

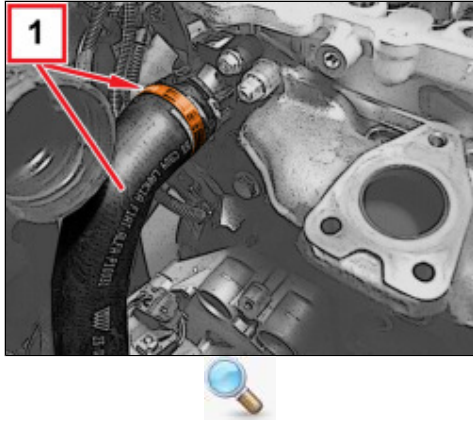
 Removing ([Refitting](#) )

- Place the vehicle on a lift.
 - [Op. 1016A10 SOUND-PROOFING COVER - R.R](#)
 - [Op. 1064A31 HEAT SHIELD FOR TURBOCHARGER - R.R.](#)
 - [Op. 1076A48 CATALYTIC CONVERTER HEAT SHIELD - R.R](#)
 - [Op. 7055B54 PROTECTION/GUARD UNDER ENGINE -R.R.](#)
 - [Op. 0010T20 ENGINE COOLANT - CHANGE](#)
 - [Op. 1084B42 ENGINE OIL RETURN PIPE FROM TURBO - R + R](#)
 - [Op. 1084B40 ENGINE OIL DELIVERY PIPE TO TURBOCHARGER - R + R](#)
 - [Op. 1064A10 TURBO CHARGER - R + R](#)
 - [Op. 4450B04 RIGHT FRONT WHEEL - R.R.](#)
 - [Op. 7055B66 ENGINE COMPARTMENT DUST COVER IN RIGHT FRONT WHEEL ARCH - R.R.](#)
 - [Op. 1092G10 AUXILIARY COMPONENTS SINGLE DRIVE BELT - R.R.](#)
 - [Op. 1092A10 SERVICE PULLEY ON CRANKSHAFT - R.R.](#)
 - [Op. 1092G15 ENGINE COMPONENT SINGLE BELT MOVING TENSIONER - R.R. WITH BELT REMOVED](#)
 - [Op. 1092G20 ENGINE COMPONENT SINGLE BELT FIXED TENSIONER - R + R](#)
 - [Op. 1008B10 POWER UNIT FRONT SUPPORT FLEXIBLE MOUNTING \(TIMING SIDE\) - REPLACE](#)
 - [Op. 1032D12 TIMING SYSTEM PROTECTIVE COVER\(S\) - R + R](#)
 - [Op. 1008A46 TIMING SIDE POWER UNIT RIGID SUPPORT - R.R.](#)
 - [Op. 1032B10 TOOTHED TIMING BELT - R.R. FOR TIMING OR REPLACEMENT](#)
 - [Op. 1060G80 DIESEL ELECTRONIC INJECTION CONTROL UNIT - R.R](#)
 - [Op. 1060F50 FUEL RETURN MANIFOLD - R.R.](#)
 - [Op. 1060F20 PIPE FROM PRESSURE PUMP TO FUEL MANIFOLD - R.R.](#)
 - [Op. 1060F52 FUEL RETURN PIPE FROM INJECTORS - R.R.](#)
 - [Op. 1060F36 PIPES \(ALL\) FROM FUEL MANIFOLD TO INJECTORS - R.R.](#)
 - [Op. 1060F30 SINGLE FUEL MANIFOLD PIPE - R.R.](#)
 - [Op. 1060F10 INJECTORS - R.R.](#)
 - [Op. 1016B10 SINGLE CAMSHAFT HOUSING - REPLACE GASKET](#)
- Temporarily fit the rigid support and the flexible mounting for the power unit, timing side.
- Remove the particulate filter, with reference to
 - [Op. 1080B81 PARTICULATE FILTER \(D.P.F.\) - R.R.](#)
 - [Op. 1048B27 RIGID PIPE FOR AIR INLET TO THROTTLE BODY - R R](#)
 - [Op. 1060G50 THROTTLE BODY - R.R](#)
 - [Op. 1080C30 PIPE FROM E.G.R. SOLENOID VALVE TO INTAKE MANIFOLD - R.R.](#)
 - [Op. 5530B10 BATTERY - R+R](#)
 - [Op. 1080C82 E.G.R. - VALVE HEAT EXCHANGER ASSEMBLY - CONNECTOR PIPES - R.R.](#)
- Disconnect the electrical connection for the air pressure/temperature sensor.

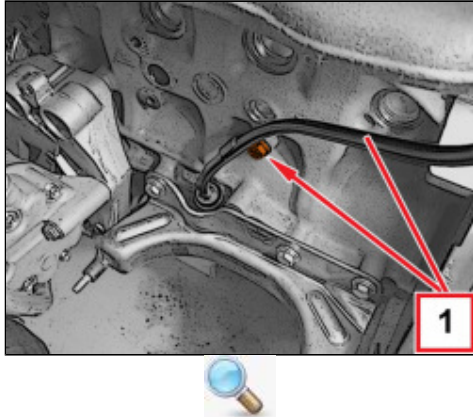
	Description	Connector
-	Air pressure/temperature sensor	_See K044 AIR TEMPERATURE/PRESSURE SENSOR

- Undo the upper bolt fixing the oil vapour separator pipe to the intake chamber.
- Disconnect the water pump return pipe rapid connector, intake chamber side.

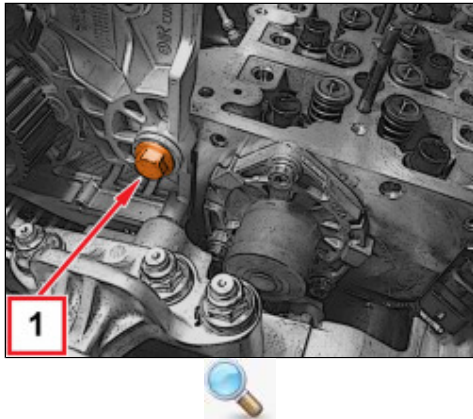
1. Loosen the band and disconnect the radiator water outlet hose, water pump side.



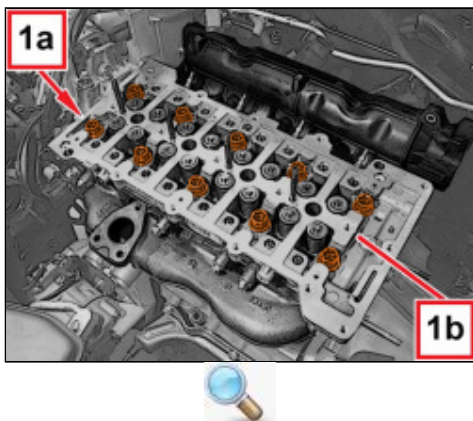
1. Undo the bolt and remove the engine oil dipstick tube.



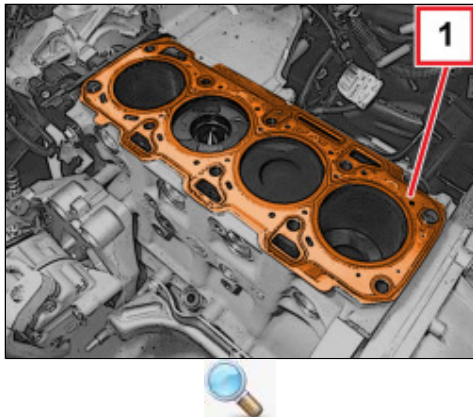
1. Undo the screw fixing the pressure pump mounting to the cylinder head.



1. Undo the bolts (1a) and remove the cylinder head assembly (1b).



1. Remove the gasket from the cylinder head.



 If the remaining components have to be removed, refer to

[Op. 1016E10 SINGLE CYLINDER HEAD - DETACHED - OVERHAUL](#)

 Refitting ([Removing](#) )

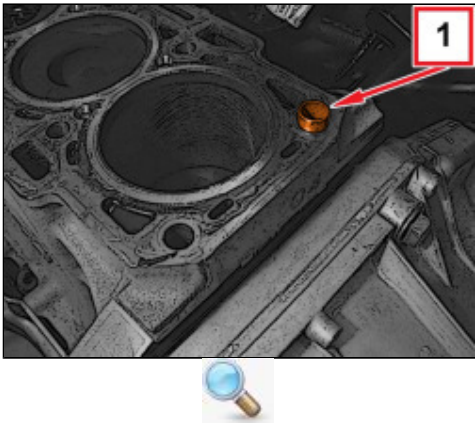
- Clean any traces of the old gasket from the cylinder head lower surface.
- Check that the flatness of the cylinder head lower surface corresponds to the recommended values.

Size	Value	Validity
Engine cylinder head lower surface flatness (mm)	< 0.1	

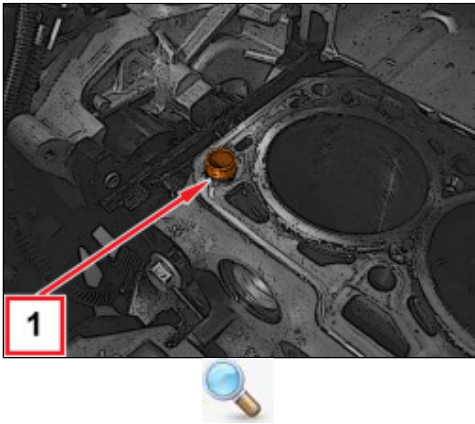
- If the planarity of the lower cylinder head plane does not correspond to the recommended figures, regrind it without exceeding the minimum permitted height.

Size	Value	Validity
Cylinder head gasket size with maximum piston projection (mm)	Projection +0.201 ÷ +0.295 thickness (two openings) 1.02 +/- 0.05	1.6 JTDM

1. Position the cylinder head locating bush, gearbox side, on the engine block.



1. Position the cylinder head locating bush, timing side, on the engine block.



 The locating bushes between the engine block and cylinder head are lower (12.5 mm) than the bushes between the cylinder head and the camshaft housing. Take great care not to mix them up as this could impair engine operation.

- Fit a new cylinder head gasket in position.

 If it has not been necessary to level the cylinder head, use a new cylinder head gasket of the same thickness as the old gasket. If this is not the case, determine the size of the new cylinder head gasket to be used (see operation 1004E20).

 Position the first cylinder at T.D.C.; rotate the crankshaft a further two teeth of the toothed timing drive pulley to lower the pistons thereby preventing any interference with the valves whilst fitting the cylinder head.

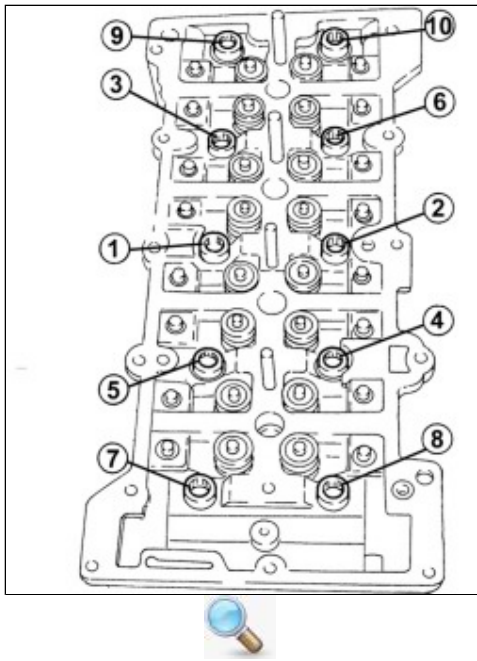
- Position the cylinder head on the cylinder block.

 Do not reuse the cylinder head screws more than four times because they undergo permanent lengthening whenever they are tightened.

If you do not know the previous tightening torque, the bolts must be replaced.

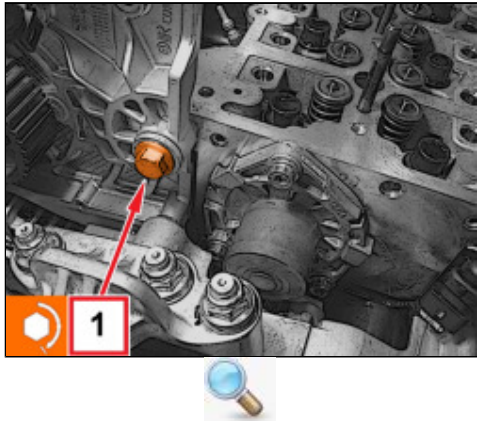
- Tighten the cylinder head bolts to the recommended torque following the order shown in the figure.

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Component	Fastening	Ø	Value (daNm)	Validity
Cylinder head	Screw	M12	6.2 ÷ 6.9 + 90° + 90° + 90°	1.6 JTDM

 The value of 6.5 daN must be achieved with an initial tightening of 2 daN followed by an increment of 4.5 daN.



1. Tighten the bolt securing the pressure pump support to the cylinder head to the recommended torque.

Component	Fastening	Ø	Value (daNm)	Validity
Pressure pump support - cylinder head side	Screw	M8	2.2 ÷ 2.7	1.6 JTDM

- Place the engine oil dipstick tube back in its housing and tighten the bolt securing it to the engine block.
- Connect the radiator water outlet hose, water pump side and tighten the band.
- Connect the return pipe rapid connector to the water pump, intake chamber side.
- Tighten the upper bolt fixing the engine oil vapour separator pipe to the intake chamber.
- Connect the electrical connection for the air pressure/temperature sensor.

[Op. 1080C82 E.G.R. - VALVE HEAT EXCHANGER ASSEMBLY - CONNECTOR PIPES - R.R.](#)

[Op. 5530B10 BATTERY - R+R](#)

[Op. 1080C30 PIPE FROM E.G.R. SOLENOID VALVE TO INTAKE MANIFOLD - R.R.](#)

[Op. 1060G50 THROTTLE BODY - R.R](#)

[Op. 1048B27 RIGID PIPE FOR AIR INLET TO THROTTLE BODY - R R](#)

- Place the particulate filter in position with reference to

[Op. 1080B81 PARTICULATE FILTER \(D.P.F.\) - R.R.](#)

[Op. 1016B10 SINGLE CAMSHAFT HOUSING - REPLACE GASKET](#)

[Op. 1060F10 INJECTORS - R.R.](#)

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[Op. 1016A10 SOUND-PROOFING COVER - R.R](#)

- Remove the vehicle from the lift.