

9431070

Petrol Engine Setting / Locking Tool Kit

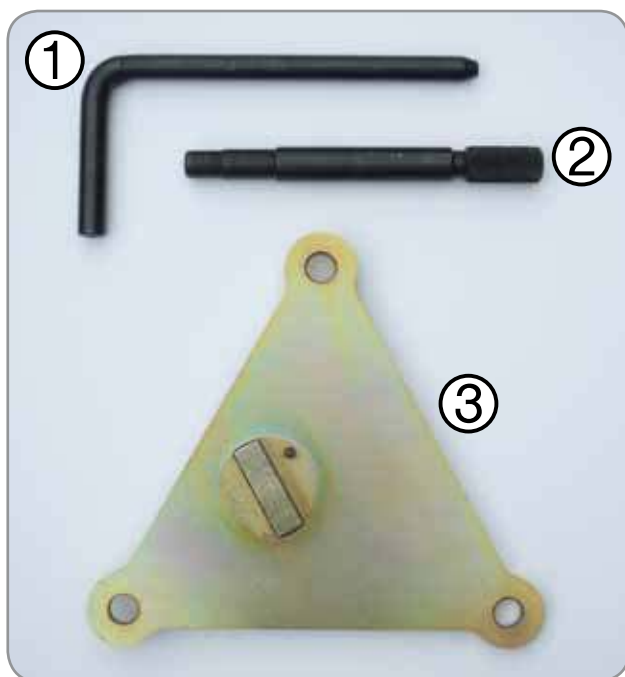
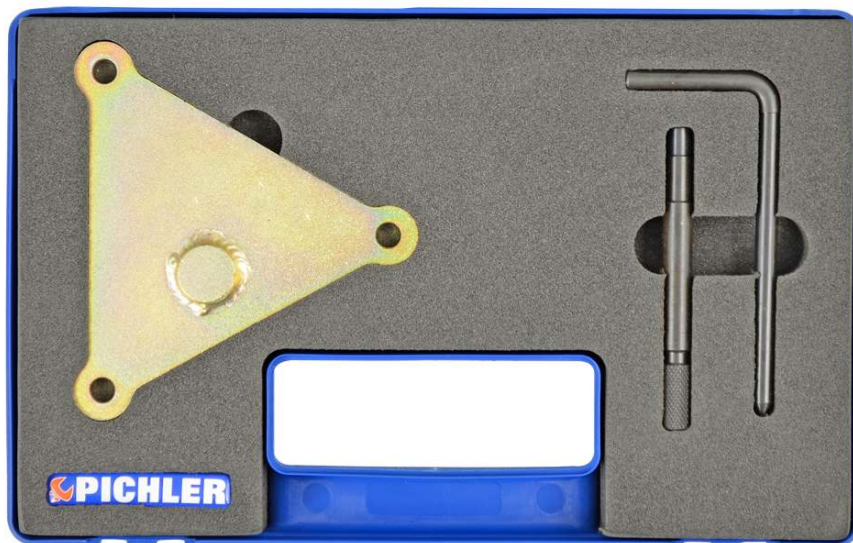
PICHLER

Applications:

FIAT 0.9 TwinAir petrol engines in:

FIAT
500

Engines: 312A2000



IMPORTANT: Always refer to the vehicle manufacturer's service instructions, or proprietary manual, to establish the current procedures and data. Product Information Sets detail applications and use of the tools with any general instructions provided as a guide only.

Kit Contents / Spares:

Item	Part Number	Description
1	5111	Flywheel Locking Pin
2	5112	Crankshaft Pulley Timing Pin
3	5113	Camshaft Locking Tool
-		Case + Insert



Introduction

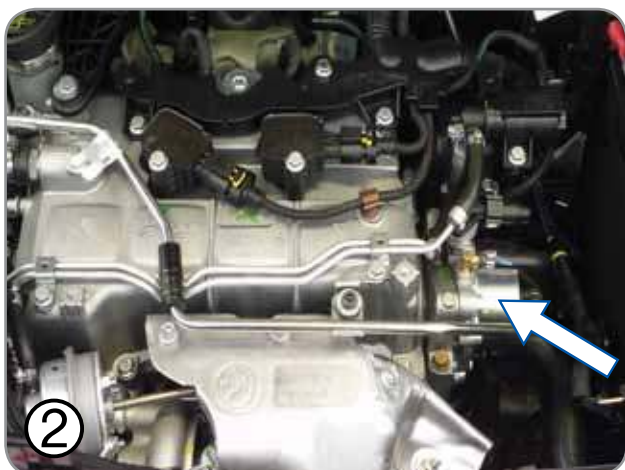
The turbocharged 875cc Fiat TwinAir engine has two cylinders, with four valves per cylinder and a camshaft operating the exhaust valves. The intake valves are operated by the 'TwinAir' system, using hydraulic pressure controlled via a solenoid to open the valves.



Remove the air filter housing.



A hole is drilled through one of the webs of crankshaft pulley. When the crankshaft is positioned at TDC the drilled hole will be at 6 o'clock.



Remove the vacuum pump from the cylinder head, giving access to the drive slot in the end of the camshaft.

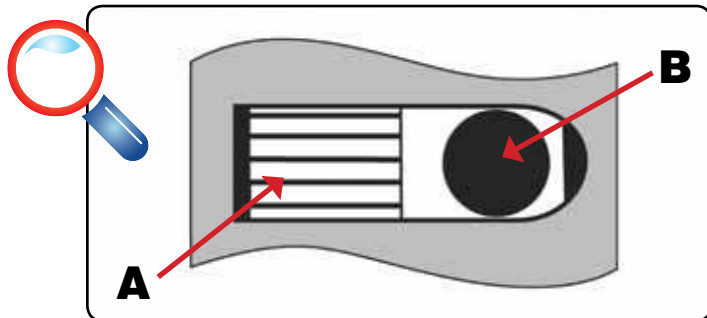
Rotate the crankshaft at the central bolt in the normal direction of engine rotation until the hole in the web of the crankshaft pulley is positioned at 6 o'clock.



Check that the position of the camshaft is as shown in picture 4. If the camshaft is 180° out, then rotate the crankshaft one full turn in the normal direction of engine rotation.



Using a mirror, check the timing hole in the flywheel is correctly aligned (as shown in the illustration below)



ILLUSTRATED VIEW THROUGH THE SLOT IN THE GEARBOX

A: Flywheel Ring Gear

B: Timing Hole in the Flywheel

5111 - Flywheel Locking Pin

5111 flywheel locking pin passes through the slot in the gearbox housing and into a hole drilled in the flywheel.

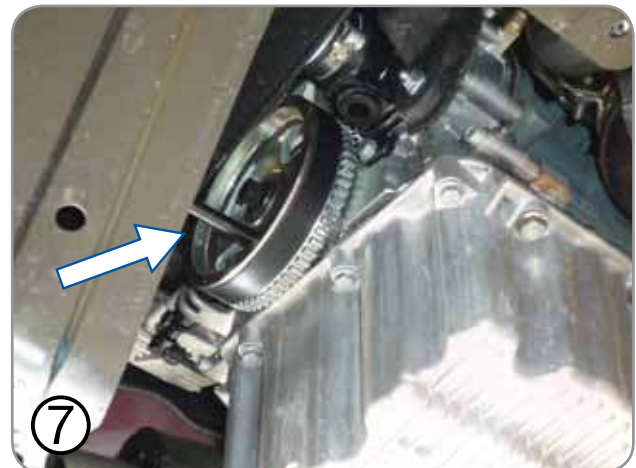


Fit 5111 flywheel locking pin.

When located correctly the flywheel locking pin fits as shown in picture 6. It may be necessary to remove some of the bolts retaining the heat shield to allow the pin to be inserted into the gearbox.

5112 - Crankshaft Pulley Timing Pin

The crankshaft position sensor takes its references from a toothed wheel on the rear of the crankshaft pulley, therefore the crankshaft pulley must be positioned correctly relative to the engine timing.



Insert **5112 crankshaft pulley timing pin** through the hole in the web of the crankshaft pulley and into the setting hole in the sump.

5113 - Camshaft Locking Tool



Install **5113 camshaft locking tool** in place of the vacuum pump, locating in the drive slot of the camshaft and secure in place using the three bolts supplied.