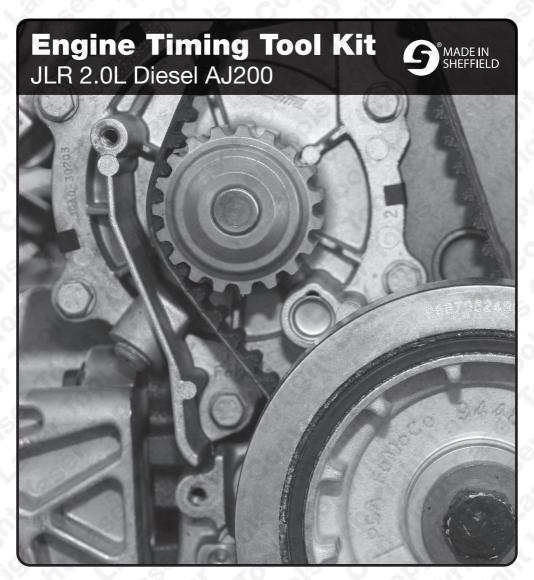
# LASER<sup>®</sup>

# **Instructions**



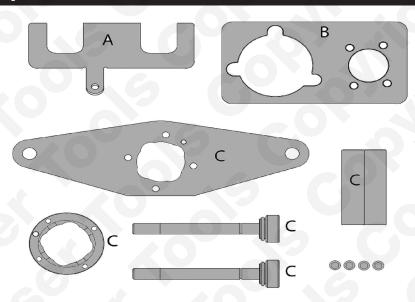
## Introduction

Developed for the latest 2.0L diesel engine from JLR. The kit contains all the essential components required to lock the new JLR 2.0L "Ingenium" diesel engines in their "timed" position so that the engine timing chain can be safely removed and replaced and the engine timing checked.

Note: for fuel pump removal without disturbing the timing chain see 7431.

- Vehicle applications include: Jaguar E-Pace (from 2017), F-Pace (from 2016), XE (from 2015) and XF (from 2015). Land Rover Discovery (from 2017), Discovery Sport (2015 2019), Range Rover Evoque (2015 2019), Range Rover Sport (2016 2018) and Range Rover Velar (from 2017).
- Engine codes: AJ-200D, 204DT, 204DTA; AJ200D, AJ200, 204DTA and 204DTD.
- Equivalent to OEM JLR-303-1625, JLR-303-1631 and JLR-303-1630.

# **Components**



Ref.	Comp. Code	OEM Ref.	Description	
Α	C893	JLR-303-1625	Camshaft Locking Tool	
В	C894	JLR-303-1631	Camshaft Adjuster Locking/Holding Tool	
C	C895	JLR-303-1630	Crankshaft Pulley Locking Tool	

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# **Applications**

Manufacturer	Model		Туре	Year	Engine Codes
Jaguar	E-Pace	(X540)	D150, D180, D240	2017 - on	<b>2.0L</b> AJ-200D/204DT AJ-200D/204DTA
	F-Pace	(X761)	20d, 25d, E-Performance, D165, D200 MHEV	2016 - on	
	XE	(X760)	20d, 25d, E-Performance, D240 MHEV	2015 - on	
	XF	(X260)	20d, 25d, D200 MHEV	2015 - on	
Land Rover	Defender	(L663)	SD4 D200, SD4 D240	2019 - on	<b>2.0L</b> AJ200D AJ200/204DTA AJ200/204DTD
	Discovery Sport	(L550)	eD4, SD4, TD4, D150, D165, D180, D200, D240 MHEV	2015 - 19	
	Discovery	(L462)	Sd4, Td4	2017 - on	
5	Range Rover	(L538)	eD4, SD4, TD4	2015 - 19	
	Evoque	(L551)	D150, D165, D180, D200, D240 MHEV	2019 - on	
	Range Rover Sport	(L494)	SD4	2016 - 18	
	Range Rover Velar	(L560)	D180, D240, D200 MHEV	2017 - on	

Always refer to the website for most up to date applications: www.lasertools.co.uk/product/7430

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.



# **Instructions**

NOTE: Due to the timing chains being at the rear of the engine, removal and fitting of the timing chains requires the removal of the transmission and flywheel/drive plate.

- Engine camshaft timing marks at 12 o'clock.
- Front pulley timing mark at 6 o'clock to correspond with 50° after top dead centre (ATDC) cylinder no.1.
- Ensure camshaft adjuster marks are at 12 o'clock.

#### Component A = Camshaft locking tool.

• Fit component A as shown.

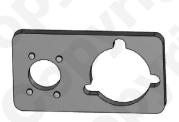


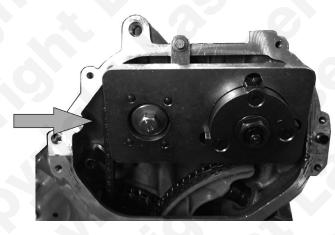
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# Instructions

## Component B = Camshaft Adjuster Locking/Holding Tool

• Fit component **B** as shown.

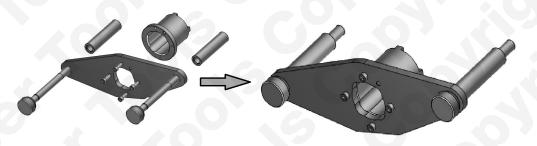




# Instructions

## **Component C = Crankshaft Pulley Locking Tool**

• Assemble component **C** as shown.



• Fit assembly (C) to the crankshaft pulley as shown.



## Safety Warnings - 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 manufacturers' service manual or a suitable proprietary instruction book
- Incorrect or out of phase engine timing can result in damage to the valves

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.



7430\_Instructions\_V10



O TOOL

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