Maintenance

8 Maintenance (Maintenance Plan AS 150 Type 40 km/h)

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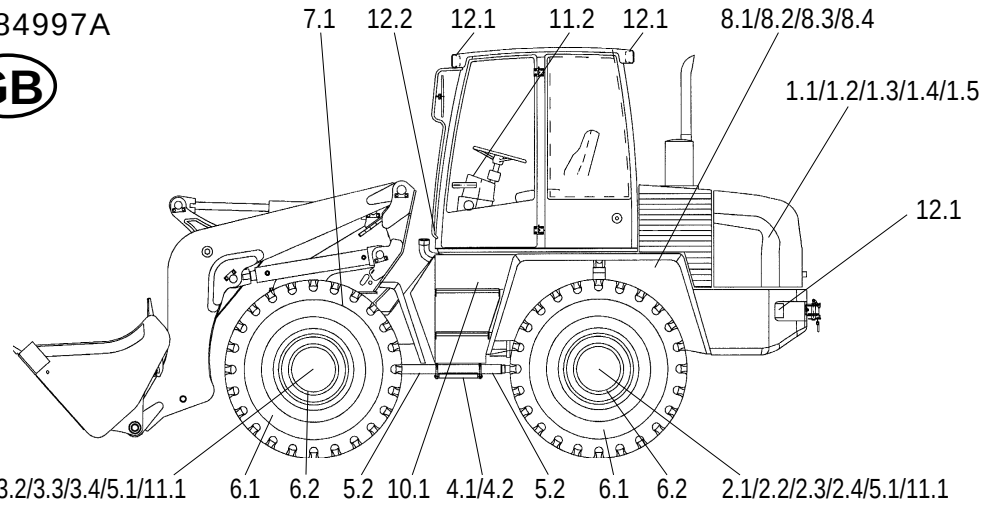

	Item	Name	Specification	Viscosity	Quantity
*	1	Engine Oil	MIL-L-2104C = API-CD	SAE 15 W 40	= 10 l with Oil filter
*	2.2	Transm. Oil with LS Add.	MIL-L-2105B = API-GL5-6-LS	SAE 85 W 90-LS	= 12,8 l
*	2.4	Transm. Oil with LS Add.	MIL-L-2105B = API-GL5-6-LS	SAE 85 W 90-LS	= 2 x 1,9 l
*	3.2	Transm. Oil with LS Add.	MIL-L-2105B = API-GL5-6-LS	SAE 85 W 90-LS	= 15,0 l
*	3.4	Transm. Oil with LS Add.	MIL-L-2105B = API-GL5-6-LS	SAE 85 W 90-LS	= 2 x 1,9 l
*	4.2	Transmission Oil	General Motors ATF Typ DEXRON II	ATF 22 SAE 75 W	= 6,0 l
*	8.3	Hydraulic Oil (4.)	DIN 51524 - HVLP 46	ISO VG 46, VI > 180	= 160 l
	9	Grease	DIN 51825 - KPF 1/2 N-20		as required
	10	Distilled water			as required
	12	Coolant	R 134 a		850 g ± 50 g

Legend

△ First oil or filter change

▲ First service interval, repair any failures noted

○ Service, repair any failures noted

◇ Change

* these marks, filling or service points are mandatory:

Refer to manual

STOP **Attention**
Observe accident prevention measures when performing servicing tasks!

Lubrication Points (marked in red)

1. Grease bolts with DIN 51825 - KPF 1/2 N-20 every 10 hours.
2. Grease friction points as required and after cleaning with DIN 51825 - KPF 1/2 N-20.

Oil Lubrication Points

3. Oil joints and bell cranks every 50 working hours with engine oil MIL-L-2104 C

Biodegradable Hydraulic Oil

4. Synthetic ester based hydraulic oil viscosity class ISO VG 46 VI > 180

Intervals in working hours — max. permissible intervals, can be shorter dep. on use

10	100	500	750	1500	Pos.	Maintenance Points
					1	**Engine**
○	△	◇			1.1	Maintenance according to manufacturers specs
	○				1.2	Dry air filter unit: Check service display Change filter element if display shows red
		○			1.3	Check and clean fuel filter →
○					1.4	Check coolant fill-level
○					1.5	Check and clean combined cooling unit
					2	**Rear axle**
	○				2.1	Check oil fill-level of transmission unit (inspection screw)
	△		◇		2.2	Oil change transmission unit →
	○				2.3	Check oil fill-level of helical planetary gearing (inspection screw)
	△		◇		2.4	Oil change helical planetary gearing →
					3	**Front axle**
	○				3.1	Check oil fill-level of transmission unit (inspection screw)
	△		◇		3.2	Oil change transmission unit →
	○				3.3	Check oil fill-level of helical planetary gearing (inspection screw)
	△		◇		3.4	Oil change helical planetary gearing →
					4	**Transfer Case**
	○				4.1	Check oil fill-level of transfer case (inspection screw)
	△			◇	4.2	Oil change transfer case →
				◇	4.3	Change transfer case oil filter insert (fine filter) →
	△			◇	4.4	Clean transfer case suction filter (pre-filter) →
					5	**Axles / Articulated Shafts**
▲		○			5.1	Check tightness of axles (500 Nm)
	▲	○			5.2	Check tightness of articulated shafts (65 Nm)
					6	**Wheels and Tyres**
	○				6.1	Check air pressure
▲		○			6.2	Check tightness of wheel bolts (600 Nm)
					7	**Swivel Joint**
	▲	○			7.1	Check tightness (610 Nm)
					8	**Hydraulic Unit**
	△		◇		8.1	Change suction return line filter insert, check electr. display →
○					8.2	Check oil fill-level (inspection glass)
				◇	8.3	Oil change →
○					8.4	Check and clean hydraulic oil cooler
					9	**Greasing points (marked in red)** →
					10	**Battery**
		○			10.1	Visual check
					11	**Brakes**
					11.1	Perform visual and functional check of brakes and parking brakes before starting work
○					11.2	Check accumulator valve
					12	**Lighting unit / Air filter / Air conditioning unit**
					12.1	Perform functional check before starting work
		○		◇	12.2	Check air filter
	○				12.3	Check condensator for contamination
	○				12.4	Check tension of compressor drive belt

8 Maintenance (Maintenance Plan AS 150 Type 20 km/h und 25 km/h)

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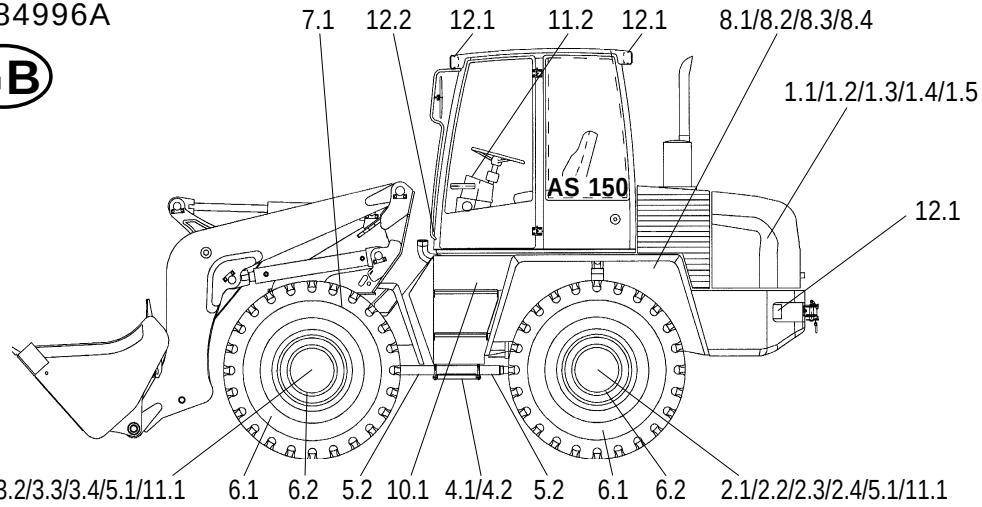

	Item	Name	Specification	Viscosity	Quantity
*	1	Motor Oil	MIL-L-2104 C = API-CD	SAE 15 W 40	= 10 l with Oil filter
*	22	Transm. Oil with LS Add.	MIL-L-2105 B = API-GL5-6-LS	SAE 85 W 90-LS	= 12,8 l
*	24	Transm. Oil with LS Add.	MIL-L-2105 B = API-GL5-6-LS	SAE 85 W 90-LS	= 2 x 1,9 l
*	32	Transm. Oil with LS Add.	MIL-L-2105 B = API-GL5-6-LS	SAE 85 W 90-LS	= 15,0 l
*	34	Transm. Oil with LS Add.	MIL-L-2105 B = API-GL5-6-LS	SAE 85 W 90-LS	= 2 x 1,9 l
*	42	Transm. Oil	MIL-L-2105 D = API-GL5-6	SAE 85 W 90	= 3,2 l
*	83	Hydraulic Oil (4.)	DIN 51524 - HVLP 46	ISO VG 46, VI > 180	= 160 l
	9	Lubricant	DIN 51825 - KPF 1/2 N-20		as required
	10	Distilled Water			as required
	12	Coolant	R 134 a		850 g ± 50 g

Legend

△ First oil or filter change

▲ First service interval, repair any failures noted

○ Service, repair any failures noted

◇ Change

* these marks, filling or service points are mandatory:

Refer to manual

Attention
Observe accident prevention measures when performing servicing tasks!

Lubrication Points (marked in red)

1. Grease bolts with DIN 51825 - KPF 1/2 N-20 every 10 hours.
2. Grease firction points as required and after cleaning with DIN 51825 - KPF 1/2 N-20.

Oil Lubrication Points

3. Oil joints and bell cranks every 50 working hours with engine oil MIL-L-2104 C .

Biodegradable Hydraulic Oil

4. Synthetic ester based hydraulic oil viscosity class ISO VG 46 VI > 180

Intervals in working hours — max. permissible intervals, can be shorter dep. on use

10	100	500	750	1500	Pos.	Maintenance Points
					1	**Motor**
○	△	◇			1.1	Maintenance according to manufacturers specs
	○				1.2	Dry air filter unit: Check service display
						Change filter element if display shows red →
		○			1.3	Check and clean fuel filter
○					1.4	Check coolant fill-level
○					1.5	Check and clean combined cooling unit
					2	**Rear axle**
	○				2.1	Check oil fill-level of transmission unit (inspection screw)
	△		◇		2.2	Oil change transmission unit →
	○				2.3	Check oil fill-level of helical planetary gearing (inspection screw)
	△		◇		2.4	Oil change helical planetary gearing →
					3	**Front axle**
	○				3.1	Check oil fill-level of transmission unit (inspection screw)
	△		◇		3.2	Oil change transmission unit →
	○				3.3	Check oil fill-level of helical planetary gearing (inspection screw)
	△		◇		3.4	Oil change helical planetary gearing →
					4	**Transfer Case**
	○				4.1	Check oil fill-level of transfer case (inspection screw)
	△			◇	4.2	Oil change transfer case →
					5	**Axles / Articulated Shafts**
▲		○			5.1	Check tightness of axles (500 Nm)
	▲	○			5.2	Check tightness of articulated shafts (65 Nm)
					6	**Wheels and Tyres**
	○				6.1	Check air pressure
▲		○			6.2	Check tightness of wheel bolts (600 Nm)
					7	**Swivel Joint**
	▲	○			7.1	Check tightness (610 Nm)
					8	**Hydraulic Unit**
	△		◇		8.1	Change suction return line filter media, check electr. display →
○					8.2	Check oil fill-level (inspection glass)
				◇	8.3	Oil change →
○					8.4	Check and clean hydraulic oil cooler
					9	**Greasing points (marked in red)** →
					10	**Battery**
		○			10.1	Visual check
					11	**Brakes**
					11.1	Perform visual and functional check of brakes and parking brakes before starting work
○					11.2	Check accumulator valve
					12	**Lighting unit / Air filter / Air conditioning unit**
		○			12.1	Perform functional check before starting work
		○		◇	12.2	Check air filter
	○				12.3	Check condensator for contamination
	○				12.4	Check tension of compressor drive belt

8 Maintenance

Constructional and design enhancements are important for the technical development of this equipment and may lead to deviations between figures and content in this manual. These changes are summarized in Chapter 13. Please refer to Chapter 13 for details.n.

8.1 Maintenance Notes

DANGER

- Ensure that the engine has stopped.
- When working under the loader arm,
  - unload the bucket and/or support the attachment,
  - the bucket arm must be mechanically propped up [e.g. by inserting the bucket arm support (option) (1-1/arrow)],
  - close the stop valves for main (1-2/1) and auxiliary hydraulics (1-2/2),
  - block the swivel assembly(1-4/arrow).
- Ensure that the vehicle cannot roll away by applying the parking brake (4-7/4) and placing the travel direction selector (4-7/3) in neutral (position "0"). Additionally chock both wheels on the front axle.

ATTENTION

- Ensure that units are warm, but not hot, before carry out oil changes.
- Perform maintenance work when the vehicle is on level ground and the loader arm has been grounded.
- Immediately replace damaged filter media and gaskets.
- Clean pressure lubrication fittings before lubri cating.

NOTE

- Refer to the maintenance schedule (on pages 8-1 and 8-2) for a list of maintenance tasks.
- Damage that occurs due to failure to comply with the maintenance plan is not covered by warranty.
- The materials mentioned in the maintenance plan are designed for use in ambient temperatures between **-15°C** and **+40°C**.

ATTENTION

In case of ambient temperatures below -15° C refer to the description of winter operations in section 5.2.2.

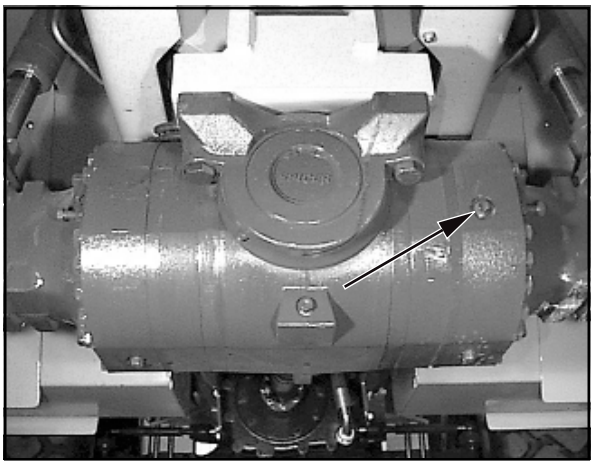

Fig. 8-1

8.2 Maintenance Tasks

8.2.1 Check engine oil fill-level

See the operating manual for the engine.

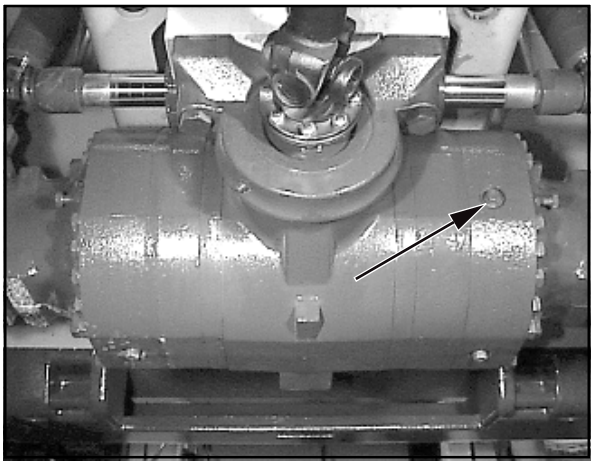

Fig. 8-2

8.2.2 Check axle oil fill-level

8.2.2.1 Rear axle

(1) Remove the plugs from the axle arches (8-1/arrow) and/or (8-2/arrow).

NOTE

- The oil level must reach the plug bore.
- Collect any escaping oil.

(2) Replace the plugs.

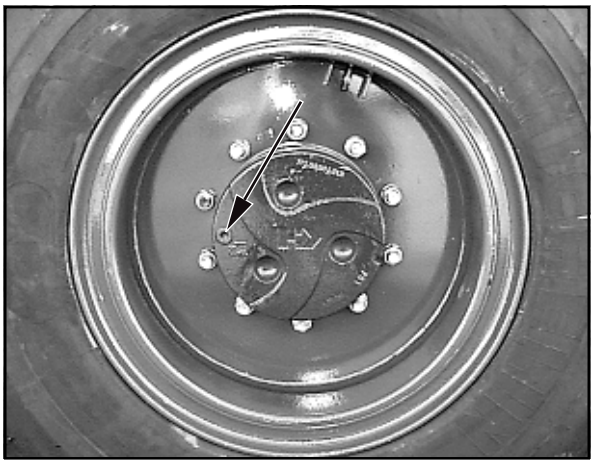

Fig. 8-3

8.2.2.2 Planetary Gear

(1) Move the loader until the "OIL LEVEL" mark is horizontal and the plug is located at the top right of the mark (8-3/arrow).

(2) Remove the plug.

NOTE

- The oil level must reach the plug bore.
- Collect any escaping oil.

(3) Fit a new gasket and re-insert the plug.

8.2.2.3 Front axle

(1) Remove the plugs from the axle arches (8-4/arrow) and/or (8-5/arrow).

NOTE
- The oil level must reach the plug bore.
- Collect any escaping oil.

(2) Re-insert the plug.

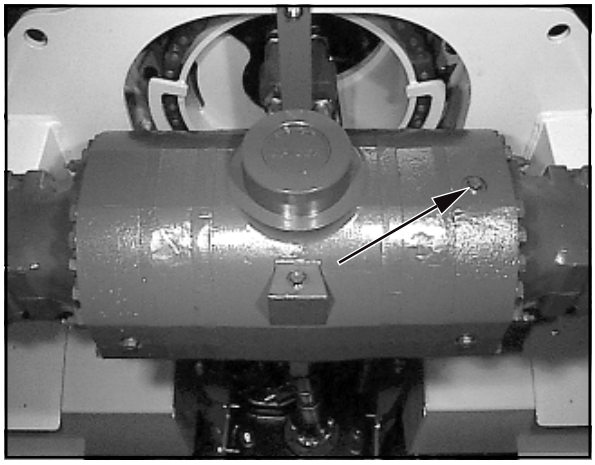

Fig. 8-4

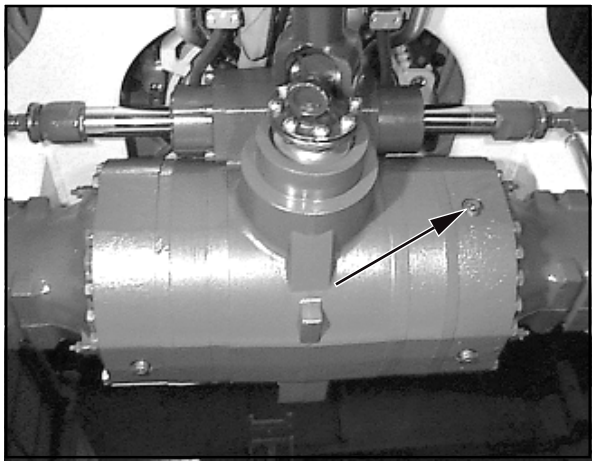

Fig. 8-5

8.2.3 Check oil fill-level transfer gearbox » Slow-runner 20 km/h and 25 km/h «

(1) Remove plug (8-6/arrow).

NOTE
- The oil level must reach the plug bore.
- Collect any escaping oil.

(2) Re-insert plug.

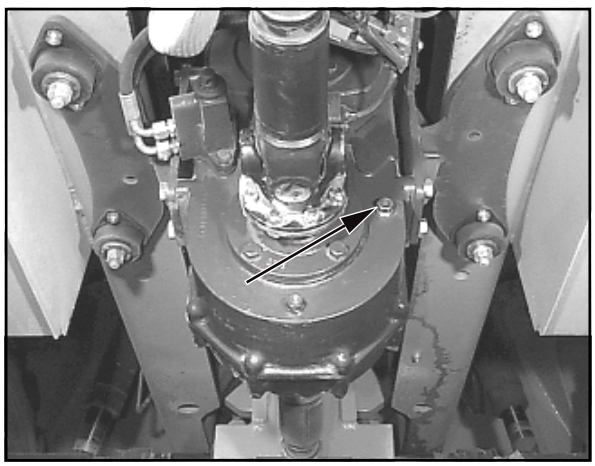

Fig. 8-6

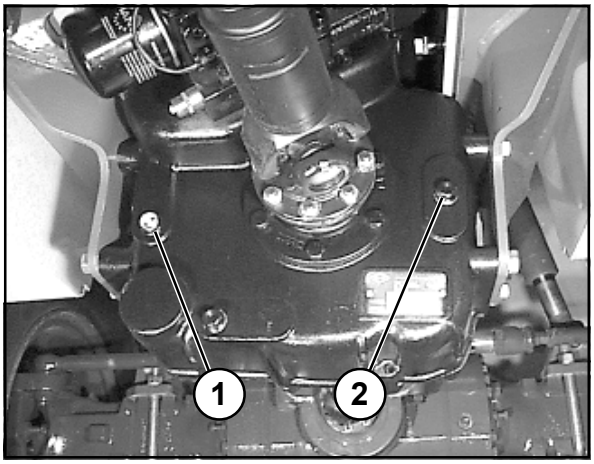

Fig. 8-7

8.2.4 Check oil fill-level transfer gearbox » Fast-runner 40 km/h «

(1) Check oil-level in inspection glass (8-7/1).

NOTE

- The oil level must be visible in the upper quarter of the inspection glass. If required use the plug bore to top up with transmission oil (8-7/2).
- Collect any escaping oil.

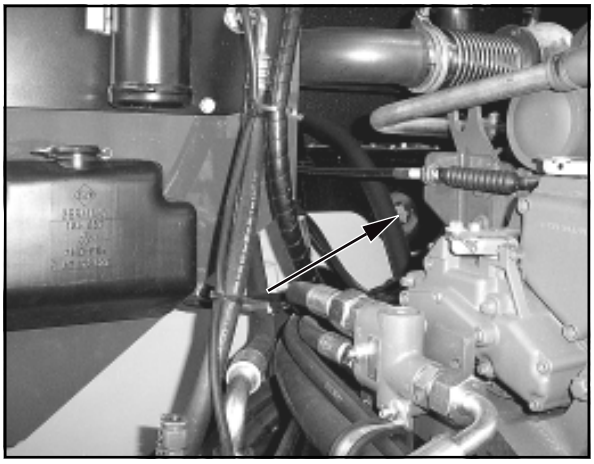

Fig. 8-8

8.2.5 Check oil fill-level in hydraulic oil reservoir

(1) Park the vehicle on level ground.

(2) Lower the loader arm to the ground.

(3) Tilt the quick coupler assembly and use the auxiliary hydraulics lever (4-6/5) to retract the locking bolts.

(4) Open the engine hood.

(5) Check the oil level in the inspection glass (8-8/arrow).

NOTE

- The oil level must be visible in the upper quarter of the inspection glass. If required use the plug bore to top up with transmission oil (8-7/2).
- Collect any escaping oil.

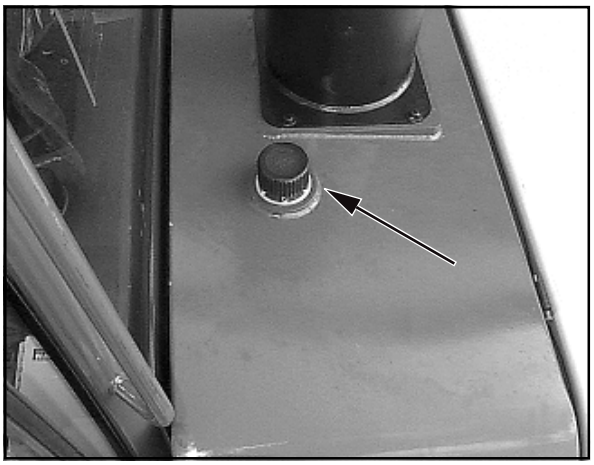

Fig. 8-9

8.2.6 Change the engine oil

(1) Remove the inspection plate from the engine trough (8-10/Pfeil).

(2) Place a sufficiently large oil spill tray under the motor oil sump.

(3) Open the engine hood.

(4) Remove the inspection plate for the engine oil drain plug.

(5) Attach the drainage nozzle with hose from the tool case (4-1/13) to the oil drain plug.

(6) Remove the cover cap from the hose.

(7) For further instructions see the engine operating manual.

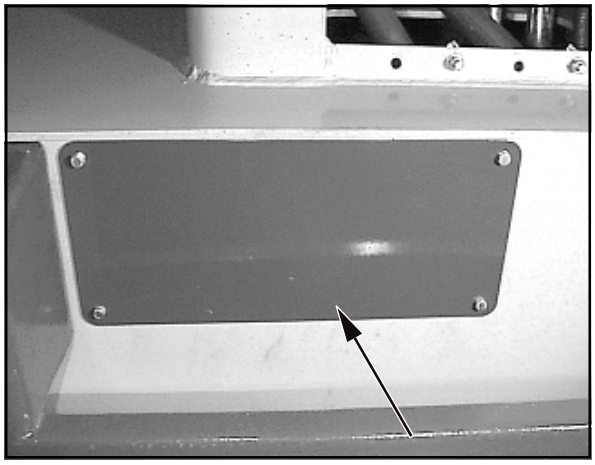

Fig. 8-10

8.2.7 Oil change axles

8.2.7.1 Rear axle

(1) Place a sufficiently large oil spill tray under the vehicle.

(2) Remove the plugs from the axle arches (8-11/1, 8-11/2, 8-11/3, 8-11/4, and 8-12/arrow) and drain oil.

ATTENTION
Dispose of waste oil in an environmentally friendly way!

(3) Re-insert axle arch plugs (8-11/1, 8-11/2, and 8-11/3).

(4) Top up with oil via axle arch plug bore (8-11/4 or 8-12/arrow) until the oil fill-level reaches the bore opening.

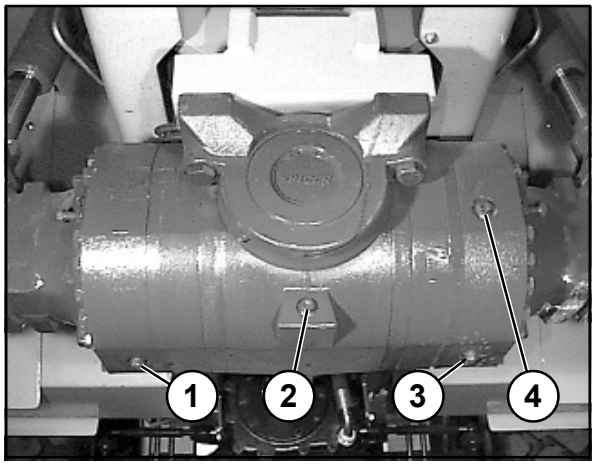

Fig. 8-11

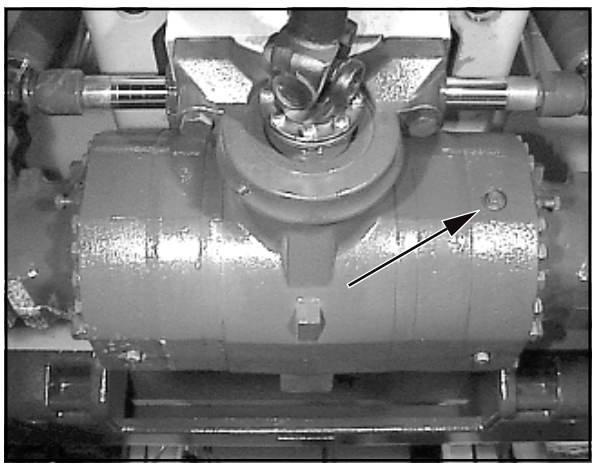

Fig. 8-12

Fig. 8-13

NOTE

- Refer to the maintenance plan (pages 8-1and 8-2) for details on required amounts.
- The oil fill-level will drop after a few minutes. Top up with oil, until the required level has been reached and remains constant.
- The axle vent valve (8-13/arrow) must be free of contamination.

(5) Re-insert the axle arch bore plugs (8-11/4 and 8-12/ arrow).

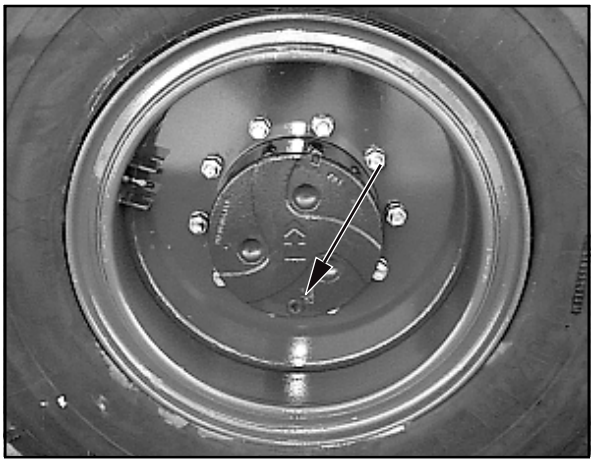

Fig. 8-14

8.2.7.2 Planetary gear

(1) Position the vehicle so that the plug (8-14/arrow) is at 6 o´clock.

(2) Place a sufficiently large oil spill tray with a drainage chute underneach.

(3) Remove the plug and drain the oil.

ATTENTION

Dispose of waste oil in an environmentally friendly way!

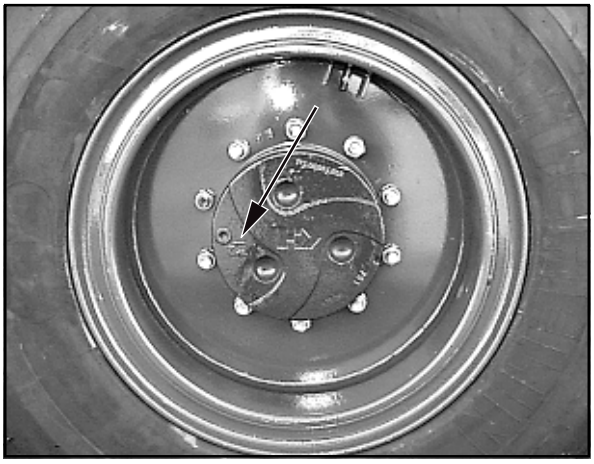

Fig. 8-15

(4) Position the vehicle to allow the "OIL LEVEL" to be horizontal so that the plug is to the top left of the mark (8-15/arrow).

(5) Add oil via the plug bore until the oil fill level reaches the bore opening.

(6) Re-insert the plug with a new gasket.

8.2.7.3 Front axle

(1) Place a sufficiently large oil spill tray underneath the vehicle.

(2) Remove plugs from axle arches (8-16/1, 8-16/2, 8-16/3, 8-16/4, and 8-17/Pfeil) and drain oil.

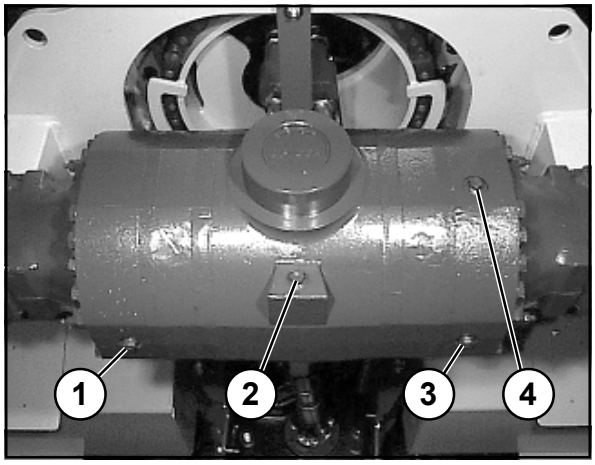

Fig. 8-16

ATTENTION
Dispose of waste oil in an environmentally friendly way!

(3) Re-insert plugs (8-16/1, 8-16/2, and 8-16/3).

(4) Top up with oil via axle arch plug bore (8-16/4 or 8-17/arrow) until oil fill-level reaches plug bore.

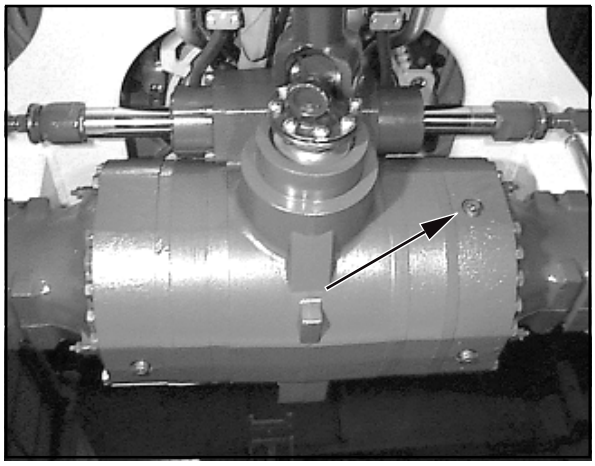
Fig. 8-17

NOTE
- Refer to the maintenance plan (pages 8-1and 8-2) for details on required amounts.
- The oil fill-level will drop after a few minutes. Top up with oil, until the required level has been reached and remains constant.
- The axle vent valve (8-18/arrow) must be free of contamination.

(5) Re-insert plugs (8-16/4 and 8-17/arrow).

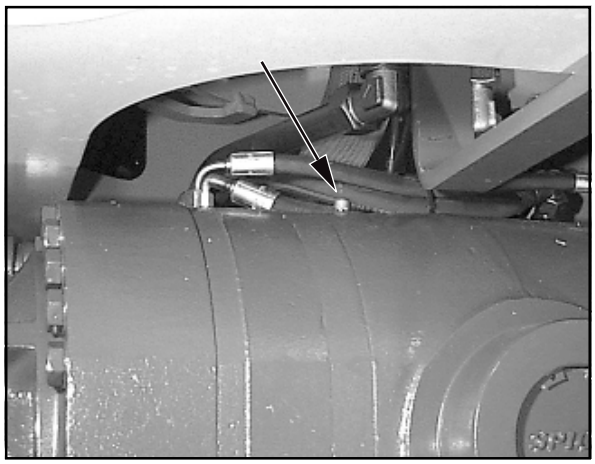
Fig. 8-18

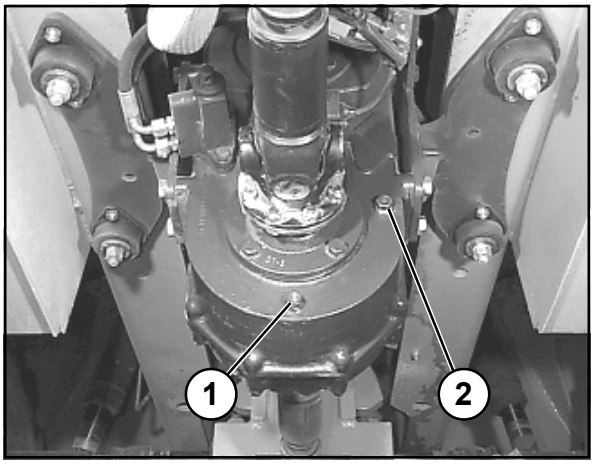

Fig. 8-19

8.2.8 Oil change transfer gear gox » slow-runners 20 km/h and 25 km/h «

(1) Place a sufficiently large oil spill tray under the transfer case.
(2) Remove plugs (8-19/1 and 8-19/2) and allow oil to drain.

ATTENTION
Dispose of waste oil in an environmentally friendly way!

(3) Re-insert plugs (8-19/1).
(4) Top up with oil via plug bore (8-19/2) until the oil fill-level reaches the bore opening.

NOTE
- Refer to the maintenance plan (pages 8-1and 8-2) for details on required amounts.
- The oil fill-level will drop after a few minutes. Top up with oil, until the required level has been reached and remains constant.

(5) Re-insert the plugs (8-19/2).

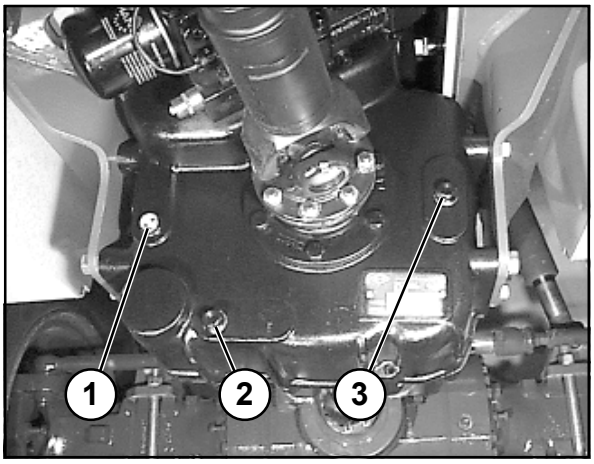

Fig. 8-20

8.2.9 Oil change transfer gear gox » fast-runners 40 km/h «

(1) Place a sufficiently large oil spill tray under the transfer case.
(2) Remove plugs (8-20/2 and 8-20/3)and allow oil to drain.
(3) Change the filter cartridge (microfilter) (8-21/1).
(4) Clean the suction filter (macrofilter) (8-21/2).

ATTENTION
Dispose of waste oil in an environmentally friendly way!

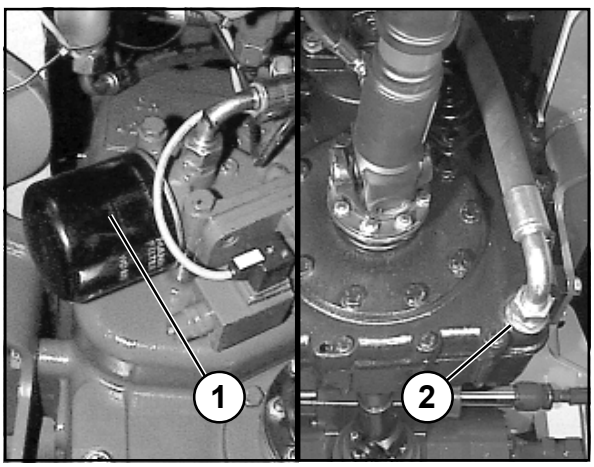

Fig. 8-21

(5) Re-insert plugs (8-20/2).
(6) Top up with oil via plug bore (8-20/3).

NOTE
- Refer to the maintenance plan (pages 8-1and 8-2) for details on required amounts.
- The oil level must be visible in the upper quarter of the inspection glass (8-20/1).
- The oil fill-level will drop after a few minutes. Top up with oil, until the required level has been reached and remains constant.

(7) Re-insert plug (8-20/3).

8.2.10 Oil change hydraulics

(1) Open the engine hood.

(2) Ensure that an oil spill tray is available (for size refer to section Kapitel 11.11).

(3) Remove the inspection plate for the oil drain plug (8-22/arrow).

(4) Attach the drainage nozzle with hose from the tool case (4-1/13) to the oil drain plug.

(5) Remove the cover cap from the hose.

(6) Allow the oil to drain into the spill tray.

ATTENTION
Dispose of waste oil in an environmentally friendly way!

(7) Screw the cap back on the hose and remove the drainage nozzle with hose.

(8) Replace the inspection plate and tighten the oil drain plug.

(9) Change the hydraulic oil filter media (section 8.2.11).

(10) Top with oil via plug bore (8-23/arrow).

ATTENTION
Equipment using biodegradable hydraulic oil (ester based synthetic hydraulic oil - viscosity class ISO VG 46 VI > 180) - (refer to the label on the hydraulic oil reservoir and on the dashboard) need to use the same replacement oil type.
Do not mix mineral and biodegradable hydraulic oils!
Biodegradable hydraulic oil must be change every **1000 operating hours**.
Follow the migration guidelines VDMA 24 569 when moving from mineral based to biodegradable hydraulic oil grade!

(11) Check the oil fill-level in the oil fill-level inspection glass (8-24/Pfeil).

NOTE
- Ensure that the loader arm has been lowered to the ground.
- Ensure that the quick coupler assembly has been tipped, and that the locking bolts have been moved to lock position using the auxiliary hydraulics lever (4-6/5).
- The oil fill-level must be in the top quarter of the inspection glass.

(12) Use specialized tool (hook wrench) to move the filling nozzle.

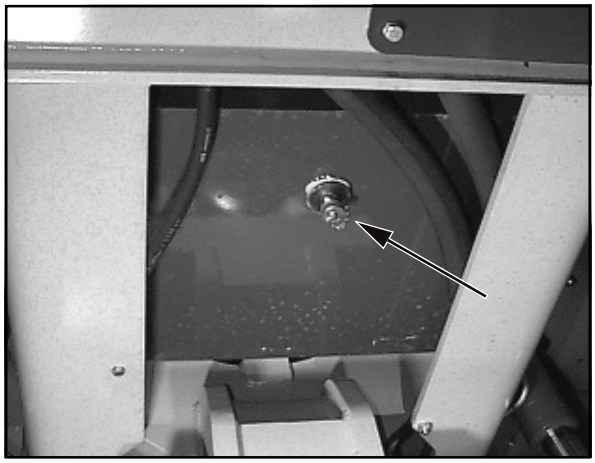

Fig. 8-22

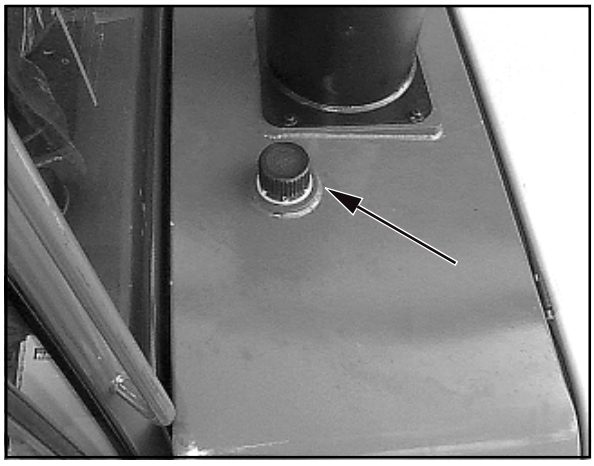

Fig. 8-23

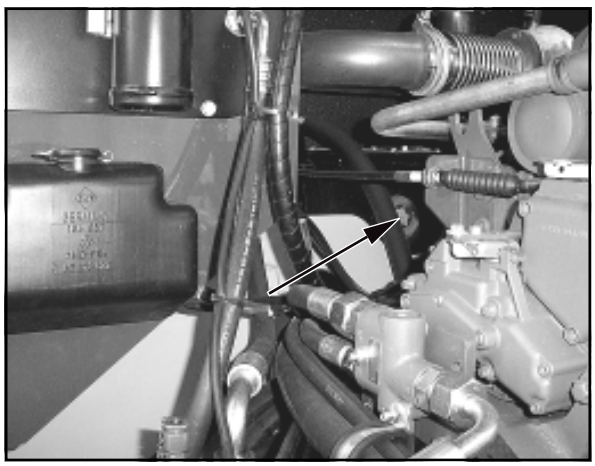

Fig. 8-24

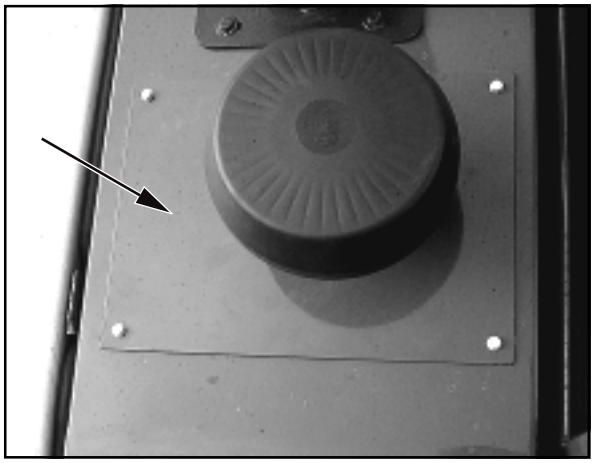

Fig. 8-25

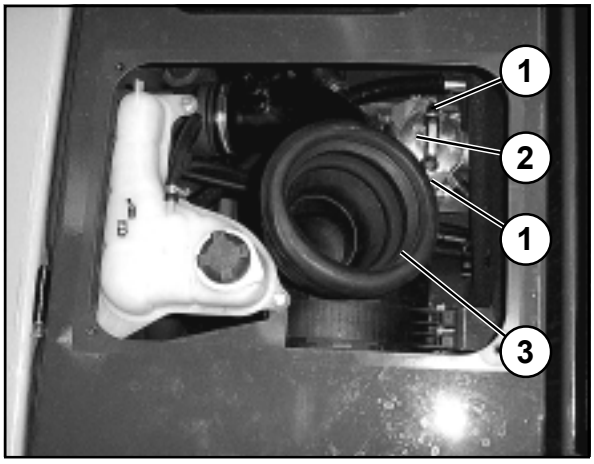

Fig. 8-26

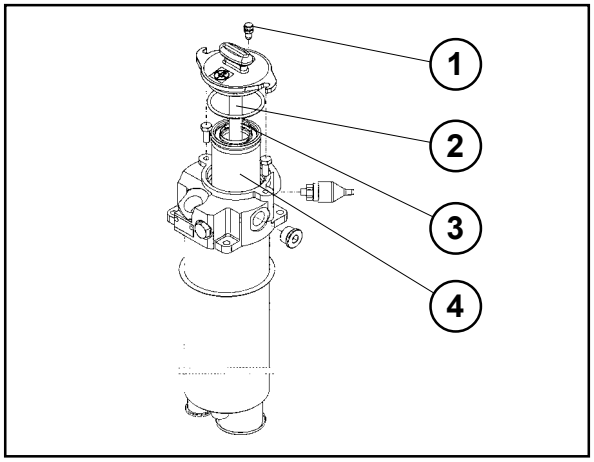

Fig. 8-27

8.2.11 Changing the suction return filter insert

ATTENTION

Change the filter insert at the intervals indicated in the maintenance plan or when clogging is indicated (4-8/34).

NOTE

When cold starting the vehicle the clogging indicator may light up prematurely. The indicator will go off as soon as the hydraulic oil warms up.

(1) Remove the access cover (8-25/cover)

(2) Loose the hose band clip of the rubber collar (8-26/3) and pull off the collar.

(3) Remove both screws on the hydraulic oil filter cover (8-26/1).

(4) Remove the hydraulic oil filter cover and the magnetic tube attached to it (8-27/2).

(5) Lift up the handle (8-27/3), remove the filter insert (8-27/4) and replace it with a new insert.

ATTENTION

Dispose of used hydraulic oil filter inserts in an environ-mentally friendly way!

(6) Wipe the magnetic tube (8-27/2) clean before re-fitting.

(7) Re-fit and tighten the hydraulic oil filter cover and magnetic tube.

(8) Attach the vent tube to the vent outlet (8-26/2 or 8-27/1).

(9) Start the engine.

(10) Make sure you have an oil spill tray available and open the vent valve.

NOTE

Keep the vent valve open until the oil that emerges is bubble free.

(11) Close the vent valve.

(12) Slip the rubber collar (8-26/3) on the air filter tube and fasten it with the hose band clip.

(13) Re-fit the access cover (8-25/arrow).

8.2.12 Servicing/Changing the airfilter

NOTE

The filter insert requires attention when the maintenance indicator (8-28/1) shows red, or after 12 months, which ever is sooner.

(1) Open the engine hood.
(2) Unscrew both wing screws on the top of the maintenance grid (8-28/2). Push the grid outside in the upper part and lift it.
(3) Loosen the two fastening clamps on the air filter lid (8-29/1) and remove the air filter lid.
(4) Pull out the filter cartridge (8-29/2) by carefully turning it back and forth.
(5) Clean the filter cartridge.

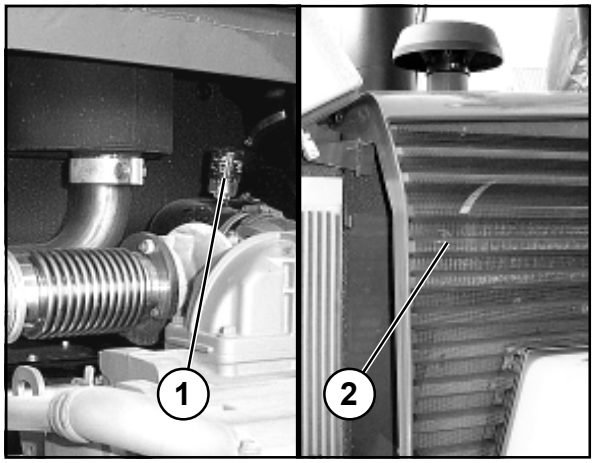

Fig. 8-28

ATTENTION

- For cleaning, use a compressed air gun to which a pipe (angled at 90°) has been attached. The pipe must be sufficiently long to reach the cartridge bottom. Use dry compressed air of no more than 5 bar to blow out the cartridge by moving the pipe back and forth in the interior of the cartridge. Cleaning may be stopped when dust formation ceases.
- Do not use petrol or hot liquid for cleaning.

(6) Use a hand-held inspection lamp to check the filter cartridge for damage to the cartridge paper or the rubber gasket. If the cartridge or seals are damaged, replace the cartridge.
(7) Re-insert the filter cartridge carefully.
(8) Install the air filter lid on the filter housing in such a way that the direction arrow in the **"OBEN-TOP"** mark points upward. This ensures that the dust removal valve is pointing down.
(9) If the service indicator (8-28/1) previously showed red, press the reset button. The indicator should now be clear.
(10) Re-install the maintenance grid (8-28/2).

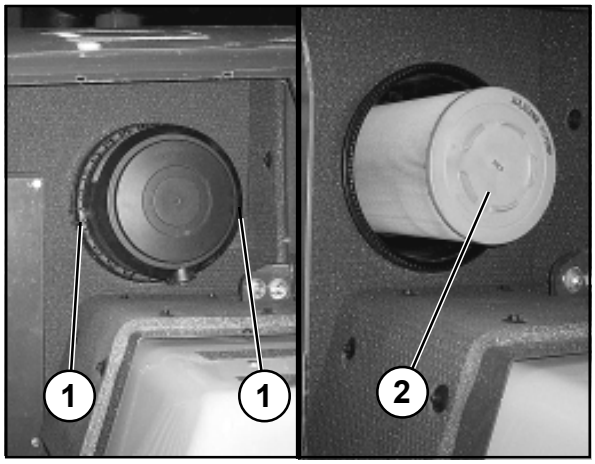

Fig. 8-29

ATTENTION

Before starting the engine, check the connecting pipes and hose on the airfilter unit for signs of damage.

8.2.13 Changing the safety cartridge

ATTENTION

- The safety cartridge must not be cleaned.
- The safety cartridge must be replaced after the filter cartridge has been maintained/ cleaned 5 times, or every two years at the latest.
- Make sure that no dirt or dust can enter the filter housing during replacement of the safety cartridge.

Fig. 8-30

(1) Remove the filter cartridge (section 8.2.12).

(2) Pierce the seal of the safety cartridge (8-30/arrow) from the inside by using a screwdriver or similar tool and pull up both strips.

(3) Hold the filter cartridge by both strips and pull it out by carefully turning it back and forth. Replace the safety cartridge and the filter cartridge by new ones.

(4) The remaining installation is performed as described in section 8.2.12 (7)...(10).

8.2.14 Changing the fuel filter

See the engine operating manual.

8.2.15 Changing the starter batteries

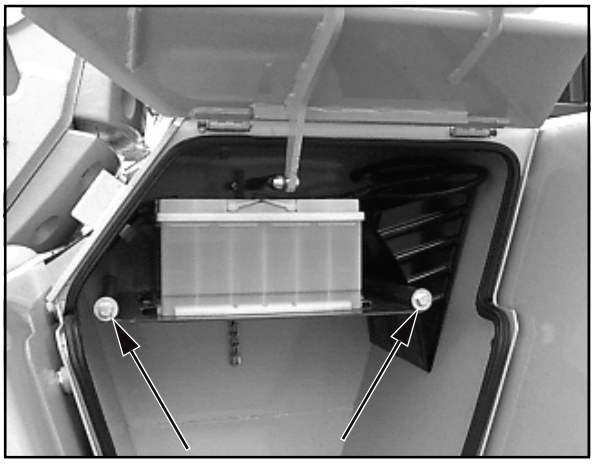

Fig. 8-31

NOTE

- The starter battery is a low maintenance part according to DIN 72311, section 7. It is located in the engine compartment, on the right-hand side of the machine.
- Always store batteries in a clean and dry place.

(1) Disconnect the battery master switch (4-7/5).

(2) Use a square wrench to open the access panel.

(3) Remove both securing bolts SW 19) (8-31/arrows) for the battery holder.

(4) Pull out the battery holder and the batteries to the extent the retainer allows.

(5) Loosen and remove the securing bolts (SW 17) (8-32/1) for the battery holder.

(6) Loosen and disconnect the battery cable clamps (8-32/2) from the battery terminals (SW 13).

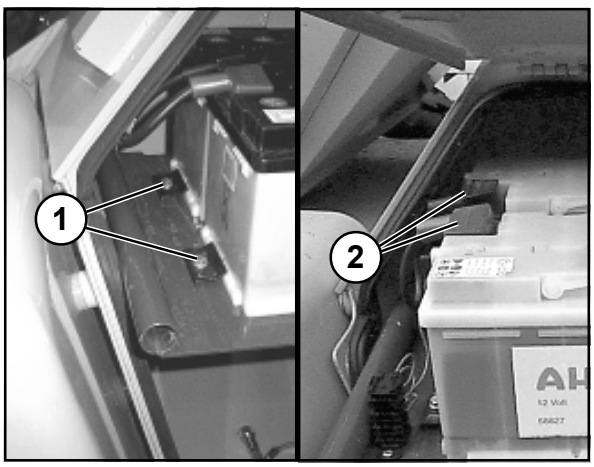

Fig. 8-32

DANGER

Always remove the negative cable clamp first, before removing the positive clamp. When re-attaching, use the reverse order.

(7) Remove and replace the batteries.

(8) Lightly lubricate the terminals and clamps before re-attaching them with acid-free and acid-resistant grease.

(9) To fit a new battery perform these steps in reverse order.

DANGER

Make sure the fastenings are secure.

(10) Close the access cover again.

8.2.16 Servicing/Changing the fresh air filter

(1) Lift and mechanically prop up bucket arm [e.g. by inserting the bucket arm support (option) (1-1/arrow)], Lower bucket arm until it rests on the bucket arm support and swivel all the way to the right or left.

(2) Loosen and remove the four holding screws (8-33/arrows) of the heating unit cover, and then remove the cover.

(3) Remove the filter elements (8-34/arrows) and blow them clean with air.

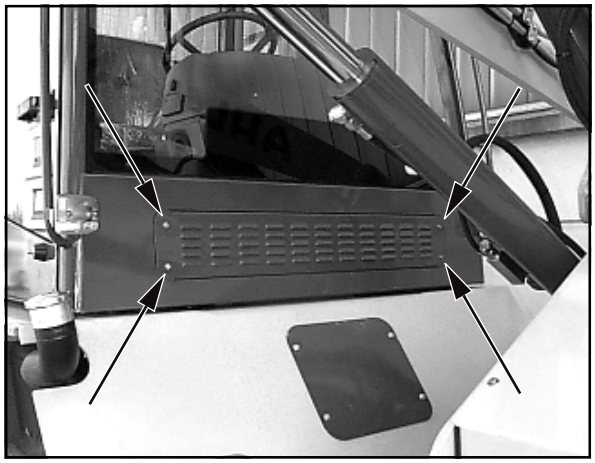

Fig. 8-33

ATTENTION
Do not use petrol, hot fluids or compressed air for cleaning.

(4) Check the filter elements for signs of damage.

NOTE
Change the filter elements in case of damage or every **1500 operating hours**.

(5) Re-fit the filter elements and the heating unit cover.

Fig. 8-34

8.2.17 Checking brake play

(1) Apply the parking brake (4-7/4).

(2) Remove the axle arch plugs (8-12/arrow and 8-17/arrow).

(3) Use a special feeler gage to measure the gap between the center brake disks.

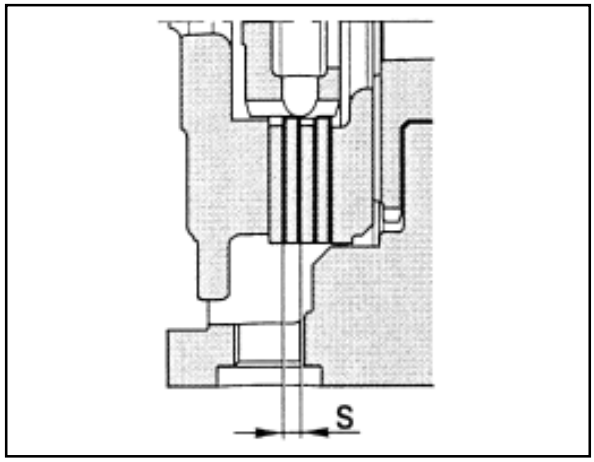

Fig. 8-35

ATTENTION
- "S" minimum: 5 mm.
- If necessary, change the center brake disks on both sides.

(4) Re-fit the plugs (8-12/arrow and 8-17/arrow) wieder.

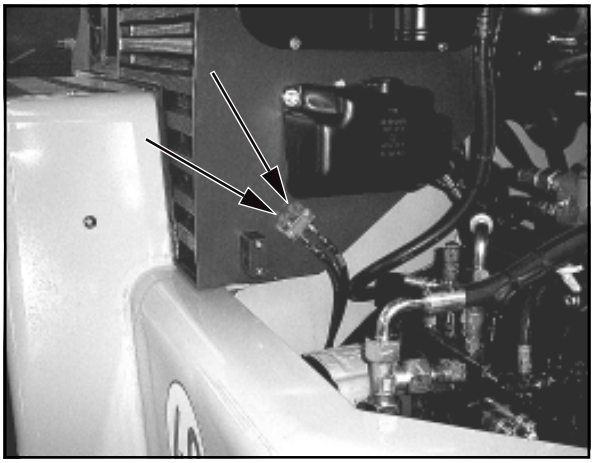

Fig. 8-36

8.3 Greasing points

NOTE
Greasing points are painted red on the vehicle.

8.3.1 Rear axle pivot bolt (8-36/arrows)

ATTENTION
The rear axle pivot bolt must be greased **every 10 operating hours**.

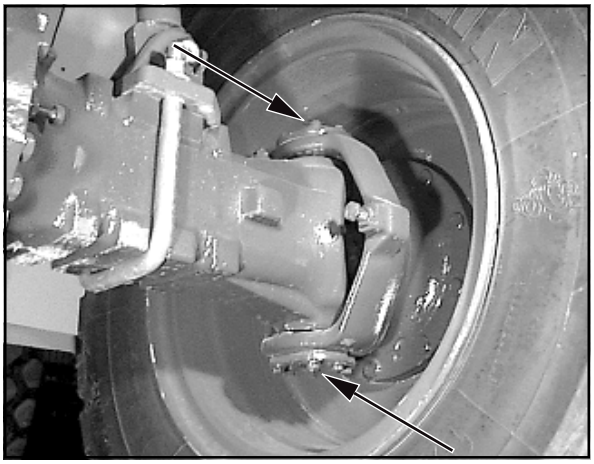

Fig. 8-37

8.3.2 Rear axle (8-37/arrows)

ATTENTION
The rear axle spindle bolts must be greased every **50 operating hours**.

NOTE
Lubricate the top and the bottom of the axle spindle bolts on both sides of the axle**.**

Fig. 8-38

8.3.3 Front axle (8-38/arrows)

ATTENTION
The front axle spindle bolts must be greased every **50 operating hours**.

NOTE
Lubricate the top and the bottom of the axle spindle bolts on both sides of the axle.

8.3.4 Swivel assembly (8-39/arrows)

The grease pack is designed to avoid friction, to seal the unit and protect it from corrosion. For this reason, the bearings should be greased liberally **every 10 operating hours** until grease emerges. When greasing the swivel assembly rotate the loader arm in 20° steps. Ensure that all four grease points are greased at every step. Additionally grease the assembly before and after longer periods of inactivity.

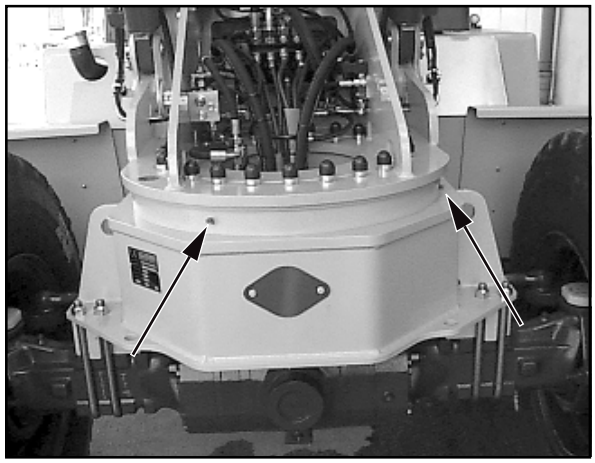

Fig. 8-39

DANGER

- Before greasing, mechanically prop up the bucket arm [e.g. by inserting the bucket arm support (option) (1-1/arrow)], apply the parking brake (4-7/4) and set the drive direction switch (4-7/3) to "0".
- Makes sure that nobody is in the working area of the loader arm **while** rotating the arm.

8.3.5 Loader assembly

ATTENTION

The bolts/greasing points (8-40/arrows of the loader/quick coupler assembly) must be greased **every 10 operating hours**.

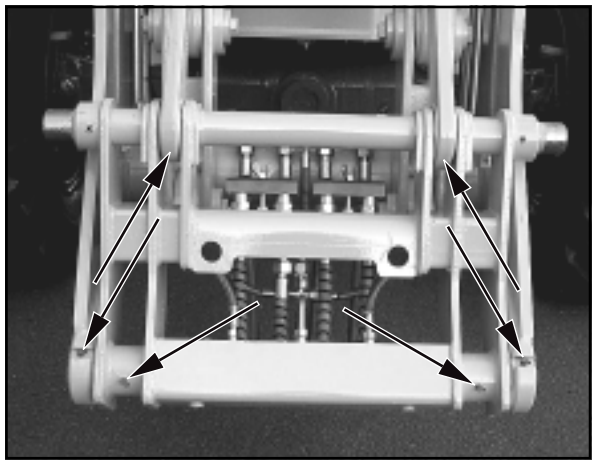

Fig. 8-40

8.3.6 Driver cab doors (8-41/arrows)

ATTENTION

Ensure that the hinges of the driver cab doors are greased **every 50 operating hours**.

NOTE

Ensure that the hinges on both driver cab doors are greased.

Fig. 8-41

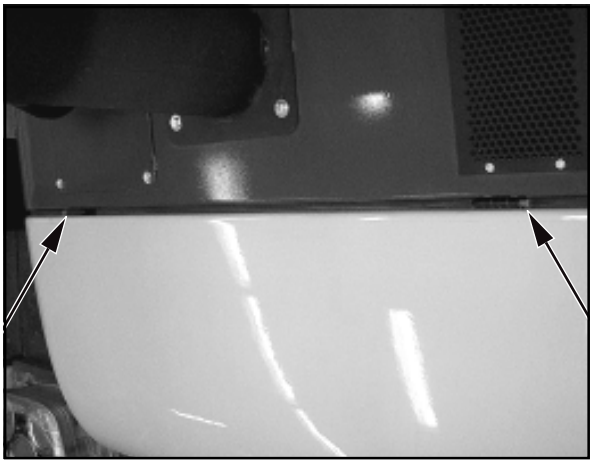

Fig. 8-42

8.3.7 Engine hood

ATTENTION

The hinges of the engine hood (8-42/arrows) must be lubricated **every 50 operating hours.**

Fig. 8-43

8.4 Oiling points

8.4.1 Support valve control mechanism

ATTENTION

The support valve control mechanism must be oiled with engine oil **every 50 operating hours**.

(1) Raise the loader arm, insert the loader arm support and swivel the arm out fully to the left or right.

(2) Loosen and remove the four holding screws on the access panel (8-43/arrows).

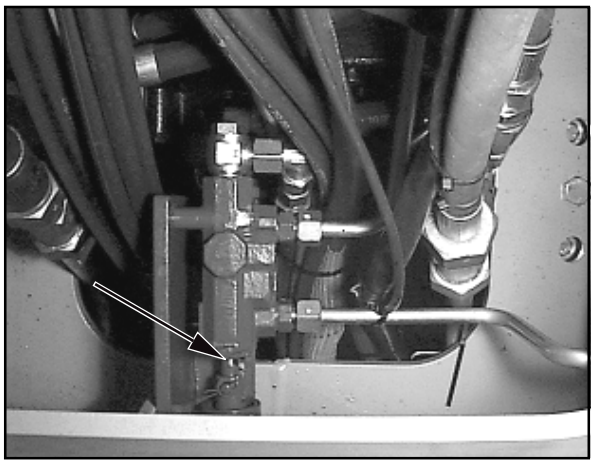

Fig. 8-44

NOTE

Oil only the visible area of the piston rod on the suspension casing (8-44/arrow).