

TECHNOMATIC EQUIPMENTS

SNOW CUTTER/BLOWER

F90

LUBRICATION CHARTS FOR
COMPLETE EQUIPMENT

ELECTRIC
CLEANING

 MECHANIC
LUBRICATION

 FLUIDIC
INSPECTION

 Vehicle type: **SNOWBLOWER**

 Model: **F90 STI**

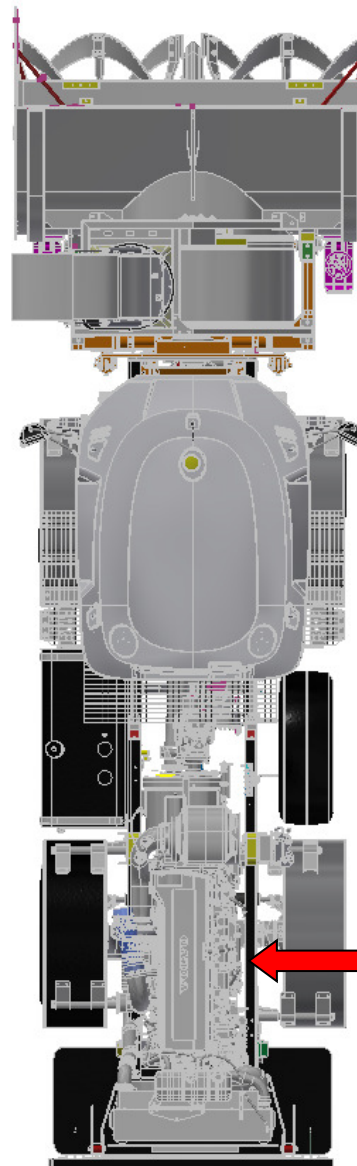
 Intervention type: **OIL LEVEL CHECK**
(FOR MORE INFORMATION REF. TO THE OPERATOR'S MANUAL VOLVO PENTA)

ENGINE	HYDROSTATIC TRANSMISSION & HYDRAULIC SYSTEM	AXLES	SUSPENSIONS
TYRES	TRANSFER REDUCER	BLOWER HEAD	TWO SPEED BACK GEAR

 Periodicity: **BEFORE STARTING**

 Required time: **5 minutes**

Action points:



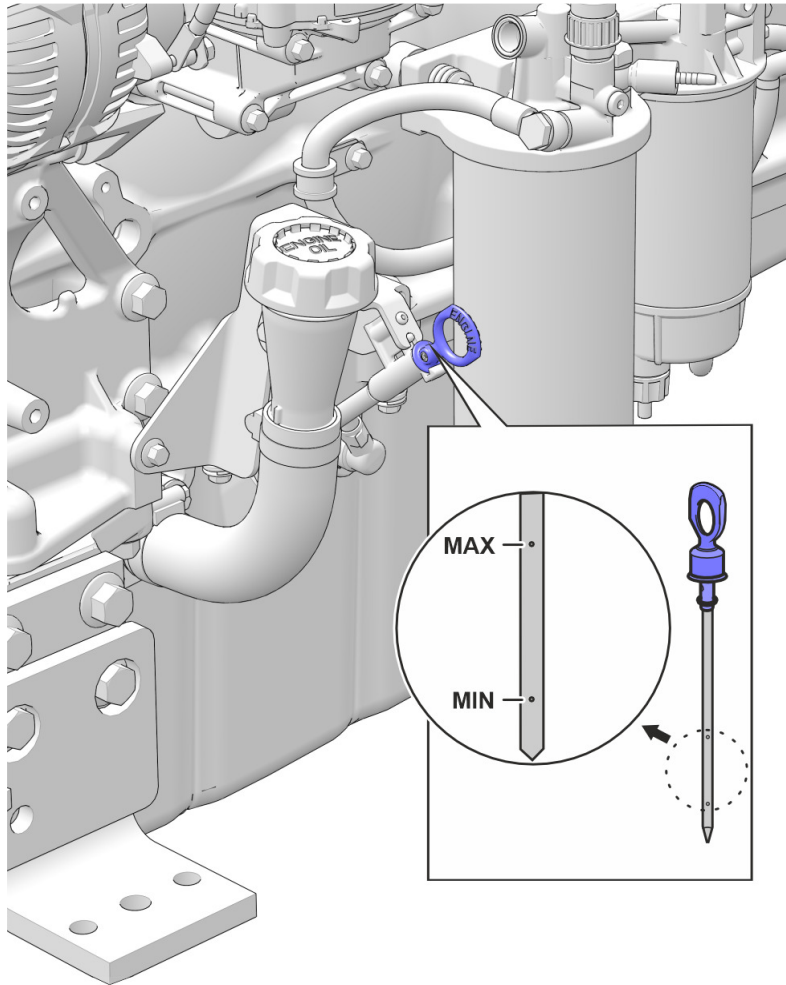
Requested spare parts:

- Use only **VDS 4.5 15W-40** oil or equivalent

Specific tools:



People operating on engine must wear protective clothes according to the regulations in force



Working with or approaching a running engine is a safety risk. Watch out for rotating components and hot surfaces.

- The engine should be placed on a level position when the oil is checked.
- The oil level is to be checked when the engine is stopped. Wait a few minutes before reading off the level, so that the oil has time to run down into the oil sump.
- The oil level must be inside the marked area on the dipstick. Never fill above the maximum limit on the oil dipstick.
- Only fill oil when the engine is stopped.



WARNING:
Never fill over the MAX limit on the oil dipstick. Only use recommended oils.

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Vehicle type: SNOWBLOWER

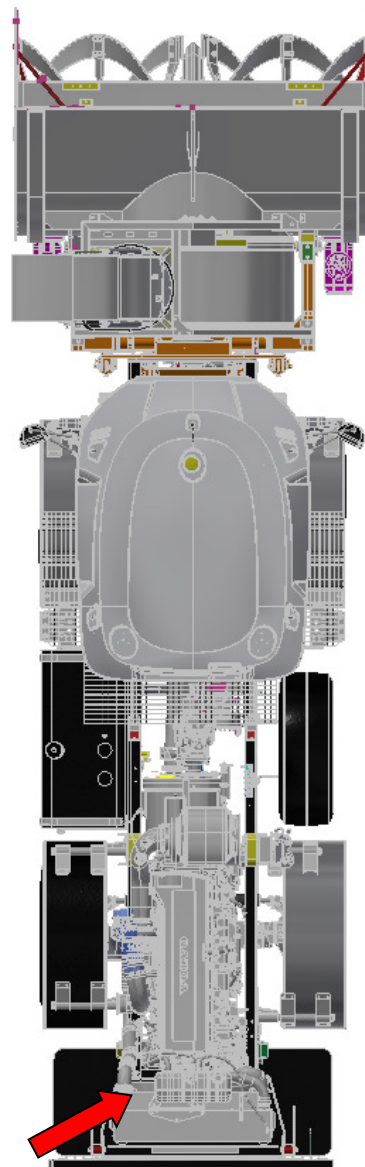
Model: F90 STI

Intervention type: COOLING LIQUID CHECK
(FOR MORE INFORMATION REF. TO THE OPERATOR'S MANUAL VOLVO PENTA)

ENGINE	HYDROSTATIC TRANSMISSION & HYDRAULIC SYSTEM	AXLES	SUSPENSIONS
TYRES	TRANSFER REDUCER	BLOWER HEAD	TWO SPEED BACK GEAR

Periodicity: BEFORE STARTING

Required type: 2 minutes

Action points:

Spare parts requested:

- Cooling liquid Volvo Penta VCS.

Specific tool:

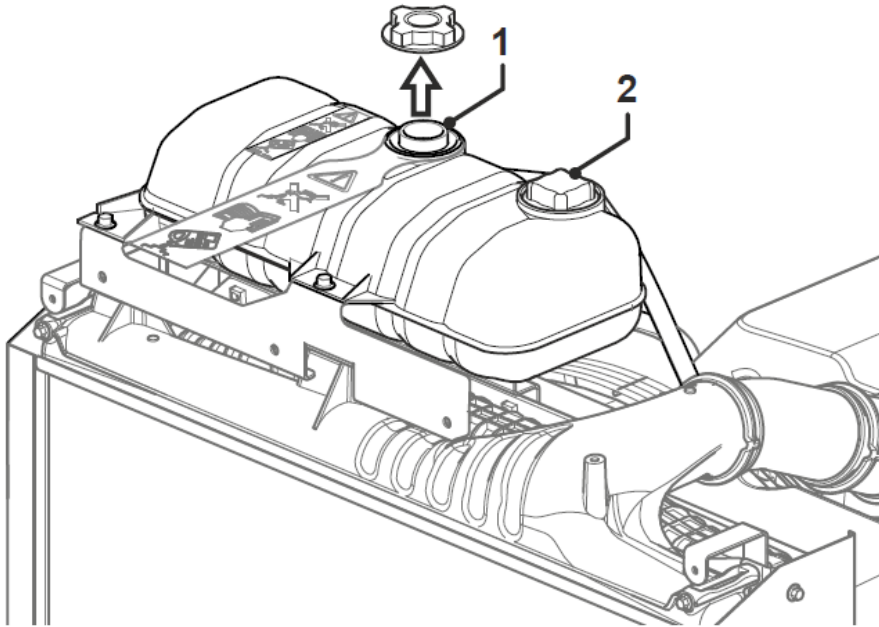


People operating on engine must wear protective clothes according to the regulations in force



WARNING:

THE CHECK MUST BE DONE WITH STOPPED AND COOLED ENGINE.



- a) Only open the filler cap (1). Do not open the pressure cap (2).
- b) Check that the coolant level is above the MIN mark on the expansion tank.
- c) Top up with coolant as required, so that the level is between the MIN and MAX marks.

Fill slowly, to allow air to flow out.



WARNING:

Only use the recommended coolant.

Top up with the same type of coolant as already used in the system. Different types of coolant must not be mixed.

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 Vehicle type: **SNOWBLOWER**

 Model: **F90 STI**

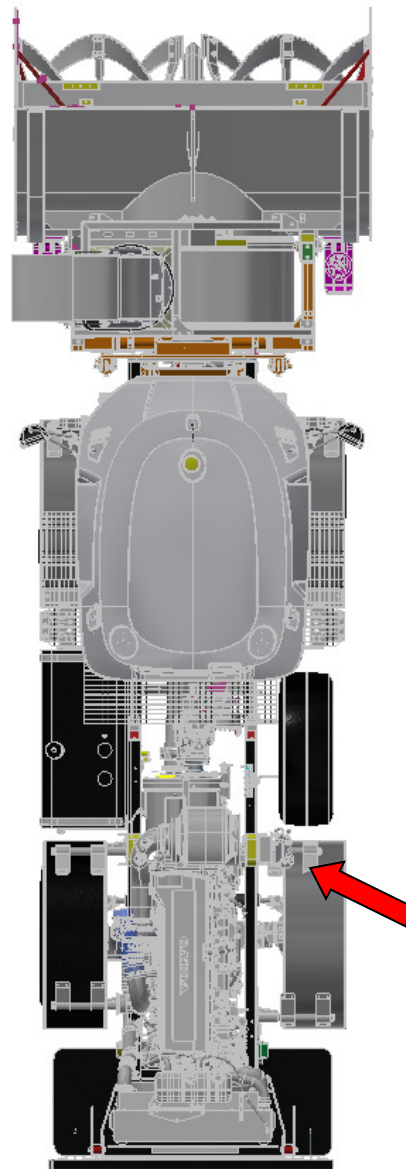
 Intervention type: **DRAIN THE WATER FROM THE PRE-FILTER
(FOR MORE INFORMATION REF. TO THE OPERATOR'S MANUAL VOLVO PENTA)**

ENGINE	HYDROSTATIC TRANSMISSION & HYDRAULIC SYSTEM	AXLES	SUSPENSIONS
TYRES	TRANSFER REDUCER	BLOWER HEAD	TWO SPEED BACK GEAR

 Periodicity: **BEFORE STARTING**

 Required time: **2 minutes**

Acting point:

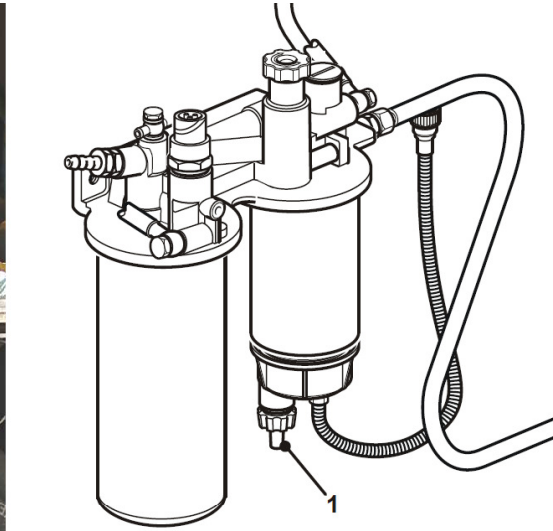
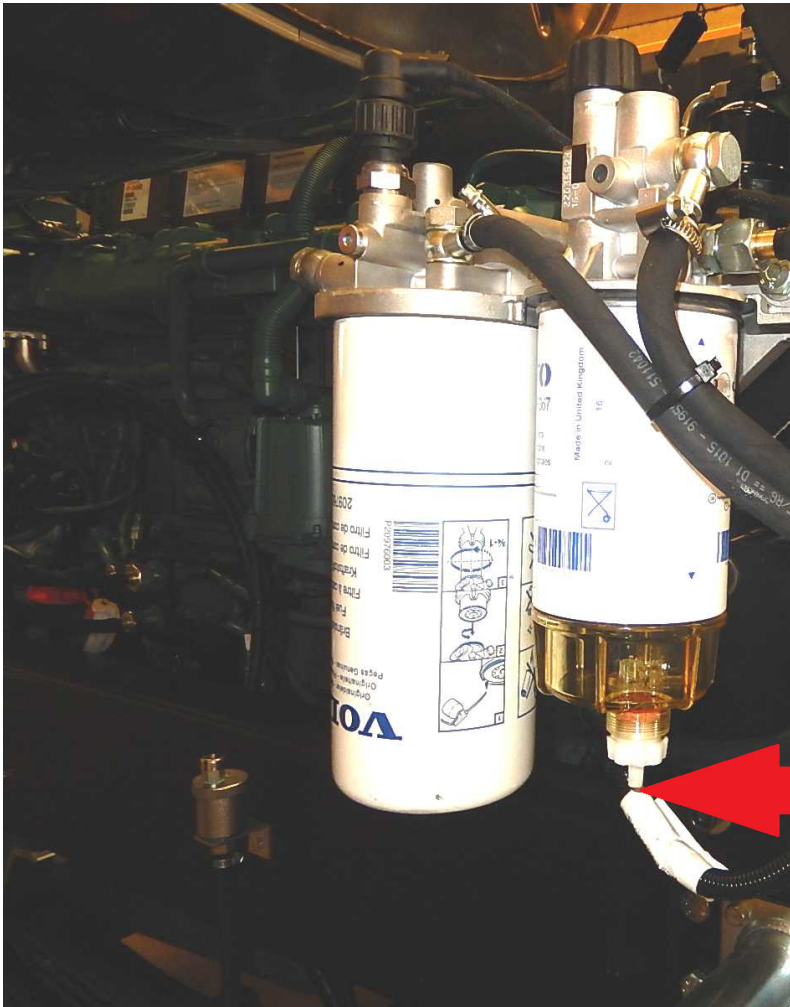


Requested spare parts:

Specific tools:



People operating on engine must wear protective clothes according to the regulations in force



- a) Put a container under the pre-filter and open the drain tap (1) in the base of it.
- b) Tighten the drain tap (1) when fuel without water starts to run out.

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 Vehicle type: **SNOWBLOWER**

 Model: **F90 STI**

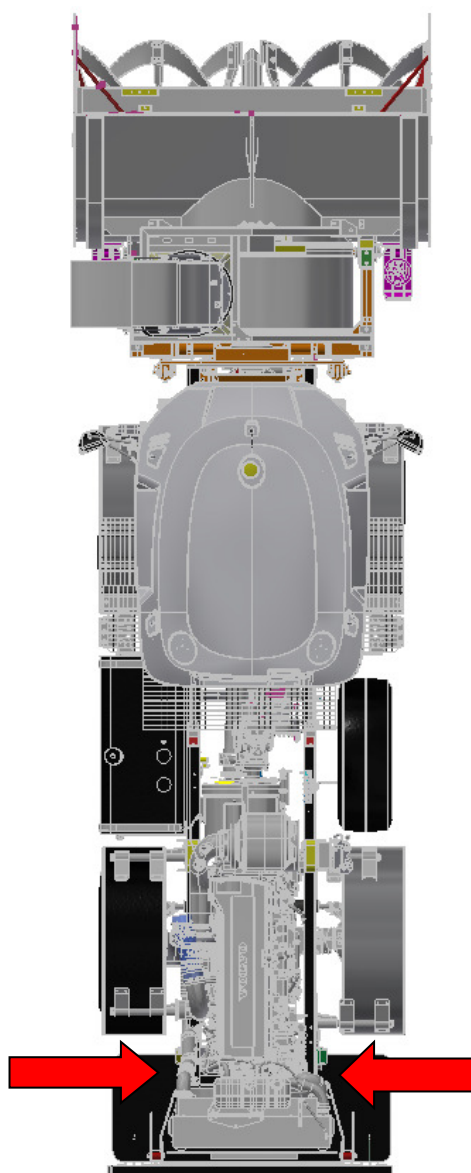
 Intervention type: **LEAKS FROM THE SLEEVES CHECK**
 (FOR MORE INFORMATION REF. TO THE OPERATOR'S MANUAL VOLVO PENTA)

ENGINE	HYDROSTATIC TRANSMISSION & HYDRAULIC SYSTEM	AXLES	SUSPENSIONS
TYRES	TRANSFER REDUCER	BLOWER HEAD	TWO SPEED BACK GEAR

Periodicity: EVERY 50 HOURS

Required time: 5 minutes

Acting points:

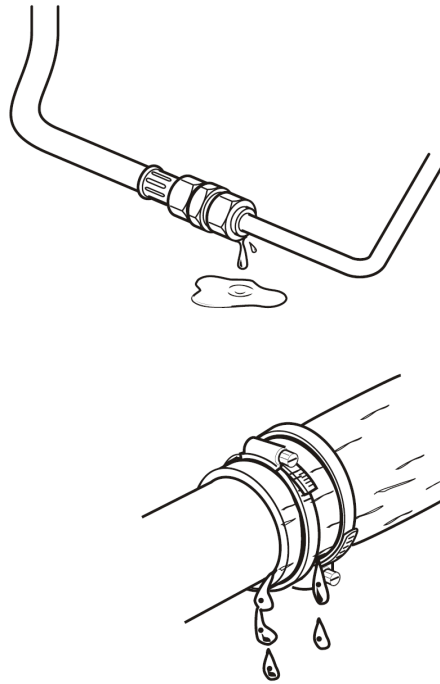


Requested spare parts:

Specific tools:



People operating on engine must wear protective clothes according to the regulations in force



Make it an habit to give the engine and engine compartment a visual inspection before starting the engine and after operation once the engine has stopped. This will help you to discover quickly if anything abnormal has happened, or is going to happen. Look especially carefully at oil, fuel and coolant leakage, loose bolts, worn or poorly tensioned drive belts, loose connections, damaged hoses and electrical cables. This inspection only takes a few minutes and can prevent serious malfunctions and expensive repairs.



WARNING:

Accumulations of fuel, oil and grease on the engine or in the engine room is a fire hazard and must be removed immediately they are detected.



WARNING:

If an oil, fuel or coolant leak is detected, it is necessary to investigate the causes and to rectify the fault before the stating the engine.

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 Vehicle type: **SNOWBLOWER**

 Model: **F90 STI**

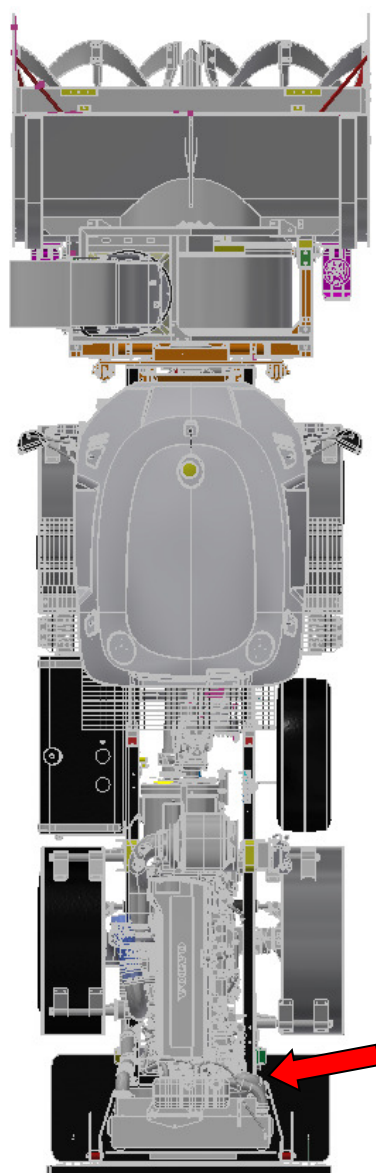
 Intervention type: **ENGINE BELTS CONDITIONS CHECK**
 (FOR MORE INFORMATION REF. TO THE OPERATOR'S MANUAL VOLVO PENTA)

ENGINE	HYDROSTATIC TRANSMISSION & HYDRAULIC SYSTEM	AXLES	SUSPENSIONS
TYRES	TRANSFER REDUCER	BLOWER HEAD	TWO SPEED BACK GEAR

Periodicity: EVERY 50 HOURS

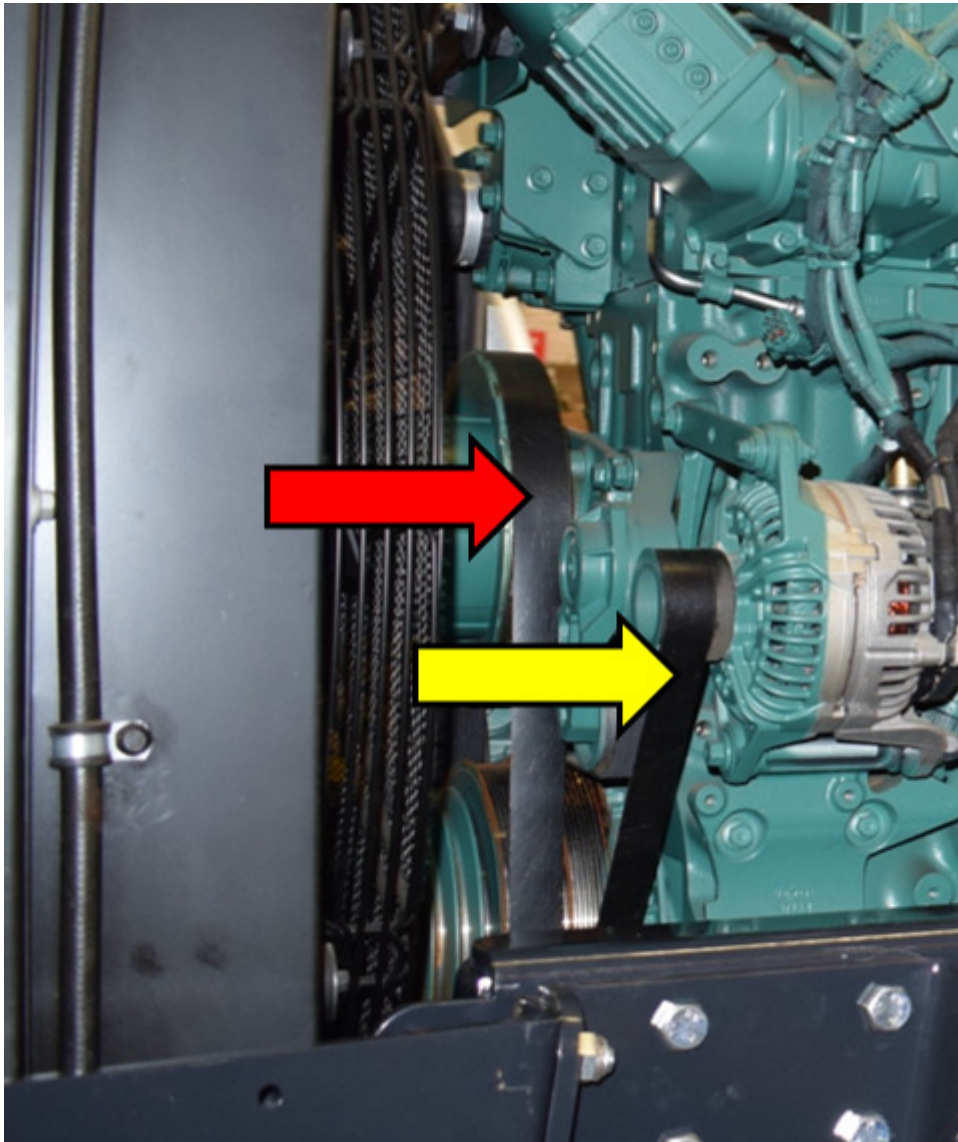
Required time: 5 minutes

Acting points:



Spare parts requested:

Specific tools:



Check the conditions of the engine belts (red arrow) and the alternator belt (yellow arrow).

If it is necessary. Replace them, following the procedure for the belts replacement (sheet 13).

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Vehicle type: **SNOWBLOWER**

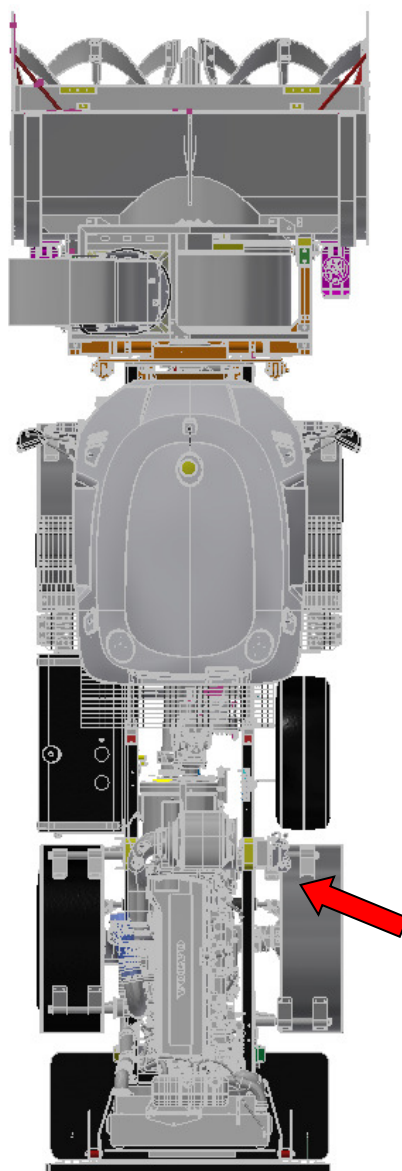
Model: **F90 STI**

Intervention type: **FUEL FILTER REPLACEMENT**
(FOR MORE INFORMATION REF. TO THE OPERATOR'S MANUAL VOLVO PENTA)

ENGINE	HYDROSTATIC TRANSMISSION & HYDRAULIC SYSTEM	AXLES	SUSPENSIONS
TYRES	TRANSFER REDUCER	BLOWER HEAD	TWO SPEED BACK GEAR

Periodicity: EVERY 250 HOURS Required time 15 minutes

Action points:



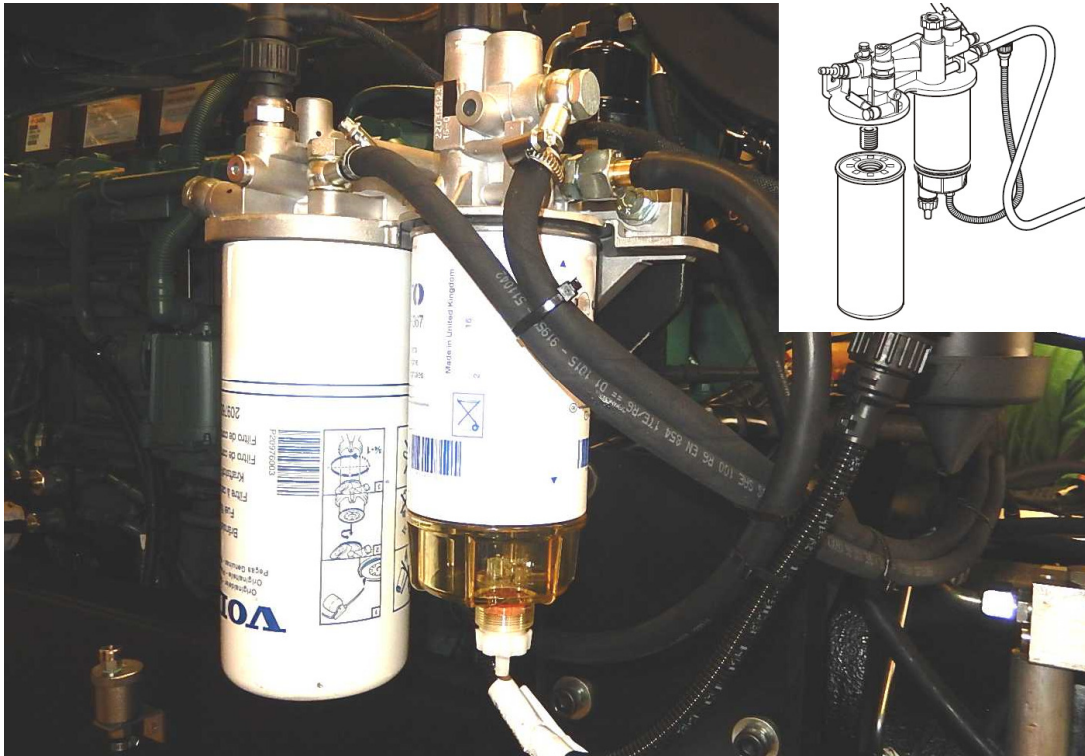
Requested spare parts:

- Fuel filter cartridge 24063189

Specific tools:



People operating on engine must wear protective clothes according to the regulations in force



WARNING:

Fire hazard. When carrying out work on the fuel system make sure the engine is cold. A fuel spill onto a hot surface or an electrical component can cause a fire.



NOTE 1:

Do not fill the new fuel filter with fuel before assembly. There is a risk that contamination could get into the system and cause malfunctions or damage.

- a) Clean round the fuel filter.
- b) Remove the filter with a suitable filter remover. Collect any spilled fuel in a collection vessel.
- c) Clean the filter mating surface on the filter bracket.
- d) Lubricate the seal with diesel fuel and install the new fuel filter. Tighten the fuel filter in accordance with the instructions on the fuel filter.
- e) If necessary, vent the fuel system.

Bleeding the Fuel System:

1. Check that there is sufficient fuel in the tank, and that any fuel taps are open.
2. Release the hand pump on the fuel bracket by pushing down and twisting the plastic handle.
3. Vent the fuel system by pumping with the hand pump. Air is vented to the tank via the fuel return pipe. No breathing nipples
4. Lock the hand pump, push down and twist the handle.
5. Start the engine and allow it to idle fast for about 10 minutes.
6. Perform a leakage and function check.

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VEHICLE TYPE: SNOWBLOWER

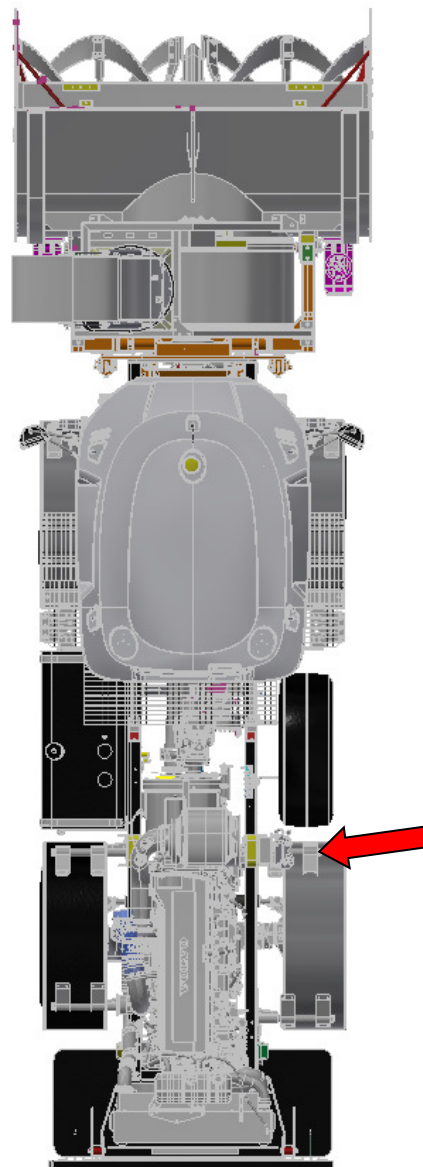
Model: F90 STI

Intervention type: FUEL PRE-FILTER PEPLACEMENT
 (FOR MORE INFORMATION REF. TO THE OPERATOR'S MANUAL VOLVO PENTA)

ENGINE	HYDROSTATIC TRANSMISSION & HYDRAULIC SYSTEM	AXLES	SUSPENSIONS
TYRES	TRANSFER REDUCER	BLOWER HEAD	TWO SPEED BACK GEAR

Periodicity: EVERY 250 HOURS

Required time: 15 minutes

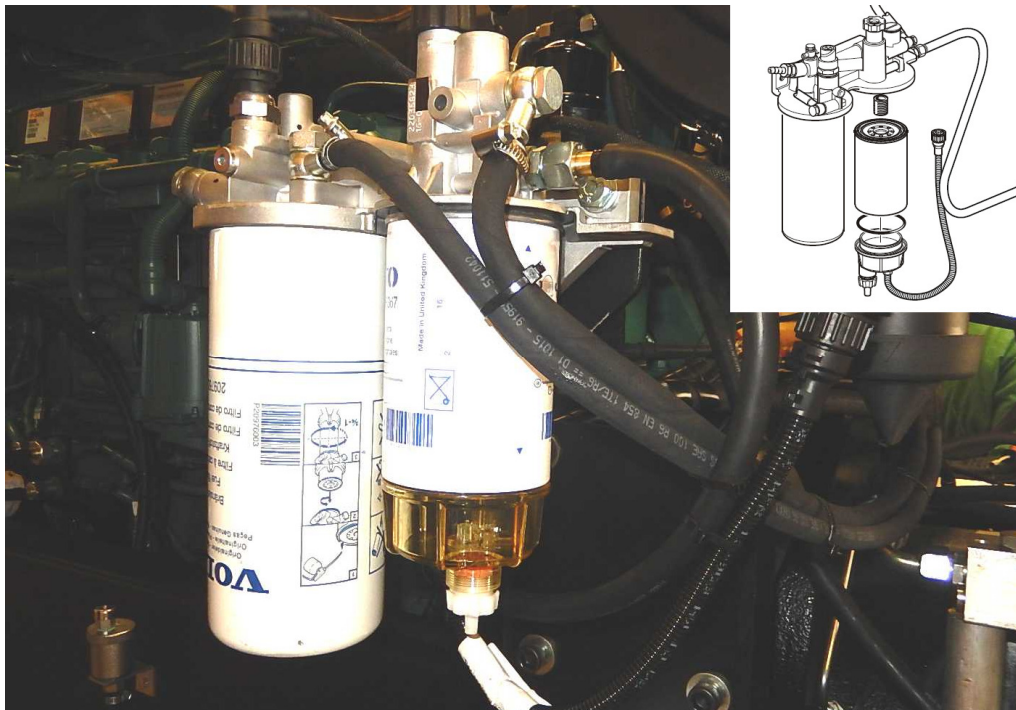
Acting points:

Spare parts requested:

- Fuel pre-filter cartridge code 20998367

Specific tools:



People operating on engine must wear protective clothes according to the regulations in force



WARNING:

Fire hazard. When carrying out work on the fuel system make sure the engine is cold. A fuel spill onto a hot surface or an electrical component can cause a fire.

- a) Undo the cable from the water trap sensor.
- b) Remove the water trap filter from the filter housing. Collect any spilled fuel in a container.
- c) Remove the lower part of the water trap from the filter.
- d) Clean the lower part of the water trap with a soft rag. Check that the drain hole in the lower part is not blocked.
- e) Install a new seal on the lower part and lubricate the seal with diesel fuel. Re-install the lower part of the filter.
- f) Lubricate the seal with diesel fuel. Screw the filter onto the filter bracket by hand until the rubber seal just touches the mating surface. Then tighten a further half turn, no more.
- g) Connect the cable to the water trap sensor.
- h) If necessary, vent the fuel system.

Bleeding the Fuel System:

1. Check that there is sufficient fuel in the tank, and that any fuel taps are open.
2. Release the hand pump on the fuel bracket by pushing down and twisting the plastic handle.
3. Vent the fuel system by pumping with the hand pump. Air is vented to the tank via the fuel return pipe. No breathing nipples
4. Lock the hand pump, push down and twist the handle.
5. Start the engine and allow it to idle fast for about 10 minutes.
6. Perform a leakage and function check.

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<input type="checkbox"/>	CLEANING	<input type="checkbox"/>	LUBRICATION
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		<input type="checkbox"/>	INSPECTION

Vehicle type: SNOWBLOWER

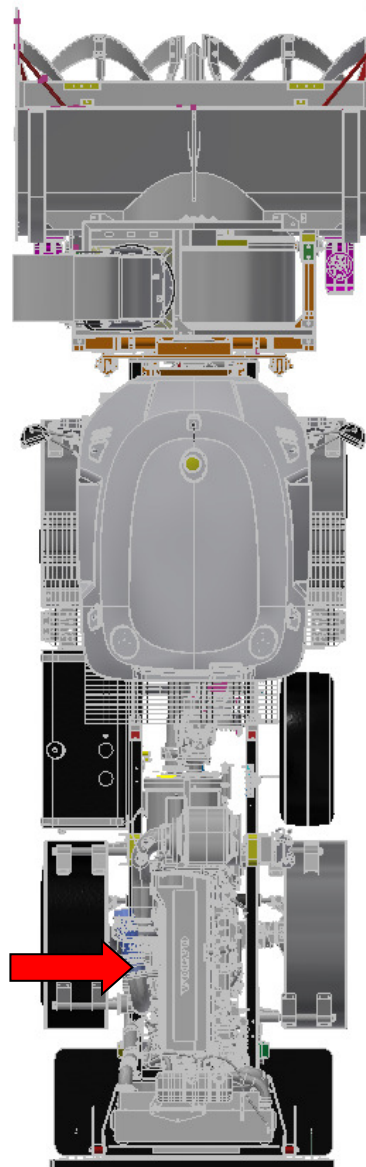
Model: F90 STI

Intervention type: OIL FILTERS REPLACEMENT
 (FOR MORE INFORMATION REF. TO THE OPERATOR'S MANUAL VOLVO PENTA)

ENGINE	HYDROSTATIC TRANSMISSION & HYDRAULIC SYSTEM	AXLES	SUSPENSIONS
TYRES	TRANSFER REDUCER	BLOWER HEAD	TWO SPEED BACK GEAR

Periodicity: EVERY 250 HOURS

Required time: 15 minutes

Action points:

Spare parts requested:

- Oil filter cartridge code **23075367** (nr. 1)
- Oil filter cartridge code **23075366** (nr. 1)
- Oil type **VDS 4.5 15W-40** or equivalent.

Specific tools:

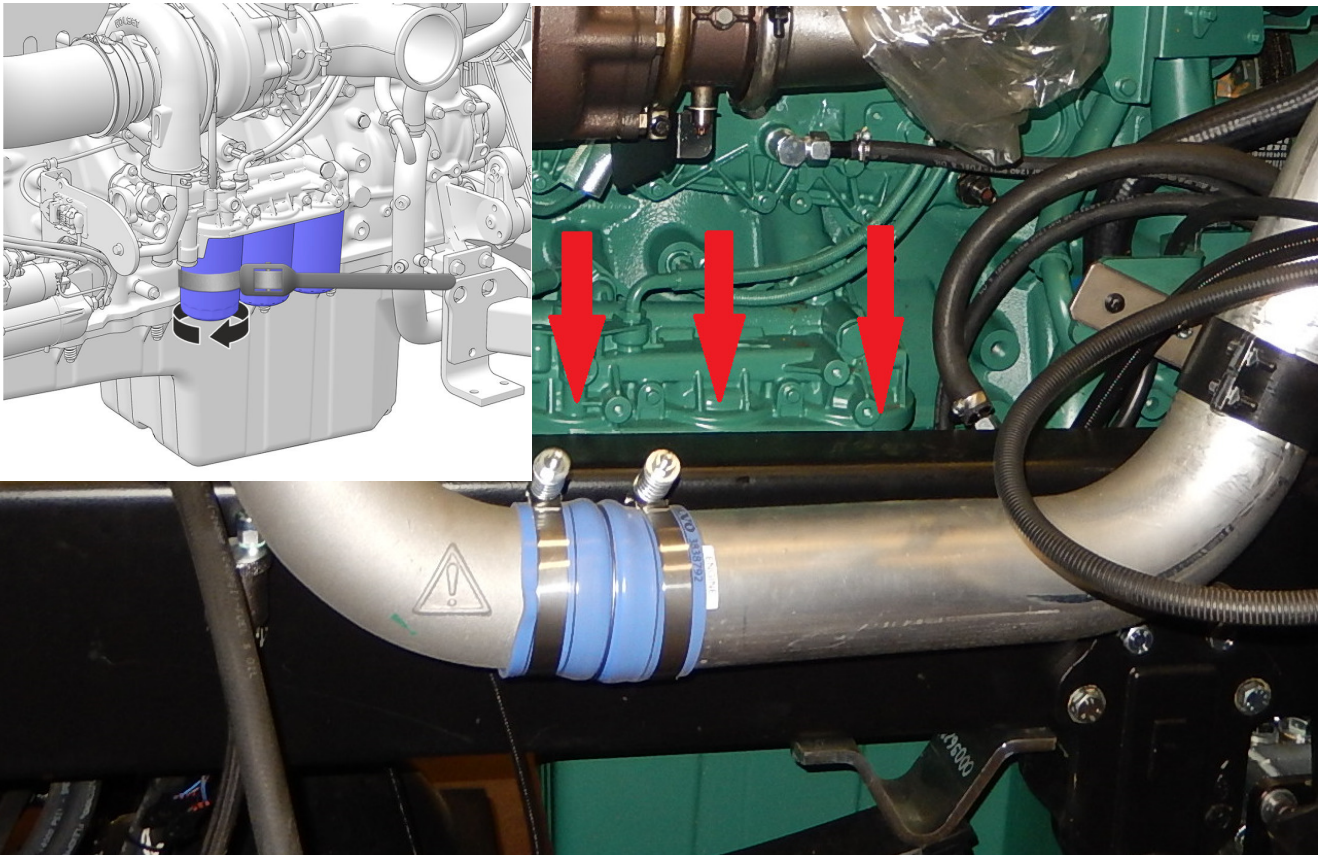


People operating on engine must wear protective clothes according to the regulations in force



DANGER:

ACT ONLY WHEN ENGINE IS COLD. Hot oil and hot surfaces can cause burns.



- a) Clean the oil filter bracket (2).
- b) Remove all oil filters with a suitable oil filter extractor (1).
- c) Clean the mating surface of the oil filter bracket. Make sure that no pieces of old oil seal are left behind. Carefully clean round the inside of the protective rim (2) on the oil filter bracket.
- d) Put a thin layer of engine oil on the seal rings of the new fuel filters.
- e) Install the new oil filters. Tighten the filters $\frac{3}{4}$ –1 turn after they touch.
- f) Top up with engine oil, start the engine and let it run for 20-30 seconds.
- g) Turn off the engine, check the oil level and top up as required.
- h) Check sealing round the oil filters.

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<input type="checkbox"/> ELECTRIC	<input type="checkbox"/> MECHANIC	<input checked="" type="checkbox"/> FLUIDIC
<input type="checkbox"/> CLEANING	<input type="checkbox"/> LUBRICATION	<input type="checkbox"/> INSPECTION

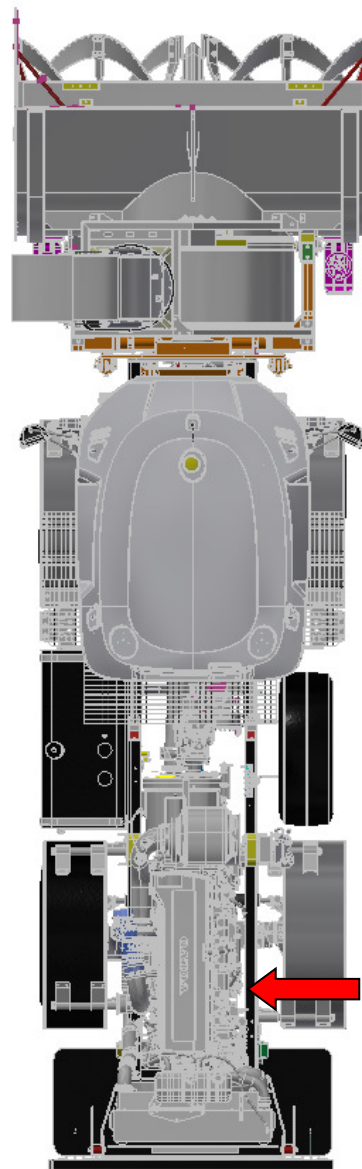
Vehicle type: SNOWBLOWER **Modello:** F90 STI

Intervention type: ENGINE OIL REPLACEMENT
(FOR MORE INFORMATION REF. TO THE OPERATOR'S MANUAL VOLVO PENTA)

ENGINE	HYDROSTATIC TRANSMISSION & HYDRAULIC SYSTEM	AXLES	SUSPENSIONS
TYRES	TRANSFER REDUCER	BLOWER HEAD	TWO SPEED BACK GEAR

Periodicity: EVERY 250 HOURS **Required time:** 30 minutes

Action points:



Requested spare parts:

- Oil type VDS 4.5 15W-40 or equivalent.

Specific tools:

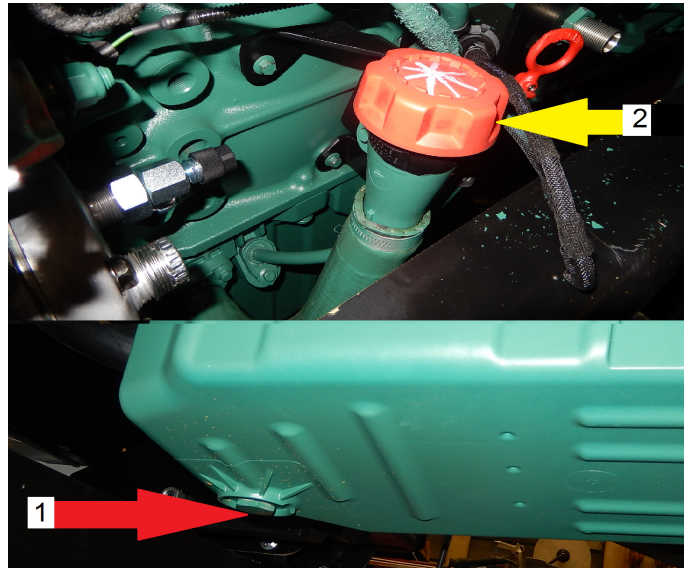
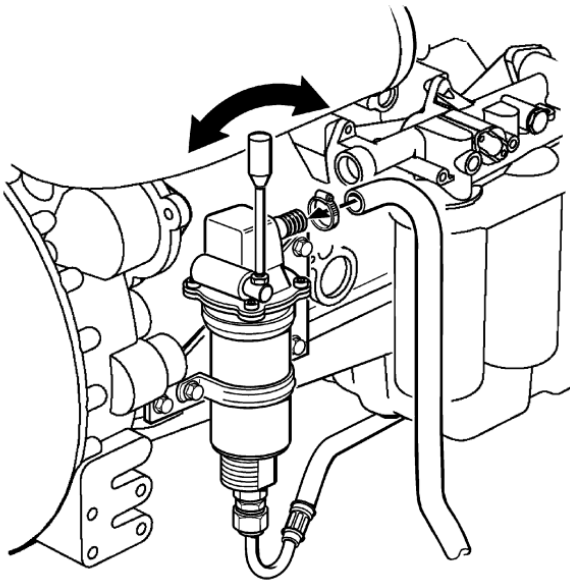


People operating on engine must wear protective clothes according to the regulations in force



WARNING:

Operate on warm engine can cause burns.



Oil change must be done when engine is warm.



WARNING:

Warm oil flows out more quickly so be careful that this can cause burns.

- Connect the drain hoses to the oil drain pump and check that no leakage can occur.
- Pump the oil wasted oil out (or remove the bottom oil plug (1) and drain the oil from there) and collect it in a container.
- Remove the drain hose (or reinstall the bottom plug (1)).
- Fill the new engine oil through the cap (2). Check oil level as indicated on sheet 1.

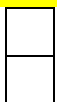


NOTE

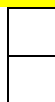
After oil replacement it is necessary to replace the oil filters as indicated in A_09.



ELECTRIC

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 Vehicle type: **SNOWBLOWER**

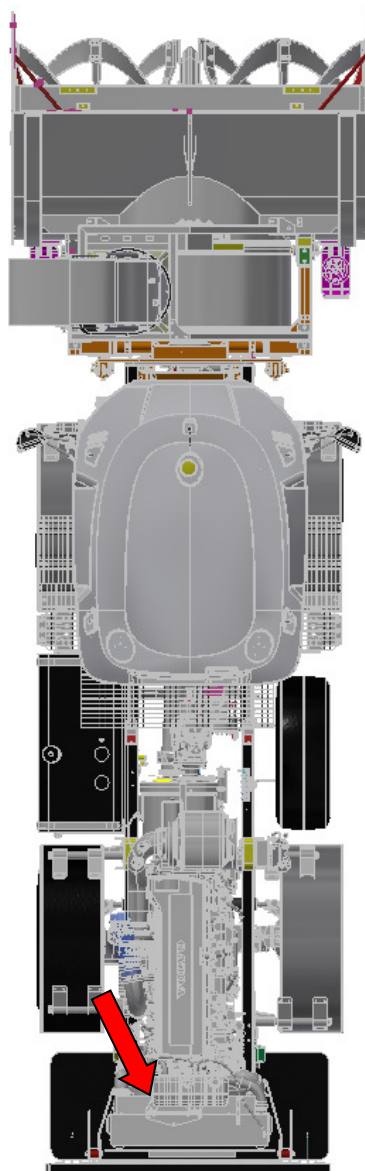
 Model: **F90 STI**

 Intervention type: **RADIATOR CLEANING**
 (FOR MORE INFORMATION REF. TO THE OPERATOR'S MANUAL VOLVO PENTA)

ENGINE	HYDROSTATIC TRANSMISSION & HYDRAULIC SYSTEM	AXLES	SUSPENSIONS
TYRES	TRANSFER REDUCER	BLOWER HEAD	TWO SPEED BACK GEAR

Periodicity:	EVERY 250 HOURS	Required time	10 minutes
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Action points:

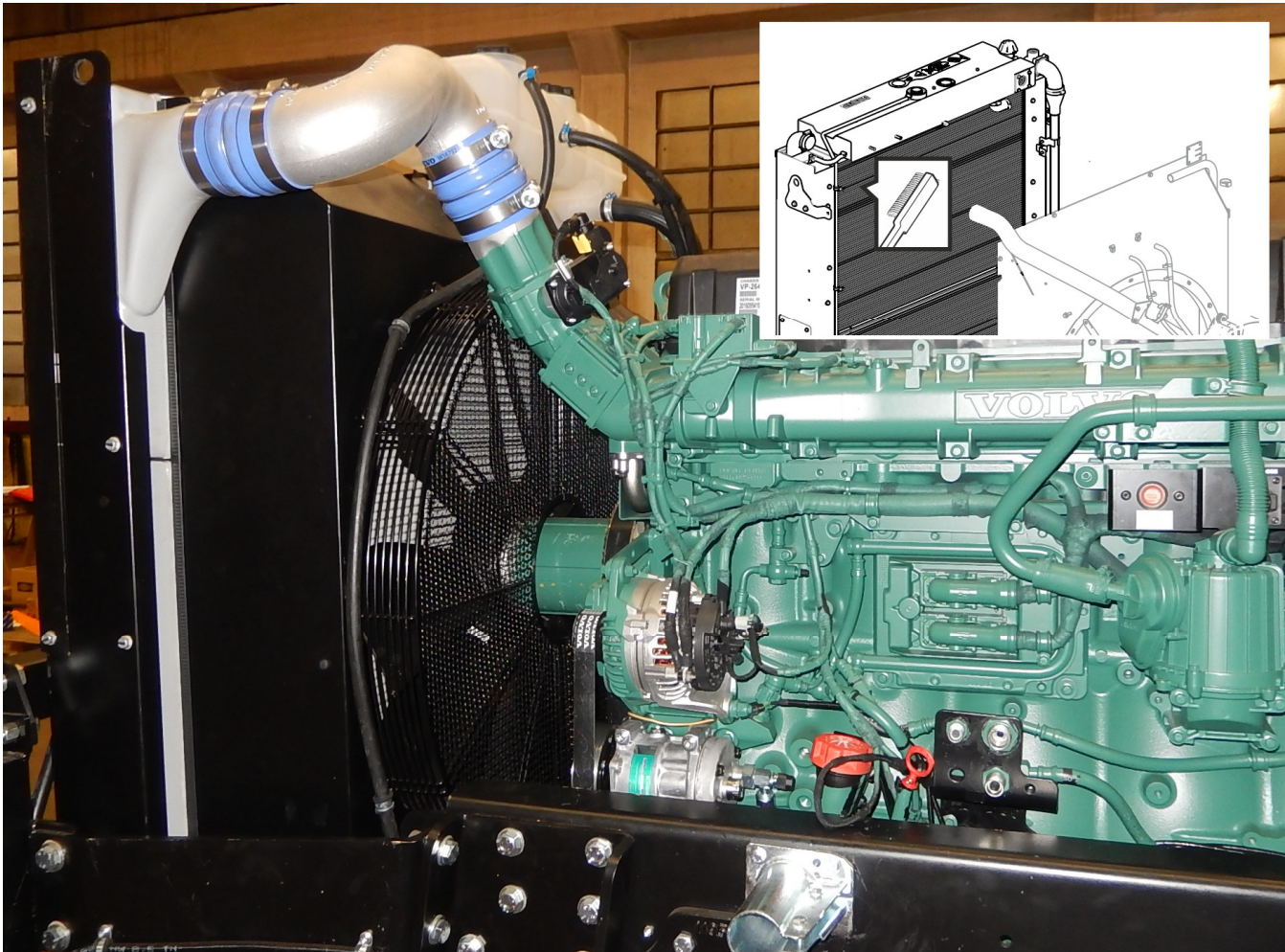


Requested spare parts:

Specific tools:



People operating on engine must wear protective clothes according to the regulations in force



Remove guards as necessary, to access the radiator.

Clean with water and a mild detergent. Use a soft brush. Be careful not to damage the radiator vanes.

Reinstall removed parts.



IMPORTANT!

Do not use air or water in pressure.

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Vehicle type: SNOWBLOWER

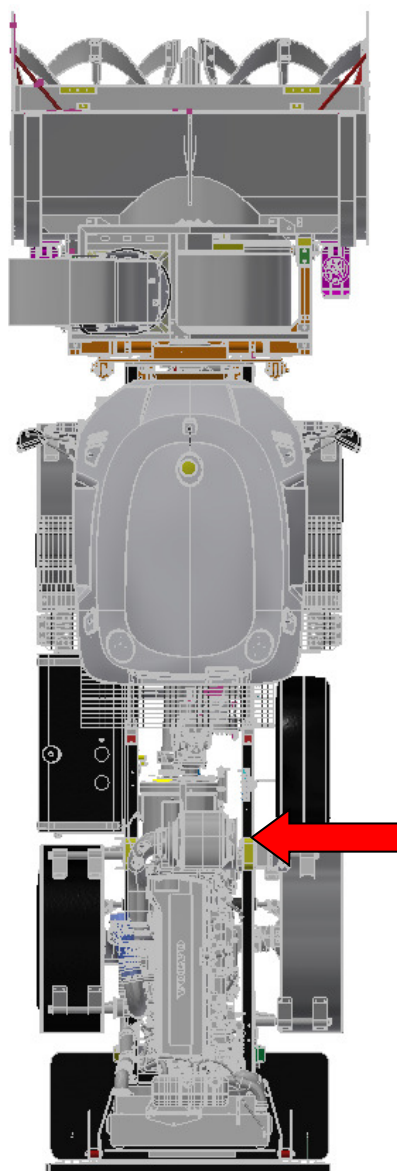
Model: F90 STI

Intervention type: AIR FILTER CARTRIDGES REPLACEMENT
 (FOR MORE INFORMATION REF. TO THE OPERATOR'S MANUAL VOLVO PENTA)

ENGINE	HYDROSTATIC TRANSMISSION & HYDRAULIC SYSTEM	AXLES	SUSPENSIONS
TYRES	TRANSFER REDUCER	BLOWER HEAD	TWO SPEED BACK GEAR

Periodicity: EVERY 500 HOURS or ANUALLY

Required time: 15 minutes

Action points:

Requested spare parts:

- Main filter cartridge code: **00112145**
- Secondary filter cartridge code: **00112144**

Specific tools:



People operating on engine must wear protective clothes according to the regulations in force



The engine is equipped with electronic air filter indication.

The control unit provides an output signal which is announced as a warning on the instrument panel. The warning indicates a pressure drop in the air filter, which must then be checked and possibly changed.

Anyway, a filter change is requested annually.

- a) Open the 6 clips (1)
- b) Remove the cover (2)
- c) Scrap the old filter. No cleaning or re-use is permissible.



WARNING:

The filter element must not be cleaned in water or be blown clean with compressed air. There is always a risk that the filter element will be damaged when it is cleaned

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Vehicle type: SNOWBLOWER

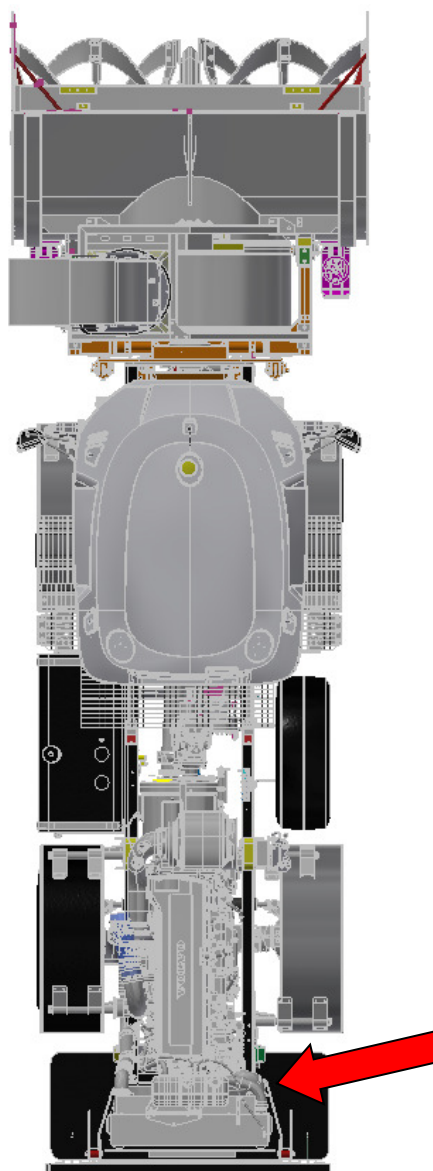
Model: F90 STI

Intervention type: ENGINE BELTS REPLACEMENT
 (FOR MORE INFORMATION REF. TO THE OPERATOR'S MANUAL VOLVO PENTA)

ENGINE	HYDROSTATIC TRANSMISSION & HYDRAULIC SYSTEM	AXLES	SUSPENSIONS
TYRES	TRANSFER REDUCER	BLOWER HEAD	TWO SPEED BACK GEAR

Periodicity: EVERY 1250 HOURS

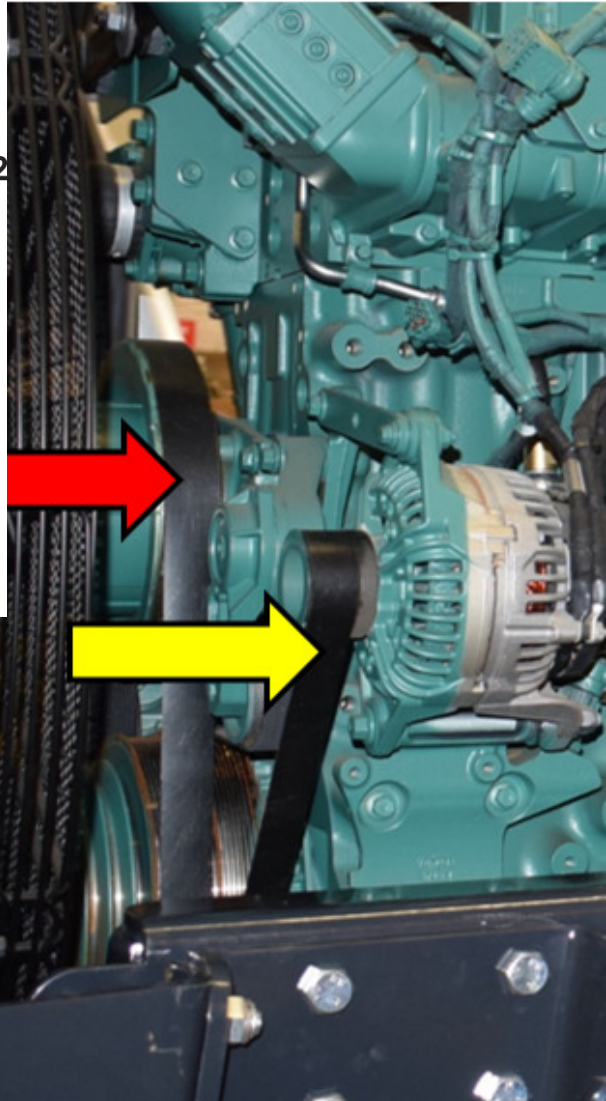
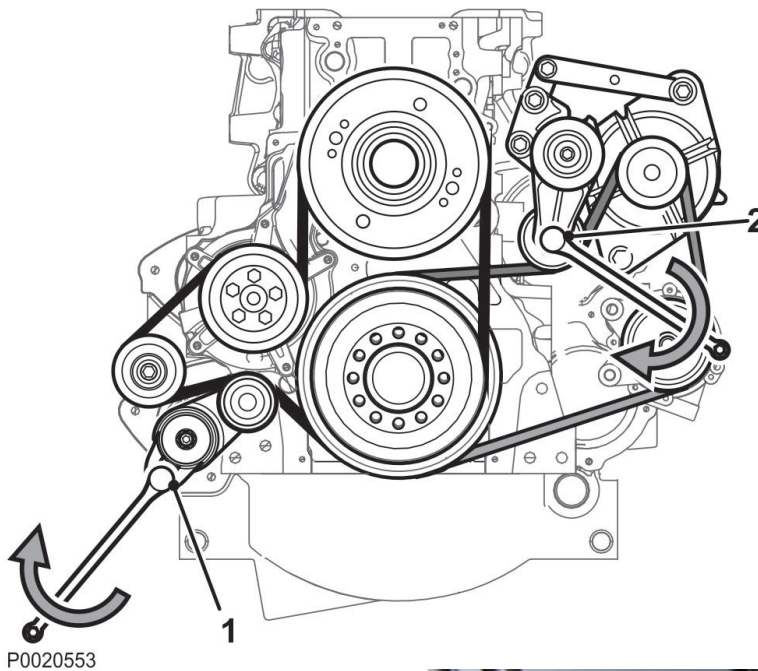
Required time: 30 minutes

Action points:

Requested spare parts:
Specific tools:



WARNING:

People operating on engine must wear protective clothes according to the regulations in force.



- a) Disconnect the main switch(es) and check that the engine is not connected to system voltage.
- b) Remove the fan protection and the fan ring around;
- c) Remove the fan guard
- d) Insert a ½ square wrench in the belt tensioner (1), lift the wrench up and lift the water pump drive belt off.
- e) Insert a ½ square wrench in the belt tensioner (2), press the wrench down and remove the alternator belts
- f) Check that the pulleys are cleaned and undamaged
- g) Press the wrench into the belt tensioner (2) down and install the new alternator drive belt.
- h) Lift the wrench in the tensioner (1) up and install the new water pump drive belt.
- i) Install the belts guards.
- l) Install the fan ring and protection.
- m) Start the engine and do a function check

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Vehicle type: **SNOWBLOWER**

Model: **F90**

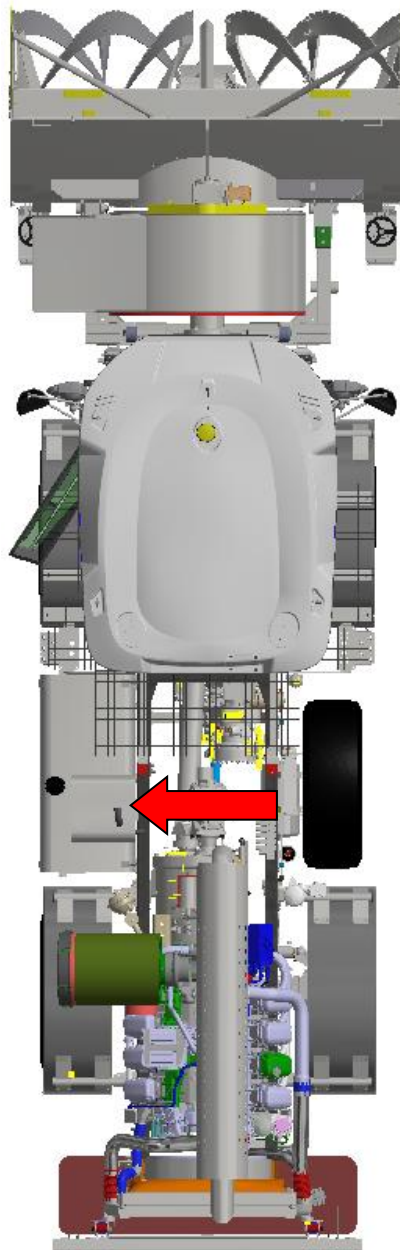
Intervention type: **HYDRAULIC AND HYDROSTATIC OIL LEVEL CHECK**

HYDROSTATIC TRANSMISSION & HYDRAULIC SYSTEM

Periodicity: **BEFORE STARTING**

Required time: **1 minute**

Action points:



Requested spare parts:

- Oil type TUTELA CAR GI/E or equivalent.

Specific tools:

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force



NOTE:

An indicator light indicates quantity of hydraulic oil.

- a) Check on control panel the tank oil level. If it is lower than **80%**, proceed as following:



- b) Fill the new oil through the upper plug (1). The correct level is about 10 cm from the top.



WARNING:

The correct level is about 10 cm from the top of the tank.

The check must be done with cold oil.



WARNING:

Use only TUTELA CAR GI/E or equivalent.

The oil has to be filtered in a 10 micron.

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Vehicle type: **SNOWBLOWER**

Model: **F90**

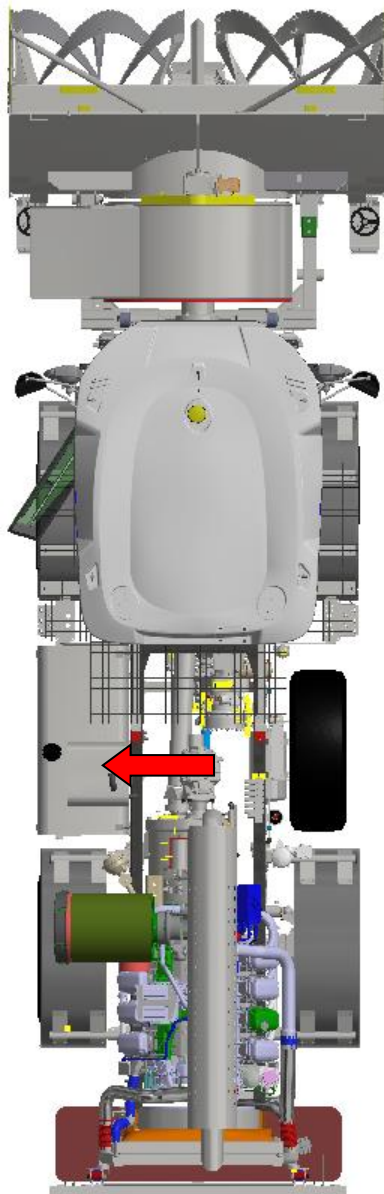
Intervention type: **HYDROSTATIC TRANSMISSION OIL FILTER REPLACEMENT**

HYDROSTATIC TRANSMISSION & HYDRAULIC SYSTEM

Periodicity: **EVERY 500 HOURS**

Required time: **20 minutes**

Action points:



Requested spare parts:

Filter cartridge code **00099792**

Oil type **TUTELA CAR GI/E** or equivalent

Specific tools:

PROCEDURE



WARNING:
People operating on vehicle must wear protective clothes according to the regulations in force.



- a) Put a container under the oil filter
- b) Remove the plastic cover.
- c) Remove the old filter and install the new one.
- d) Reinstall the cover.
- e) Run the engine and make sure there are no leaks.



WARNING:
As soon as the filter is removed, the oil becomes flowing out. At the end of the operation it is necessary to fill the tank at the correct oil level.
Use only TUTELA CAR G/E oil or equivalent.

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Vehicle type: **SNOWBLOWER**

Model: **F90**

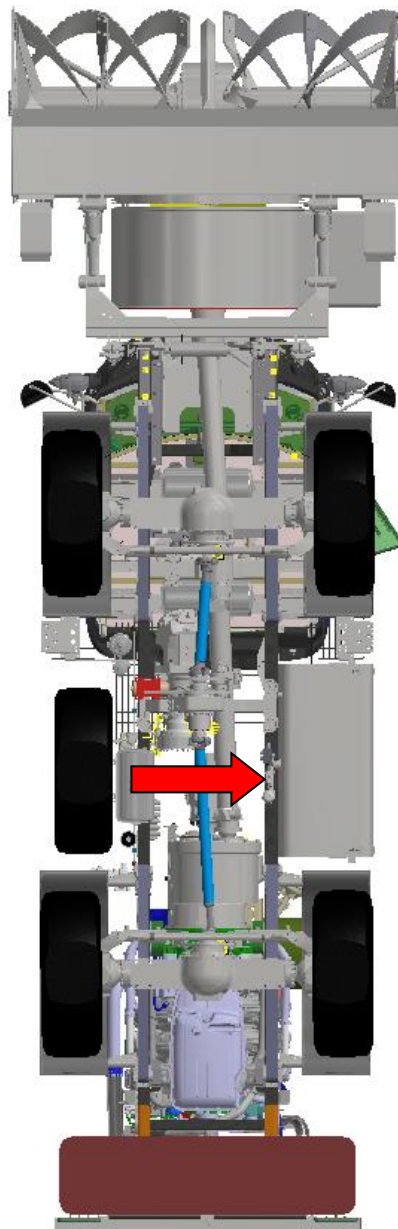
Intervention points: HYDRAULIC OIL FILTER REPLACEMENT

HYDROSTATIC TRANSMISSION & HYDRAULIC SYSTEM

Periodicity: EVERY 500 HOURS

Required time: 20 minutes

Action points:



Requested spare parts:

- Cartridge code **00083031**
- Oil type **TUTELA CAR G/E** or equivalent.

Specific tools:

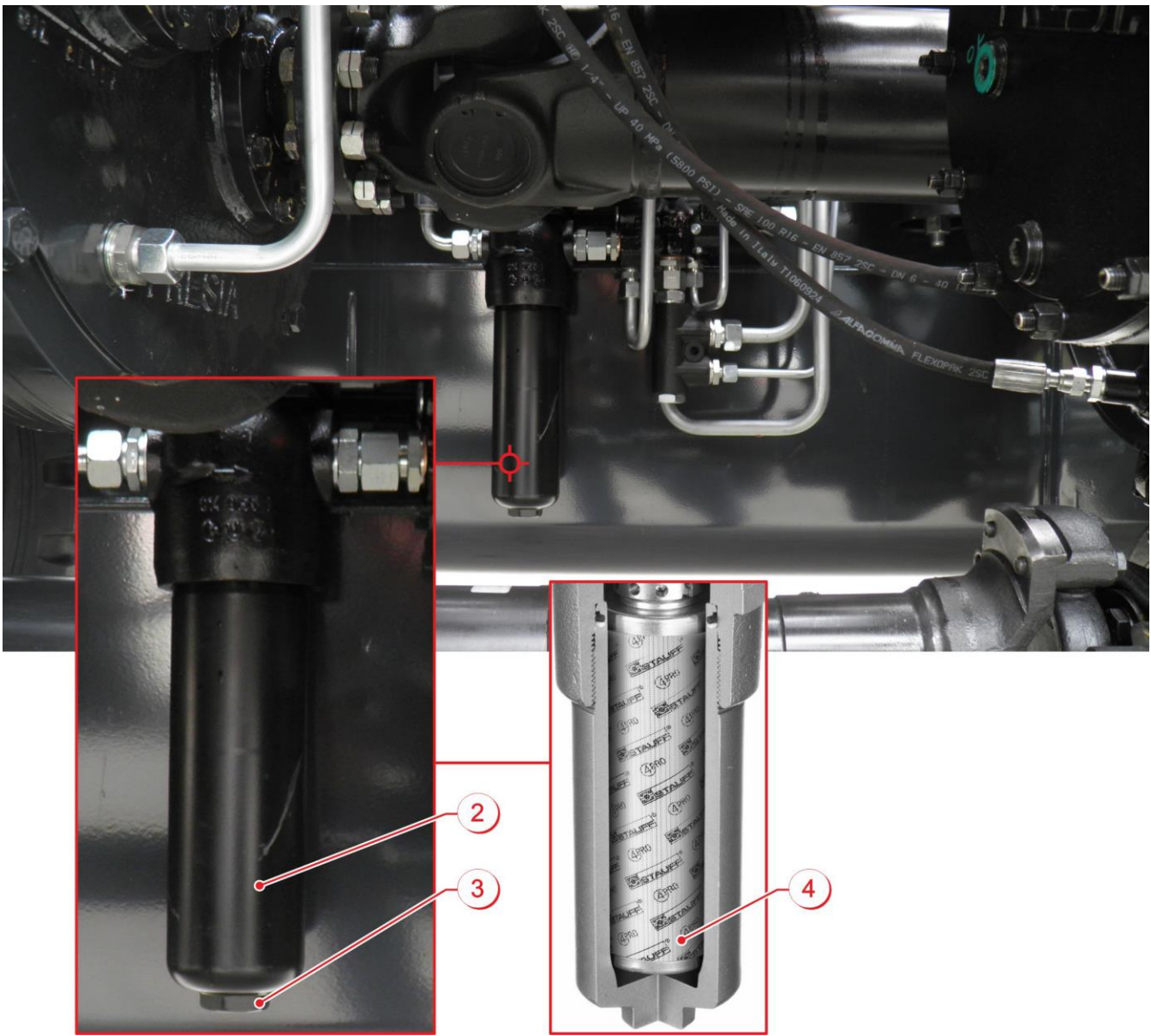
PROCEDURE:



WARNING:
People operating on vehicle must wear protective clothes according to the regulations in force.



- a) Close the valve, in the back of the tank
- b) Put a container under the oil filter.



- a) Remove the housing (2) by unscrewing the nut (3).
- b) Slide out the cartridge (4)
- c) Insert the new one.
- d) Fix back the housing (2) screwing the nut (3).
- e) Open the valve (1).



WARNING:

At the end of the operation, it is necessary to refill the tank at the correct level, 10 cm from the top.



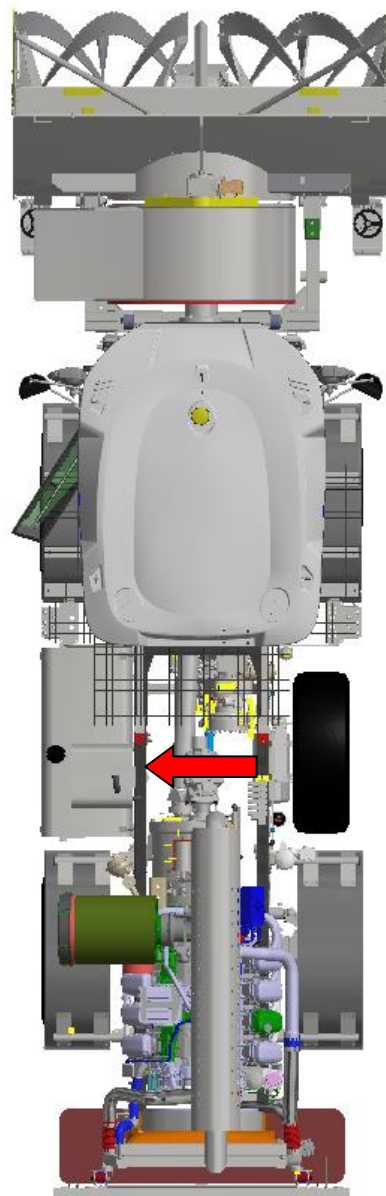
WARNING:

Use only TUTELA CAR G1/E oil or equivalent.

<input type="checkbox"/>	ELECTRIC	<input type="checkbox"/>	MECHANIC	<input checked="" type="checkbox"/>	FLUIDIC
<input type="checkbox"/>	CLEANING	<input type="checkbox"/>	LUBRICATION	<input type="checkbox"/>	INSPECTION

Vehicle type: **SNOWBLOWER**Model: **F90**Intervention type: **HYDRAULIC AND HYDROSTATIC OIL REPLACEMENT****HYDROSTATIC TRANSMISSION & HYDRAULIC SYSTEM**Periodicity: **EVERY 1000 HOURS or 2 YEARS**Required time: **30 minutes**

Action points:



Requested spare parts:

- Oil type TUTELA CAR G/E or equivalent.

Specific tools:

- Suction pump

PROCEDURE:



WARNING:

People operating on vehicle must wear protective clothes according to the regulations in force.



- a) Unscrew the tank cap and use a suction pump to drain out the oil.
- b) In alternative, proceed as following:
 - ✓ close the valve A;
 - ✓ Disconnect the hose from A;
 - ✓ put a container under the valve, open it and leave all the oil draining out;
 - ✓ when the tank is empty, close A and reconnect the hose;
- c) Fill the tank with new oil through the top opening until it reaches 10 cm from the cap;
- d) Screw back the tank cap on top.



WARNING:

Use only TUTELA CAR GI/E oil or equivalent.

Oil must be filtered in a 10 micron.

ELECTRIC
CLEANING

MECHANIC
LUBRICATION

FLUIDIC
INSPECTION

Vehicle type: **SNOWBLOWER**

Model: **F90**

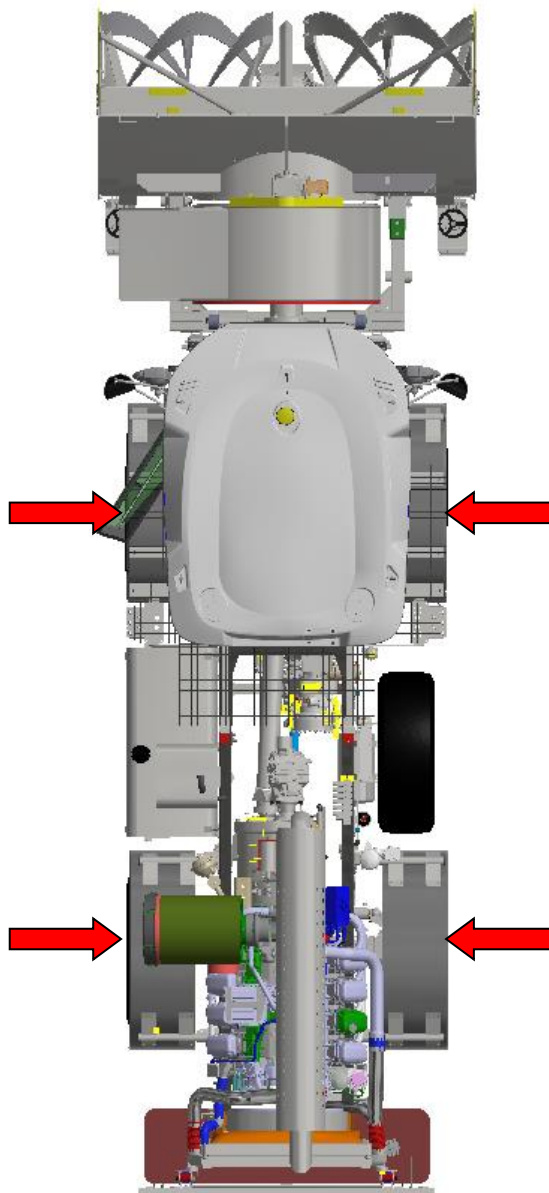
Intervention type: **WHEEL HUBS OIL LEVEL CHECK**

AXLES

Periodicity: **BEFORE STARTING**

Required time: **30 minutes**

Action points:



Requested spare parts:

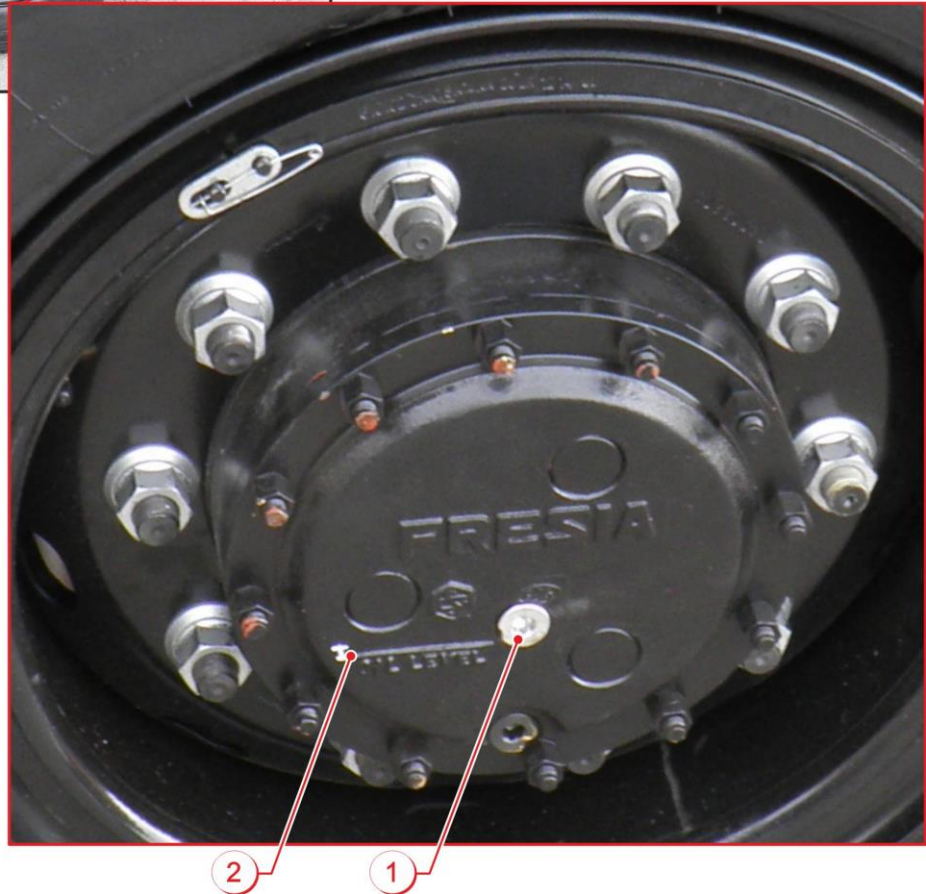
- Oil type TUTELA W90/M-DA or equivalent.

Specific tools:

PROCEDURE:



WARNING:
People operating on vehicle must wear protective clothes according to the regulations in force.



- Unscrew the plug (1) and check that the oil reaches "OIL LEVEL"(2).
- If the level is low, fill oil through the opening (1).
- Screw back the plug (1).
- Repeat the operation for each hub.



WARNING:
Do not overfill!



WARNING:
Use only TUTELA W90/M-DA oil or equivalent.

ELECTRIC
CLEANING

MECHANIC
LUBRICATION

FLUIDIC
INSPECTION

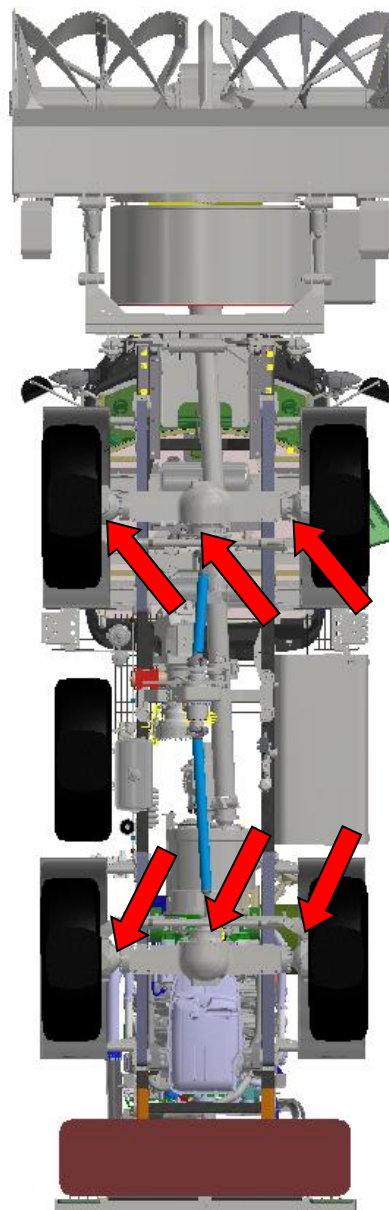
Vehicle type **SNOWBLOWER** Model: **F90**

Intervention type: **DIFFERENTIAL OIL CHECK AND STEERING HEAD GREASING**

AXLES

Periodicity: **BEFORE STARTING** Required time: **20 minutes**

Action points:



Requested spare parts:

- Oil type TUTELA W90/M-DA or equivalent.

Specific tools:

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force



- a) Drive the vehicle on an inspection pit.
- b) Unscrew the plug (1) and check that the level reaches the lower part of the opening.
- c) If it is necessary, refill.
- d) Screw back the plug (1).

ELECTRIC
CLEANING

MECHANIC
LUBRICATION

FLUIDIC
INSPECTION

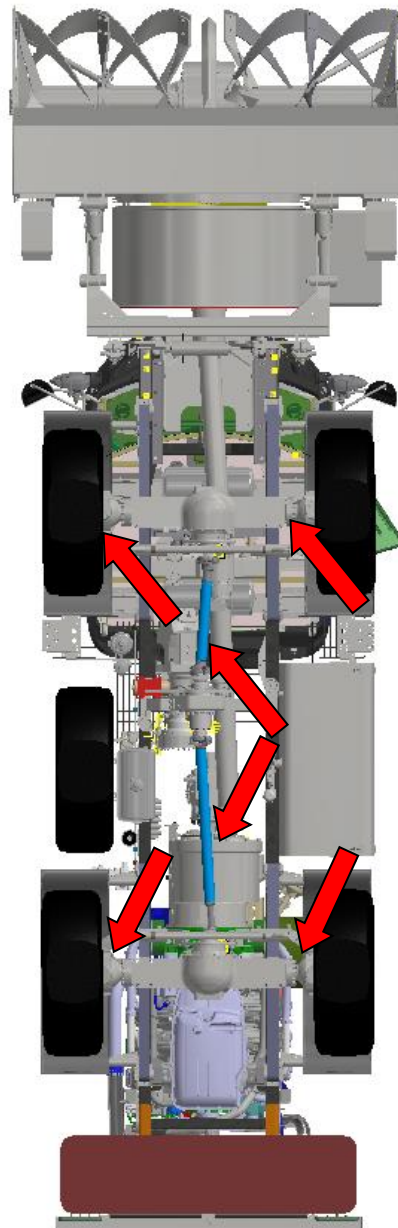
Vehicle type **SNOWBLOWER** Model: **F90**

Intervention type: AXLE ARTICULATIONS, STEERING CYLINDER, SHACKLE BAR AND TRANSMISSION SHAFTS LUBRICATION (ONLY WHERE NOT PRESENT AUTOMATIC GREASING SYSTEM)

AXLES

Periodicity: BEFORE STARTING Required time 10 minutes

Action points:



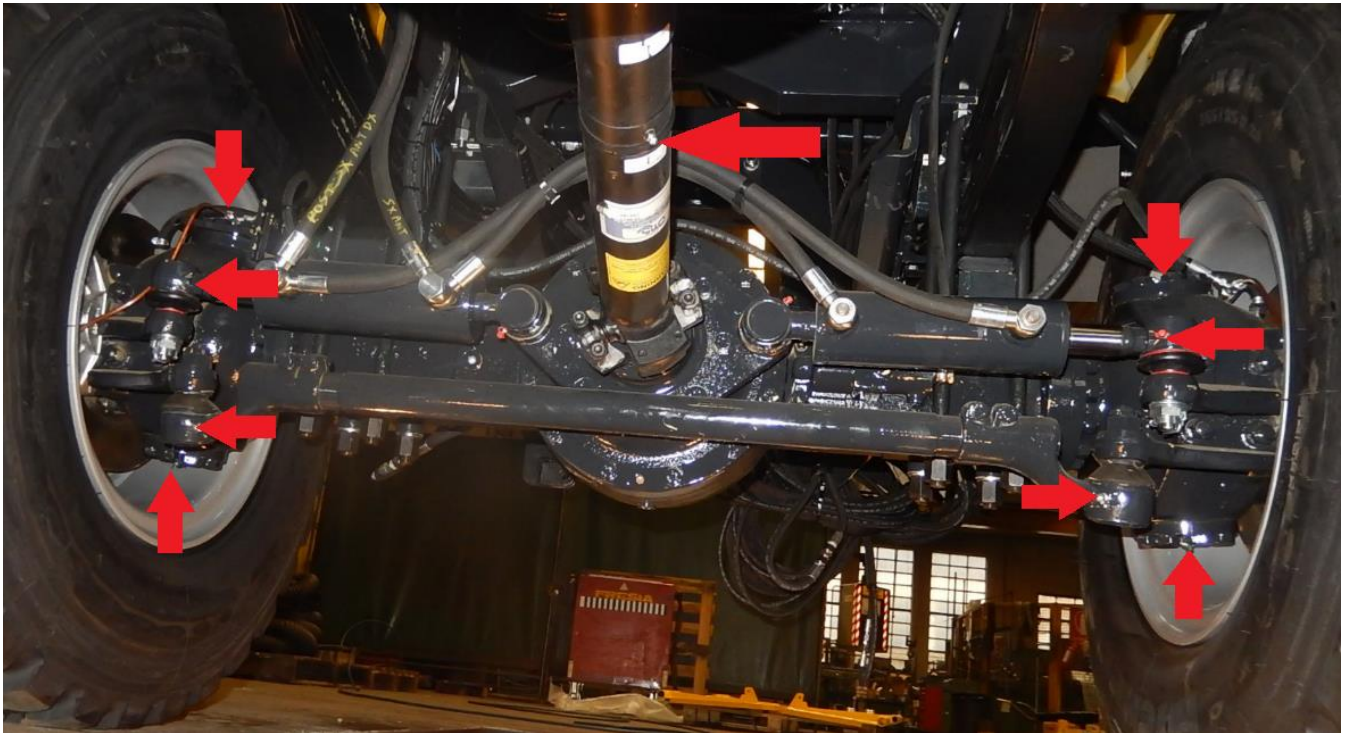
Requested spare parts:

Specific tools:

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force



NOTE:

Inject grease into the grease fittings on steering cylinders and coupling bar (2)(4 grease fittings each axle) and in steering articulation (3) (nr.6 grease fittings each axle) and transmission shafts (n.1 fitting for each).

ELECTRIC

MECHANIC

FLUIDIC

CLEANING

LUBRICATION

INSPECTION

 Vehicle type: **SNOWBLOWER**

 Model: **F90**

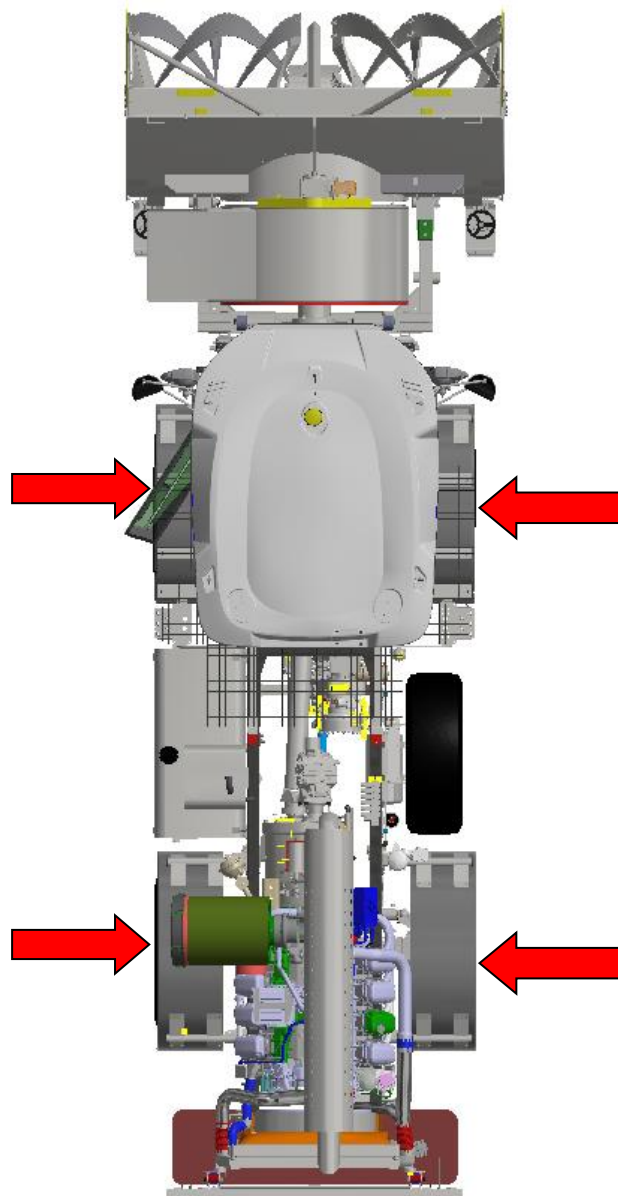
 Intervention type: **HUBS OIL REPLACEMENT**

AXLES

 Periodicity: **EVERY 500 HOURS**

 Required time: **60 minutes**

Action points:


Requested spare parts:

- Oil type **TUTELA W90/M-DA** or equivalent.
- Seals for plugs (1) and (2) code **R0082099**

Specific tools:

PROCEDURE:

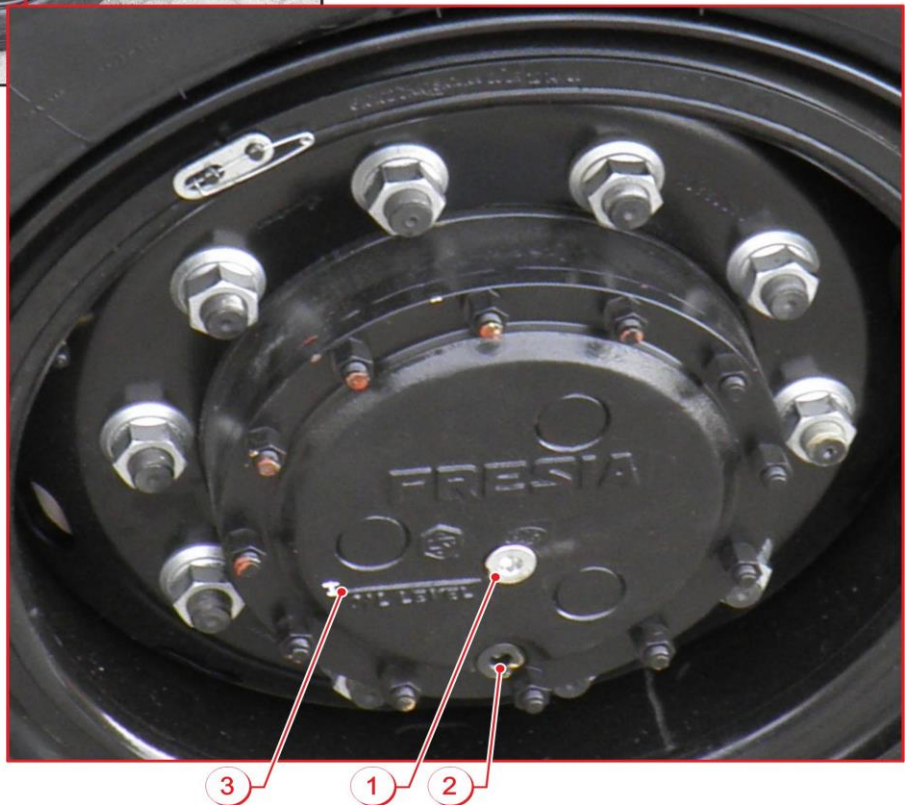


People operating on vehicle must wear protective clothes according to the regulations in force



NOTE:

It is suggested to do the operation with warm oil to make its flowing out easier.



- a) Move the vehicle to have the hub in position like in picture.
- b) Put a container under hub.
- c) Unscrew plugs (1) and (2) and let all the oil flowing out.
- d) Screw back the plug (2) (replace plug (2) gasket).
- e) Fill the hub with new oil through the opening (1) till it reaches "OIL LEVEL"(3). The filling should be done slowly to allow the oil to penetrate into the gears.
- f) Screw back the plug (1) (replace (1) gasket).



WARNING:

Use only TUTELA W90/M-DA oil or equivalent.

ELECTRIC
CLEANING

MECHANIC
LUBRICATION

FLUIDIC
INSPECTION

Vehicle type: SNOWBLOWER

Model: F90

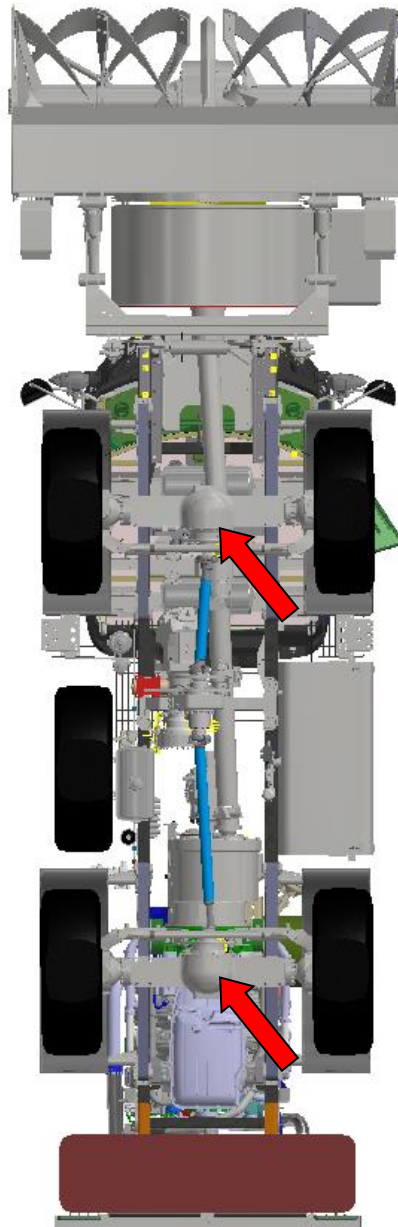
Intervention type: DIFFERENTIAL OIL REPLACEMENT

AXLES

Periodicity: EVERY 500 HOURS

Time required: 60 minutes

Action points:



Requested spare parts:

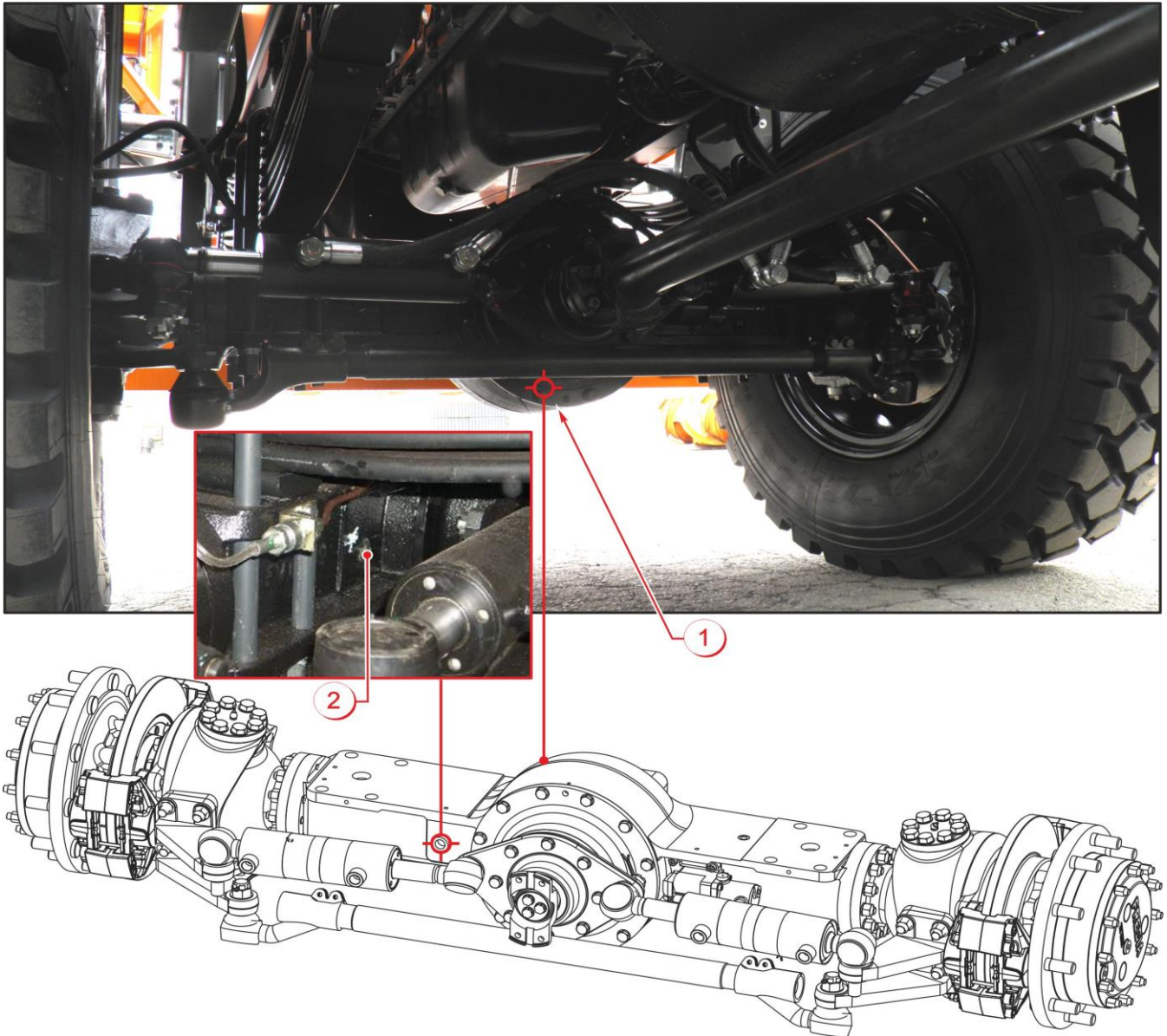
- Oil type TUTELA W90/M-DA or equivalent.
- Plug gaskets (1) and (2) code R0082099

Specific tools:

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force



- a) Move the vehicle over an inspection pit.
- b) Put a container under the differential.
- c) Unscrew the plug (1) and let the oil flows out.
- d) Screw back the plug (1) (replace the gasket (1)).
- e) Fill new oil through the opening (2) until it reaches the lower part of the opening (replace gasket (2));
- f) Screw back plug (2).



WARNING:

Use only TUTELA W90/M-DA oil or equivalent.

ELECTRIC
CLEANINGMECHANIC
LUBRICATIONFLUIDIC
INSPECTION

Vehicle type: SNOWBLOWER

Model: F90

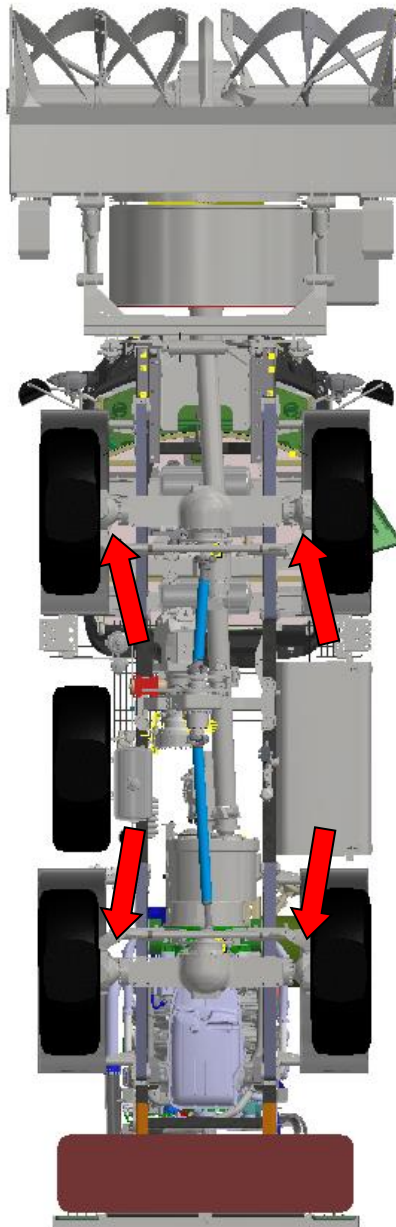
Intervention type: CHECK THE STEERING HEADS AND SHACKLE BAR HEADS CLEARANCE

AXLES

Periodicity: EVERY 500 HOURS

Required time: 20 minutes

Action points:

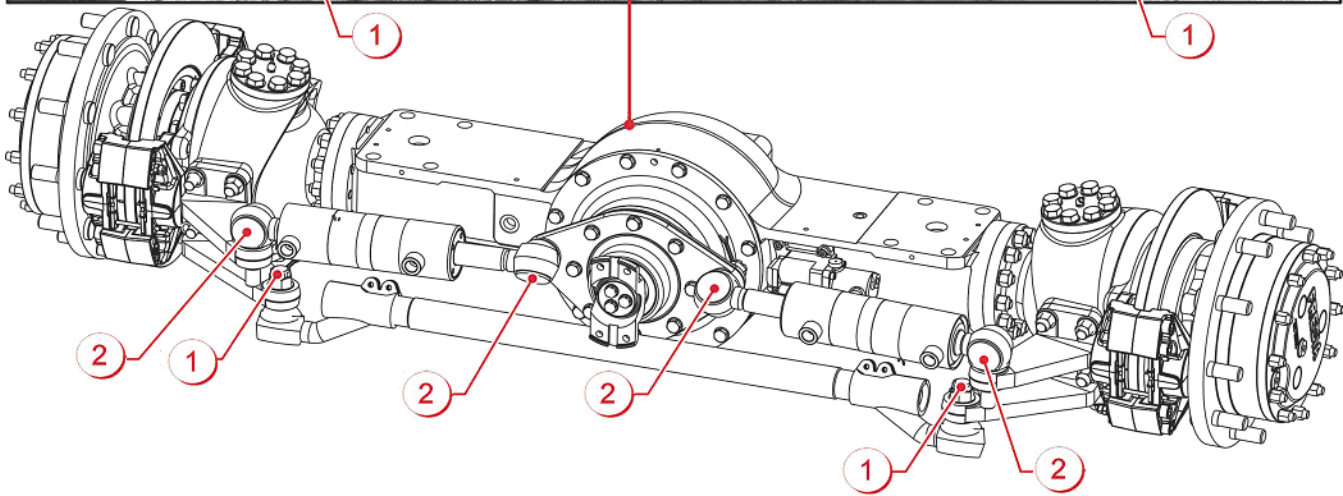
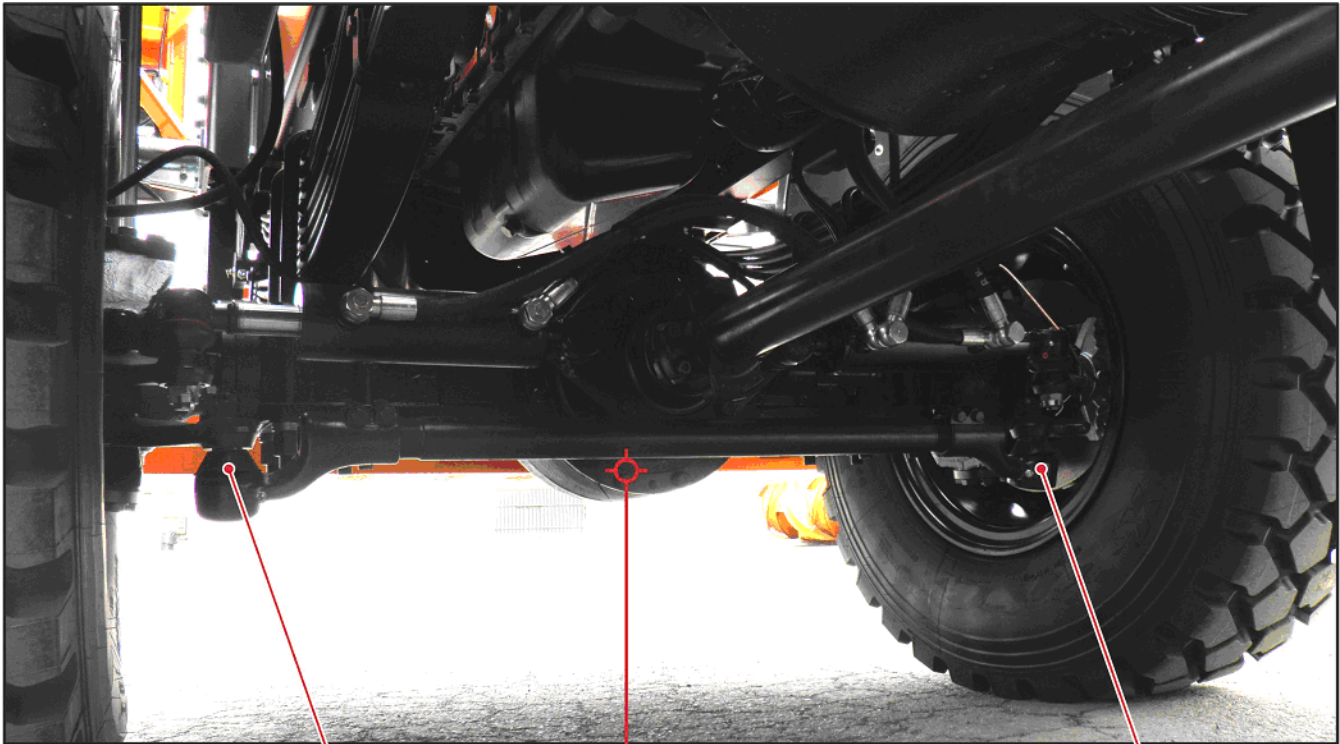


Requested spare parts:	Specific tools:
-------------------------------	------------------------

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force



- a) Check the coupling bar heads (1), and the heads of steering cylinders (2) have no gaps.
- b) If it is necessary, replace them.

ELECTRIC
CLEANING

MECHANIC
LUBRICATION

FLUIDIC
INSPECTION

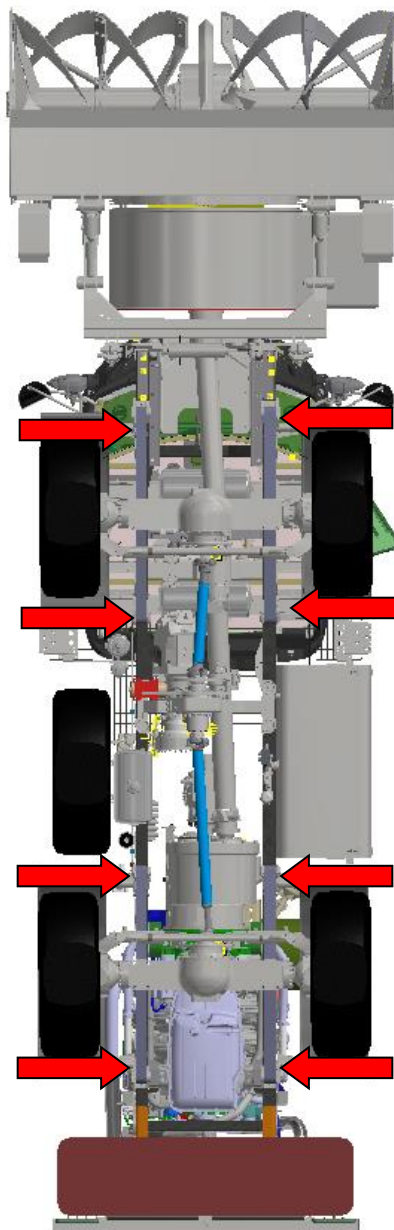
Vehicle type: **SNOWBLOWER** Model: **F90**

Intervention type: **SUSPENSIONS LUBRICATION**
(ONLY FOR VEHICLE NOT PROVIDED OF AUTOMATIC GREASING SYSTEM)

SUSPENSIONS

Periodicity: **BEFORE STARTING** Required time: **15 minutes**

Action points:



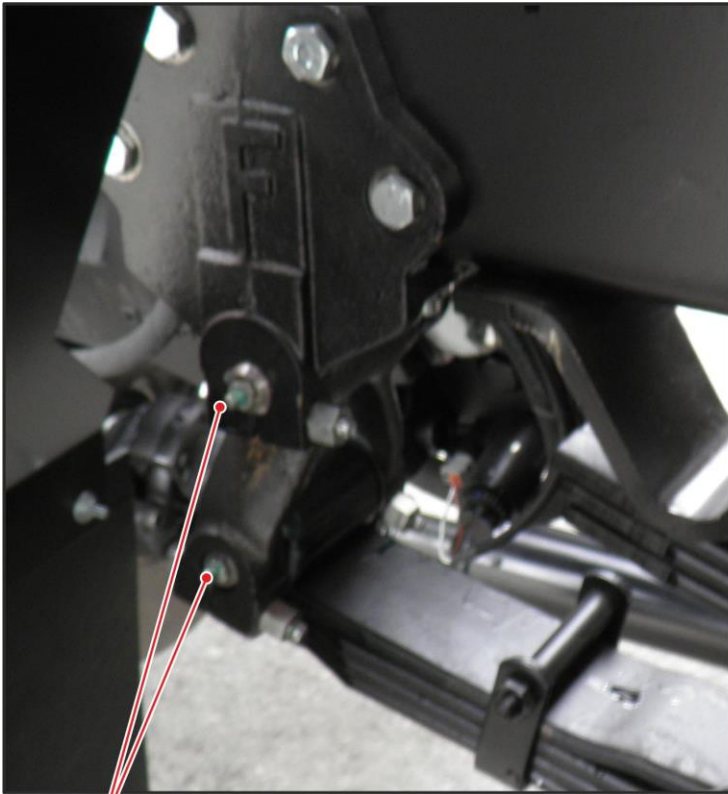
Requested spare parts:

Specific tools:

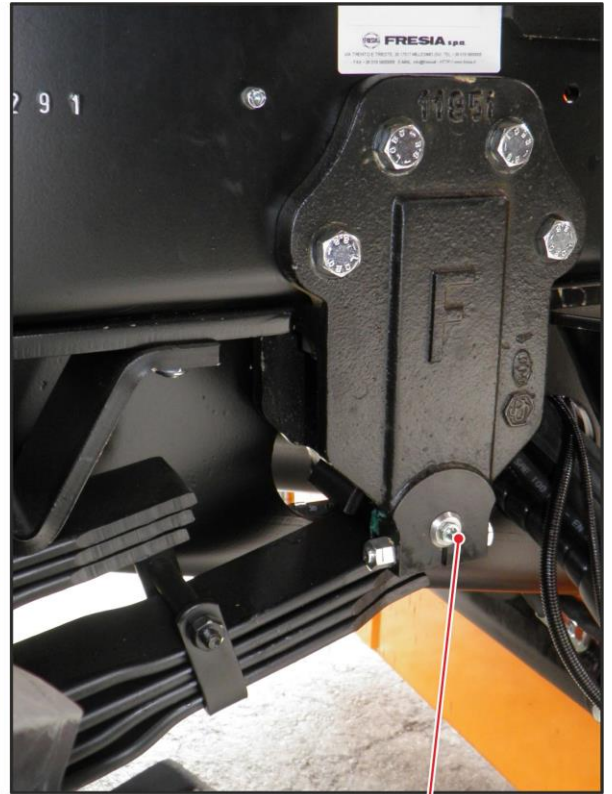
PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force



1



1

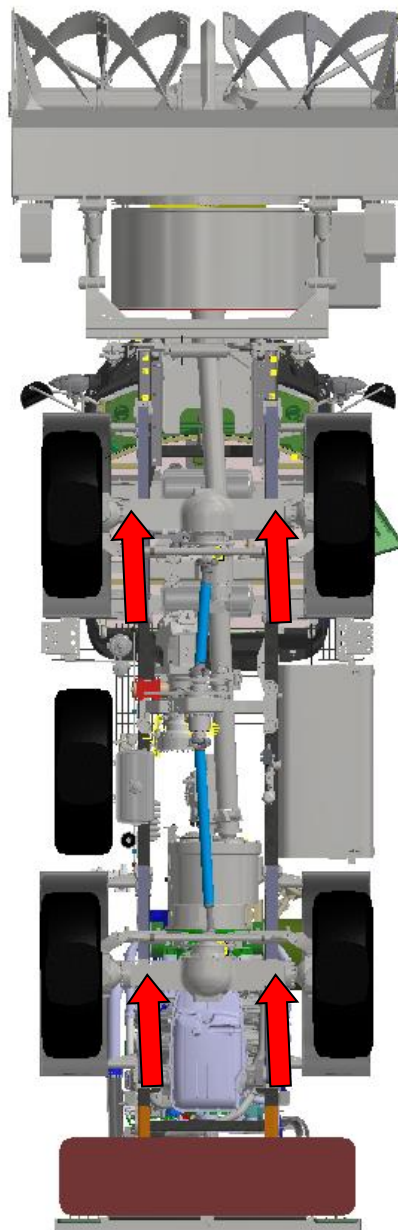


NOTE:

Inject grease into the fittings (1) of the leaf springs (nr. 3 each leaf spring –nr. 12 in total).

ELECTRIC
CLEANING
MECHANIC
LUBRICATION
FLUIDIC
INSPECTIONVehicle type: **SNOWBLOWER**Model: **F90**Intervention type: **CHECK THE TOQUE OF NUTS CONNECTING AXLES TO THE LEAF SPRINGS****SUSPENSIONS**Periodicity: **EVERY 500 HOURS**Required time: **20 minutes**

Action points:



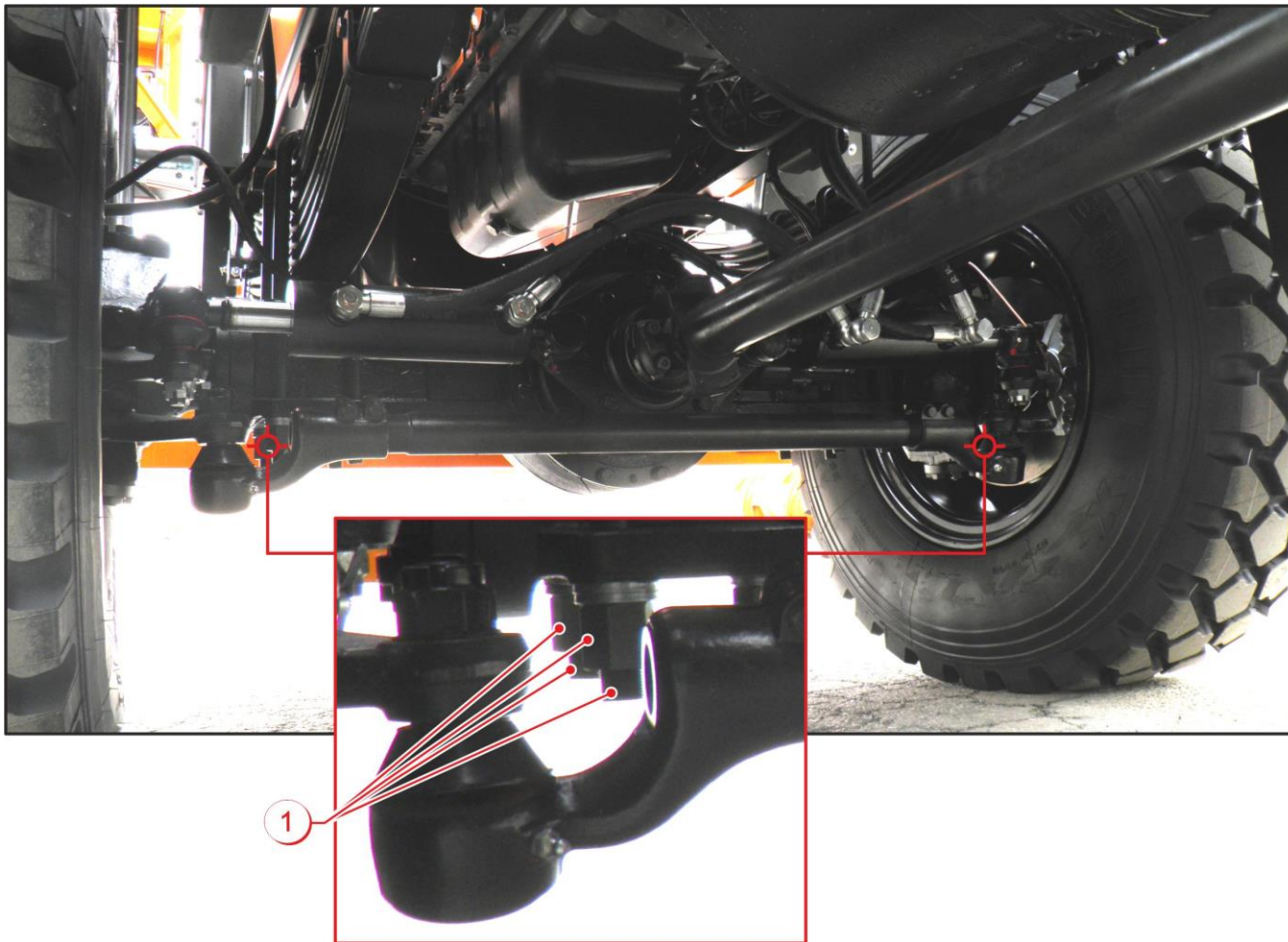
Requested spare parts:

Specific tools:

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force



Check the torque of nut for connection of the axle to the leaf spring (1) (nr. 8 nut each axle).

Recommended torque: **500 Nm**

ELECTRIC
CLEANING

MECHANIC
LUBRICATION

FLUIDIC
INSPECTION

Vehicle type: **SNOWBLOWER**

Model: **F90**

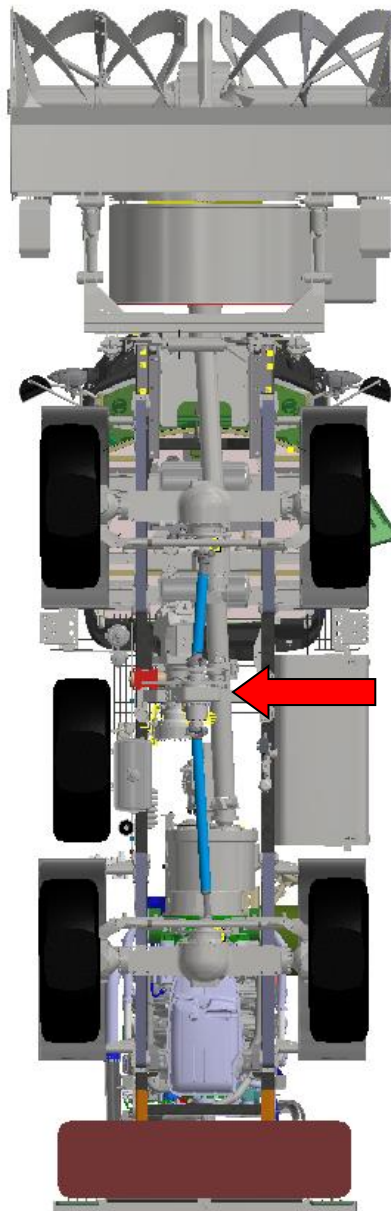
Intervention type: **TRANSFER REDUCER OIL LEVEL CHECK**

TRANSFER REDUCER

Periodicity: **BEFORE STARTING**

Required time: **10 minutes**

Action points:



Requested spare parts:

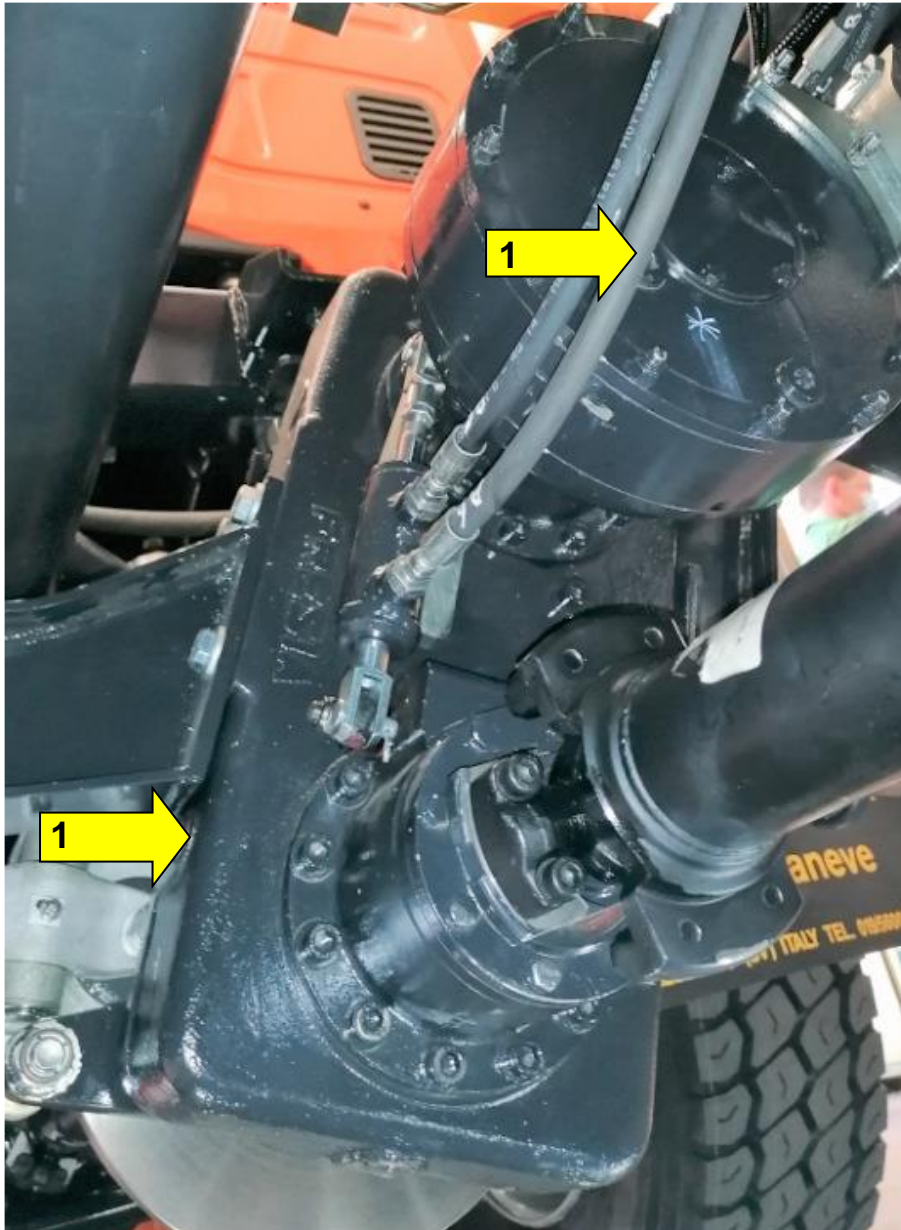
- Oil type TUTELA W90/M-DA or equivalent.

Specific tools:

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force



- a) Move the vehicle over an inspection pit.
- b) Unscrew the plugs (1) and check that the oil reaches the low parts of the openings.
- c) If it is necessary, refill through the opening.
- d) Screw back the plugs (1).



WARNING:

Use only TUTELA W90/M-DA oil or equivalent.

<input type="checkbox"/>	ELECTRIC	<input type="checkbox"/>	MECHANIC	<input checked="" type="checkbox"/>	FLUIDIC
<input type="checkbox"/>	CLEANING	<input type="checkbox"/>	LUBRICATION	<input type="checkbox"/>	INSPECTION

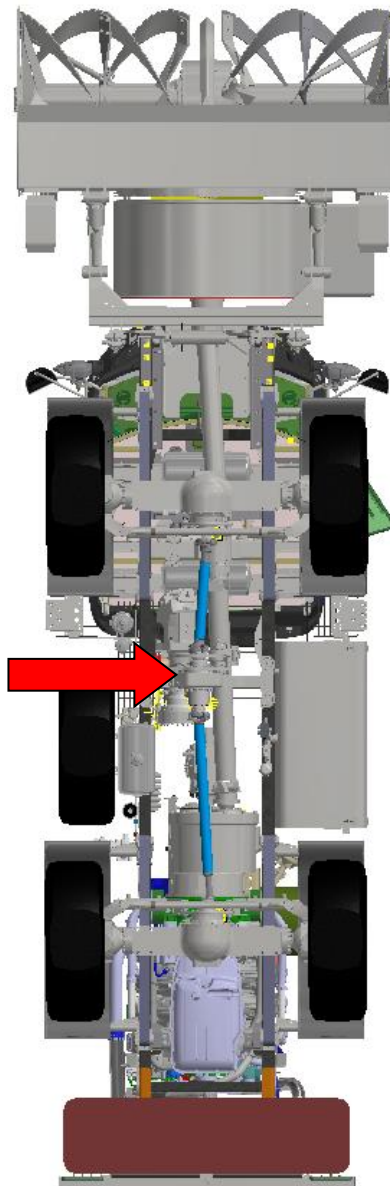
Vehicle type: **SNOWBLOWER** Model: **F90**

Intervention type: **TRANSFER REDUCER OIL REPLACEMENT**

TRANSFER REDUCER

Periodicity: **EVERY 500 HOURS** Required time: **30 minutes**

Action points:



Requested spare parts:

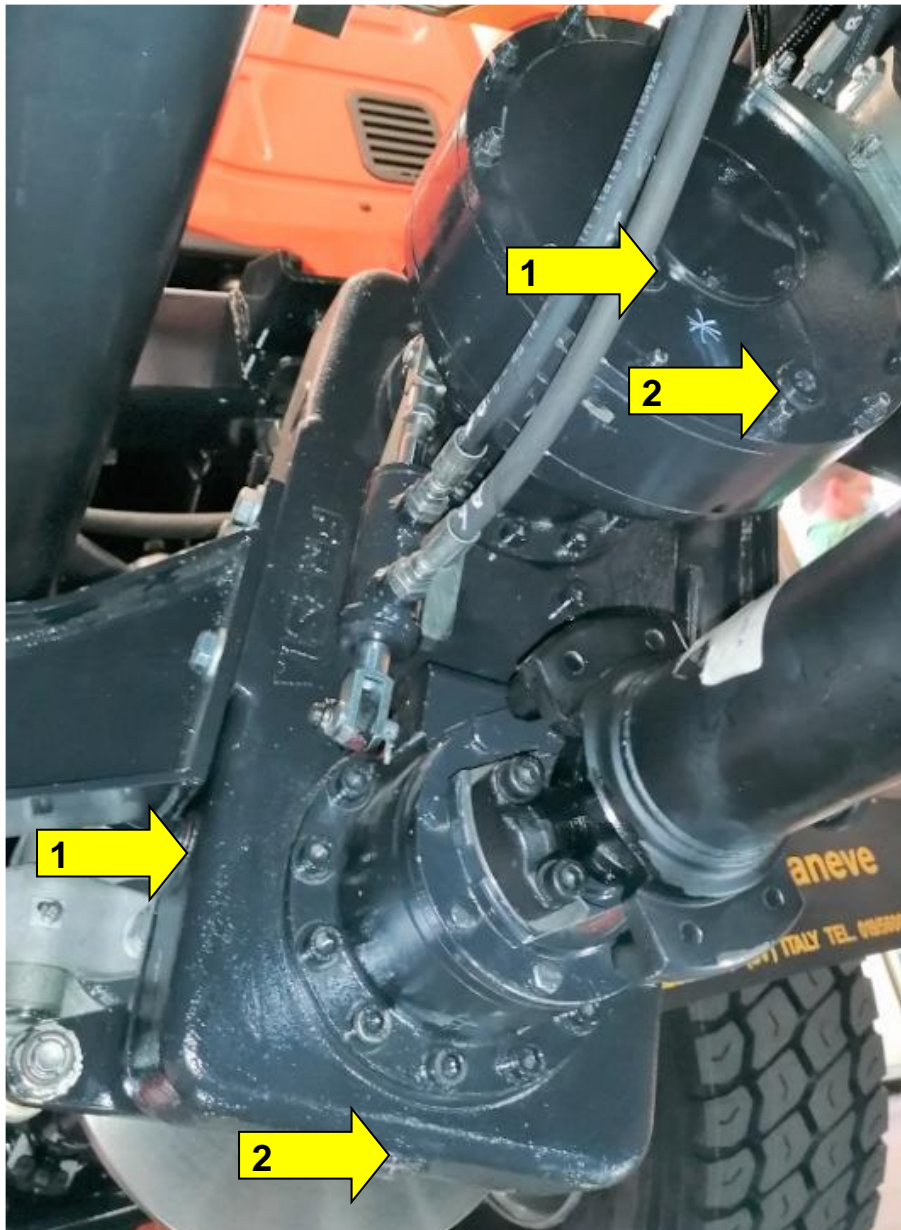
- Oil type TUTELA W90/M-DA or equivalent
- Plug washers (2) code R0082099
- Plug washers (1) code R1012552

Specific tools:

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force



- a) Move the vehicle over an inspection pit.
- b) Put a container under the transfer reducer.
- c) Unscrew the plugs (1) and let the oil draining out.
- d) Screw back the plugs (2) (replace their washers).
- e) Pour new oil through the openings (1) until it reaches the lower part of the openings.
- f) Screw back the plugs (1) (replace their washers).



WARNING:

Use only TUTELA W90/M-DA oil or equivalent.

ELECTRIC
CLEANING

MECHANIC
LUBRICATION

FLUIDIC
INSPECTION

Vehicle type: **SNOWBLOWER**

Model: **F90**

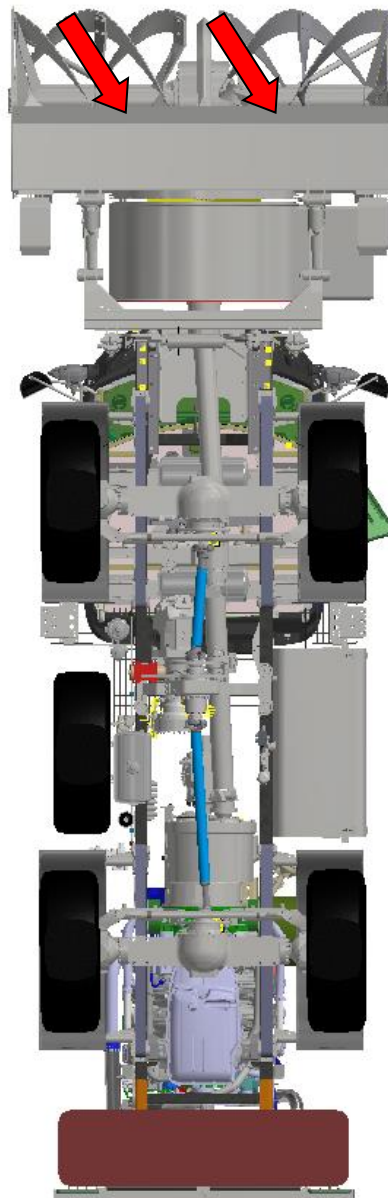
Intervention type: **BLOWER HEAD BLADE WEARING CHECK**

BLOWER HEAD

Periodicity: **BEFORE STARTING**

Required time: **5 minutes**

Action points:



Requested spare parts:

- ✓ Front iron blade code: **00011673**
- ✓ Screw (nr. 18): **V0011674**

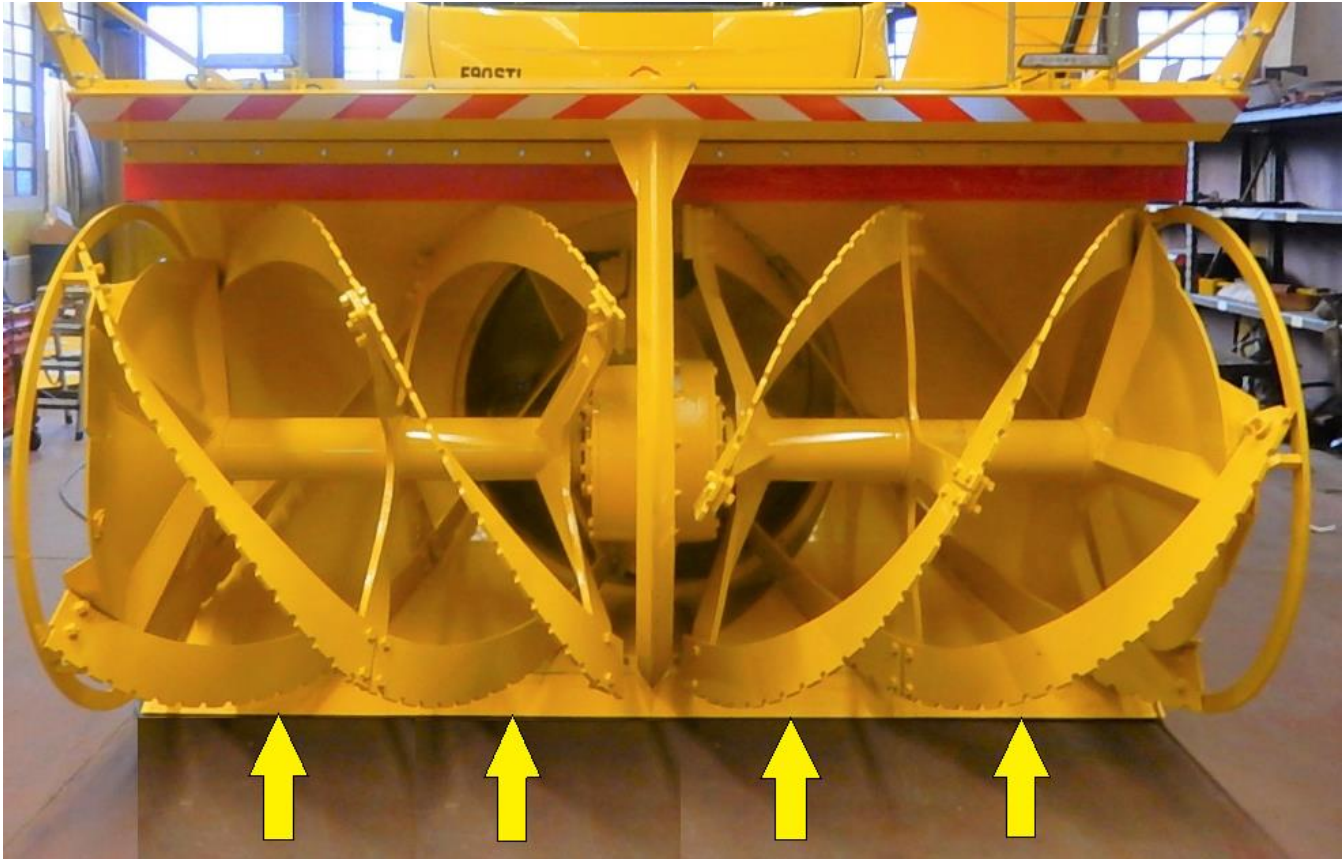
Specific tools:

PROCEDURE:



WARNING:

People operating on vehicle must wear protective clothes according to the regulations in force.



- a) Check the front blades (1) wearing.

IF IT IS NECESSARY, REPLACE IT:

- b) Lift up the blower head.
- c) Shut down the engine and extract the key.
- d) Insert the blower head safety bars (see the procedure for blower head safety bars installation on chapter 4).
- e) Unscrew the screws (2) and remove the worn front blades (1);
- f) Install the new blades and fix it with the screws (2).

ELECTRIC

CLEANING

MECHANIC

LUBRICATION

FLUIDIC

INSPECTION

 Vehicle type: **SNOWBLOWER**

 Model: **F90**

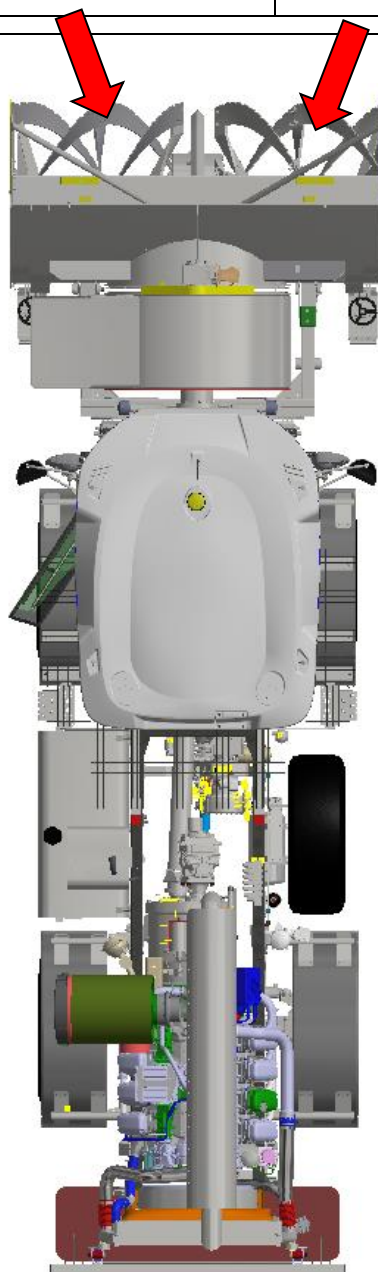
 Intervention type: **RIBBON AUGERS HELICAL CUTTERS WEARING CHECK**

BLOWER HEAD

 Periodicity: **BEFORE STARTING**

 Required time: **5 minutes**

Action points:



Requested spare parts:

- Nr. 4 Right external cutter code **00095214**
- ✓ Nr. 4 Right internal cutter code **00095217**
- Nr. 4 Left external cutter code **00095214**
- Nr. 4 Left internal cutter code **00095217**

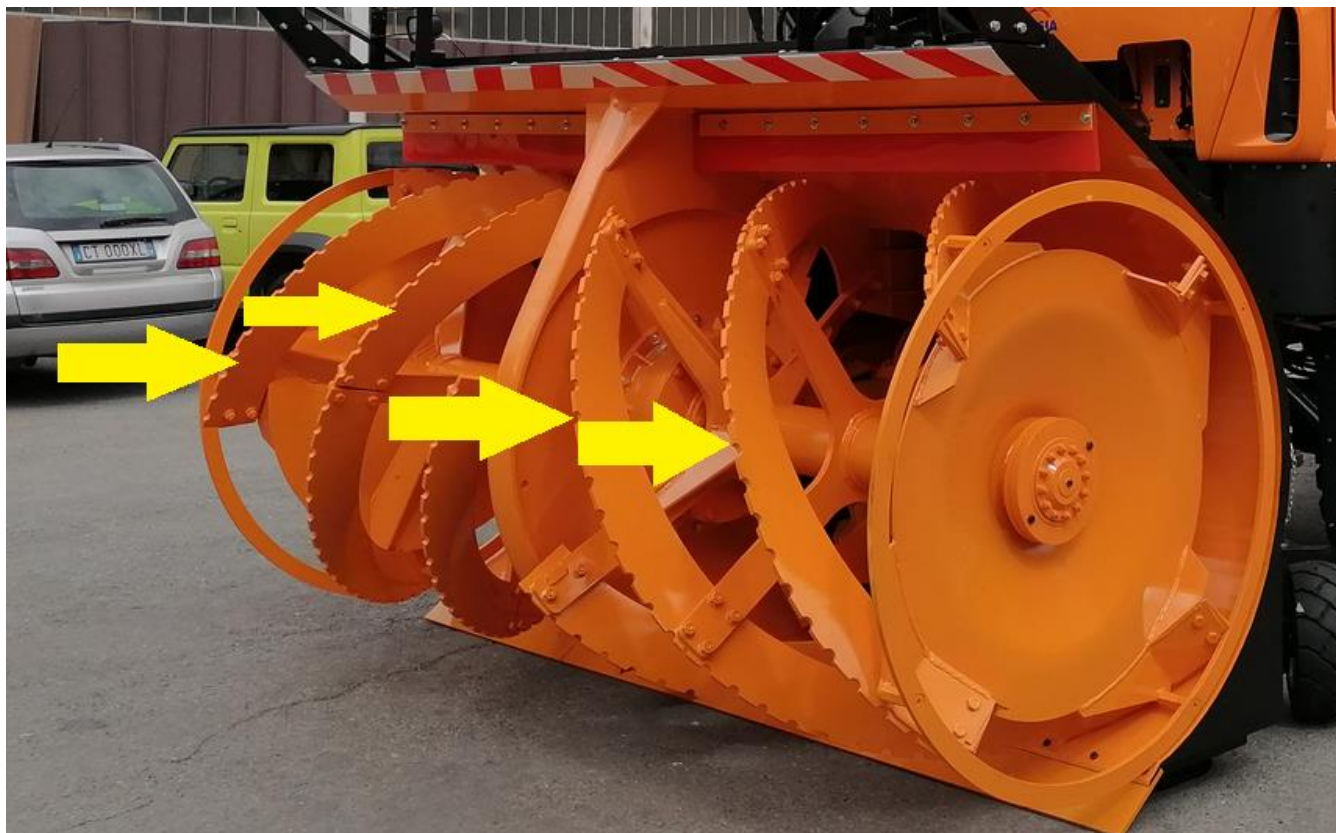
Specific tools:

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force

- a) Check the wearing of the helical cutters (1) of the blower head.



IF IT IS NECESSARY, REPLACE THEM:

- b) Move the vehicle on a flat area, shut down the engine and extract the key.
c) Remove the shear bolts in both sides (see the procedure for shear bolts replacement on chapter 4), it allows the rollers to freely rotate.
d) Screw and remove the helical cutters.
e) Fix the new cutters with the screws and after having replaced them.



WARNING:
Replace also the nuts of the screws.

Table 1

PART NUMBER	DESCRIZIONE	Q.TÀ
V00.5190	Screw 16x2x55	24x2
V00.6067	Screw 18x2x40 8G	8x2
R00.5676	Washer D.16x34 SP.3,5 ZN	32x2
D00.1118	Nut 16x2x16	32x2

ELECTRIC
CLEANING

MECHANIC
LUBRICATION

FLUIDIC
INSPECTION

Vehicle type: SNOWBLOWER

Model: F90

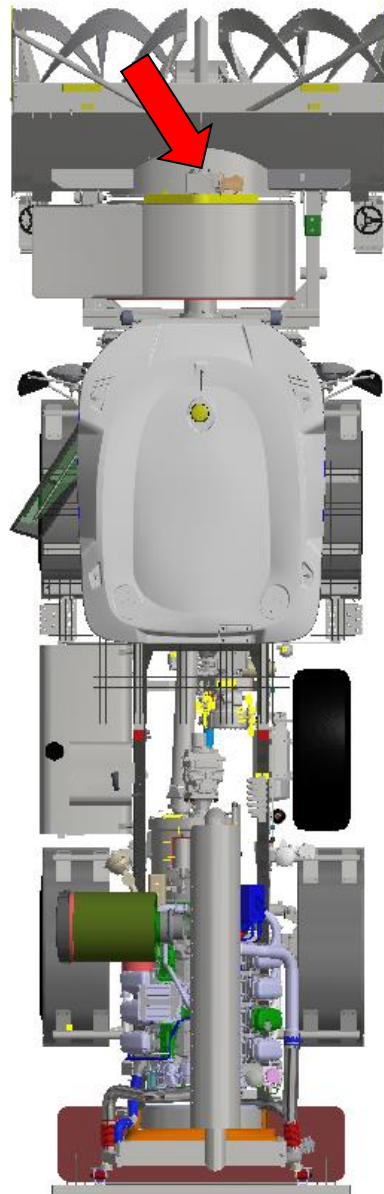
Intervention: SECOND STAGE PADDLES WEARING CHECK

BLOWER HEAD

Periodicity: BEFORE STARTING

Required time: 5 minutes

Action points:



Requested spare parts:

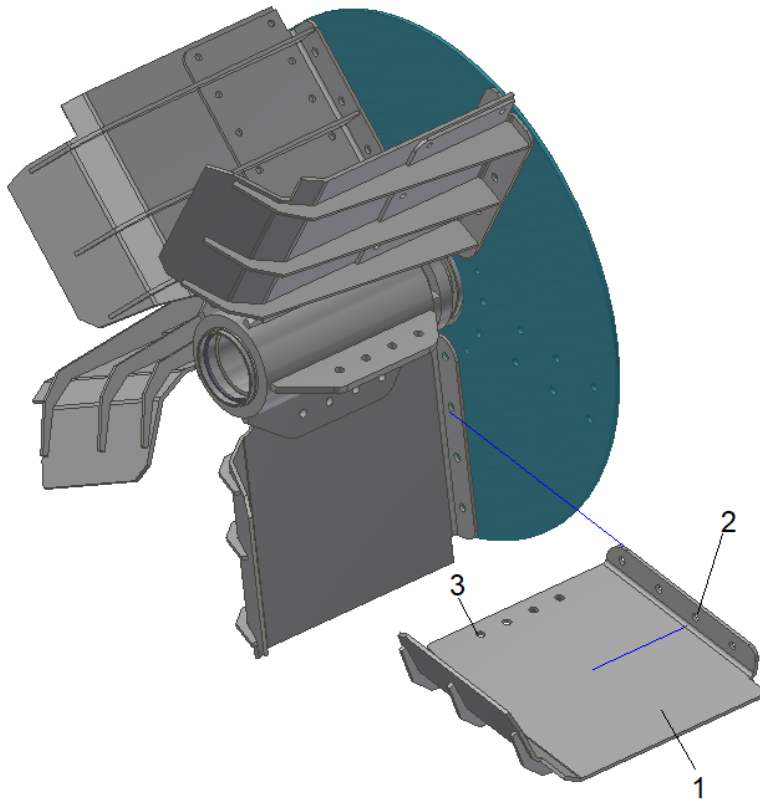
- Paddles code (nr. 5): 00107003

Specific tools:

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force



- a) Check the paddles wearing of the second stage.

IF IT IS NECESSARY, REPLACE THE IMPELLER BLADES:

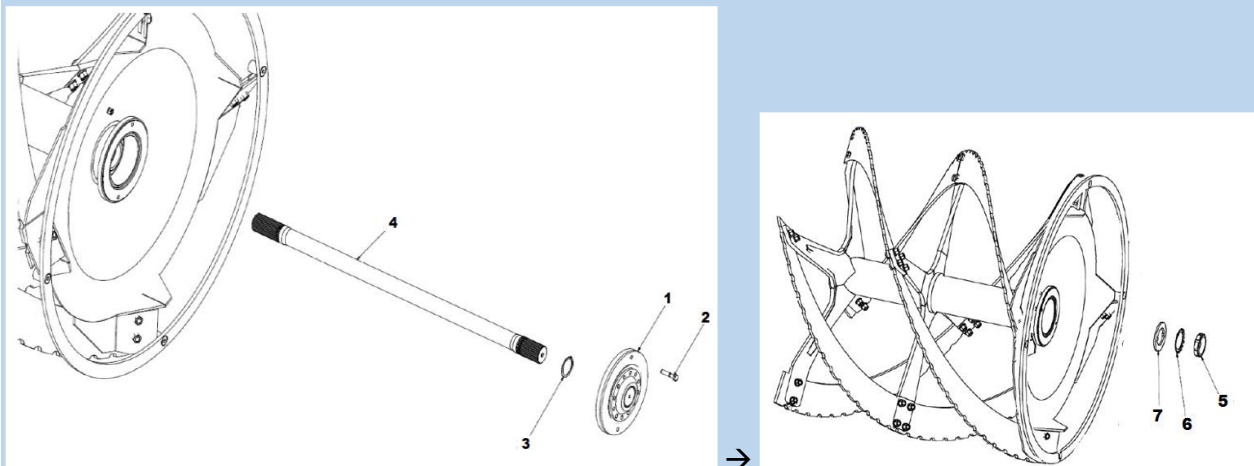


NOTE: For the following operation, it is necessary to disconnect the blower head from the vehicle and remove one of the front auger ribbons (see the below procedures)

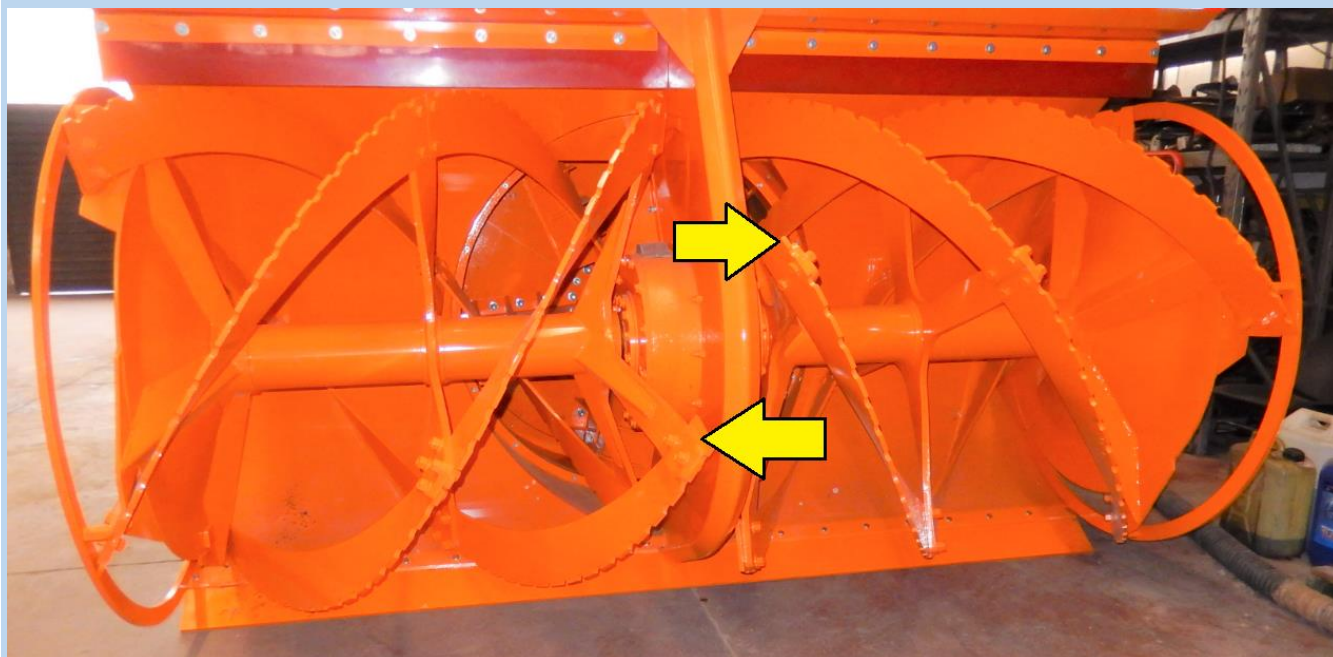
OPERATE ON A FLAT AREA

PROCEDURE TO REMOVE AND REINSTALL THE AUGER RIBBON (same procedure Right/Left):

- Unscrew the shear bolts (2) and disconnect the flange (1).
- Slide out the half-shaft (4).
- Unscrew the ring nut (5), using the proper tool, then the safety washer (6) and the washer (7)
- Slide out the auger ribbon.

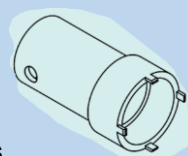


IMPORTANT!: reinstall the ribbon augers in a staggered arrangement as shown in the picture below. This avoids that foreign objects getting stuck between the augers, which may cause damage.



- Reinstall, following the procedure in reverse order.

NOTE: Screw back the ring nut until it becomes stiff and slightly release to be able to fix it with the safety washer.

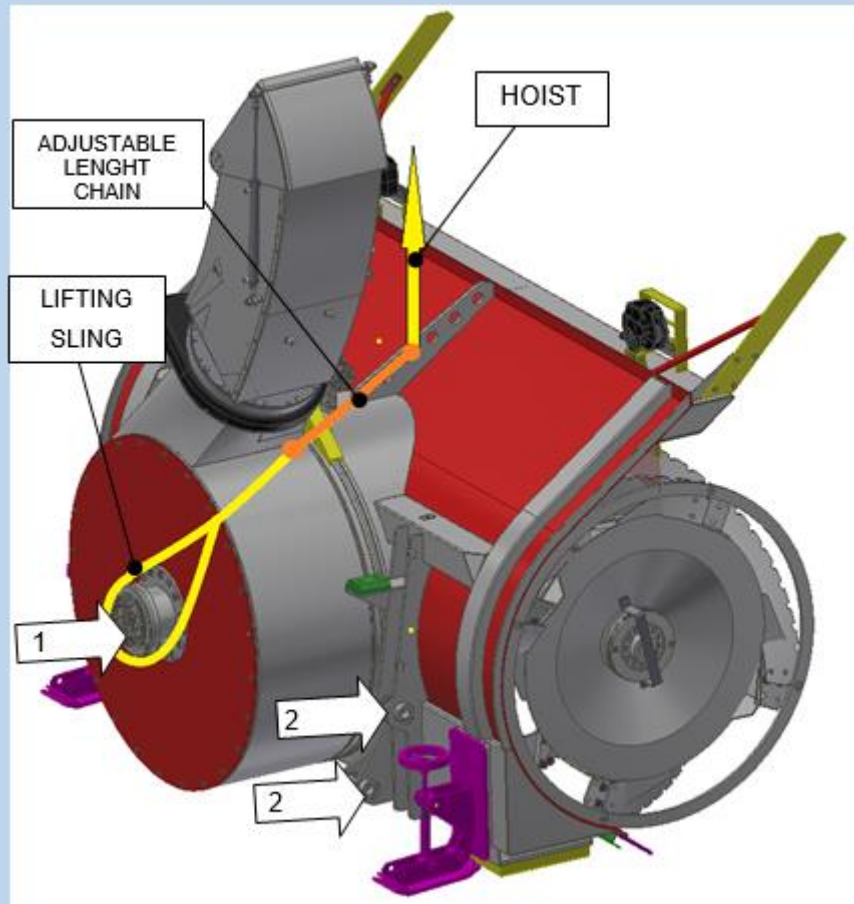


Specific tools: Special tool for ring nut of the auger ribbons

cod. 00110102

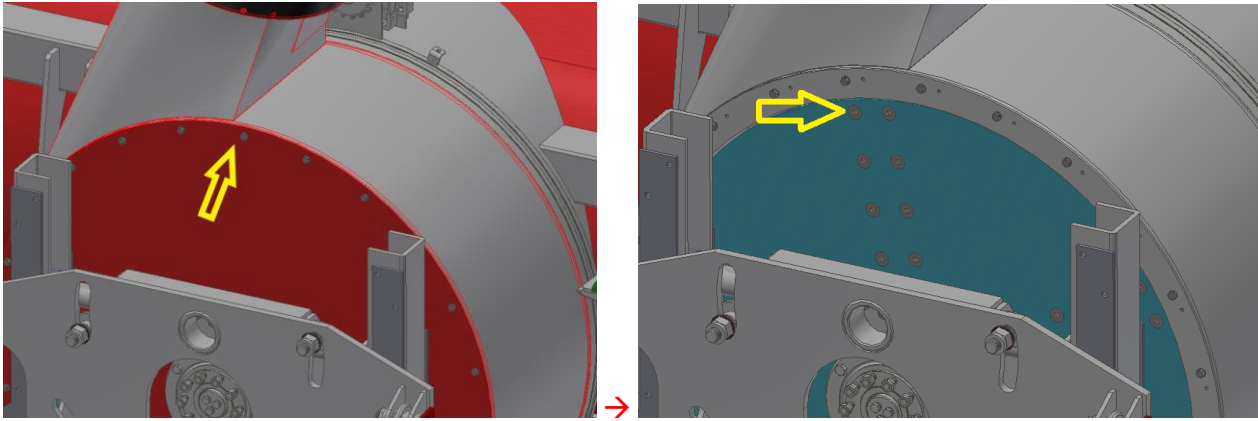


PROCEDURE TO DISCONNECT / RECONNECT THE BLOWER HEAD FROM VEHICLE



- Park the vehicle on a flat area, the blower head must be on ground.
- Disconnect the transmission shaft from the vehicle to blower head (1) and place a lifting sling around the impeller transmission shaft.
- Lift the blower head with a proper hoist so that it remains upright.
IMPORTANT! To maintain the blower head upright, it is recommended to use a lifting sling around the impeller transmission shaft (1) connected to the hoist with an adjustable length chain. Adjust the length of the chain so that when lifting with the hoist the blower head will not tilt and remain horizontal.
- Remove the pins (2) to disconnect the trestle and tie rods.
- Move the blower head away from the vehicle using the hoist.
WARNING: Be careful to avoid overturning blower head using a proper hoist and slings.
- To reconnect, carefully place the blower head in position next to vehicle using the hoist.
- Insert the trestle pins.
- Reconnect the transmission shaft.

b) Remove impeller housing cover unscrewing the bolts to access the impeller blades.



c) Sustain the impeller assembly to avoid its rotation as it may be unbalanced once the bolts are removed.



DANGER:
Be aware that the rotation of the impeller blades can cause serious injuries.

d) Unscrew the bolts of the damaged blade and slide it out from the front of blower head housing (where the auger ribbons have previously been removed).

e) Install the new impeller blade and fix it using new bolts.

f) Reinstall the conveyor cover and the front auger ribbon.

g) Reinstall the blower head on the vehicle.



WARNING:
When replacing an impeller blade always replace all fixing bolts.

PART NUMBERS	DESCRIPTION	Q.TY
V00.7291	Screw 18x1,5x65	10
V00.5663	Screw 18x1,5x60	10
V00.5200	Screw 18x1,5x55	15
V00.6188	Screw 18x2,5x50 10.9	30
D00.6063	Washer	35
D0011732	Nut	30

ELECTRIC
CLEANING
MECHANIC
LUBRICATIONFLUIDIC
INSPECTION

Vehicle type: SNOWBLOWER

Model: F90

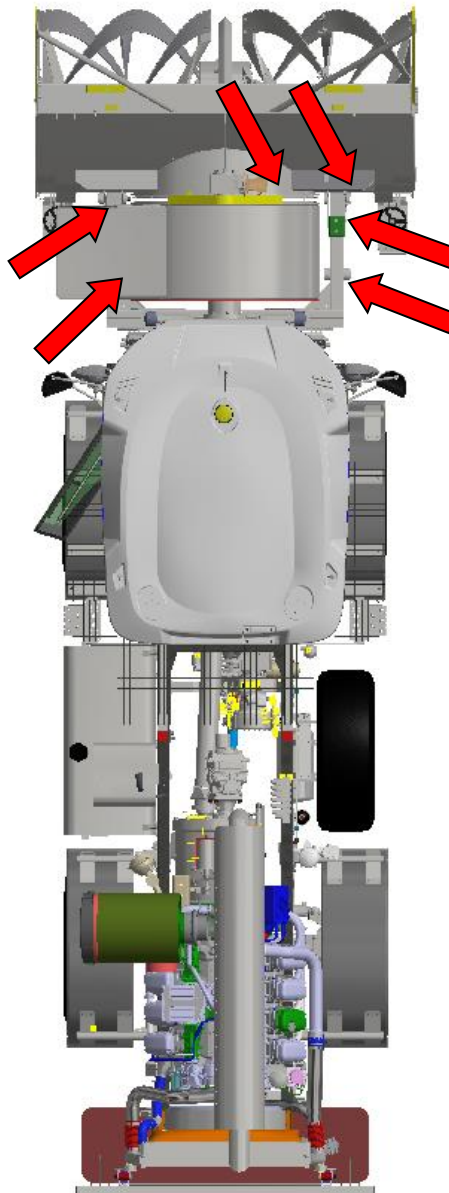
Intervention type: BLOWER HEAD LUBRICATION
(ONLY FOR VEHICLE NOT PROVIDED OF AUTOMATIC GREASING SYSTEM)

BLOWER HEAD

Periodicity: BEFORE STARTING

Required time: 15 minutes

Action points:



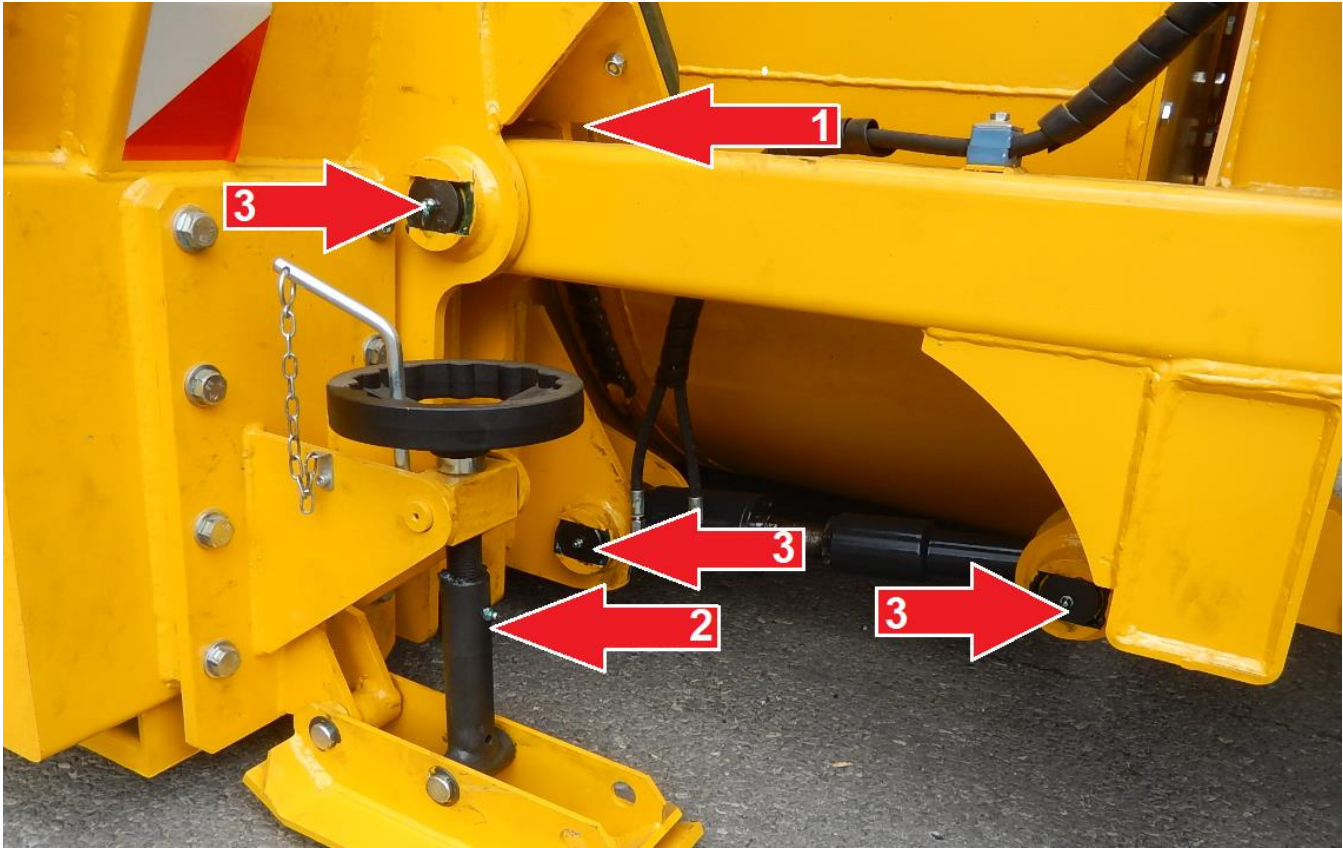
Requested spare parts:

Specific tools:

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force



NOTE:

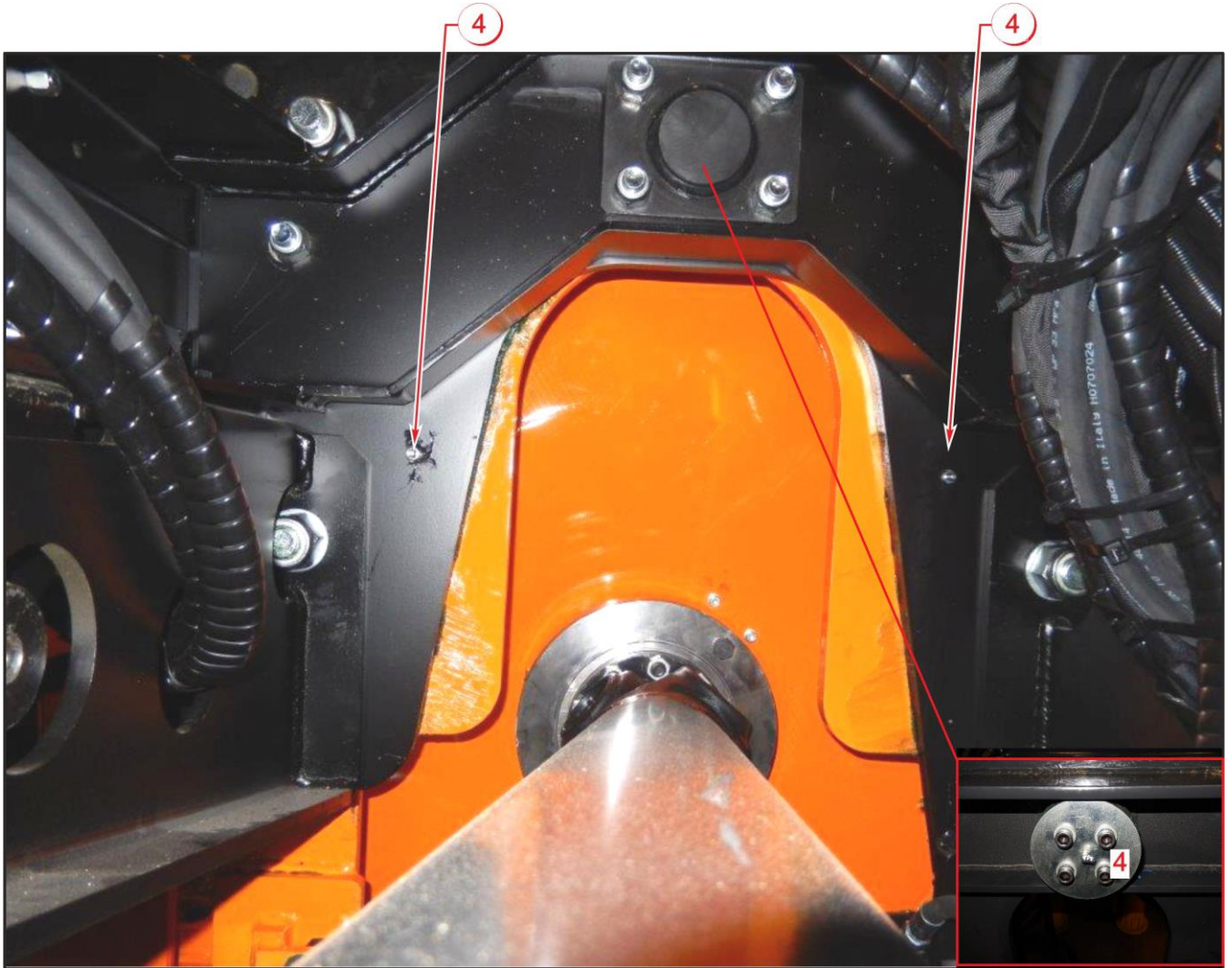
Grease:



- *the chain (1) for the conveyor rotation.*
- *the adjustment screws (2) of the castor wheels.*
- *the pins (3) of the blower head articulation.*

Inject grease into the fittings.

DOCKING PLATE LUBRICATION



NOTE:

Grease the front docking plate (4) injecting grease into the two fittings (4).

Inject grease into the fittings (4).

ELECTRIC
CLEANING

MECHANIC
LUBRICATION

FLUIDIC
INSPECTION

Vehicle type: SNOWBLOWER

Model: F90

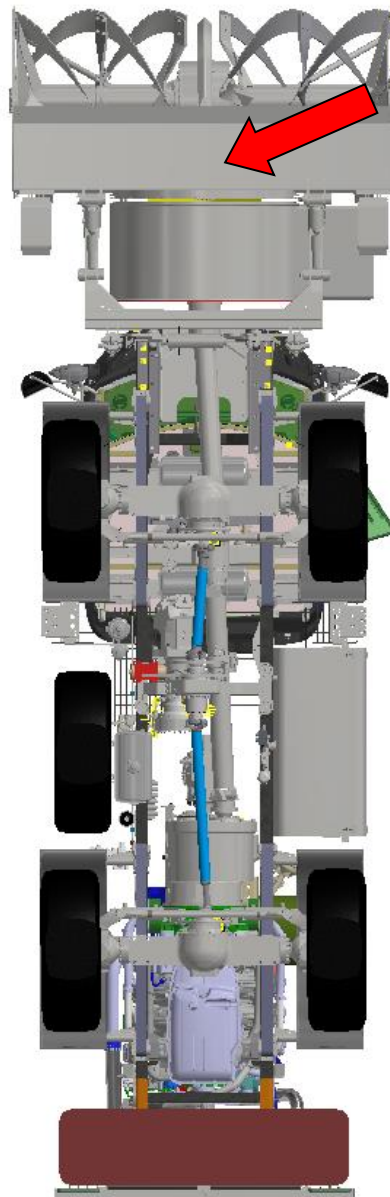
Intervention type: FIRST STAGE OIL LEVEL CHECK

BLOWER HEAD

Periodicity: BEFORE STARTING

Required time: 10 minutes

Action points:



Requested spare parts:

- Oil type TUTELA W90/M-DA or equivalent.

Specific tools:

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force



1

- a) Screw the plug (1) and check that the oil level reaches the lower part of the opening.
- b) If it is necessary, refill through (1).
- c) Screw back the plug (1).



WARNING:

Use only TUTELA W90/M-DA oil or equivalent.

ELECTRIC
CLEANING
MECHANIC
LUBRICATIONS
FLUIDIC
INSPECTION

Vehicle type: SNOWBLOWER

Model: F90

Intervention type: SECOND STAGE OIL CHECK

BLOWER HEAD

Periodicity: BEFORE STARTING

Required time: 10 minutes

Action points:



Requested spare parts:

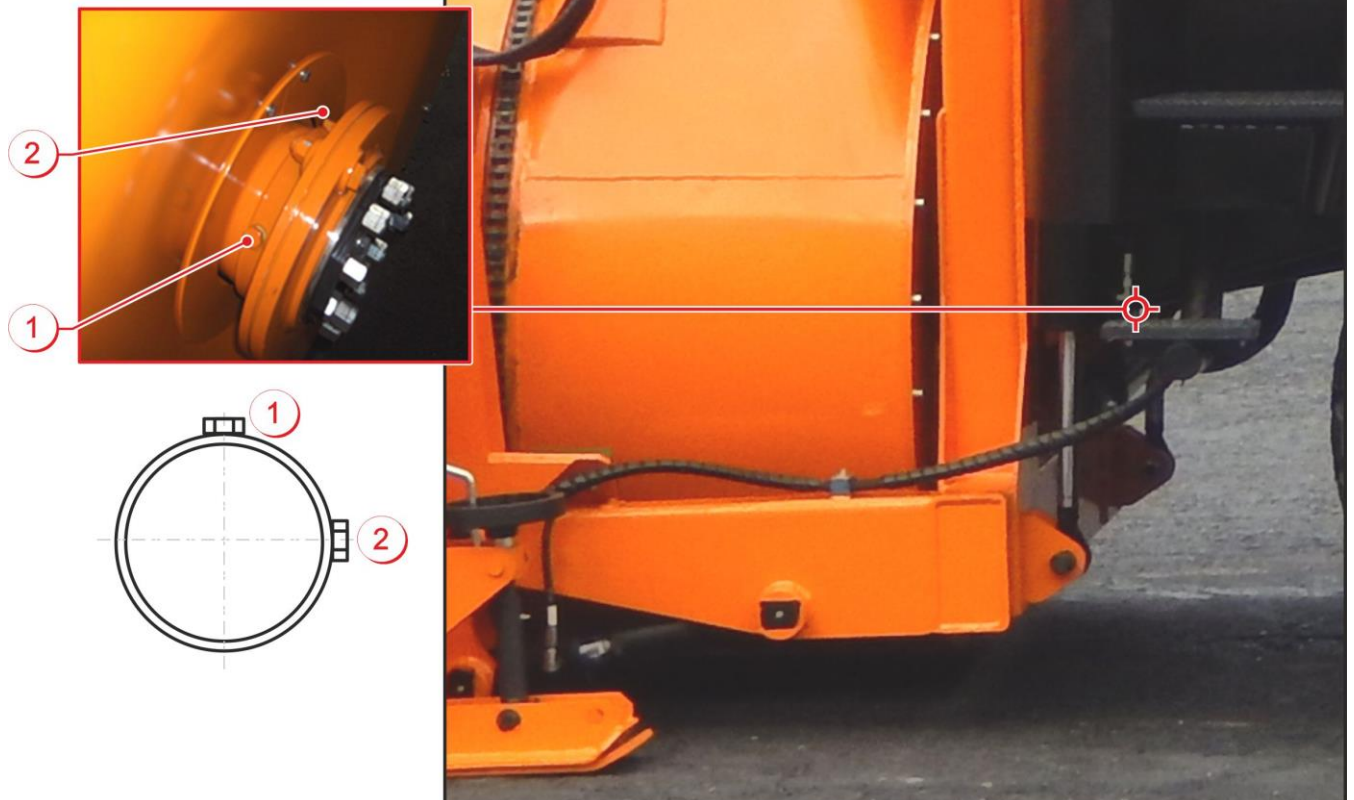
- Oil type TUTELA W90/M-DA or equivalent.

Specific tools:

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force



- a) Rotate plug (1) in upper position.
- b) Pour slowly 0,5 litres of oil to allow the air to come out.
- c) Remove the plug (2) and check if the oil flows out. If not, screw back the plug (2) and add further 0,5 litres in (2).
- d) Screw again the plug (2) and let oil flowing out into the container. This is the correct procedure to have the correct level.
- e) Screw back the plug (1)



WARNING:

Use only TUTELA W90/M-DA oil or equivalent.

ELECTRIC
CLEANING

 MECHANIC
LUBRICATION

 FLUIDIC
INSPECTION

Vehicle type: SNOWBLOWER

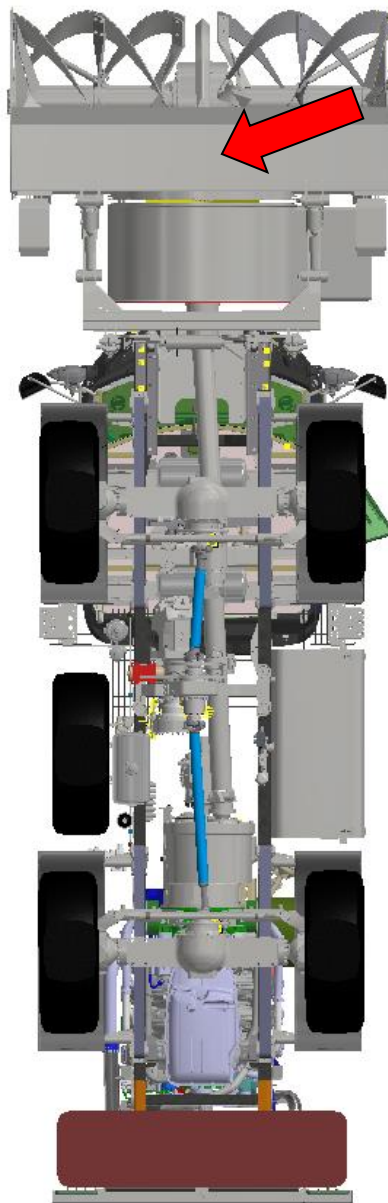
Model: F90

Intervention type: FIRST STAGE OIL REPACEMENT

BLOWER HEAD

Periodicity: EVERY 500 HOURS

Required time: 20 minuti

Action points:

Requested spare parts:

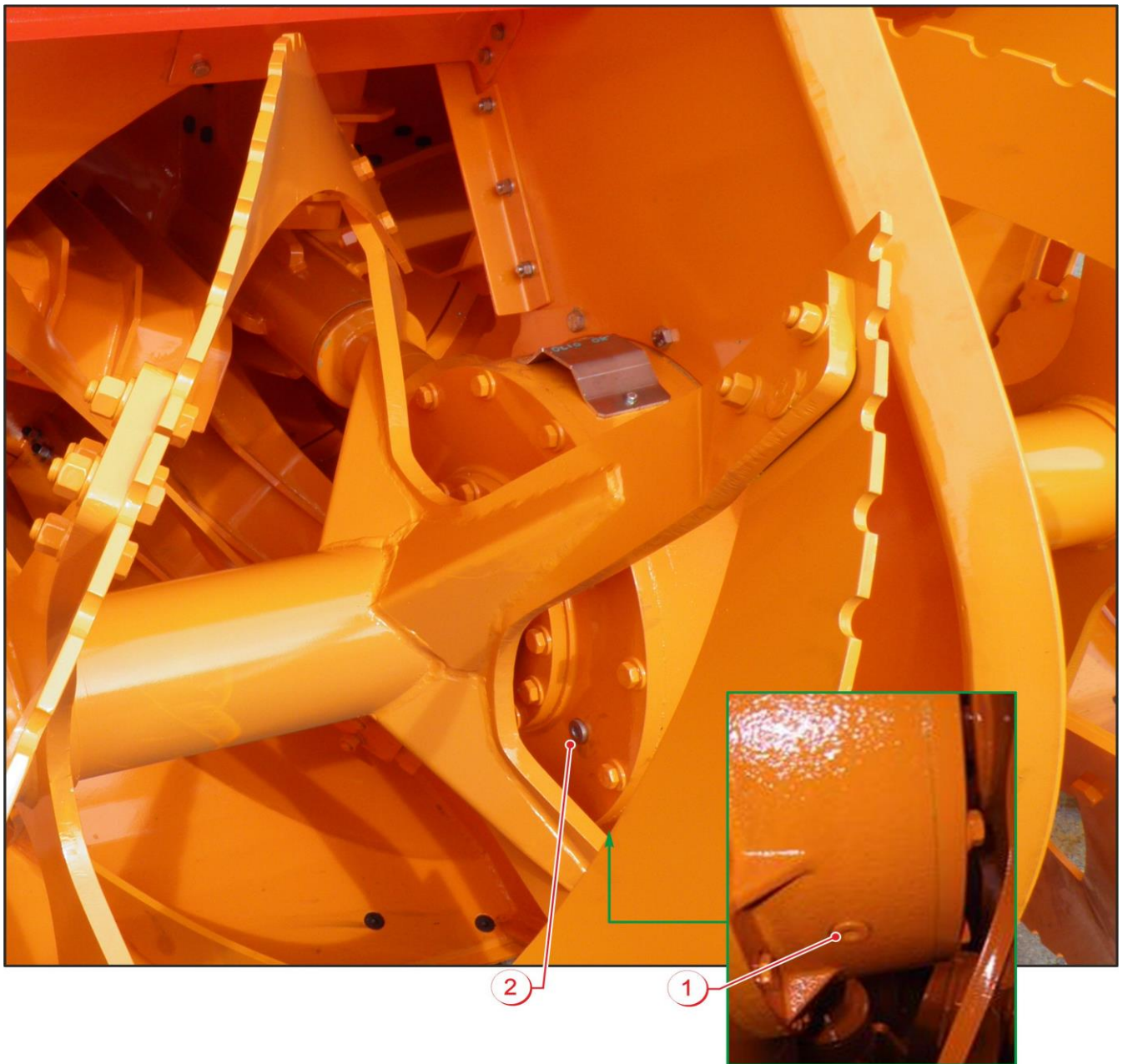
- Oil type TUTELA W90/M-DA or equivalent.

Specific tools:

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force



- a) Put a container under the plug (1).
- b) Screw the plug (1) and let all the oil flowing out.
- c) When the oil has completely drained screw back plug (1).
- d) Pour the new oil through the opening (2) till it reaches the lower part of the opening.
- e) Screw back the plug (2).



WARNING:
Use only TUTELA W90/M-DA oil or equivalent.

ELECTRIC

MECHANIC

FLUIDIC

CLEANING

LUBRICATION

INSPECTION

Vehicle type: SNOWBLOWER

Model: F90

Intervention type SECOND STAGE OIL REPLACEMENT

BLOWER HEAD

Periodicity EVERY 500 HOURS

Required time: 20 minutes

Action points



Requested spare parts

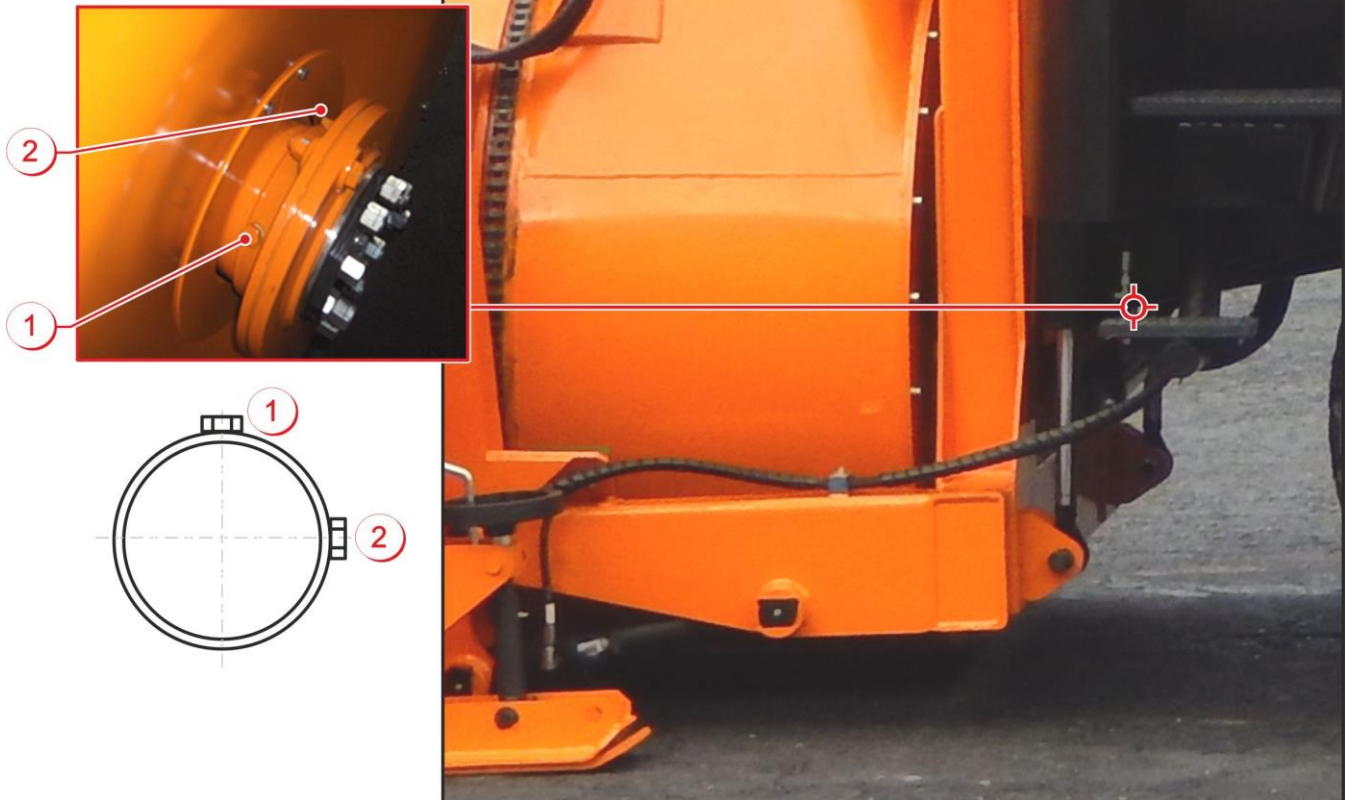
- Oil type TUTELA W90/M-DA or equivalent.

Specific tools:

PROCEDURE



People operating on vehicle must wear protective clothes according to the regulations in force



- a) Put a container under the plug (2).
- b) Screw the plug (2) and rotate it in lower position to leave all the oil flowing out.
- c) Screw back the plug (2).
- d) Rotate (1) in the upper position.
- e) Pour slowly about 2 litres of oil in (1) to allow the air to come out.
- f) Screw the plug (2) (it should be in horizontal) and let that exceeding oil flows out.
When the oil stops to flow, the correct lever is reached.
- g) Screw back the plugs (1) and (2).

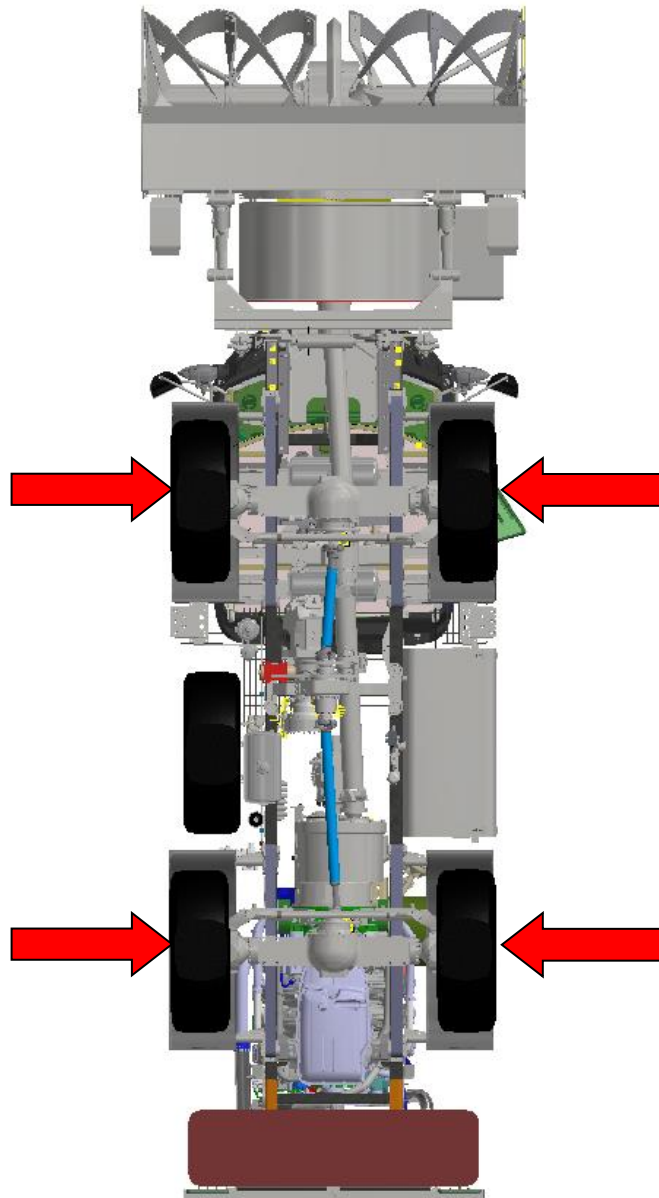


WARNING

Use only TUTELA W90/M-DA oil or equivalent.

ELECTRIC
CLEANING
MECHANIC
LUBRICATIONFLUIDIC
INSPECTIONVehicle type: **SNOWBLOWER**Model: **F90**Intervention type: **TYRES PRESSURE CHECK****TYRES**Periodicity: **BEFORE STARTING**Required time: **10 minutes**

Action points:



Requested spare parts:

Specific tools:

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force

- a) Check the pneumatic pressure.

Correct values are the following:

7,5 BAR FRONT AXLE

5 BAR REAR AXLE



WARNING:

When pressure is too LOW, they heat up causing a quick lateral wear.

When pressure is too HIGH, the tyre becomes stiff that cause wearing in the central part.

ELECTRIC
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MECHANIC
LUBRICATIONFLUIDIC
INSPECTION

Vehicle type: SNOWBLOWER

Model: F90

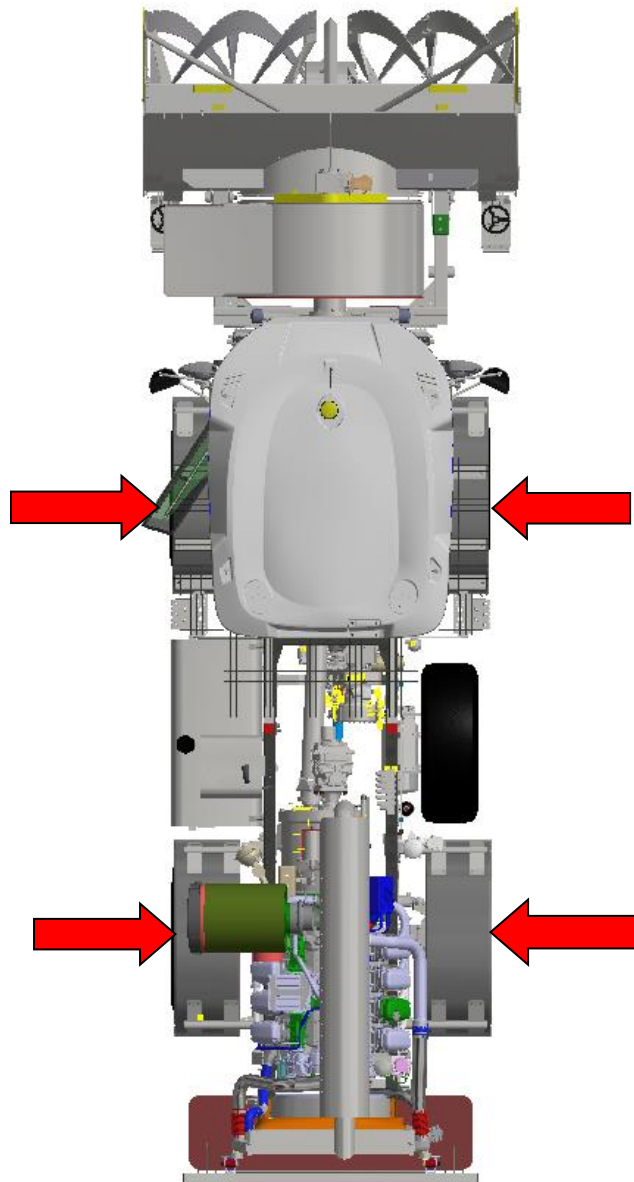
Intervention type: WHEEL NUTS TORQUE CHECK

TYRES

Periodicity: BEFORE STARTING

Required time: 20 minutes

Action points:



Requested spare parts:

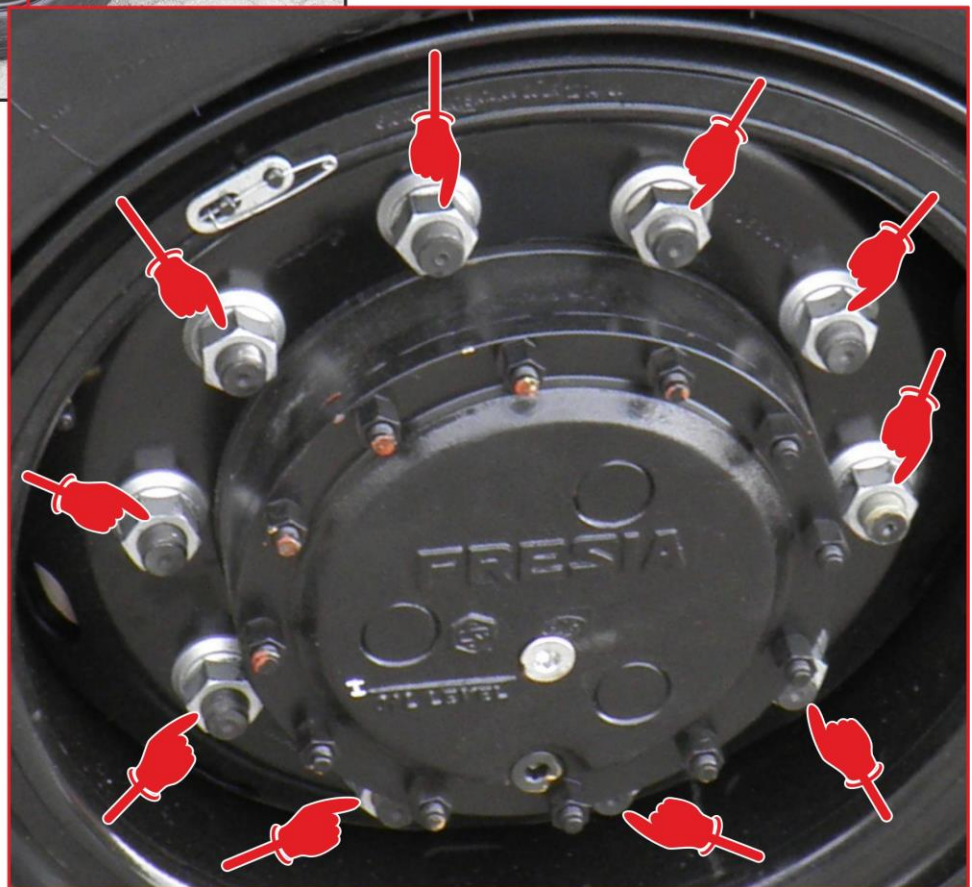
Specific tools:

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force

- a) Check the tightening of nuts fixing the wheels to the hubs. Tightening torque: **470 Nm**



ELECTRIC
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MECHANIC
LUBRICATIONFLUIDIC
INSPECTION

Vehicle type: SNOWBLOWER

Model: F90

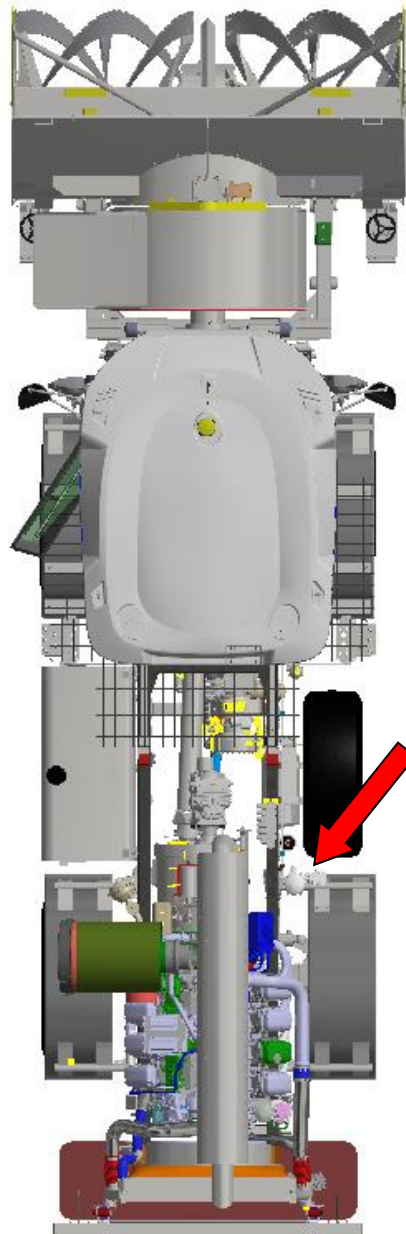
Intervention type CHANGE THE FILTER OF APU

PNEUMATIC AND BRAKE SYSTEM

Periodicity: EVERY 500 HOURS

Required time: 15 minutes

Action points:

Requested spare parts:
Cartridge S/N. 00109302

Specific tools:

PROCEDURE:



People operating on vehicle must wear protective clothes according to the regulations in force

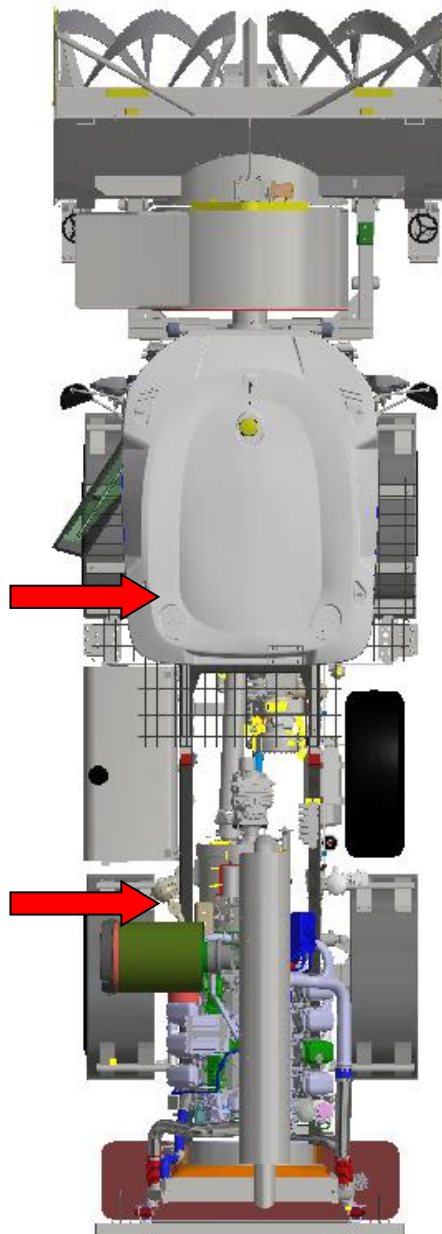
Unscrew the old cartridge and replace with the new one.

Install the new filter and hand tighten it until it stops, then tighten further 2/3 of a turn.



ELECTRIC
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LUBRICATIONFLUIDIC
INSPECTIONVehicle type: **SNOWBLOWER**Model: **F90**Intervention type **PNEUMOHYDRAULIC CONVERTER OIL LEVEL CHECK****PNEUMATIC AND BRAKE SYSTEM**Periodicity: **EVERY 500 HOURS**Required time: **15 minutes**

Action points:



Requested spare parts:

Specific tools:

PROCEDURE:

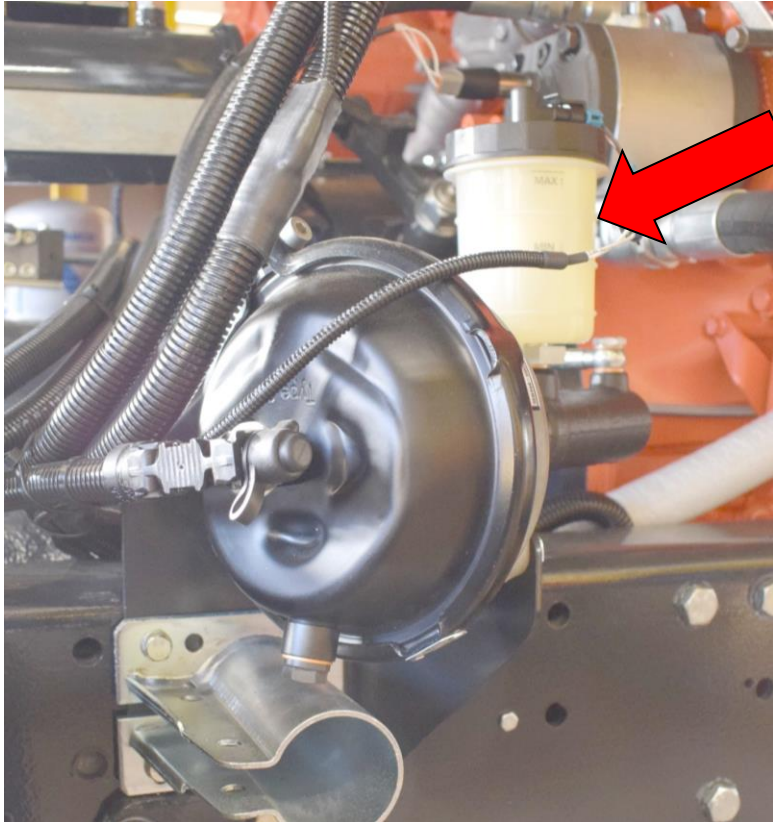


People operating on vehicle must wear protective clothes according to the regulations in force

Check the oil level into the pneumohydraulic converter tank. The correct level is between the minimum and maximum marks on the oil tank.

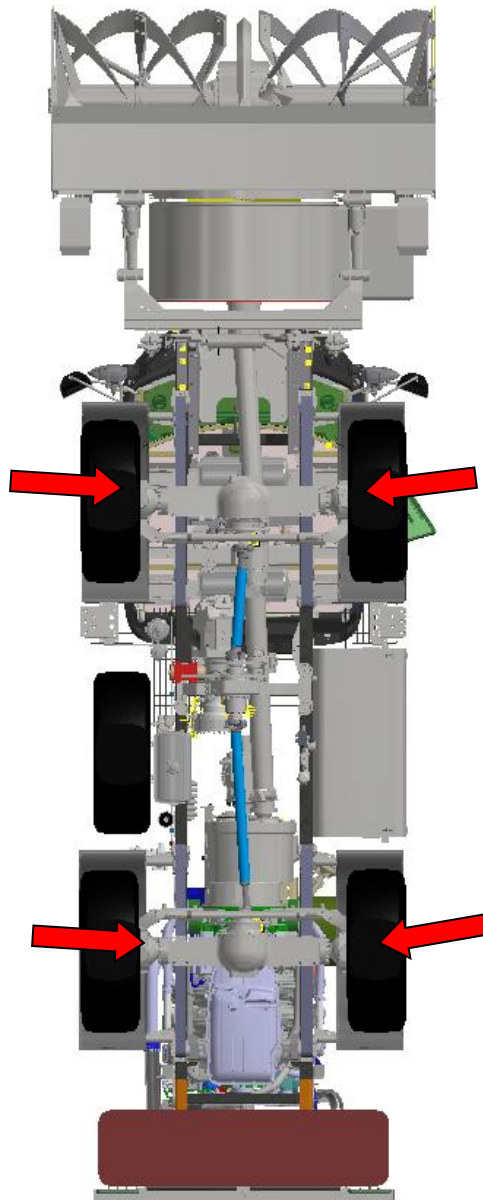
Fill with more oil when the oil level is at or below the lower mark.

Unscrew the oil plug and add oil until the correct level is restore.



ELECTRIC
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MECCANIC
LUBRICATIONFLUIDIC
INSPECTIONVehicle type: **SNOWBLOWER**Model: **F90**Intervention type: **CHECK THE BRAKE PADS CONSUMTION****BRAKES**Periodicity: **EVERY 1000 HOURS or 2 YEARS**Required time: **40 minutes**

Action points:



Requested spare parts:

- Brake pads cod. 003058/1

Specific tools:

PROCEDURE:



WARNING:

People operating on vehicle must wear protective clothes according to the regulations in force.

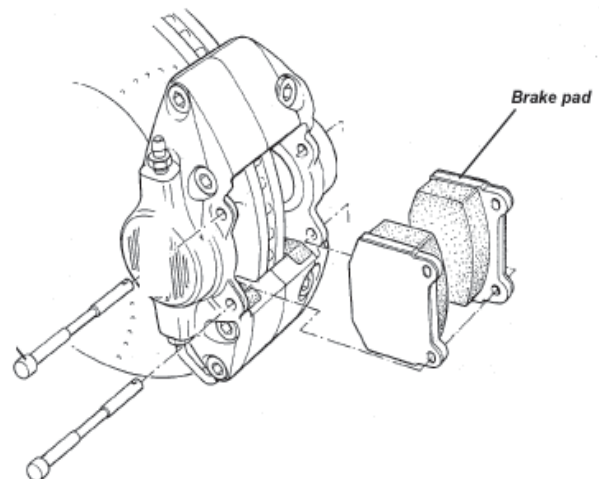
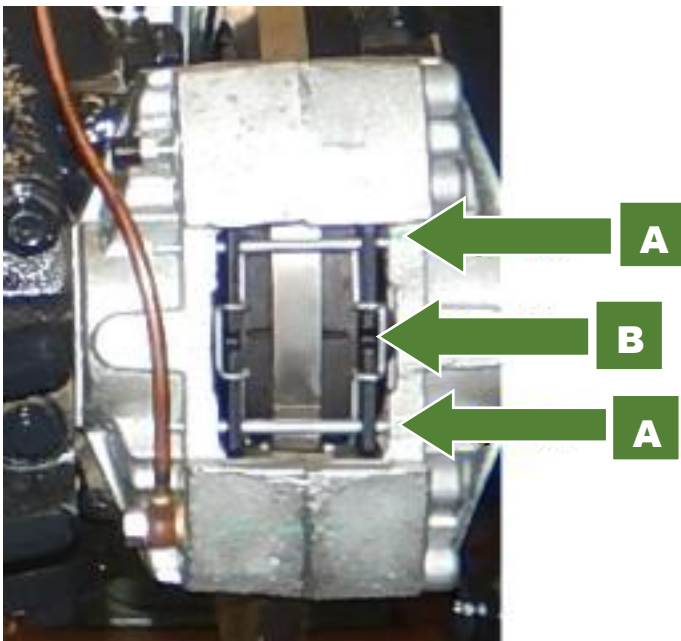
Check the status of the components.

Replace the brake pads when:

- they are heavily dirty of grease or oil.
- Their thickness is < 2 mm.

Procedure for brake pads replacement:

- Lift the vehicle axle.
- Remove the wheel from the hub.
- Using a punch, remove the fixing pins A and extract the clips B.



- Slide out the worn pads.
- Insert a lever between the disc and the brake cylinder and push cylinder in backward.
- Reinstall the new pads following the procedure in reverse.
- Reinstall the wheels. Tightening torque: **470 Nm**



IMPORTANT:

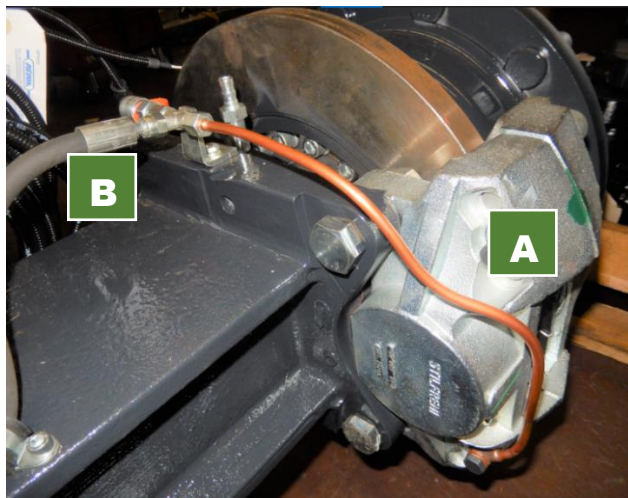
Whenever the pads are replaced, it is recommended to bleed the system.


Procedure for brake system bleeding

When replacing the brake pads, it is necessary to purge the system of any air present.

With the engine at idle and the parking brake engaged, proceed as follows:

- a) Connect a purge hose to the purge fitting (A). Place the second end of the bleed hose into a container partially filled with brake fluid.



- b) Press the brake pedal repeatedly.
- c) Keep the brake pedal pressed and open the bleed screw by one turn. This operation lets the air out of the hydraulic system.
- d) Close the bleed screw.
- c) Press the brake pedal repeatedly until the pressure in the system is higher than 150 bar (icon on monitor ).
- d) Repeat the operation until only oil comes out of the bleed screw.
- e) Perform the operation for each wheel.

NOTE:



The exhaust oil must be disposed of according to the rules

ELECTRIC
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INSPECTION

Vehicle type: **SNOWBLOWER**

Model: **F90**

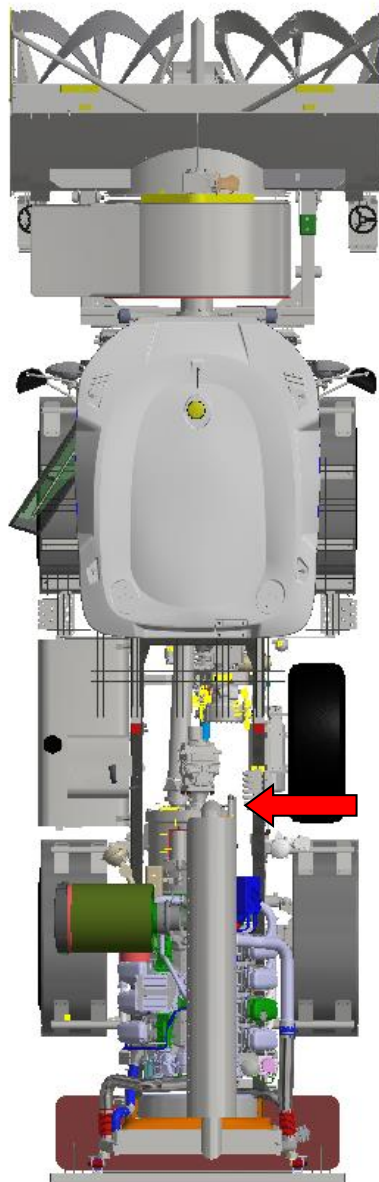
Intervention type: **TWO SPEED BACK GEAR OIL LEVEL CHECK**

TWO SPEED BACK GEAR

Periodicity: **BEFORE STARTING**

Required time: **10 minutes**

Action points:



Requested spare parts:

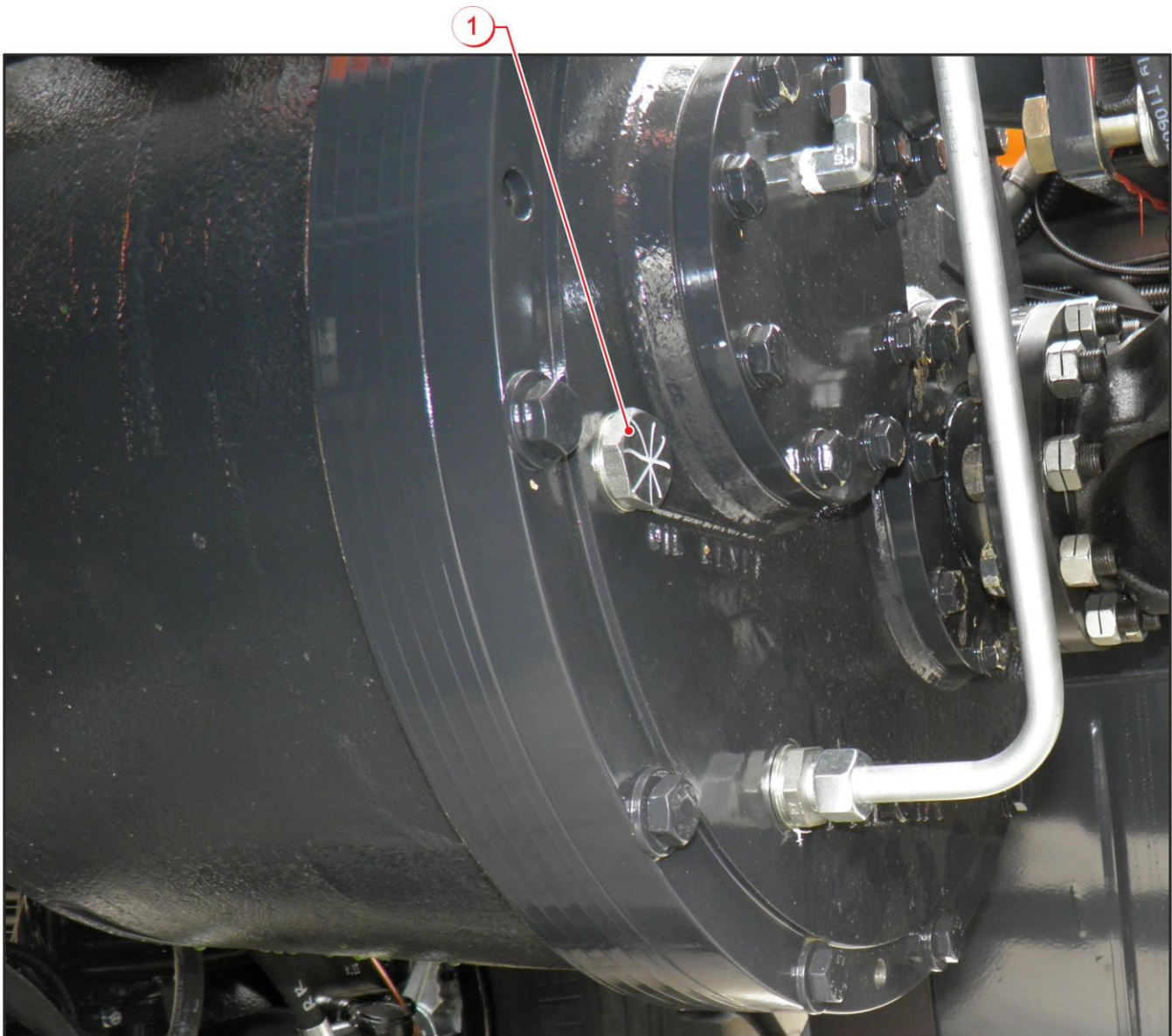
- Oil type TUTELA W90/M-DA or equivalent.

Specific tools:

PROCEDURE:



WARNING:
People operating on vehicle must wear protective clothes according to the regulations in force.



- a) Move the vehicle over an inspection pit.
- b) Unscrew plug (1) and check that the level reaches the lower part of the opening.
- c) If necessary, refill.
- d) Screw back the plug (1).



WARNING:
Use only TUTELA W90/M-DA oil or equivalent.

<input type="checkbox"/> ELECTRIC	<input type="checkbox"/> MECHANIC	<input checked="" type="checkbox"/> FLUIDIC
<input type="checkbox"/> CLEANING	<input type="checkbox"/> LUBRICATION	<input type="checkbox"/> INSPECTION

Vehicle type: SNOWBLOWER

Model: F90

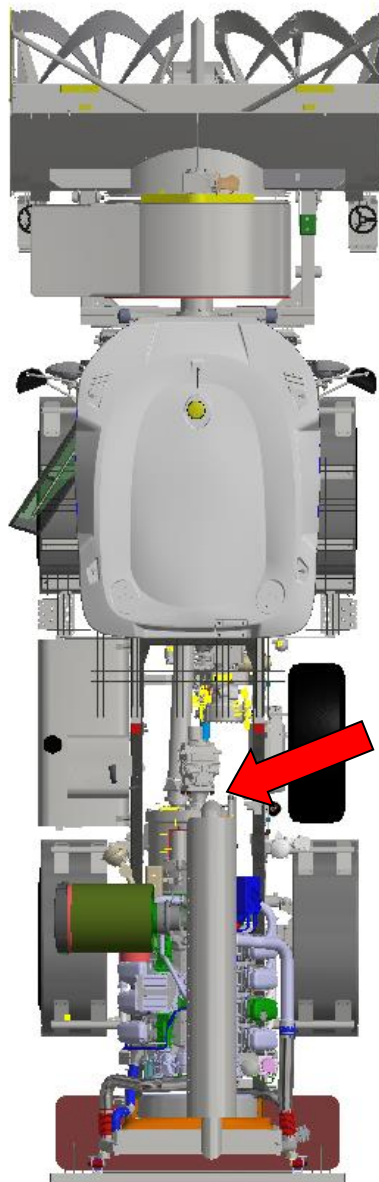
Intervention type: TWO-SPEED BACK GEAR OIL REPLACEMENT

TWO SPEED BACK GEAR

Periodicity: EVERY 500 HOURS

Required time: 30 minutes

Action points:



Requested spare parts:

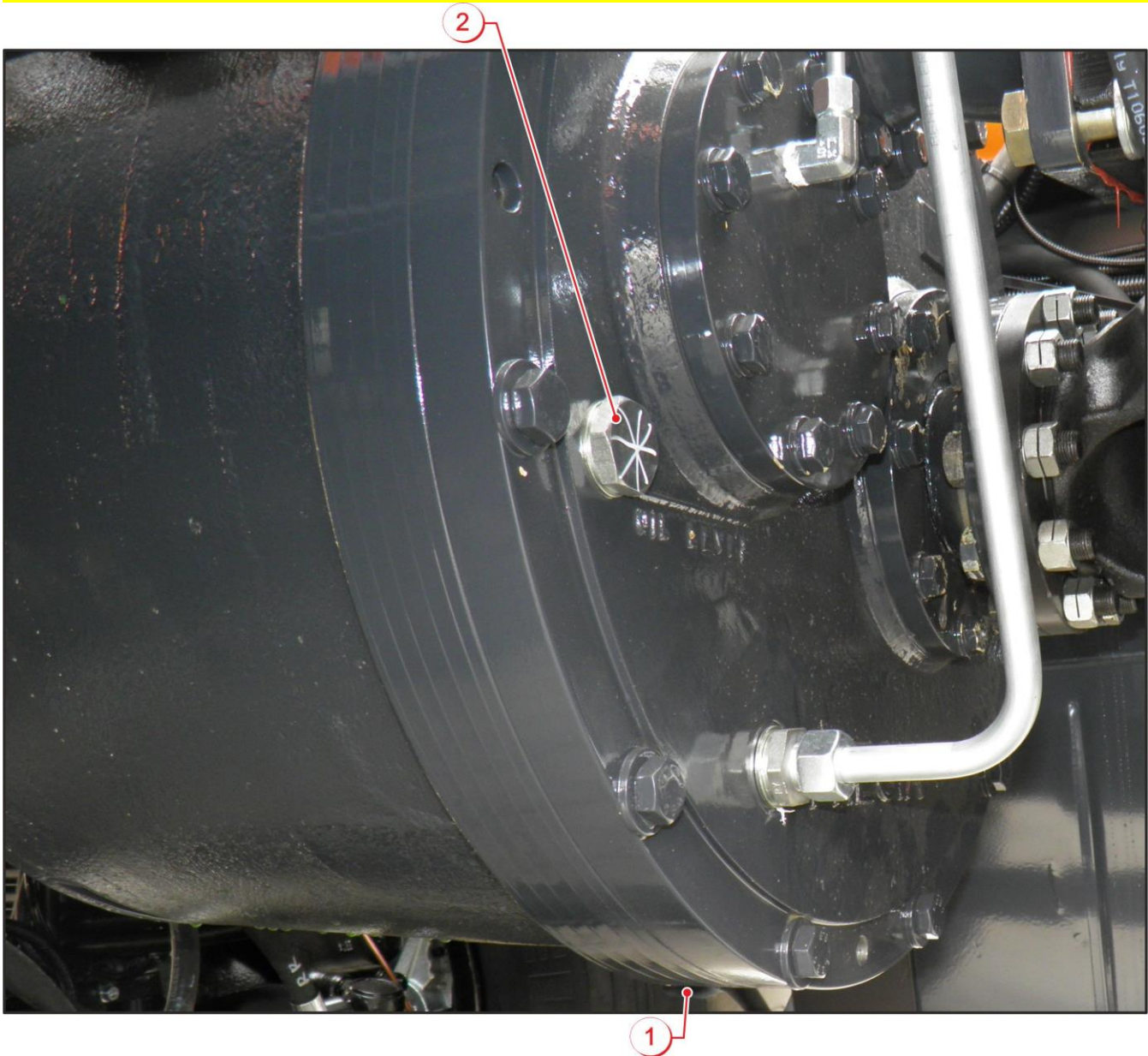
- Oil type TUTELA W90/M-DA or equivalent.
- Plugs gasket
(1) and (2) code R0082099 Fresia S.p.A.

Specific tools:

PROCEDURE:



WARNING:
People operating on vehicle must wear protective clothes according to the regulations in force.



- a) Move the vehicle over an inspection pit.
- b) Put a container under the plug (1).
- c) Unscrew plugs (1) and (2), let the oil completely flow out.
- d) When oil had completely drained screw back plug (1) (replace the gasket of plug (1)).
- e) Fill the new oil through the opening (2) until it reaches the lower part of the opening.
- f) Screw back plug (2) (replace the gasket of plug (2)).



WARNING:
Use only TUTELA W90/M-DA oil or equivalent

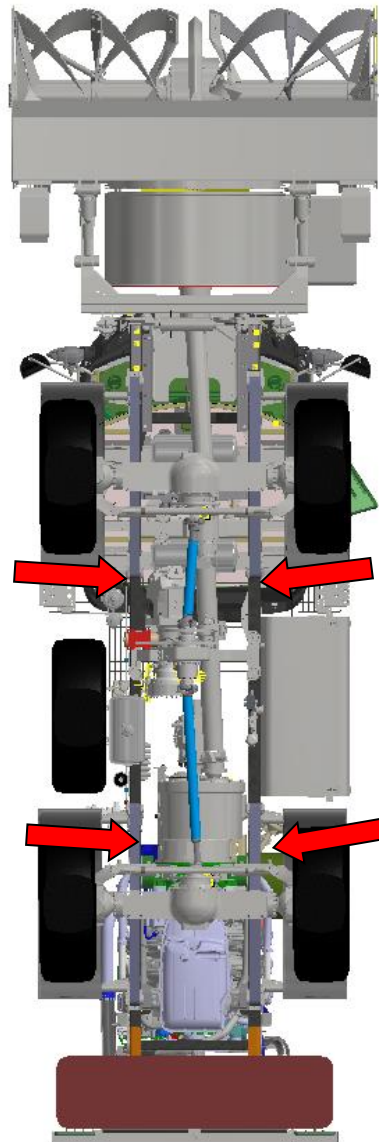


Vehicle type:	SNOWBLOWER	Model:	F90
Intervention type:	RUST INHIBITOR TREATMENT FOR THE LOWER PART OF THE CHASSIS		

CHASSIS

Periodicity:	EVERY 500 HOURS	Required time:	40 minutes
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Action points:



<p>Requested spare parts:</p> <ul style="list-style-type: none"> DINITROL 964 or equivalent 	<p>Specific tools:</p>
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* depending on the presence of aggressive substances on the ground like salt or de-icing liquid.

PROCEDURE:



WARNING:

People operating on vehicle must wear protective clothes according to the regulations in force.

To avoid the formation of rust in the lower parts of vehicle, which are subjected to aggressive substances on the ground like salt, de-icing liquid, etc., every year or two it is recommended to apply a corrosion protection.

Spread the anti-corrosion on all iron parts accessible under the chassis.

The parts to be treated must be clean and free from oil and grease.

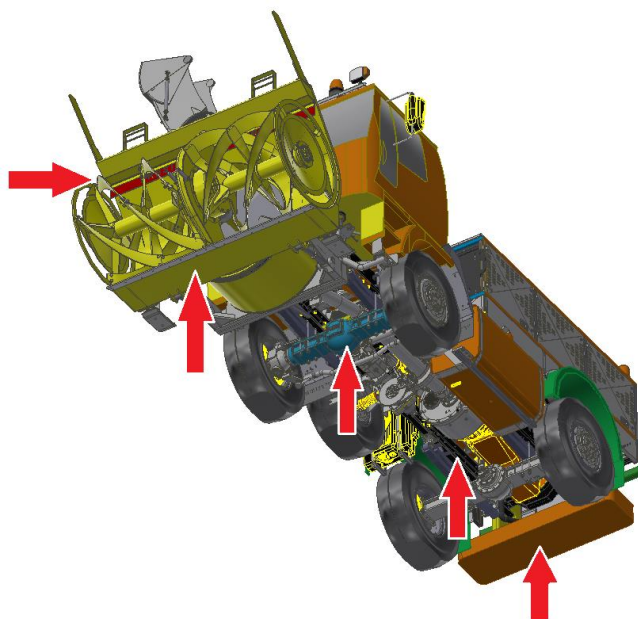
The recommended anti corrosion DINITROL 964 can be applied by spraying with manual or semi-automatic application equipment or by dipping. The water born protective is suitable for air-mix and air less spraying. Brushing is not recommended since encapsulation of air into the product may deteriorate the dry film. Stainless equipment is recommended.

Suitable application temperature is 15-30 °C.

The drying behaviour of the product is depending on the condition regarding temperature, RH and change of air.

For a quicker drying, it is helpful to increase the air change.

This is achieved by using a fan at low speed in order to remove with water the saturated air just above the applied areas.



Specs of anti-corrosion

Colour:	transparent
Type of film:	hard, glasslike
Density at 23°C:	1040 kg/m ³
Viscosity at 23°C, DIN 4:	30 s
Dry matter content:	38% by weight
EU VOC:	32 g/l
Flash point:	> 100°C
Recommended film thickness wet:	90 µm
Recommended layer thickness:	30 µm
Drying time, room temperature:	15 min with fan 20 – 30 minutes without fan
ph:	9
Removability:	Isopropanol
Heat resistance (160°C, 96 hrs):	very slight yellowing
Salt Spray Test, 240 hrs on most common paint systems:	No corrosion
CCT / ACT 1	20 Cycles Ri1
Humidity cabinet 2000 hrs:	no corrosion
Available in:	25 L Cannister / Container

ELECTRIC
CLEANING
MECCANIC
LUBRICATION
FLUIDIC
INSPECTION

Vehicle type: SNOWBLOWER

Model: F90

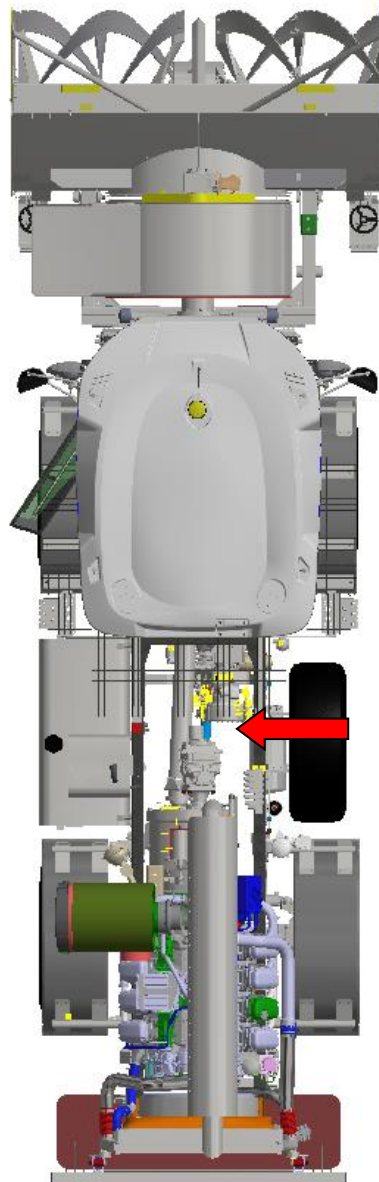
Intervention type: CHECK THE LIQUID FOR WINDSHIELD WASHING

CAB

Periodicity: BEFORE STARTING

Required time: 10 minutes

Action points:



Requested spare parts:

- Liquid AREXONS -20 °C or equivalent

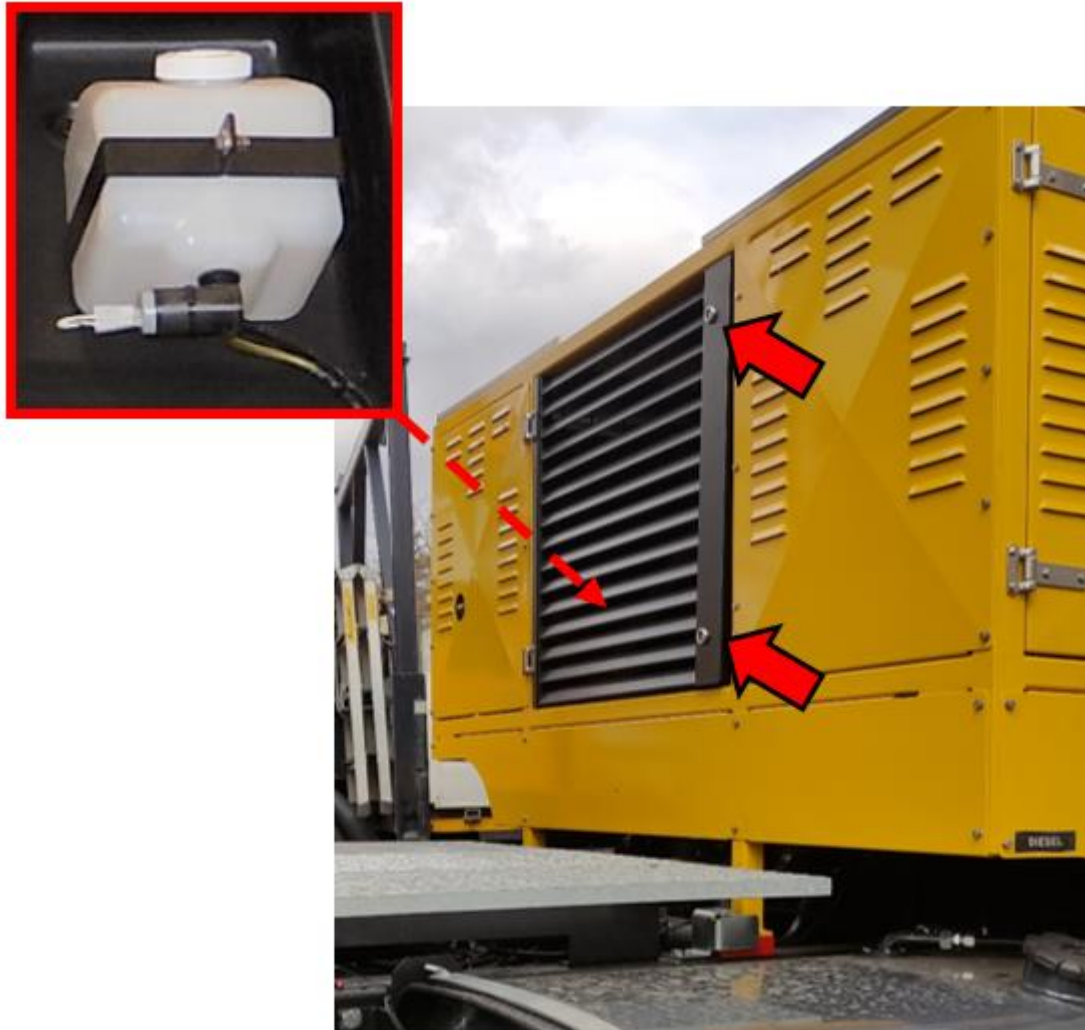
Specific tools:

PROCEDURE:



WARNING:
People operating on vehicle must wear protective clothes according to the regulations in force.

The windshield washer tank is located in the front part of the rear body.



To access at windshield washer tank its necessary open the panel, which the provided key can open. Press lightly and rotate the key clockwise to open and anticlockwise to close.

Lift the capote and fill the tank with proper liquid.