

 Preview Solution CBR-2361-16

Volvo Chassis - Debris In 13L Cooling Systems Filled With Extended Life (VCS2)

Published 2 December 2025

Valid For

All Volvo models Built August 7, 2023 to August 12, 2024

Observing debris within the cooling system is possible, with this debris potentially being dark and resembling sand. Such debris has the potential to cause blockages in both the heater core and oil cooler.



If the truck is unacceptable to be driven with the contamination (dark color, large deposits of debris) please follow steps below:

- 1) Please collect a coolant sample (**4-6oz**) and send to:
Volvo Group Trucks Technology
Attn: Lester Dice, Drop area C28
13302 Pennsylvania Avenue
Hagerstown, MD 21742 USA

NOTE: Please provide a printed copy of the eservice case with the sample.

- 2) Flush the coolant (per IMPACT 2609-11-03-01)
- 3) Install a new coolant filter, over flow tank, and fill with new coolant.

Part Number	Description	Qty
23915461	Expansion Tank	1
21937327	(Volvo) Coolant filter	1
	Coolant VCS2	

Once the root cause has been determined a better short term and long term solution will be provided.

Related links and attachments

No links or attachments available



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26007-3 Cooling System, Clean

	Illustrations may differ slightly from the actual vehicle being serviced. However, key components addressed in this information are represented as accurately as possible.
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	Colors used in illustrations are for highlighting purposes only and do not correspond to the actual colors of the vehicle.
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	All threaded fasteners that do not have a tightening torque specification in the information are tightened to a standard torque. Standard torques are available in the following specification. ▶▶▶ Standard Tightening Torques
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	WARNING
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Risk of burn injuries.
The coolant may be hot.

▶	The cooling system is under pressure and can reach the temperature sufficient to cause burns. Allow the coolant temperature to reach the safe level before starting the work.
▶	Remove the coolant tank cap carefully. Use appropriate protective equipment.

	CAUTION
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Service Information Advisory.
If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

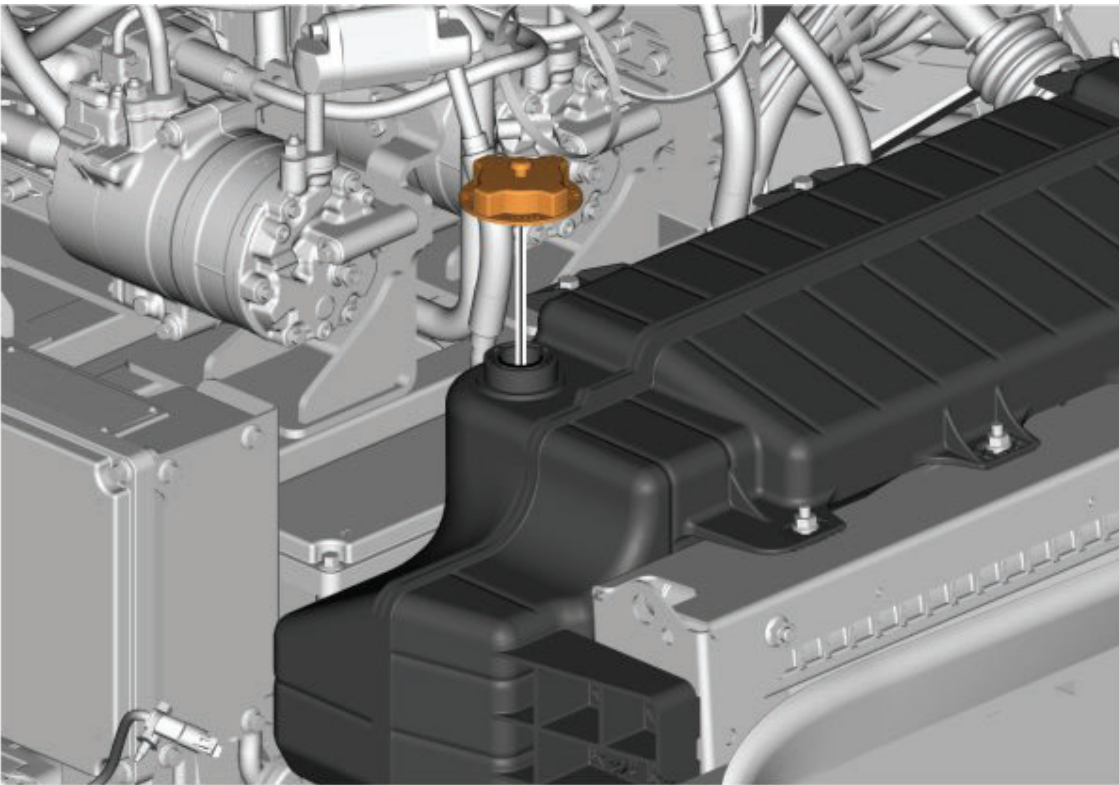
▶	You must read and understand the precautions and guidelines in Service Information, Function Group 2, "General Safety Practices, Engine" before performing this procedure.
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Special tools

9996049	85112740
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1	Unlatch and raise the hood.
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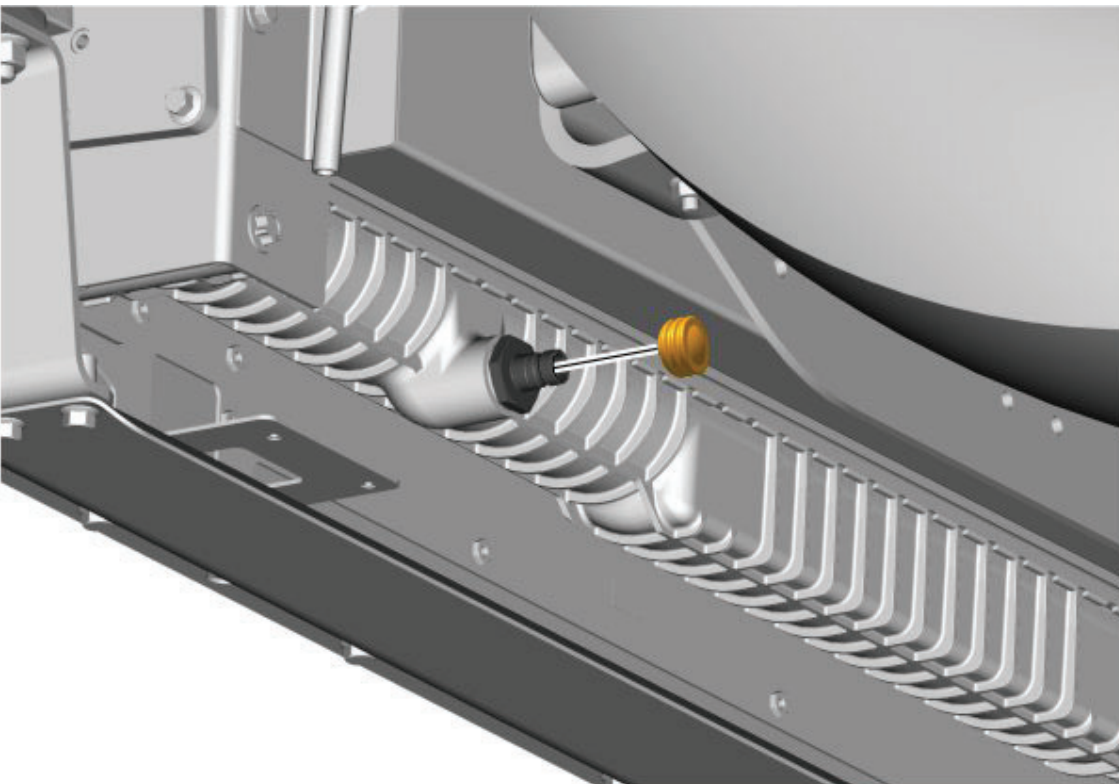
2	Remove the cap.
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3	Position a draining container.
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4	Clean the surrounding area.
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5	Remove the plug.
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6	Drain the cooling system using either a coolant extractor or a drain hose and pan.
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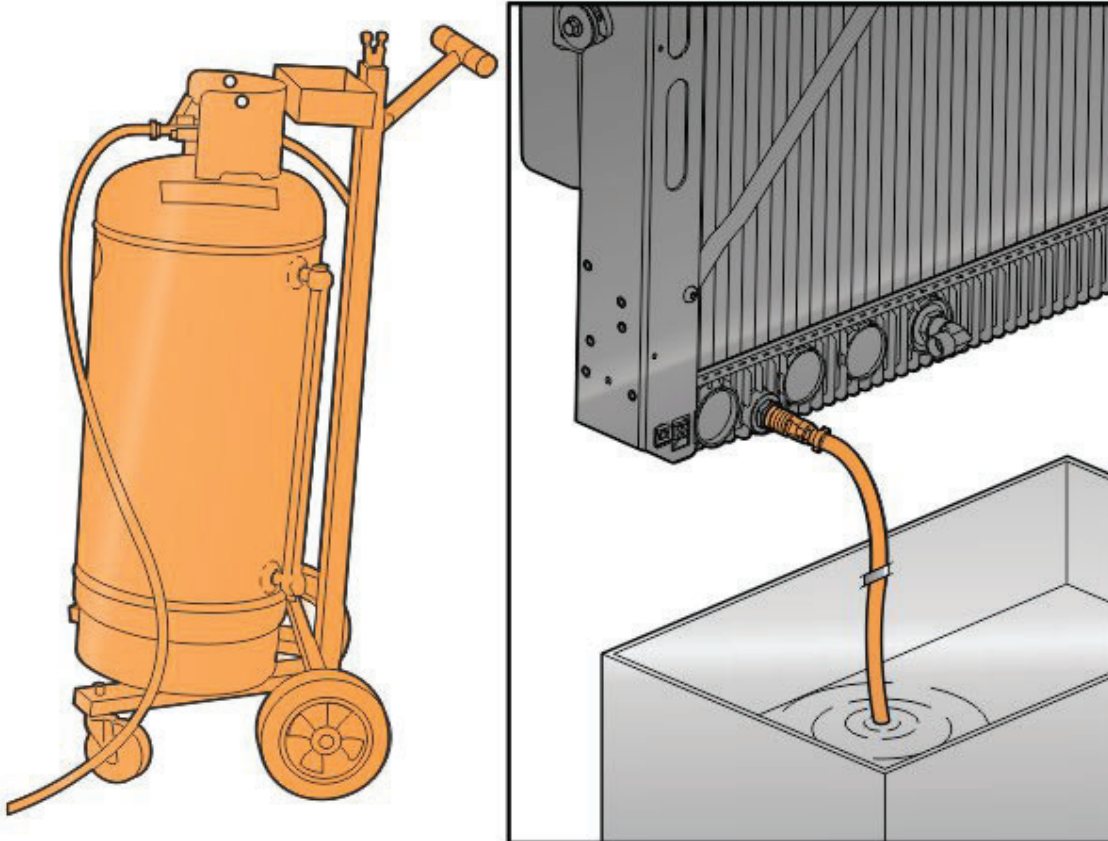
Required material

COOLANT EXTRACTOR/INJECTOR	85112740
DRAIN_HOSE	9996049



Note

Drain the collected coolant into a recycling container as per local safety regulations.



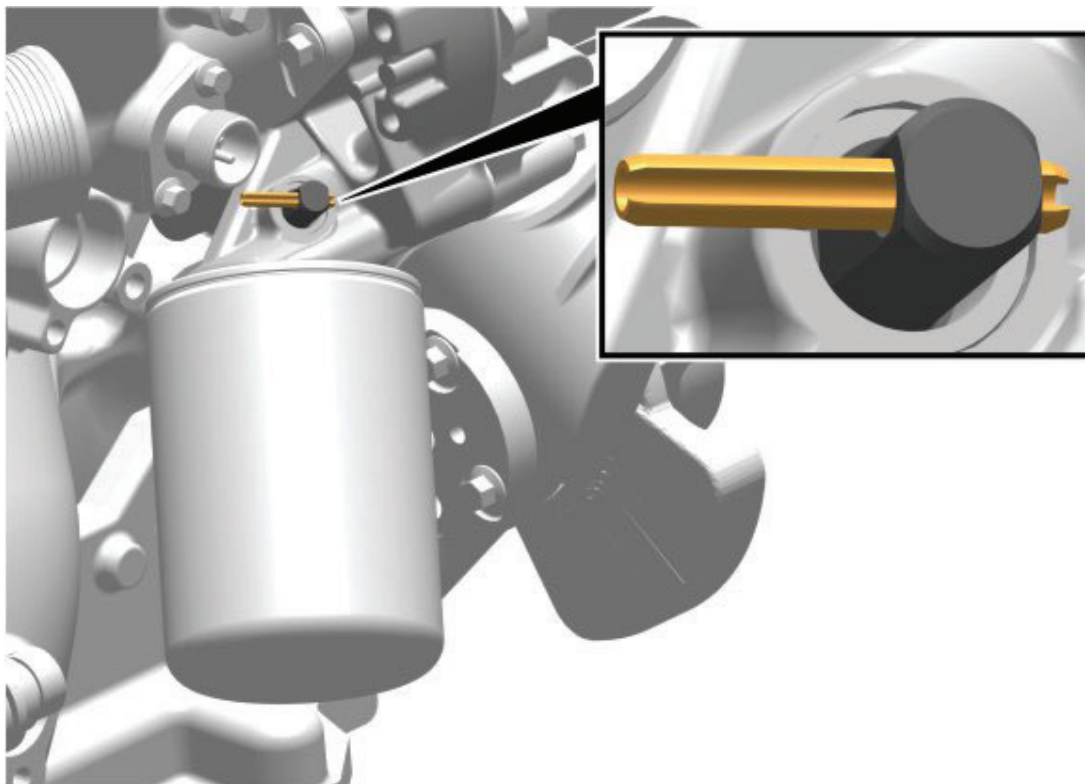
7 Position a draining container.

8 Close the shut-off on the coolant filter housing.

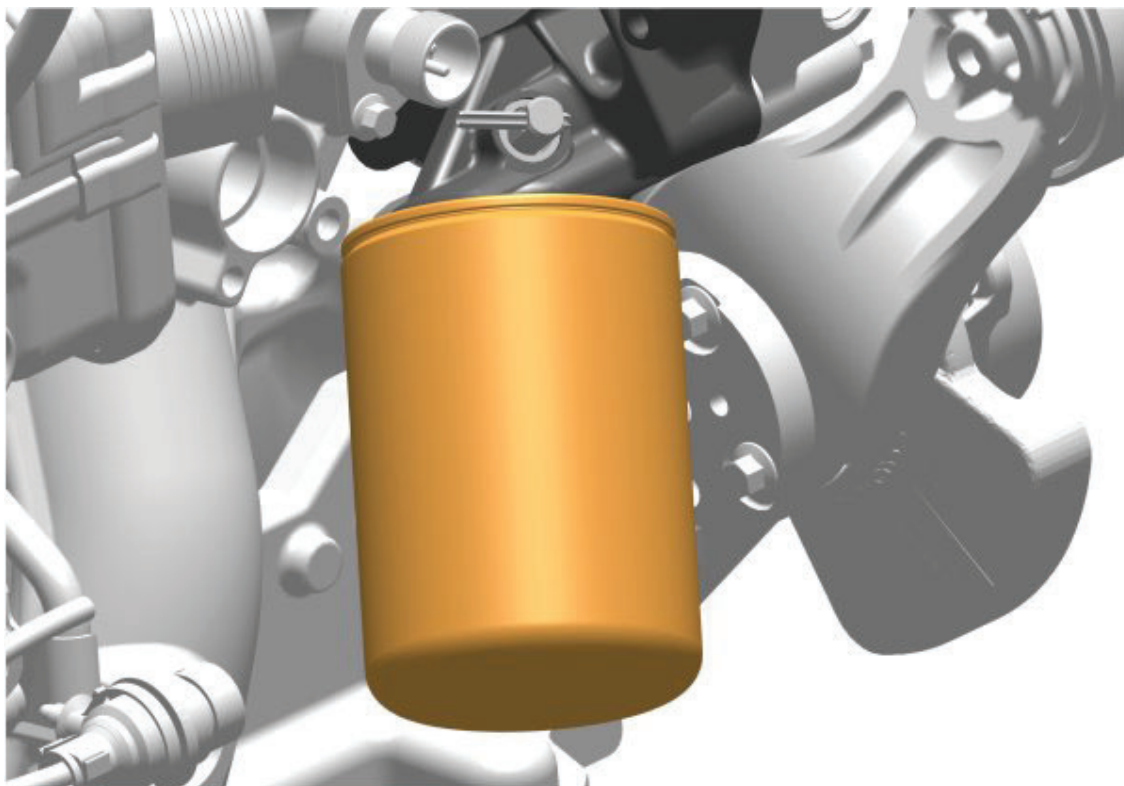


Note

In the closed position, the pin on the shut-off should be horizontal.




9	Remove the coolant filter.
	Note Use a suitable tool.






10	Open the shut-off on the coolant filter housing.
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		Note In the open position, the pin on the shut-off should be vertical.
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11	Drain any remaining coolant.
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12	Close the shut-off on the coolant filter housing.		
	<table border="1"> <tr> <td style="width: 5%; text-align: center;"></td> <td style="border: 1px solid black;">Note In the closed position, the pin on the shut-off should be horizontal.</td> </tr> </table>		Note In the closed position, the pin on the shut-off should be horizontal.
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13	Perform this procedure when the condition below is met.		
	Conditions		
	<ul style="list-style-type: none"> • If necessary 		
	<ul style="list-style-type: none"> ▶ Position a draining container. 		
	<ul style="list-style-type: none"> ▶ Remove the coolant drain plug from the transmission. 		
	<ul style="list-style-type: none"> ▶ Drain the coolant. 		
	<ul style="list-style-type: none"> ▶ Install the coolant drain plug in the transmission and tighten. 		
	<table border="1"> <tr> <td style="width: 5%; text-align: center;"></td> <td style="border: 1px solid black;">Note Do not torque tighten the drain plug.</td> </tr> </table>		Note Do not torque tighten the drain plug.
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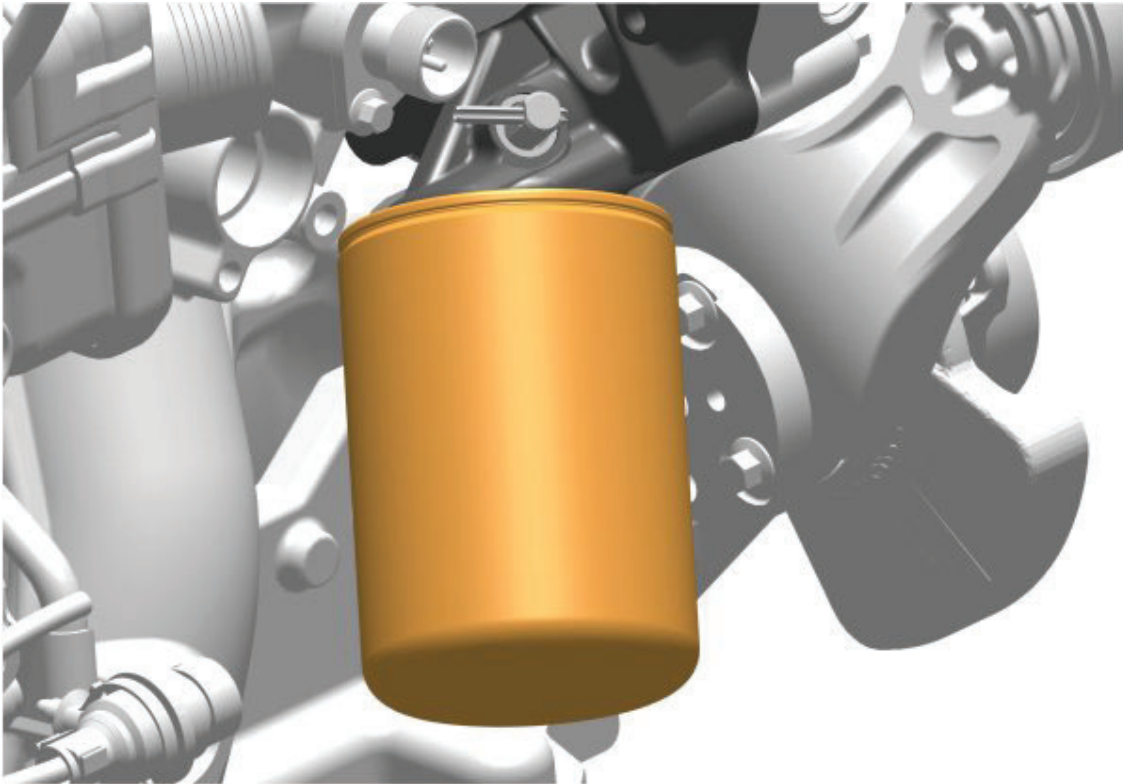
14	Mix a cleaning agent with distilled water.		
	<table border="1"> <tr> <td style="width: 5%; text-align: center;"></td> <td style="border: 1px solid black;">Note Use approved coolant flush.</td> </tr> </table>		Note Use approved coolant flush.
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	<table border="1"> <tr> <td style="width: 5%; text-align: center;"></td> <td style="border: 1px solid black;">Note Follow the recommendations printed on the packaging to determine the amount of cleaning product.</td> </tr> </table>		Note Follow the recommendations printed on the packaging to determine the amount of cleaning product.
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	<table border="1"> <tr> <td style="width: 5%; text-align: center;"></td> <td style="border: 1px solid black;">Note Ensure that the product is fully diluted.</td> </tr> </table>		Note Ensure that the product is fully diluted.
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15	Fill the cooling system with the mixture.		
	<table border="1"> <tr> <td style="width: 5%; text-align: center;"></td> <td style="border: 1px solid black;">Note Top up, if necessary.</td> </tr> </table>		Note Top up, if necessary.
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	<table border="1"> <tr> <td style="width: 5%; text-align: center;"></td> <td style="border: 1px solid black;">Note Use only distilled water.</td> </tr> </table>		Note Use only distilled water.
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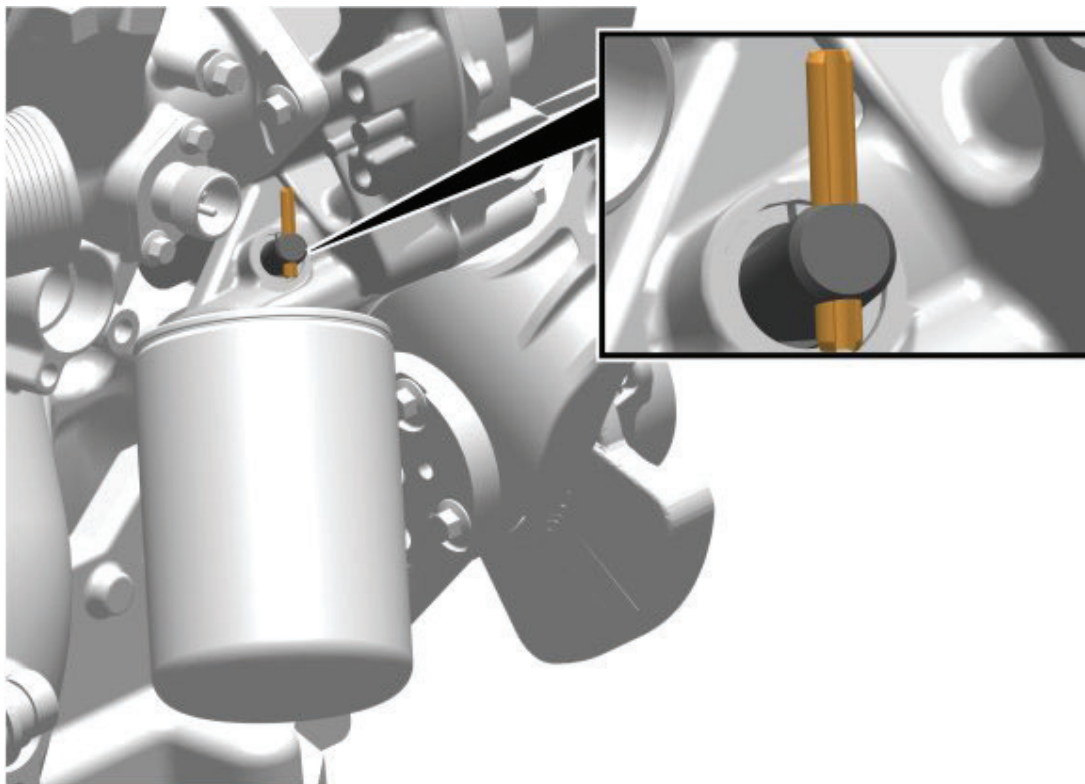
16	Start the engine and warm it to operating temperature.
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17	Turn off the engine.				
18	Position a draining container.				
19	Install the drain hose. <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #e0e0e0;"> <th colspan="2" style="text-align: left; padding: 2px;">Required material</th> </tr> <tr> <td style="width: 40%; padding: 2px;">DRAIN_HOSE</td> <td style="padding: 2px;">9996049</td> </tr> </table>	Required material		DRAIN_HOSE	9996049
Required material					
DRAIN_HOSE	9996049				
20	Drain the coolant.				
21	Remove the drain hose.				
22	Fill the cooling system with distilled water.				
23	Turn on the engine.				
24	Let the engine idle.				
25	Turn off the engine.				
26	Install the drain hose. <table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: #e0e0e0;"> <th colspan="2" style="text-align: left; padding: 2px;">Required material</th> </tr> <tr> <td style="width: 40%; padding: 2px;">DRAIN_HOSE</td> <td style="padding: 2px;">9996049</td> </tr> </table>	Required material		DRAIN_HOSE	9996049
Required material					
DRAIN_HOSE	9996049				
27	Drain the water.				
28	Remove the drain hose.				
29	<p>Perform this procedure when the condition below is met.</p> <p>Conditions</p> <ul style="list-style-type: none"> • If necessary ▶ Position a draining container. ▶ Remove the coolant drain plug from the transmission. ▶ Drain the water. ▶ Install the coolant drain plug in the transmission and tighten. <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 20px; text-align: center;"></td> <td>Note Use a new seal.</td> </tr> <tr> <td style="width: 20px; text-align: center;"></td> <td>Note Tighten to specification.</td> </tr> </table> 		Note Use a new seal.		Note Tighten to specification.
	Note Use a new seal.				
	Note Tighten to specification.				
30	Clean the contact surfaces.				

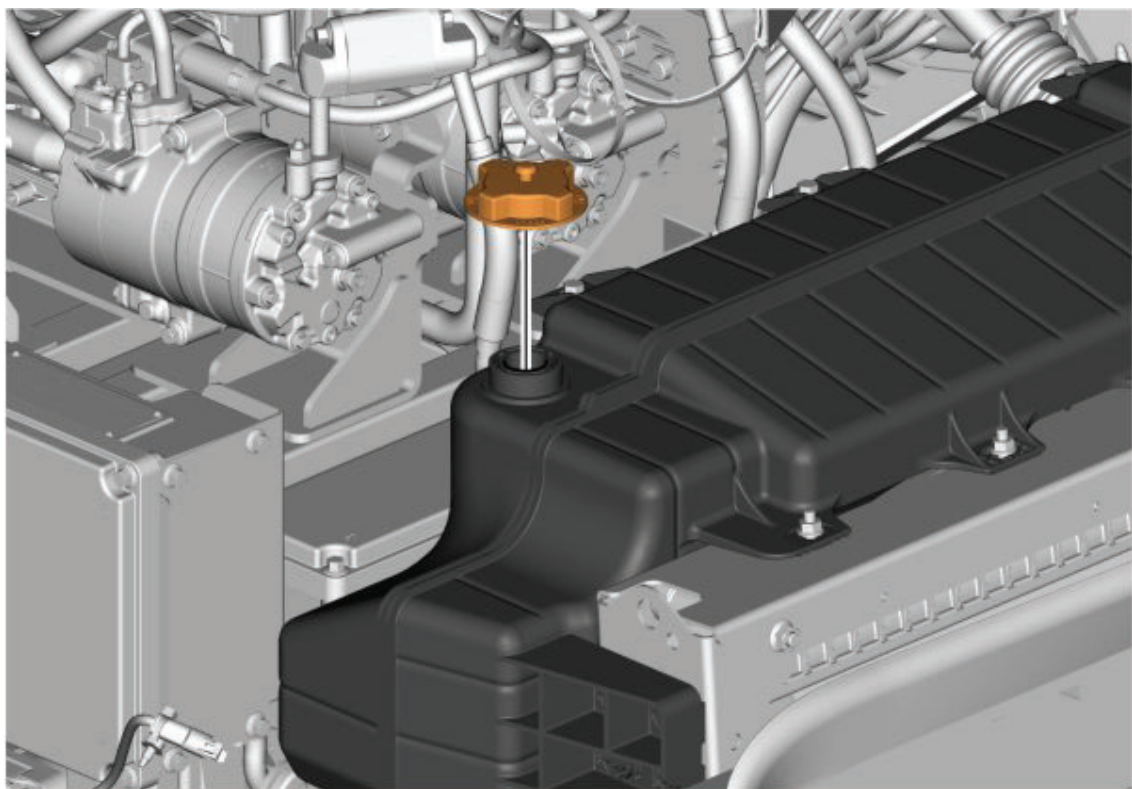
31	Install the coolant filter.
	i Note Use a new part.
	i Note Apply clean antifreeze to the new coolant filter seal.
	💡 Service hint Turn the filter until the seal contacts the sealing surface, and then, by hand, approximately another clockwise 1/2 turn.



32	Open the shut-off on the coolant filter housing.
	i Note In the open position, the pin on the shut-off should be vertical.



33 Remove the cap.



34 Fill the cooling system.

i	<p>Note Use approved coolant.</p>
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35 Start the engine.

36 Check for leaks.

37 Stop the engine.

38 Check the coolant level.

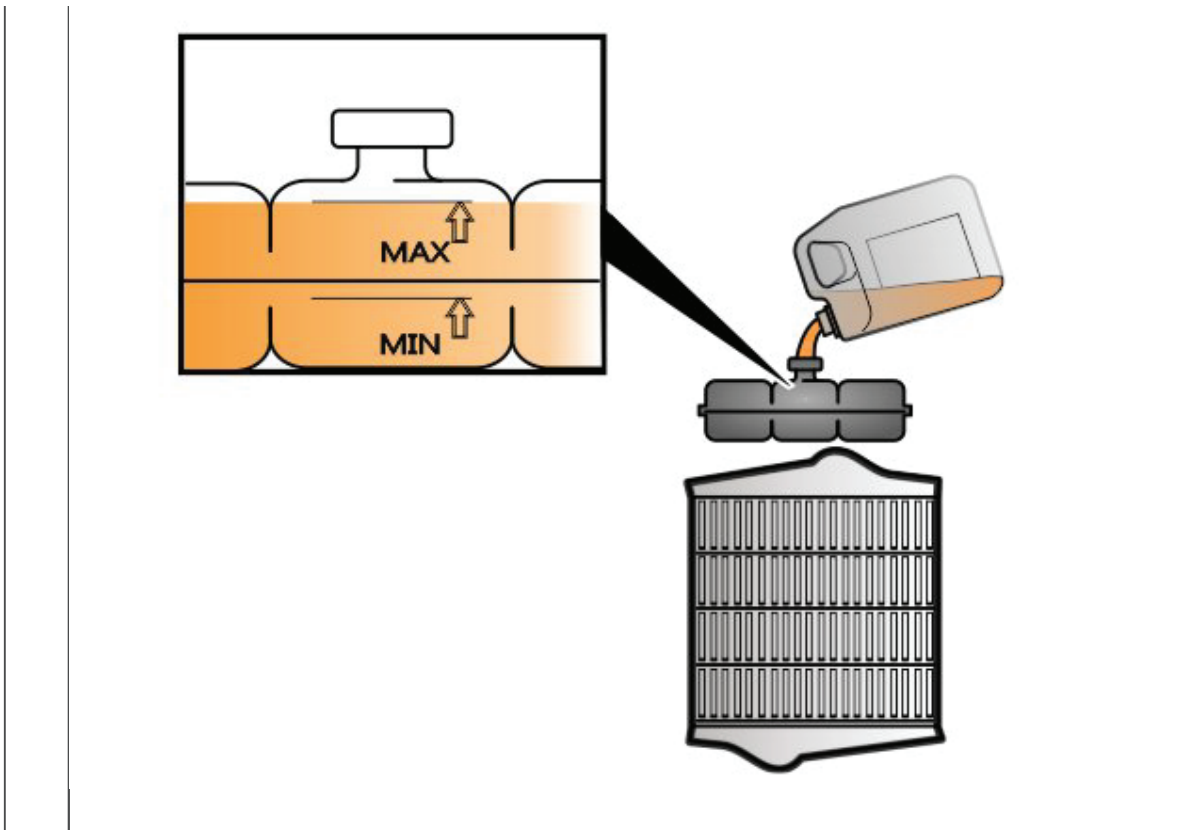
39 Perform this procedure when the condition below is met.

Conditions

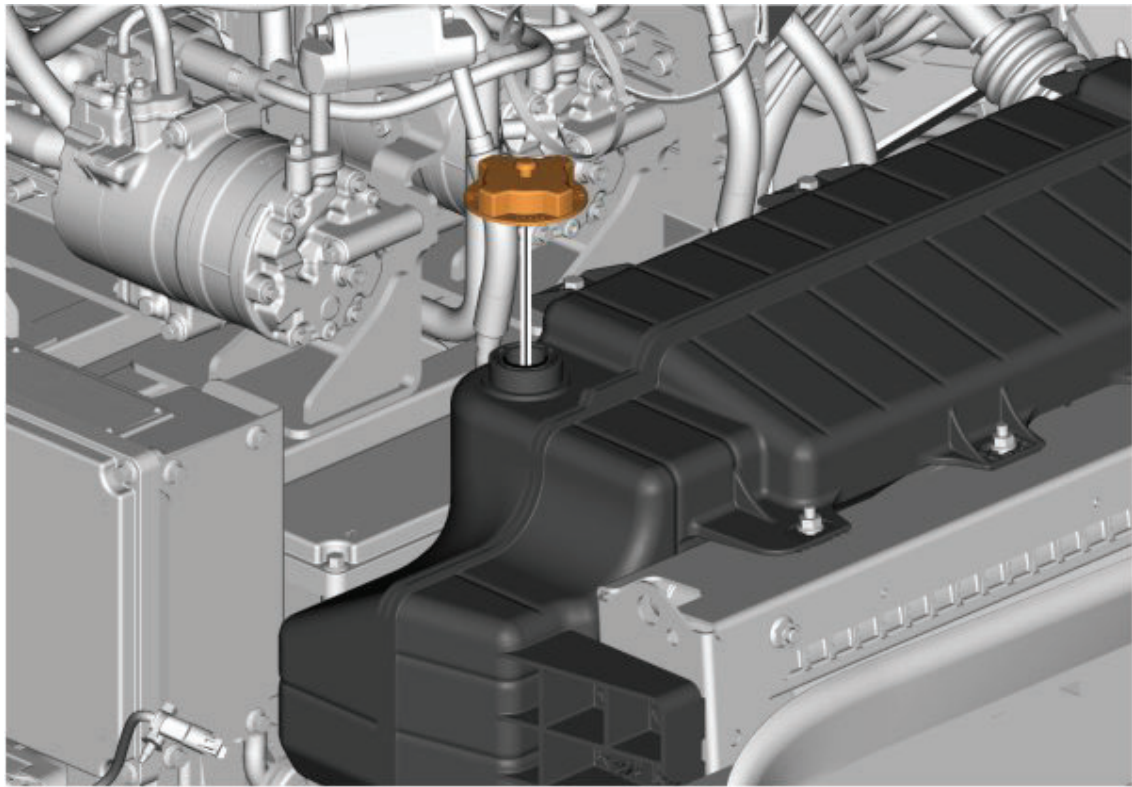
- If the coolant level is less than the specification

► Fill the coolant up to the **(MAX)** mark.

i	Note Use recommended coolant.
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40 Install the cap.



41 Lower the hood.

i **Note**
Ensure that the hood is latched.

42	Drain the collected fluid at a recycling facility.