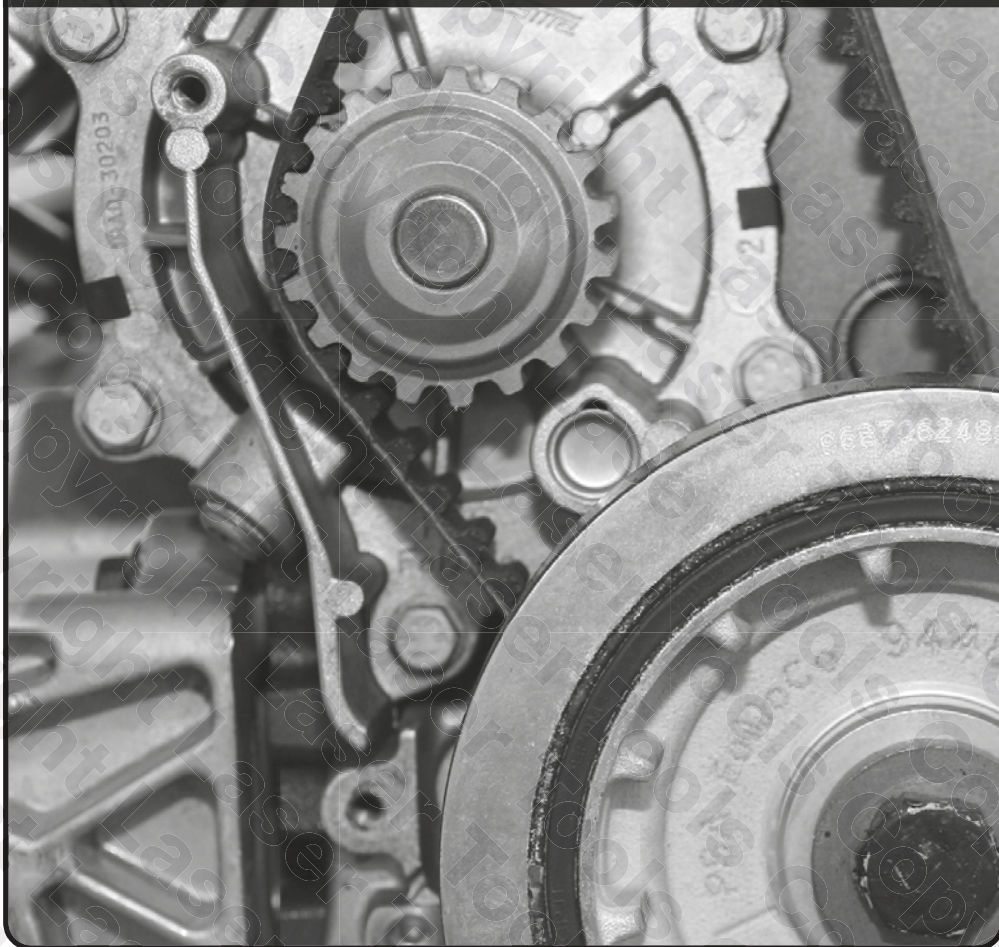


LASER[®]

Part No. 8101

Instructions

Engine Timing Tool Kit for Mercedes-Benz 1.6, 2.0 Diesel



Please refer to www.lasertools.co.uk/toolpoint
to check the most up to date product applications.

www.lasertools.co.uk

Introduction

The Mercedes W654 1.6 and 2.0 diesel engines use a timing chain that is mounted at the back of the engine which means any task involving its removal will require the engine to be removed.

Once the engine is removed the Laser 8101 allows the user to lock the camshafts and crankshaft in their timed position for chain replacement. Note: The Laser 8101 can also be used to lock the camshaft and crankshaft when the engine is in the vehicle to check the timing.

- Vehicle applications include: A Class (from 2019), B Class (from 2019), C Class (from 2018), CLA (form 2019), CLS (from 2018), E Class (from 2016), GLB (from 2019), GLC Coupe (from 2019), GLE (from 2019), V Class (from 2019), Vito (from 2019).
- Engine Applications include: 1.6lt 654.916 and 2.0lt 654.920
- Equivalent to OEM W654 589 00 40 00, W654 589 01 40 00, W654 589 00 21 00.
- Use in accordance with OEM instructions.
- Note: Where an appropriate chain splitter is not available chain replacement requires engine removal.

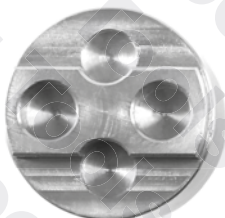
The information given below is for reference only. Laser Tools recommends the use of Manufacturer data. Laser Tools cannot be held responsible for damage to engine or personnel whilst using this tool kit.

Applications

Make, Model, Year			Engine Codes
Mercedes-Benz	A-Class	2019 - on	1.6
	B-Class	2019 - on	654.916
	C-Class	2018 - on	2.0
	CLA	2019 - on	654.920
	CLS	2018 - on	
	E-Class	2016 - on	
	GLB	2019 - on	
	GLC Coupe	2019 - on	
	GLE	2019 - on	
	V-Class	2019 - on	
	VITO	2019 - on	

Components

A



D



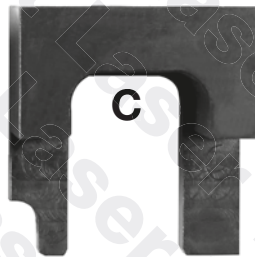
D



B



C



Ref.	Code	OEM Ref	Description
A	C957	654 589 00 40 00	Crankshaft Turning Tool
B	C958	654 589 01 40 00	Inlet Camshaft Holding Tool
C			Exhaust Camshaft Holding Tool
D	C959	654 589 00 21 00	Crankshaft Alignment Block & Pin

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.



- Always refer to manufacturer specific data and instructions
- For removal of the diesel high pressure fuel pump please use Laser 8095
- Use of the Laser 8101 kit requires removal of the transmission and flywheel from the engine.
- The use of laser 7067 is recommended for the alignment of the exhaust camshaft split gear sprocket when refitting the camshaft gears.

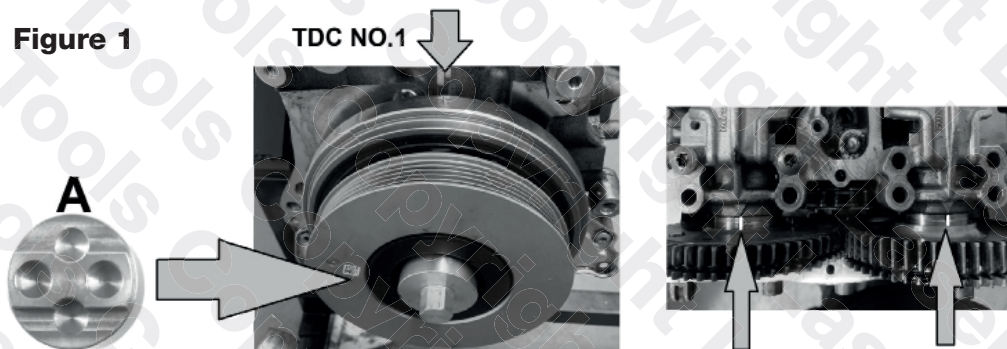
WARNING: THE INLET CAMSHAFT SPROCKET GEAR BOLTS ARE LEFT HAND THREAD.

Instructions

Component A: Crankshaft turning Tool.

Use the crankshaft turning tool in combination with a spanner or socket to turn the crankshaft to align the timing marks on the engine front pulley and the camshaft marks as shown in figure 1.

Figure 1



Introduction

Components B & C: Camshaft Holding Tools.

Fit the camshaft holding tools (**B & C**) vertically down over the flats on the camshafts as shown by (**A**) in figure 2. Both camshaft holding tool blocks should sit down square on the cam carrier surface on both sides. If this is not the case loosen the camshaft fixing bolts to allow the cams to turn enough to allow the block to seat properly. Hold the camshaft holding tools down with 4 of the cam cover bolts as shown in figure 2.1.

WARNING: THE INLET CAMSHAFT SPROCKET GEAR BOLTS ARE LEFT HAND THREAD.

Figure 2

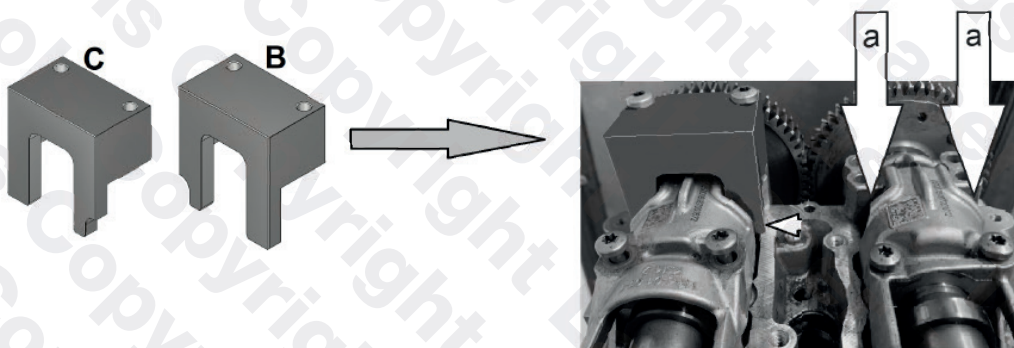
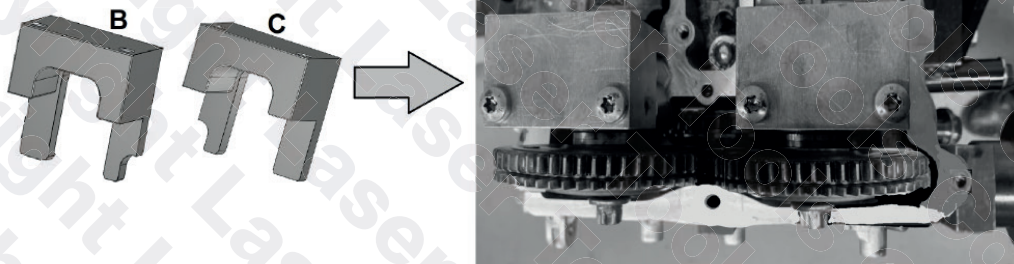


Figure 2.1

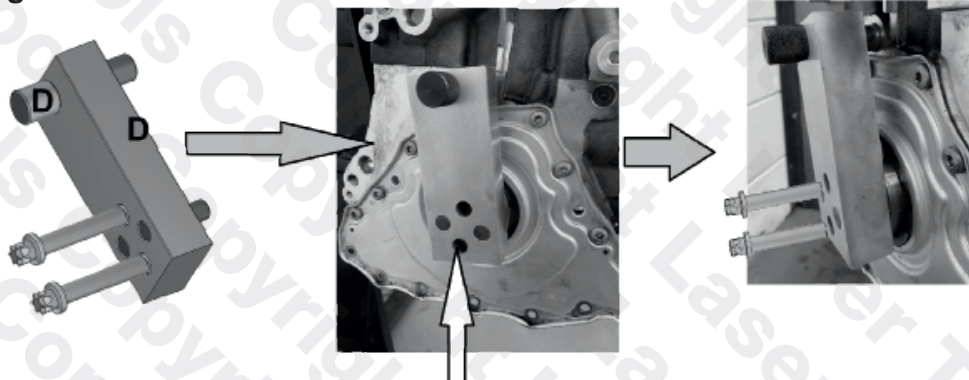


Instructions

Component D: Crankshaft Alignment Block and Pin.

Check the front pulley timing marks are still aligned and remove the pulley. Fit the crankshaft alignment block (D) on to the crankshaft as shown and ensure the pin fits through the alignment block into the engine block, see figure 3. Hold the alignment block in place using 2 of the pulley fixing bolts.

Figure 3



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.
- 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.

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

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