

VKMA 06500

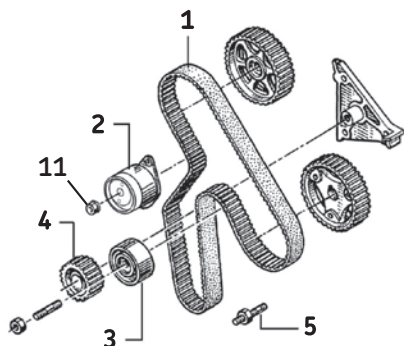
VKMA 06502



A

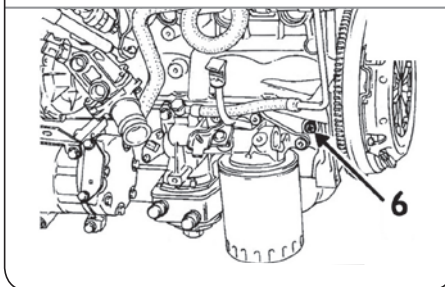


- (6): TDC gauge \varnothing 7 mm or tool Mot.1318.
- (7): Engine securing tools Mot.1290 and Mot. 1290-01
- (-): Belt tension tool or tool Mot. 1312
- (-): Pendular suspension

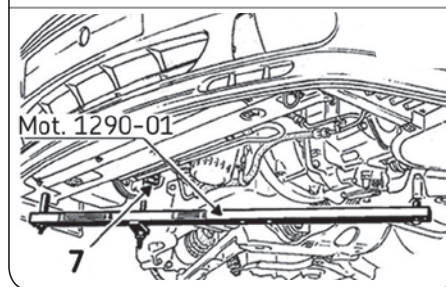


(11) = 28 to 34 Nm

B



C



Removal

- 1) Disconnect the battery according to the vehicle manufacturing guidelines.
- 2) Prepare the vehicle for the timing replacement according to the vehicle manufacturing guidelines.
- 3) Turn the engine to move cylinder Nr 1 to the Top Dead Centre (TDC). With the mark on the crank gear (8) turned downwards, the camshaft's mark (9) is slightly on the left by about 46° , the mark (10) on the injection pump gear is opposite the pump bracket embossing (Fig. D).
- 4) Lock the crankshaft using tool Mot.1318 (The access plug (6) is located on the cylinder casing between the flywheel and the oil filter bracket) (Fig. B).
- 5) Fit the securing bar Mot.1290 between the lower right radiator cross member and the back of the left half cradle. Fit the bracket (7) of the mechanical jack Mot.1290-01 on the location of the lower screw of the power steering bracket or on the air compressor fitting (according to the equipment) (Fig. C).
- 6) Lower the vehicle.
- 7) Remove the cylinder head pendular suspension cap and its bracket.
- 8) Untighten the centre nut (11) on the tensioner (Fig. D), push it back, and remove the belt (1).
- 9) Remove the tensioner roller (2), the idlers (3) and (4) (Fig. A).

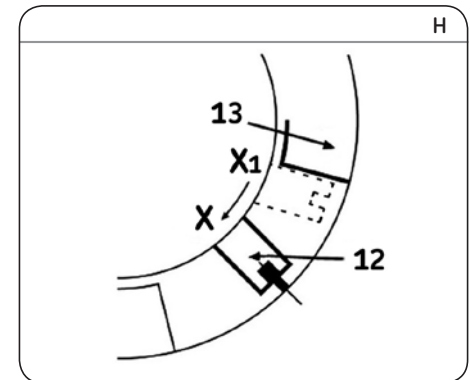
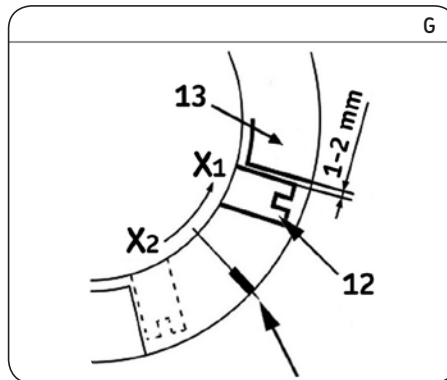
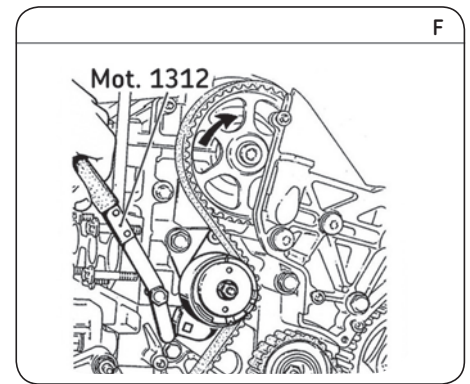
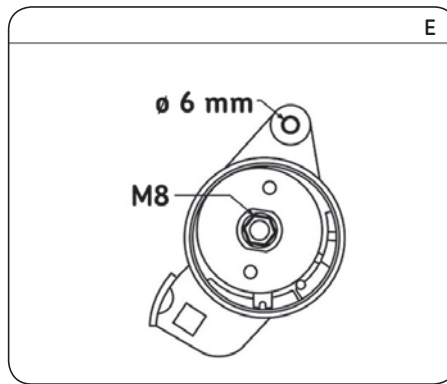
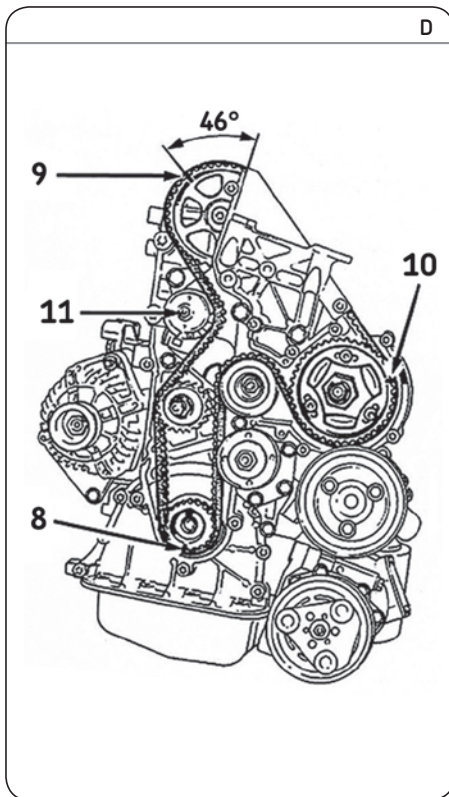
Refitting

Caution! Clean the bearing surfaces of the rollers.

- 10) Check that the engine is still at the TDC (crank timed and tool Mot. 1318 in place) (Fig. B). Check that the crank gears and the camshafts are actually timed, as well as the injection pump (marks aligned) (Fig. D).
- 11) Fit the new idler rollers (3) and (4) (the idler roller (4) must be fitted using the stud (5)).
- 12) Fit the new tensioner roller (2) while ensuring the bore diameter 6 mm on the rear plate is properly positioned on the engine block. Check that the tension is actually in the loose position, then tighten the M8 nut by hand (Fig. E).
- 13) Fit the new belt (1) while aligning the gear/belt marks. The gear marks must be aligned with those of the new belt.
- 14) Fit tool Mot 1312 (Fig. F).
- 15) Using tool Mot.1312, tighten the belt by pushing the tensioner dial (12), from position X2 to position X1, without forcing, and ensuring a 1 to 2 mm clearance between the dial (12) and the stop (13) and tighten the tensioner roller temporarily (Fig. G).

Install Confidence



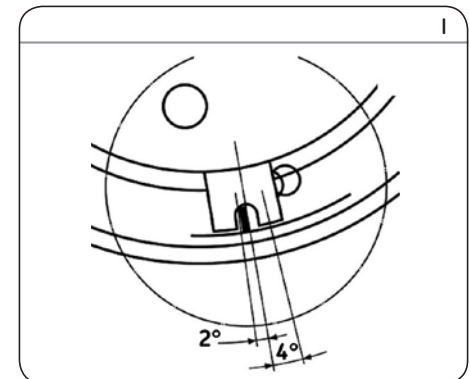


Caution! You must leave a 1 to 2 mm clearance between the dial (12) and the marked position (13). Never align the dial with this mark, nor beyond, as this would damage the tensioner.

- 16) Remove the TDC gauge and tool Mot.1312 then turn the engine by **2 revolutions** (clockwise, distribution side) until you return to the TDC position, without turning backwards. Refit the TDC gauge (tool Mot. 1318).
- 17) Refit tool Mot.1312, untighten the tensioner roller fitting and gradually return the roller from position X1 to the nominal tension position X, mark aligned at the centre of the dial (Fig. H). Tighten the M8 nut on the tensioner at **28 to 34 Nm** torque (Fig. E).
- 18) Check the injection pump's timing and remove the TDC gauge.
- 19) Refit the elements removed according to the reverse removal sequence. Fitting the pendular suspension cap is performed using tool Mot. 1289-01.

Check: While the engine is running at idle speed, the position of the tensioner roller dial (12) must be located between $+2^\circ$ and -4° maximum around the position indicator (Fig. I). If this is not the case, perform all timing operations again.

- 20) Check that the fitting of the sound insulator cover is properly placed in the wheel housing groove on the engine compartment side.



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