

# LASER®

Part No. 5638

## Engine Timing Tools

Alfa Romeo | Fiat | Lancia  
1.2 | 1.4 engines



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**Guarantee**



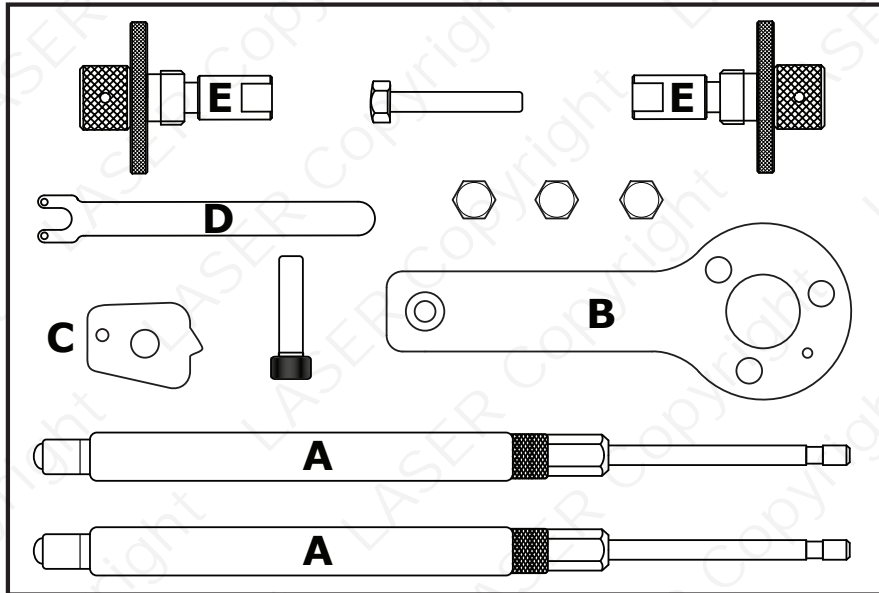
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## Plan Layout



Ref	Code	Oem Code	Description
<b>A</b>	C254	1 860 992 000	Piston Height Gauge (2)
<b>B</b>	C491	2 000 004 500	Crankshaft Locking Tool
<b>C</b>	C571	2 000 015 800	Camshaft Pulley Holding Tool
<b>D</b>	C256	1 860 987 000	Tension Tool
<b>E</b>	C255	1 860 985 000/1 871 000 900	Camshaft Setting Tools (2)

## 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 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
- 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

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

**ALWAYS USE A REPUTABLE WORKSHOP MANUAL**

Mark	Model	Size	Type	Engine Code	Year
Alfa Romeo	Giulietta	1,4	16V	198A4.000	2010-2012
	MiTo	1,4		198A1.000	2008-2010
	MiTo	1,4		198A4.000	2008-2010
	MiTo	1,4	Bi-Fuel LPG	199A6.000	2008-2010
	MiTo	1,4	T-Jet	199A8.000	2008-2011
	MiTo	1,4	T-Jet	955A1.000	2008-2012
Fiat	500	1,4	T-Jet	169A3.000	2007-2012
	Brava	1,2	16V	182B2.000	1998-2000
	Brava	1,2	Abarth	188A5.000	2000-2002
	Bravo	1,4	Abarth Esseesse	192B2.000	2009-2012
	Bravo	1,4		198A1.000	2007-2011
	Bravo	1,4	16V	198A4.000	2007-2012
	Grande Punto	1,4	16V	198A4.000	2007-2010
	Grande Punto	1,4		199A6.000	2006-2010
	Grande Punto	1,4		199A8.000	2007-2010
	Grande Punto	1,4	16V	199A8.000	2008-2010
	Idea	1,2		188A5.000	2004-2012
	Idea	1,4		192B2.000	2004 -2012
	Idea	1,4	16V	843A1.000	2004 -2012
	Marea	1,2		182B2.000	1998-2000
	Marea Weekend/Marengo	1,2		182B2.000	1998-2000
	Palio Weekend	1,2	16V	188A5.000	2001-2006
	Panda	1,4		169A3.000	2006-2011
	Punto	1,2		176B9.000	1997-1999
	Punto/Punto Classic	1,2		188A5.000	1999-2008
	Punto/Punto Classic	1,4		843A1.000	2003-2006
	Stilo	1,2		188A5.000	2001-2004
	Stilo	1,4		192B2.000	2005-2008
Stilo	1,4		843A1.000	2004-2008	
Lancia	Delta	1,4	T-Jet 150	198A1.000	2008-2011
	Delta	1,4	T-Jet 120	198A4.000	2008-2012
	Delta	1,4	T-Jet 120 LPG	198A4.000	2009-2012
	Musa	1,4	16V	843A1.000	2004-2012
	Ypsilon	1,2	16V	176B9.000	1996-2000
	Ypsilon	1,4	16V	843A1.000	2003-2006

## Component Description

The information given below is for reference only. The Tool Connection Ltd recommends the use of Manufacturer data or Autodata. Preparation procedures will vary according to vehicle specification. Please refer to manufacturers data.

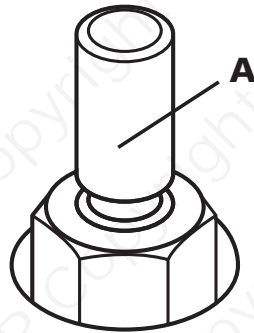
### A Piston Height Adaptor

Screw the piston height adaptors into the spark-plug ports of cylinders one and two (or three and four, according to the manufacturers' instructions)

Slowly turn the crankshaft until the notches (A) on the centre rod aligns on each adaptor stem **Important**- The dowel pin on the crankshaft must remain opposite the crankshaft position sensor.

If necessary re-fit the crankshaft pulley.

The use of (A) is engine specific. Where the manufacturer specifies it's use Item B is not required.

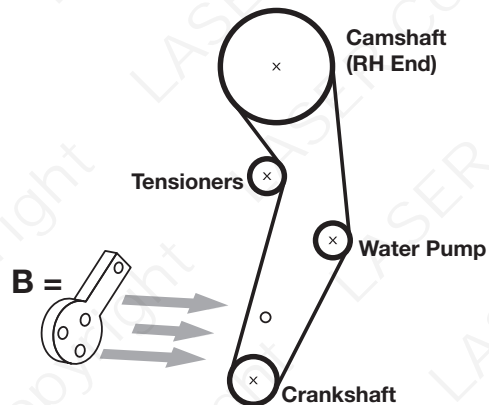


### B Crankshaft Locking Tool

Fit component (B) to the crankshaft and lock the crankshaft in position with the bolt provided. Loosen the tensioner fixing, back the tensioner off and remove the belt.

See above (If B is used Item A is not required).

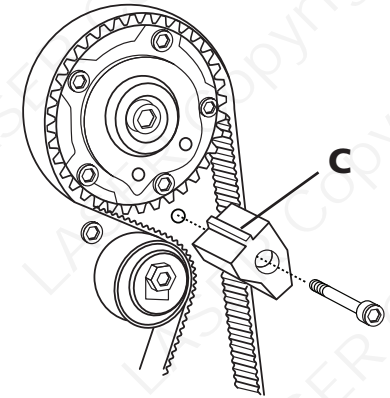
**N.B. Manufacturer vehicles specific instructions should be consulted when setting the belt tension.**



## Component Description

### C Camshaft Pulley Holding Tool

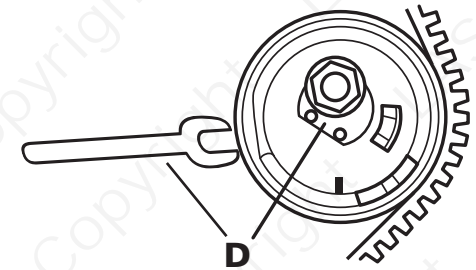
Component C is used as shown to lock the camshaft pulley to enable the pulley fixing to be loosened without straining the belt or camshaft timing tools



### D Tensioner Tool

After fitting the new timing belt, the tensioner pulley must be turned to the maximum position by using the wrench (D).

Tension details may vary according to engine specification therefore always refer to manufacturers data



### E Camshaft Locking Tool

Remove the two blanking plugs from the camshaft casing and press the centre pin of the camshaft tool into the alignment slot of the camshaft (E).

Secure in place with the threaded hand wheel. It may be necessary to remove the tools and turn the crankshaft one revolution until the tools correctly engage.

