

Incorrect or out of phase engine timing can result in damage to the valves. The Tool Connection cannot be held responsible for any damage caused by using these tools in anyway.

Safety Precautions – Please read

- Disconnect the battery earth leads (check radio code is available)
- Remove spark or glow plugs to make the engine turn easier
- Do not use cleaning fluids on belts, sprockets or rollers
- Always make a note of the route of the auxiliary drive belt before removal
- Turn the engine in the normal direction (clockwise unless stated otherwise)
- Do not turn the camshaft, crankshaft or diesel injection pump once the timing chain has been removed (unless specifically stated)
- Do not use the timing chain to lock the engine when slackening or tightening crankshaft pulley bolts
- Do not turn the crankshaft or camshaft when the timing belt/chain has been removed
- Mark the direction of the chain before removing
- It is always recommended to turn the engine slowly, by hand and to re-check the camshaft and crankshaft timing positions.
- Crankshafts and Camshafts may only be turned with the chain drive mechanism fully installed.
- Do not turn crankshaft via camshaft or other gears
- Check the diesel injection pump timing after replacing the chain
- Observe all tightening torques
- Always refer to the vehicle manufacturer's service manual or a suitable proprietary instruction book
- Incorrect or out of phase engine timing can result in damage to the valves
- It is always recommended to turn the engine slowly, by hand, and to re-check the camshaft and crankshaft timing positions



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Guarantee

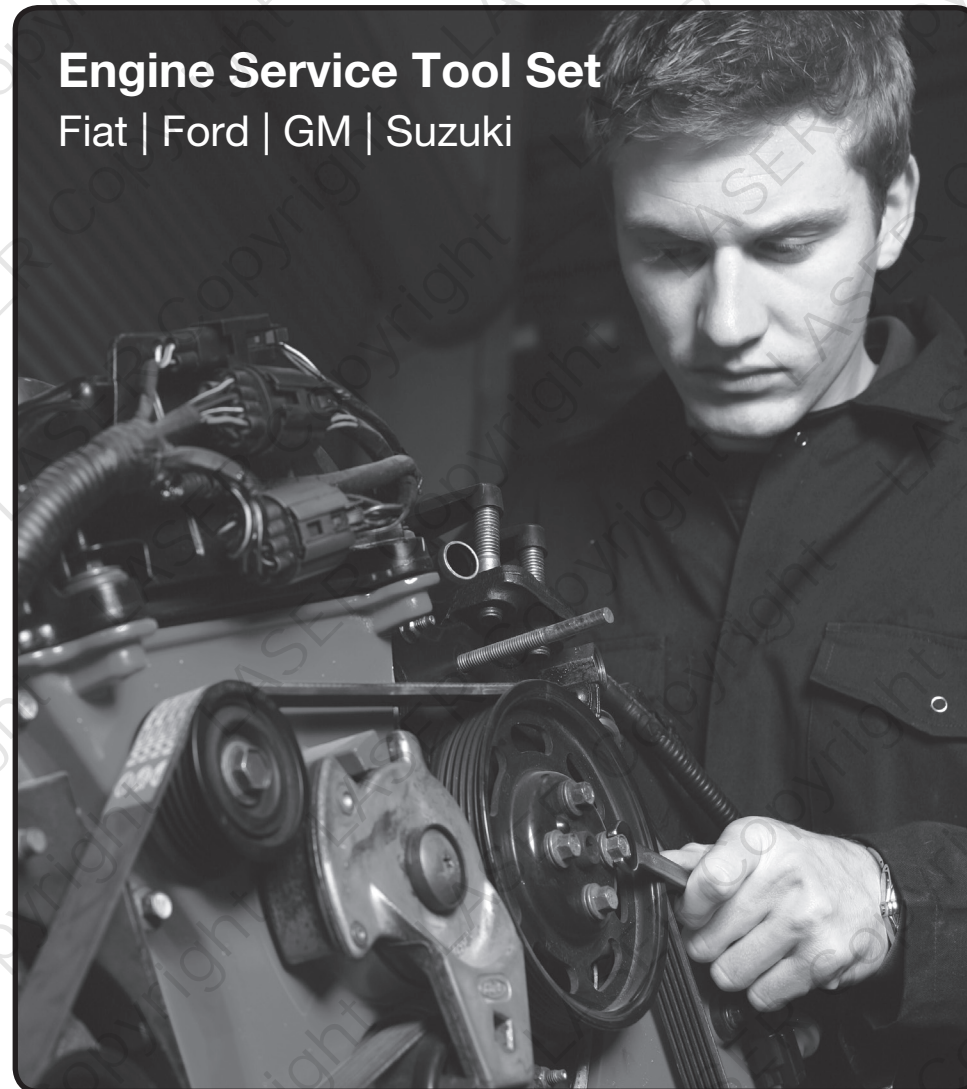
If this product fails through faulty materials or workmanship, contact our service department direct on: **+44 (0) 1926 818186**. Normal wear and tear are excluded as are consumable items and abuse.

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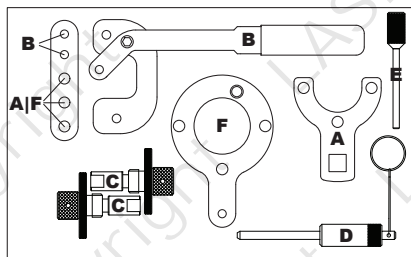
Part No. 4773

Engine Service Tool Set Fiat | Ford | GM | Suzuki



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Plan Layout



ID	CODE	Fiat Oem	Ford Oem	Vauxhall Oem	Suzuki Oem	Description
A	C415	1 871 000 200	303-1469	KM-662-C		Crankshaft Pulley Flange Holding Wrench
B	C416	1 870 900 400				Timing Chain Tensioner Lever
C	C255	1 871 000 900 1 860 985 000	303-1472	EN 46781	09917-68610	Camshaft Alignment Tool (2)
D	C276			EN 46785	09912-38300	Flywheel Pin with Spring
E	C101	8mm				8mm Crank Locking (Fiat)
F	C417	1 870 900 300	303-1468			Crankshaft Timing Position Tool
G	This slot is not populated in the 4773 kit					

Applications

The application list for this product has been compiled cross referencing the OEM Tool Code with the Component Code. In most cases the tools are specific to this type of engine and are necessary for Cam belt or chain maintenance. If the engine has been identified as an interference engine valve to piston damage will occur if the engine is run with a broken Cam belt.

A compression check of all cylinders should be performed before removing the cylinder head. Always consult a suitable work shop manual before attempting to change the Cam belt or Chain.

The use of these engine timing tools is purely down to the user's discretion and Eldon Tool and Engineering cannot be held responsible for any damage caused what so ever.

ALWAYS USE A REPUTABLE WORKSHOP MANUAL

Mark	Model	Type	Engine Code	Year
Fiat	Punto	1.3 JTD Multi-Jet	188A9.000	2003 - 2007
	Panda	1.3 JTD Multi-Jet	169A1.000 188A8.000	2003 - 2009
	Idea	1.3 JTD Multi-Jet	199A3.000 188A9.000	2004 - 2006
	Doblo	1.3 JTD Multi-Jet	188A9.000	2004 - 2006
	Doblo Cargo	1.3 JTD	188A9.000	2004 - 2006
Ford	KA	1.3 TDCi		
Vauxhall/Opel	Agila	1.3 CDTi	Z13DT	2003 - 2008
	Corsa-C	1.3 CDTi	Z13DT	2003 - 2007
	Combo-C	1.3 CDTi	Z13DT	2003 - 2009
	Corsa-D	1.3 CDTi	Z13DTH Z13DTJ	2006 - 2009
	Astra-H	1.3 CDTi	Z13DTH	2004 - 2009
	Tigre-B	1.3 CDTi	Z13DT	2004 - 2009
	Meriva	1.3 CDTi	Z13DT Z13DTJ	2004 - 2009
Suzuki	Ingis	1.3 CDTi	Z13DT	2003 - 2009
	Wagon	1.3 CDTi	Z13DT	2003 - 2009
	Swift	1.3 CDTi	Z13DT	2003 - 2010

Instructions

Preparation

- Support engine and remove the timing chest side engine mounting to gain access to the engine service hatches.
- Lift the fuel rail and engine wiring clear to gain access to the camshaft locking blanking plugs.

Instructions

Component A

Use this tool to hold the Crankshaft Pulley Flange still whilst releasing the pulley flange centre bolt (left hand thread). In order to gain access to the pulley flange the pulley must first be removed by removing the 4 outer fixings pulley fixings.

NB: Do not release the pulley flange centre bolt until the cam and crank timing pins are in place.

Do not attempt to loosen or tighten the pulley centre bolt with out holding the flange with the flange tool or the crankshaft and camshaft tools will be damaged.

Component B

The Timing Chain tensioning tool is used to clamp the timing chain when replacing the gasket on the one-piece cylinder head. The tool is attached in alignment with the inspection opening on the engine control cover so that the pin acts upon the ribs of the chain slider. Retract the chain tensioner piston so that it moves back to its locked position using the lever.

Ensure the tensioner has fully extended before attempting to retract it.

Components C

These camshaft locking tools are used to lock the camshafts in position.

Access must first be gained to the blanking plugs that are positioned one on the front of the cam cover and one on the rear of the cam cover. Lift the high pressure fuel rail and engine wiring harness to gain access.

Remove the blanking plugs and screw the locking tools into place with the flats on the inner section of the tools horizontal. The tools are correctly fitted when the inner section of the tools can be easily pushed in with finger pressure.

NB: These tools are for setting the position of the camshafts. Do not attempt to loosen or tighten any fixings on the camshaft using these tools to lock the camshaft as damage will result.

Components D & E (application dependent)

The flywheel alignment pins are used to lock the position of the flywheel to ensure the crankshaft is in the correct timed position to match the camshafts.

NB: These tools are for setting the position of the crankshaft, do not attempt to loosen or tighten any fixings on the crankshaft using these tools to lock the crank as damage will result.

Components F

This tool is used to set the control position of the crankshaft (flywheel end) with engine removed when a complete engine rebuild is required. The tool is attached to the crankshaft using the three fasteners (From Item A) in place of the flywheel.

Always follow the vehicle manufacturers' instructions.

