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19B EXHAUST

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ENGINE AND CYLINDER BLOCK ASSEMBLY

Crankshaft seal on timing end: Removal - Refitting

10A

K9K

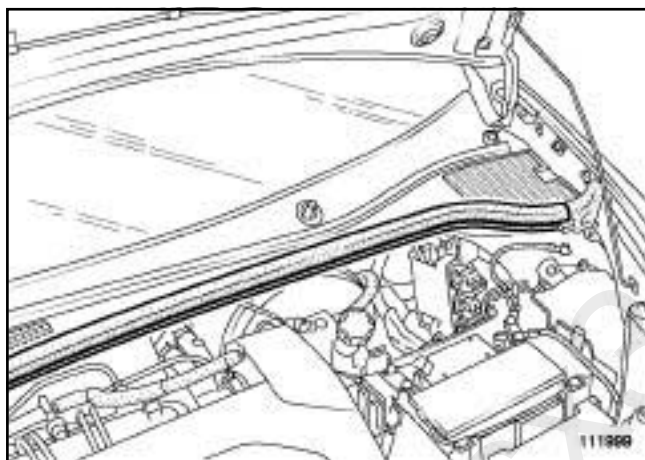
Special tooling required

Mot. 1577	Lip seal extractor (shaft diameter 28 mm to 42 mm).
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REMOVAL

I - REMOVAL PREPARATION OPERATION

- ☐ Position the vehicle on a two-post lift (see **Vehicle: Towing and lifting**) (MR 392, 02A, Lifting equipment).
- ☐ Disconnect the battery (see **Battery: Removal - Refitting**) (MR 392, 80A, Battery).
- ☐ Remove the front engine cover.



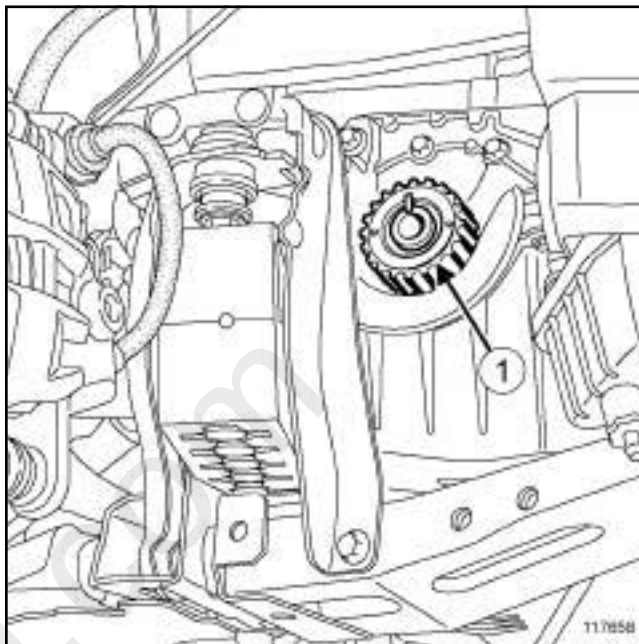
111999

- ☐ Remove:

- the scuttle panel grille (see **Scuttle panel grille: Removal - Refitting**) (MR 393, 56A, Exterior equipment),
- the scoop under the scuttle panel grille (see **Scoop under the scuttle panel grille: Removal - Refitting**) (MR 393, 56A, Exterior equipment),
- the engine undertray,
- the front right-hand wheel (see **Wheel: Removal - Refitting**) (MR 392, 35A, Wheels and tyres),
- the front section of the front right-hand wheel arch liner (see **Front wheel arch liner: Removal - Refitting**) (MR 393, 55A, Exterior protection),
- the engine tie-bar (see **19D, Engine mounting, Lower engine tie-bar: Removal - Refitting**, page 19D-13) ,
- the right-hand suspended engine mounting (see **19D, Engine mounting, Right-hand suspended engine mounting: Removal - Refitting**, page 19D-22) ,

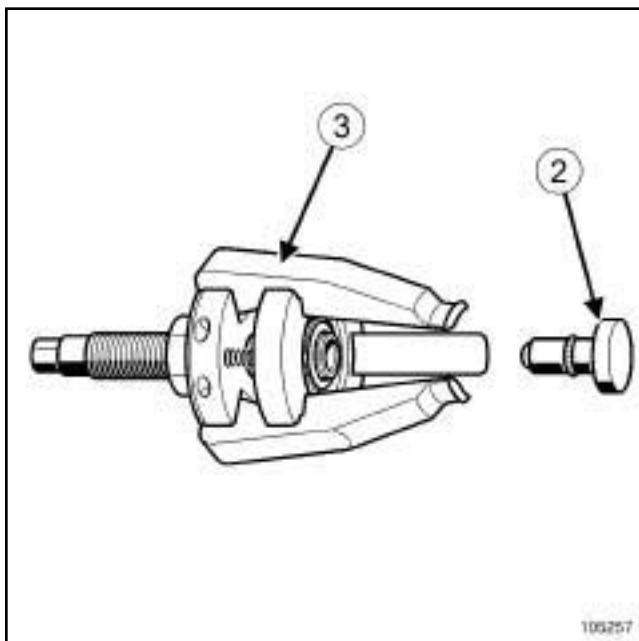
- the timing belt (see **11A, Top and front of engine, Timing belt: Removal - Refitting**, page 11A-48) .

II - OPERATION FOR REMOVAL OF PART CONCERNED



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- ☐ Remove the timing sprocket (1) .



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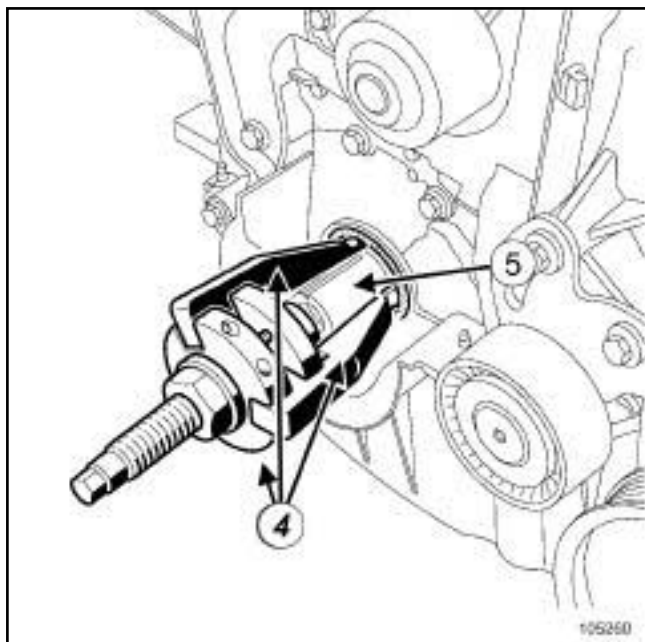
- ☐ Fit the end piece (2) of the (Mot. 1577) (3) .

ENGINE AND CYLINDER BLOCK ASSEMBLY

Crankshaft seal on timing end: Removal - Refitting

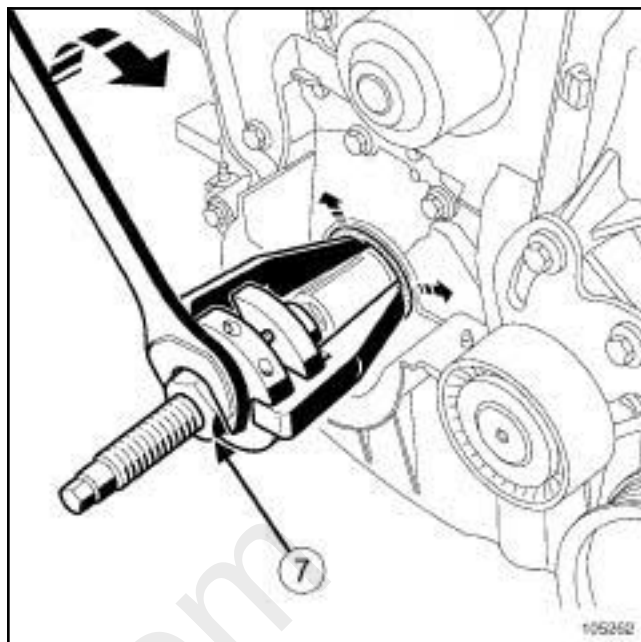
10A

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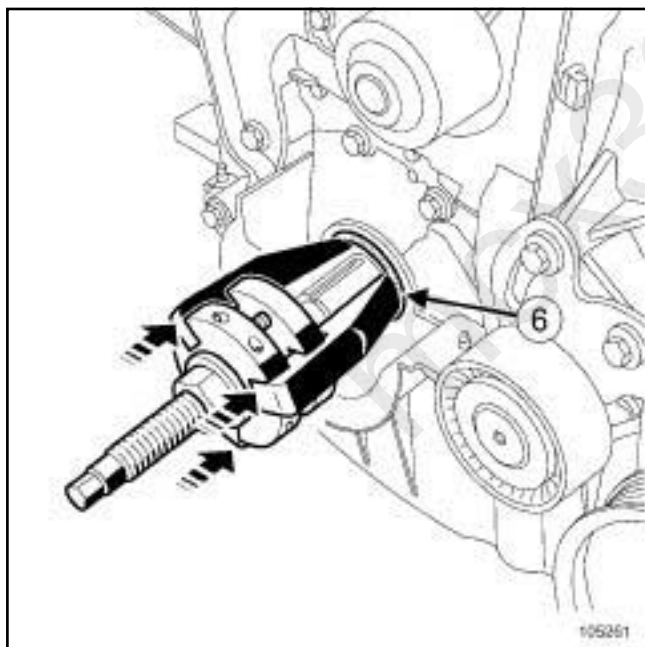
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- Position the jaws (4) of the (**Mot. 1577**) on the crankshaft (5) .



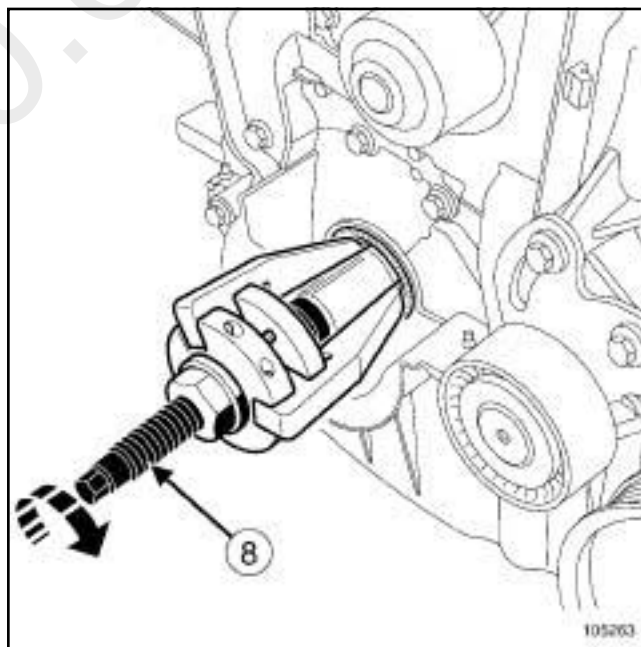
105262

- Move the jaws away by tightening the bolt (7) using an open-jawed spanner.



105261

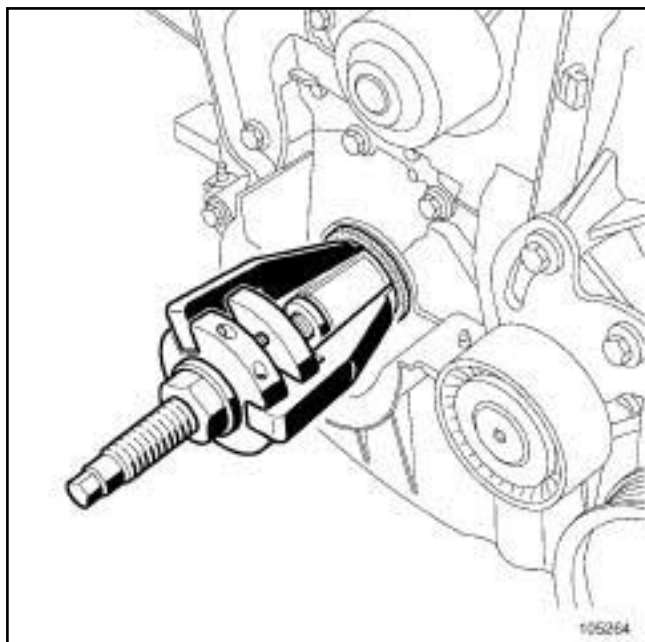
- Push the (**Mot. 1577**) until contact is made between the ends (6) of the jaws and the crankshaft seal.



105263

- Screw down the threaded rod (8) of the (**Mot. 1577**).

K9K



105264

- ☐ Remove the crankshaft seal using the (**Mot. 1577**).

REFITTING

I - REFITTING OPERATION FOR PART CONCERNED

- ☐ Refit:

- the crankshaft seal (see **Cylinder block: Rebuilding**) (Technical Note 6006, 10A, Engine and peripherals),
- the timing sprocket.

II - FINAL OPERATION

- ☐ Refit:

- the timing belt (see **11A, Top and front of engine, Timing belt: Removal - Refitting**, page **11A-48**) ,
- the right-hand suspended engine mounting (see **19D, Engine mounting, Right-hand suspended engine mounting: Removal - Refitting**, page **19D-22**) ,
- the engine tie-bar (see **19D, Engine mounting, Lower engine tie-bar: Removal - Refitting**, page **19D-13**) ,
- the front section of the front right-hand wheel arch liner (see **Front wheel arch liner: Removal - Refitting**) (MR 393, 55A, Exterior protection),
- the front right-hand wheel (see **Wheel: Removal - Refitting**) (MR 392, 35A, Wheels and tyres),
- the engine undertray,

- the scoop under the scuttle panel grille (see **Scoop under the scuttle panel grille: Removal - Refitting**) (MR 393, 56A, Exterior equipment),
 - the scuttle panel grille (see **Scuttle panel grille: Removal - Refitting**) (MR 393, 56A, Exterior equipment),
 - the engine cover.
- ☐ Connect the battery (see **Battery: Removal - Refitting**) (MR 392, 80A, Battery).

ENGINE AND CYLINDER BLOCK ASSEMBLY

Crankshaft seal on timing end: Removal - Refitting

10A

K4M

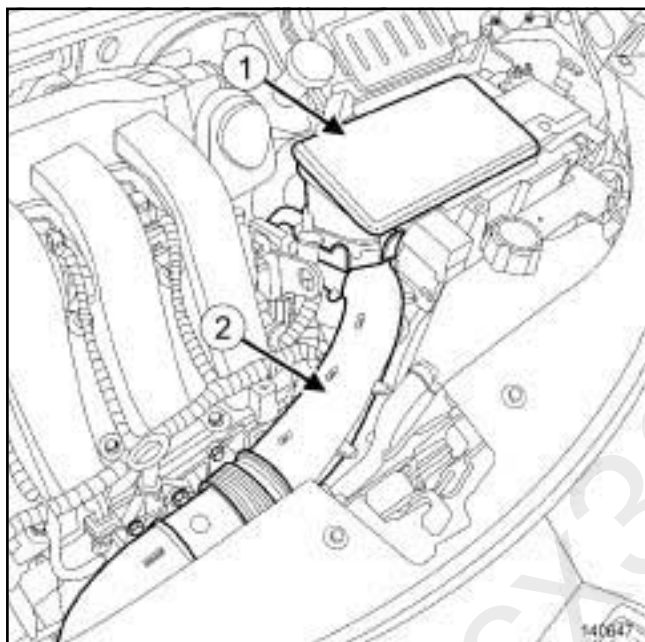
Special tooling required

Mot. 1385 Tool for fitting the crankshaft seal, timing end (35 x 47 x 7).

REMOVAL

I - REMOVAL PREPARATION OPERATION

- Position the vehicle on a two-post lift (see **Vehicle: Towing and lifting**) (02A, Lifting equipment).



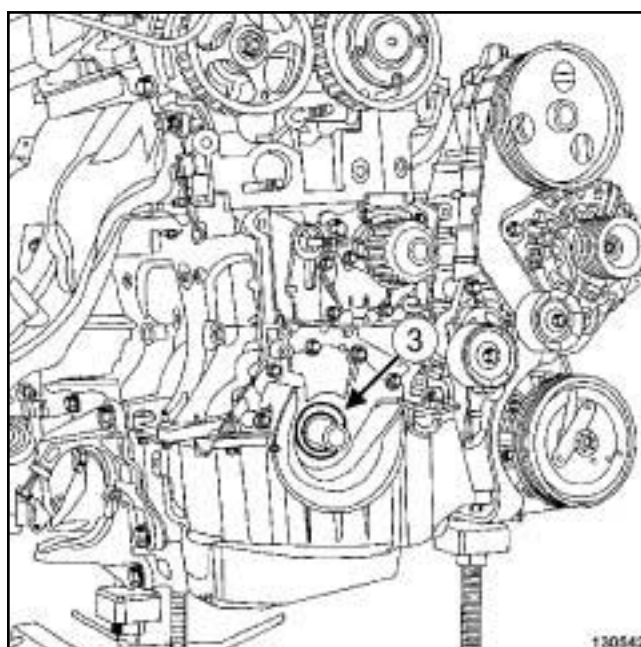
140647

- Remove:

- the air resonator (1) ,
- the air filter unit air inlet pipe (2) ,
- the engine undertray bolts,
- the engine undertray,
- the front right-hand wheel (see **Wheel: Removal - Refitting**) (35A, Wheels and tyres),
- the front right-hand wheel arch liner (see **Front wheel arch liner: Removal - Refitting**) (55A, Exterior protection),
- the front bumper (see **Front bumper: Removal - Refitting**) (55A, Exterior protection),
- the battery (see **Battery: Removal - Refitting**) (80A, Battery),
- the battery tray (see **Battery tray: Removal - Refitting**) (80A, Battery),
- the air filter unit (see **12A, Fuel mixture, Air filter unit: Removal - Refitting**, page 12A-17) ,

- the throttle valve (see **12A, Fuel mixture, Throttle valve: Removal - Refitting**, page 12A-33) ,
- the windscreen wiper arms (see **Windscreen wiper arm: Removal - Refitting**) (85A, Wiping - Washing),
- the scuttle panel grille (see **Scuttle panel grille: Removal - Refitting**) (56A, Exterior equipment),
- the scoop under the scuttle panel grille (see **Scoop under the scuttle panel grille: Removal - Refitting**) (56A, Exterior equipment),
- the right-hand suspended engine mounting (see **19D, Engine mounting, Right-hand suspended engine mounting: Removal - Refitting**, page 19D-22) ,
- the accessories belt (see **11A, Top and front of engine, Accessories belt: Removal - Refitting**, page 11A-5) ,
- the crankshaft accessories pulley (see **11A, Top and front of engine, Crankshaft accessories pulley: Removal - Refitting**, page 11A-31) ,
- the timing belt (see **11A, Top and front of engine, Timing belt: Removal - Refitting**, page 11A-48) ,
- the camshaft dephaser (see **11A, Top and front of engine, Camshaft dephaser: Removal - Refitting**, page 11A-234) .

II - OPERATION FOR REMOVAL OF PART CONCERNED



130542

- Remove the crankshaft seal (3) .

ENGINE AND CYLINDER BLOCK ASSEMBLY

Crankshaft seal on timing end: Removal - Refitting

10A

K4M

REFITTING

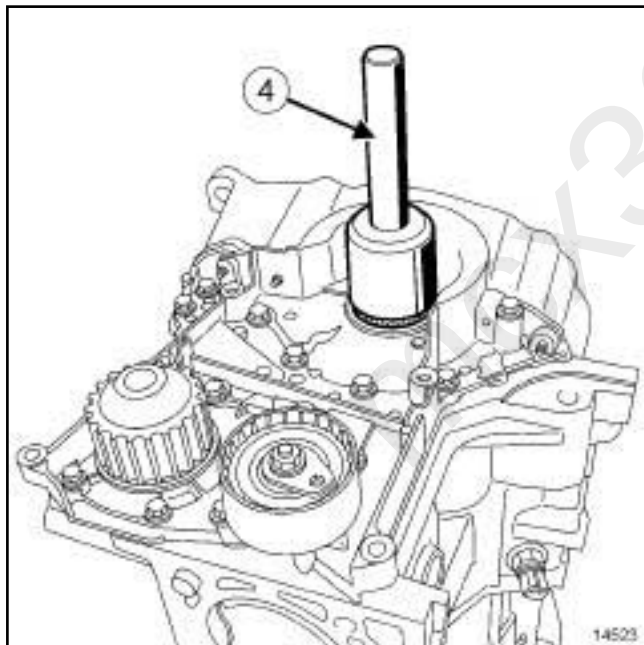
I - REFITTING PREPARATION OPERATION

- ☐ parts always to be replaced: Crankshaft seal on timing end (10,03,03,04).
- ☐ Use **SURFACE CLEANER** (see **Vehicle: Parts and consumables for the repair**) (04B, Consumables - Products) to clean and degrease:
 - the crankshaft seal mating face,
 - the cylinder block seal housing.

WARNING

To ensure proper sealing, the gasket surfaces must be clean, dry and not greasy (avoid any finger marks).

II - REFITTING OPERATION FOR PART CONCERNED



14523

- ☐ Refit a new crankshaft seal using the (**Mot. 1385**) (4)

III - FINAL OPERATION

- ☐ Refit:
 - the camshaft dephaser (see **11A, Top and front of engine, Camshaft dephaser: Removal - Refitting**, page **11A-234**) ,
 - the timing belt (see **11A, Top and front of engine, Timing belt: Removal - Refitting**, page **11A-48**) ,

- the crankshaft accessories pulley (see **11A, Top and front of engine, Crankshaft accessories pulley: Removal - Refitting**, page **11A-31**) ,
- the accessories belt (see **11A, Top and front of engine, Accessories belt: Removal - Refitting**, page **11A-5**) ,
- the right-hand suspended engine mounting (see **19D, Engine mounting, Right-hand suspended engine mounting: Removal - Refitting**, page **19D-22**) ,
- the scoop under the scuttle panel grille (see **Scoop under the scuttle panel grille: Removal - Refitting**) (56A, Exterior equipment),
- the scuttle panel grille (see **Scuttle panel grille: Removal - Refitting**) (56A, Exterior equipment),
- the windscreen wiper arms (see **Windscreen wiper arm: Removal - Refitting**) (85A, Wiping - Washing),
- the throttle valve (see **12A, Fuel mixture, Throttle valve: Removal - Refitting**, page **12A-33**) ,
- the air filter unit (see **12A, Fuel mixture, Air filter unit: Removal - Refitting**, page **12A-17**) ,
- the battery tray (see **Battery tray: Removal - Refitting**) (80A, Battery),
- the battery (see **Battery: Removal - Refitting**) (80A, Battery),
- the front bumper (see **Front bumper: Removal - Refitting**) (55A, Exterior protection),
- the front right-hand wheel arch liner (see **Front wheel arch liner: Removal - Refitting**) (55A, Exterior protection),
- the front right-hand wheel (see **Wheel: Removal - Refitting**) (35A, Wheels and tyres),
- the engine undertray,
- the air filter unit air inlet pipe,
- the air resonator.