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TECHNICAL REPORT

Setting up of Fiat engine
182A3.000 timing



PURPOSE

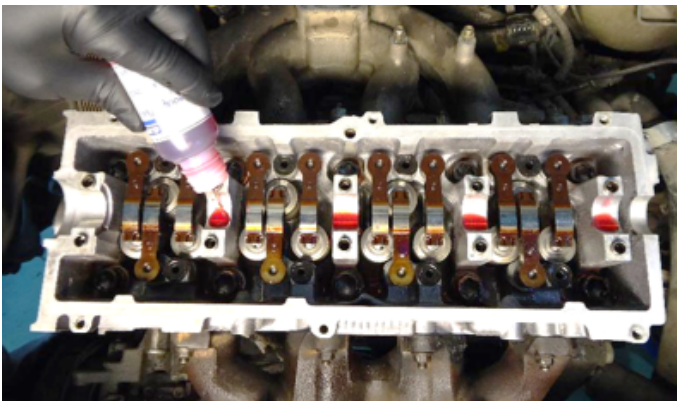
Instructions for adjusting the engine timing on a FIAT 182A3.000 while replacing AJUSA camshaft **93004800**. Tools needed for this process.



DESCRIPTION

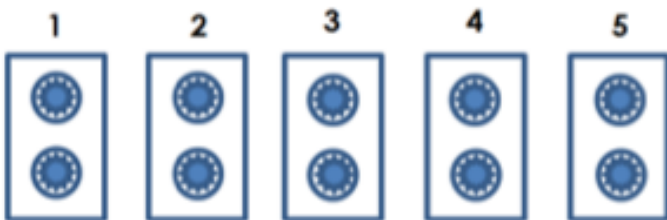
In the process of replacing the camshaft in a vehicle, it is essential to the **setting of the timing**, that is to synchronize the crankshaft to the camshaft to prevent the collision of the pistons and valves and for a proper engine operation.

- 1 Once removed the camshaft to be replaced, **clean and lubricate** the camshaft bearings in the cylinder head



- 2 Before positioning the new camshaft, ensure that there is not any of the pistons at Top Dead Center (TDC) to prevent valve shock during the camshaft bearings tightening.

- 3** Perform the **tightening process** of the cap bearings following the correct order and torque specifications.



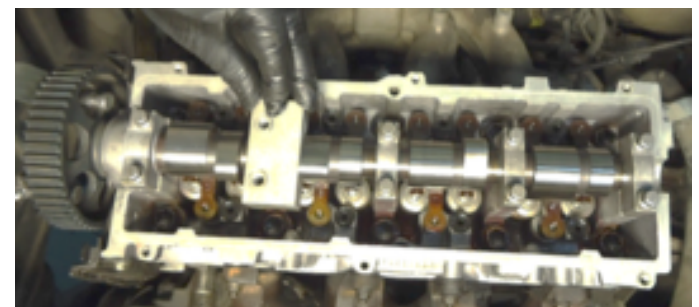
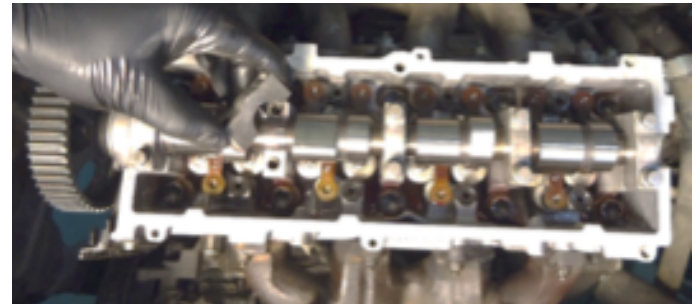
- Tighten the bearing caps 2 y 4 alternately and crosswise at the torque of **1 kpm**.
- Assembly the bearing caps 5, 1 y 3 and tighten at the same torque.

- 4** Install the **camshaft oil seal** and the pulley tightening the pulley bolt provisionally.



- Remove the cap number 2 (from the distribution side) and turn the camshaft to be able to put in place the special tool (186 089 900) for phasing the camshaft (cylinder nº 2 admission).

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6 Place the timing belt only on the crankshaft gear.

Remove the lower two bolts of the oil pump, and fit on its place the corresponding tools. **7**



8 Turn crankshaft carefully to be able to place the tool (1860901000) so that the hole of the tool matches the pinion pin.

End fitting the timing belt on the timing pulley, water pump and automatic tensioner in that order. **9**



10 Tighten the belt to the maximum value of the tensioner and tighten the fixation of the tensioner.

Tighten the timing pulley fixing bolt to the torque of **12 kpm**. **11**

12 Remove the adjusting tools, reassemble the bearing cap n° 2 in its position and its corresponding torque and rotate the engine 2 turns in the direction of rotation.

Loosen the tensioner fixing, to match the mobile indicator (1) fixed the reference own tensioner (2) and retighten the fixing of the tensioner.

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