

11 12 106 Removing and installing right cylinder head (N62 from 9/03 and N62TU)



(cylinder bank 1 to 4)

Note:

For the removal of the exhaust manifold, the engine must be secured in the installation position using a special tool and then the front axle support lowered.

Remove [right exhaust manifold](#).

After removal of the exhaust manifold:

Temporarily re-install front axle support and remove the special tool to fix the engine into installation position.



Open coolant drain plug on right side of engine block.

Drain and dispose of coolant.

Installation note:

Replace sealing ring.

Tightening torque for drain plug [11 11 5AZ](#).

Top up coolant. [Vent cooling system and check on watertightness](#).



Remove ignition coils on cylinder bank 1 to 4.

Remove servomotor for right eccentric shaft.

Remove [intake plenum](#).

[Remove right cylinder head cover.](#)

Remove [right gear case cover](#).

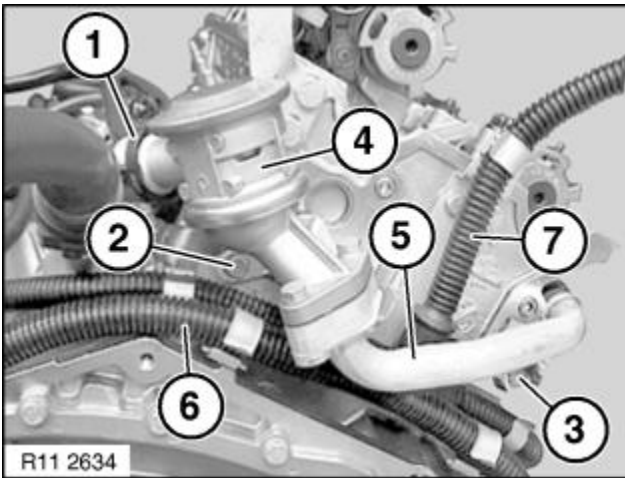
Disconnect plug connections and set aside engine wiring harness.

Remove spark plugs on cylinder bank 1 to 4.

Remove vent hose at cylinder head.

Note:

Illustration with engine removed.



Pull off hose (1) from shutoff valve (4).

Unfasten screws (2).

Important!

A spacer bush is screwed behind the pipe (5) with a screw (3).

Release screw (3) and remove shutoff valve (4), pipe (5) and spacer bush.

Unclip cables (6 and 7).

Installation note:

Replace sealing ring at pipe (5) and coat with lubricant.

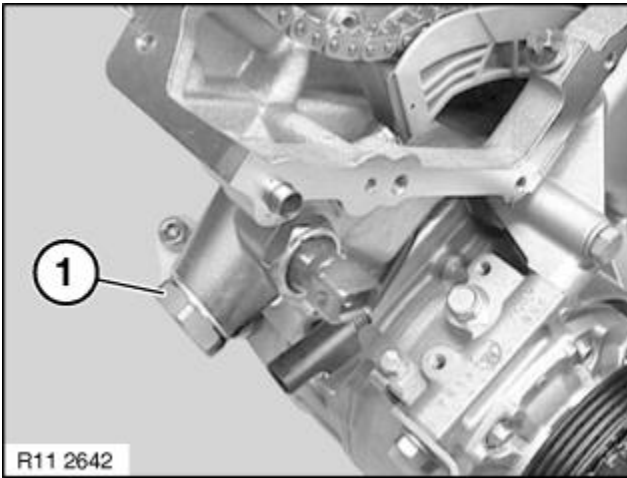


Removal:

Removal of cylinder head is described separately from installation.

Remove intake and exhaust
camshaft adjusters on right side.

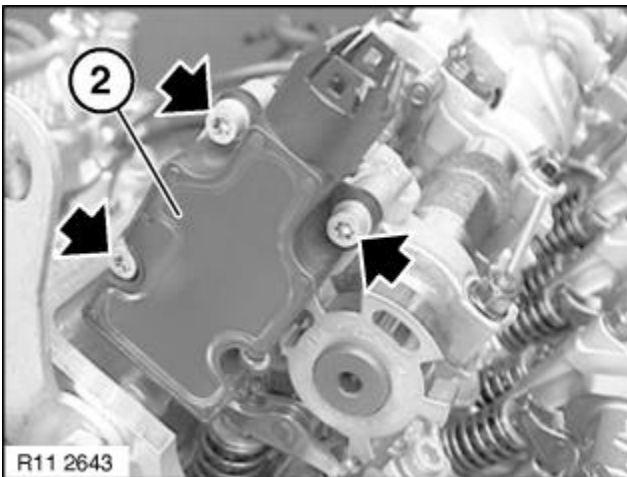
Slacken chain tensioner piston (1)
approx. one rotation.



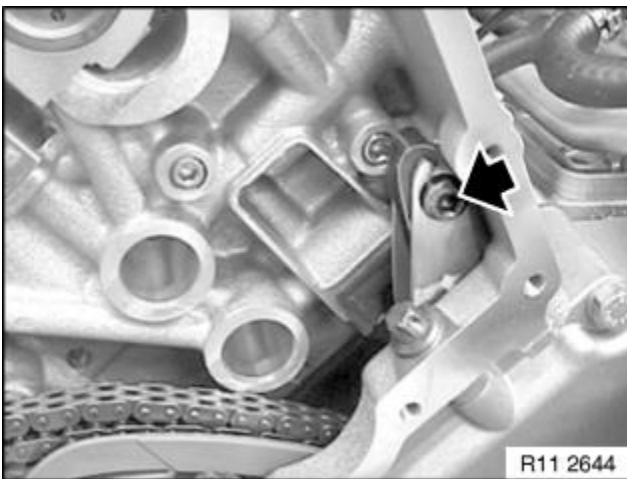
Note:

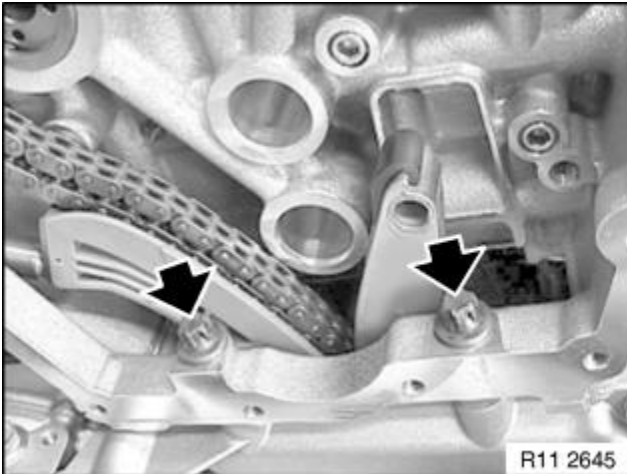
Illustration with engine removed.

Remove eccentric shaft sensor (2).

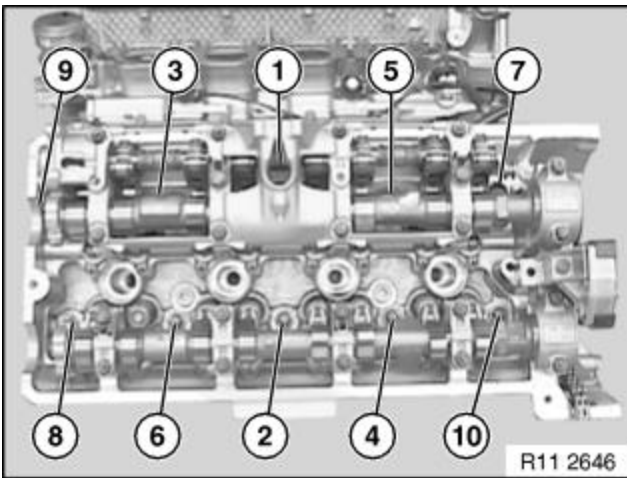


Remove guide rail from cylinder
head.





Slacken bolts between cylinder head and gear case cover.



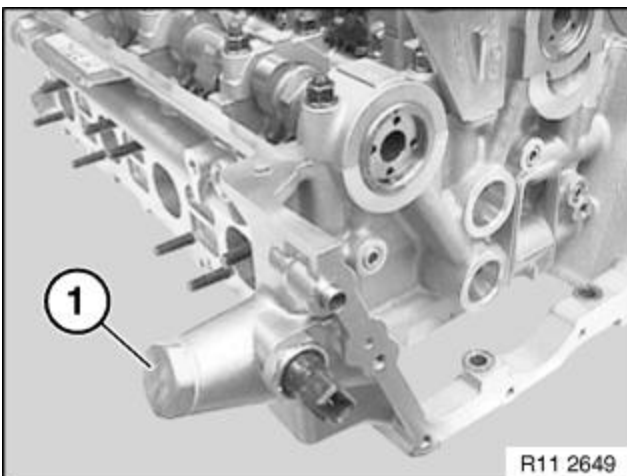
Note:

At restrictions use socket with 3/8 inch powertrain and short extension.

Release cylinder head bolts in sequence (10 to 1).

Lift cylinder head.

Lift cylinder head gasket.



Remove chain tensioner piston (1).



Place chain tensioner (1) on an even ground and compress slowly and carefully.

Repeat this procedure twice.



Installation:

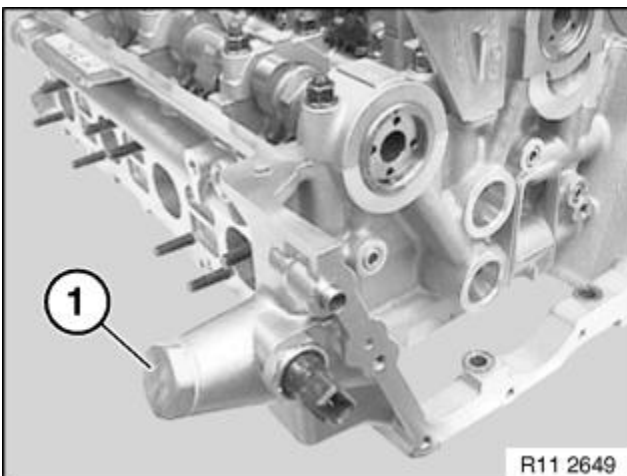
Installation of cylinder head is described separately from removal.

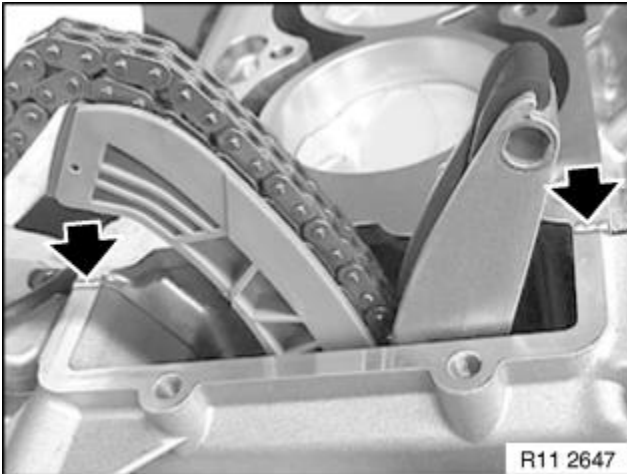
Clean sealing faces of cylinder head and engine block; if necessary, remove gasket debris compound with hardwood scraper. Make sure no gasket debris drops into the oil and coolant ducts.

Threaded bores in engine block must be free of dirt and oil (risk of cracking).

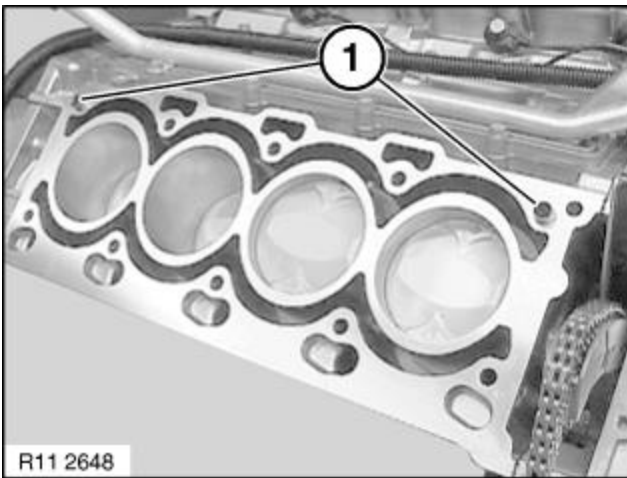
Replace sealing ring.

Install chain tensioner piston (1) and initially tighten screw connection so that it is free of play.

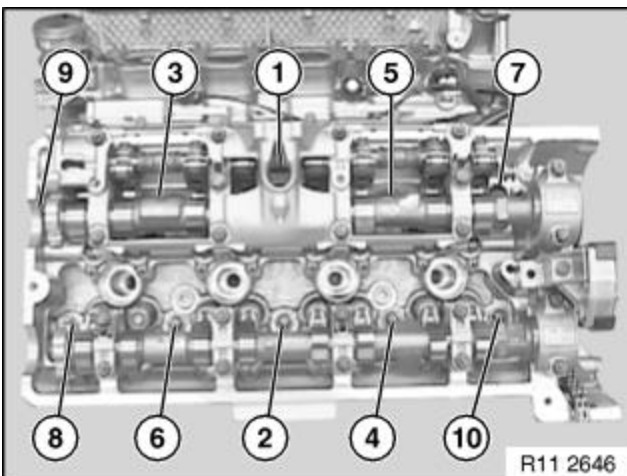




Coat joint between engine block and timing case cover with Drei Bond 1209 (refer to BMW Parts Service).



Check fitting sleeves (1) for damage and correct installation position.
Fit new cylinder head gasket.



Put the cylinder head on.

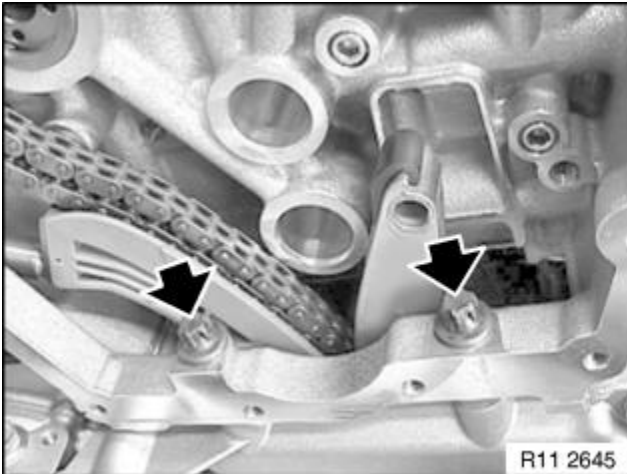
Note:

Do not wash off bolt coating. Insert new cylinder head bolts and initially tighten so that they are free of play.

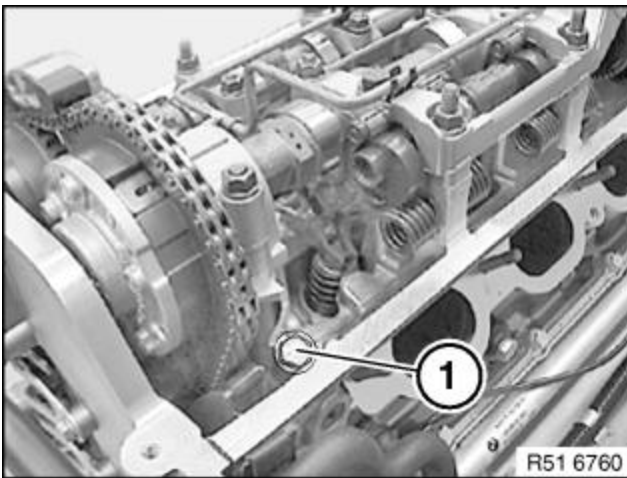
At restrictions use socket with 3/8 inch powertrain and short extension.

Tighten down the cylinder-head bolts in order 1 ... 10.

Tightening torque [11 12 8AZ](#).



Insert and tighten down screws between cylinder head and timing case cover.

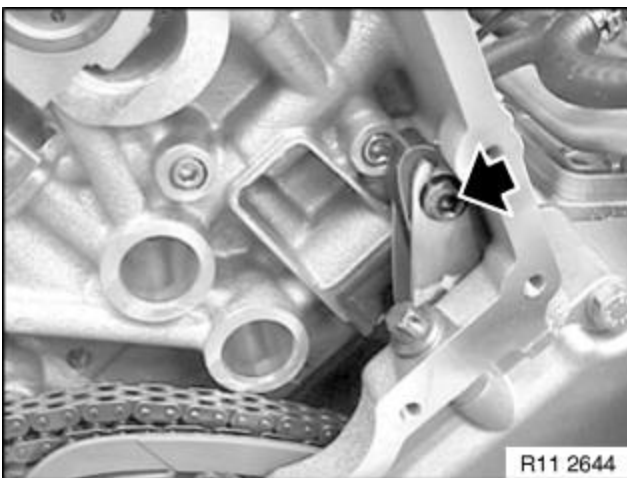


Replacement:

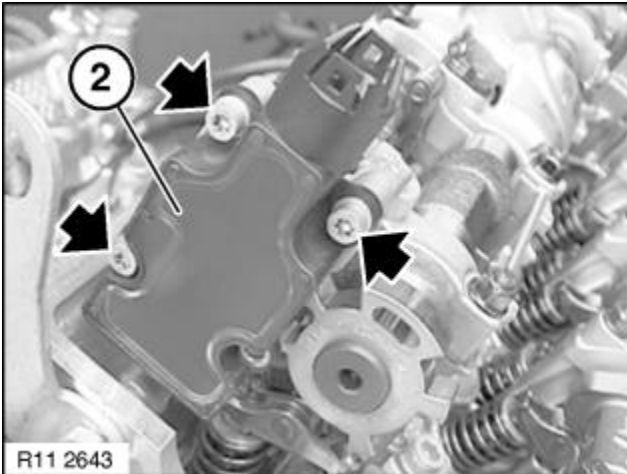
Use screw plug (1).

Installation note:

If the screw (1) is not installed, it may lead to a malfunction in the Vanos control unit.



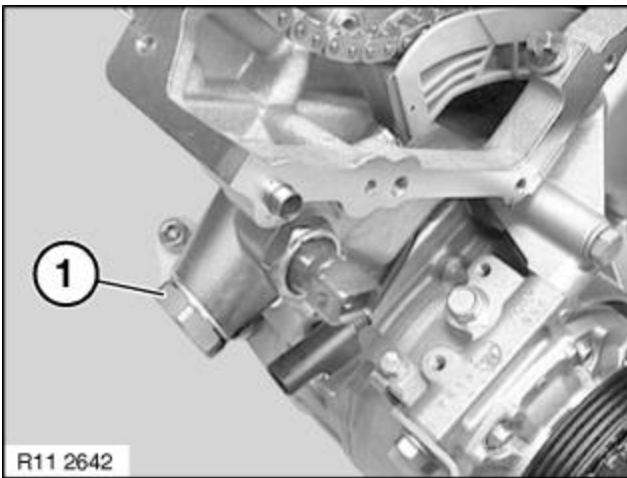
Insert screw of guide rail and tighten down.



Note:

Illustration with engine removed.

Install eccentric shaft sensor (2).



Tighten chain tensioner piston (1).

Tightening torque 65 Nm.



Install [intake and exhaust camshaft adjusters on right side.](#)

Assemble engine.