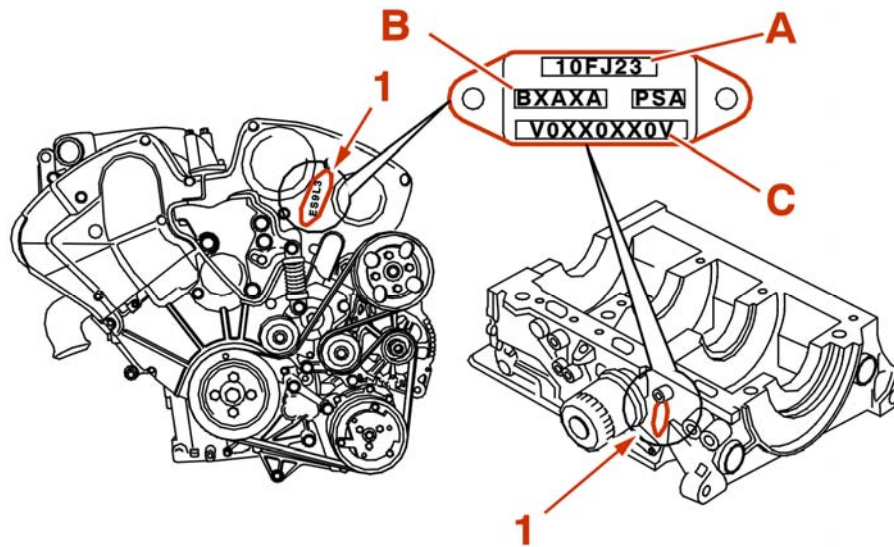


B1BBLSK1 - 406D8 ES9J4 ENGINE

IDENTIFICATION OF TIGHTENING TORQUES

1 - IDENTIFICATION

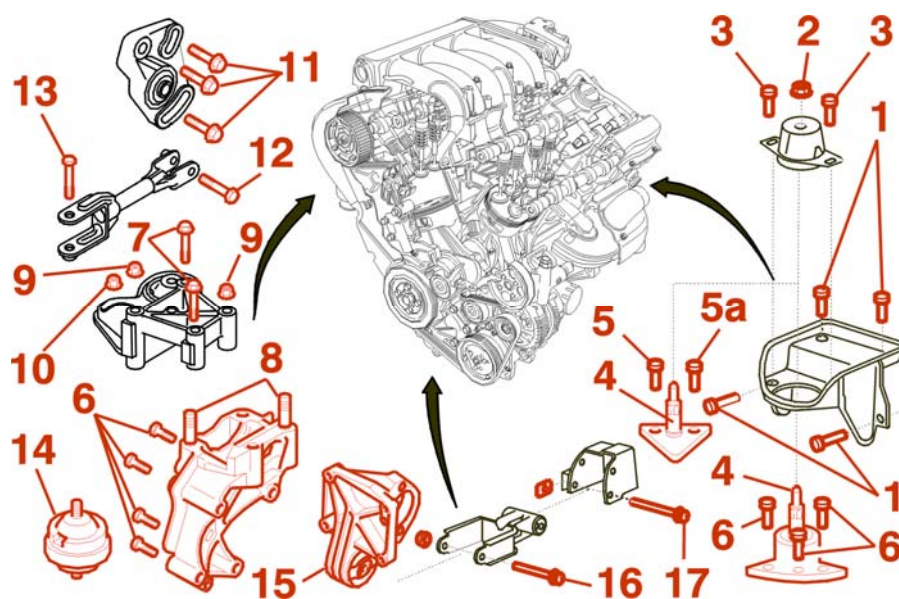


(1) : Identification marking comprising :

- (A) the component reference
- (B) the legislation type (XFZ)
- (C) serial number

2 - TIGHTENING TORQUES

2 - 1 - POWER TRAIN MOUNTINGS



Tighten (Left-hand engine mounting) :

- the bolts (1) to 2 ± 0.1 da.Nm
- the nut (2) to 6.5 ± 0.4 da.Nm + LOCTITE FRENETANCH
- the bolts (3) to 3 ± 0.2 da.Nm
- the pin (4) to 5 ± 0.3 daNm
- the bolt (5) to 6 ± 0.9 da.Nm (automatic gearbox)
- the bolt (5a) to 7.5 ± 1.1 da.Nm + LOCTITE FRENETANCH (automatic gearbox)
- the bolts (6) to 4.5 ± 0.3 da.Nm (manual gearbox)

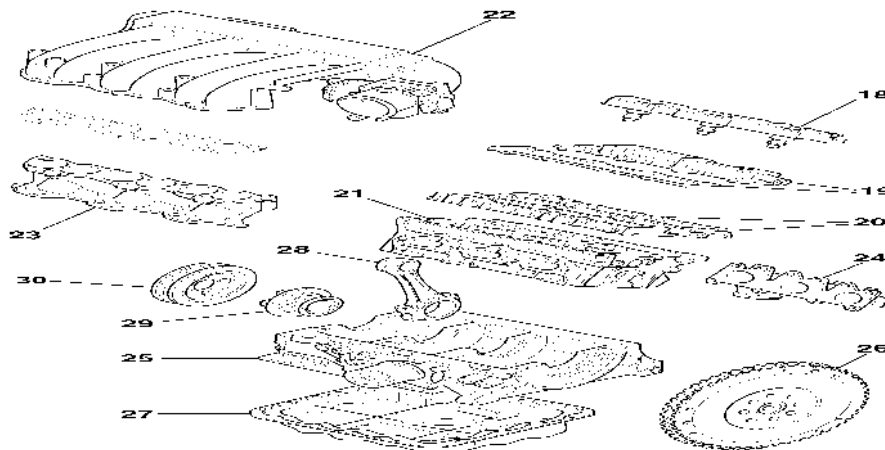
Tighten (Right side upper engine mounting) :

- the bolts (6) to 6 ± 0.4 da.Nm
- the bolts (7) to 4.5 ± 0.3 da.Nm
- the studs (8) to 1.3 ± 0.1 m.daN + LOCTITE FRENETANCH
- the nuts (9) to 4.5 ± 0.3 da.Nm
- the nut (10) to 4.5 ± 0.3 da.Nm
- the bolts (11) to 5 ± 0.3 da.Nm
- the bolt (12) to 3.5 ± 0.2 da.Nm
- the bolt (13) to 5 ± 0.3 da.Nm
- the shim (14) to 4.8 ± 0.5 daNm

Tighten (Right side lower engine mounting) :

- the nuts (15) to 1 ± 0.1 da.Nm
- the bolt (16) to 5 ± 0.3 da.Nm
- the bolt (17) to 8.25 ± 0.5 da.Nm

2 - 2 - ENGINE



(18) Compact coil block : 1 ± 0.1 da.Nm .

(19) Cylinder head cover :

- pre-tighten : 0.5 ± 0.03 da.Nm
- tightening torque: 1 ± 0.1 da.Nm

- check the tightening : 1 ± 0.1 da.Nm

(20) Camshaft bearing housings :

- pre-tighten : 0.2 ± 0.01 da.Nm
- tightening torque: 0.8 ± 0.05 da.Nm

CYLINDER HEAD .

(22) Intake manifold fitted with new seals :

- pre-tighten : 1 ± 0.1 da.Nm
- tightening torque: 2 ± 0.1 da.Nm

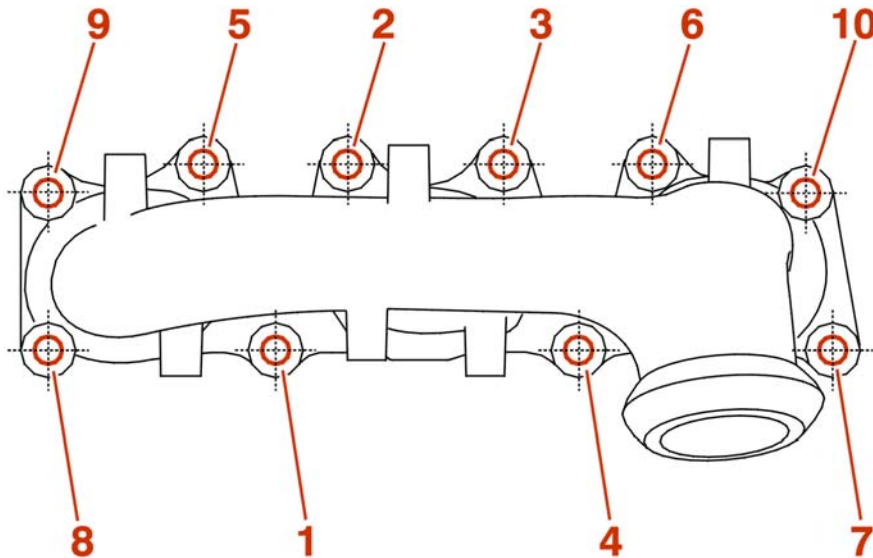
(23) Inlet manifold fitted with new seals .

Fastener M8 (Manual gearbox) :

- pre-tighten : 1 ± 0.1 da.Nm
- tightening torque: 2.5 ± 0.1 da.Nm
- check the tightening : 2.5 ± 0.1 da.Nm

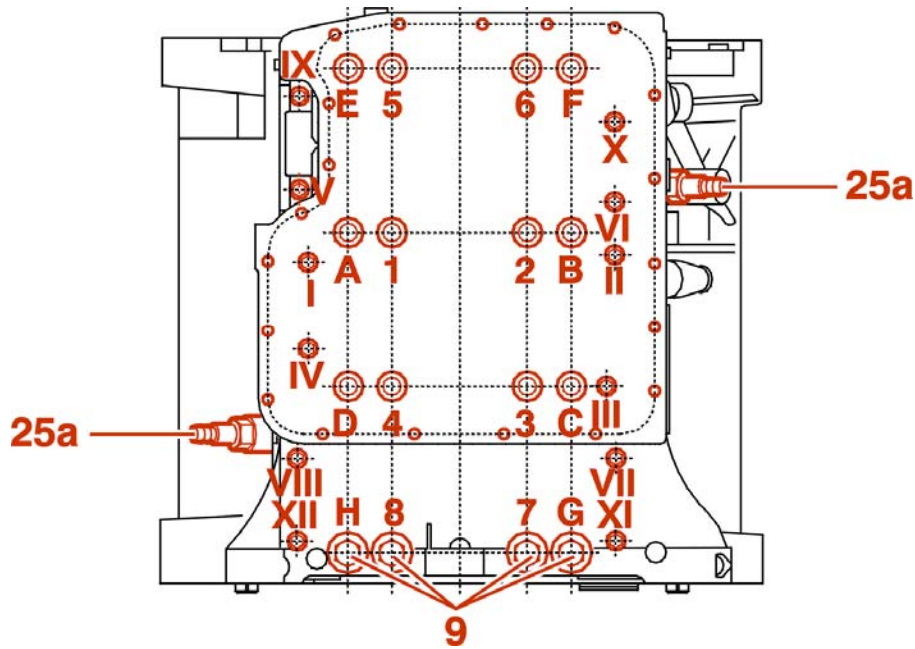
Fastener M6 :

- pre-tighten : 0.4 ± 0.06 da.Nm
- tightening torque: 1 ± 0.1 da.Nm
- check the tightening : 1 ± 0.1 da.Nm



(24) Exhaust manifold fitted with a new seal (In the order shown) :

- pre-tighten : 1 ± 0.1 da.Nm
- tightening torque: 3 ± 0.2 da.Nm



(25) Crankshaft bearing (In the order shown) :

- brush the bolt threads
- refit the bolts previously coated with MOLYKOTE G RAPID PLUS grease on the threads and under the heads
- check that the 8 centralising studs are present
- pre-tighten the bolts (M11) to 3 ± 0.2 m.daN (1 to 8)
- pre-tighten the bolts (M8) to 1 ± 0.1 m.daN (A to H)
- bolts (M6) tightening torque 1 ± 0.1 da.Nm (I to XII)
- slacken the bolts (M11) and (M8)

Bolt by bolt :

- bolts (M11) tightening torque 3 ± 0.2 da.Nm (1 to 8)
- bolts (M8) tightening torque 1 ± 0.1 da.Nm (A to H)
- tightening of the caps (9) fitted with new seals : 4.5 ± 0.3 da.Nm

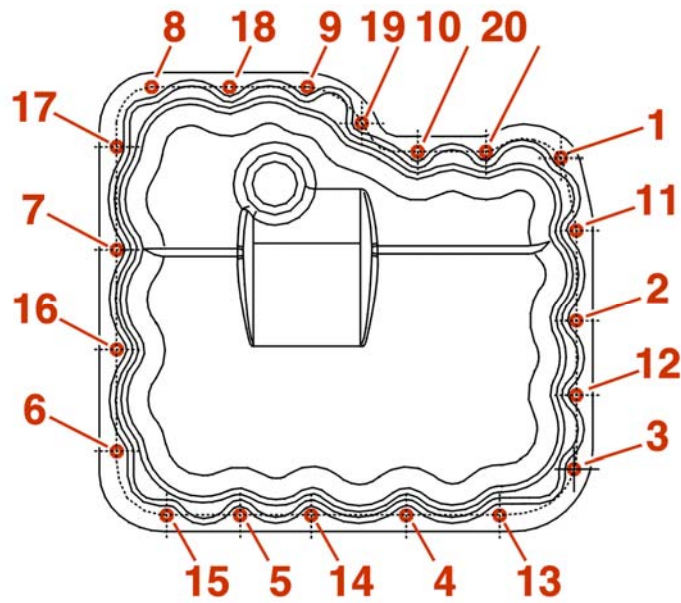
Maximum length below head :

- bolt (M11) : 131.5 mm
- bolt (M8) : 119 mm

(25a) Engine block drain screw : Tightening torque 0.5 ± 0.03 to da.Nm .

(26) Flywheel :

- tightening torque: 2 ± 0.1 da.Nm
- angular tightening to 60°



(27) Sump (In the order shown) :

- refit the bolts previously coated with LOCTITE FRENETANCH
- pre-tighten : 0.5 ± 0.03 da.Nm
- tightening torque: 0.8 ± 0.05 da.Nm
- check the tightening : 0.8 ± 0.05 da.Nm

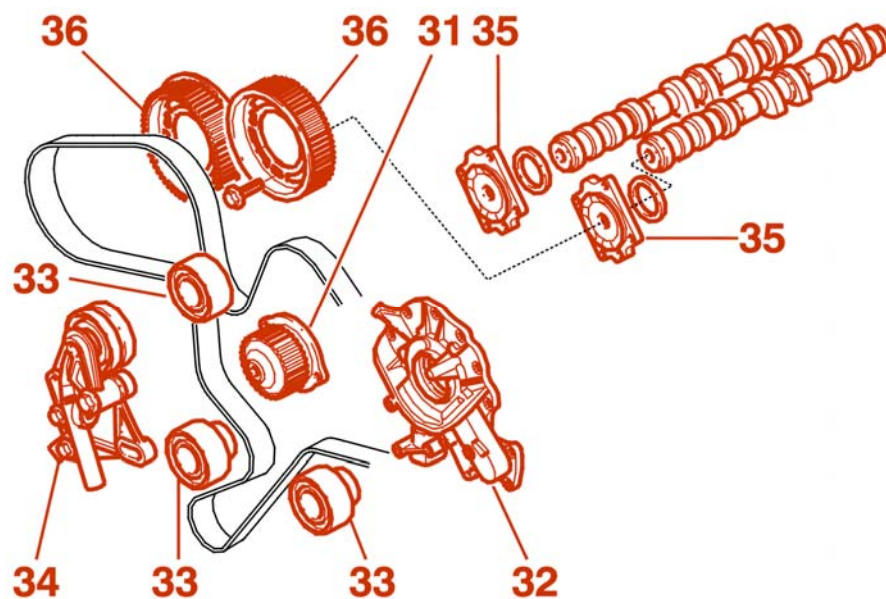
(28) Big end caps :

- tightening torque: 2 ± 0.1 da.Nm
- angular tightening to 74°
- check that the nut does not rotate at a torque of 4.5 da.Nm

(29) Crankshaft hub :

- tightening torque: 4 ± 0.2 da.Nm
- angular tightening to 80°

(30) Crankshaft pulley : 2.5 ± 0.1 da.Nm .



(31) Coolant pump (In the order shown) :

- pre-tighten : 0.5 ± 0.03 da.Nm
- tightening torque: 0.8 ± 0.05 da.Nm

(32) Oil pump (In the order shown) :

- pre-tighten : 0.5 ± 0.03 da.Nm
- tightening torque: 0.8 ± 0.05 da.Nm
- check the tightening : 0.8 ± 0.05 da.Nm

(33) Roller tensioner : 8 ± 0.5 da.Nm .

(34) Timing belt tensioner roller : 8 ± 0.5 da.Nm .

(35) Camshaft hubs (Two possible methods) .

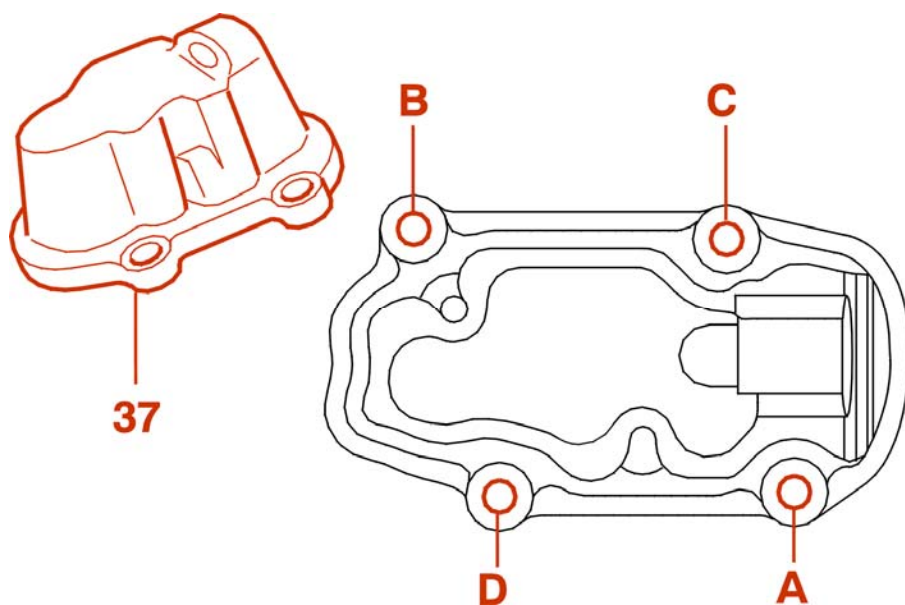
1/Tightening to the angle (recommended) :

- tightening torque: 2 ± 0.1 da.Nm
- angular tightening to 57°

2/Tighten to the specified torque :

- tightening torque: 8 ± 0.5 da.Nm

(36) Camshaft pulleys : 1 ± 0.1 da.Nm .



(37) Oil vapour breather unit (In the order shown) :

- pre-tighten : 0.5 ± 0.03 da.Nm
- tightening torque: 1 ± 0.1 da.Nm