

 **Beta**
1461/C26B

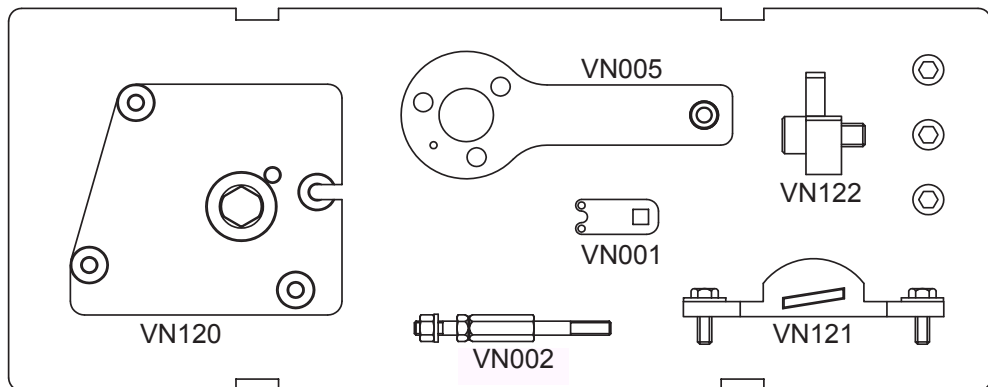


EN

INSTRUCTIONS FOR USE

ADJUSTABLE TIMING TOOL KIT FOR FIAT 1.2 & 1.4 8V ENGINES.

EN



PARTS:

Beta code	Description
VN 005	TDC measuring tool
VN 002	Fixing pin
VN 121	Camshaft locking tool
VN 001	Belt tightener bearing tensio- ning tool

Beta code	Description
VN 122	Camshaft pinion locking tool
VN 120	Cylinder head positioning tool
	Fixing screws

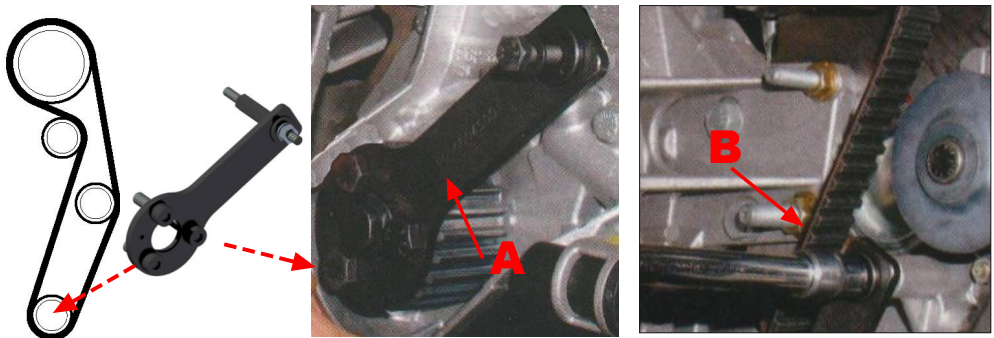
APPLICATION:

Brand	Model	Engine code
Fiat	Idea, Punto MY06, Grande Punto, Doblò, Doblò cargo, QUBO, 500	169A4.000 350A1.000 188A4.000 (with circuit oil filler pipe cap)
Lancia	Ypsilon, Musa	169A4.000 350A1.000
Fiat	Punto, Grande Punto	199A4.000
Alfa R.	Mito	350A1.000

Operating and timing procedure

Removal

1. Remove first the right and left engine mounting, then the ignition coil, and, finally, the timing sensor;
2. Loosen the tightener nut, to reduce belt tension;
3. Install the TDC measuring tool (ref. A), fixing the upper part of the tool (ref. B);
4. Now remove the timing chain.



Installation

5. 1.4 engines: Remove the cap from the camshaft pinion (ref. G);
6. Slacken the camshaft pinion bolt;
7. Install the camshaft timing tool (ref. C), and fix it by means of the supplied screws;
8. Slightly adjust using a 24-mm wrench, to match the tool with the groove on the camshaft (ref. D);

9. Locate the two cam springs and match them with the bearing tensioner;
10. Install the new timing chain and remove all the locking tools; check that the belt is tight between the pinions on the side that has not been tensioned;
11. Install the tightening tool on the belt tightening pulley (ref. E);
12. Turn the belt tightener pulley anticlockwise, until the indicator has found the maximum setting;
13. Tighten the tensioner nut by means of a torque wrench;
14. 1.4 engines: Install the camshaft pinion locking tool (ref. F);
15. Tighten the camshaft pinion bolt by means of a torque wrench:
 - 1.2 engine = 63-77 Nm.
 - 1.4 engine = 18-22 Nm. +55°
16. Remove the following:
 - 1.4 engines: camshaft pinion locking tool (ref. F);
 - Camshaft locking tool (ref. C);
17. Remove the bolt from the crankshaft timing tool (ref. A);
18. Rotate the crankshaft by two turns clockwise;
19. Install the camshaft timing tool (ref. C);
20. Reinstall the TDC measuring tool (ref. A);
21. Install the tensioning tool onto the belt tightening pulley (ref. E);
22. Rotate the belt tightening pulley until the indicators are aligned;
23. Tighten the belt tightening pulley nut at 25-31 Nm by means of a torque wrench;
24. Fit in the camshaft pinion cap, tightening it at 25-30 Nm (ref. G);
25. Remove the camshaft locking and crankshaft timing tools;
26. Now reinstall the timing sensor: use the special tem plate (ref. H) to position the cylinder head correctly;
27. With the installed template, finish tightening the valve cover, the coil and the timing sensor.

