

Refit [\(see 11A. Top and front of engine, Timing assembly: Exploded view\)](#) :



the exhaust camshaft timing sprocket,



the exhaust camshaft timing sprocket bolt.

3. FINAL OPERATION



Proceed in the reverse order to removal.



[Repair-10x02x02x07-01x37-1-32-1.xml](#)



XSL version : 3.02 du 22/07/11

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CAMSHAFTDEPHASER:REMOVAL-REFITTING



Note, one or more warnings are present in this procedure



Equipment required

component support

compressed air nozzle



WARNING

Before carrying out any operation on a vehicle fitted with the Stop & Start system, always follow the safety instructions [Vehicle: Precautions for the repair](#) .

Locations and specifications (tightening torques, parts to always be replaced, etc.) [\(see 11A, Top and front of engine, Timing assembly: Exploded view\)](#) .

REMOVAL

1. REMOVAL PREPARATION OPERATION

WARNING



To avoid all risk of damage to the systems, apply the safety and cleanliness instructions and operation recommendations before carrying out any repair:



[Engine: Precautions for the repair](#) ,



[Vehicle: Precautions for the repair](#) .





WARNING

Wear goggles with side protectors for this operation.

CAUTION



It is strictly forbidden to apply any pressure to the engine oil sump. Damage to the sump will irreparably damage the engine by:



blocking the strainer,



raising the oil level above maximum, with a risk of engine racing.

Remove the "engine and gearbox" assembly [Engine - gearbox assembly: Removal - Refitting](#) .

Separate the automatic gearbox from the engine [Automatic gearbox: Removal - Refitting](#) .

Position the engine on the component support [Engine support equipment: Use](#) .

Drain the engine [Engine oil - Oil filter : Draining - Filling](#) .

Remove:



the accessories belt [\(see 11A, Top and front of engine, Engine accessories assembly: Exploded view\)](#) ,



the ignition coils [\(see 11A, Top and front of engine, Cylinder head assembly: Exploded view\)](#) ,



the cylinder head cover [\(see 11A, Top and front of engine, Cylinder head assembly: Exploded view\)](#) ,



the crankshaft accessories pulley [\(see 11A, Top and front of engine, Engine accessories assembly:](#)

[Exploded view](#)) ,

the crankshaft seal on timing end([see 11A, Top and front of engine, Timing assembly: Exploded view](#)) ,

the timing chain([see 11A, Top and front of engine, Timing assembly: Exploded view](#)) .

2. REMOVAL OPERATION

1- REMOVING THE INLET CAMSHAFT DEPHASER



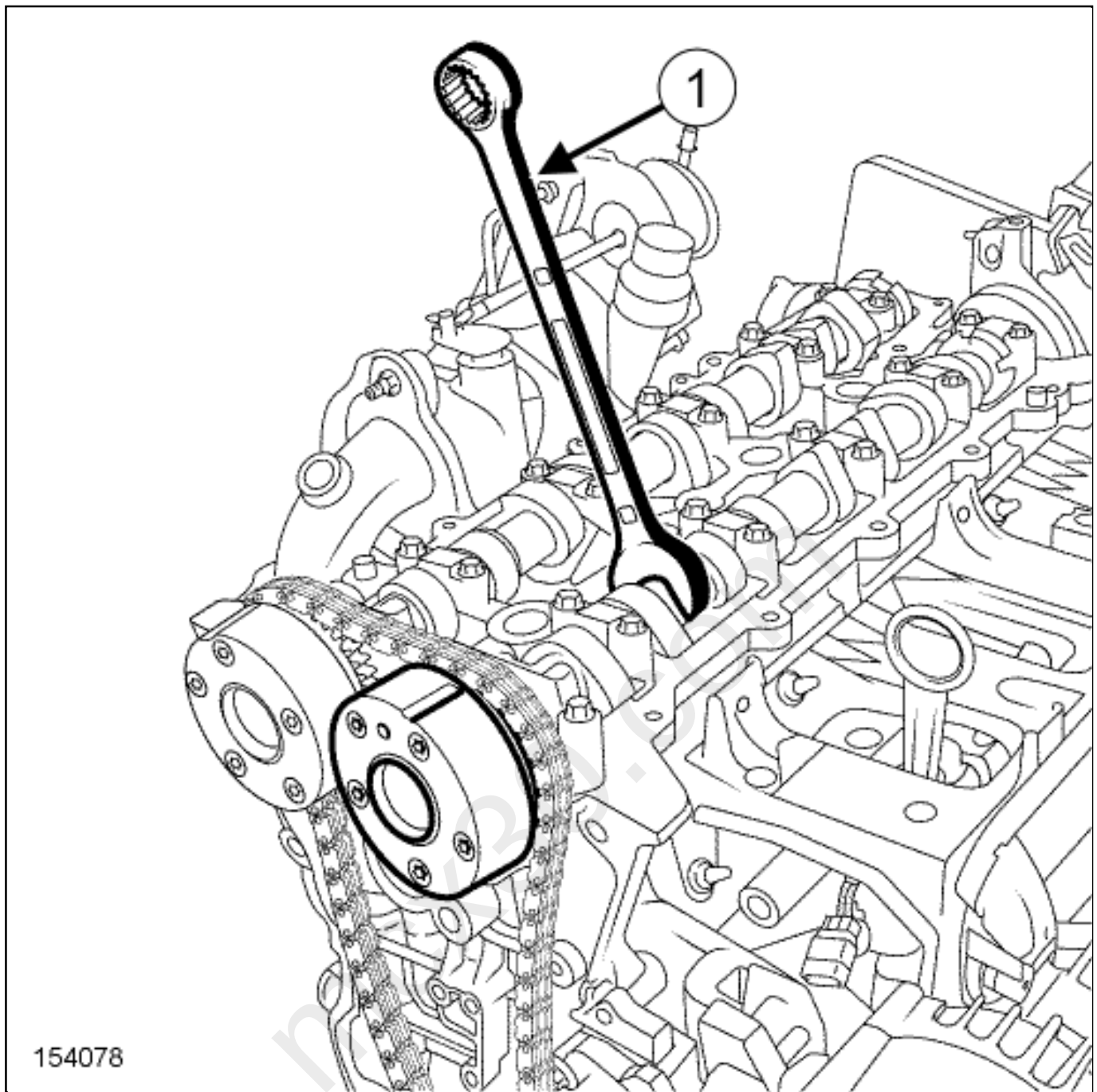
Note:

This operation requires two people.



WARNING

Wear protective gloves during the operation.



Remove:

■ the inlet camshaft dephaser bolt([see 11A, Top and front of engine, Timing assembly: Exploded view](#)) while holding the inlet camshaft in place using an open-jawed spanner(1) ,

■ the inlet camshaft dephaser([see 11A, Top and front of engine, Timing assembly: Exploded view](#)) .



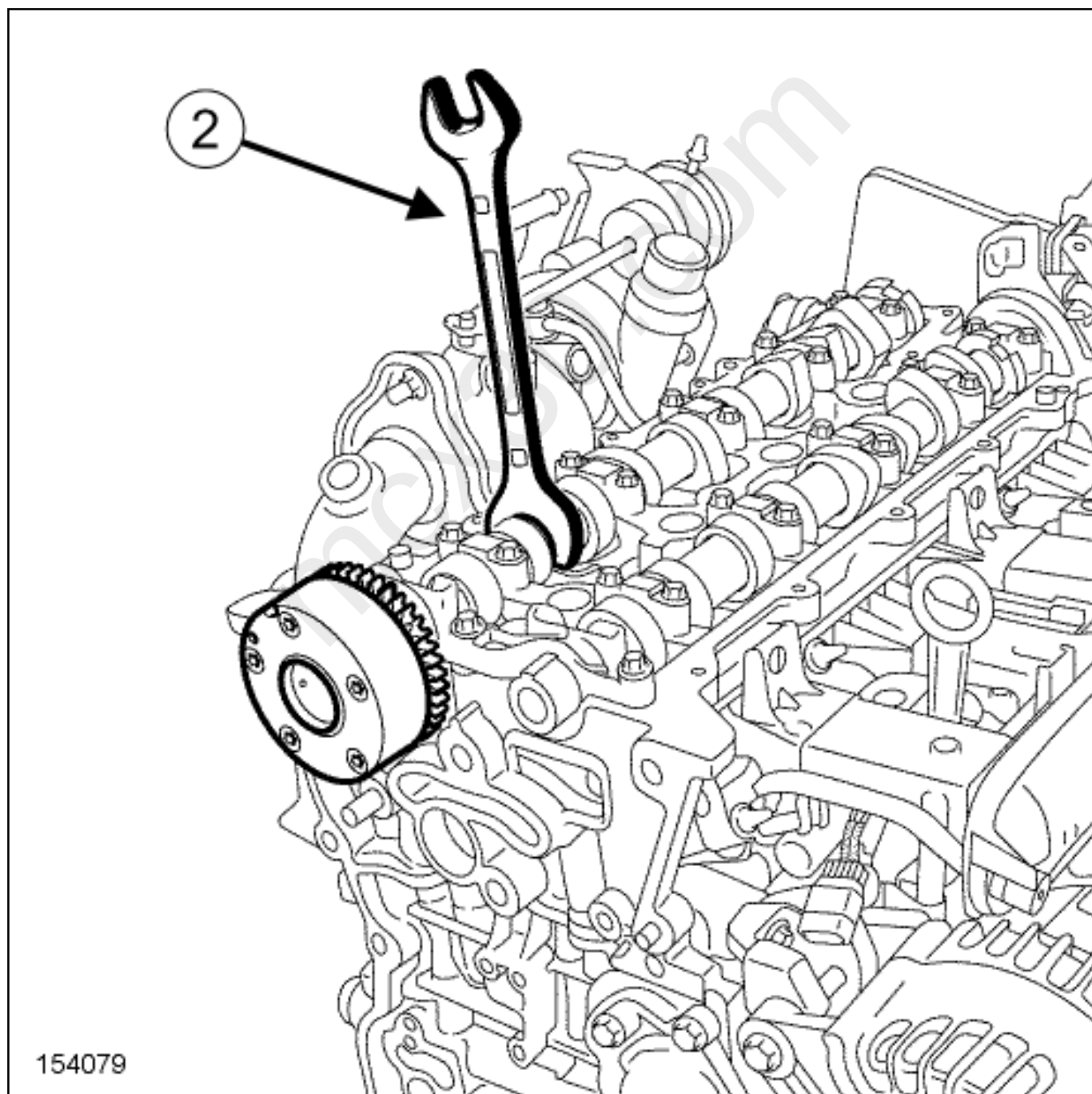
Note:

This operation requires two people.



WARNING

Wear protective gloves during the operation.



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Remove:



the exhaust camshaft timing sprocket bolt([see 11A, Top and front of engine, Timing assembly: Exploded view](#)) while holding the exhaust camshaft in place using an open-jawed spanner(2) ,



the exhaust camshaft timing sprocket([see 11A, Top and front of engine, Timing assembly: Exploded view](#))



REFITTING

1. REFITTING PREPARATION OPERATION



Clean the camshaft dephaser using surface cleaner([Vehicle: Parts and consumables for the repair](#)) .



WARNING

Wear goggles with side protectors for this operation.



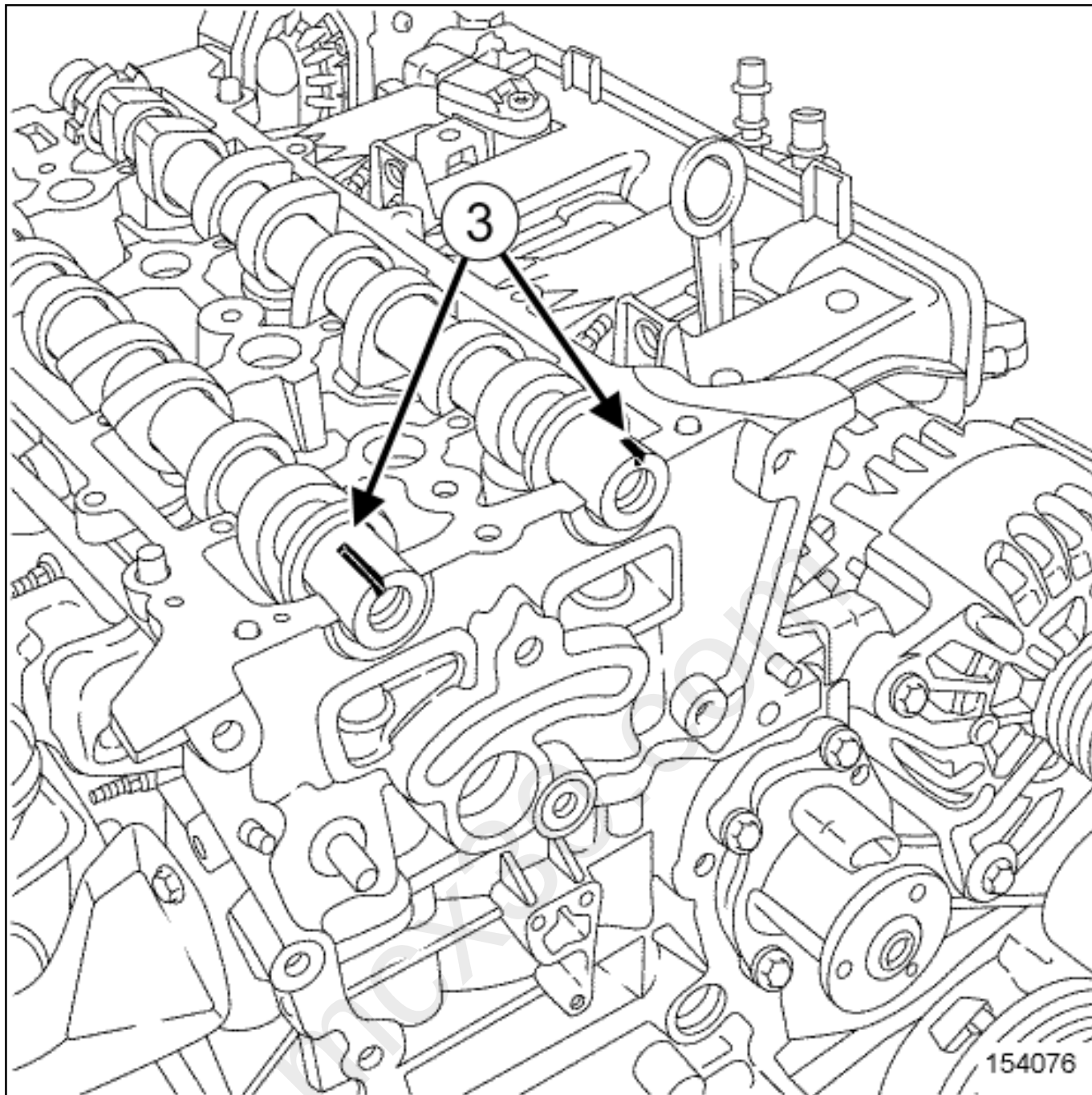
Dry the camshaft dephaser using a compressed air nozzle.



Check that the teeth of the camshaft dephaser are not broken, chipped or scratched.

2. REFITTING OPERATION

1- REFITTING THE INLET CAMSHAFT DEPHASER

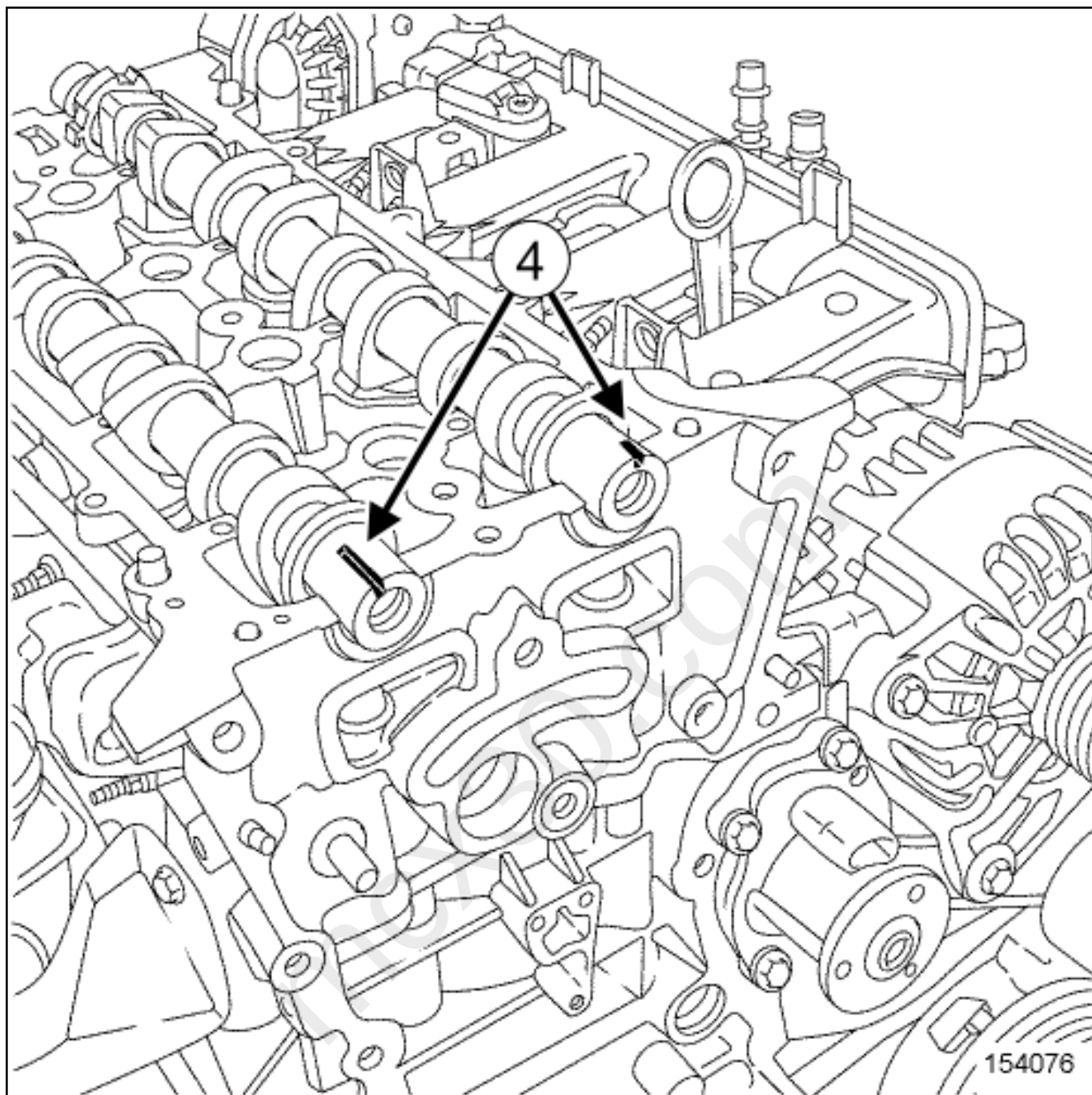


Check that the camshaft lugs(3) are in the same position as shown in the illustration.

Refit [\(see 11A, Top and front of engine, Timing assembly: Exploded view\)](#) :

- the inlet camshaft timing sprocket,

- the inlet camshaft timing sprocket bolt.



Check that the camshaft lugs(4) are in the same position as shown in the illustration.

Fit the exhaust camshaft timing sprocket by placing the exhaust camshaft pin in the opening of the exhaust camshaft timing sprocket.