

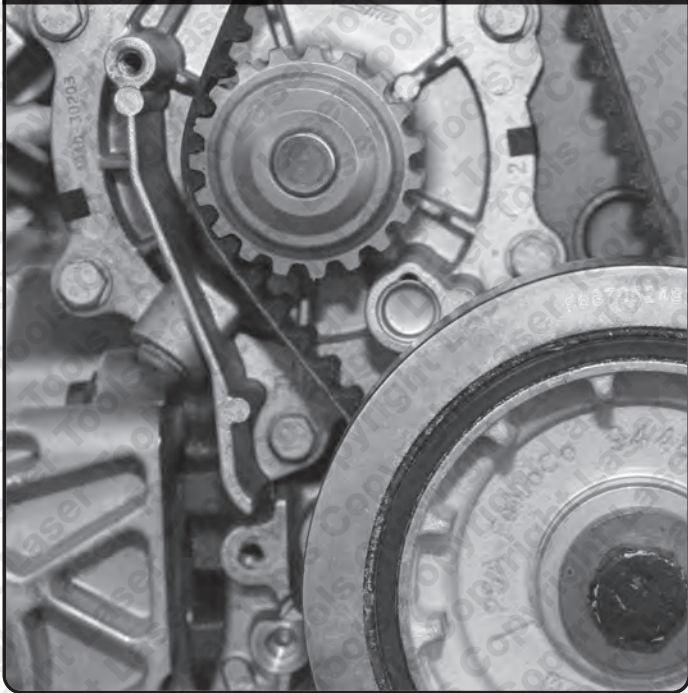
Part No. 5147

LASER[®]

Instructions

Timing Tool Set

JLR 4.0 & 4.2 V8

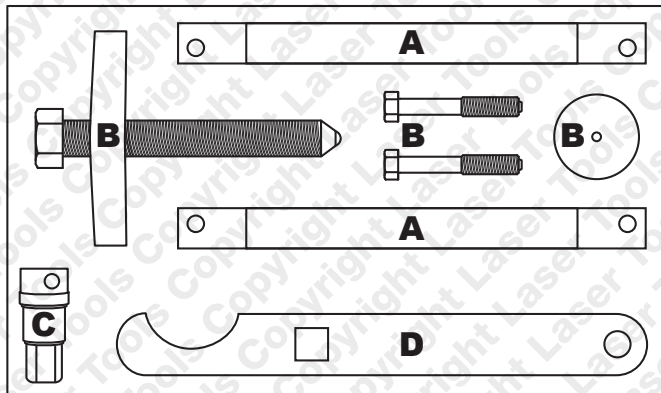


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Introduction

Jaguar petrol engines (up to 2010) are robust and in the main a reliable engine. However as their age increases and with it their mileage we have had reports of timing chain and head gasket problems. This 5 piece kit which includes a pair of camshaft locking bridges, a front pulley puller, a camshaft pulley holding tool and a crankshaft locking pin. The crankshaft locking pin has been specially designed in house to combine two OEM tool designs, therefore extending the applications of the kit. Specifically introduced for pre 2010 4.0 & 4.2 V8 petrol engines fitted with timing chains.

Components



Ref.	Code	OEM Ref.	Description
A	C522	303-530	Camshaft Locking Bridge X 2
B	C523	303-588	Crankshaft Pulley Puller Kit
C	C524	303-645/ 303-531	Crankshaft Locking Pin
D	C525	303-532	Timing Chain Tensioner

Applications

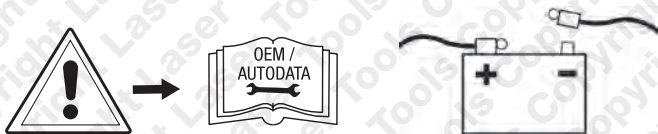
Make, Model, Range, Year				Engine Codes		
Daimler	V8/Super V8	(X308)	1997 - 2003	4,0	4,2	
	Super Eight	(X350/358)	2005 - 2010	BC	TB	
				DC		
				LB		
				LC		
				MA		
				MB		
Jaguar	S-Type	(X200)	1999 - 2008	3,2	4,0	4,2
	XF	(X250)	2008 - 2010	AC	BC	1B
	XJ8/XJR	(X308)	1997 - 2003	KB	CC	1G
	XJ8/XJR	(X350/358)	2003 - 2010	KC	CE	2B
	XK8/XKR	(X100)	1996 - 2006	3,5	DC	3B
	XK8/XKR	(X150)	2006 - 2009	RB	EC	5G
				GB	9G	
				GC	HB	
				LB	HG	
				LC	PC	
				MA	SB	
				MB	TB	
				NB		
				NC		
				PA		
				PB		
Land Rover	Discovery 3	(L319)	2004 - 2009	4,2	4,4	
	Range Rover	(L322)	2005 - 2009	428PS	448PN	
	Range Rover Sport	(L320)	2005 - 2009			

Always refer to the website for most up to date applications:
www.lasertools.co.uk/product/5147

Instructions

The following instructions are for guidance only. Please refer to OEM derived data such as the vehicle manufacturers' own data or Autodata.

The use of this engine timing tool kit is purely down to the user's discretion and The Tool Connection Ltd. cannot be held responsible for any damage caused whatsoever.



Warning – 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.

Instructions

Preparation

1. Disconnect the battery:
Please be aware vehicles fitted with frameless windows should have both doors open during the disconnection process so that the windows will be left slightly open
2. It is recommended that the spark plugs be removed to aid engine turning
3. It will be necessary to remove the Cam Cover to gain access to the camshafts and radiators to gain access to the crankshaft front pulley
4. Remove the crankshaft sensor that is situated behind the engine sump in the back of the flywheel drive plate

Component Descriptions

Components A

A pair of camshaft locking bridges – use to lock the camshafts in position for setting the timing.

Note: Do not attempt to use these bridges to hold the cam's whilst attempting to undo the camshaft pulley fixings. Always use component (D) to hold the cam pulley whilst loosening the pulley fixing.

Components B

Front pulley puller – this is a full puller assembly that allows the user to remove the front pulley in a safe and controlled way. After removal of the pulley fixing bolt place the force screw plug into the end of the crankshaft and attach the pulley bridge to the pulley using the 2 bolts supplied.

Component C

Crankshaft locking pin – this is a specially designed crankshaft locking pin. Fitment of this pin requires the removal of the crankshaft sensor.

Components D

Used to tension the Timing Chain to set the tensioner.

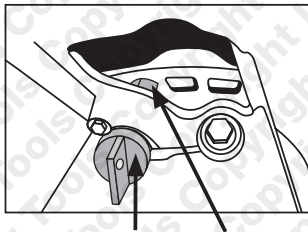
Instructions - Checking The Timing

Note: these instructions are for reference only. Please refer to the vehicle manufacturers instructions or other such reputable data provider. The Tool Connection Ltd recommend the use of Autodata

Turn the engine in a clockwise direction using the crankshaft pulley centre fixing until the crankshaft locking pin (C) can be slotted in as shown (Fig. 1).

1. Check that the camshafts are in the correct position by ensuring the flats on the right hand camshafts are positioned upwards – if not turn the crankshaft 360° and reset.
2. Fit camshaft locking bridges (A) across the camshafts (Fig. 2).
3. Removal of the camshaft pulleys should only be done using the camshaft pulley holding tool to hold the cams from turning.

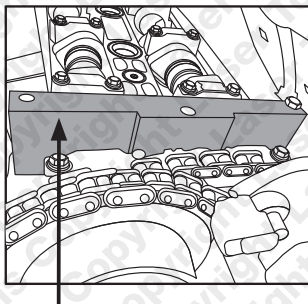
Fig. 1



Crankshaft locking tool – fitted in place of the Crankshaft speed sensor.

Fit as shown.

Fig. 2



Camshaft locking bridge in place.

Safety Warnings - please read

- If the engine has been identified as an Interference engine, damage to the engine will occur if the timing belt has been damaged. A compression check of all the cylinders should be taken before the cylinder head (s) are removed.
- Do not turn crankshaft or camshaft when the timing belt/chain has been removed.
- To make turning the engine easier, remove the spark plugs/glow plugs or injectors.
- Observe all tightening torques.
- Do not turn the engine using the camshaft or any other sprocket.
- Disconnect the battery earth lead (check Radio code is available).
- Do not use cleaning fluids on belts, sprockets or rollers.
- Some toothed timing belts are not interchangeable. Check the replacement belt has the correct tooth profile.
- Always mark the belt with the direction of running before removal.
- Do not lever or force the belt onto its sprockets.
- Check the ignition timing after the belt has been replaced.
- Do not use timing pins to lock the engine when slackening or tightening the crankshaft pulley bolts.
- ALWAYS REFER TO A REPUTABLE MANUFACTURERS WORKSHOP MANUAL.



Safety First. Be Protected.

Our products are designed to be used correctly and with care for the purpose for which they are intended. No liability is accepted by the Tool Connection for incorrect use of any of our products, and the Tool Connection cannot be held responsible for any damage to personnel, property or equipment when using the tools. Incorrect use will also invalidate the warranty.

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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Guarantee



Distributed by The Tool Connection Ltd
Kineton Road, Southam, Warwickshire CV47 0DR
T +44 (0) 1926 815000 F +44 (0) 1926 815888
info@toolconnection.co.uk www.toolconnection.co.uk

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