

# **H50TICD Wartungsarbeiten**



# Maintenance every day

Symbol	Maintenance in- terval	Maintenance activity/check
8-15h	Every 8–15 operating hours or ev-	Check the oil level.
	ery day before starting	Check the intake area of the combustion air.
		Check the radiator fins for dirt accumulation.
		Check the cooling system



# Maintenance every 500h

500h	Every 500 operating hours or every 2 years	Change the engine oil and oil filter <sup>1)</sup>
		Change the fuel prefilter <sup>1)</sup>
		Replace the main fuel filter <sup>1)</sup>
		Check the poly v belt <sup>1)</sup>
		Change the oil separator of the crankcase ventilation <sup>1)</sup>
		Check the screw connections <sup>1)</sup>
		Clean the engine <sup>1)</sup>



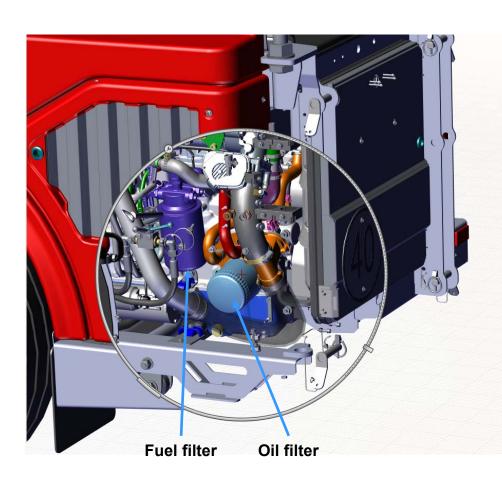
# **Maintenance**

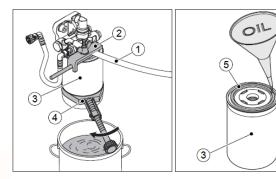
Every 500 operating hours or when indicated, at least every 2 years	Change the air filter cartridge
When indicated, at least every 2 years	Drain the water separator <sup>1)</sup>
Every 4 years	Change the coolant
If necessary, but every 3,000 oper- ating hours at the latest	Replace the poly v belts
Every 4,000 operating hours	Clean the entire exhaust gas recirculation section (EGR precooler, EGR valve, EGR main cooler as well as EGR mixing nozzle) (to be carried out by a trained specialist)



## **Maintenance**

Change oil and fuel filter, reachable from the bottom





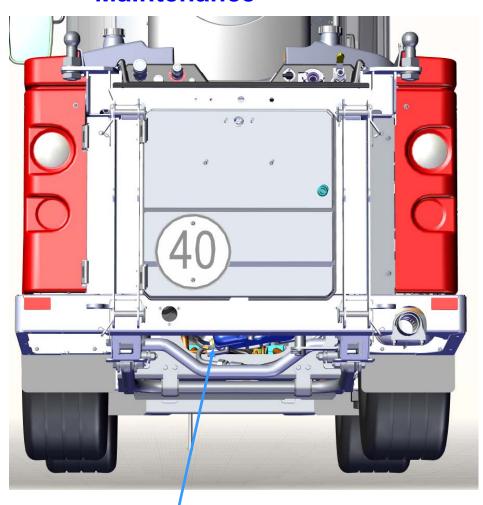
Step	Activity
1	Block the fuel feed line (1) using the hose clip (2).
2	Place a suitable container under the filter to collect emerging fuel.
3	Unscrew the main fuel filter (3) and dispose of it according to local environmental regulations.
4	Lightly oil the gasket (5) of the new main fuel filter.
5	Fit the filter and tighten it <b>by hand</b> .
6	Release the fuel feed line.

Venting t	he fuel system
1	Insert the starting key all the way and turn to position "I".
	Depending on the model, the following indicators light up:
	<ul> <li>Pre-glow indicator (2)</li> </ul>
	Charge control (4)
	Oil pressure indicator (5)
2	Leave the starting key at position "I" until you hear the electrical fuel feed pump switch off (approx. 30 seconds).
3	Turn the starting key back to position "0".
	Note: Carry out steps 2 and 3 several times to press the air out of the fuel system.



## Oil change

## **Maintenance**



Use this Oil drain screw The other one is higher

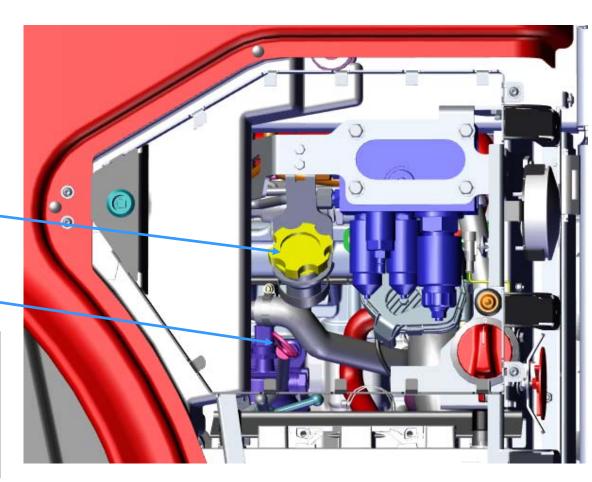
Oil drain screw DIN501 404 00 AM22 x 1,5 DIN7604 A3C 50Nm

Change copper seal ring 500 016 00 A22 x 27 DIN7603 Cu



# **Maintenance**

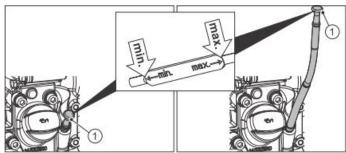
#### Check oil level and refill



Oil Filler

Oil quantity ca. 7,01

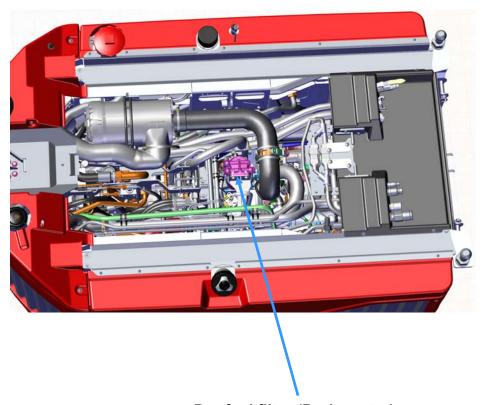
Oil dipstick





## **Maintenance**

#### Pre-fuel filter; (Drain water) and change



Pre-fuel filter (Drain water)

1	Lock the fuel supply line on the fuel prefilter.
2	Place a suitable container under the filter to collect emerging fuel.
3	Disconnect the water level sensor cable (4) from the drain plug (3).
4	Release the drain screw (3) and drain the fuel.
5	Unscrew the fuel prefilter. Completely unscrew the drain plug with integrated water level sensor
6	Dispose of the used fuel prefilter according to local environmental regulations.
7	Clean the drain plug with integrated water level sensor and lightly oil the sealing surfaces. Screw the drain plug into the new fuel prefilter.
8	Lightly oil the gasket (6) of the new fuel prefilter, fit the dry filter and tighten it <b>by hand</b> .
9	Release the fuel feed line and connect the cable of the water level sensor.

#### Venting the fuel system

- Insert the starting key all the way and turn to position "I".
  Depending on the model, the following indicators light up:
  Pre-glow indicator (2)
  Charge control (4)
  Oil pressure indicator (5)
  - Leave the starting key at position "I" until you hear the electrical fuel feed pump switch off (approx. 30 seconds).
- 3 Turn the starting key back to position "0".

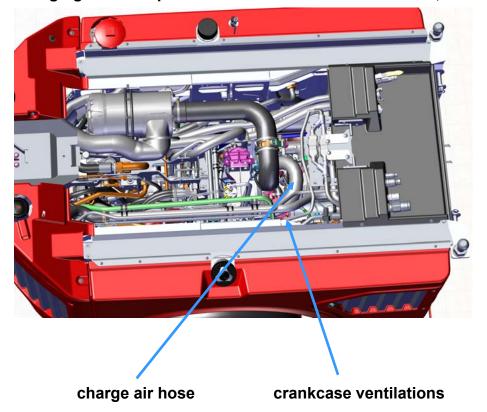
#### Note:

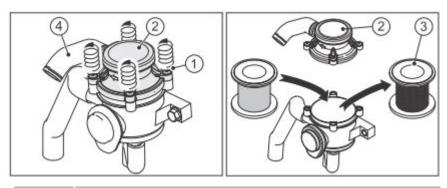
Carry out steps 2 and 3 several times to press the air out of the fuel system.



## **Maintenance**

Changing the oil separator of the crankcase ventilations, therefor it is necessary to loosen the charge air hose



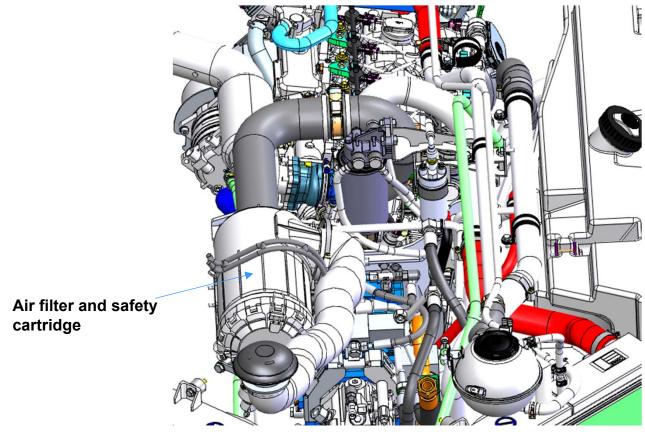


Step	Activity
1	Release the four mounting bolts (1) on the breather cap (2).
2	Carefully lift the breather cap. If necessary, release the vent hose (4).
3	Remove the used oil separator cartridge dispose of it according to local environmental regulations.
4	Wipe out the breather housing with a clean cleaning cloth. Make sure that dirt is not brought into the breather housing.
5	Insert a new oil separator cartridge.
6	Put on the breather cap and tighten the four mounting bolts (max. 4 Nm). If necessary, reattach the vent hose.



## **Maintenance**

#### Change air filter and safety cartridge



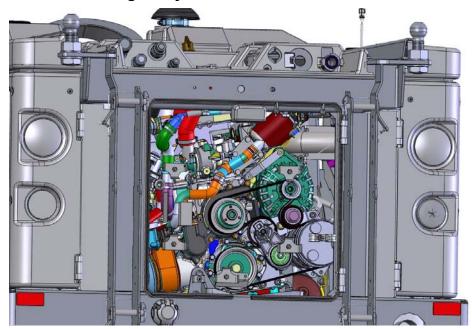
- Release tensioning element
- Tilt the filter housing upwards
- Open brackets
- Remove cover
- Change filter

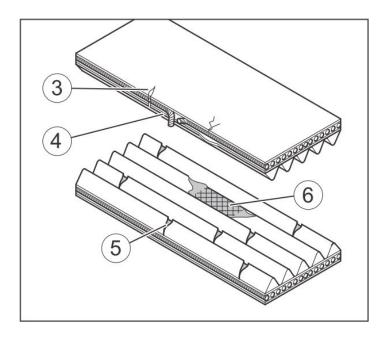
When attaching the cover again, make sure the clamp is vertical centered



## **Maintenance**

#### **Check and change Poly-V-belt**





#### Damage to the poly v belt

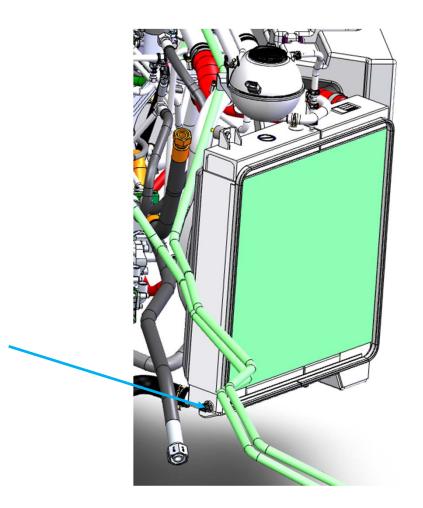
- 3 Transverse cracks on the rear
- 4 Fraying on the edges
- 5 Transverse cracks in multiple ribs
- 6 Broken ribs

**Change coolant** 

## **Hatz H50TICD**



# **Maintenance**





We recommend you to use a vacuum filler (radiator air bleeder) to fill the coolant quickly and efficiently without air inclusions.

Radiator air bleeder Item no. 0714 55 18

Ideal for filling the cooling system quickly with coolant

without air inclusions.

The rubber cone fits radiators openings measuring 17-50 mm in diameter.

Suitable for almost all radiators in modernday motor vehicles.

The simple concept of the device reduces the number of steps to a minimum.

Save and user friendly.

The vaccum generated in the cooling system means coolant can be filled in just a matter of seconds without air inclusions.

Tasks are completed quickly and efficiently, as separate air bleeding is no longer necessary.

Vacuum filling prevents problematic air inclusions in the cooling system.

High level of engine reliability due to optimum heat dissipation.



#### **Technische Daten**

Arbeitsdruck: 6 – 12 bar Luftanschluss: 1/4" Gummikonus: Ø 17 – 50 mm



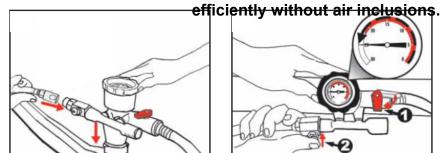
#### Lieferumfang

- Kühlerentlüfter mit Gummikonus
- Wasserschlauch mit Sieb
- Aufbewahrungskoffer mit Bedienungsanleitung

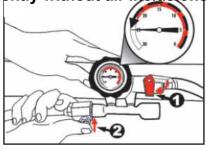


#### VW engine 2.0L Common Rail CPYA

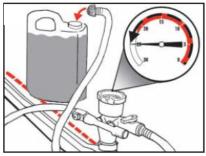
We recommend you to use a vacuum filler (radiator air bleeder) to fill the coolant quickly and



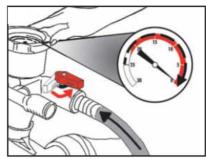
1. Connect the compressed air supply to the radiator air bleeder and attach it to the radiator opening.



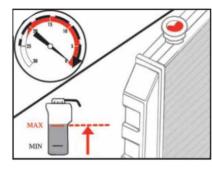
2. Close the non-return valve, then actuate the bleed valve 2 and generate a sufficient amount of vacuum.



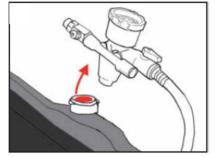
3. Insert the water hose into the coolant container. Do not position the coolant container too low.



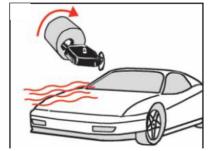
4. Slowly open the non-return valve. The coolant flows into the cooling system.



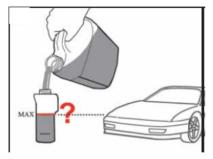
5. Fill coolant to the maximum level.



6. Remove the radiator air bleeder from the radiator opening and replace the radiator cap.



7. Start the engine and let it run idle for a few minutes



8. If necessary, top up the coolant.

Compressed air nipple **Brass** Item no. 0699 211 4 Steel Item no. 0699 211 41

#### VW engine 2.0L Common Rail CPYA



If a vacuum filler (radiator air bleeder) is not available, make sure the cooling system is filled fully and bled.

When bleeding the cooling system, it is necessary to disassemble the cab roof and to loosen the heating hose at the heating valve (highest point, to ensure the air can escape from the cooling system).





VW engine 2.0L Common Rail CPYA

Fill the coolant expansion tank with coolant up to the mark.

Use a cooling system tester from VW (V.A.G 1274 and the adapter V.A.G 1274/8) or an equivalent device to reduce the time and effort required to fill and bleed the system.

The generation of pressure significantly reduces the time required for bleeding.

After filling the system, reattach the heating hose. Start the engine and allow it to run idle for at least 15 minutes with the heating valve open. Monitor the level of coolant in the coolant expansion tank during this process. If the level of coolant drops in the coolant expansion tank, turn off the engine and refill coolant up to the mark in the coolant expansion tank.

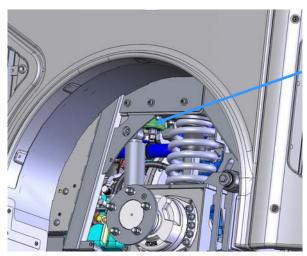




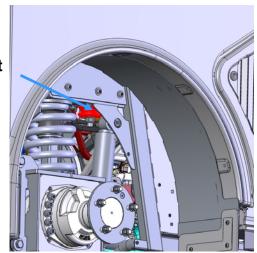


## **Maintenance**

#### **Check engine bearing**



engine bearing
Left front right front
center rear



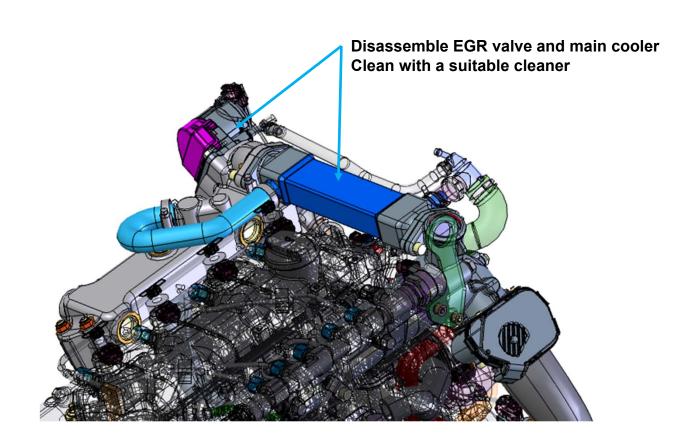
Check engine bearing for damage and cracks and bolts for there torque





## **Maintenance**

Clean EGR system







## **Maintenance**

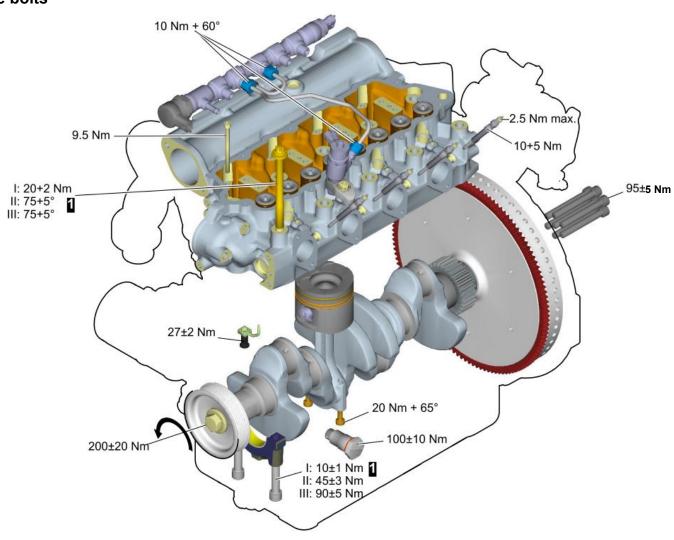
## **Check torques for the bolts**

Gewinde	Schraubenqualität			
	5.8	8.8	10.9	12.9
M 4	1.7	2.8	3.9	4.7
M 5	3.4	5.5	7.8	9.3
M 6	6.0	9.5	13	16
M 8	14	23	33	39
M10	29	46	65	78
M12	50	80	110	140
M14	80	130	180	220
M16	120	190	270	330
M18	170	270	380	450
M20	240	380	530	640
M22	320	510	720	860



## **Maintenance**

#### Check torques for the bolts





# Wartungsarbeiten

#### Check torques for the bolts

