

11 12 100

Removing and installing cylinder head (N55)**Special tools required:**

- [11 0 320](#)
- [11 4 420](#)
- [11 4 430](#)
- [11 4 471](#)
- [11 4 472](#)
- [11 8 580](#)

**Important!**

Fit new cylinder head bolts.

Do not wash off bolt coating.

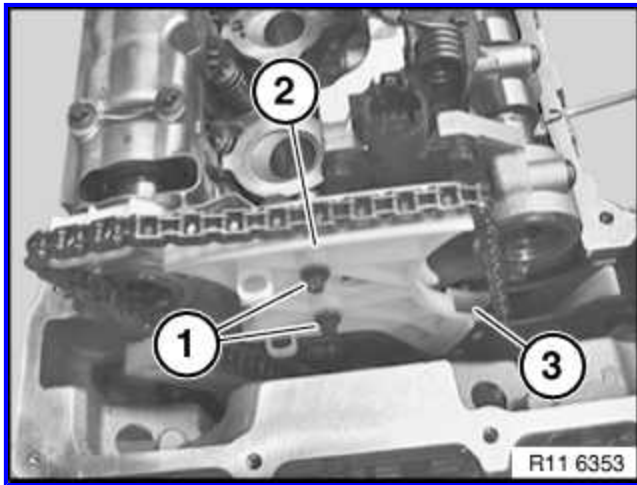
Lightly oil washer on the contact surfaces (both sides).

There must be no coolant, water or engine oil in the blind holes.

Risk of cracking and corrosion!

*Necessary preliminary tasks:*

- Remove [exhaust system](#).
- Drain [coolant](#).
- Drain [engine oil](#).
- Remove [engine](#).
- Mount engine on [assembly stand](#).
- Remove intake [plenum](#).
- Remove [exhaust turbocharger](#) with integrated exhaust manifold.
- Detach coolant hoses from cylinder head.
- Remove [intake and exhaust camshaft adjusters](#).



Important!

If the timing chain is stowed in the gear case, the crankshaft must no longer be rotated.

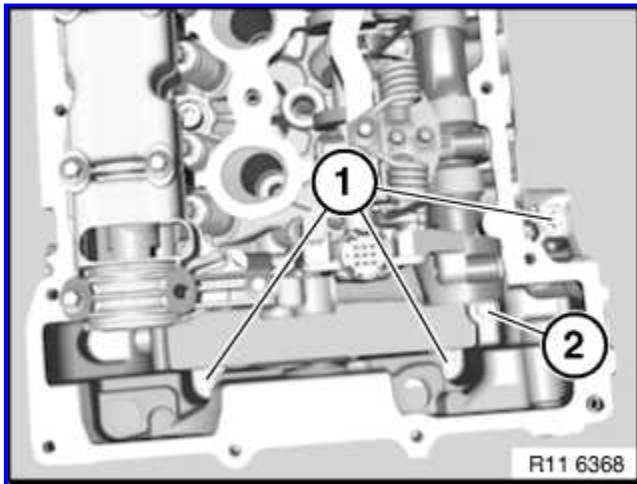
Release screws (1).

Unclip timing chain module (2) at separation point (3) and remove towards top.

Set down timing chain.

Note:

Graphic shows N52.



Note:

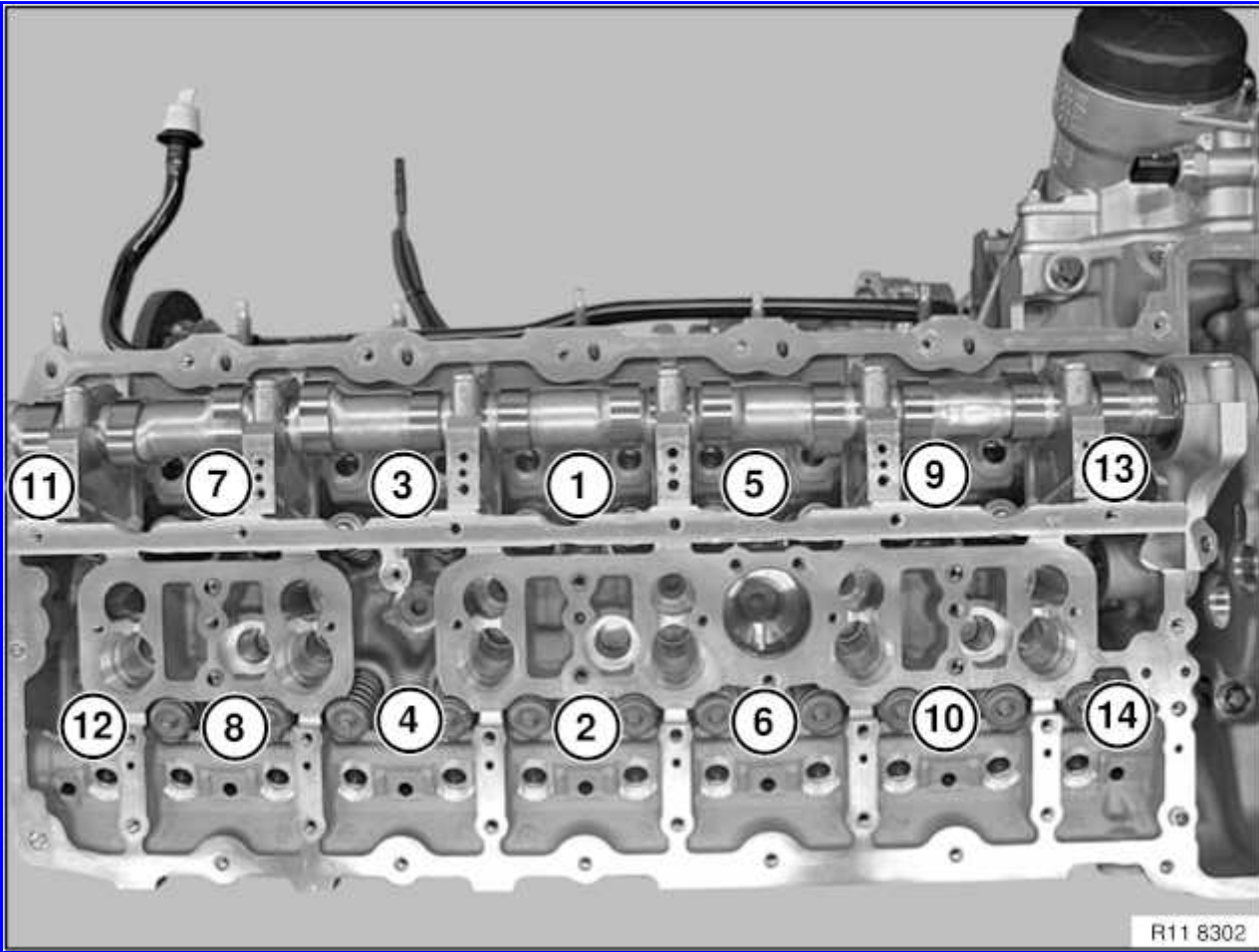
Bolt (2) can only be released when the timing chain module is pressed forward slightly.

Release screws (1).

Tightening torque [11 12 3AZ](#).

Release screw (2).

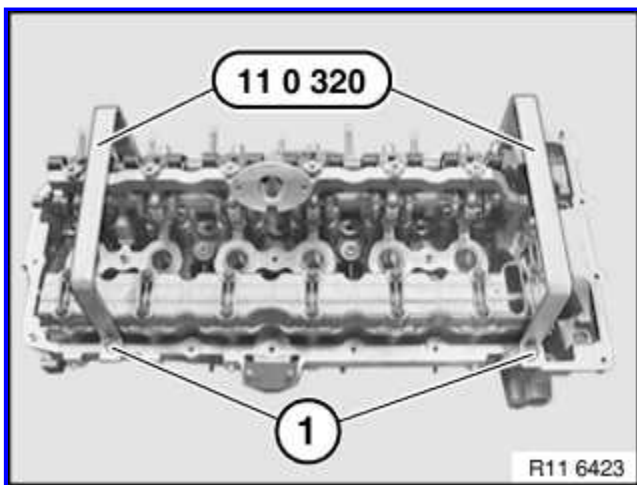
Tightening torque [11 12 3AZ](#).



Release cylinder head bolts in sequence 14 to 11 with special tool [11 4 420](#).

Release cylinder head bolts in sequence 10 to 1 with special tool [11 8 580](#).

Note:
Picture shows intermediate lever and exhaust camshaft removed.



Secure special tool [11 0 320](#) with bolts (1).

Tightening torque [11 12 4AZ](#).

Important!

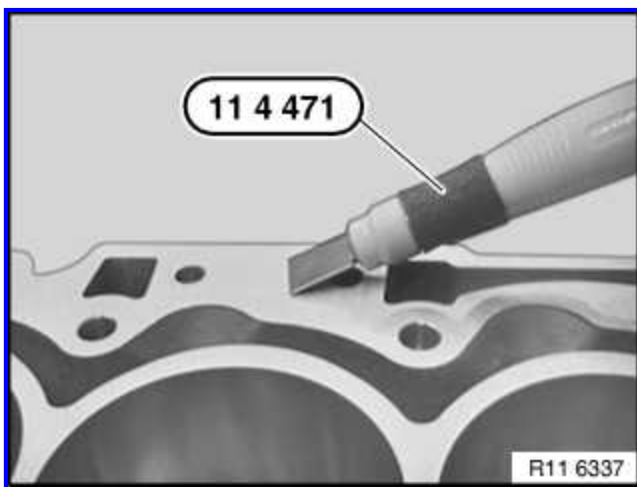
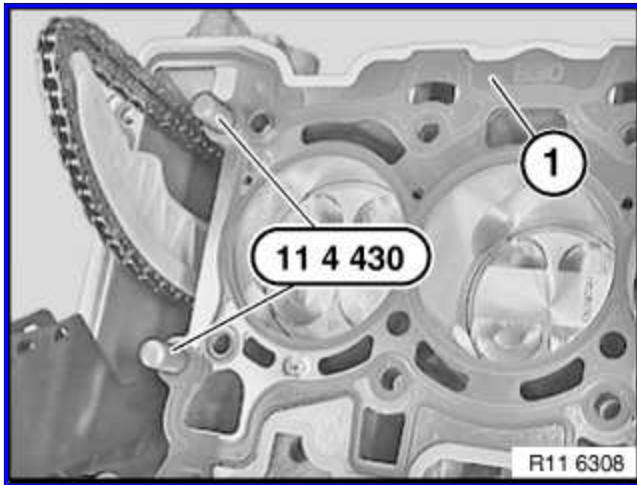
Removing and install cylinder head with a second person helping.

Weight of cylinder head with add-on parts is approx. 40 kg.

Do not rest cylinder head on sealing surface. **Risk of damage to valves!**

Note:
Graphic shows N52.

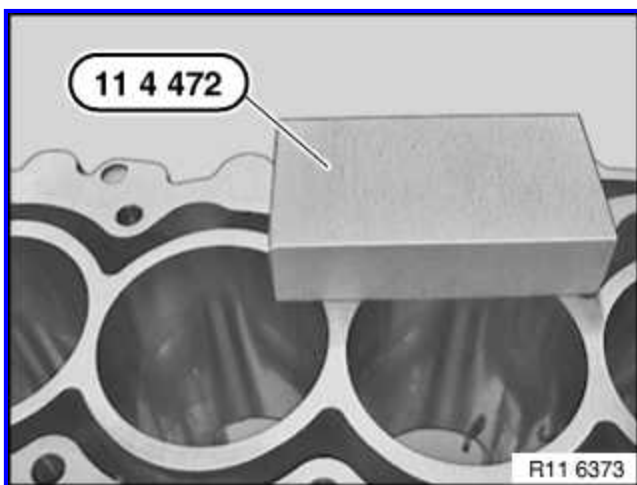
Insert [11 4 430](#) special tool into bore holes.



Remove coarse residues on sealing surfaces with special tool [11 4 471](#) from cylinder head and crankcase.

Important!

Do not use any metal-cutting tools.



Remove fine residues on sealing surfaces with special tool [11 4 472](#) from cylinder head and crankcase.

Important!

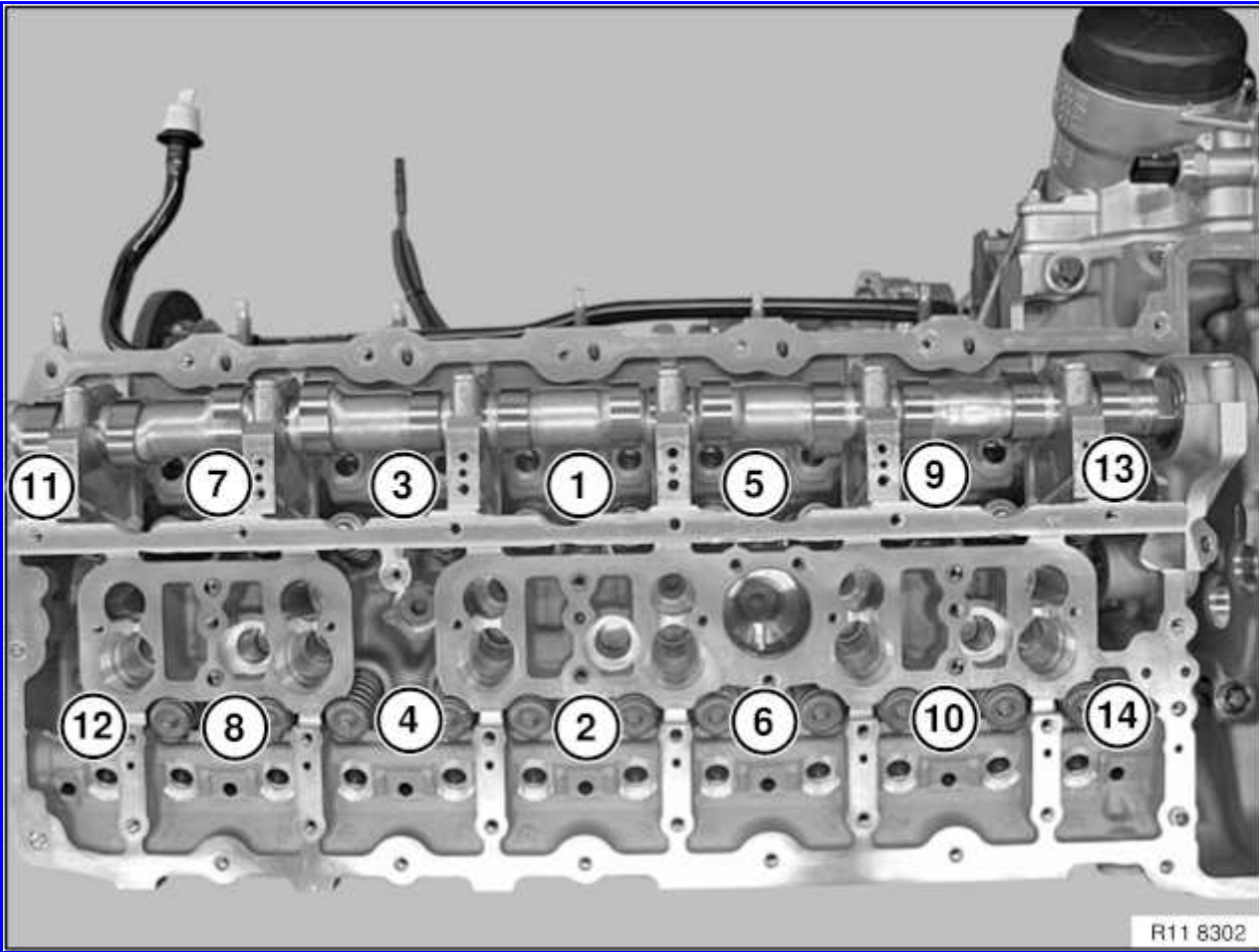
Do not use any metal-cutting tools.

There must be no coolant, water or engine oil in the pocket holes.

Risk of cracking and corrosion!

Clean all blind holes.

Replace [cylinder head gasket](#).



Fit new cylinder head bolts.

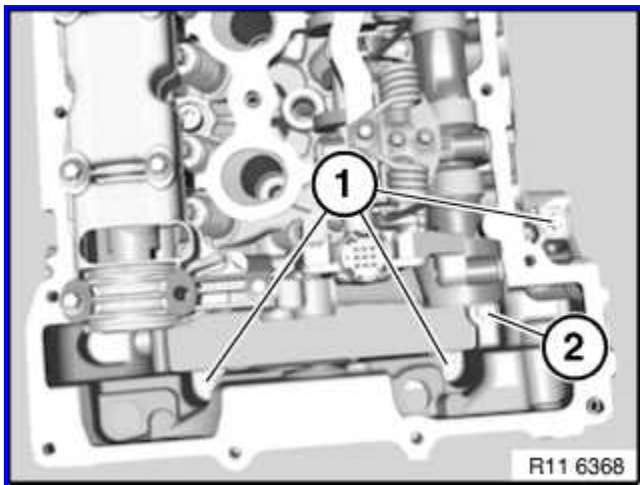
Insert cylinder head bolts (1 to 10) with special tool [11 8 580](#).

Tightening torque [11 12 1AZ](#).

Insert cylinder head bolts (11 to 14) with special tool [11 4 420](#).

Tightening torque [11 12 2AZ](#).

Note:
Picture shows intermediate lever and exhaust camshaft removed.



Insert bolts (1).
Tightening torque [11 12 3AZ](#).
Insert bolt (2).
Tightening torque [11 12 3AZ](#).

Assemble engine.

