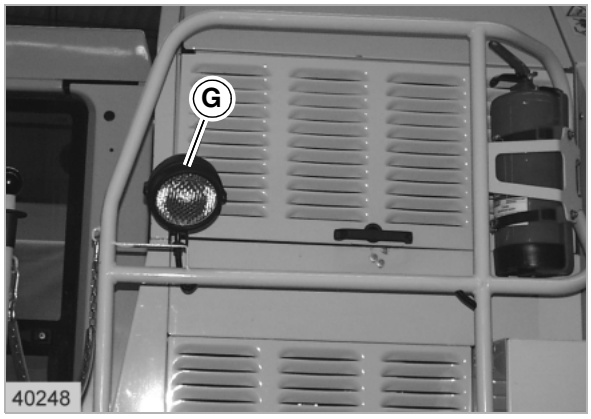
C = Two work lights to illuminate the area ahead

D = Mirror

E = Side view mirror

F = Drive lights with folding front attachments

(Fig. 1)

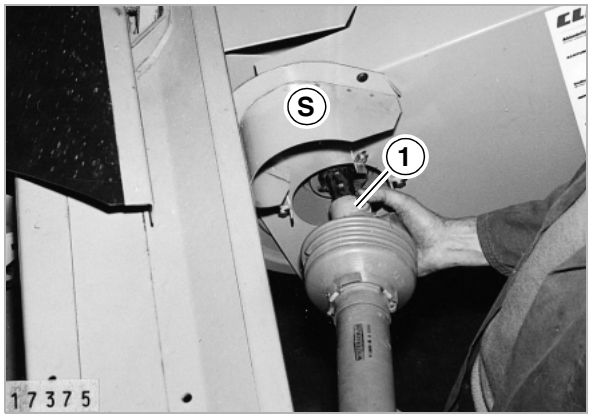


2

G = One light to the left of the engine compartment to illuminate the unloading tube and the transport vehicle when unloading the grain tank

(Fig. 2)

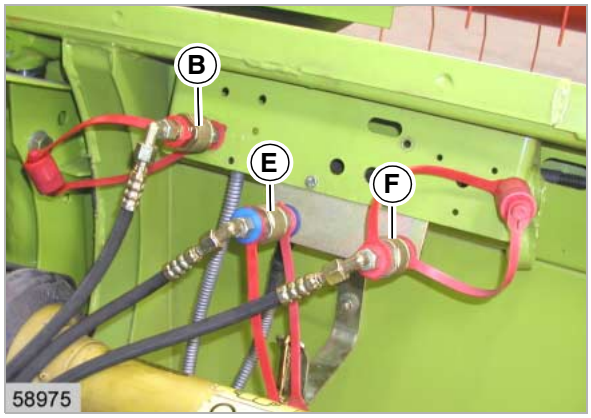
left-hand side



11

right-hand side

12



13

Connecting the universal drive shafts

Fold the guard (S) open. Push in locking pin (1) of the universal drive shaft. Push universal drive shaft on the intermediate drive shaft and make sure the locking pin locks into place. Fold the guard (S) down again.

On 6.00 m – 9.00 m cutterbars: Connect the universal drive shafts on both sides and fold down the protective guards (S).

(Fig. 11, 12)

Danger!

Never operate the universal drive shaft without guards!

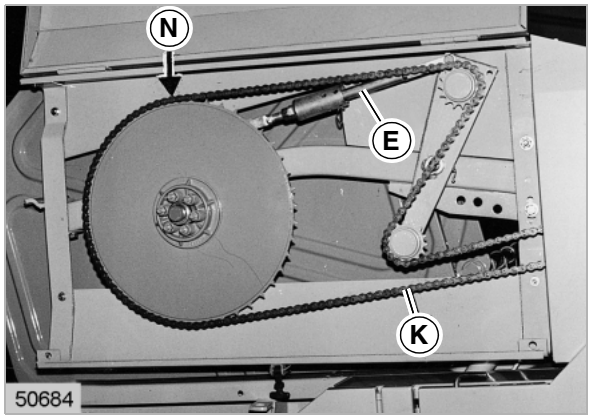
Connecting the hydraulic hoses

When hooking up the hydraulic quick-couplers, make sure to connect those couplers, that have equal coloured markings.

B = without colour marks, reel up / down
E = blue (reel forward)
fore and aft reel adjustment
F = red (reel backward)
fore and aft reel adjustment

(Fig. 13)

When attaching the cutterbar to the combine for the first time, loosen the union nuts and adjust the quick release couplings so that the high-pressure hoses connect easily.



19

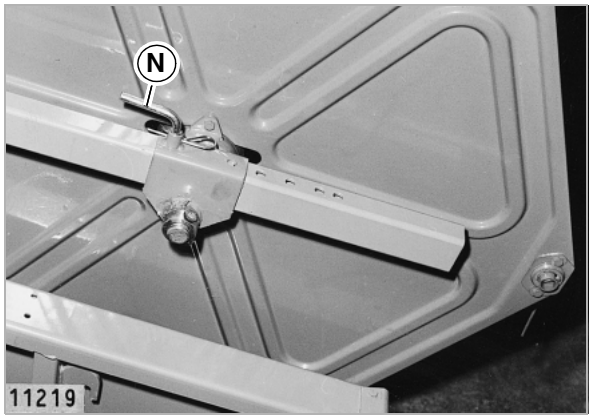
Reel fore and aft adjustment
(mechanical)

To adjust the reel forward or backward remove the pins (N) and block the spring-loaded cylinder (E).

After this reinstall pins (N) and unlock the spring-loaded cylinder (E).

The reel drive chain (K) is constantly tensioned by spring-loaded cylinder (E).

(Fig. 19, 20)



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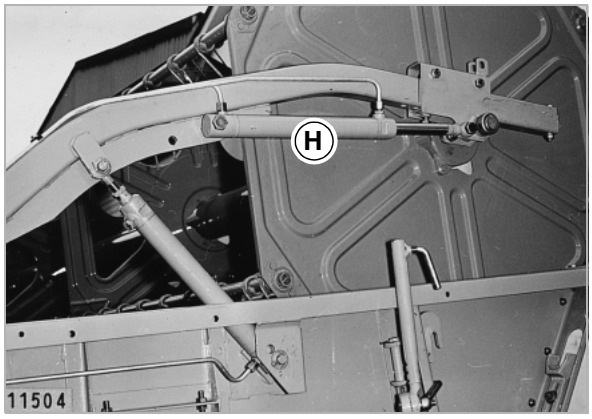
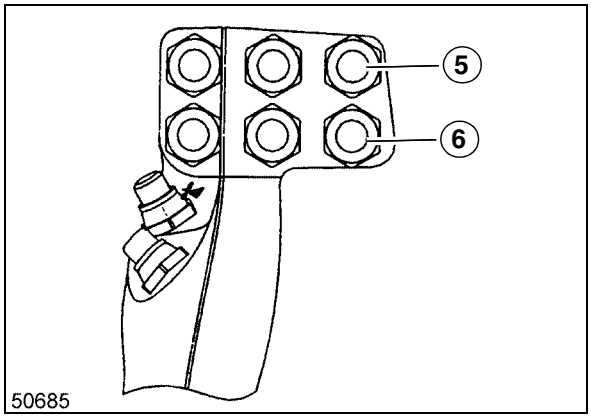


21

Reel fore and aft adjustment
(hydraulic)

The reel can be adjusted forward and backward via the two horizontally fitted double-acting hydraulic cylinders (H) by pressing the pushbuttons (5 and 6) on the multifunction handle.

(Fig. 21, 22, 23)

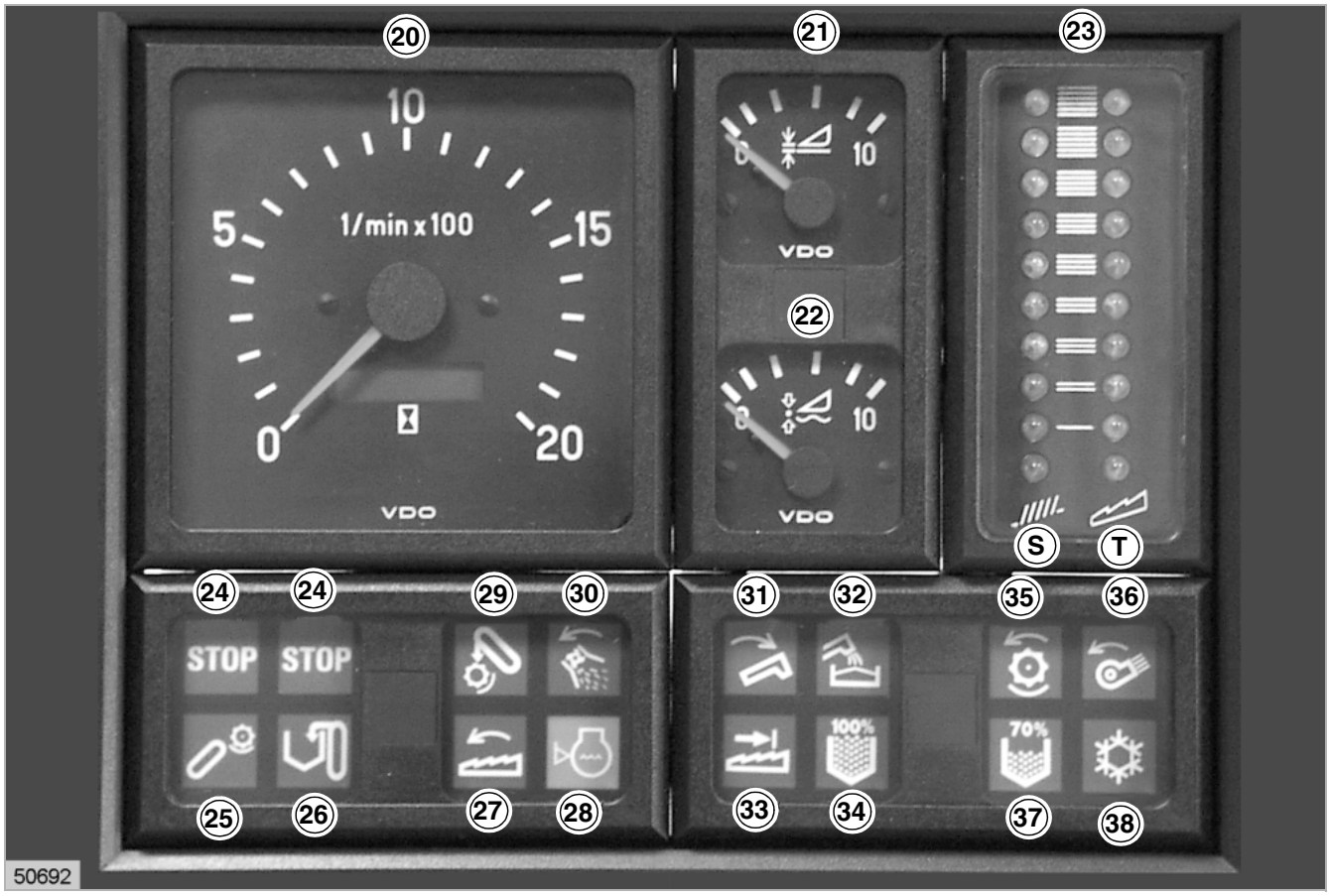


22

Adjusting the reel:
(up to serial no. ...)

5 = Reel forward
6 = Reel backward

(Fig. 22)



13

Preset cutting height control with automatic control

(Machines equipped with Auto Contour)

How the system works:

The desired cutting height can be pre-set above 150 mm using the setpoint generator rotary knob (52).

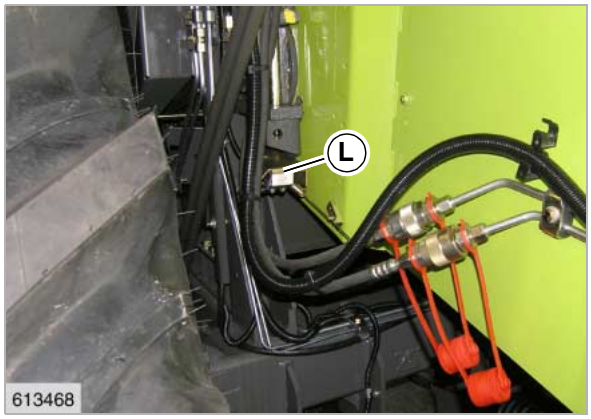
Pressing the pushbutton (7) on the multi-function handle once engages the cutterbar pre-set height controls. The electronics operate the solenoid valve until sensor (L) on the feed rake conveyor signals that the pre-set cutterbar height has been reached. The preset cutting height control stays on until the front attachment "raise/lower" pushbuttons (1 or 2) are pressed.

When sensor bands (T) contact the ground, the cutterbar is levelled in cross direction with the slope by way of sensors (S).

If both sensor bands are actuated, e.g. when passing over bumps, the cutterbar is raised automatically. Pressing pushbutton (7) lowers the cutterbar and returns it to the pre-set height position.

Once the cutterbar has reached the preset cutting height, the setting will be shown by indicator (21) on the operations display screen.

(Fig. 8–13)



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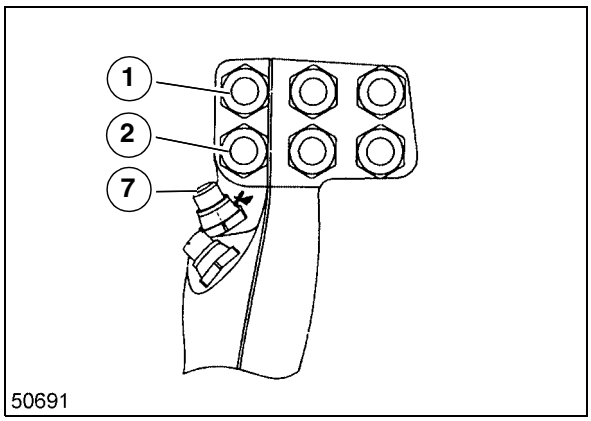
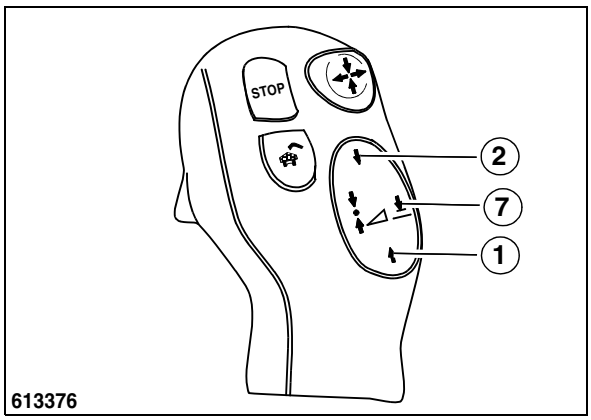


36

up to serial no. ...



37

from serial no. ...

Note!

With rotary knob (52) set to "0" and with cutterbar in lowest position, the cutting height should not be less than 150 mm.

If required, adjust sensor (L) on the feed rake conveyor accordingly.

(Fig. 34, 35)

Raising the cutterbar:

Press pushbutton (1). The cutterbar lifts and, at the same time, cutterbar pre-set height control is switched off.

(Fig. 36, 37)

Lowering the cutterbar and engaging the cutterbar pre-set height control:

Pressing pushbutton (7) once engages the cutterbar pre-set height control and adjusts the cutterbar to pre-set height.

Note!

If either of pushbuttons (1 and 2) is operated, the cutterbar pre-set height control will always be switched off and can only be switched on again by momentarily pressing pushbutton (7).

(Fig. 36, 37)

THRESHING MECHANISM

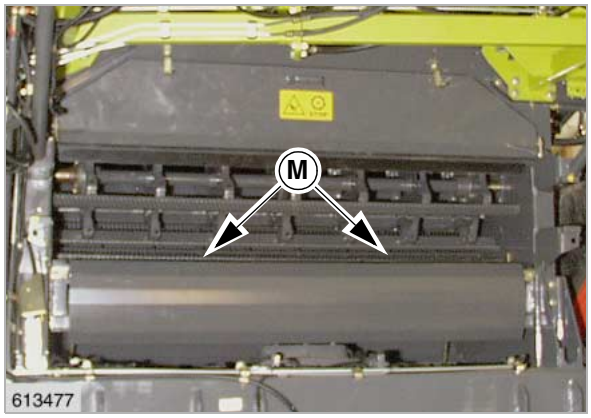
Danger!

Repair, service and cleaning work and the elimination of malfunctions should only be performed with the drives stopped and the engine switched off. Remove the ignition key (main switch key).

Stone trap

Danger!

Apply the cutterbar cylinder safety lock for all work underneath the fitted front attachment.



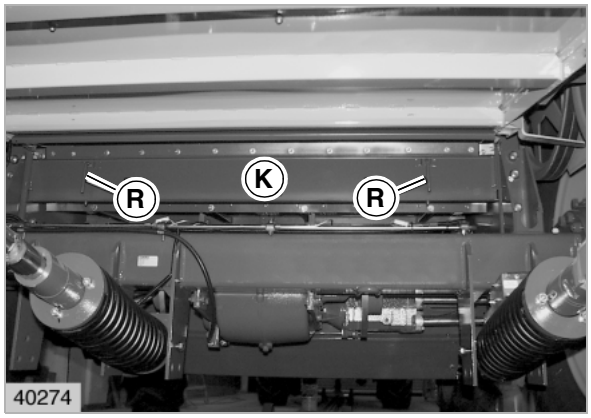
1

A stone trap (M) at the front of the concave is a safeguard against stones and other foreign objects damaging the threshing mechanism.

Clean the stone trap daily. When working in fields which are stony and when threshing lodged crops, the stone trap should be cleaned at shorter intervals.

Raise the feed rake to maximum height. Unlock cover (K) by twisting the locking pins (R) and remove cover to the front.

(Fig. 1, 2)



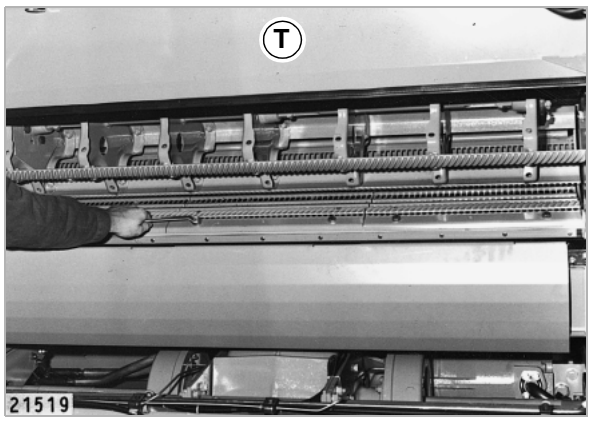
2

Engaging and disengaging the threshing mechanism

An idler pulley tightens the threshing mechanism power band belt and the complete threshing mechanism is driven by the engine output pulley.

Caution!

Engage and disengage the threshing mechanism with the engine slow idling.



17

Disawning

For better disawning, up to 12 filler rasp bars can be installed in the concave.

Fit filler rasp bars:

Danger!

Always stop the engine and remove ignition key before removing the concave segments!

Remove concave segments before fitting or removing the filler rasp bars. To do this, unscrew both segment fixing bolts. Then lift the segments a little at the front and remove them.

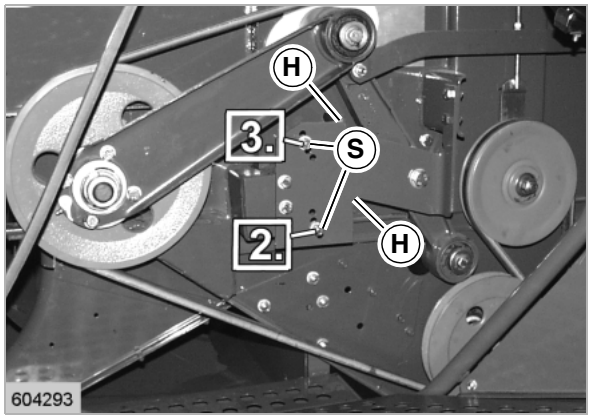
Note!

When removing, always remove the centre segment first. Then push the outer segments slightly to the centre and remove them. Installation is in reverse order.

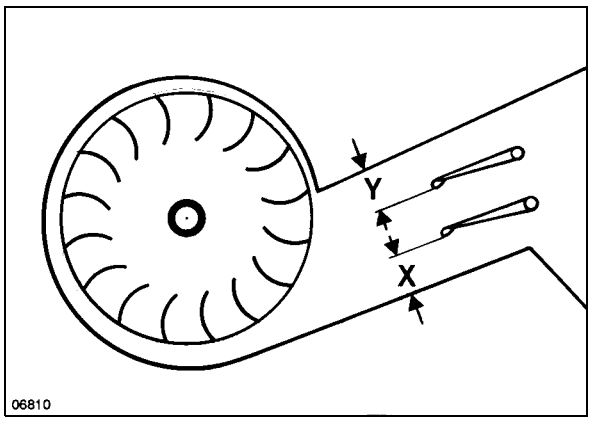
(Fig. 17)

Caution!

Clean concave segments prior to fitting the filler rasp bars to ensure their perfect contact with the concave wires.



16



17

Adjusting the wind direction

The wind boards in the air duct can be adjusted to four positions with levers (H) after removing hex. bolts (S).

Normal setting:

Bottom lever (H) = 2nd hole from the bottom
Top lever (H) = 3rd hole from the bottom

Adjust the wind boards with levers (H) as follows:

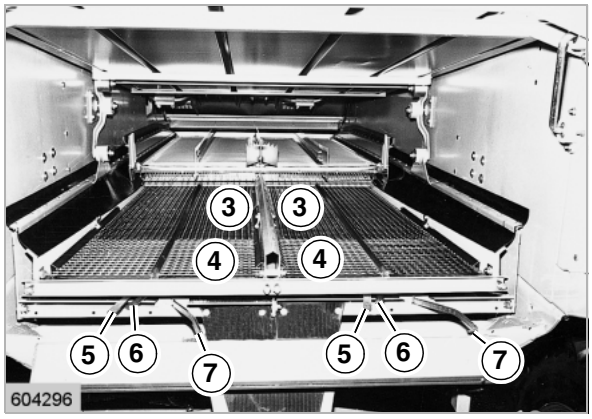
MEDION 340
X = approx. 69 mm
Y = approx. 59 mm

MEDION 330 - 310
X = approx. 82 mm
Y = approx. 56 mm

Adjust the wind boards steeper for heavy crops and less steep for lighter crops.

After adjustment of the wind boards, insert and tighten hex. bolts (S).

(Fig. 16, 17)



18

Sieves

Adjusting the frogmouth sieves

The frogmouth sieves can be adjusted with levers (5, 6 and 7) to suit all sizes of grain.

Adjusting lever (5) is used to adjust the upper frogmouth sieve over its full length, including the returns pass-through area (4).

Adjusting lever (6) is used to adjust only the returns pass-through area (4). Always adjust the returns pass-through area (4) wider than the grain pass-through area (3).

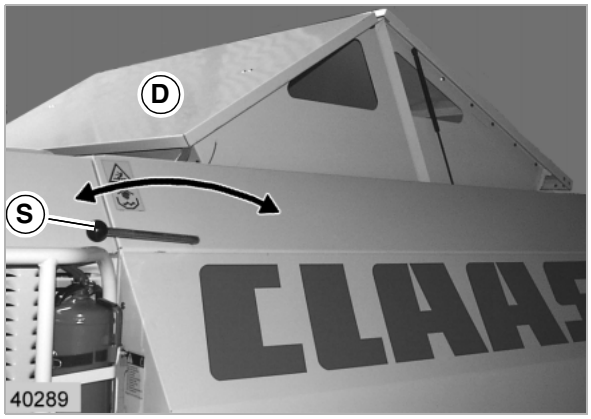
Adjusting lever (7) is used to adjust the lower frogmouth sieve openings.

The figures 1 to 9 on adjusting lever (7) are reference numbers only and do not indicate inch or metric measurements of the frogmouth sieve openings.

The setting is correct when the grain is screened out after passing over three quarters of the sieving area.

Adjust the returns pass-through area (4) for all crops to leave a gap wide enough to allow unthreshed material to drop through into the returns.

(Fig. 18)



5

Grain tank covers

Front grain tank cover:

The front grain tank cover (D) can be opened with crank (S) from the catwalk.

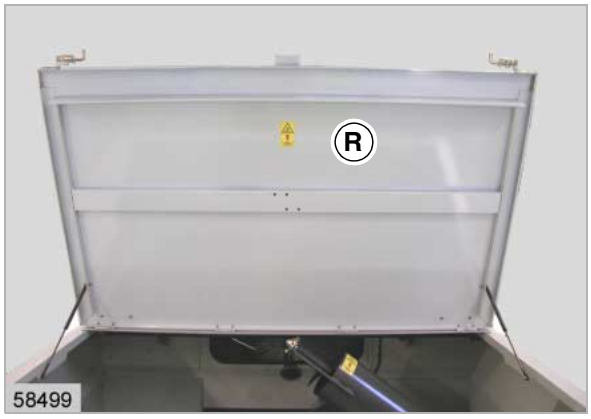
(Fig. 5)

Caution!

The front grain tank cover (D) must be open during work.

When the grain tank is full the cover must not be closed or opened. Otherwise the tank cover, and also the operating mechanism can become damaged.

If it is necessary to work with the tank cover closed, take care that the tank is not completely filled. If necessary set the 100% full sender to a lower position.



6

Rear grain tank cover:

The rear grain tank cover (R) can also be opened.

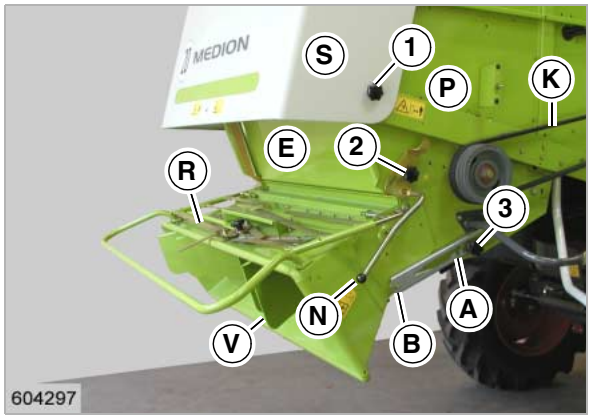
(Fig. 6)

Caution!

Open the rear grain tank cover **only** when the front tank cover is closed.

The rear grain tank cover must be closed during work.

The front and rear grain tank covers must be closed when driving on public roads and lanes.



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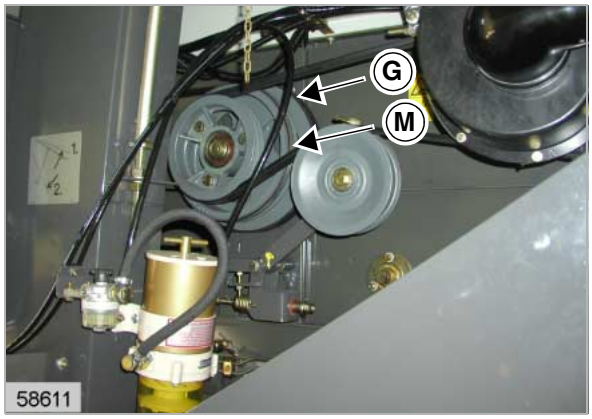
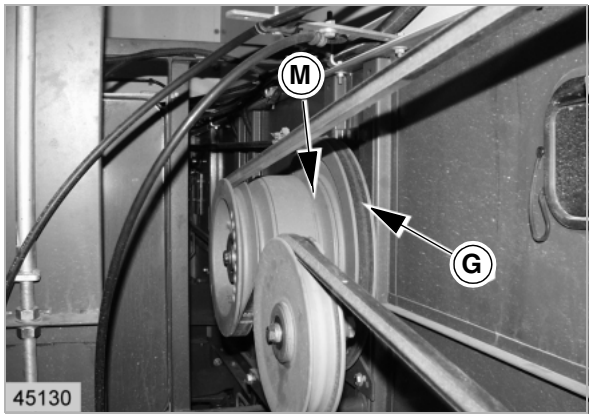


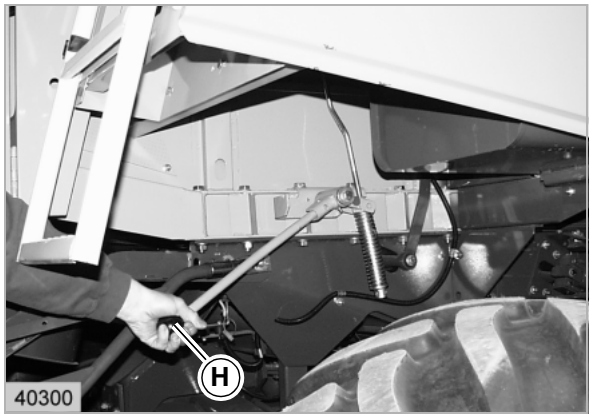
MEDION 340

4



MEDION 330 - 310

5



6

Putting the straw chopper into operation

– Move rear panel (S) to forward position and secure with turn locks (1), both sides.

– Loosen turn lock (2). Swing the straw guide plate (E) with the lever (N) completely to the rear. Lock (P) is moved off the drive pulley.

– Pull finger rake (R) from its lock and fold it in place. Loosen turn locks (3) on either side.

– Lift the left-hand adjuster (B). Swing up the spreader hopper (V) until the notches of the adjusters (B) engage in the pins at (A) on both sides.

– Tighten turn locks (3).

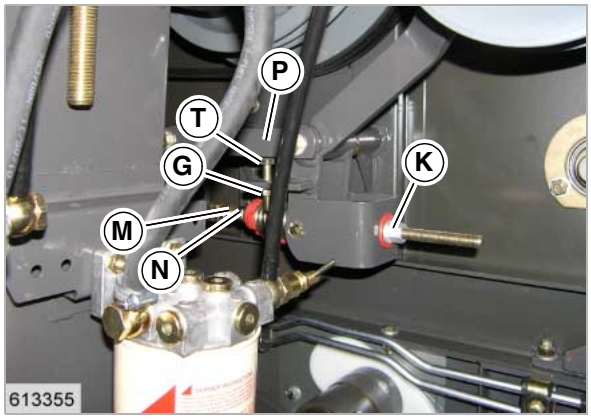
(Fig. 3)

– Release the tension on drive belt (K) using lever (H). Move the drive belt from the outer idling pulley to the inner drive pulley. Tension the belt, using lever (H).

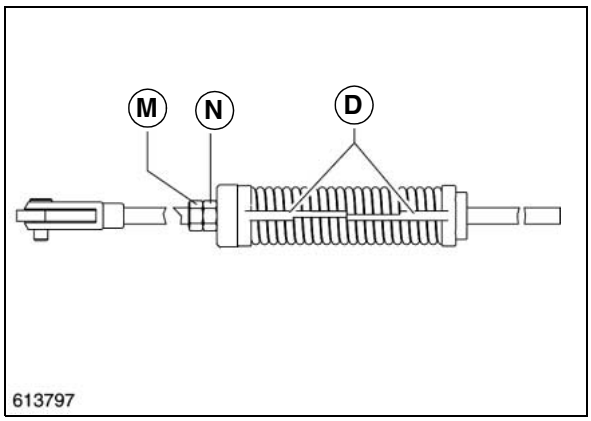
  Ensure that the V-belt is in the inner groove (G) of the intermediate drive pulley. Groove (M) is for use in maize.

– Close the guard. The chopper is now ready for operation.

(Fig. 3, 4, 5, 6)



34



35

– Tensioning the V-belt (21):
(from serial no. ...)

Unscrew the flange nut (K) and keep it in a safe place.

Adjust the nuts (M, N) so that the ends of the two gauge rods (D) face one another without play. Lock the nuts (M, N).

Spring length = **138 mm**

– Now adjust hex. bolt (T) so that it makes contact with the jockey pulley arm (P) without play. Lock hex. bolt (T) with lock nut (G).

– Install the suction blower drive belt (22).

(Fig. 34, 35)

Changing the chopper speed from grain to maize (MEDION 330 - 310)

See conversion instructions “Grain to maize".

CHASSIS

Jacking up the machine

Danger!

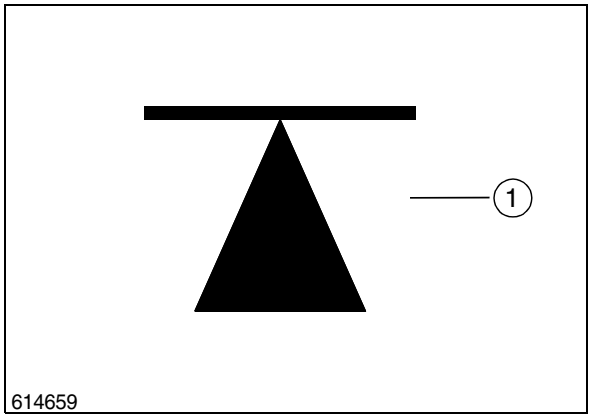
Jacking up the machine.

Death or serious injuries.

- Use a jack / pin-lock stand with sufficient capacity.
- Use a safe jack / pin-lock stand.
- Use jack / pin-lock stand on solid and level ground.
- Fit the jack / pin-lock stand to the intended position on the machine.

The jack / pin-lock stand points are marked by the symbol (1) on the axles.

(Fig. 1)



1

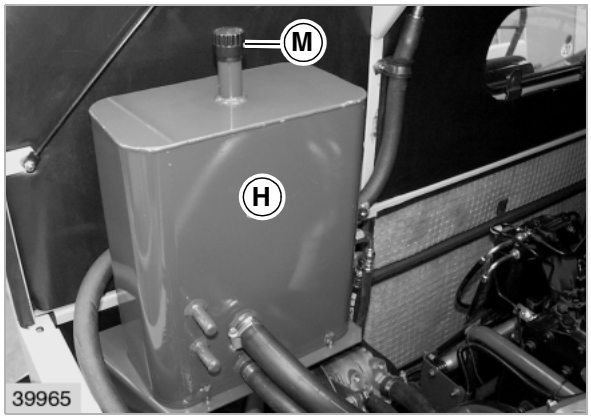
9

Maintenance – basic machine, cutterbar

MAINTENANCE SCHEDULES AND LUBRICANTS CHARTS

Maintenance schedules

Maintenance Operations	Service intervals									
	Before the harvest	Every day	After the first 10 working hours	After the first 100 working hours	Every 50 working hours	Every 100 working hours	Every 200 working hours	Annually = every 500 working hrs.	As required	After the harvest
HYDRAULIC SYSTEM										
Hydrostatic ground drive and working hydraulics										
– Check oil level	●				●					
– Change hydraulic oil								●	●	
– Change hydraulic oil filter								●	●	
– Adjust hydrostatic pump									●	
– Bleed reel cylinder									●	
– Bleed hydraulic cylinders for lateral levelling of cutterbar (machines equipped with Auto Contour)									●	
– Replace return sieve in hydraulic oil tank								●	●	
FOOT BRAKE / BRAKE FLUID										
– Check level of brake fluid and top up if necessary					●					
– Renew the brake fluid and have the brake system bled	every 2 years									
TRANSMISSIONS										
– Adjust linkage for gear shift									●	
Manual gearbox										
– Check oil level									●	
– Oil change				●				●		
Final drives										
– Check oil level									●	
– Oil change				●				●		
Rear wheel drive planetary gears										
– Check oil level									●	
– Oil change				●				●		
Knife drive casing										
– Check oil level									●	
– Oil change				●				●		
Threshing drum reduction gearbox										
– Check oil level									●	
– Oil change				●				●		
FEEDER HOUSING										
– Tension the feeder chains	●								●	
ELEVATOR CHAINS										
– Tension the grain elevator chains	●					●			●	
– Tension the returns elevator chain	●					●			●	



10

Filling instructions when carrying out hydraulic oil change

1. Fill hydraulic oil reservoir (H) with hydraulic oil (– see page 9.2.4, *Lubricants charts*) at oil filler cap (M). To do this, use a screen filter.

   Pour in hydraulic oil slowly to allow air to escape from the pump housing through the connecting lines and from the hydraulic oil reservoir (H).

2. Shift gear shift lever to neutral. Run engine at slow idling speed for approx. 10 seconds. Top up the missing oil in the hydraulic oil reservoir.

   Repeat this procedure until a constant oil level is being obtained in the oil tank.

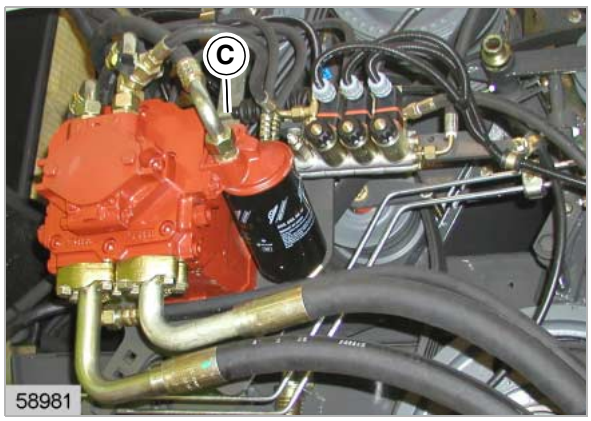
3. Always add oil as necessary to bring oil up to the proper level in the reservoir.

4. Let the hydrostatic gearbox turn at idle speed and the ground speed control lever pushed halfway in both directions for about 2 minutes each to vent and flush the system (mechanical gearbox in 0 position).

5. With the ground speed control lever in neutral, stop the diesel engine. Should it be required, top up hydraulic oil up to the mark on the dipstick.

6. Carry out a test run.

(Fig. 10)



11

Adjusting the hydrostatic pump

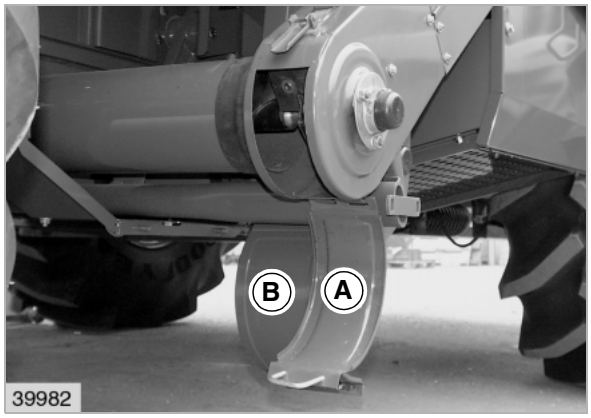
If an absolute stop of the machine is not obtained with ground speed control lever in neutral position, the hydrostatic pump must be readjusted in the slots of the retarder for Bowden cable (C).

Note!

Always ensure that the threaded end of Bowden cable engages in the clevis by at least 6 mm.

(Fig. 11)

ELEVATOR CHAINS



1

Tensioning the grain elevator chain

To tension the grain elevator chain open the elevator cover (B) at the elevator boot.

Loosen counternut (G).

Tension grain elevator chain using nut (M).

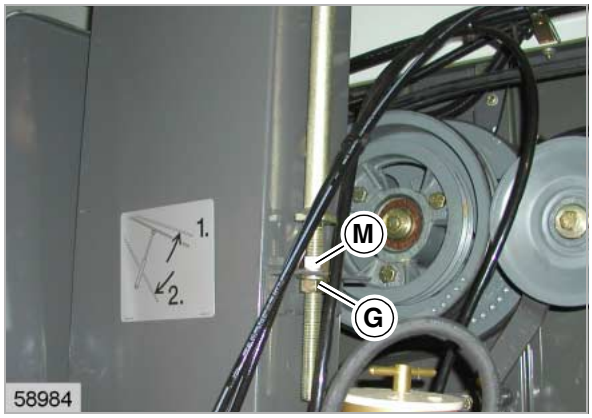
Tension grain elevator chain enough to prevent conveyor plates from dragging on the elevator housing.

It must be possible to push the conveyor chain to the side manually at the bottom chain wheel.

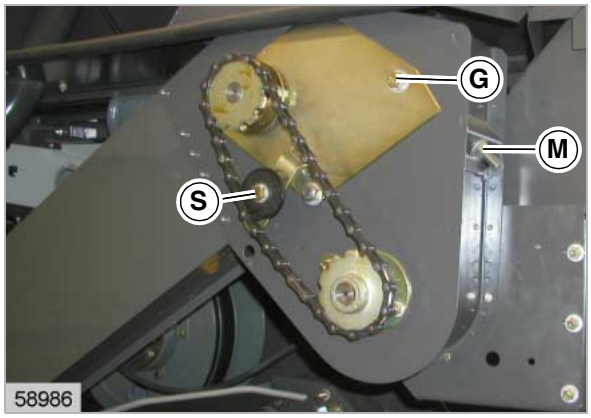
Re-tighten counternut (G) and close elevator boot cover tightly.

The filler auger drive chain is automatically kept under tension by the spring-loaded chain tensioner.

(Fig. 1, 2)



2



3

Tensioning the returns elevator chain

To tension the returns elevator chain open the elevator cover (A) at the elevator boot.

Loosen clamping screws (G) on both sides.

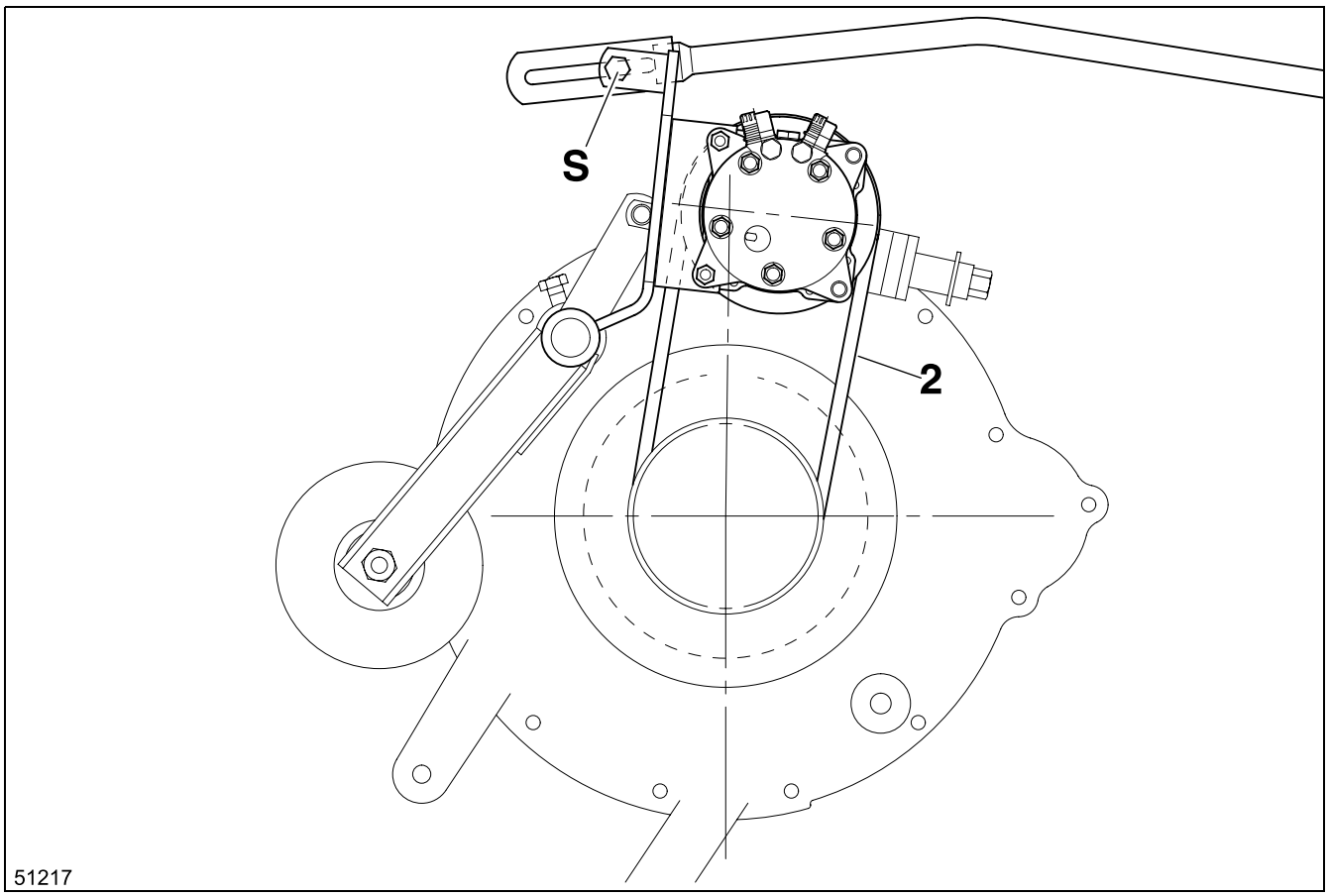
Slacken off the drive chain for the returns delivery auger by releasing block tensioner (S).

Tension returns elevator chain with nut (M) to such an extent as to prevent the paddles from scraping on the elevator housing.

It must be possible to push the conveyor chain to the side manually at the bottom chain wheel.

Retension the drive chain with block tensioner (S). Retighten clamping screws (G) and tightly close the door on the elevator boot again.

(Fig. 1, 3)



15

Removing the belt (2)
(up to serial no. ...)

Danger!

Carry out work on the front attachment and/ or on the machine only with the drive OFF and the diesel engine OFF.

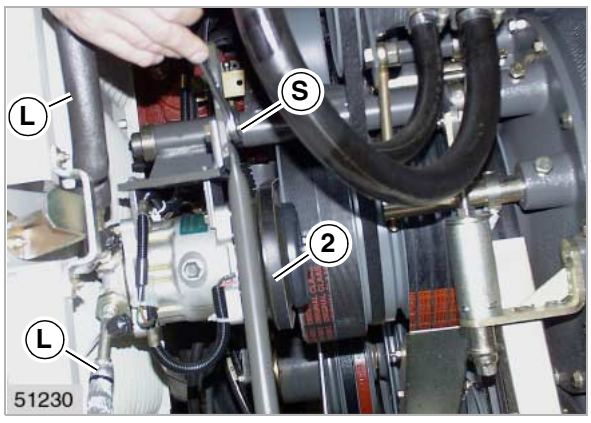
– Diesel engine OFF!
– Remove the ignition key!
– Remove the key of the battery isolating switch!

– Release the clamping screw (S).
– Push the compressor to the back and remove belt (2).

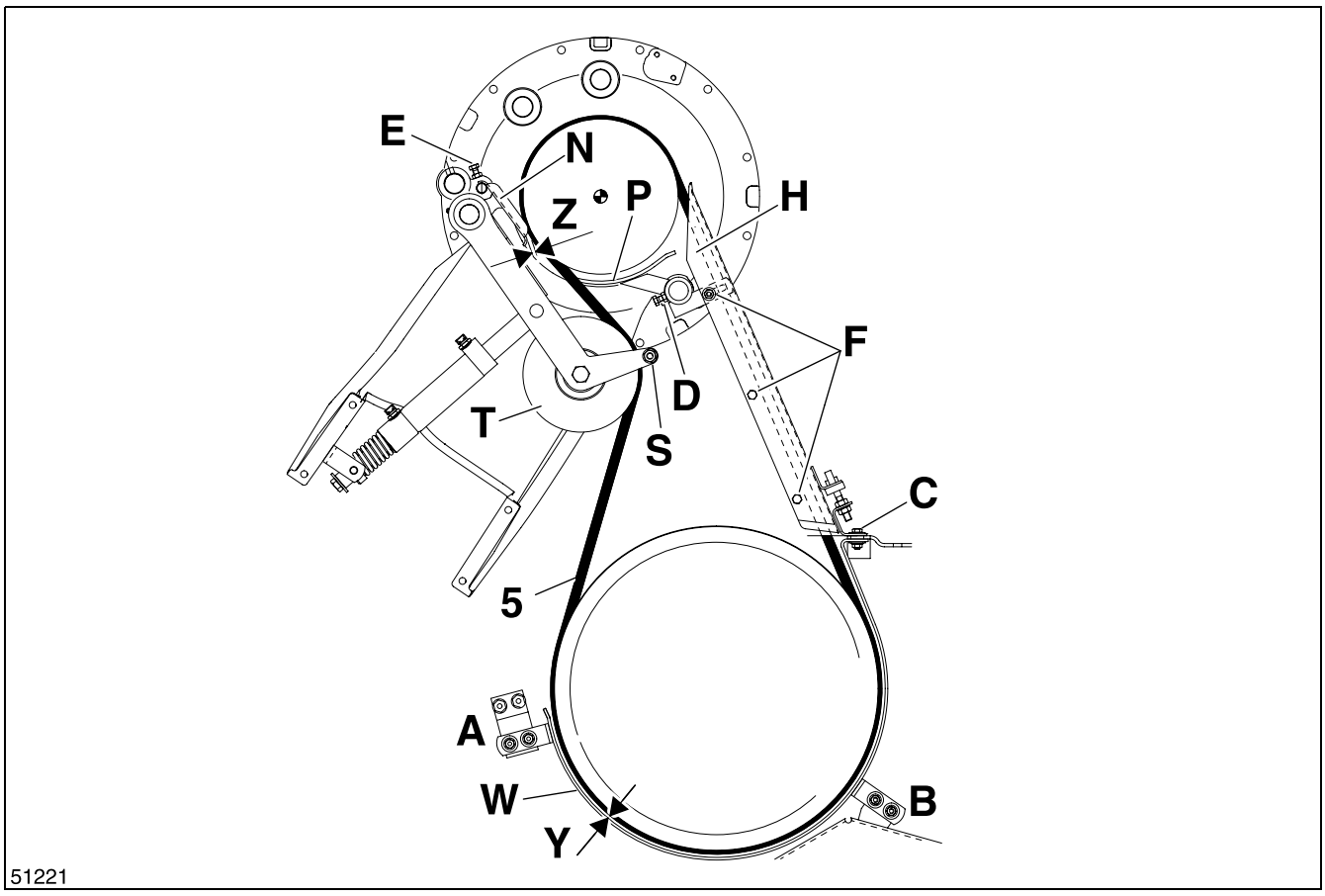
Important!

The hoses of the air conditioner (L) may not be kinked.

(Fig. 15, 16)



16



33

Removing the belt (5)

Danger!

Carry out work on the front attachment and/ or on the machine only with the drive OFF and the diesel engine OFF.

– Diesel engine OFF!

– Remove the ignition key!

– Remove the key of the battery isolating switch!

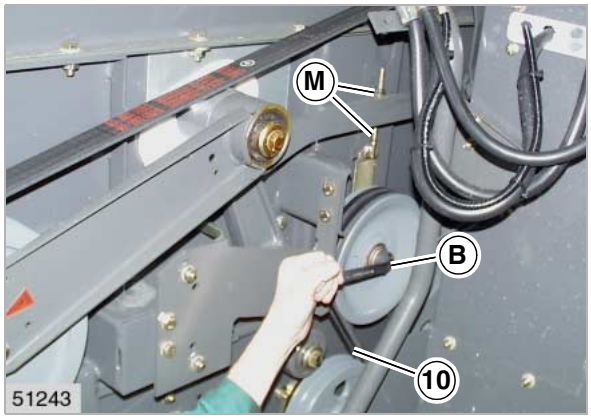
– Remove the belt (7) from the front V-belt pulley – see page 9.7.24, *Removing the belt (7)*.

– Remove the belt (1) from the rear V-belt pulley – see page 9.7.4, *Removing the belt (1)*.

– *Removing the belt (2) (up to serial no. ...)*, see page 9.7.9.

– *Removing the belt (3)*, see page 9.7.11.

– *Removing the belt (4) (up to serial no. ...)*, see page 9.7.14
or
Removing the belt (4) (from serial no. ...), see page 9.7.17.



49

50

Removing the belt (10)

Danger!

Carry out work on the front attachment and/or on the machine only with the drive OFF and the diesel engine OFF.

– Diesel engine OFF!

– Remove the ignition key!

– Remove the key of the battery isolating switch!

– Remove the belt (9) from the rear V-belt pulley – see page 9.7.27, *Removing the belt (9)*.

– *Removing the belt (11)*, see page 9.7.31.

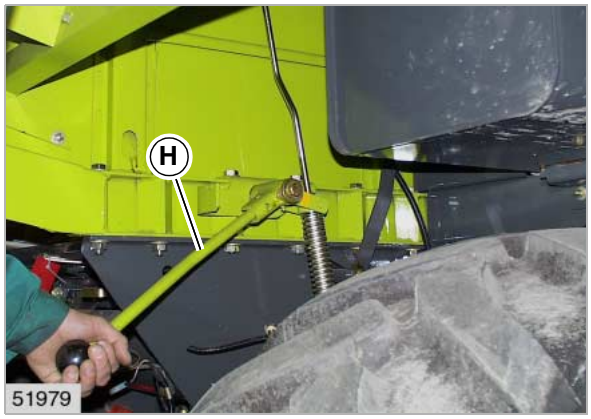
– Slacken off hex. nut at (B) from the jockey pulley.

– Slacken off hex. nuts (M).

– Unscrew control arm (C) and pull off using a puller if required.

– Remove belt (10).

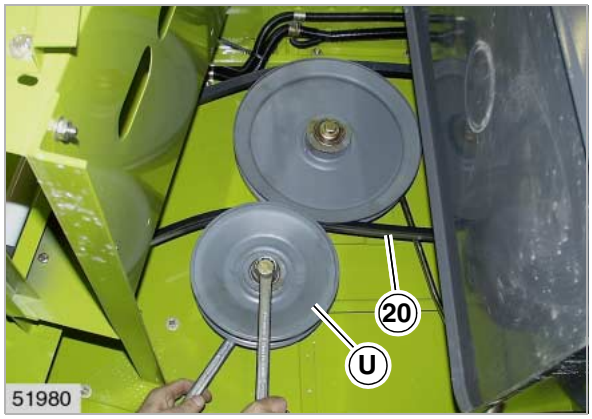
(Fig. 49, 50)



68

– Release the tension on belt (20) using lever (H).

(Fig. 67, 68)

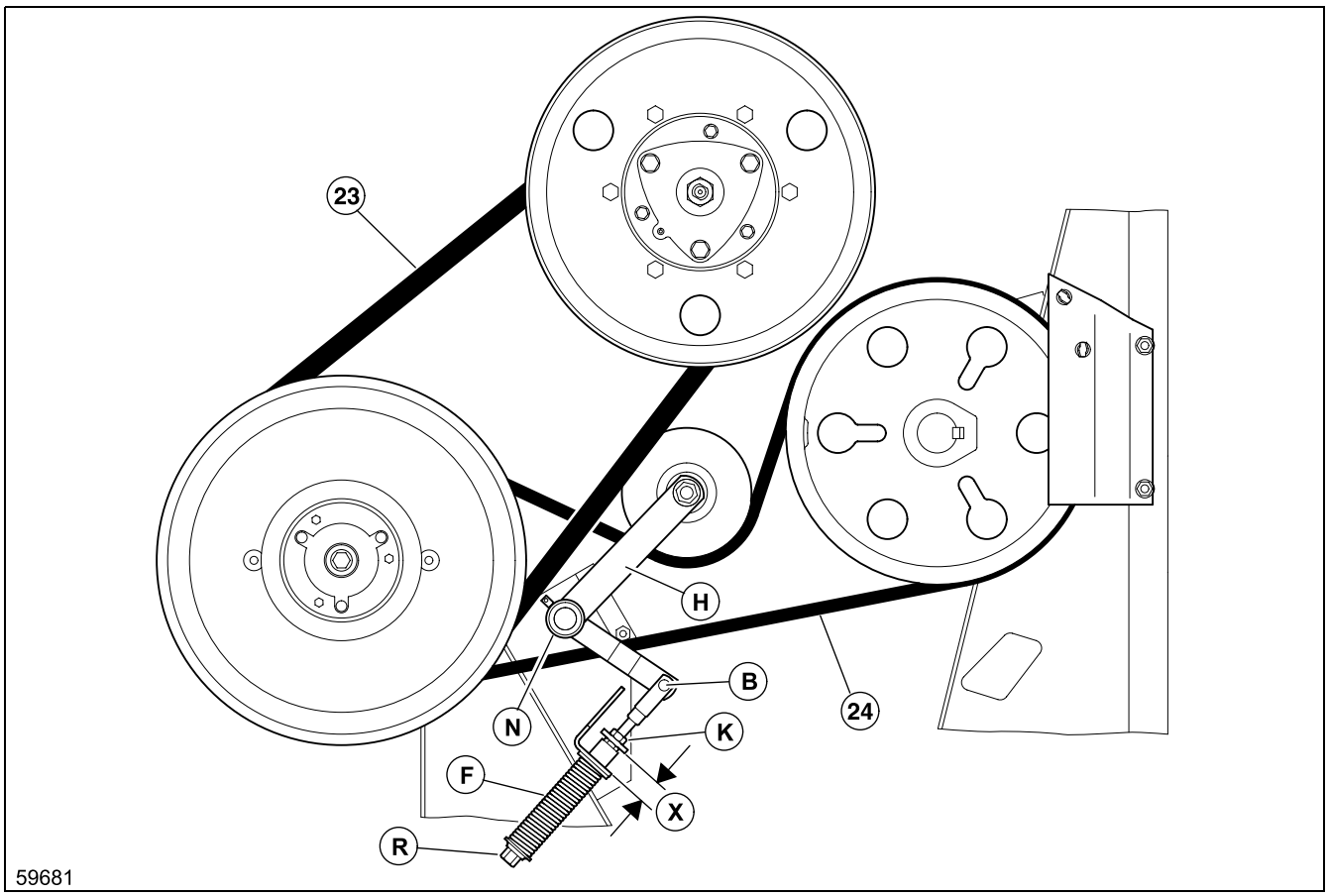


69

– Unscrew deflection pulley (U).

– Remove belt (20).

(Fig. 69)



89

Removing the belt (24)

(up to serial no. ...)

Danger!

Carry out work on the front attachment and/or on the machine only with the drive OFF and the diesel engine OFF.

– Diesel engine OFF!

– Remove the ignition key!

– Remove the key of the battery isolating switch!

– Secure the machine so it will not roll away.

– Jack up the machine at the front right.

– Remove the front right drive wheel.

– *Removing the belt (22)*, see page 9.7.44.

– *Removing the belt (21) (up to serial no. ...)*, see page 9.7.41
or
Removing the belt (21) (from serial no. ...), see page 9.7.42.

– *Removing the belt (23)*, see page 9.7.47.

Removing the belt (28)

Danger!

Carry out work on the front attachment and/ or on the machine only with the drive OFF and the diesel engine OFF.

– Diesel engine OFF!

– Remove the ignition key!

– Remove the key of the battery isolating switch!

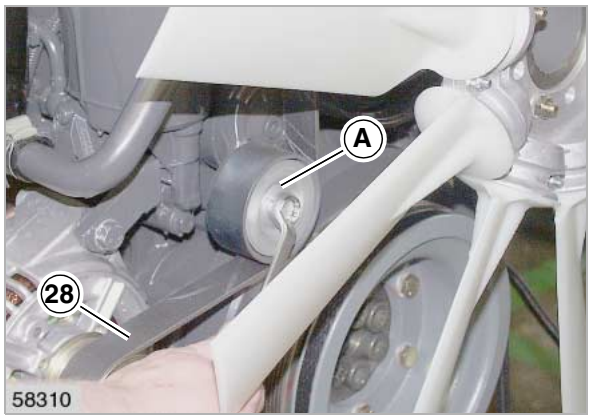
– *Removing the belt (27) (up to serial no. ...)*, see page 9.7.57.

– Press back the V-belt pulley tensioner (A) against the spring force and remove the belt (28) from the V-belt pulleys. Let V-belt pulley tensioner (A) come back slowly.

Danger!

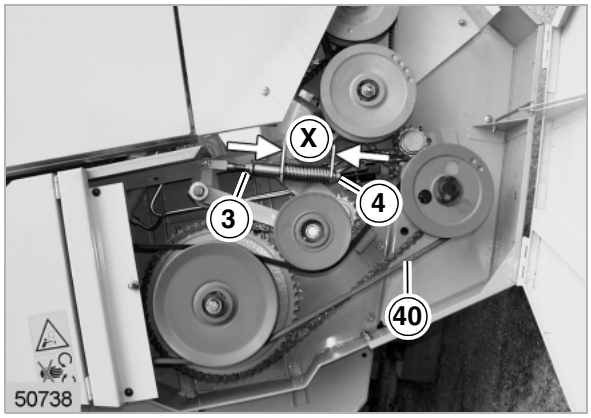
The V-belt pulley tensioner (A) is retained with a high spring force – **Risk of injury!**

(Fig. 115)



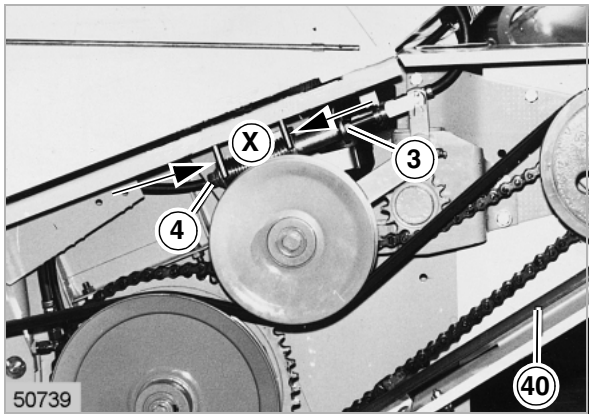
115

Cutterbar up to 5.10 m

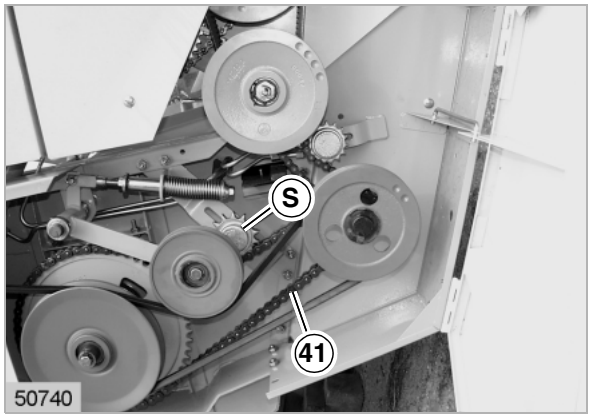


2

cutterbar 6.00 m and over



3



4

Tensioning the knife drive belt (40)

Adjusting the spring-loaded cylinder:

After slackening off the lock nut (3), adjust the spring guide tube (4) so that the spring length (X) is 100 mm with the lock nut tightened.

(Fig. 2, 3)

Tensioning the intake auger drive chain (41)

Loosen jockey sprocket (S) slightly.

Tension chain (41) by pressing jockey sprocket (S) down. Tighten the jockey sprocket.

Carry out a test run and check the chain tension again.

(Fig. 4)

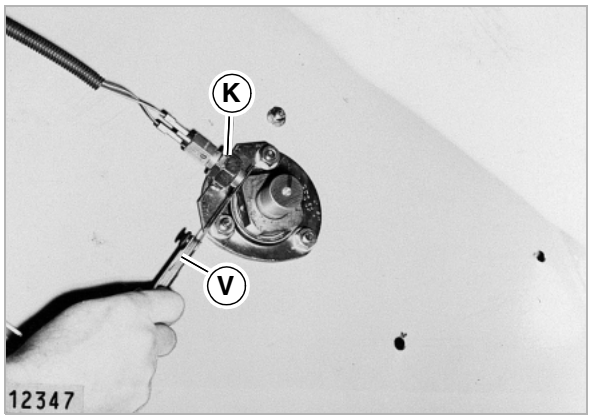
SPEEDS

Checking the speed of the straw walker shaft

The straw walkers must operate at the correct speed of 225 ± 5 rpm if an efficient performance of the combine is to be obtained.

Check the speed with a hand tachometer at the straw walker shaft. It is essential that this speed is maintained.

Check the speed with the combine in the no-load condition and with engine running at maximum speed.



1

Adjusting the magnetic pick-ups (sensors)

Use a valve gauge (V) and set all magnetic pick-ups to provide a clearance of 1 ± 0.5 mm. Then tighten the nuts (K) to lock the magnetic pick-ups to their brackets.

(Fig. 1)

Machines equipped with fieldwork computer

Adjust the magnetic pick-up which is located at the cleaning fan to provide a clearance of 0.2 ± 0.1 mm.

Adjust the magnetic pick-up for the threshing drum to provide a clearance of 2 ± 0.5 mm.

(Fig. 1)

MAINTENANCE SCHEDULES AND LUBRICANTS CHARTS

Maintenance schedule DAIMLER CHRYSLER OM 906 LA

Maintenance Operations	Service intervals									
	Before the harvest	Every day	After the first 10 working hours	After the first 100 working hours	Every 50 working hours	Every 100 working hours	Every 500 working hours	Annually = every 500 working hrs.	As required	After the harvest
FUEL SYSTEM										
– Clean filler neck filter									●	
– Drain condensed water									●	●
– Clean fuel prefilter								●	●	●
– Clean fuel prefilter / water separator								●	●	●
– Replace fuel filter elements								●	●	
– Bleed fuel system									●	
ENGINE OIL / OIL FILTERS (see also Lubricants Chart)										
– Check engine oil level		●								
– Change engine oil								●*		
– Replace oil filter								●*		
– Top up engine oil									●	
COOLING SYSTEM										
– Replace all coolant hoses	every 2 years									
– Replace coolant	every 2 years									
– Check coolant level / top up		●▲							●	
– Clean rotary chaff screen and radiator									●	
DRY-TYPE AIR CLEANER										
– Replace all non-metal parts of air intake system and charge air cooler	every 2 years									
– Retighten all securing clamps on the air intake hoses			●							
– Clean air intake screen									●	
– Clean main air filter cartridge	when warning device responds								●	
– Replace main air filter cartridge								●	●	
– Replace air filter safety cartridge (after servicing the main filter cartridge five times)	at least every 2 years									
V-BELTS / VALVES										
– Tension alternator drive belt	refer to engine manufacturer's operating manual									
– Have the valve timings on the engine adjusted	refer to engine manufacturer's operating manual									
BATTERY										
– Check voltage, recharge if necessary		●								
– Check electrolyte level and concentration, correct if necessary		●							●	

For further maintenance instructions please refer to operator's manual of the engine manufacturer

* See "Lubricants Chart" on next page

▲ up to serial no. ...

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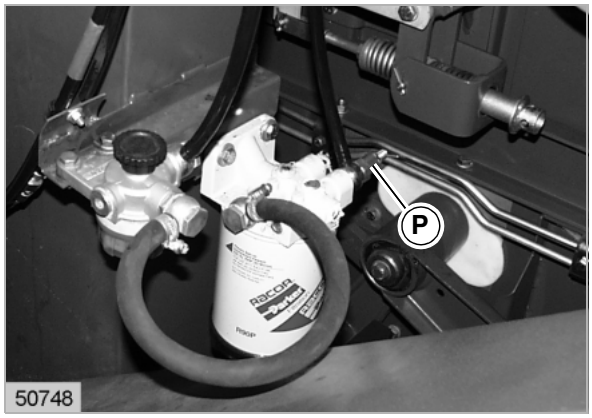

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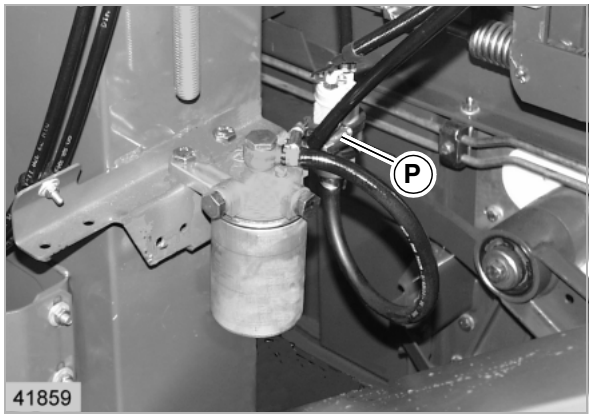

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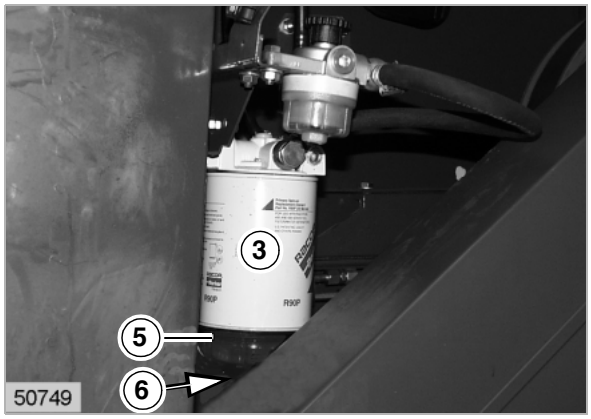
Fuel shut-off tap

Before opening the fuel pre-filter and / or the fuel lines, close the fuel tap (P) to prevent any further flow of fuel into the system.

Reopen the fuel shut-off tap (P) before starting the engine.

(Fig. 13, 14)

DAIMLER CHRYSLER OM 906 LA



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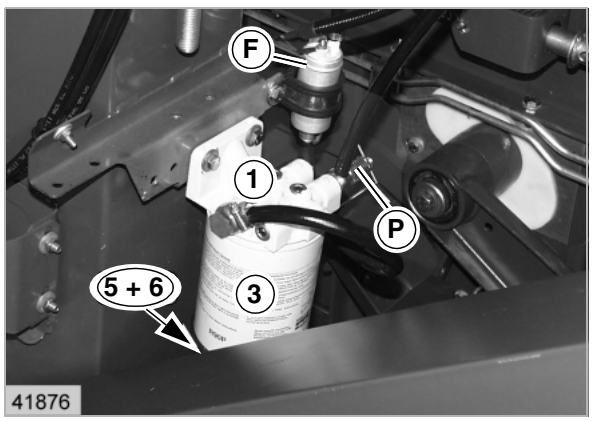

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Water separator / fuel prefilter

(accessory – small version)

The fuel pre-filter is accessible after opening the right-hand side panel.

Any water in the fuel collects in sight glass (5) which is below the filter.

As soon as the drain plug (6) has been slackened off, drain the accumulated amount of water and collect it in a container.

Dispose of the collected water and diesel fuel in an environmentally safe manner.

Close the fuel shut-off tap (P) before changing filter cartridge (3).

Replace the seal rings at every filter change.

Ensure that the seal ring (2) fits properly in place.

F = Electric fuel feed pump

(Fig. 15, 16, 17)

COOLING SYSTEM

Coolant

Caution!

The engine should only be run when protected with a corrosion and frost protection agent in the coolant. Failure to do so will result in damage.

Note!

For coolant specifications, refer to the operator's manual of the engine manufacturer.

Antifreeze is added to the engine coolant at the factory. Always check the coolant for sufficient antifreeze protection at the beginning of the cold season.

Renew all coolant hoses on the engine every 2 years.

Add sufficient antifreeze to the engine coolant at the beginning of the cold season.

Water drain plugs on the engine block

Refer to the operator's manual of the engine manufacturer.

Observe coolant type

Starting in January 2006, the cooling systems of new machines equipped with Daimler Chrysler or CATERPILLAR engines will consistently be filled with the corrosion prevention/antifreeze agent Havoline XLC only.

The corrosion prevention/antifreeze agent Havoline XLC complies with DC sheet 325.3 and CAT EC-1.

Identifying the coolant type

Danger!

Moving machine parts and / or unexpected machine movements.

Death or serious injuries.

Diesel engine OFF.

Engage the parking brake.

Remove the ignition key.

Remove the key of the battery isolating switch.

Cleaning the oil cooler

When carrying out the daily cleaning of the radiator (W), also check the oil cooler (O) for dirt and clean as necessary.

Blow out the oil cooler with compressed air (max. 5 bar). **Ensure** not to damage the fins.

(Fig. 11, 12, 13)

Cleaning the radiator

Blow out the radiator with compressed air (max. 5 bar) from the outside to the inside. **Ensure** not to damage the fins. Run the engine.

Then, **with the engine shut down** and, if possible, cold, clean the engine compartment by blowing out.

After completing maintenance work, lower the oil cooler and lock again.

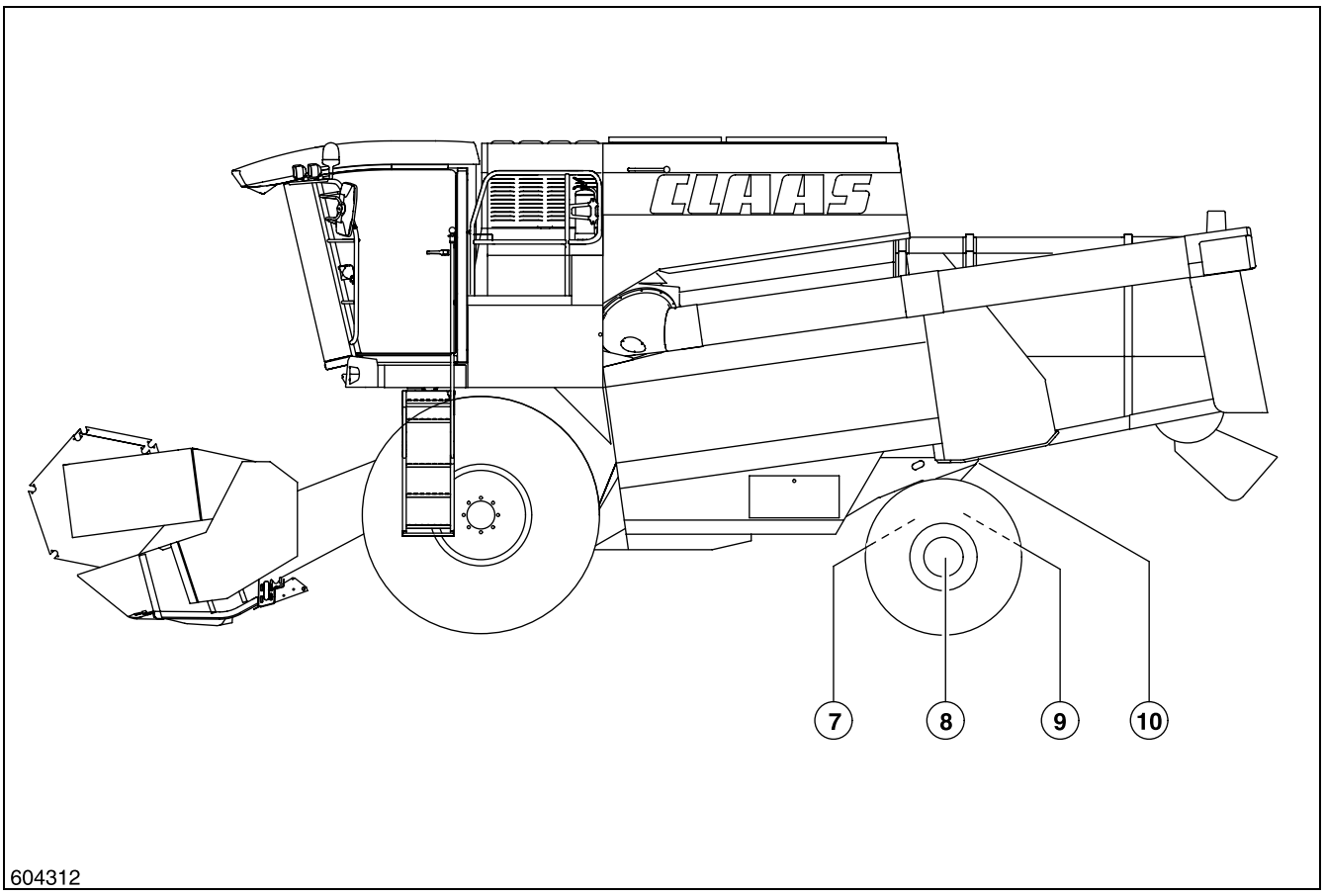
Closing the rotary chaff screen:

Raise the rotary chaff screen slightly to disengage the mechanical lock. Then lower the rotary chaff screen to the closed position.

Lock the rotary chaff screen. Installing and tensioning the V-belt (up to serial no. ...) Install and lock the sealing plate. Fit the suction hose and secure it.

ENGINE PROBLEMS, CAUSE AND / OR REMEDY

Engine problems	Possible cause or remedy
Red indicator light (battery charge) lights up with engine running	1. Retension alternator V-belt. 2. Check wiring connections. 3. Have alternator repaired. 4. Increase engine speed (if engine is running at slow idling speed).
Water temperature gauge does not function or jumps straight to maximum	1. Clean and tighten cable connections and check cable clips for tight fit. 2. Fuse F 19 or F 52 defective. Replace the corresponding fuse. 3. Replace temperature gauge sender.
Oil pressure lamp lights up and buzzer sounds	1. Determine cause for loss of oil pressure. 2. Fill up with engine oil. 3. If necessary, have the engine problem repaired.
Air-cleaner warning lamp lights up and the warning device responds	1. Check intake screen for dirt and clean if necessary. 2. Clean air filter main cartridge or replace if necessary. 3. Replace the safety cartridge.
Engine starts with difficulty	1. Loose battery terminal clamps. Tighten battery terminal clamps. 2. Have battery recharged. 3. Bleed the fuel system. 4. Clean fuel pre-filter. 5. Replace fuel filter. 6. Tighten screw fittings of fuel system.
Engine temperature too high Warning device responds	1. Check rotary chaff screen for dirt and clean if necessary. 2. Check radiator for dirt. 3. Check coolant level and top up if necessary. 4. Replace thermostat. 5. Replace coolant hoses. 6. Replace radiator cap with new cap.
Engine stops	1. Refuel. 2. Clean fuel pre-filter. 3. Check breather in fuel tank filler cap and clean if necessary. 4. Check screw fittings of fuel system and tighten if necessary.
	Refer also to the operator's manual of the engine manufacturer.



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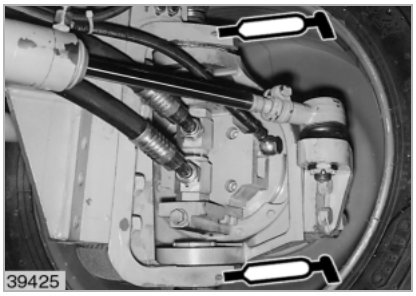
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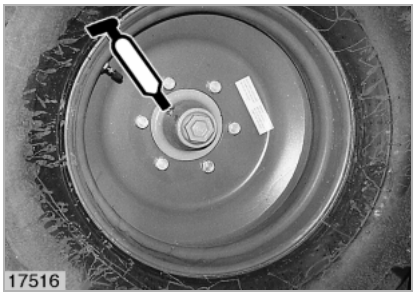
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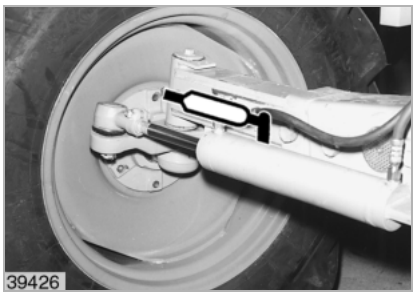
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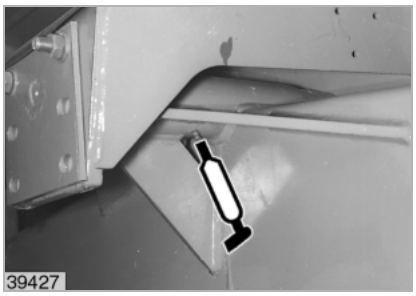
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