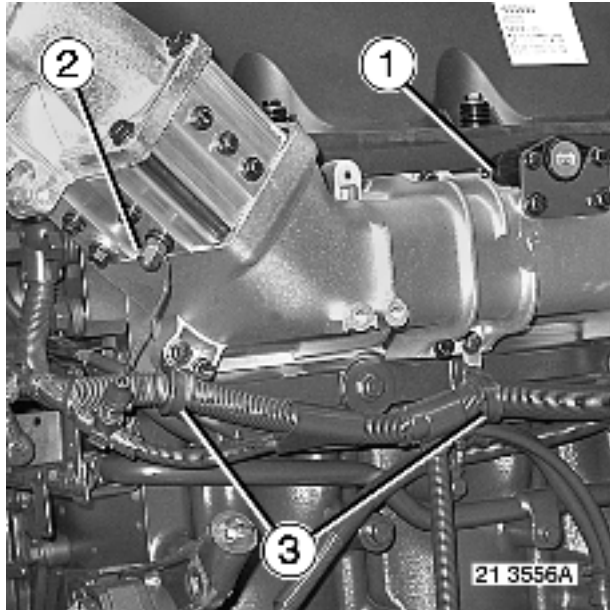


Cylinder head, removal

Remove the camshaft.

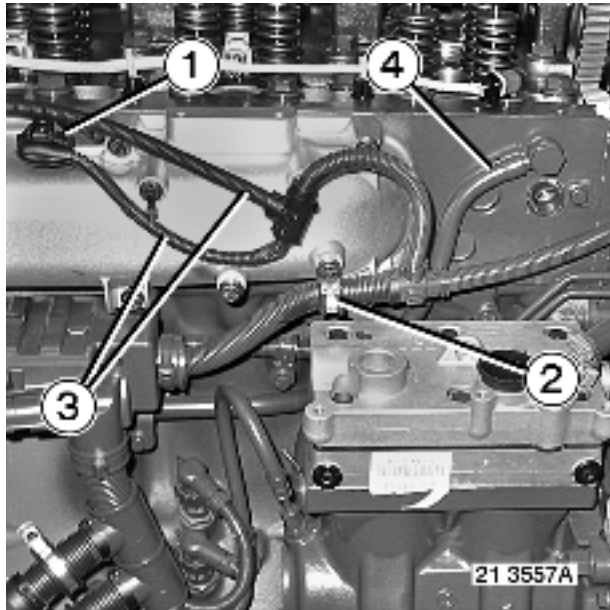
Remove the injectors.



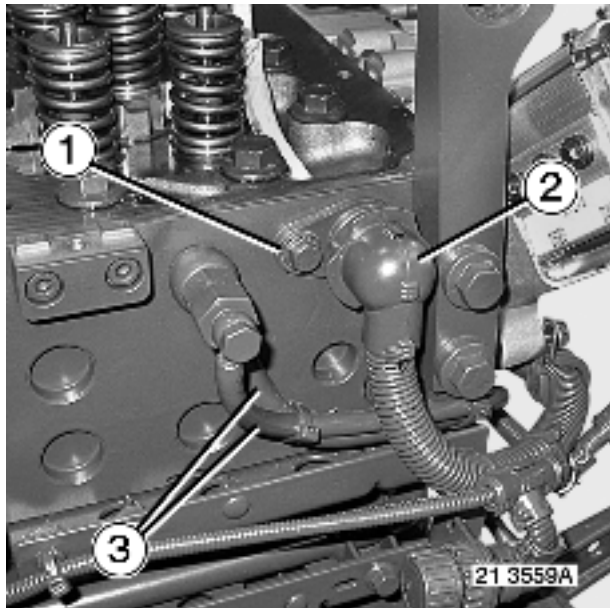
Unplug connector **(1)**.

Disconnect wire **(2)**.

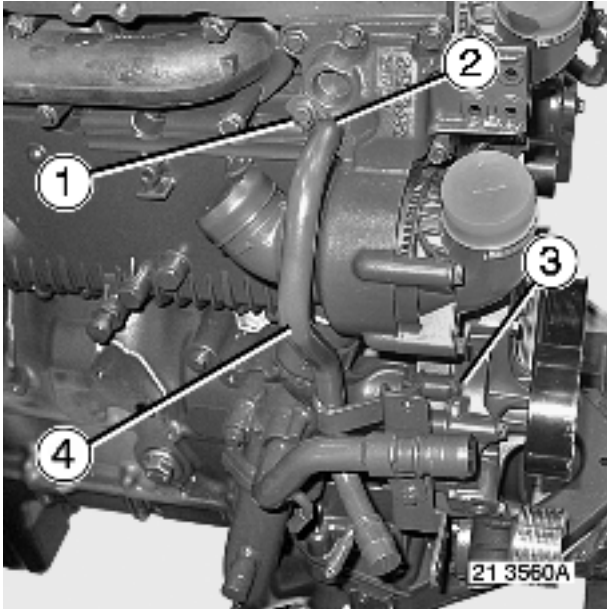
Remove clamps **(3)**.



- Unplug connector (1).
- Remove clamp (2).
- Disengage wiring harnesses (3).
- Disconnect pipes (4).



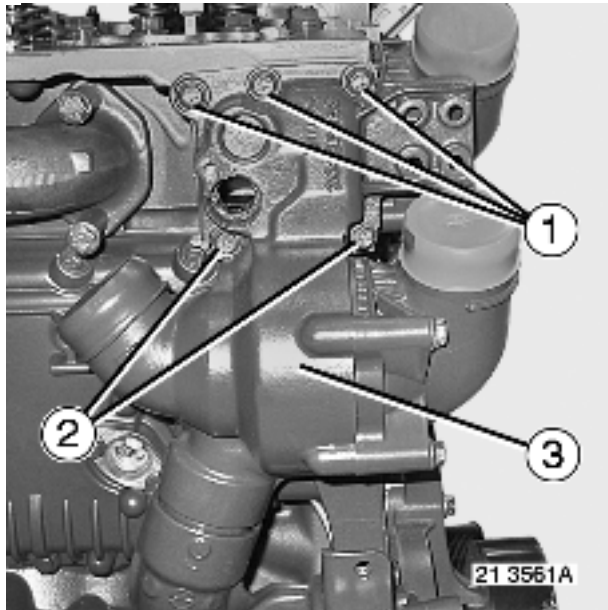
Remove bolt (1).
Withdraw stuffing box (2) and the wiring harness.
Disconnect pipes (3).



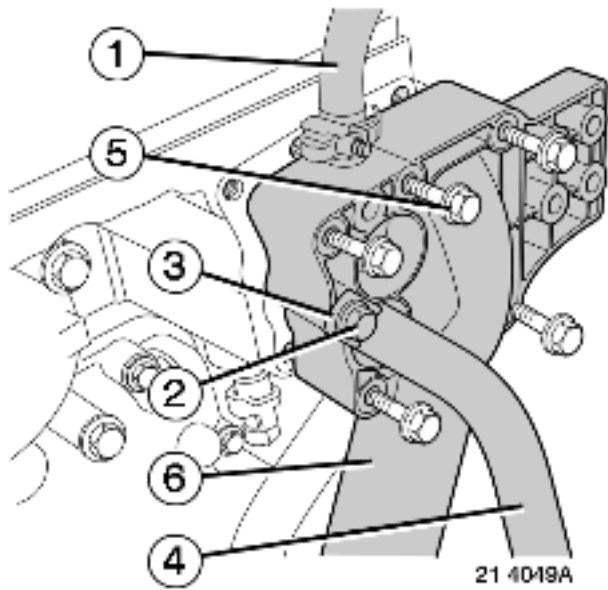
Depending on the vehicle's equipment.

With hydraulic retarder

Remove bolt (1).
Remove lock plate (2).
Remove bolt (3).
Remove tube (4).

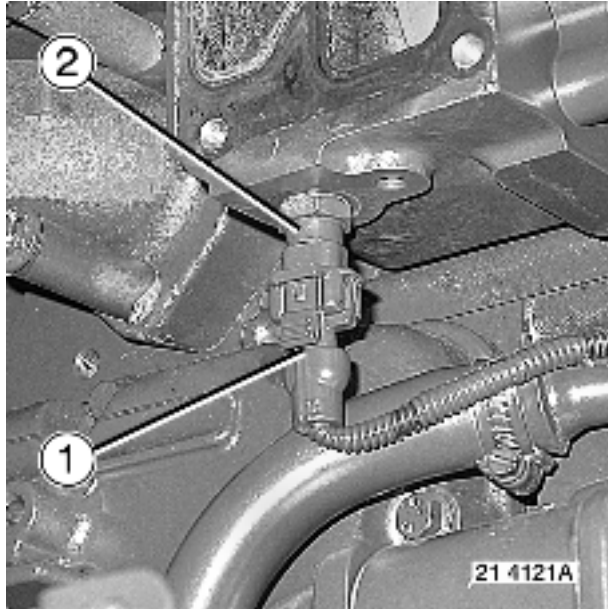


Remove bolts (1 - 2).
Remove thermostat casing (3).

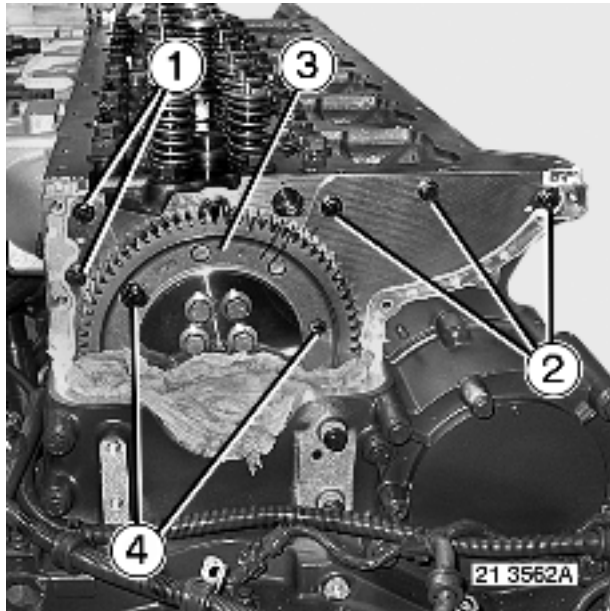


Without hydraulic retarder
Loosen clamp.

- Disconnect hose **(1)**.
- Remove bolt **(2)**.
- Remove lock plate **(3)**.
- Remove tube **(4)**.
- Remove bolts **(5)**.
- Remove manifold **(6)**.



- Unplug connector **(1)**.
- Remove sensor **(2)**.

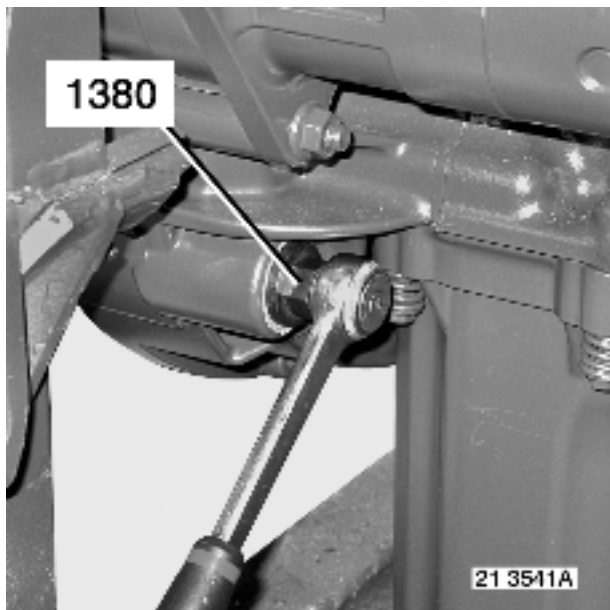


Assembly type A

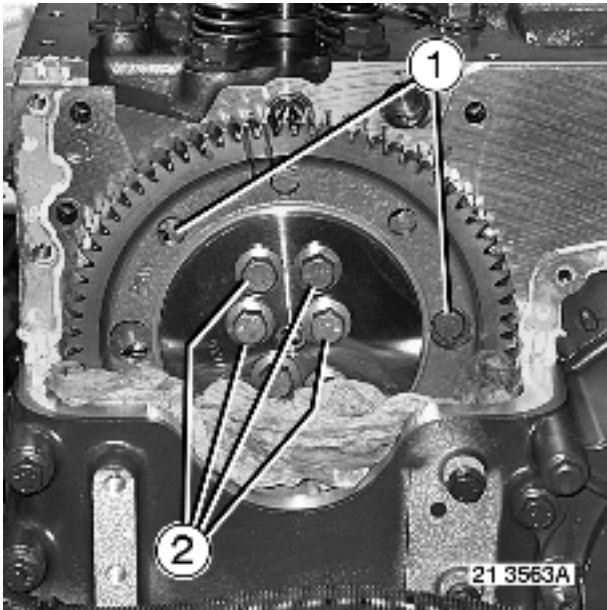
Remove bolts (1 - 2).

Align an orifice of the pinion (3) with a bolt (4).

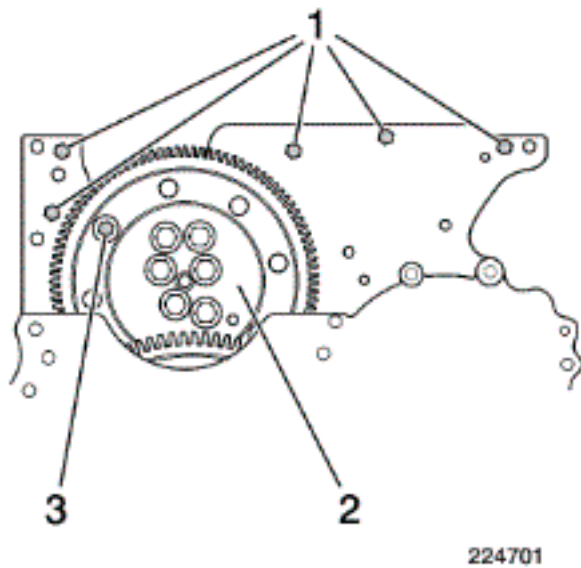
Place a cloth in position to prevent the bolts from dropping into the timing gear.



Use tool 1380.



Remove bolts (1 - 2).

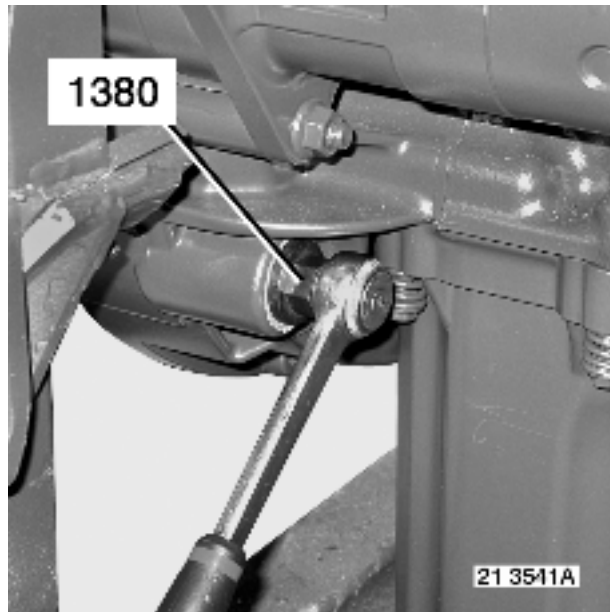


Assembly type B

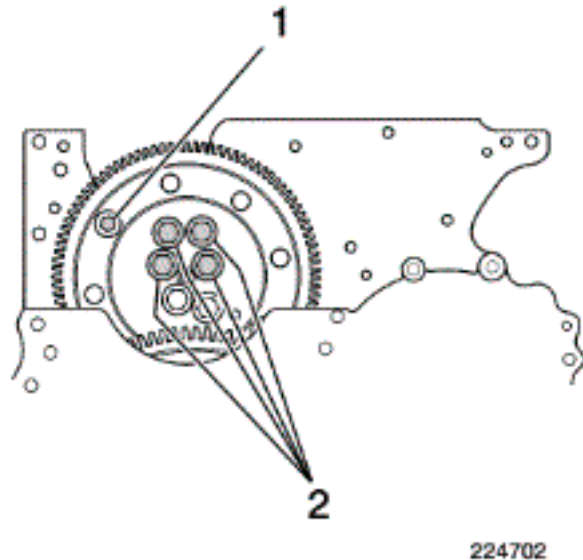
Remove bolts (1).

Align hole in pinion (2) with bolt (3).

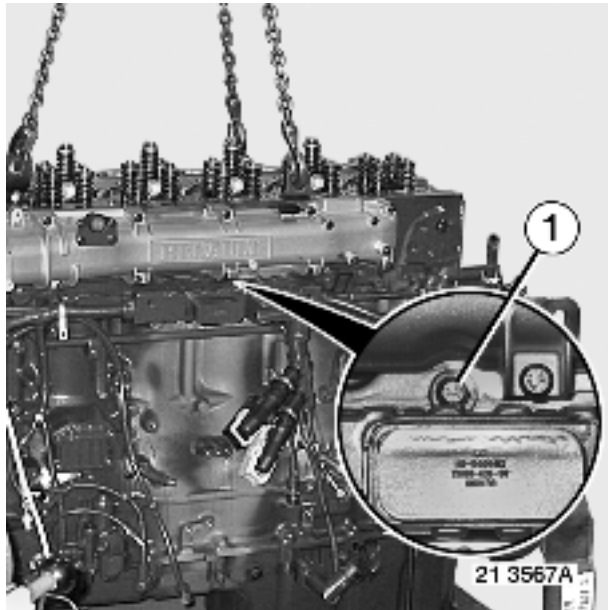
Place a cloth in position to prevent the bolts from dropping into the timing gear.



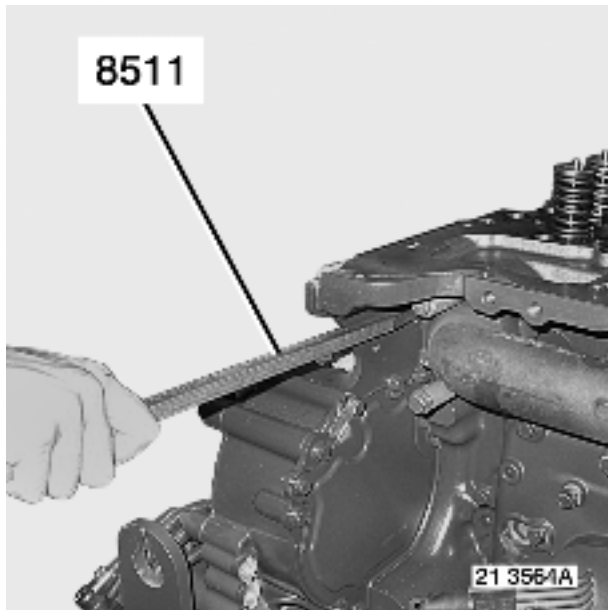
Use tool 1380.



Remove bolts (1 - 2).



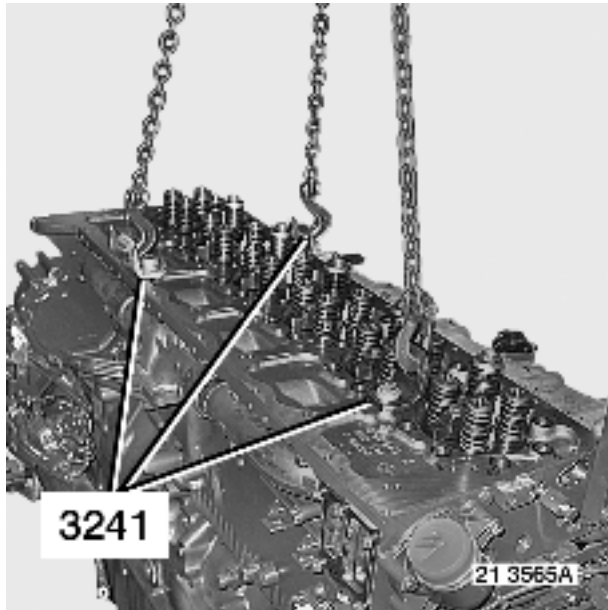
Remove sun gear thrust washer (1).



Remove the cylinder head bolts in the reverse sequence to tightening.

Dislodge the cylinder head from the timing plate.

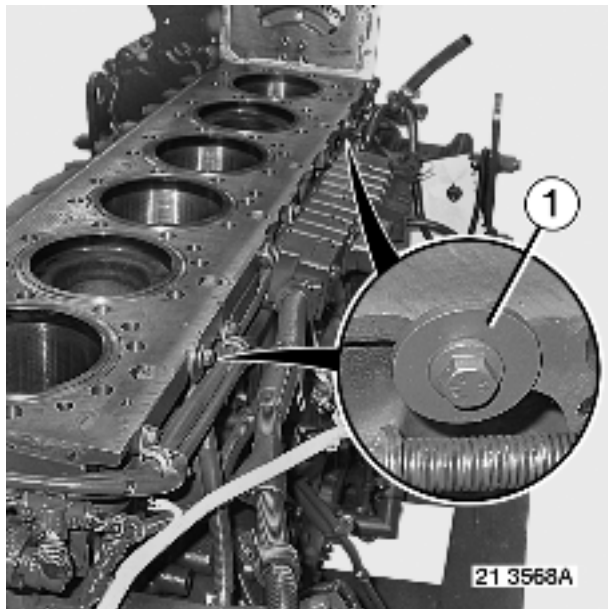
Use tool 8511.



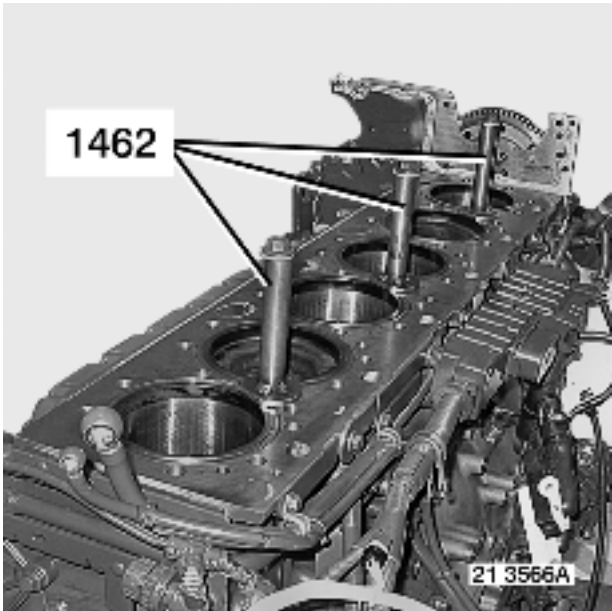
Remove the cylinder head.

Use tool 3241.

Use lifting tackle.



Remove planet wheel thrust washers **(1)**.

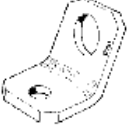


Remove cylinder head gasket.
Immobilize liners.
Use tool 1462.

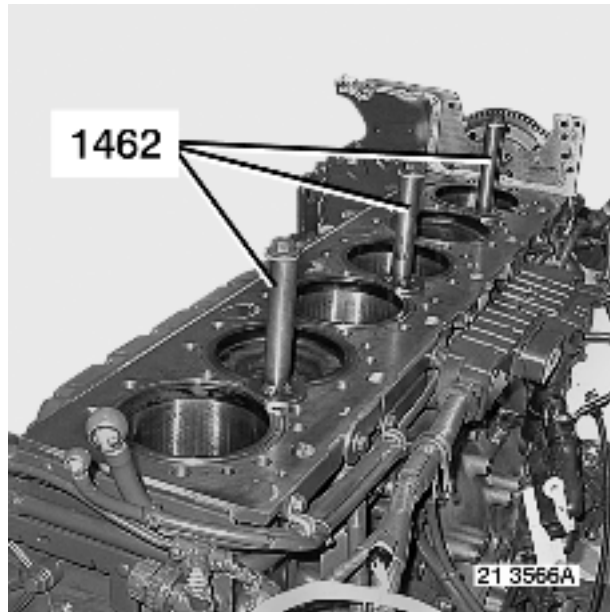
Tools
Specific tools

Illustration	RENAULT TRUCKS part N°	Designation	Manufacturer's reference N°	Manufacturer's code N°	Scale	Qty
	5000261380	CONTROL			1	1
	7409998511	CONTROL LEVER			1	1

Locally manufactured tool

Illustration	RENAULT TRUCKS part N°	Designation	Manufacturer's reference N°	Manufacturer's code N°	Scale	Qty
	OFL1462	SPACER			2	1
	OFL3241	HOOK			2	1

Cylinder head, fitting

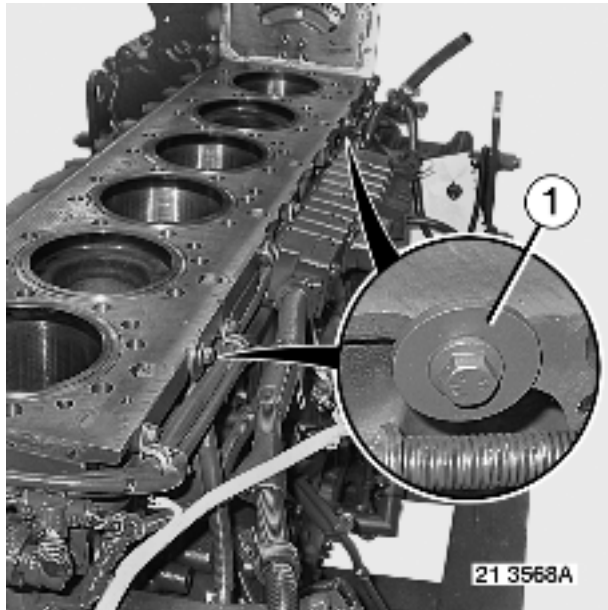


Withdraw tool 1462.

Clean the joint faces.

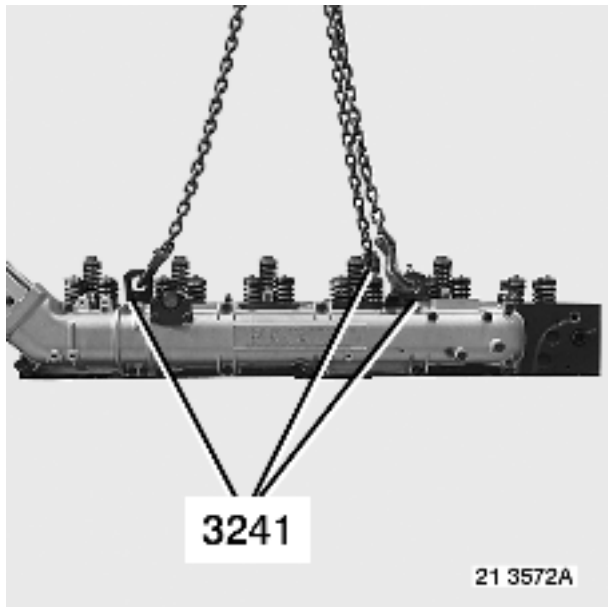
Tap the screw-threads in the cylinder block then blow through with compressed air.

If necessary, clean the copper sleeves on the unit pump injectors before positioning the cylinder head on the cylinder block.

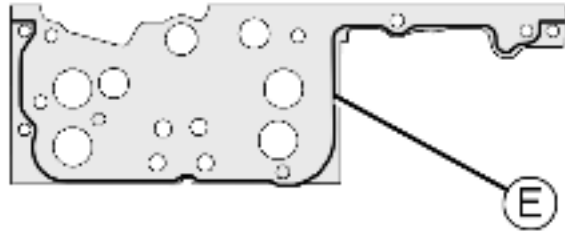


Fit the stops **(1)**.
Tighten to torque.

Fit a new cylinder head gasket.

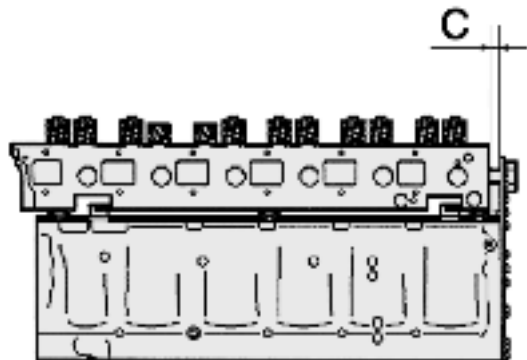


Mount tool 3241.



21 3570A

Depending on the assembly.
Apply a bead of silicone (**E**).

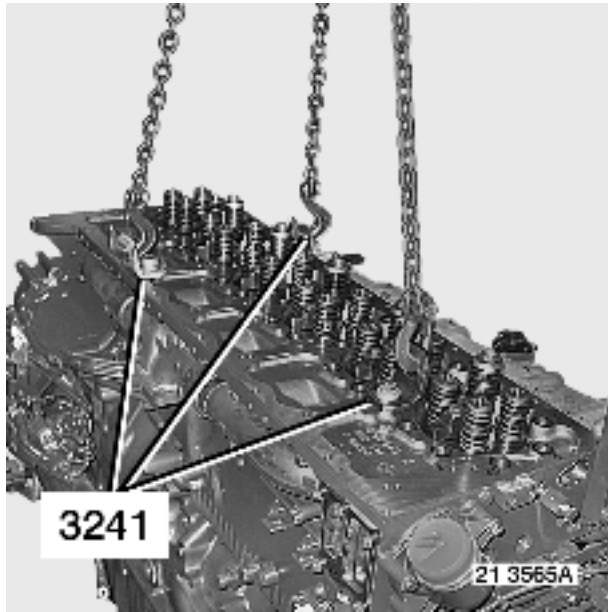


21 3569A

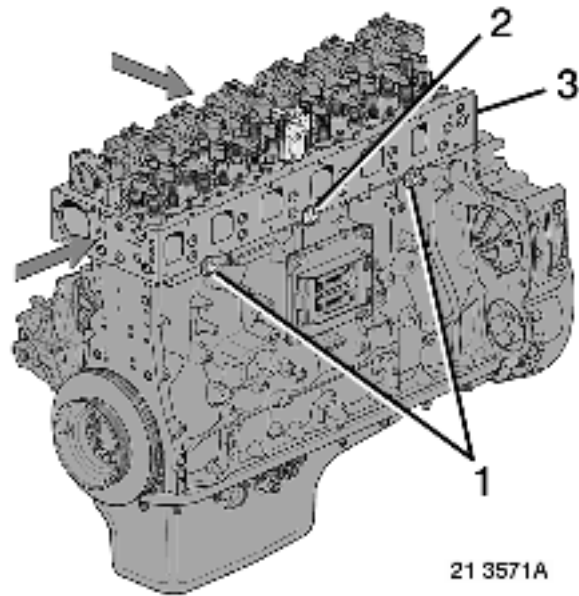
Place the cylinder head delicately on the bosses on the cylinder head gasket, leave a space **(C)** of approximately **10 mm** between the rear joint face of the cylinder head and the timing plate.



The bosses serve to slide the cylinder head without damaging the cylinder head gasket. They are crushed down when the cylinder head is tightened.



Withdraw tool 3241.



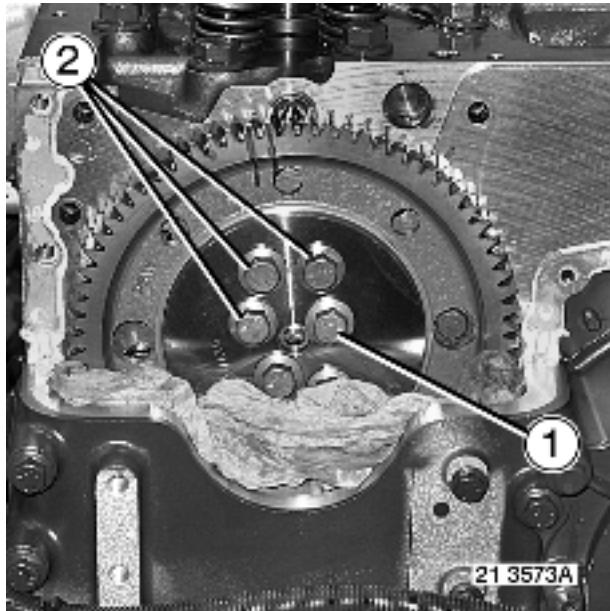
21 3571A

Flatten the cylinder head against the stops **(1)**.

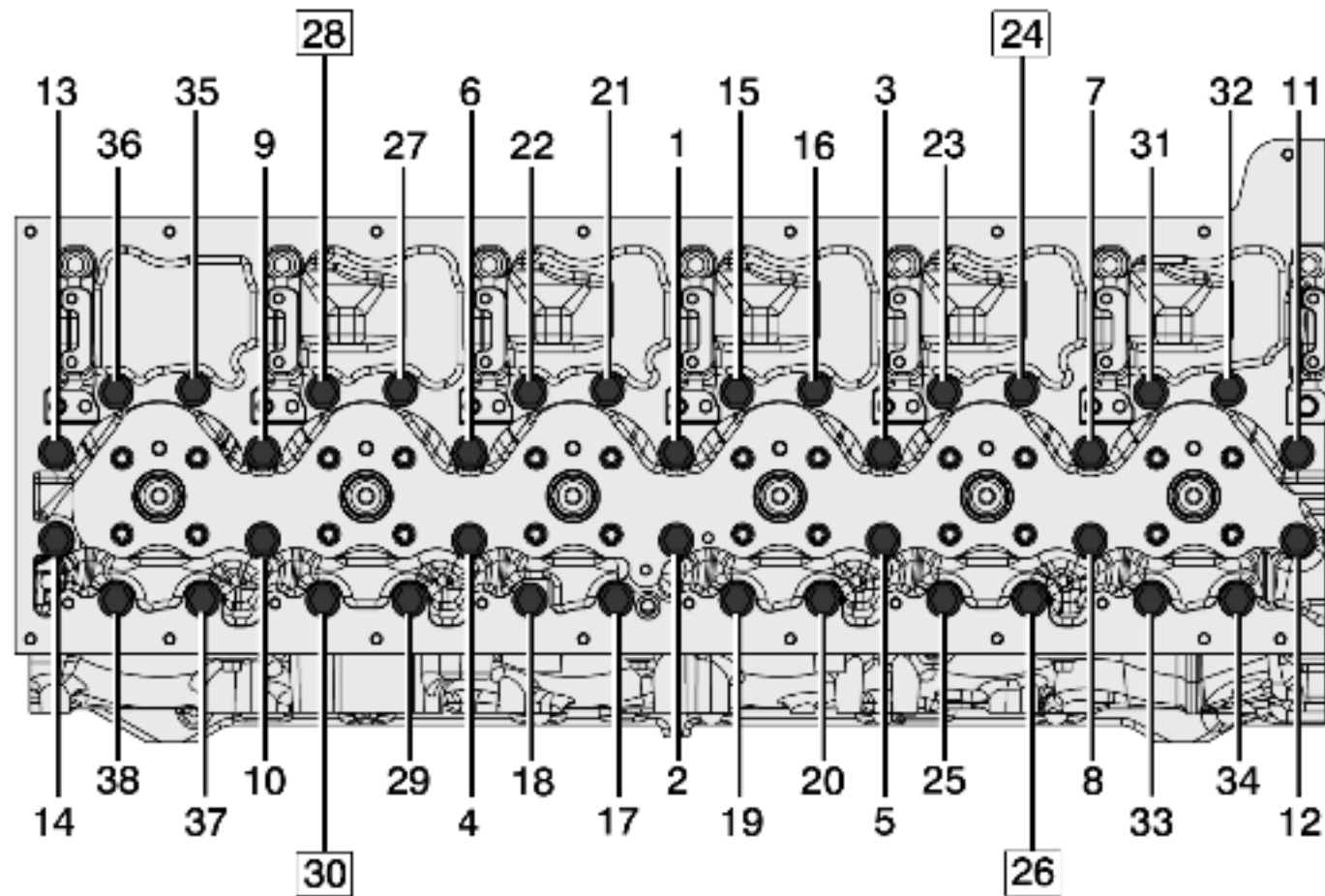
Fit sun gear thrust washer **(2)**.

Tighten to torque.

Flatten the cylinder head against the timing plate **(3)**.

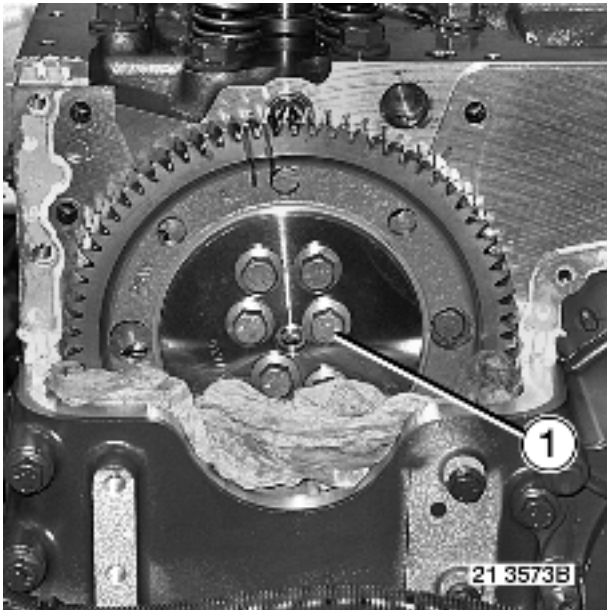


Fit bolt (1).
Tighten to a torque of **85±15 Nm**.
Fit bolts (2).
Screw up but do not tighten.

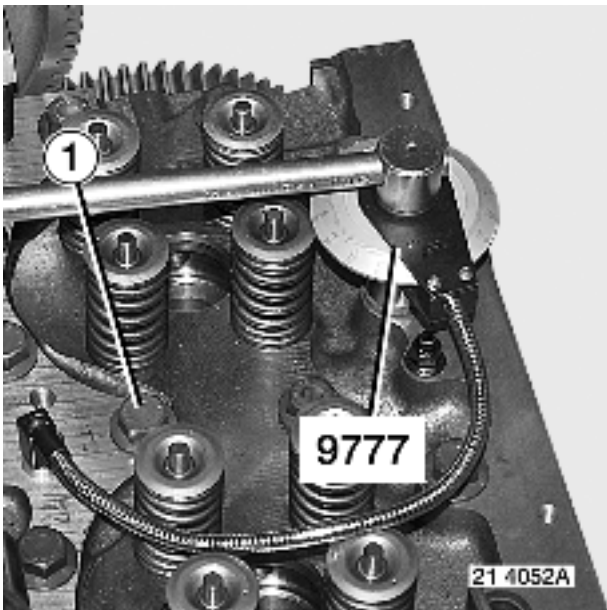


21 3506A

Fit bolts (24 - 26 - 28 - 30).
Tighten to a torque of **35±5 Nm**.

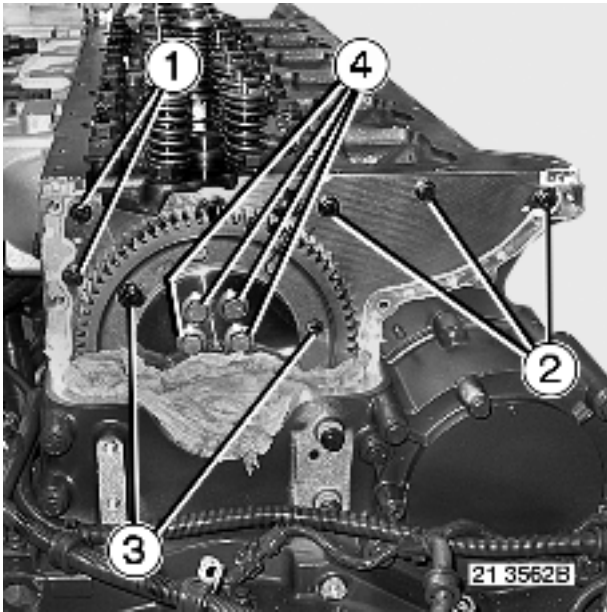


Loosen bolts (1).



Fit the cylinder head securing bolts (1).
Tighten to torque.
Follow the tightening sequence.

Use tool 9777.

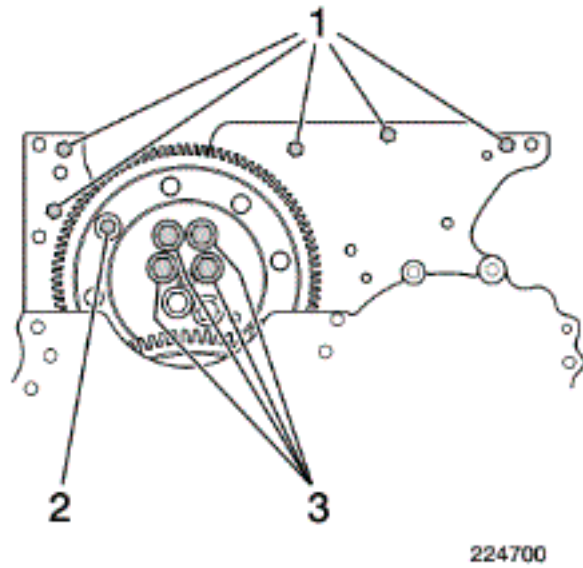


Assembly type A

Fit bolts (1 - 2 - 3).

Tighten to torque.

Tighten bolts (4) to torque.



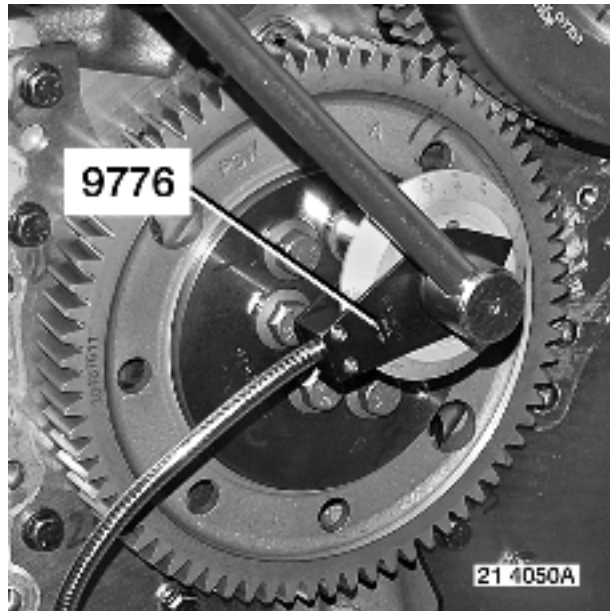
224700

Assembly type B

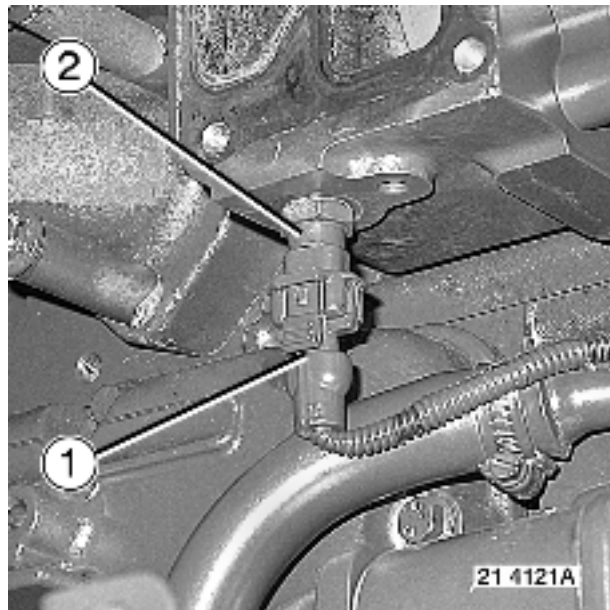
Fit bolts **(1 - 2)**.

Tighten to torque.

Tighten bolts **(3)** to torque.

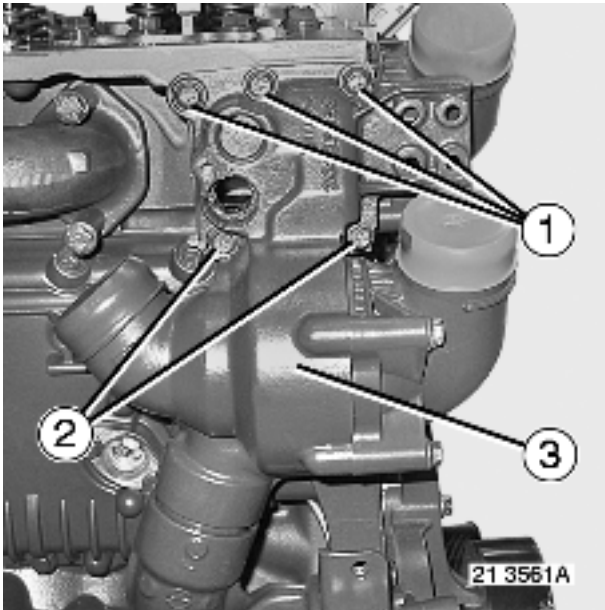


Use tool 9776.



Replace gasket.
Fit sensor **(2)**.
Tighten to torque.

Plug in connector **(1)**.



Depending on the vehicle's equipment.

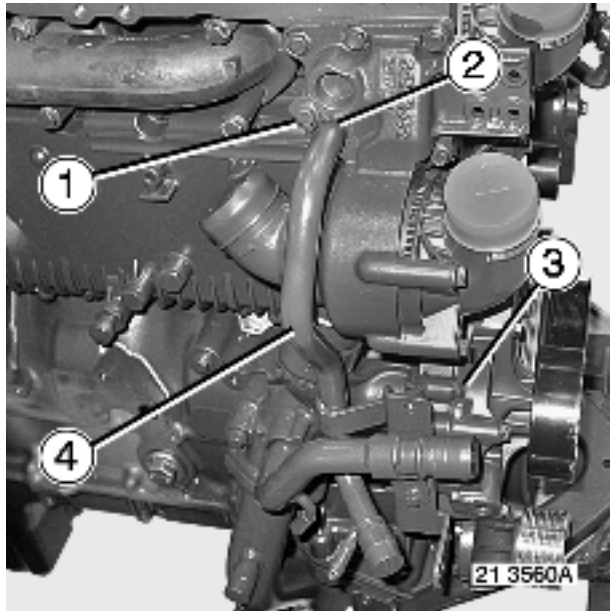
With hydraulic retarder

Clean the contact faces thoroughly.

Replace the seals.

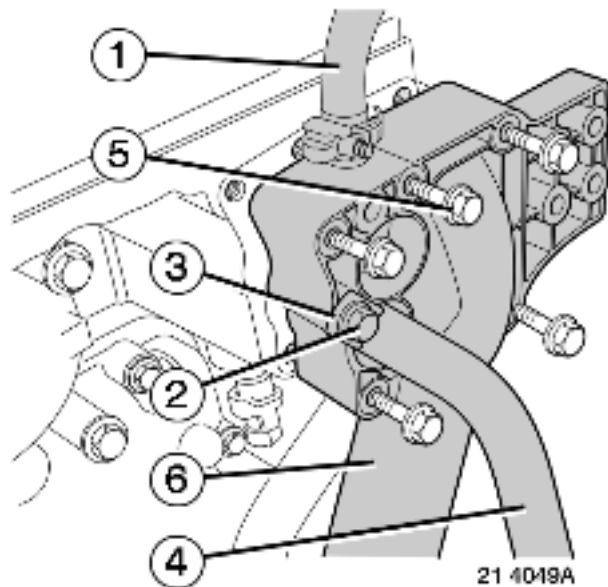
Fit thermostat casing **(3)**.

Tighten bolts **(1 - 2)** to torque.



Replace gasket.
For assembly of the rectangular section gasket.

Fit pipe **(4)**.
Fit lock plate **(2)**.
Tighten bolts **(1 - 3)** to torque.



21 4019A

Without hydraulic retarder

Clean the contact faces thoroughly.

Replace the seals.

For assembly of the rectangular section gasket.

Fit manifold **(6)**.

Fit bolts **(5)**.

Tighten to torque.

Fit pipe **(4)**.

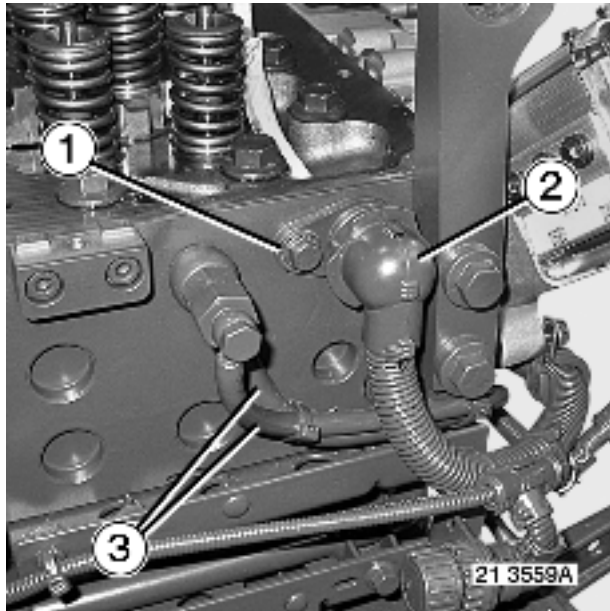
Fit lock plate **(3)**.

Tighten bolts **(2)** to torque.

Connect hose **(1)**.

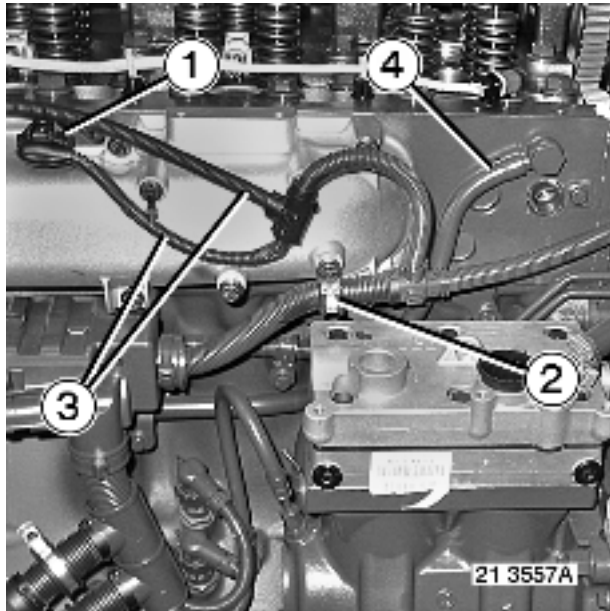
Tighten shackle.

Tighten to torque.



Replace O-ring with a new O-ring.
Fit the wiring harness and stuffing box **(2)**.
Fit bolt **(1)**.
Tighten to torque.

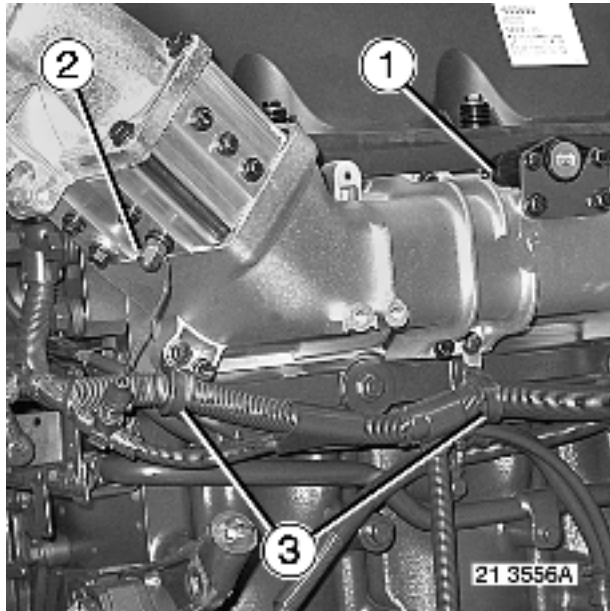
Replace the seals.
Connect up pipes **(3)**.
Tighten to torque.



Replace the seals.
Connect pipe **(4)**.
Tighten to torque.

Install wiring harnesses **(3)**.
Fit clamp **(2)**.
Tighten to torque.

Plug in connector **(1)**.



Fit the clamps **(3)**.
Tighten to torque.

Connect wire **(2)**.
Tighten to torque.

Plug in connector **(1)**.
Fit the injectors.

Fit the camshaft.

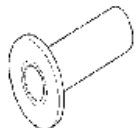
Tools

Specific tools

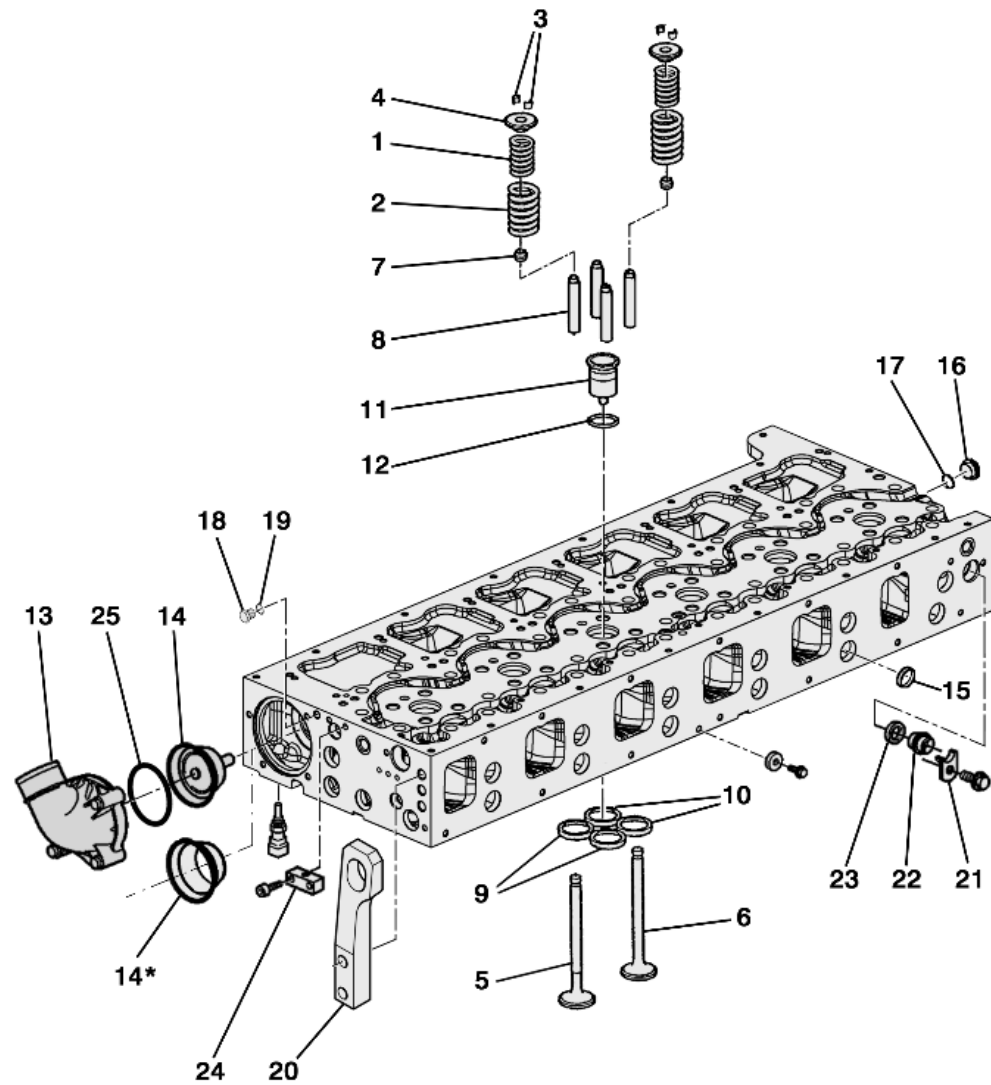
Illustration	RENAULT TRUCKS part N°	Designation	Manufacturer's reference N°	Manufacturer's code N°	Scale	Qty
	5000269776	INDICATOR DISC			2	1

						
	5000269777	INDICATOR DISC			2	1

Locally manufactured tool

Illustration	RENAULT TRUCKS part N°	Designation	Manufacturer's reference N°	Manufacturer's code N°	Scale	Qty
	OFL1462	SPACER			2	1
	OFL3241	HOOK			2	1

Cylinder head, exploded view



21 3769A

*: with hydraulic retarder

