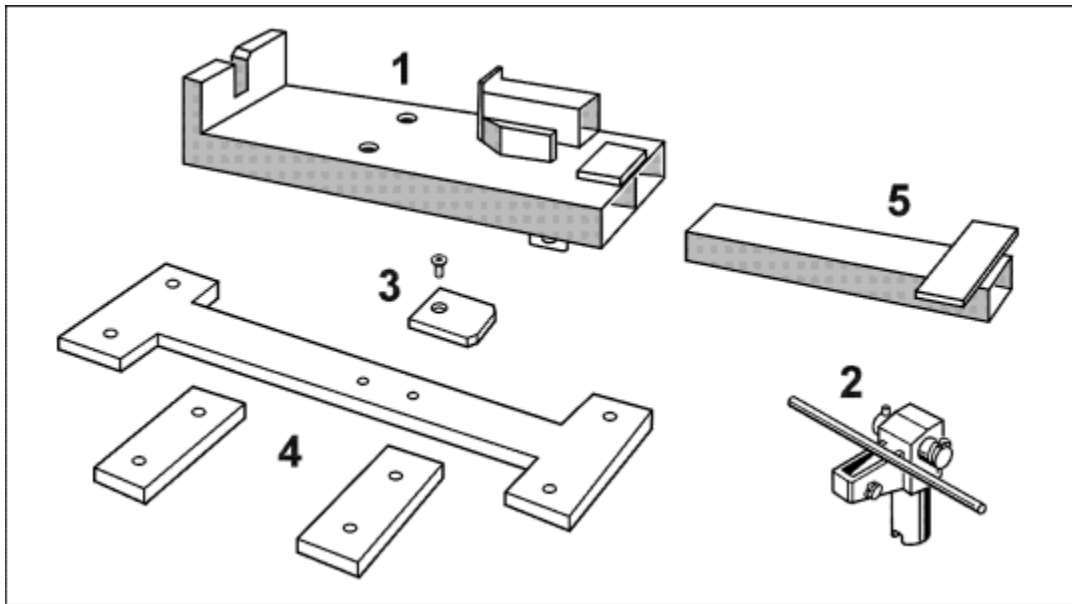


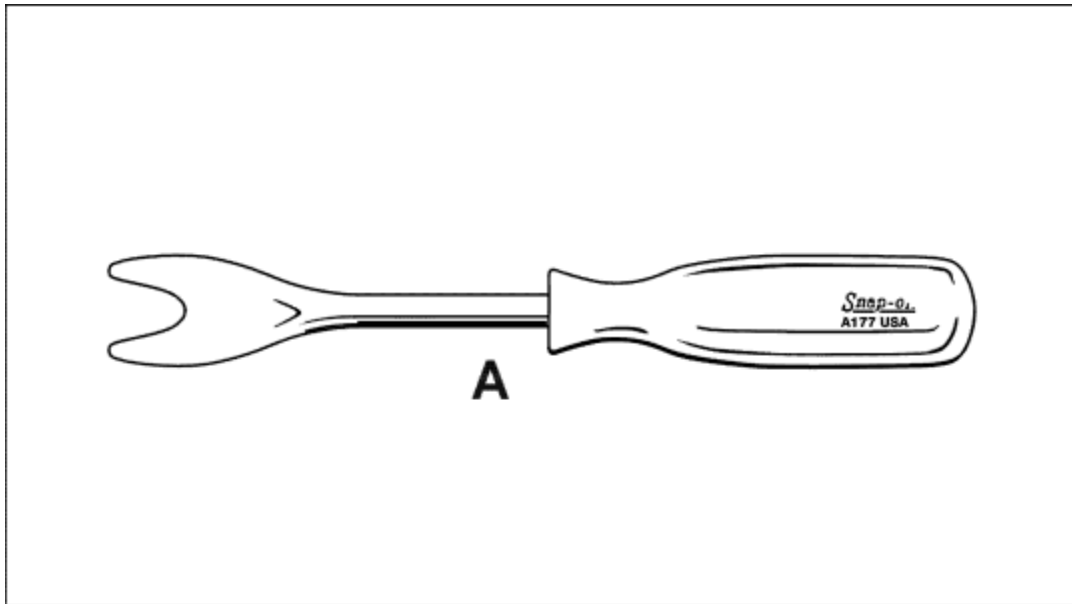
10 01 19 Removing and installing engine - GT3

- Tools
- Removing engine - GT3
- Installing engine - GT3
- Tightening torques: Removing and installing engine - GT3

Tools



Item	Designation	Explanation
-1-	Engine retainer plate 9111/3	
-2-	Adapter 9111/1	Adapter for engine retainer plate 9111/3
-3-	Spacer 9111/5	To compensate for the engine retainer plate in the necessary horizontal position
-4-	Support plate with wooden supports 9111/4	Separate the wooden supports and only fasten one half in each case on the support plate
-5-	Additional support 9111/6	Only for 911 Turbo with Tiptronic transmission
Not shown	Unit elevating platform, master gear	See Workshop Equipment Manual No. 3.0.13 (WE 1206)



Item	Designation	Source	Explanation
-A-	Removal tool, universal No.21	See Workshop Equipment Manual, Chapter 2.4	Tool A 177 A; Snap-on tools

Removing engine - GT3

The entire engine-transmission unit is removed in downward direction.

1. Install protective supports.
2. Read out or print out the fault memory with the Porsche System Tester 2.
3. Disconnect the battery and cover terminal and battery.



CAUTION

Danger of material damage if the vehicle is raised incorrectly!

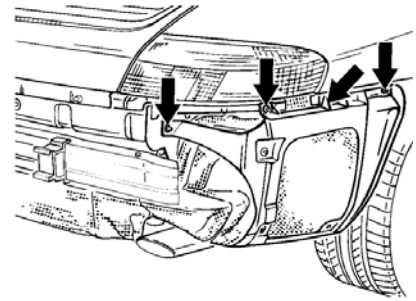
- **Raise the vehicle at the prescribed jacking points!**
- **Raise the vehicle by means of a workshop jack on the engine and move the mounting plate of the lifting platform into the highest position!**



Note

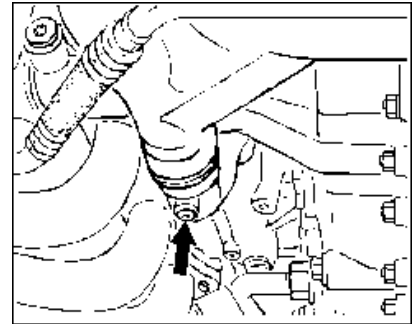
- Make sure the outer threaded joints for the diagonal braces are accessible!
4. Raise the vehicle at the prescribed jacking points.
 5. Remove the centre and rear underside panels.

6. Remove rear apron → 63 55 19 *Removing and installing rear apron.*
7. Remove retaining frame (heat protection) at the sides → 63 50 19 *Removing and installing rear bumper.*
8. Unscrew cap of coolant expansion tank.

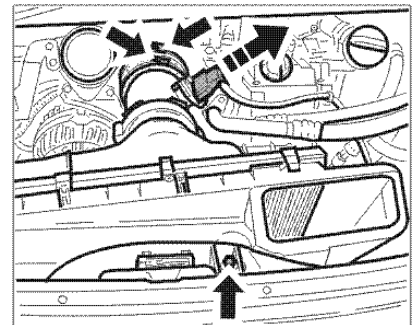


9. Undo coolant drain plug on right and left and drain the coolant. Fit new sealing rings on drain plugs and then tighten them.

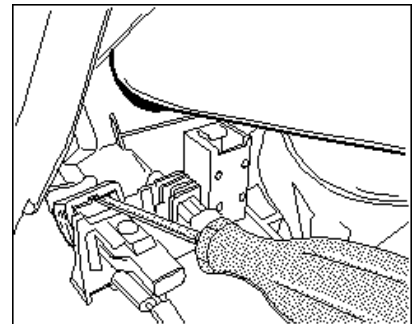
Tightening torque: 10 + 5 Nm (7.5 + 3.5 ftlb.)



10. Remove air filter system. Undo hexagon-head bolt M6 x 34. Undo hose clamps on throttle body and pull plug off the mass air flow meter.



11. Disconnect oxygen sensor plug connections using a screwdriver.



12. Disconnect oxygen sensor plug connections on the rear closing panel.
13. Remove right and left-hand coolant hose, lever off safety bracket to do this. Remove coolant hose on the expansion tank.

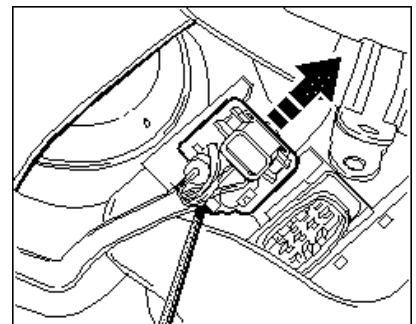
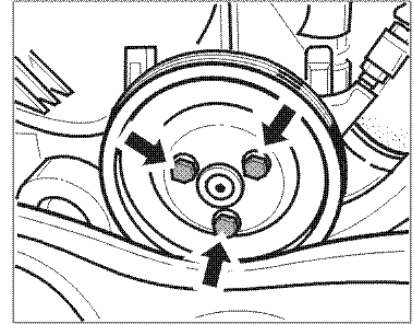
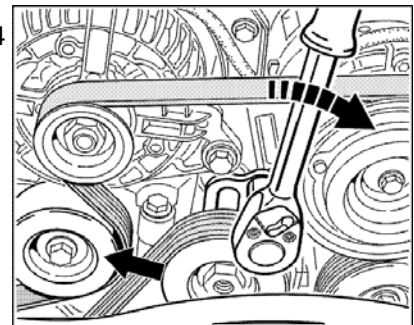


Illustration shows left coolant hose

14. Undo three hexagon-head bolts on the hydraulic pump by approx. one half turn.



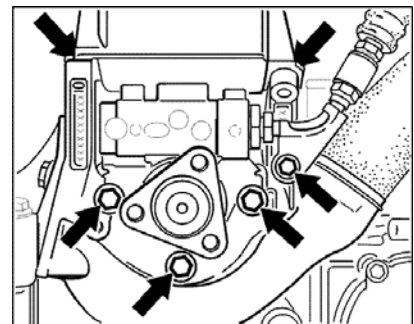
15. Relieve drive belt. Remove drive belt. Mark belt rolling direction with a coloured pen. Slacken belt by turning the tensioning pulley (wrench size 24 mm) clockwise, hold still and simultaneously take the belt off the drive pulleys.



16. Remove hydraulic pump pulley.

17. Unclip cable plug from the mass air flow sensor on the expansion tank for the hydraulic pump.

18. Undo fastening screws on the expansion tank (two M8 screws) and the hydraulic pump (three M8 screws and one M6). Take the expansion tank with hydraulic pump and connected lines up out of the fastening bracket and set down on the right-hand side.



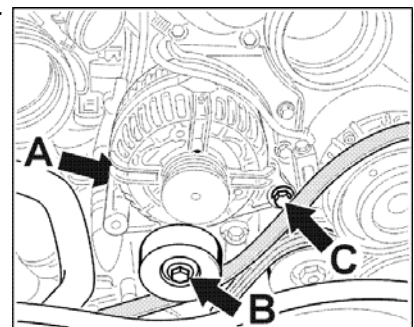
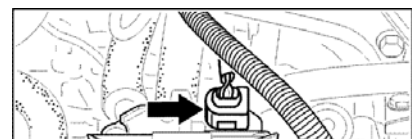
19. Disconnect battery positive at B+ disconnection point.

**Note**

- Swivel the throttle body upward for better accessibility to the front screw. To do this, loosen both inner hose clamps.

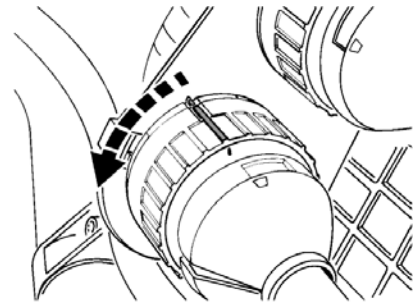
20. The assembly work below must be performed on a vehicle with air conditioning:

- a. Remove the generator → 27 22 19 *Removing and installing generator - GT3.*

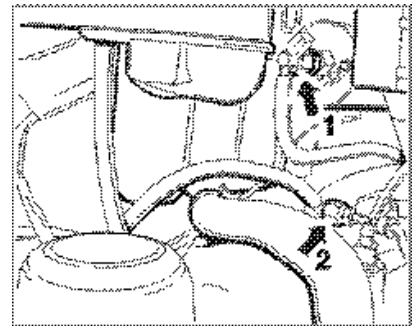
**Electric connections for generator**

- b. Undo the air-conditioning compressor from the bracket (three screws).
- c. Disconnect electric plug connection. Lift out compressor and set it down with the hoses connected.

21. Undo engine wire harnesses (round connectors with bayonet lock) on the right side in the engine compartment.
22. Disconnect plug connection of tank vent. Press unlocking buttons and simultaneously pull off the line.
23. Disconnect the vacuum line for the brake booster. To do this, remove the snap ring. Push the inner sleeve against the outer sleeve and pull off both sleeves together towards the rear.



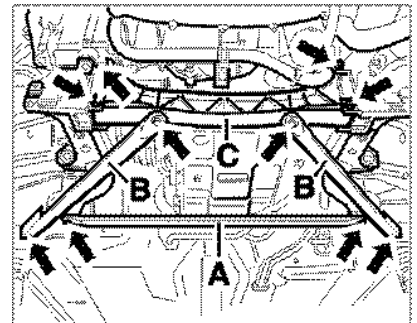
24. Undo the fuel supply line and fuel return line in the engine compartment (left). It is very important to counter when performing this step. Collect residual fuel.



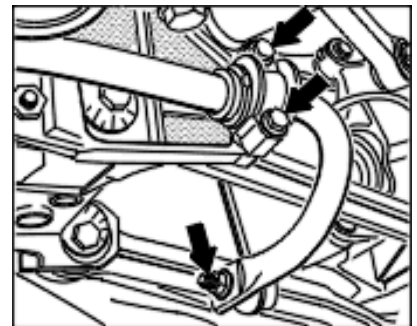
Note

- Drill an access bore of approx. 30 mm \varnothing on the side members for better access to the fastening screws on the diagonal brace.
- This step is not required for vehicles as of model year 2004.

25. Raise the vehicle and remove the anti-roll bar, rear-axle drive shafts, diagonal braces, and front and rear cross members.



Stabiliser suspension



Securing top cross member

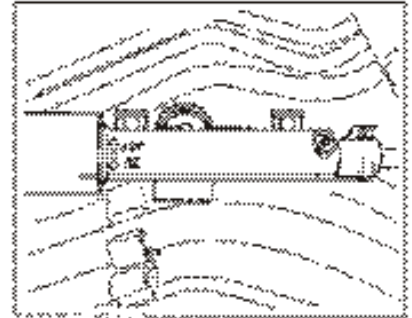


Note



- GT3 vehicles as of model year 2004 come with E-gas adjusters as standard. The next step can thus be omitted for these vehicles.

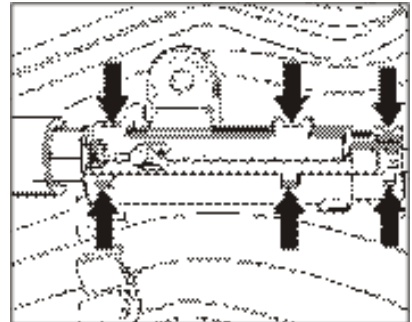
26. Undo accelerator cable. To do this, turn the left-hand rotary sleeve in direction of arrow to **-open-** .



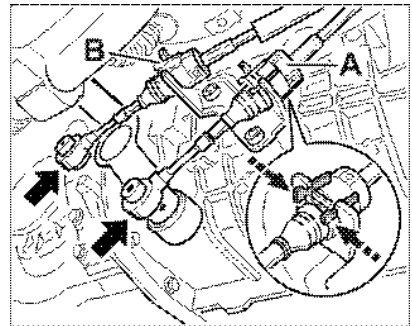
a. Unclip right-hand accelerator cable mount sleeve and disengage the accelerator cable.

27. Undo ground strap between engine and body at the body (cylinder head, near cylinder 6).

28. Remove the starter → 27 60 19 Removing and installing starter - GT3.



29. Move shift lever to neutral position and disengage shift cables on the transmission. Use a commercially available removal tool for this purpose (see Workshop Equipment Manual, Chapter 2.4, No. 21)



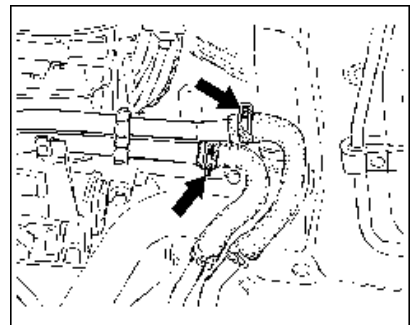
30. Open spring band clamps **-Arrows-** and pull off the coolant lines.



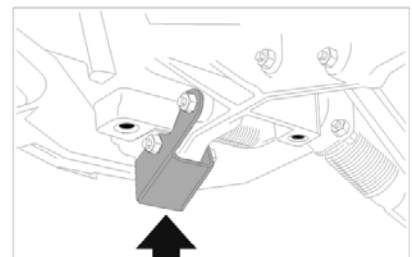
Note

- The clutch pedal must not be pressed if the slave cylinder has been removed. Affix a warning note in the vehicle.

31. Undo clutch slave cylinder and hang to one side with the connected line.



32. Remove crash support. Loosen the fastening nuts and screw off screws and nuts. Take off crash support and immediately re-insert screws at the joint.



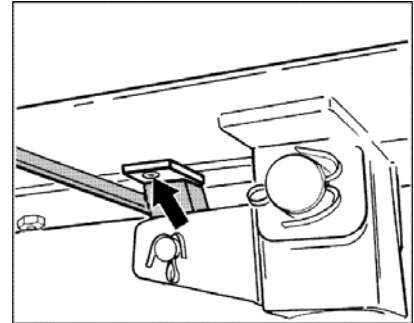
Tightening torque: 23 Nm (17 ftlb.)



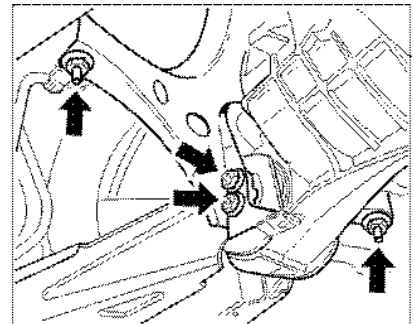
Note

- Use a unit elevating platform rather than a workshop jack to remove and install the engine/transmission unit (see Workshop Equipment Manual, No. 3.013).

33. Place unit elevating platform with adapter plate under the vehicle. Position engine retainer plate with a slight preload on the engine and check the position of the plate. Engage support lever in horizontal position.

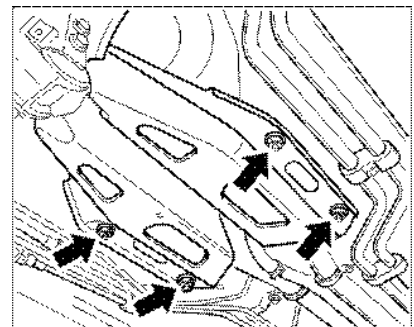


34. Loosen transmission support and transmission bracket.



Loosening transmission bracket

35. Loosen engine carrier at the engine mountings (a/f 18).
36. Lower the engine/transmission unit carefully and in steps. Get another person to check the engine/transmission clearance at the same time, especially near the oil tank.



Note

- If the vehicle is placed on its wheels or moved in the workshop, the rear cross member must be fitted at all times to maintain the structural strength.

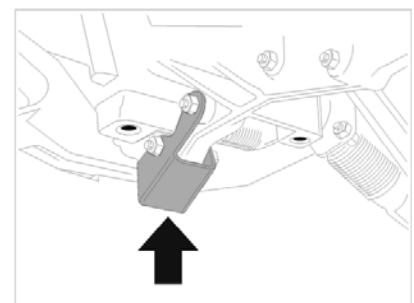
Installing engine - GT3

The engine/transmission unit is installed in the reverse order. The following points must be given special attention:

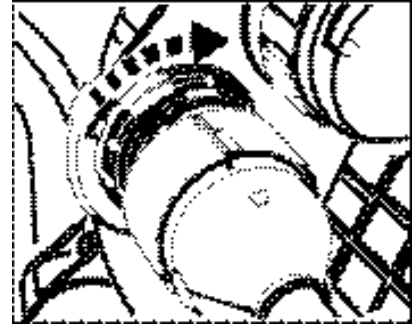
1. Fit the crash support. Coat the fastening screws with Loctite 574 and screw them in.

Tightening torque: 23 Nm (17 ftlb.)

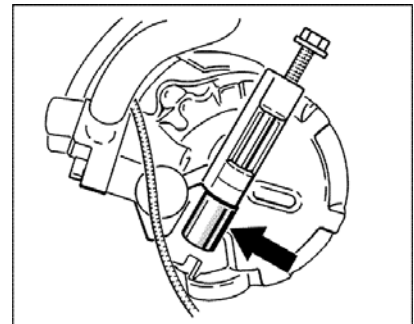
2. Install the starter → 27 60 19 *Removing and installing starter - GT3*.
3. Fit engine wire harness: The round connectors are colour-coded on the inside: upper connector - black, lower connector - grey.



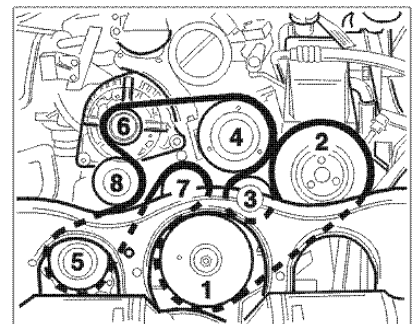
- a. Line up marking on the round connectors with marking on the housing.
- b. Turn round connector clockwise by approx. 90° (bayonet lock).



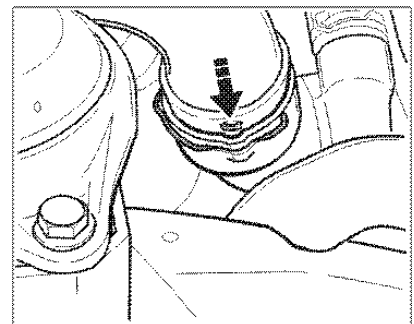
4. Fit air-conditioning compressor. Grease and fit the thread of the rear fastening screw and spacer sleeve.
5. Install the generator → 27 22 19 *Removing and installing generator - GT3*.
6. Install hydraulic pump.



7. Fit drive belt. Observe sequence when fitting the belt and direction of motion if the belt was run.
8. Fit coolant hoses with new O-rings. Wet the O-rings with Klüber Syntheso Glep or Klüberplus. Attach the securing clip to the coolant supports before engaging the coolant hoses.

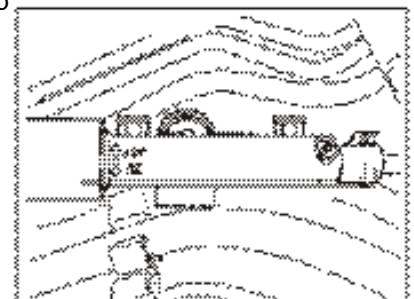


9. Move coolant hoses into installation position **-Arrow-**. The coolant hoses must engage audibly when pushed into the supports.
10. Engage accelerator cable and close accelerator cable mount sleeve.



- a. Turn rotary sleeve in the direction indicated by the arrow **-closed-** and line up the marking on the accelerator mount sleeve and rotary sleeve.

11. Top up coolant and bleed the cooling system → 19 38 17 *Draining and topping up with coolant (includes bleeding)*.



Tightening torques: Removing and installing engine - GT3

Location	Thread	Tightening torque Nm (ftlb.)
Engine mounting to engine carrier	M12 x 1.5	85 (63)
Transmission support to body	M10 x 1.5	65 (48)
Drive shaft to transmission	M10	81 (60)
Wheel to wheel hub	M14 x 1.5	130 (96)
Rear axle carrier to carrier side section	M12 x 1.5	100 (74)
Cross member at front to carrier side section	M10 x 1.5	65 (48)
Diagonal brace to body	M10 x 1.5	65 (48)
Diagonal brace to cross member	M12 x 1.5	100 (74)
Diagonal brace to carrier side section (collar nut)	M10 x 1.5	23 (17)
Anti-roll bar to carrier side section	M8	23 (17)
Anti-roll bar to suspension/stabiliser	M10 x 1.5	46 (34)
Ground strap to body	M8	23 (17)
Fuel return line	M14 x 1.5	25 (19) ± 5 (3.5)
Fuel supply line	M16 x 1.5	30 (22) + 5 (3.5)
Coolant drain plug	M10 x 1	10 (7.5) + 5 (3.5)

996810, 996811, 996850, 996851