

TOP AND FRONT OF ENGINE

Crankshaft accessories pulley: Removal - Refitting

11A

K4M

- the air resonator (see **12A, Fuel mixture, Air resonator: Removal - Refitting**, page **12A-2**),
 - the air inlet duct.
- ☐ Connect the battery (see **Battery: Removal - Refitting**) (80A, Battery).

TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

11A

K4M

Tightening torques 	
timing fixed roller bolt	50 N.m
new crankshaft accessories pulley bolt	40 N.m + 145° ± 15°
timing tension wheel nut	27 N.m
lower timing cover bolts	12 N.m
nut of each camshaft sprocket	30 N.m + 84° ± 4°
TDC pin plug	20 N.m
upper timing cover bolts	46 N.m
upper timing cover nuts	46 N.m
flywheel end lifting eye bolts	10 N.m

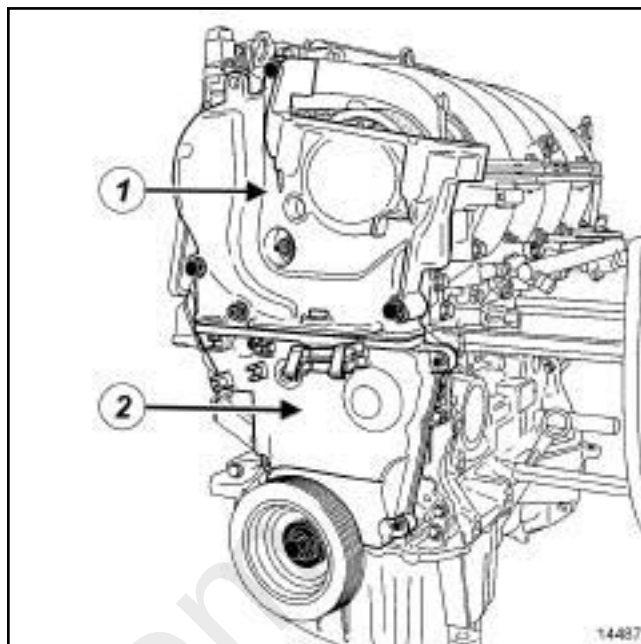
IMPORTANT

Wear cut-resistant gloves during the operation.

REMOVAL

I - REMOVAL PREPARATION OPERATION

- ☐ Position the vehicle on a two-post lift (see **Vehicle: Towing and lifting**) (02A, Lifting equipment).
- ☐ Disconnect the battery (see **Battery: Removal - Refitting**) (80A, Battery).
- ☐ Remove:
 - the air inlet duct,
 - the air resonator (see **12A, Fuel mixture, Air resonator: Removal - Refitting**, page 12A-2) ,
 - the front right-hand wheel (see **Wheel: Removal - Refitting**) (35A, Wheels and tyres),
 - the accessories belt (see **11A, Top and front of engine, Accessories belt: Removal - Refitting**, page 11A-2) ,
 - the crankshaft accessories pulley (see **11A, Top and front of engine, Crankshaft accessories pulley: Removal - Refitting**, page 11A-10) ,
 - the right-hand suspended engine mounting (see **19D, Engine mounting, Right-hand suspended engine mounting: Removal - Refitting**, page 19D-4) .



14487

☐ Remove:

- the upper timing cover bolts (1) ,
- the upper timing cover,
- the lower timing cover bolts (2) ,
- the lower timing cover.

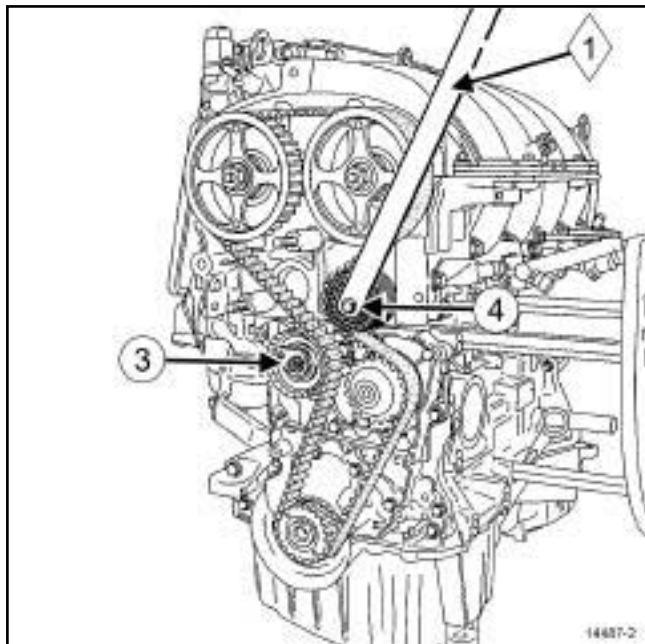
TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

11A

K4M

II - REMOVAL OPERATION



- Loosen the nut (3) of the timing tensioning roller.

Note:

Do not drop the crankshaft timing sprocket when removing the timing belt.

- Remove:
 - the timing fixed roller bolt (4) using the tool (1) ,
 - the timing fixed roller,
 - the timing belt,
 - the timing tensioning roller nut,
 - the timing tensioning roller,
 - the crankshaft timing sprocket.

REFITTING - PROCEDURE 1

I - REFITTING PREPARATION OPERATION

- parts always to be replaced: Timing belt,
- parts always to be replaced: Timing belt tensioning roller,
- parts always to be replaced: Crankshaft accessories pulley bolts,
- parts always to be replaced: Inlet camshaft cap,
- parts always to be replaced: Timing fixed roller,
- parts always to be replaced: Exhaust camshaft cap.

II - REFITTING OPERATION FOR PART CONCERNED

- The first procedure applies to replacing any timing face component which has a crankshaft timing sprocket without a collet and which does not require one or more of the camshaft sprockets to be loosened.

1 - Adjusting the timing

□

WARNING

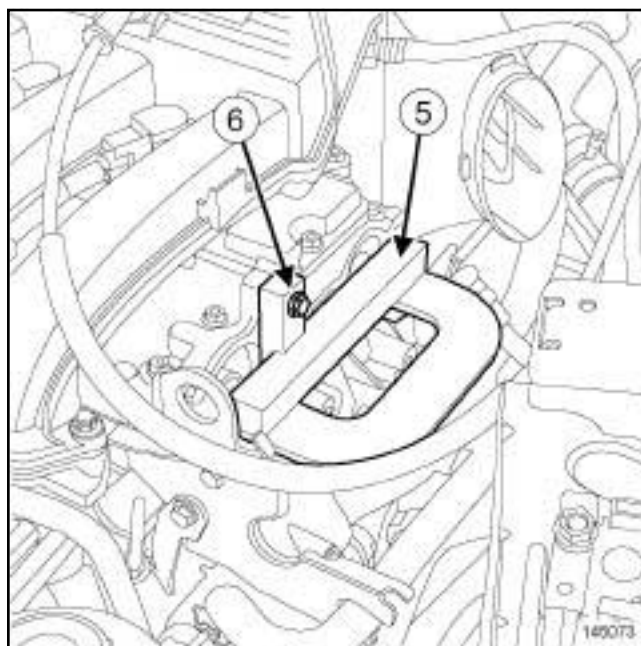
Be sure to degrease:

- the end of the crankshaft (timing end),
- the timing sprocket pressure faces and bore of the crankshaft,
- the crankshaft accessories pulley bearing faces,
- the camshaft ends (timing end),
- the camshaft sprocket bores and bearing faces.

This is to avoid timing slippage.

This slippage leads to engine damage.

- Set the camshaft grooves horizontally and below the centre line by turning the camshafts with their necessary.



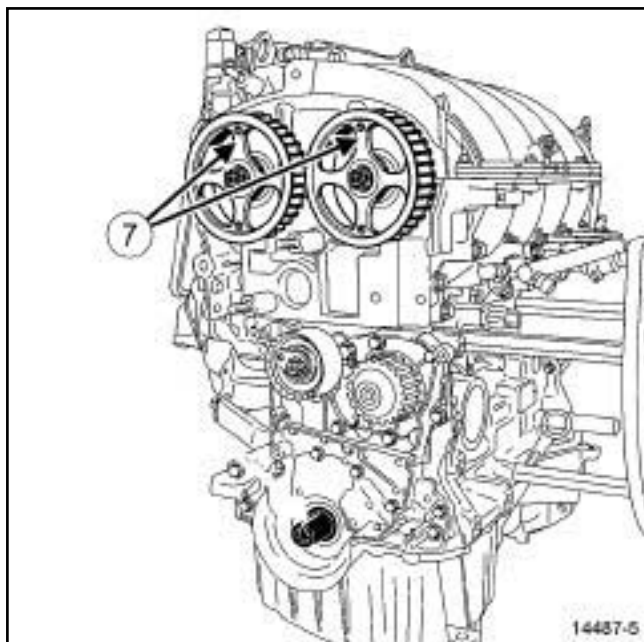
- Fit:
 - the (5) onto the ends of the camshafts,
 - a lifting eye bolt (6) to secure the.

TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

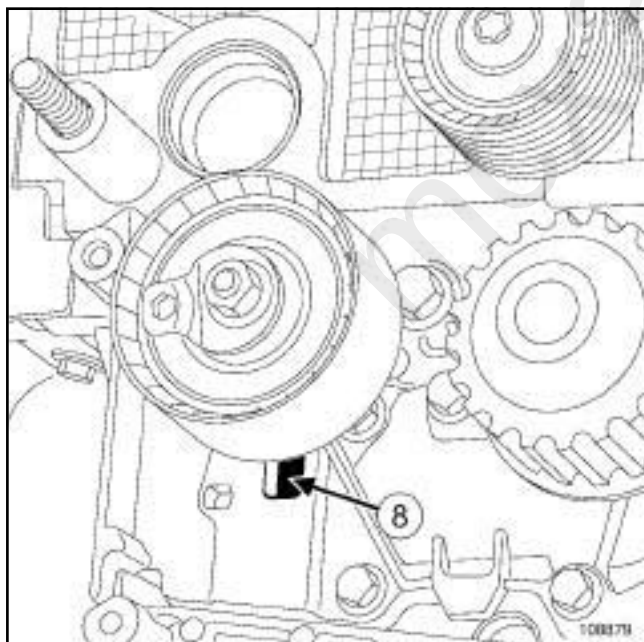
11A

K4M

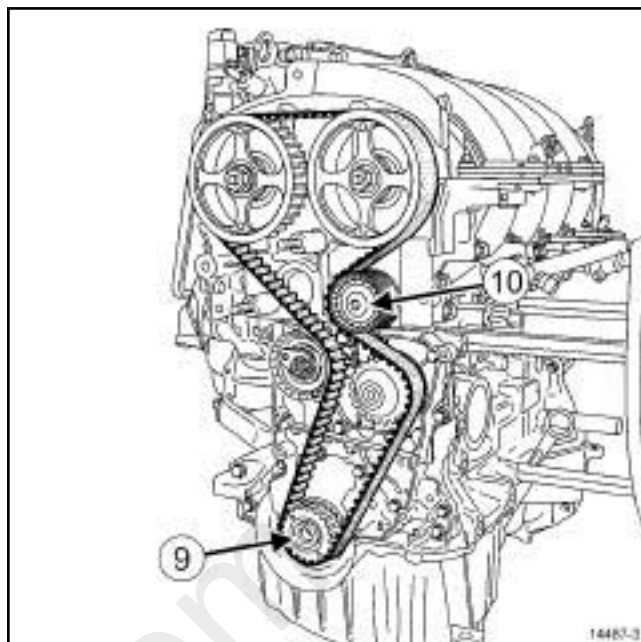


- ❑ Position the RENAULT badge (7) engraved on the stem of each camshaft sprocket vertically and pointing upwards.

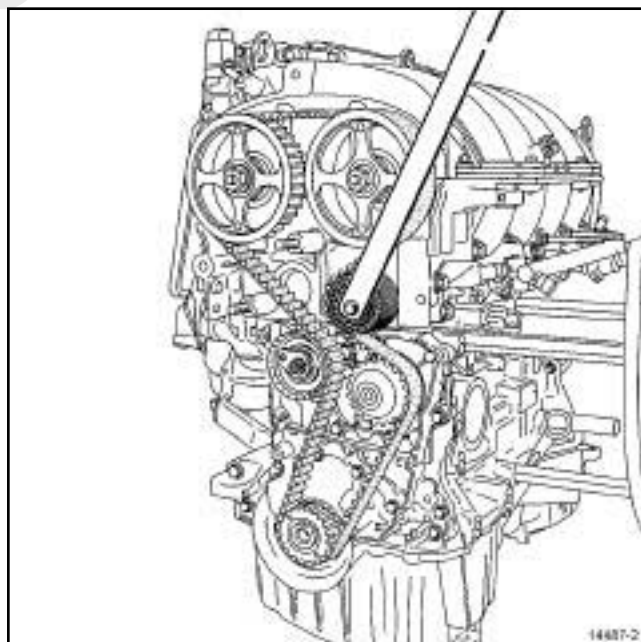
2 - Refitting



- ❑ Refit a new timing tensioning roller by positioning the lug of the timing tensioning roller in the groove (8) .
- ❑ Screw on the timing tensioning roller nut without tightening it.



- ❑ Refit:
 - the crankshaft timing sprocket (9) ,
 - a new timing belt,
 - a new timing fixed roller (10) .



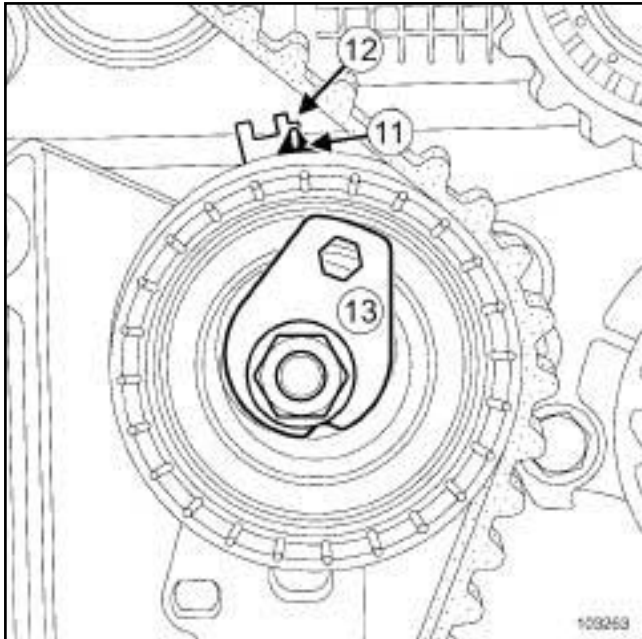
- ❑ Torque tighten the **timing fixed roller bolt (50 N.m)** using the tool.

TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

11A

K4M



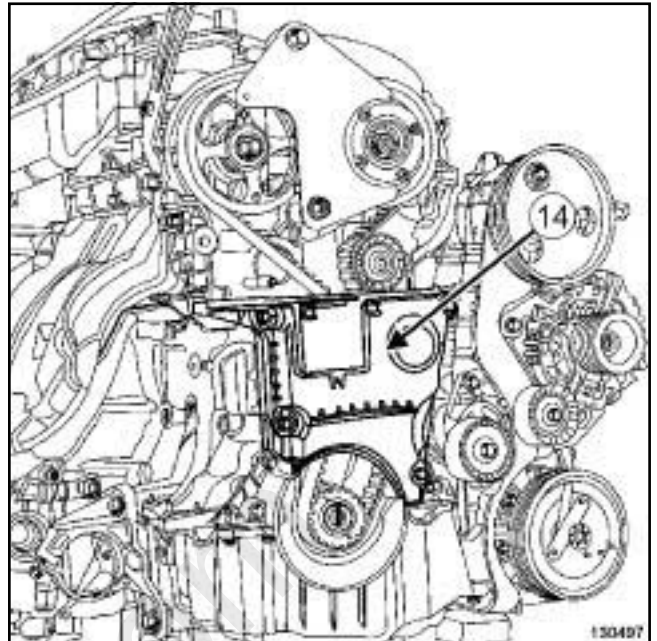
- ☐ Position the adjustable index (11) opposite the mark (12) , by turning the eccentric (13) clockwise using a 6 mm Allen key.
- ☐ Torque tighten the **timing tensioning roller nut (7 N.m)**.
- ☐ Refit the toolon the cylinder block.

Note:

There are two types of lower timing cover:

- without a timing flap,
- with a timing flap.

a - Lower timing cover with a timing flap



- ☐ Refit the lower timing cover (14) .
- ☐ Tighten to torque the **lower timing cover bolts (12 N.m)**.

b - continuation of the refitting procedure regardless of the type of lower timing cover

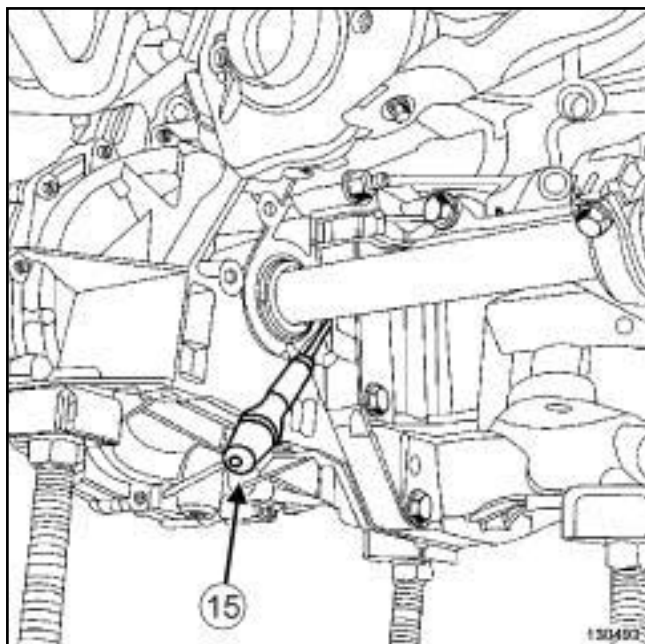
- ☐ Refit a new crankshaft accessories pulley.

TOP AND FRONT OF ENGINE

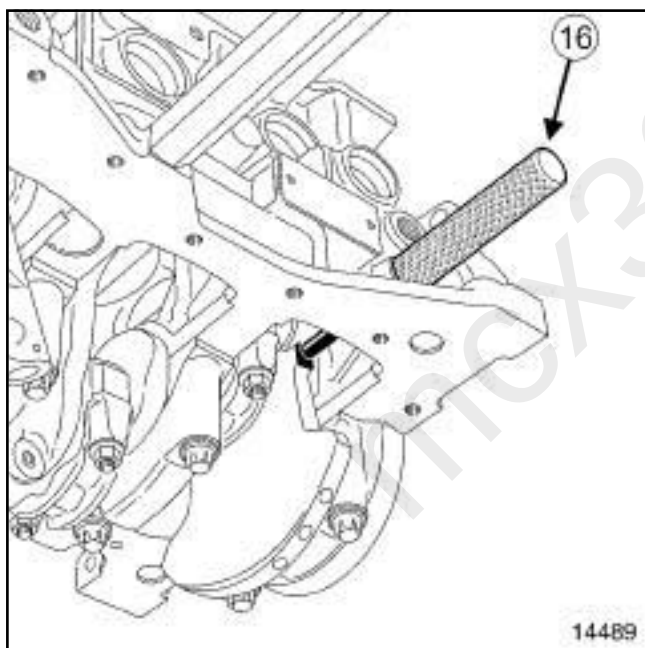
Timing belt: Removal - Refitting

11A

K4M



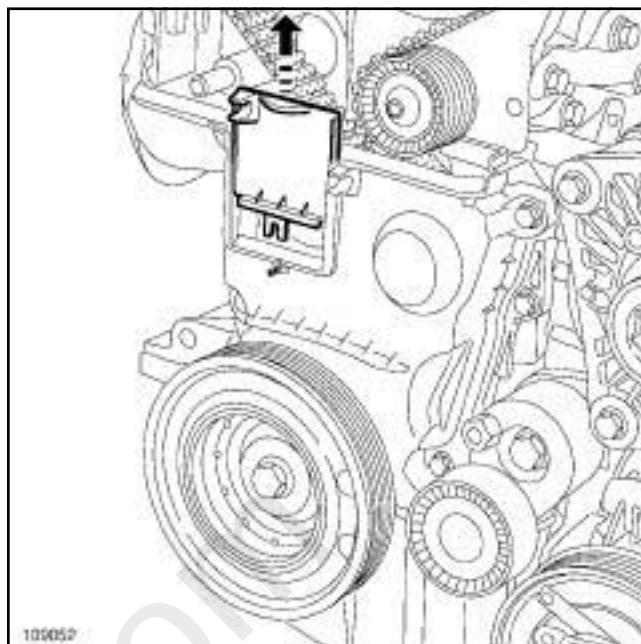
130493



14489

- ❑ Use a screwdriver (15) to check that the flywheel does not turn (clockwise at the timing end), otherwise bring the crankshaft back into contact with the tool (16) using the screwdriver; the crankshaft groove should be at the top.
- ❑ Torque and angle tighten a **new crankshaft accessories pulley bolt** (40 N.m + 145° ± 15°) (crankshaft in contact with the tool).

c - Lower timing cover with a timing flap



109052

- ❑ Remove the timing flap from the lower timing cover.

d - continuation of the refitting procedure regardless of the type of lower timing cover

- ❑ Remove:
 - the bolt of the tool,
 - the setting tool,
 - the from the cylinder block.

3 - Checking the tension

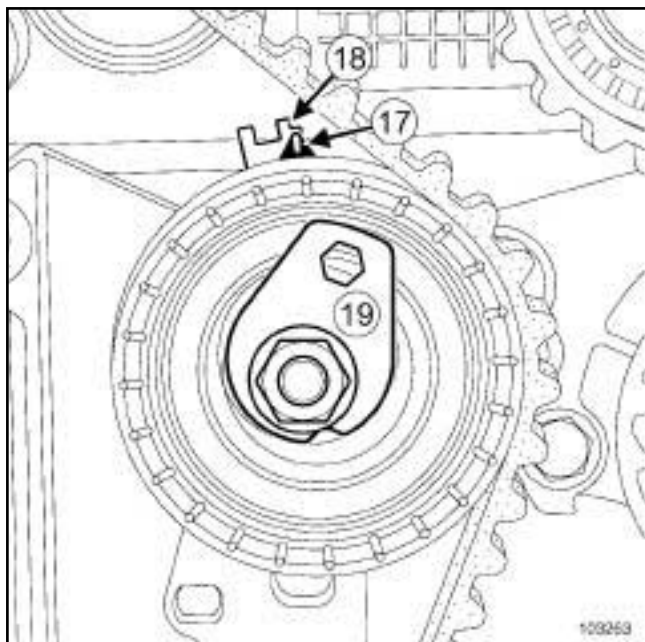
- ❑ Rotate the crankshaft twice clockwise at the timing end and before aligning the marks made previously by the operator (on the camshaft dephaser), screw the tool into the cylinder block.
- ❑ Move the crankshaft slowly and smoothly until it comes into contact with the tool.
- ❑ Remove the tool from the cylinder block.

TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

11A

K4M

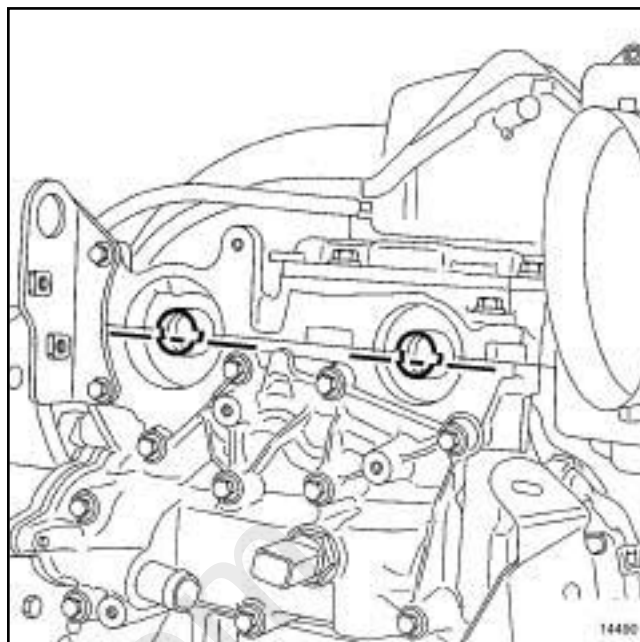


103263

- ☐ Check that the adjustable index (17) is opposite the notch (18) , if this is not the case:
 - loosen the timing tensioning roller nut by up to one turn while holding the eccentric with a **6 mm** Allen key,
 - gradually move the adjustable index marker (17) opposite the mark (18) turning the eccentric cam (19) clockwise.
- ☐ Torque tighten the **timing tension wheel nut (27 N.m)**.

4 - Checking the timing

- ☐ Ensure that the index and the notch on the timing tensioning roller are in the correct position before checking the timing.
- ☐ Screw tool into the cylinder block.
- ☐ Move the crankshaft slowly and smoothly until it comes into contact with the tool.



14490

- ☐ Position (without forcing) the camshaft setting tool (the camshaft end grooves must be horizontal and offset towards the bottom).

Note:

The timing adjustment and tensioning operation must be repeated if the camshaft setting tool does not engage.

- ☐ Remove:
 - the setting tool,
 - the from the cylinder block.

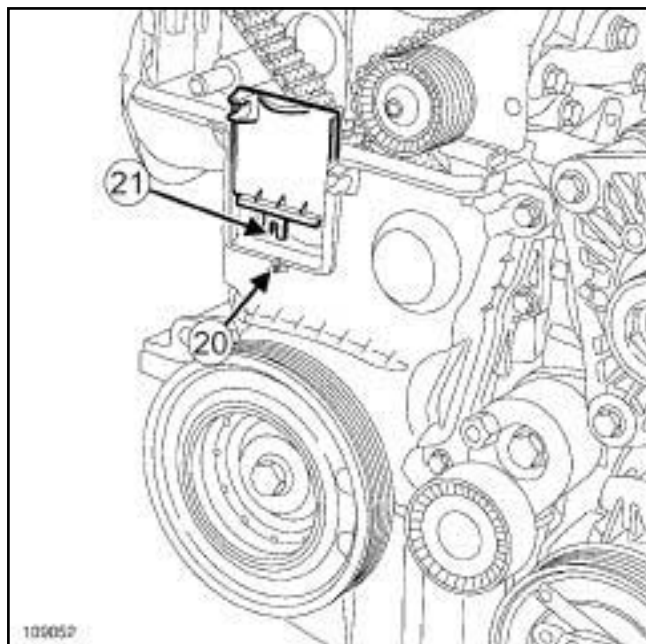
TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

11A

K4M

a - Lower timing cover with a timing flap



- ☐ Refit the lower timing cover flap, checking that the locating pin (20) fits properly in the notch (21) .

b - Lower timing cover without a timing flap

- ☐ Refit the lower timing cover.
- ☐ Tighten to torque the **lower timing cover bolts (12 N.m)**.

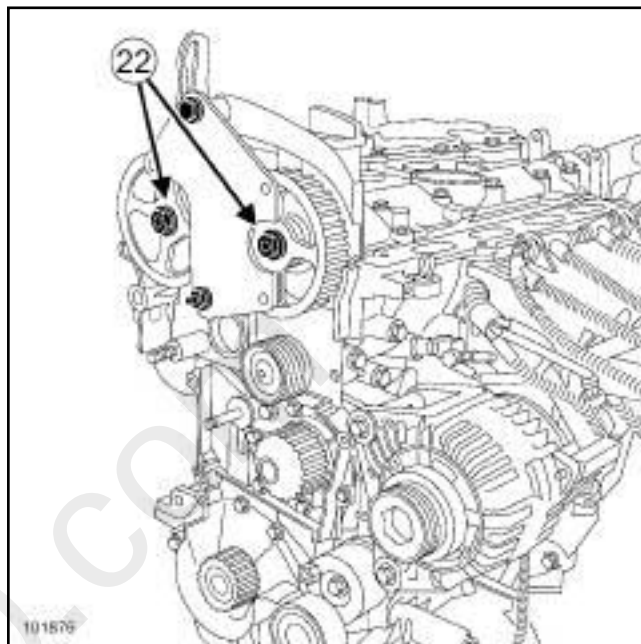
REFITTING -PROCEDURE 2

I - REFITTING PREPARATION OPERATION

- ☐ parts always to be replaced: Timing belt,
- ☐ parts always to be replaced: Timing belt tensioning roller,
- ☐ parts always to be replaced: Timing fixed roller,
- ☐ parts always to be replaced: Crankshaft accessories pulley,
- ☐ parts always to be replaced: camshaft timing sprocket nut,
- ☐ parts always to be replaced: Crankshaft accessories pulley bolts,
- ☐ parts always to be replaced: Inlet camshaft cap,
- ☐ parts always to be replaced: Exhaust camshaft cap.

II - REFITTING OPERATION

- ☐ The second procedure is used when replacing any timing face component which has a crankshaft timing sprocket with or without a collet, that requires one or more of the camshaft sprockets to be loosened.



- ☐ Fit the tool on the camshaft sprockets using the tool.
- ☐ Loosen the nuts (22) of each camshaft sprocket.
- ☐ Remove:
 - the tool from the cylinder block,
 - every camshaft sprocket nut,
 - the camshaft sprockets.

TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

11A

K4M

1 - Adjusting the timing



Note:

If the stud loosens with the nut (see **11A, Top and front of engine, Camshaft: Removal - Refitting**, page **11A-49**) (11A, Top and front of engine).

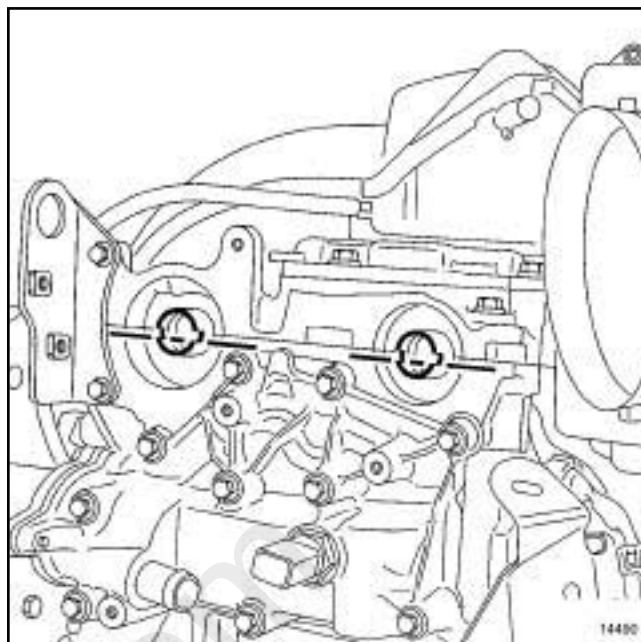
WARNING

Always degrease:

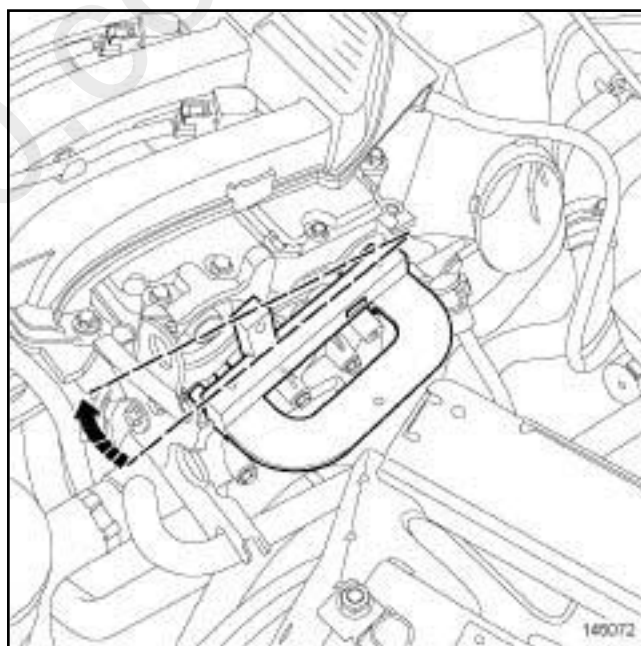
- the end of the crankshaft (timing end),
- the timing sprocket pressure faces and bore of the crankshaft,
- the crankshaft accessories pulley bearing faces,
- the camshaft ends (timing end),
- the camshaft sprocket bores and bearing faces.

This is to avoid timing slippage.

This slippage leads to engine damage.



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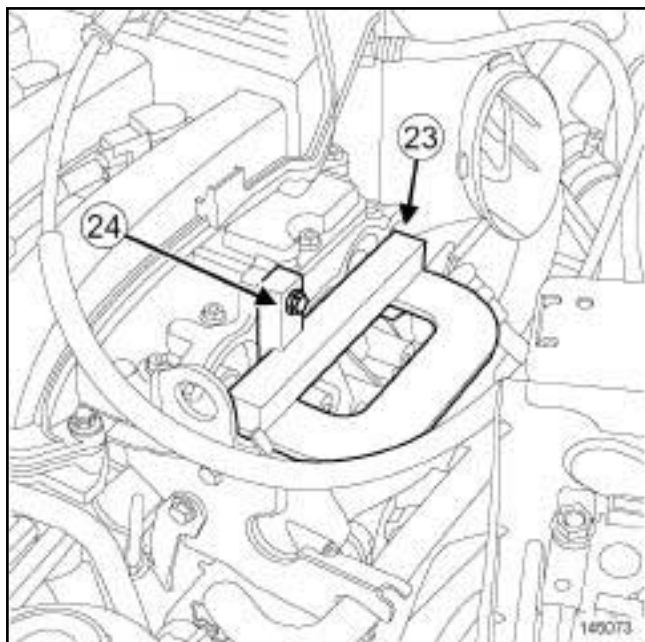
- Position the camshaft grooves horizontally and below the centre line, by turning the camshafts with their necessary.

TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

11A

K4M



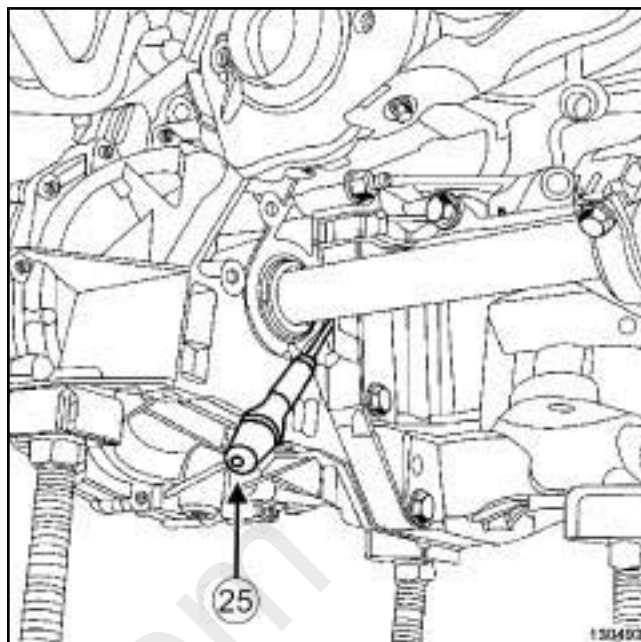
145073

Fit:

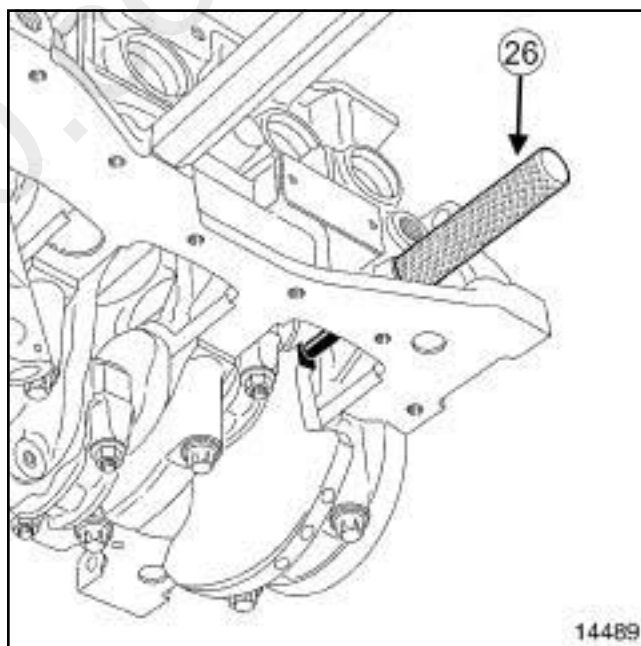
- the (23) onto the ends of the camshafts,
- an M6 bolt (24) to hold the.

Refit:

- the crankshaft timing sprocket,
- the camshaft sprockets,
- every camshaft sprocket nut.



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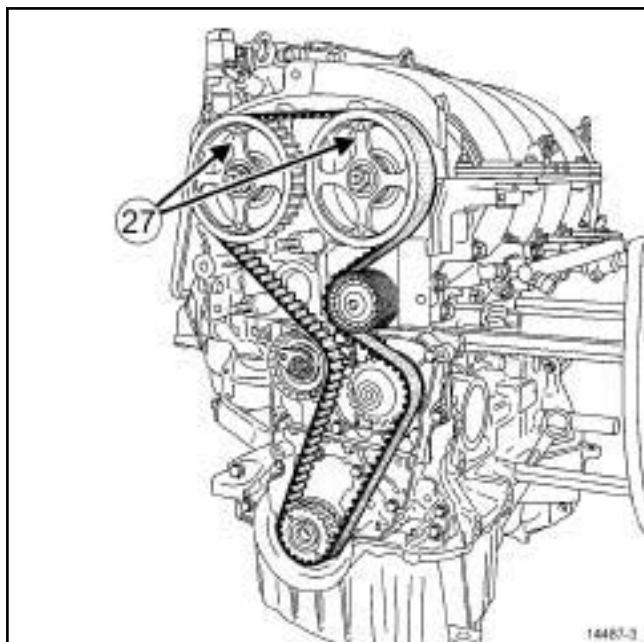
- Refit the tool on the cylinder block.
- Use a screwdriver (25) to check that the flywheel does not turn (clockwise at the timing end), otherwise bring the crankshaft back into contact with the tool (26) using the screwdriver; the crankshaft groove should be at the top.

TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

11A

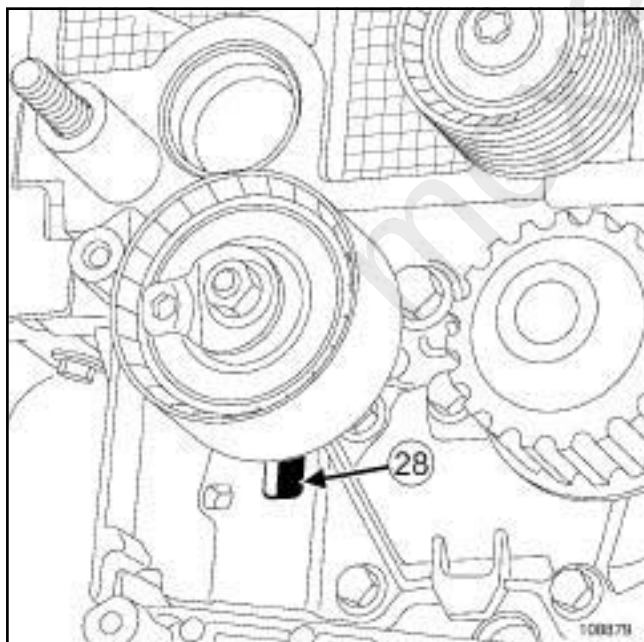
K4M



14487-3

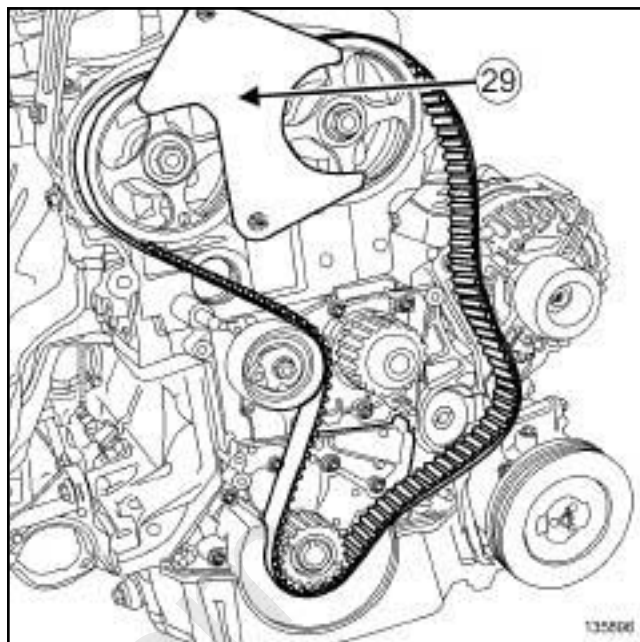
- ❑ Position the RENAULT badge (27) etched on the stem of each camshaft sprocket vertically and pointing upwards.

2 - Refitting



108879

- ❑ Refit a new timing tensioning roller by positioning the lug of the timing tensioning roller in the groove (28) .
- ❑ Screw on the timing tensioning roller nut without tightening it.



135896

- ❑ Refit a new timing belt starting with the sprocket of each camshaft (without moving the sprocket of each camshaft).
- ❑ Fit the tool (29) on the camshaft sprockets (use the bolt and nut of the upper timing cover to fit the tool).

Note:

Take care to properly tighten the timing belt between the two camshaft sprockets.

Note:

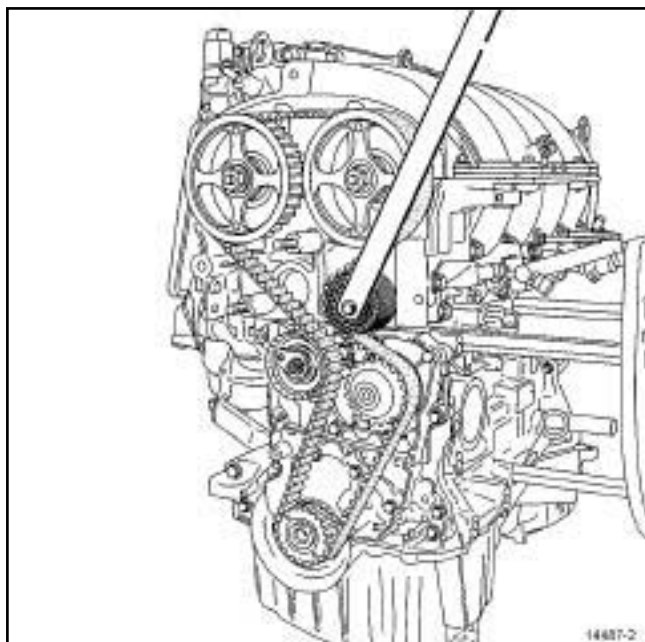
If the engine is equipped with a crankshaft timing sprocket with a collet, take care to properly tighten the timing belt between the exhaust camshaft sprocket and the crankshaft timing sprocket.

TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

11A

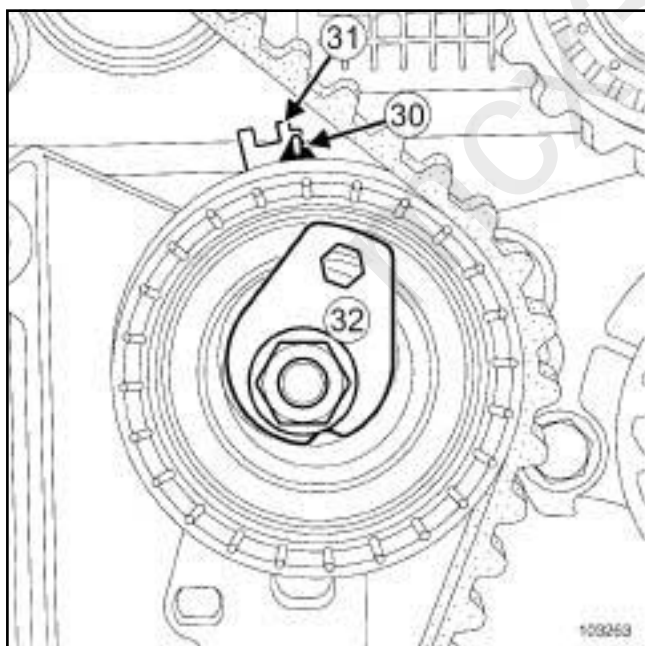
K4M



14487-2

- ☐ Refit a new timing fixed roller.
- ☐ Torque tighten the **timing fixed roller bolt (50 N.m)** using the tool.

3 - Timing belt tension



103263

- ☐ Position the adjustable index (**30**) opposite the mark (**31**), by turning the eccentric (**32**) clockwise using an Allen key.

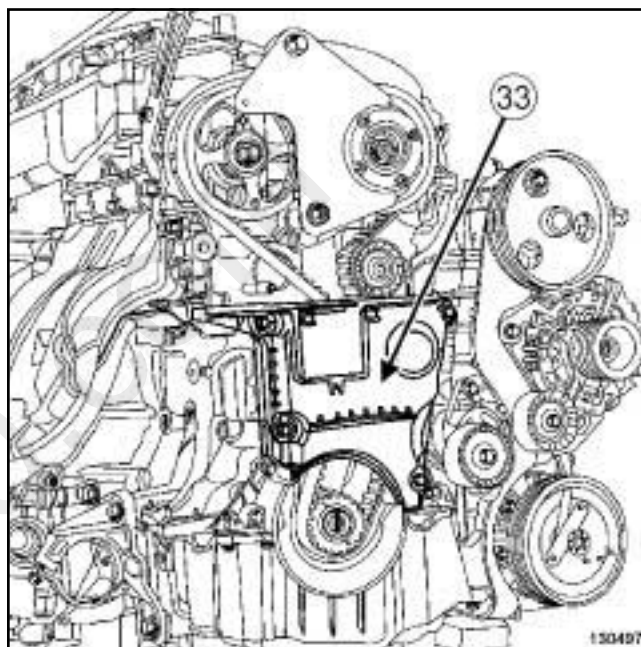
- ☐ Torque tighten the **timing tensioning roller nut (7 N.m)**.

Note:

There are two types of lower timing cover:

- without a timing flap,
- with a timing flap.

a - Lower timing cover with a timing flap



130497

- ☐ Refit the lower timing cover (**33**).
- ☐ Tighten to torque the **lower timing cover bolts (12 N.m)**.

b - continuation of the refitting procedure regardless of the type of lower timing cover

- ☐ Refit a new crankshaft accessories pulley.
- ☐ Torque and angle tighten:
 - the **new bolt of the crankshaft accessories pulley (40 N.m + 145° ± 15°)**,
 - the **nut of each camshaft sprocket (30 N.m + 84° ± 4°)**.

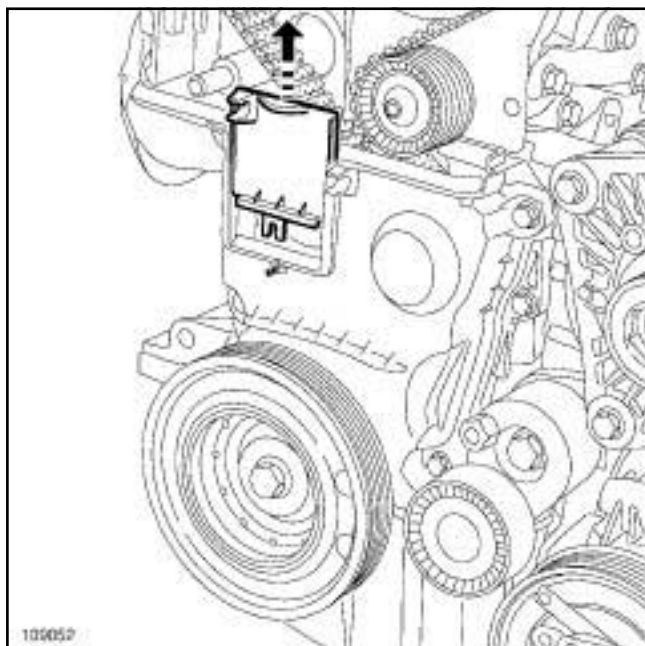
TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

11A

K4M

c - Lower timing cover with a timing flap



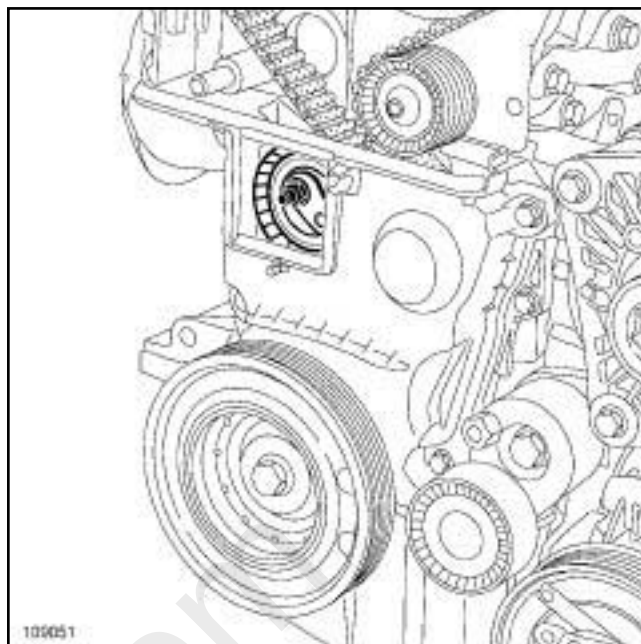
- ❑ Remove the timing flap from the lower timing cover.

d - continuation of the refitting procedure regardless of the type of lower timing cover

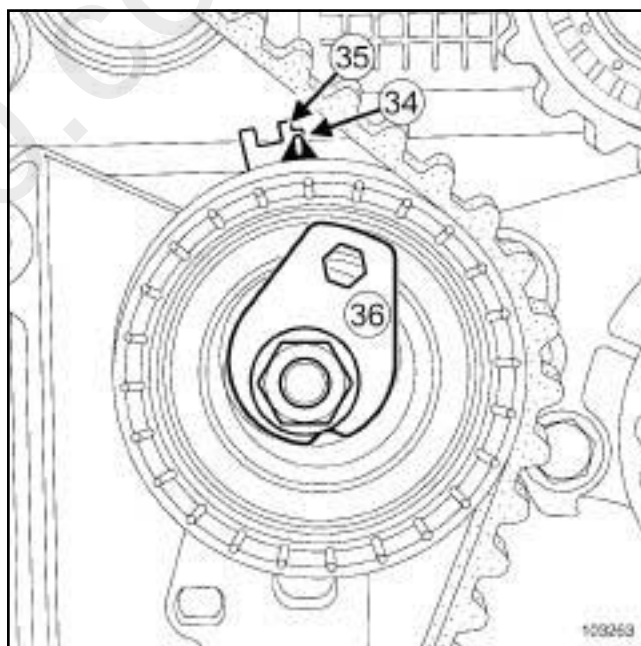
- ❑ Remove:
 - the bolt of the tool,
 - the,
 - the tool from the cylinder block,
 - the.

4 - Checking the tension

- ❑ Rotate the crankshaft twice clockwise at the timing end and before aligning the marks made previously by the operator (on the camshaft dephaser), screw the tool into the cylinder block.
- ❑ Move the crankshaft slowly and smoothly until it comes into contact with the tool.
- ❑ Remove the tool from the cylinder block.



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103263

- ❑ Check that the adjustable index (34) is opposite the notch (35), if this is not the case:
 - loosen the timing tensioning roller nut by up to one turn while holding the eccentric with an Allen key,
 - gradually move the adjustable index marker (34) opposite the mark (35) turning the eccentric cam (36) clockwise.
- ❑ Torque tighten the **timing tensioning roller nut (27 N.m)**.

TOP AND FRONT OF ENGINE

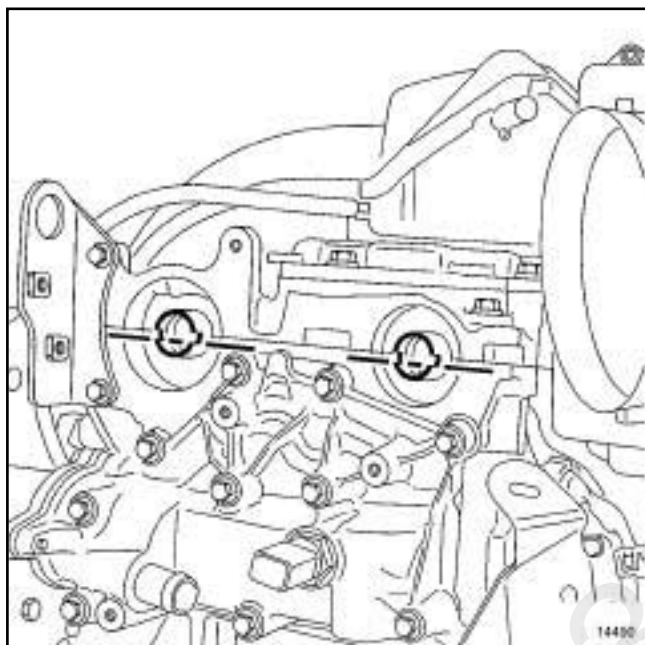
Timing belt: Removal - Refitting

11A

K4M

5 - Checking the timing

- ☐ Ensure that the index and the notch on the timing tensioning roller are in the correct position before checking the timing.
- ☐ Screw tool into the cylinder block.
- ☐ Move the crankshaft slowly and smoothly until it comes into contact with the tool.



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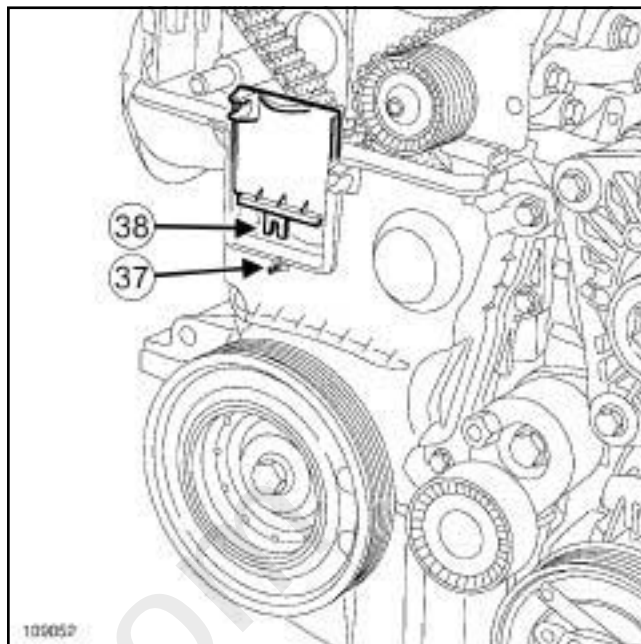
- ☐ Position (without forcing) the camshaft end grooves must be horizontal and offset downwards).

Note:

If the cannot be engaged, readjust the timing and the tension.

- ☐ Remove:
 - the setting tool,
 - the from the cylinder block.

a - Lower timing cover with a timing flap



109052

- ☐ Refit the lower timing cover flap, checking that the locating pin (37) fits properly in the notch (38) .

b - Lower timing cover without a timing flap

- ☐ Refit the lower timing cover.
- ☐ Tighten to torque the lower timing cover bolts (12 N.m).

III - FINAL OPERATION

- ☐ Apply a drop of **SILICONE ADHESIVE SEALANT** (see **Vehicle: Parts and consumables for the repair**) (04B, Consumables - Products) to the thread of the TDC pin plug.
- ☐ Tighten to torque the **TDC pin plug (20 N.m)**.
- ☐ Refit the upper timing cover.
- ☐ Torque tighten:
 - the **upper timing cover bolts (46 N.m)**,
 - the **upper timing cover nuts (46 N.m)**.
- ☐ Refit:
 - a new inlet camshaft plug using the,
 - a new exhaust camshaft plug using the,
 - the engine lifting eye at the flywheel end.
- ☐ Torque tighten the **flywheel end lifting eye bolts (10 N.m)**.

TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

11A

K4M

☐ Refit:

- the right-hand suspended engine mounting (see **19D, Engine mounting, Right-hand suspended engine mounting: Removal - Refitting**, page **19D-4**),
- the accessories belt (see **11A, Top and front of engine, Accessories belt: Removal - Refitting**, page **11A-2**),
- the front right-hand wheel (see **Wheel: Removal - Refitting**) (35A, Wheels and tyres),
- the air resonator (see **12A, Fuel mixture, Air resonator: Removal - Refitting**, page **12A-2**),
- the air inlet duct.

- ☐ Connect the battery (see **Battery: Removal - Refitting**) (80A, Battery).

TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

11A

K9K, and 796

Special tooling required

Mot. 1453	Engine anchorage support with multiple adjustments and retaining straps.
Mot. 1489	TDC locating pin.
Mot. 1430	Set of 5 crankshaft and camshaft pulley timing pins.

Tightening torques

timing belt tensioning roller bolt	27 N.m
accessories pulley M14 bolt	120 N.m + 95° ± 15°
timing belt tensioning roller bolt	27 N.m
TDC pin plug	25 N.m
right-hand suspended engine mounting bolts	25 N.m

IMPORTANT

To avoid all risk of damage to the systems, apply the safety and cleanliness instructions and operation recommendations before carrying out any repair (see **Engine: Precautions for the repair**) .

IMPORTANT

Wear protective gloves during every operation.

WARNING

Never run the engine in the opposite direction to that of normal operation.

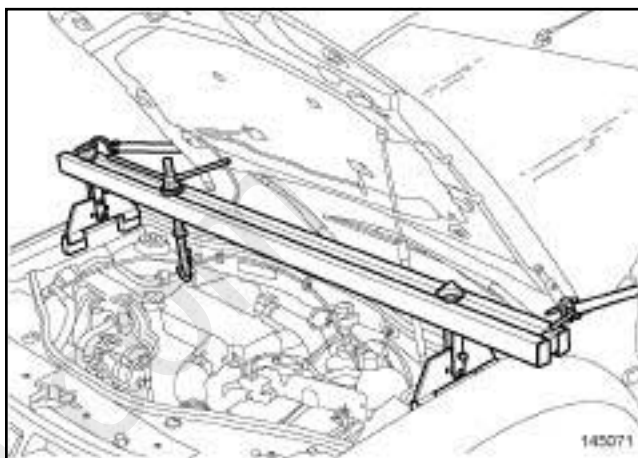
WARNING

Do not run the engine without the accessories belt to avoid damaging the crankshaft accessories pulley.

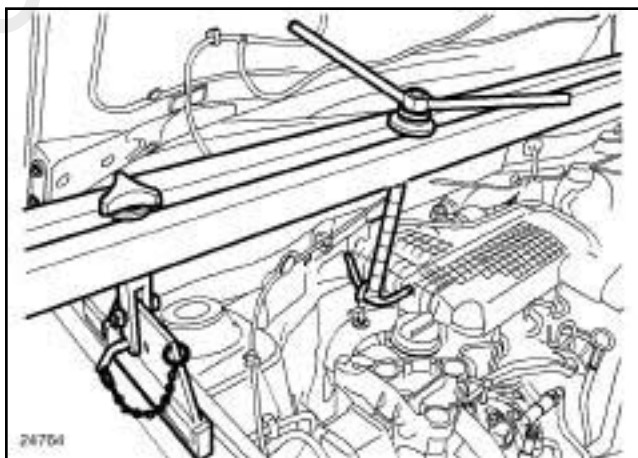
REMOVAL

I - REMOVAL PREPARATION OPERATION

- ☐ Position the vehicle on a two-post lift (see **Vehicle: Towing and lifting**) (02A, Lifting equipment).
- ☐ Disconnect the battery (see **Battery: Removal - Refitting**) (80A, Battery).
- ☐ Remove the front right-hand wheel (see **Wheel: Removal - Refitting**) (35A, Wheels and tyres).



145071



24764

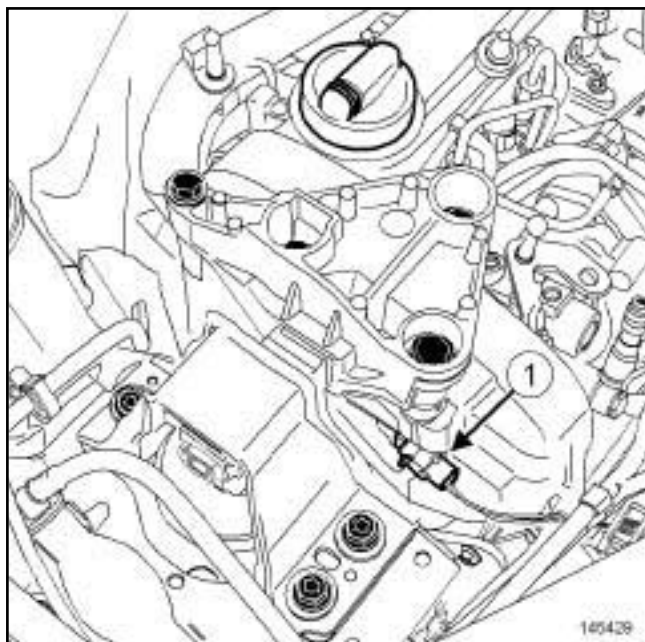
- ☐ Fit the engine support tool (**Mot. 1453**) with the retaining belt, taking the timing end lifting eye as an anchoring point.

TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

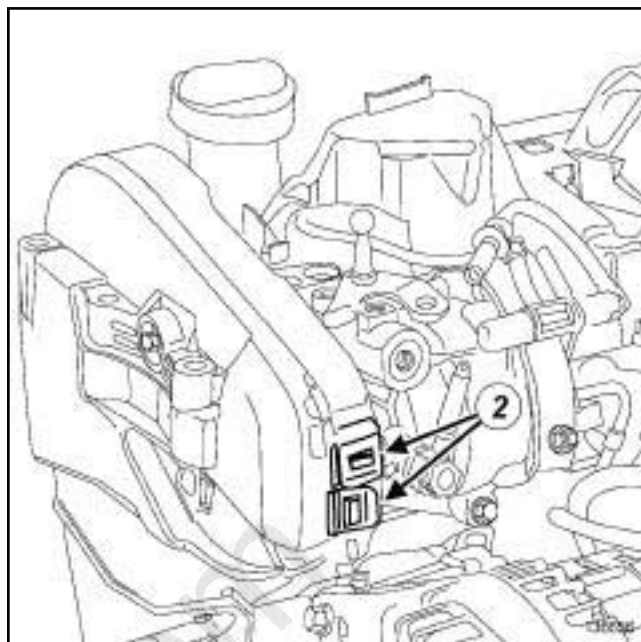
11A

K9K, and 796

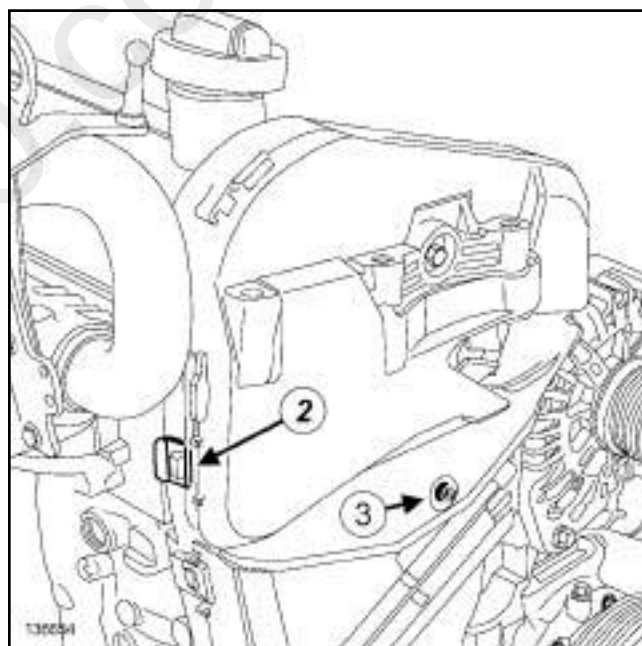


145429

- ☐ Mark the position of the suspended engine mounting in relation to the body.
- ☐ Remove:
 - the right-hand suspended engine mounting (see **19D, Engine mounting, Right-hand suspended engine mounting: Removal - Refitting**, page **19D-4**),
 - the camshaft position sensor (1) (see **13B, Diesel injection, Camshaft position sensor: Removal - Refitting**, page **13B-7**),
 - the accessories belt (see **11A, Top and front of engine, Accessories belt: Removal - Refitting**, page **11A-2**).



136656



136654

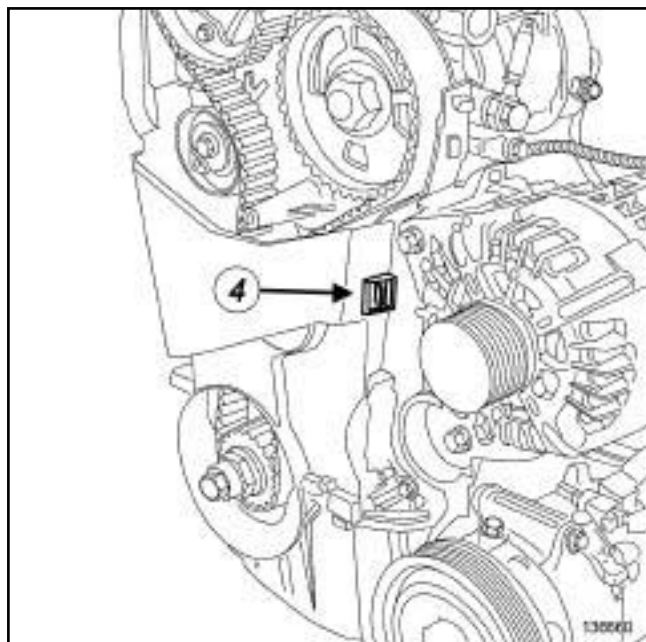
- ☐ Remove:
 - the bolt (3) from the upper timing cover,
 - the upper timing cover by unclipping the three tabs (2).

TOP AND FRONT OF ENGINE

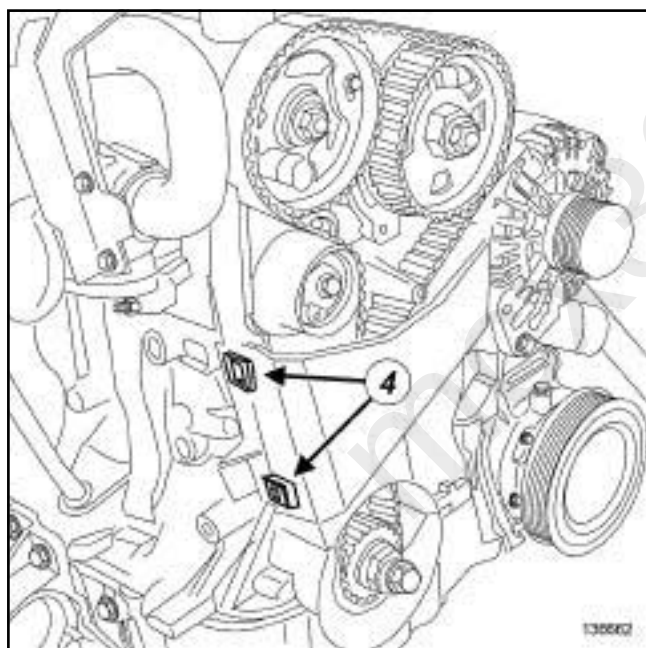
Timing belt: Removal - Refitting

11A

K9K, and 796

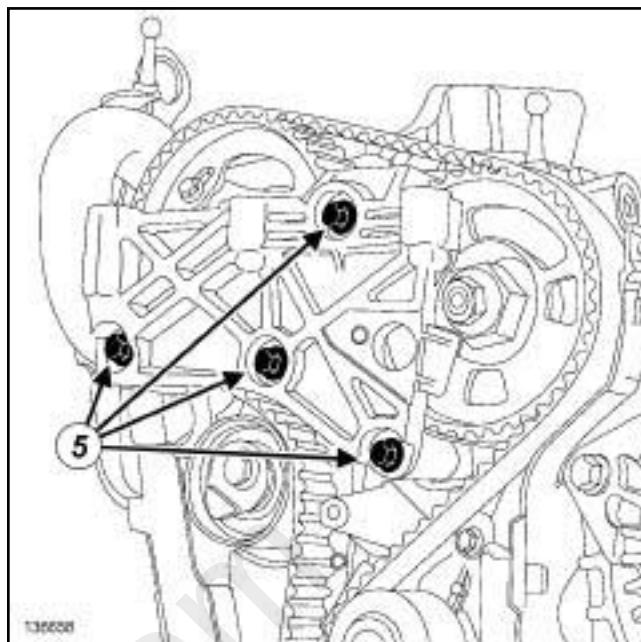


136660



136662

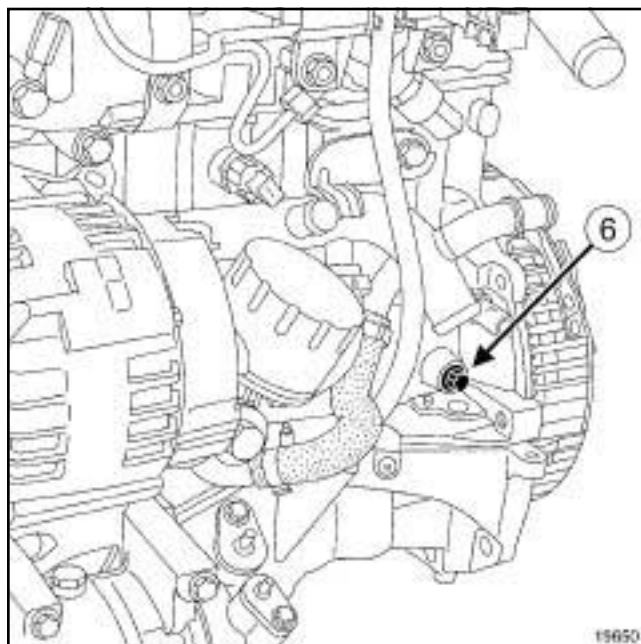
- ☐ Unclip the three tabs (4) .
- ☐ Remove the lower timing cover.



136658

- ☐ Remove:
 - the bolts (5) from the right-hand suspended engine mounting support on the cylinder head,
 - the right-hand pendulum suspension support.

II - REMOVAL OPERATION



19650

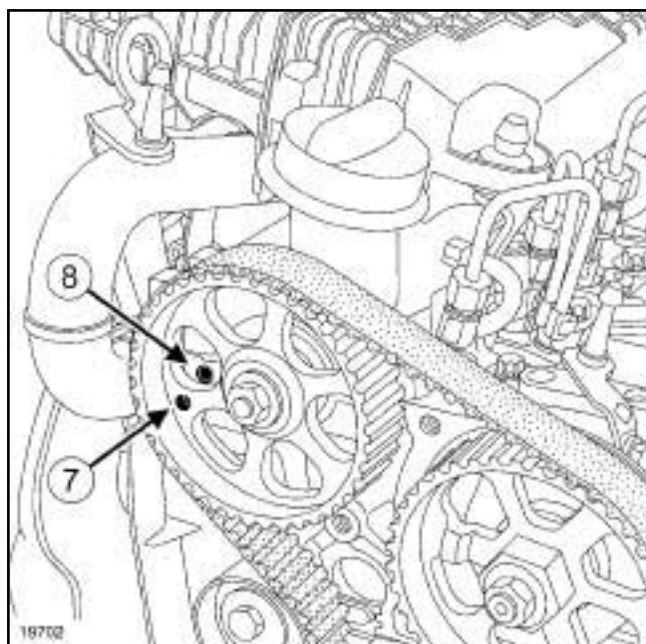
- ☐ Remove the TDC pin plug (6) using a **14** female torx socket.

TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

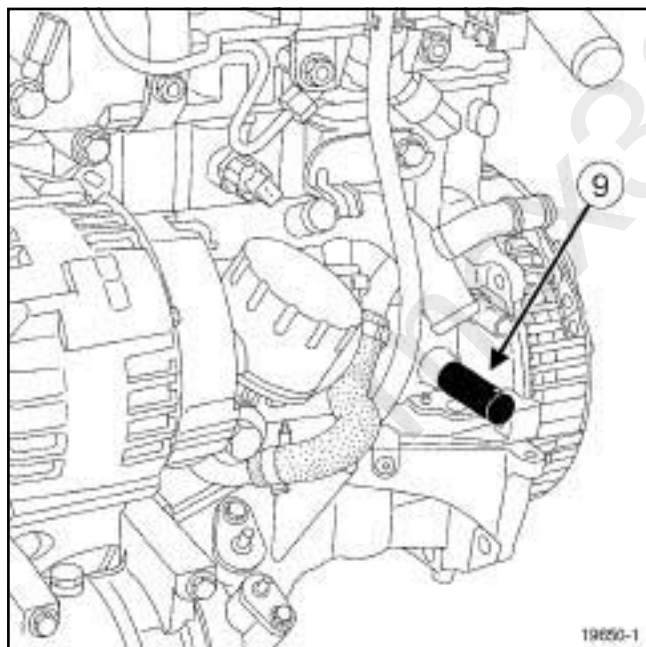
11A

K9K, and 796



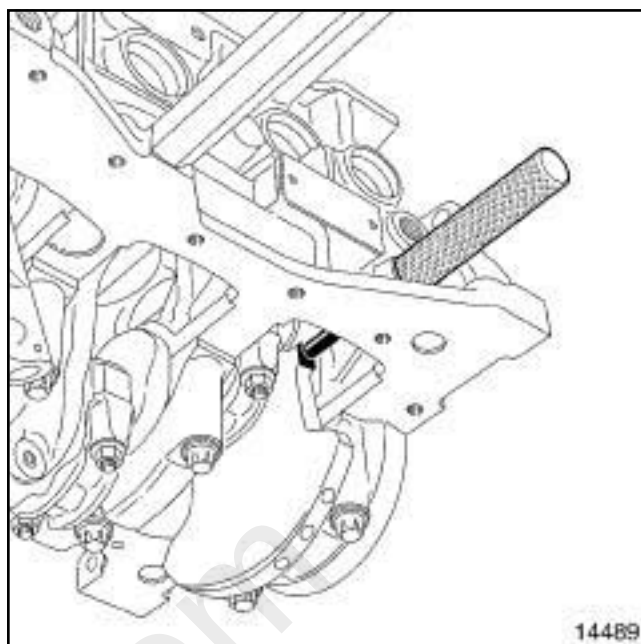
19702

- ❑ Turn the crankshaft to position the camshaft pulley hole (7) almost opposite the cylinder head hole (8) .



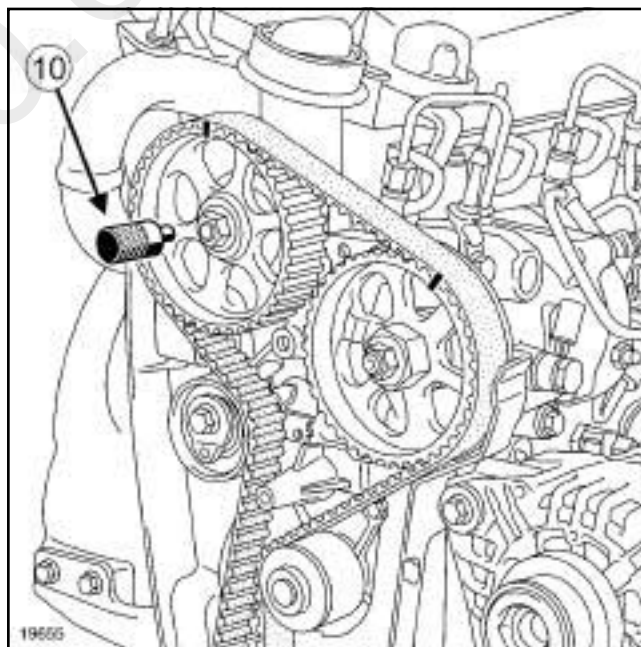
19650-1

- ❑ Screw tool (**Mot. 1489**) (9) into the cylinder block.



14489

- ❑ Turn the crankshaft clockwise (timing end) smoothly until the crankshaft is against the (**Mot. 1489**).



19655

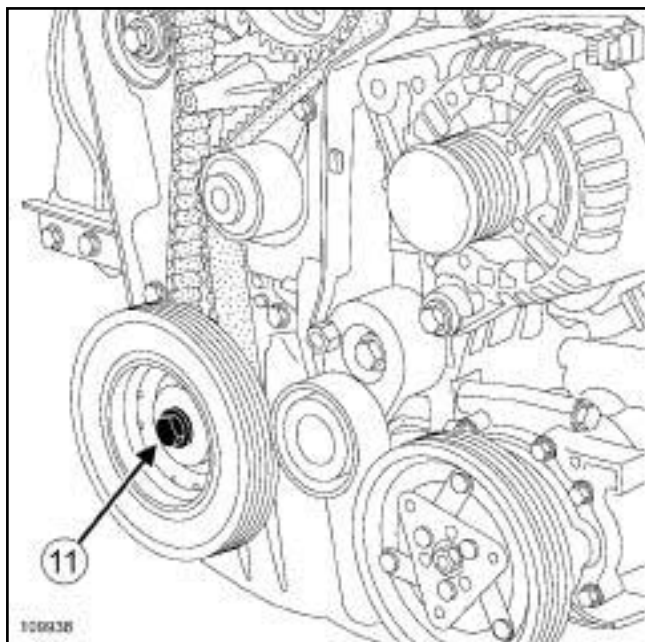
- ❑ Insert the (**Mot. 1430**) (10) in the holes of the camshaft pulley and cylinder head.
- ❑ Remove:
 - the (**Mot. 1430**),
 - the (**Mot. 1489**).

TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

11A

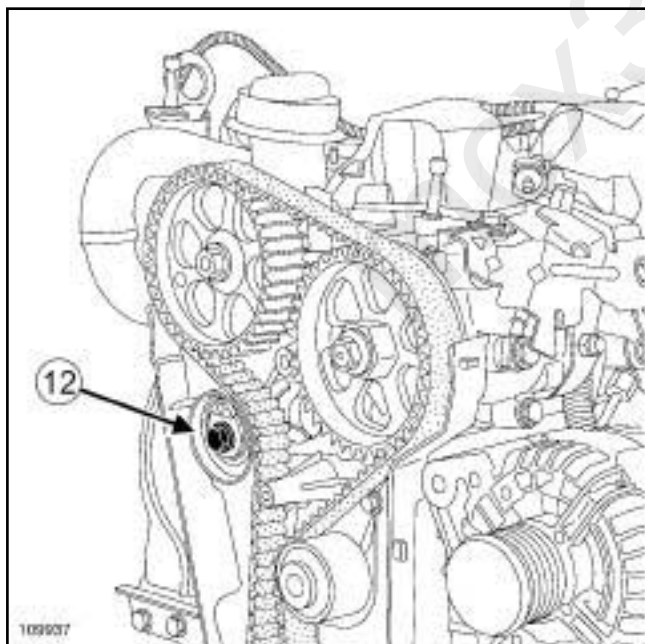
K9K, and 796



109938

❑ Remove:

- the bolt (11) from the crankshaft accessories pulley, locking the flywheel using a large screwdriver,
- the crankshaft accessories pulley.



109937

❑ Undo the timing belt tensioning roller bolt (12) .

- ❑ Loosen the timing belt tensioning roller by turning the eccentric cam using a **6 mm** Allen key.

❑ Remove:

- the timing belt taking care not to let the crankshaft timing sprocket fall out.

- the timing belt tensioning roller.

REFITTING

I - REFITTING PREPARATION OPERATION



WARNING

The belt must be replaced with a new one if it has been removed.

WARNING

When replacing the belt, always replace the tension wheels and idler pulleys.

WARNING

Always degrease:

- the end of the crankshaft (timing end),
- the timing sprocket pressure faces and bore of the crankshaft,
- the contact surfaces of the crankshaft accessories pulley.

This is to avoid timing slippage.

This slippage leads to engine damage.

II - PARTS AND CONSUMABLES FOR THE REPAIR

- ❑ parts always to be replaced: Crankshaft accessories pulley bolts,
- ❑ parts always to be replaced: Timing belt tensioning roller,
- ❑ parts always to be replaced: Timing belt.

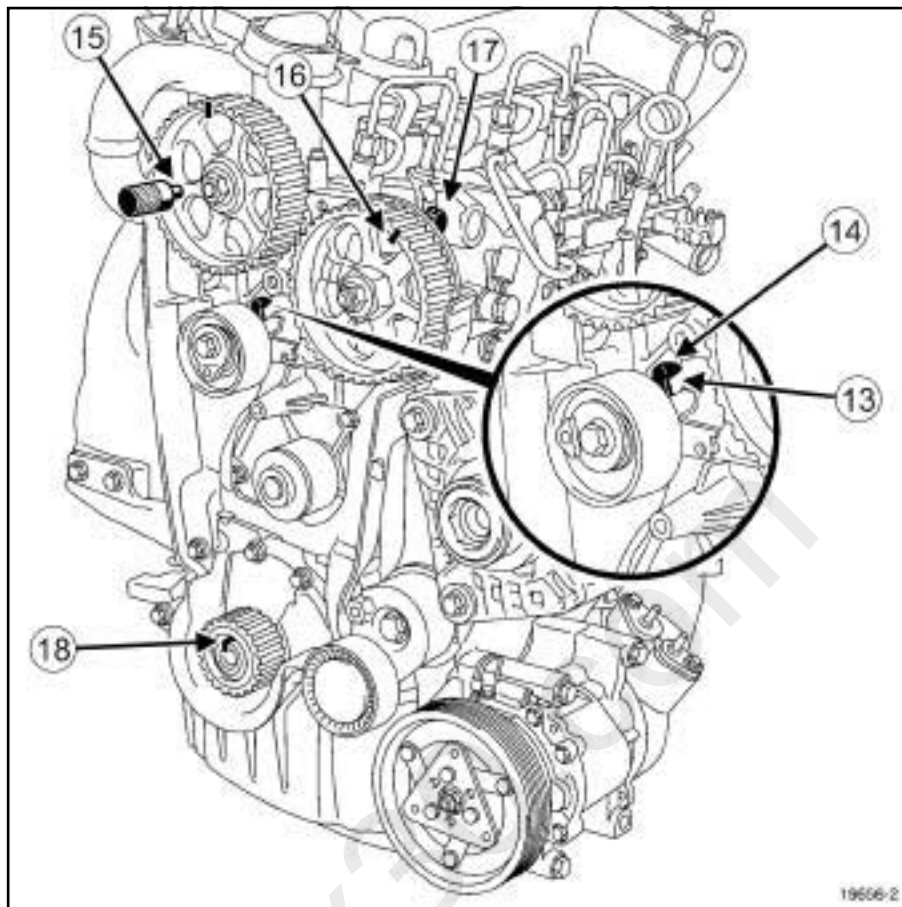
TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

11A

K9K, and 796

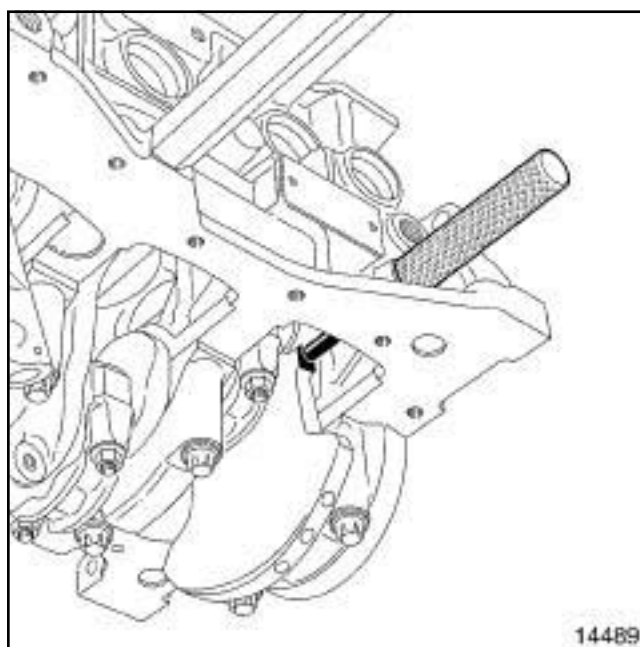
III - REFITTING OPERATION



19656-2

19656-2

- ❑ Refit:
 - the crankshaft timing sprocket,
 - a new timing belt tensioning roller.
- ❑ Put the tensioning roller lug (13) in the cylinder head groove (14) .
- ❑ Engage the (Mot. 1430) in the camshaft pulley hole and the cylinder head hole at (15) , turning the camshaft using an 18 mm offset wrench if necessary.
- ❑ Check that high-pressure pump pulley marking (16) is opposite the bolt head (17) .



14489

14489

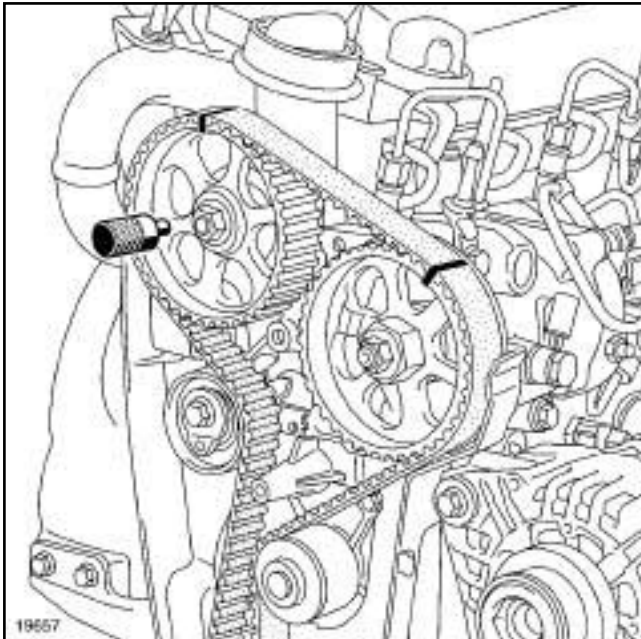
- ❑ Refit the (Mot. 1489).
- ❑ Place the crankshaft against the (Mot. 1489) (the crankshaft groove (18) must be upwards).

TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

11A

K9K, and 796

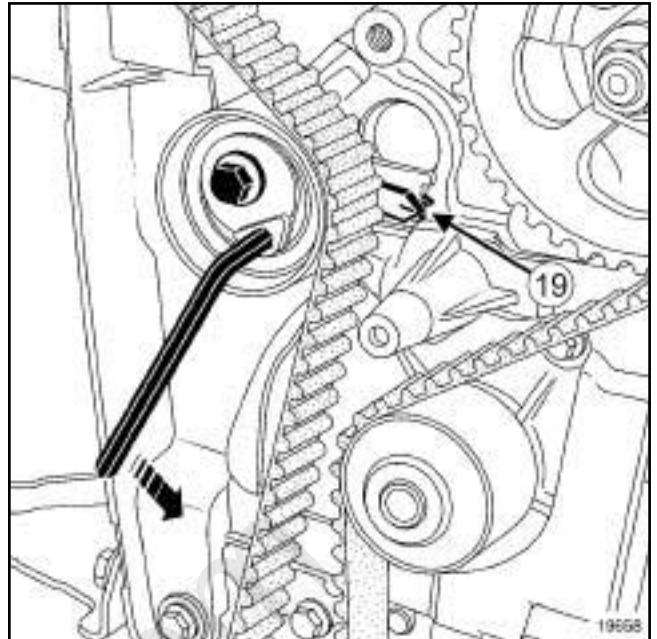


19657

- ❑ Fit the new timing belt, starting with the crankshaft sprocket, aligning the marks on the belt with those on the camshaft and high pressure pump pulleys.

Note:

There must be **19 timing belt tooth grooves** between the marks of the camshaft and high pressure pump pulleys and **51 timing belt tooth grooves** between the marks of the crankshaft timing sprocket and the high pressure pump pulley.



19658

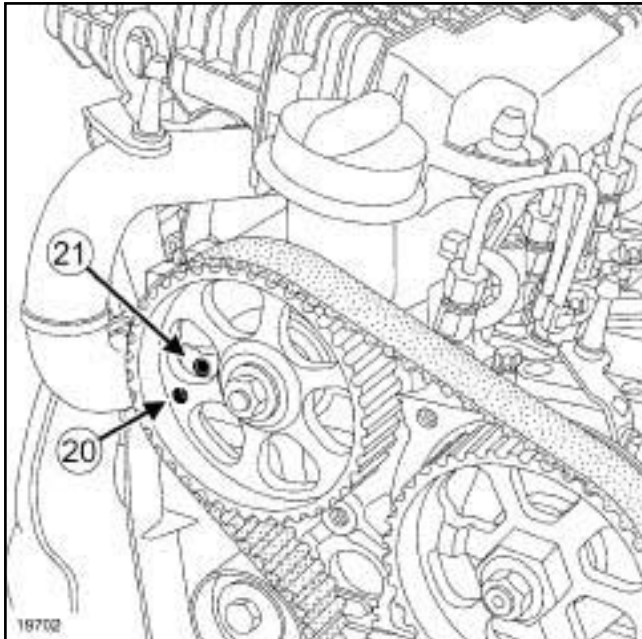
- ❑ Position the timing belt tensioning roller adjustable index opposite the lug (**19**) by turning the eccentric cam anti-clockwise using a **6 mm** Allen key.
- ❑ Torque tighten the **timing belt tensioning roller bolt (27 N.m)**.
- ❑ Refit the accessories crankshaft pulley with a new bolt.
- ❑ Torque and angle tighten (crankshaft against the (**Mot. 1489**)) the **accessories pulley M14 bolt (120 N.m + 95° ± 15°)**.
- ❑ Remove:
 - the (**Mot. 1430**),
 - the (**Mot. 1489**).

TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

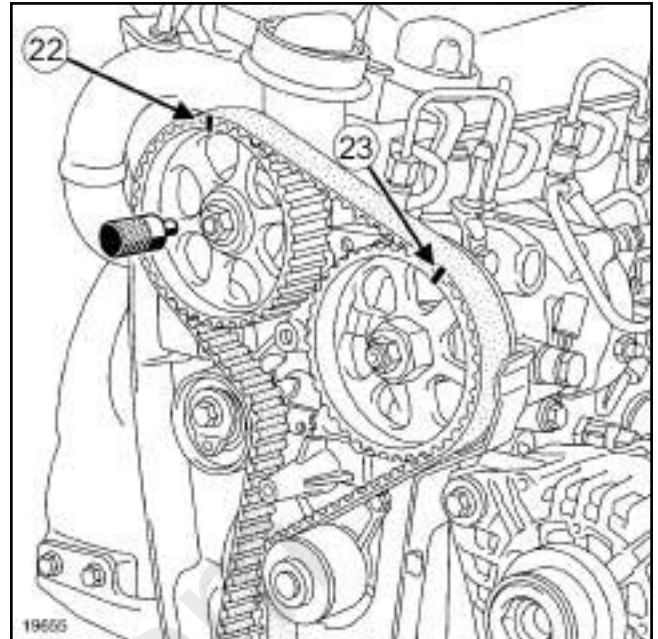
11A

K9K, and 796



19702

- ☐ Rotate the crankshaft clockwise through two revolutions (timing end).
- ☐ Before the camshaft pulley hole (20) is opposite the cylinder head hole (21), screw the (Mot. 1489) into the cylinder block.
- ☐ Bring the crankshaft slowly and smoothly into contact with the tool (Mot. 1489).



19655

- ☐ Set the camshaft pulley using the (Mot. 1430).

Note:

There should be **19 belt tooth grooves** between the marks on the camshaft pulley (22) and the high pressure pump pulley (23).

- ☐ Remove:
 - the (Mot. 1489),
 - the (Mot. 1430).

Note:

After rotating the crankshaft through two revolutions, the tensioning roller adjustable index may be in one of two positions.

The rotation of the tension wheel eccentric depends on the position.

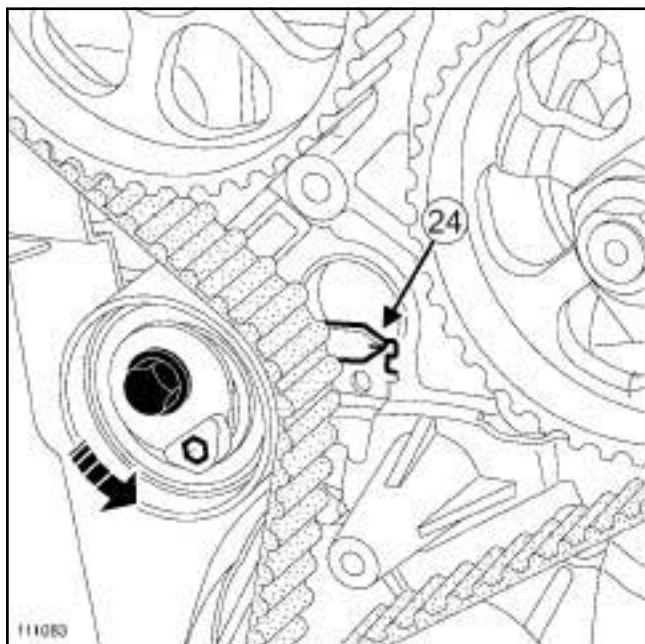
TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

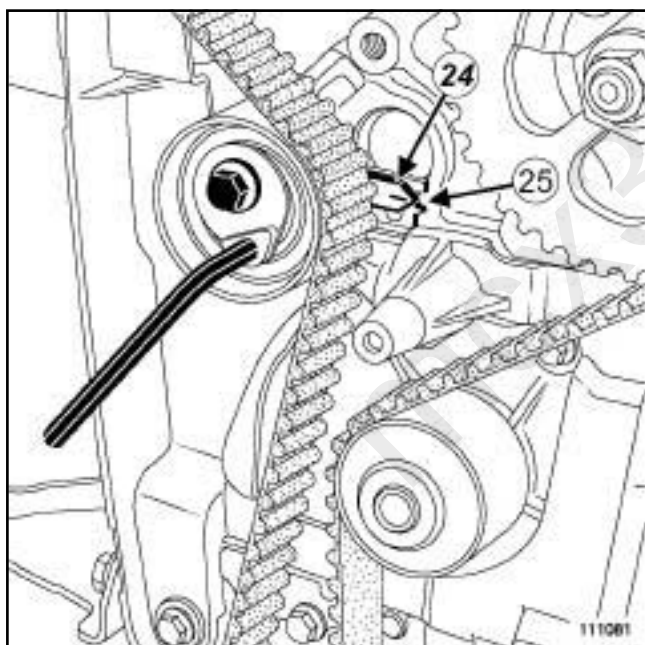
11A

K9K, and 796

1 - First position



111083



111081

- ☐ Loosen the tensioning roller bolt by no more than one turn, holding it with a **6 mm Allen key**.
- ☐ Gradually align the adjustable index marker (**24**) in the middle of the timing window (**25**), turning the key anti-clockwise.

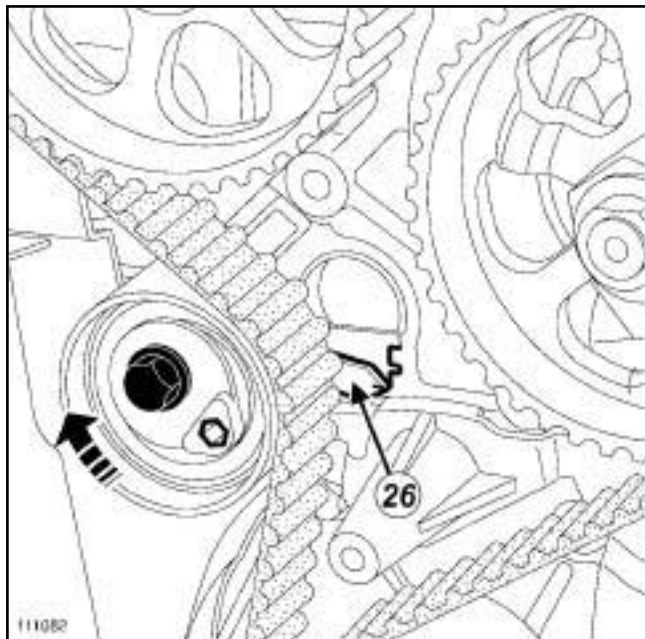
TOP AND FRONT OF ENGINE

Timing belt: Removal - Refitting

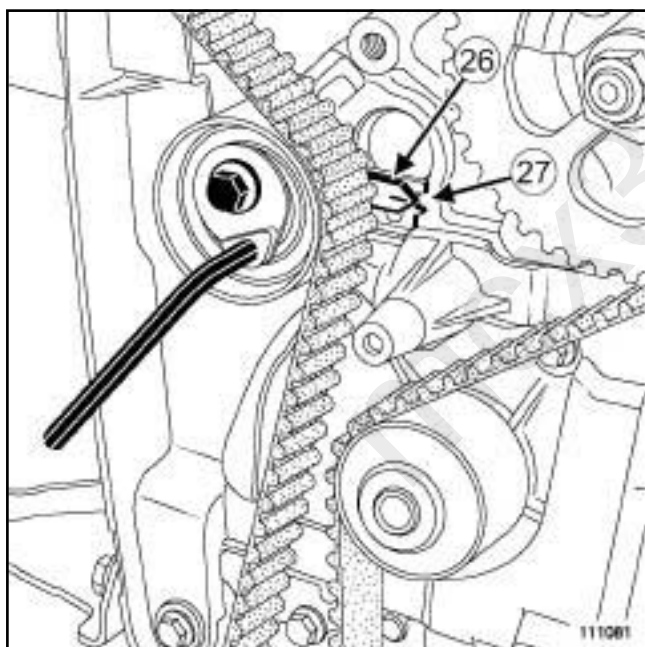
11A

K9K, and 796

2 - Second position



111082

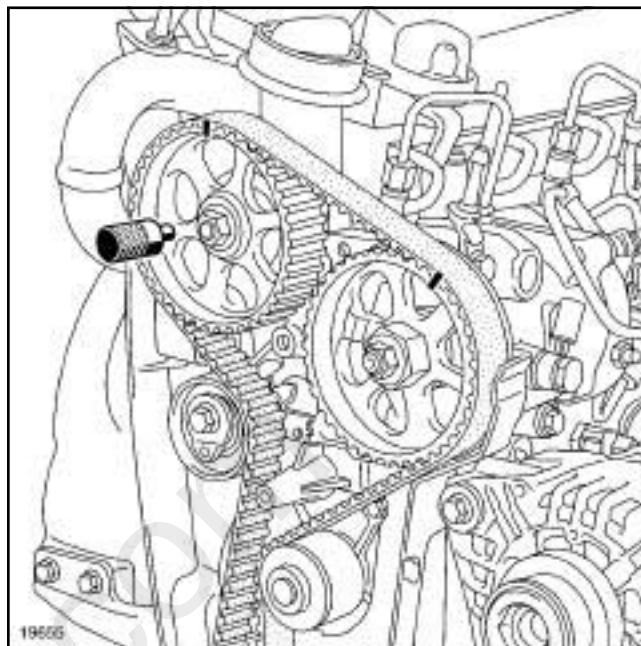


111081

- ☐ Loosen the tensioning roller bolt by one turn, holding it with a **6 mm** Allen key.
- ☐ Gradually align the adjustable index marker **(26)** in the middle of the timing window **(27)**, turning the key clockwise.
- ☐ Torque tighten the **timing belt tensioning roller bolt (27 N.m)**.
- ☐ Rotate the crankshaft clockwise through two revolutions (timing end).
- ☐ Before the camshaft pulley hole is opposite the cylinder head hole, screw the **(Mot. 1489)** into the cylinder block.

der block.

- ☐ Bring the crankshaft slowly and smoothly into contact with the tool **(Mot. 1489)**.



19655

- ☐ Set the camshaft pulley using the **(Mot. 1430)**.
- ☐ If the tool **(Mot. 1430)** does not engage, repeat the timing belt refitting operation.
- ☐ Remove:
 - the **(Mot. 1489)**,
 - the **(Mot. 1430)**.

IV - FINAL OPERATION

- ☐ Place a drop of **SILICONE ADHESIVE SEALANT** (see **Vehicle: Parts and consumables for the repair**) on the threading of the TDC pin plug.
- ☐ Torque tighten the **TDC pin plug (25 N.m)**.
- ☐ Refit the right-hand suspended engine mounting support on the cylinder head.
- ☐ Torque tighten the **right-hand suspended engine mounting bolts (25 N.m)**.