

Description

4 Description

Figures and descriptions may vary due to modifications in the construction that become possible and necessary to improve the loader and to develop it further technically. These modifications are summarised in section 13.

4.1 Overview

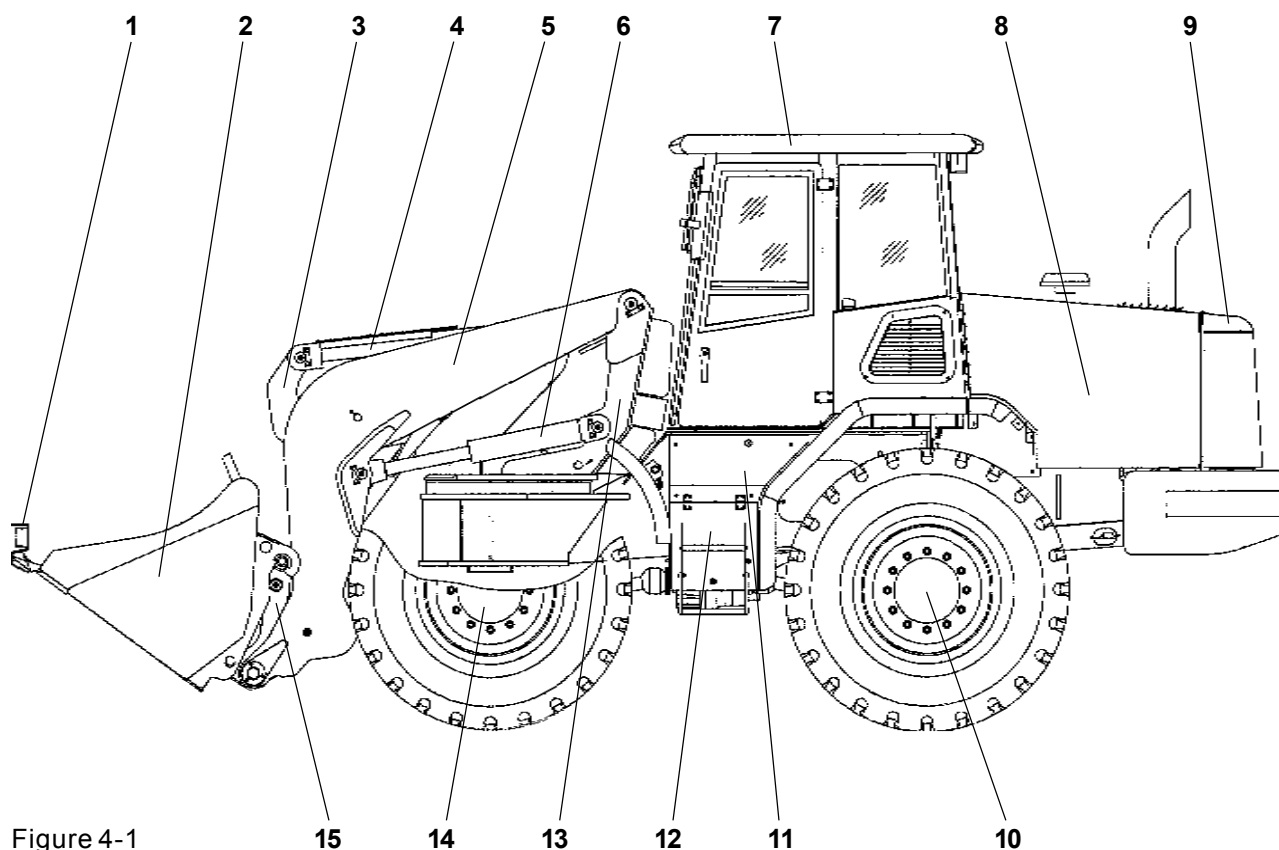


Figure 4-1

- 1 - Bucket protection
- 2 - Bucket/attachment
- 3 - Deflection lever
- 4 - Tip cylinder
- 5 - Bucket arm
- 6 - Lift cylinder
- 7 - Driver's cab
- 8 - Drive motor
- 9 - Hydraulic oil reservoir / filler neck
- 10 - Rear axle
- 11 - Battery compartment
- 12 - Tool box
- 13 - Revolving seat
- 14 - Front axle
- 15 - Quick-change device
- 16 - Fuel tank, right loader side (not shown)

4.2 Swivel unit and axle support

Two swivel cylinders are fed by a separate gear-type pump via a servo valve. The revolving seat is connected to the cylinders by a chain drive and is thus completely free of play. Swivelling can be carried out simultaneously with lifting of the bucket arm without mutual interference.

The bucket's swivelling radius is 90° to the right or to the left.

If the bucket is swivelled more than approx. 30°, the axle support system is automatically activated. The load-side support cylinder that affects the rear axle is subjected to hydraulic pressure by the force of the load via the support valve, counteracting the swivelled load.



NOTE

The axle support is deactivated when swivelling back.

4.3 Floating position

The loader is equipped with a floating position function that allows work such as levelling (grading) on uneven ground to be performed. To do this, move the hand lever for the working hydraulics (4-9/6) forwards beyond its pressure point.

The hand lever remains in this position until the bucket arm is to be raised again by moving the hand lever in the opposite direction.



DANGER

The floating position may only be activated when the bucket arm is in the lowermost position.

4.4 Bucket position indicator

The driver can read the position of the bucket using clip marks on the right tip cylinder. When the marks on the tip cylinder and the end of the control rod (4-2/arrow) form a line, the bucket floor is parallel to the ground.

4.5 Lifting device suspension (option)

When the loader must be driven over larger distances, especially with a loaded bucket, the lifting device suspension (4-12/10) should be activated to avoid resonant motion. This becomes even more important with increasing unevenness of the terrain and increasing speed of the loader.



CAUTION

- The lifting device suspension must only be used for driving over long distances, not for working with the loader.

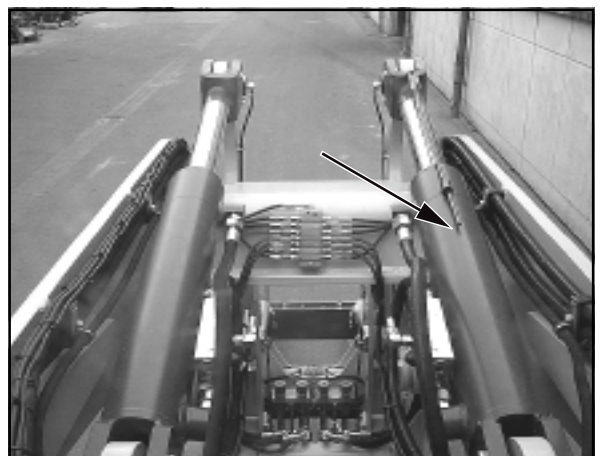


Figure 4-2



- Do not switch on the lifting suspension while the fork-lift or lifting hook attachment is fitted.
- The pipe break protection is disabled when the lifting suspension is switched on.

4.6 Fan reversal (option)

The loader is equipped with a fan reversal unit, permitting the radiator to be cleaned quickly and easily.

Depending on the degree of air pollution in the working area, the fan reversal unit should be activated regularly in intervals of 15 minutes (in extreme cases) to daily (in less serious cases).

To do this, press and hold the fan reversal button (4-12/12).



NOTE

Fan reversal can be activated both when the loader is at a standstill and when it is moving.

4.7 Wheel change



DANGER

Before changing a wheel on public roads, the danger area must be properly marked.

(1) Park the loader on a hard surface.

(2) Set the drive switch (4-9/5) to "0".

(3) Apply the parking brake (4-9/7).

(4) When changing a wheel on the front axle:

- Lift and mechanically prop up the bucket arm [e.g. by inserting the bucket arm support (option) (1-1/arrows)] and lower the bucket arm until it rests on the bucket arm support.
- Block the swivel unit. To do this, remove the blocking wedge (1-3/arrow) from the holder, insert it into the swivel block (1-4/arrow) and secure it with the spring locking lever.

(4) When changing a wheel on the rear axle:

Lower the attachment to the ground.

(5) Turn the ignition key (4-7/5) to the left to position "0".

(6) Secure the ball hand lever for the working and auxiliary hydraulics (1-2/arrow).

(7) Ensure that the loader does not roll away by securing it on one of the wheels of the axis in both driving directions. The wheel that does **not** have to be changed is to be secured.

(8) Loosen the wheel nuts of the wheel to be changed so that they can be turned manually.

(9) Fit a suitable jack (minimum capacity 6.0 tons) from the side under the axle bridge in the vicinity of the axle fixture so that it is centred and cannot slip (4-3). Lift the front/rear axle until the wheel does not have any contact to the ground.



DANGER

- Secure the jack by a suitable support to prevent it from sinking into the ground.
- Make sure that the jack is fitted correctly.



Figure 4-3

(10) Loosen the wheel nuts completely and remove them.

(11) Lower the loader slightly with the jack until the wheel bolts are free.

(12) Push the wheel from the wheel hub by moving it back and forth. Remove the wheel and roll it aside.

(13) Mount the new wheel onto the planetary axle.



NOTE

- Only the tyres that are listed in section 11.7 are permitted.
- Pay attention to the profile position.
- If the profile position of the spare tyre does not fit, the spare tyre may only be used temporarily until a suitable tyre can be fitted.
- All four tires must be the same size and have the same PR rating (PR = ply rating: number of textile plies). For the running direction, if it exists, see Fig. 4-4.

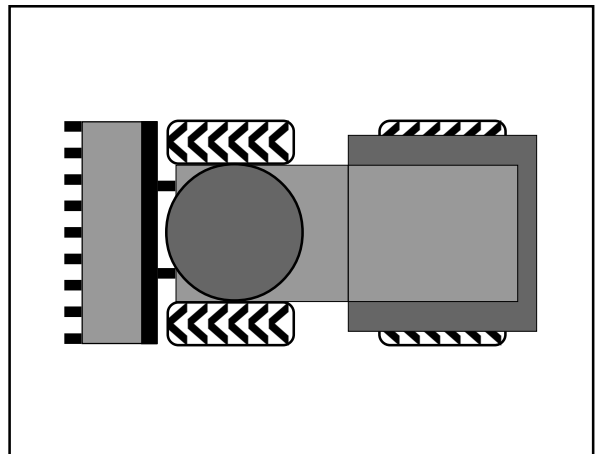


Figure 4-4

(14) Tighten the wheel nuts by hand.

(15) Lower the front/rear axle using the jack.

(16) Tighten the wheel nuts to 550 Nm with a torque wrench.



CAUTION

Retighten the wheel nuts after the first 8-10 operating hours.

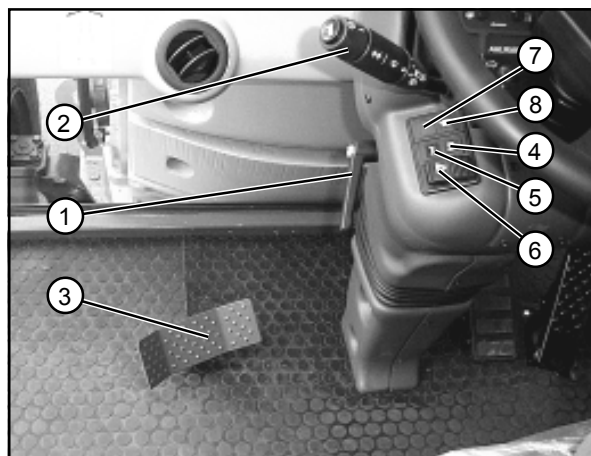


Figure 4-5

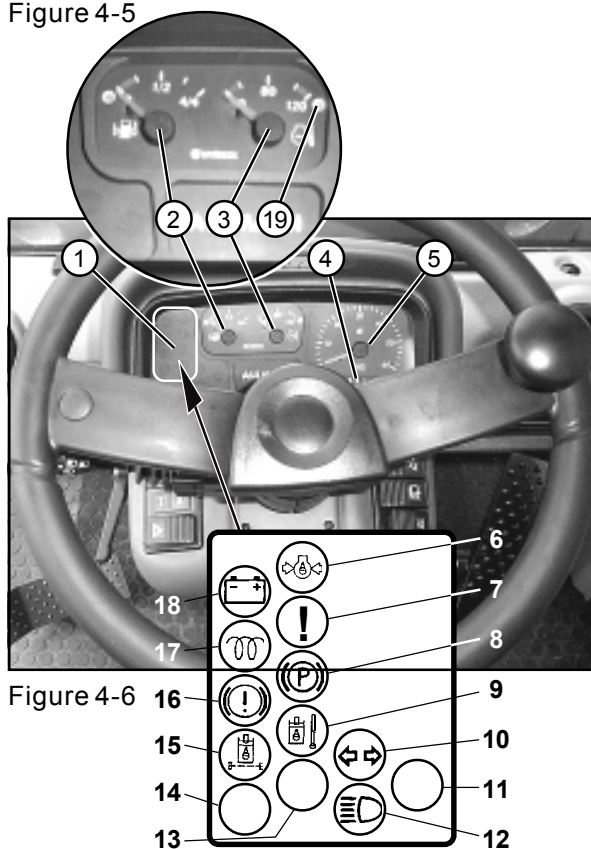


Figure 4-6



Figure 4-7

4.8 Controls

- 1 - Lock lever for steering column adjustment
 - to the front/rear
 - in axial steering column direction
- 2 - Steering column switch
 - to the front: turn signal, right
 - to the rear: turn signal, left
 - up: Dipped beam
 - down: High beam
 - Pushbutton: Signal horn
 - Turn, step 1: Interval windshield wiper, front
 - Turn, step 2: Windshield wiper, front
 - Push upper ring in axial direction: Windshield washer, front
- 3 - Swivelling pedal
- 4 - Indicator: 2nd gear
- 5 - Indicator: 1st gear
- 6 - Toggle switch for hazard flasher system
- 7 - free
- 8 - Indicator: hydraulic drive stage "slow"

- 1 - Indicator lamp assembly
- 2 - Fuel gauge
- 3 - Coolant temperature gauge
- 4 - Operating hours meter
- 5 - Tachometer
- 6 - Engine oil pressure indicator lamp
- 7 - free
- 8 - Parking brake indicator lamp
- 9 - Hydraulic oil temperature indicator lamp
- 10 - Turn signal indicator lamp
- 11 - free
- 12 - High beam indicator lamp
- 13 - free
- 14 - free
- 15 - Hydraulic oil filter clogging indicator
- 16 - Service brake failure indicator lamp and warning buzzer
- 17 - Glow start system (option)
- 18 - Battery charge indicator lamp
- 19 - Indicator lamp for low cooling water/coolant temperature

- 1 - Pushbutton for releasing the quick-change device (for loaders with bolt lock together with the lower button 4-9/3 = **standard equipment**)
- 2 - Toggle switch for rear wiper/washer
- 3 - Accelerator
- 4 - Service brake pedal
- 5 - Starter switch
- 6 - Toggle switch for driving lights
 - Position I: Parking light
 - Position II: Road light

- 1 - Air outlet nozzle (heater)
- 2 - Ball block valve for working and auxiliary hydraulics
- 3 - Switching lever for steering
 - to the left four-wheel steering
 - to the right: rear-axle steering
- 4 - Suction flap for recirculation mode (air-conditioning system – option)
- 5 - First-aid kit

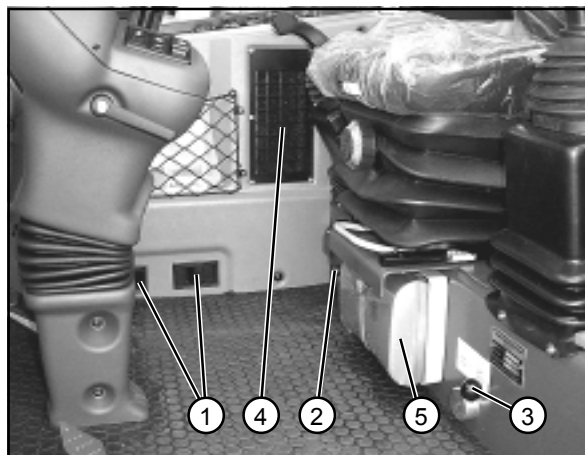


Figure 4-8

- 1 - Gear shifts:
 - left: 2nd gear shift:
 - centre: 1st gear shift:
 - right: Alpha max.
- 2 - Two pushbuttons for differential lock, wired in series
 - Pushbuttons pressed: Differential lock enabled
 - Pushbuttons not pressed: Differential lock disabled
- 3 - Actuator for auxiliary hydraulics:
 - (for loaders with bolt lock = **standard equipment**)
 - upper pushbutton: - Lock attachment
 - Close multipurpose bucket
 - bottom pushbutton: - Unlock attachment (only in conjunction with 4-7/1)
 - Open multipurpose bucket
- 3 - Actuator for auxiliary hydraulics:
 - (for loaders with claw lock = **optional equipment**)
 - upper pushbutton: - Close multipurpose bucket
 - bottom pushbutton: - Open multipurpose bucket
- 4 - Lever for console adjustment
- 5 - Drive switch: forward/0/reverse
- 6 - Pilot valve for working hydraulics
- 7 - Hand lever for parking brake

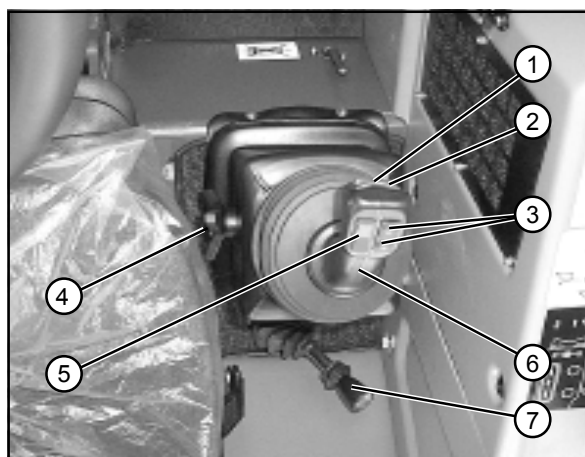


Figure 4-9

- 1 - Latch for front side window
- 2 - Cigarette lighter
- 3 - Ash tray
- 4 - Heater/ventilation/air-conditioning system (option)

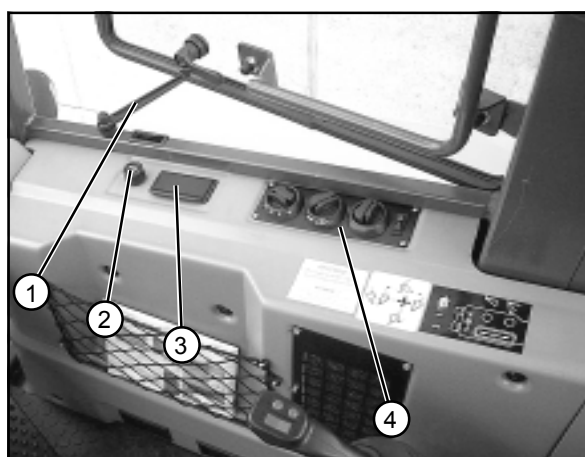


Figure 4-10



Figure 4-11

Pilot valve for auxiliary hydraulics (2nd auxiliary hydraulic circuit) » Optional equipment «

i NOTE

If the loader has a 2nd auxiliary hydraulic circuit, the two buttons (4-9/3) have no function or are missing.

The working movements of the two buttons (4-9/3) (e.g. opening/closing the multi-purpose bucket – the lock/unlock attachment working functions in the case of loaders with bolt locks) are then carried out using the pilot valve for auxiliary hydraulics (4-11/arrow).

Loaders with bolt locks:

- Hand lever forward: Lock attachment
Close multipurpose bucket
- Hand lever to the rear: Unlock attachment » only in conjunction with 4-7/1 «
Open the multipurpose bucket.

Loaders with claw locks:

- Hand lever forward: Close multipurpose bucket
- Hand lever to the rear: Open the multipurpose bucket.

Operator's cabin up right (4-12):

- 1 to 6 not used
- 7 - Rocker switch for working floodlights
 - step 1: front
 - step 2: front and rear
- 8 - Rocker switch for heated rear screen
- 9 - Rocker switch for 360° light (opt.)
- 10 - Rocker switch for bucket cushioning (opt.)
- 11 - not used
- 12 - Push-button for fan reversal (opt.)
- 13 - not used

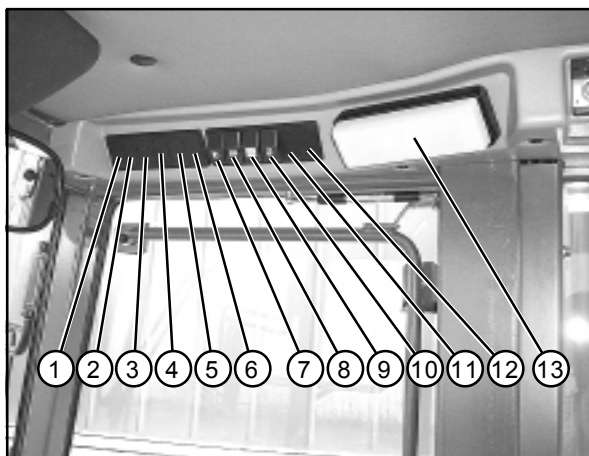


Figure 4-12

4.9 Fuses

i NOTE

Fuses, relays, the turn signal relay, the interval timer, etc. are located at the right behind the driver's seat (4-13). To access them, push the seat to its frontmost position, tilt the backrest forward and remove the cover.

Fuse strip A:

- | | |
|------------------------|--------|
| 1 - Hydraulics | 10.0 A |
| 2 - Heater | 20.0 A |
| 3 - free | |
| 4 - Motor stopper | 5.0 A |
| 5 - Oil cooler | 5.0 A |
| 6 - Brake lights | 5.0 A |
| 7 - Rear window heater | 15.0 A |
| 8 - Traction drive | 7.5 A |

Fuse strip B:

- | | |
|--------------------------------|--------|
| 1 - Turn indicator | 7.5 A |
| 2 - Windshield wiper/washer | 15.0 A |
| 3 - free | |
| 4 - Traction drive electronics | 3.0 A |
| 5 - Parking light, left | 5.0 A |
| 6 - Parking light, right | 5.0 A |
| 7 - Diode light | |
| 8 - Diode light | |

Fuse strip C:

- | | |
|---|--------|
| 1 - Hazard flasher | 7.5 A |
| 2 - Warning beacon (opt.), headlamp flasher | 15.0 A |
| 3 - 2-pole socket | 10.0 A |
| 4 - Cigarette lighter | 20.0 A |
| 5 - Interior lighting | 5.0 A |
| 6 - Working lights | 30.0 A |
| 7 - Dipped beam | 7.5 A |
| 8 - High beam | 7.5 A |

opt. = optional equipment

Fuses air-conditioning system (4-13/arrows) 3 x 20 A

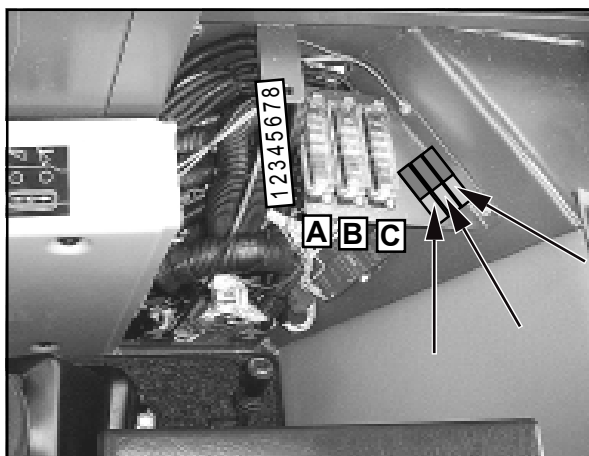


Figure 4-13