



How to change engine  
thermostat on **VW**  
**Passat NMS (A32, A33)** –  
replacement guide

## SIMILAR VIDEO TUTORIAL



This video shows the replacement procedure of a similar car part on another vehicle

### **Important!**

This replacement procedure can be used for:  
VW Passat NMS (A32, A33) 2.0 TDI

The steps may slightly vary depending on the car design.

This tutorial was created based on the replacement procedure for a similar car part on: VW Passat B7 Saloon (362) 2.0 TDI

REPLACEMENT: ENGINE THERMOSTAT – VW PASSAT  
NMS (A32, A33). TOOLS YOU MIGHT NEED:



- Wire brush
- All-purpose cleaning spray
- Sealant
- Torque wrench
- Combination spanner #10
- Drive socket # 7
- Drive socket # 10
- XZN socket bit # 6
- Torx bit T27
- Ratchet wrench
- Funnel
- Clic-R collar pliers
- Needle nose pliers
- Fluid container
- Microfibre towel
- Fender cover

[Buy tools](#)

Replacement: engine thermostat – VW Passat NMS (A32, A33). Professionals recommend:

- Check the condition of the coolant every time you replace the thermostat. Change the coolant if necessary.
- Please note: all work on the car – VW Passat NMS (A32, A33) – should be done with the engine switched off.
- All work should be done with the engine stopped.

## CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

**1** Open the hood.

**2** Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.



**3** Remove the air duct.



4

Clean the throttle body fasteners. Use all-purpose cleaning spray.



5

Disconnect the throttle body connector.



6

Loosen the fastener of the air intake hose. Use a drive socket #7. Use a ratchet wrench.



7

Unscrew the dipstick tube fastener. Use a drive socket #10. Use a ratchet wrench.



8

Loosen the fastener of the air intake hose. Use a drive socket #7. Use a ratchet wrench.

9

Remove the air intake duct.



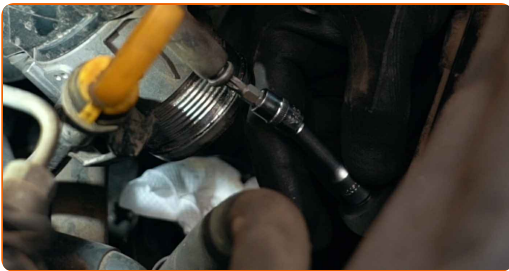
10

Cover the air intake hose with a microfibre towel to prevent dust and dirt from getting into the system.



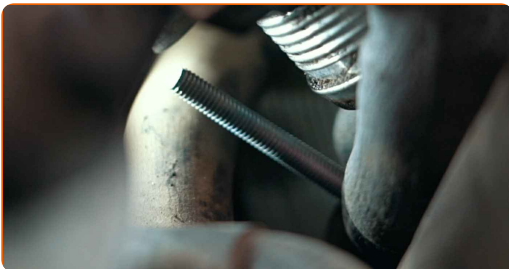
11

Unscrew the fasteners connecting the throttle valve to the intake manifold. Use Torx T27. Use a ratchet wrench.



12

Remove the fastening bolts.



**13** Detach the throttle body from the intake manifold.



Replacement: engine thermostat – VW Passat NMS (A32, A33). AUTODOC experts recommend:

- Clean the throttle body if necessary.

**14** Unscrew the coolant reservoir cap.

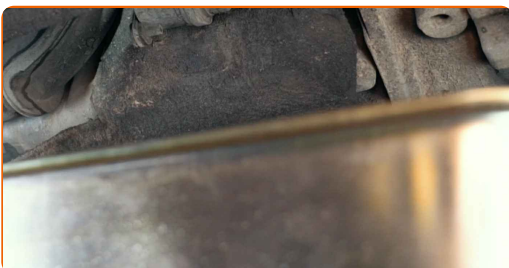


**15** Lift the car using a jack or place it over an inspection pit.

**16** Clean the coolant hose. Use all-purpose cleaning spray.



**17** Prepare a container for fluids.



18 Loosen the coolant hose clamp. Use clic-R collar pliers.



19 Detach the coolant hose.



20 Drain the coolant from the engine.



Replacement: engine thermostat – VW Passat NMS (A32, A33). Tip:

- Caution! The coolant can be very hot.
- Wear gloves to prevent contact with hot liquid.
- Wait until the coolant has completely flowed out of the drain hole.



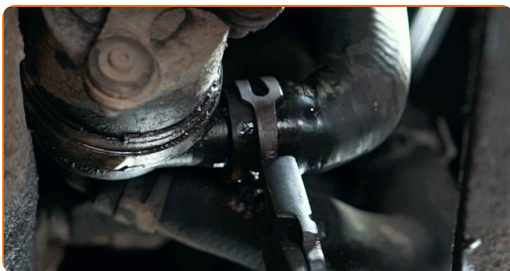
21 Clean the coolant hose. Use all-purpose cleaning spray.



22 Attach the coolant hose.



23 Secure the coolant hose clamp. Use clic-R collar pliers.



24 Lower the car.

25 Prepare a container for fluids.

26 Detach the clamp of the upper coolant hose. Use clic-R collar pliers.



27 Detach the upper coolant hose.



Replacement: engine thermostat – VW Passat NMS (A32, A33). Tip from AUTODOC:

- Caution! Coolant may leak out of the coolant lines and thermostat housing.

28 Detach the clamp of the upper coolant hose. Use needle nose pliers.



29 Detach the upper coolant hose.



Replacement: engine thermostat – VW Passat NMS (A32, A33). Tip:

- Caution! Coolant may leak out of the coolant lines and thermostat housing.

30

Detach the clamp of the upper coolant hose. Use needle nose pliers.



31

Detach the upper coolant hose.



Replacement: engine thermostat – VW Passat NMS (A32, A33). Tip from AUTODOC:

- Caution! Coolant may leak out of the coolant lines and thermostat housing.

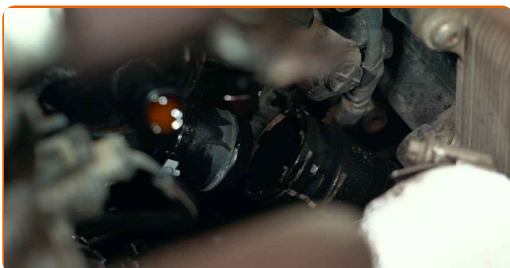
32

Detach the clamp of the upper coolant hose. Use clic-R collar pliers.



33

Detach the upper coolant hose.



Replacement: engine thermostat – VW Passat NMS (A32, A33). AUTODOC experts recommend:

- Caution! Coolant may leak out of the coolant lines and thermostat housing.

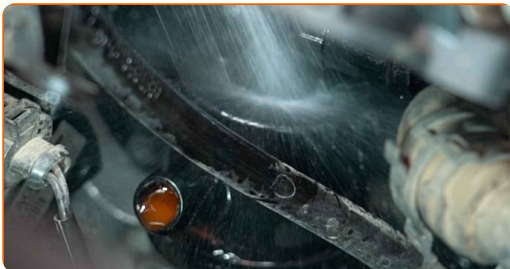
34

Unscrew the fastener of the coolant hose clamp. Use XZN #6. Use a ratchet wrench.



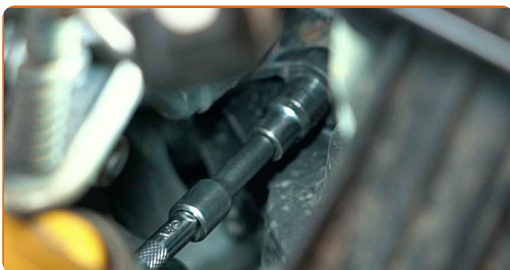
35

Clean the thermostat housing. Use all-purpose cleaning spray.



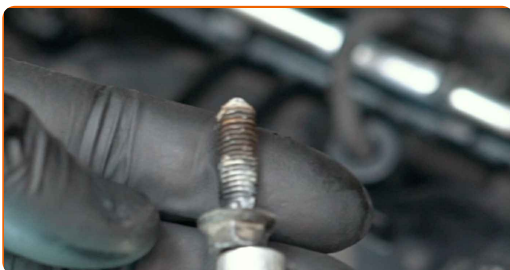
36

Unscrew the thermostat housing fasteners. Use a drive socket #10. Use a ratchet wrench.



37

Remove the fastening bolts.



38

Remove the thermostat housing together with the thermostat.



**AUTODOC recommends:**

- Replacement: engine thermostat – VW Passat NMS (A32, A33). Do not use excessive force when removing the part as this may damage it.

39

Clean the thermostat housing mounting seat. Use a wire brush. Use all-purpose cleaning spray.



40

Install the new thermostat housing together with the thermostat.



**AUTODOC recommends:**

- Replacement: engine thermostat – VW Passat NMS (A32, A33). Do not use excessive force during installation. This may damage the part.

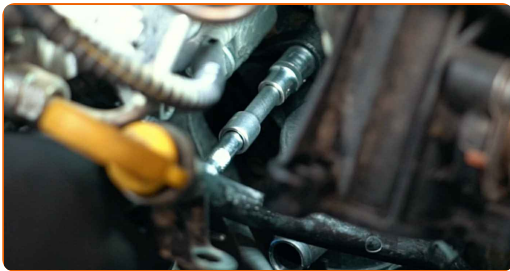
41 Treat the fastening bolts. Use a sealant.



42 Install the fastening bolts.



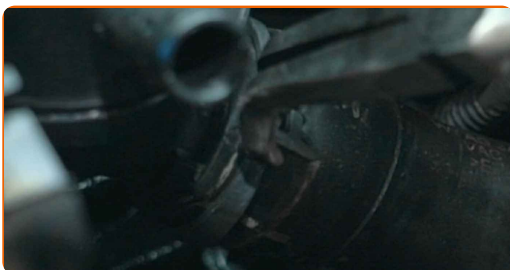
43 Tighten the thermostat housing fasteners. Use a drive socket #10. Use a torque wrench. Tighten it to 9 nm torque.



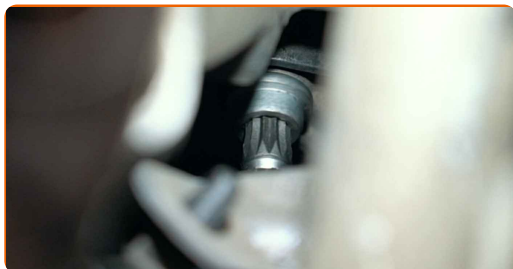
44 Attach the upper coolant hose.



45 Attach the clamp of the upper coolant hose. Use needle nose pliers.



**46** Screw in the fastener of the coolant hose clamp. Use XZN #6. Use a torque wrench. Tighten it to 7 nm torque.



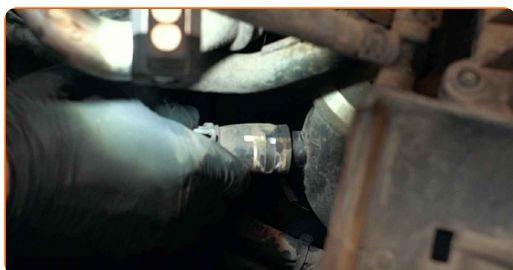
**47** Attach the upper coolant hose.



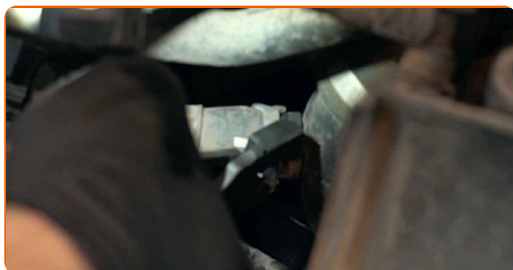
**48** Attach the clamp of the upper coolant hose. Use clic-R collar pliers.



**49** Attach the upper coolant hose.



**50** Attach the clamp of the upper coolant hose. Use clic-R collar pliers.



51 Attach the upper coolant hose.

52 Attach the clamp of the upper coolant hose. Use needle nose pliers.

53 Treat the fastening bolts. Use a sealant.



54 Clean the throttle body mounting seats. Use all-purpose cleaning spray.



55 Install the throttle valve on the intake manifold. Install the fastening bolts.



56 Tighten the throttle body fasteners to the air intake manifold. Use Torx T27. Use a torque wrench. Tighten it to 14 nm torque.





**57** Remove the microfibre towel from the air intake hose.



**58** Clean the mounting seat of the air intake hose. Use all-purpose cleaning spray.



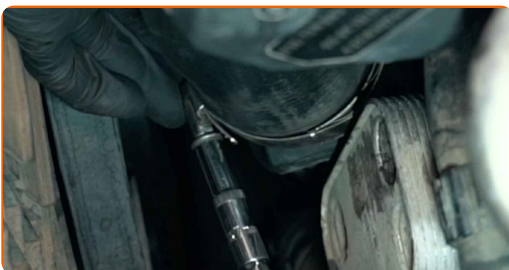
**59** Reinstall the air intake duct.



**60** Screw in the dipstick tube fastener. Use a combination spanner #10.



**61** Secure the fastener of the air intake duct. Use a drive socket #7. Use a ratchet wrench.



62 Connect the throttle body connector.



63 Install the air duct.



64 Remove the coolant reservoir cap.



65 Insert the funnel.



66 Pour coolant in the coolant reservoir.



Replacement: engine thermostat – VW Passat NMS (A32, A33). Tip from AUTODOC:

- Only use the coolant recommended by the manufacturer.
- The coolant level should be at the MAX mark.
- Wait until the air goes out of the system.

**67** Run the engine for a few minutes. This should be done in order to remove residual air from the cooling system and to check if the components are operating correctly.



**68** Shut off the engine.

**69** Check the coolant level. If necessary, top up to the required level.



**70** Install the coolant reservoir cap.



71

Screw on the coolant reservoir cap.



72

Remove the fender protection cover.



73

Close the hood.

**WELL DONE!** [VIEW MORE TUTORIALS](#)

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