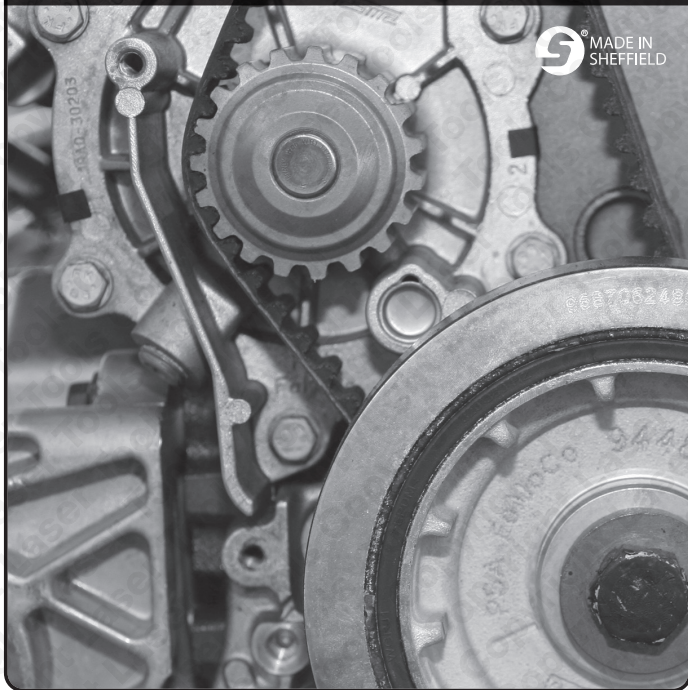


Part No. 9133

# LASER<sup>®</sup>

## Instructions

### **Engine Timing Adaptor Kit** VW Group MPi/TSi 1.0 & 1.6 Petrol



MADE IN  
SHEFFIELD

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## Introduction

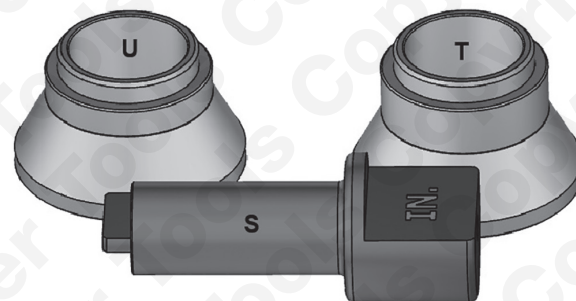
The Laser 9133 kit has been developed to allow the Laser 8900/9155 engine timing kit to be used to align, set and check the camshaft timing of the earlier Volkswagen group 1.0L and 1.6L MPI & TSi petrol engines. The kit allows the battery powered digital inclinometer and mounting bracket from the 8900/9155 kit to be used to accurately set the camshaft timing on these engines using the latest methodology. ***There should be no need for interaction with the vehicles OBD system if following the correct Laser tools procedure while making the alignment.***

- Applications include: Seat Arona (from 2020), Ibiza (from 2015), Leon ST (from 2014), Mii (2012 - 2020), Toledo (2015 - 2016); Skoda Fabia III (2014 - 2022), Fabia IV (from 2021), Kamiq (2020 - 2023), Karoq (from 2020), Octavia IV (from 2020), Rapid (2015 - 2016), Scala (2020 - 2023), Yeti (2014 - 2015); Volkswagen Caddy/Caddy Maxi (2015 - 2017), Golf VII (2014 - 2015), Golf VIII (from 2020), Load UP (2014 - 2020), Polo (2014 - 2021), T-Cross (from 2020), T-Roc (from 2020), Taigo (from 2021), UP (from 2011).
- Engine applications include: 1.0L CHYA, CHYB, CHYC, CHYE, CPGA, DAFA, DFNA, DFNB, DLAA, DLAB, DLAC, DSGB, DSGC, DSGD; 1.5L DHFA; 1.6L CWVA, CWVB, CXTC.
- Equivalent to OEM refs. VAS 611 007/18/19, VAS 611 007/19 & VAS 611 007/18.

***Use only in accordance with Laser Tools 8900, 9133, 9155 instructions.  
Use with Laser Part Nos. 8900, 9155.***

***Camshaft pulley holding tools (Laser Part Nos. 9132 or 7279 & 8421)  
must be used when loosening or tightening the camshaft pulleys.***

## Components



Ref.	Description	Comp. Code	OEM Ref.
A	Inlet Camshaft Adaptor	C1085	VAS 611 007/18/19
B	Inlet Camshaft Spacer Boss – Long	C1086	VAS 611 007/19
C	Inlet Camshaft Spacer Boss – Short	C1087	VAS 611 007/18

The following instructions are for guidance only. For torque settings 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.***

## Applications

Manufacturer	Model	Year	Engine Codes
Seat	Arona	From 2020	<b>1.0L</b>
	Ibiza	From 2015	CHYA
	Leon ST	From 2014	CHYB
	Mii	2012 to 2020	CHYC
	Toledo	2015 to 2016	CHYE
Skoda	Octavia IV	2014 to 2022	CPGA
	Fabia III	2014 to 2022	DAFA
	Fabia IV	From 2021	DFNA
	Kamii	2020 to 2023	DFNB
	Karoq	From 2020	DLAA
	Octavia IV	From 2020	DLAB
	Rapid	2015 to 2016	DLAC
	Scala	2020 to 2023	DSGB
	Yeti	2014 to 2015	DSGC
	Yeti	2014 to 2015	DSGD
Volkswagen	Caddy/Caddy Maxi	2015 to 2017	<b>1.5L</b>
	Golf VII	2014 to 2015	DHFA
	Golf VIII	From 2020	
	Load Up!	2014 to 2020	<b>1.6L</b>
	Polo	From 2014	CWVA
	T-Cross	From 2020	CWVB
	T-Roc	From 2020	CXTC
	Taigo	From 2021	
	Up!	From 2011	

Always refer to the website for most up to date applications:  
[www.lasertools.co.uk/product/9133](http://www.lasertools.co.uk/product/9133)

**Warning:** Hybrid vehicles use a high voltage system. Please ensure the proper precautions are taken when working on hybrid vehicles to avoid the risk of shock and injury. Personnel working with hybrid and PHEV vehicles must be trained to the level required by the vehicle manufacturer.

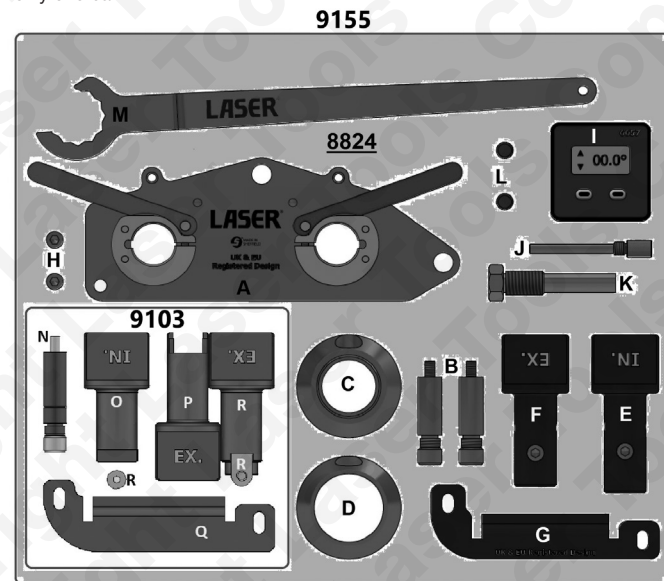
## Instructions

### Please note:

9133 is designed to be used with the exhaust adaptor (P) from Laser 8900 or 9155 when working on the engines listed in 9133 applications.

It is essential that inlet spacer bosses (T or U) are used with S (depending on engine variant) and are used in place of C, D, O, E and F found in 8900/9155.

Use 9133 components with either inclinometer reference bar (G or Q) according to the engine being worked on. Both mounting holes must be used, only one bar will fit.



**NOTE:** When loosening and tightening any pulley or sprocket fixing do not use the camshaft or crankshaft alignment tools to torque against. ALWAYS use the correct sprocket/pulley holding tool. Laser Tools recommends the use of 7279 Pulley Holding Tool set & 8421 for VAG.

## Instructions

### IMPORTANT: BEFORE EACH USE:

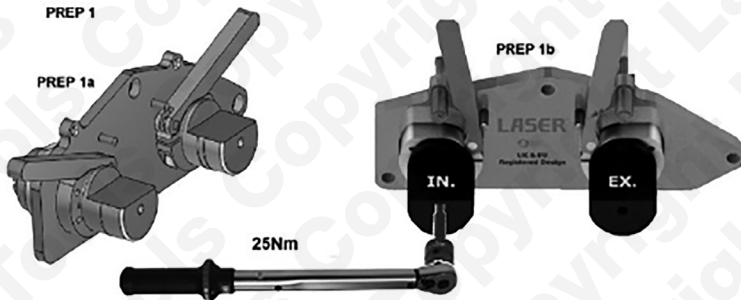
#### Digital Camshaft Angle Setting Kit – Preparation and Clamp adjustment

Before each use the clamping action of the adaptor locking levers (from 8824/9155 kits) require adjustment. The following procedure should be used to set the clamping force (see image PREP 1).

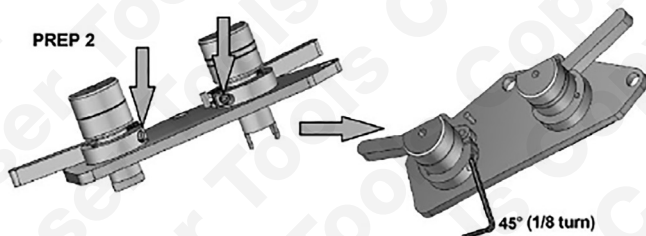
Assemble the 8900/9155 camshaft locking tools with the components that are to be used from 9133 on a bench as shown in image PREP 1a including fitting the camshaft adaptors into the assembly. Lock the adaptor locking levers and insert the lever stop pins as shown in image PREP 1b.

Using a 6mm hex key socket and torque wrench check that the adaptors do not rotate when a torque of 25Nm is applied (Image PREP 1b).

PREP 1



If the adaptors rotate at less than 25Nm, tighten the clamping adjuster screw as shown in image PREP 2:



## Instructions

### Adjusting the Clamping force:

Unlock the levers and turn the assembly upside down to access the adjuster screws.

**Note: ensure the camshaft adaptors are fully inserted into the clamps.**

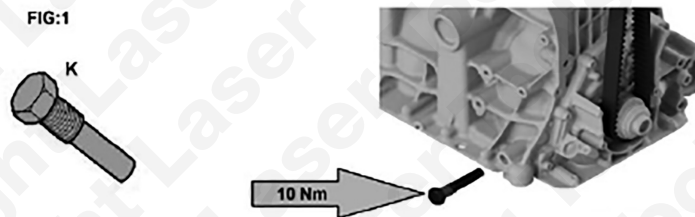
Adjust the clamping force using a 3mm hex key as shown in image PREP 2. Tighten the screw by 1/8 of a turn then recheck the torque figure detailed in image PREP 1b.

### Initial setting of the engine (old belt in place):

#### Component K (from 8824/9155) – Crankshaft locking pin

Locate the crankshaft locking pin blanking plug on the rear of the engine block and remove it. Screw the crankshaft locking pin (K) in to the threaded hole and tighten to 10Nm. If K will not screw fully in, remove it and turn the crankshaft through 1/4 of a turn clockwise. Refit K and tighten to 10Nm. Now turn the crankshaft clockwise until it locks against the nose of K. See figure 1.

FIG:1



10 Nm

## Instructions

Working from the transmission end of the engine, check the camshafts are aligned as shown in figure 2. If the they are 180 degrees out, remove **K** and rotate the crankshaft 360 degrees, refit **K** and ensure the camshafts align as shown in figure 2.

**NOTE: Do NOT remove the water pump drive belt pulley.**

FIG:2 INLET



EXHAUST



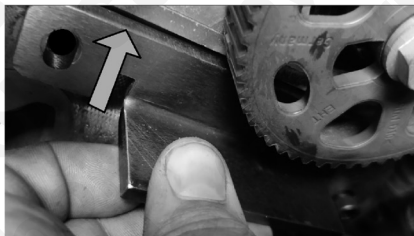
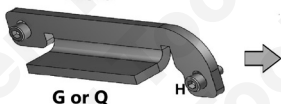
### Fitting 9133 Camshaft Alignment Components

**Components G or Q with H - Inclinator Reference Bar:**

Fit the reference bar (**G** or **Q**) from 9155 using fixing screws (**H**) from 9155 as shown in Figure 3.

**IMPORTANT: Ensure this area is clean so that the bar fits flush and touching against the bottom of the cylinder head for the full length of the top of (G or Q) as shown.**

FIG:3



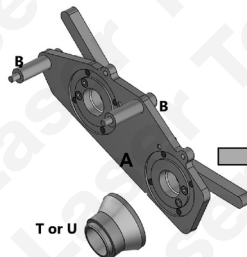
## Instructions

### Components A & T or U – Camshaft Locking Tool Assembly:

Assemble component **A** from 9155 and components **T** or **U** from 9133 as shown in figure 4 and mount the assembly on to the engine.

**Note: for use of 9133 use one spacing boss (T or U) only fitted over the inlet camshaft. Use the spacer boss that best aligns the adaptor plate (A) with the head. Use mounting spacers and screws (B) as shown.**

FIG:4





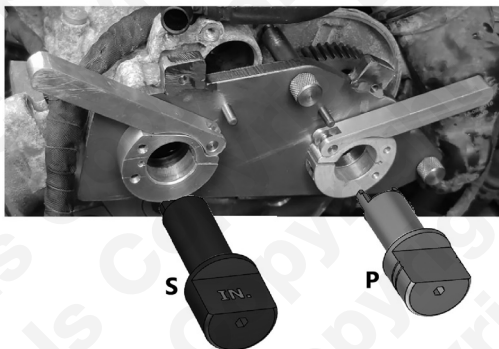
## Instructions

### Components S & P – Camshaft Adaptors:

Insert the 2 camshaft adaptors (**S**) from 9133 and **P** from 8900/9155 (see figure 5).

**NOTE: it is important that S and P are fitted to the correct camshaft as dictated by the markings. S must be fitted to the inlet camshaft and P to the exhaust camshaft. The ends of S and P must engage properly with the camshafts.**

FIG:5



### Checking Timing:

Follow the procedures described in 8824 instructions for checking timing, belt fitting, adjustment procedure and correction angle calculations.

On completion use the alloy foot process to finish.

## 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.

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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.

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**Safety First. Be Protected.**



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9133\_Instructions\_V2

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