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If applicable, the applications database and any instructional information provided has been designed to offer general guidance for a particular tool's use and while all attention is given to the accuracy of the data no project should be attempted without referring first to the manufacturer's technical documentation (workshop or instruction manual) or the use of a recognised authority such as Autodata.

It is our policy to continually improve our products and thus we reserve the right to alter specifications and components without prior notice. It is the responsibility of the user to ensure the suitability of the tools and information prior to their use.



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LASER[®]

Part No. 6292

Engine Timing Tool Kit

Alfa Romeo | Lancia 1.75 TBI



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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.



Introduction

designed for the post 2009 Alfa Romeo 1,75lt 4 cylinder twin camshaft turbo charged engines.

N.B The information given below is for reference only.

The Tool Connection recommends the use of Manufacturer data or Autodata.

The Tool Connection cannot be held responsible for damage to engine or personnel whilst using this tool kit.

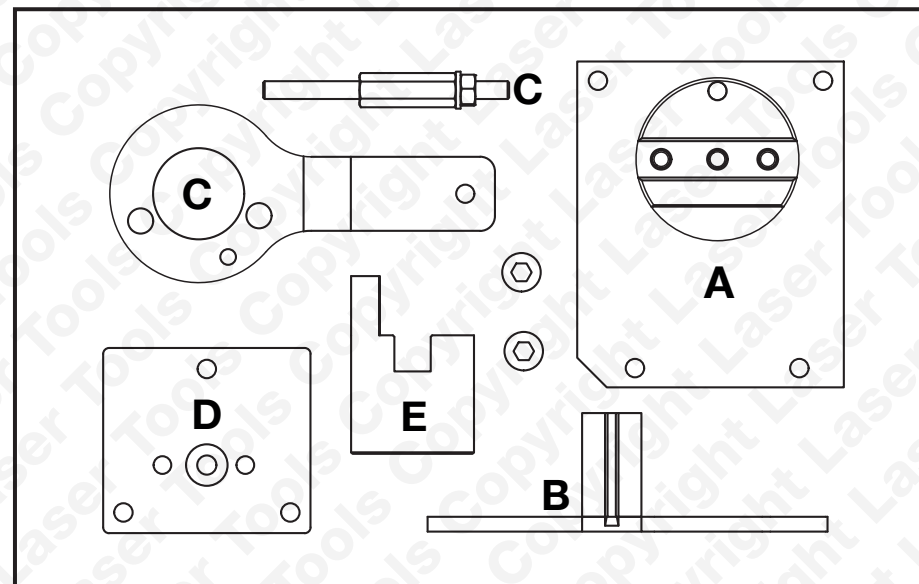
Warning

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/belt has been removed (unless specifically stated)
- Do not use the timing chain/belt to lock the engine when slackening or tightening crankshaft pulley bolts
- Mark the direction of the chain/belt 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
- Remove spark or glow plugs to make the engine turn easier
- Check the diesel injection pump timing after replacing the chain
- Observe all tightening torques

Plan Layout



Ref	Code	OEM No.	Description
A, D, E	C709	2 000 033 500	Camshaft Locking Tool (Ex) Camshaft Locking Tool (In) Back Plate/Alignment Boss
B	C148	1 860 898 000	Flywheel Locking Tool
C	C277	1 860 905 000 2 000 003 000	Crankshaft Locking Tool and Stud

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 Tool Connection cannot be held responsible for any damage caused what so ever.

ALWAYS USE A REPUTABLE WORKSHOP MANUAL

Manufacturer	Model	CC	Engine Code	Year
Alfa Romeo	159 Brera	1.75	939B1.000	2009 to 2012
	Giulietta		940A1.000	2010 to 2015
	Spider			2009 to 2011
Lancia	Delta			2009 to 2015

Instructions

Instructions for use:

- Always refer to manufacturer specific data and instructions

Component Descriptions:

Components A/D/E:

Used to lock the exhaust camshaft in its timed position.

Component A fits in to the back of the camshaft (gearbox end). In order to gain access to the camshaft the vacuum pump must be removed.

Turn the crankshaft to the required setting position and fit component A as shown in Fig. 1.

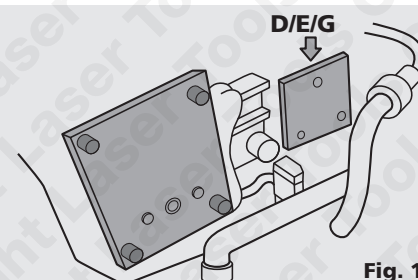


Fig. 1

Component D/E:

Used to lock the Inlet camshaft in its timed position.

Assemble components D, E and one of G as shown in Fig. 4.

Use the assembly to lock the inlet cam as shown in Fig. 1.

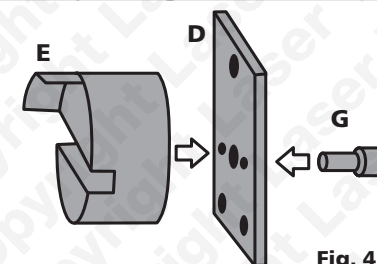


Fig. 4

Component B:

Used to lock the flywheel on the Alfa Giulietta.

B fits into the flywheel ring gear at the bottom of the gearbox bell housing as shown in Fig. 2.

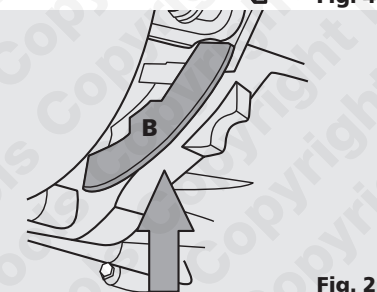


Fig. 2

Component C:

Used to lock the crankshaft in its timed position.

With the front crankshaft pulley removed fit C as shown in Fig. 3.

N.B. On engines equipped with VCT, if the VCT pulleys require removal or loosening ensure their initial position is marked with chalk or paint.

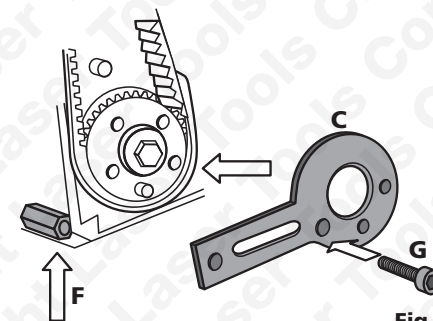


Fig. 3