Part No. 5130

# LASER®

## Instructions

# **Engine Timing Tool Kit** VAG 1.6, 2.0 TDi CR



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

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## **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 cambelt.

A compression check of all cylinders should be performed before removing the cylinder head.

Always consult a suitable workshop manual before attempting to change the cambelt or chain.

The use of these engine timing tools is purely down to the user's discretion and The Tool Connection Ltd cannot be held responsible for any damage caused what so ever.

ALWAYS USE A REPUTABLE WORKSHOP MANUAL.

		Engine Codes		
1.2 TDI CR	CAGB	CEGA	CFJB	CLCB
CFWA	CAGC	CFCA	CGLA	CLJA
1.6 TDI CR	САНА	CFFA	CGLB	CLLA
CAYA	САНВ	CFFB	CGLC	CLLB
CAYB	CBAA	CFFD	CGLD	CMEA
CAYC	CBAB	CFFE	CGLE	CMFA
CAYD	CBAC	CFGB	CJAA	CMFB
CAYE	CBBA	CFGC	CJCA	CMGB
CLNA	CBBB	CFGD	CJCB	CNEA
2.0 TDI CR	CBDA	CFHA	CJCC	CNFA
CAAA	CBDB	CFHB	CJCD	CNFB
CAAB	CBDC	CFHC	СКТВ	CSHA
CAAC	CCHA	CFHD	CKTC	CSLB
CAAD	ССНВ	CFHE	CKUB	CSNA
CAAE	CDBA	CFHF	СКИС	
CAGA	CDCA	CFJA	CLCA	

## **Applications**

Manufacturer	Model	Start Year	End Year
Audi	A1, A1 Sportback	2010	2015
	A3, A3 Sportback	2008	2013
	A3 Cabrio	2008	2013
	A4 / quattro	2007	2015
	A4 allroad	2009	2015
	A5 Sportback, Coupe, Cabriolet	2008	2015
	A6	2008	2014
	Q3	2011	2015
	Q5	2008	2016
	Π	2008	2014
Seat	Alhambra	2010	2015
	Altea/Altea XL	2009	2015
	Exeo	2009	2013
	Ibiza	2009	2015
	Leon	2009	2013
	Toledo	2009	
	Toledo	2012	2015
Skoda	Fabia II	2010	2015
	Octavia II	2008	2013
	Praktik	2010	2015
	Rapid/ Spaceback	2012	2015
	Roomster	2010	2015
	Superb II	2008	2015
	Yeti/ Yeti Outdoor	2009	2017
Volkswagen	Amarok	2010	2016
°,	Beetle	2011	2015
	Caddy/Caddy Maxi	2010	2015
	CC	2012	2015
	Crafter	2011	2017
	Eos	2008	2015
	Golf Plus	2009	2014
	Golf V Estate	2007	2009
	Golf VI	2008	2013
	Golf VI Cabrio	2011	2015
	Jetta	2008	2016
	Passat	2009	2011
	Passat/ Passat Alltrack	2011	2015
	Passat CC	2008	2012
	Polo	2009	2014
	Scirocco	2008	2014
	Sharan	2010	2015
	Tiguan	2007	2016
	Touran	2010	2015
	Transporter T5	2009	2015
	Transporter T6	2015	on

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## Components

This kit has been designed to fit the newest Common Rail diesel engines which are significantly different from the older PD engines.

These CR engines combine belt and gear drives by using a toothed belt to transfer the drive from the crankshaft to one of the camshafts then using gears to transfer the drive from one cam to the other.



Ref.	Code	OEM Ref.	Description	
A	C216	T20102   3359	Injection Pump/Camshaft Alignment Pin	
в	C157	T10050	Crankshaft Pulley Locking Tool	
С	C304	T10100	Crankshaft Pulley Locking Tool	
D	C450	T10264	Ball End Hex Key 6mm	
E	C452	T40098	3.9mm Tensioner Pulley Locking Pin	
F	C451	T10265	2.5mm Tensioner Pulley Locking Pin	
G	C503	T10051	Sprocket Holding Tool	
н	C504	T10052	Cam Sprocket Hub Puller	
1	C505	T10255	Oil pump   Balancer Shaft Alignment	

## Warning

Incorrect or out of phase engine timing can result in damage to the valves. 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.
- 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 manufacturer's service manual or a suitable proprietary instruction book.
- Incorrect or out of phase engine timing can result in damage to the valves.





## Instructions

#### **Preparation:**

Note: Where these engines are mounted in front to back configuration it will be necessary to remove the front grill and radiators. To significantly ease this operation we recommend the use of the VAG Guide Pin Kit - Part No. 4637.

Inner wheel arch

Low pressure fuel lift pump

Engine under shield

necessary to remove:

Auxiliary drive belts and pulleys

For camshaft drive belt replacement it is only

DPF pressure sensor wiring and bracket

Belt covers

Α

В

## Instructions

### **Components D/E**

Component D allows the user to adjust the Camshaft drive belt tensioner pulley and E is then used to lock the tensioner in the retracted position to make belt removal and fitting easier.



#### **Component F**

Component F is used to lock the auxiliary belt tensioner in its retracted position.

# **Component Descriptions**

#### **Component A**

The injection pump camshaft alignment pin is used to hold the camshaft in the correct position and allows the cam sprocket to be loosened whilst maintaining the position of the camshaft (always use an appropriate sprocket holding tool to prevent damage to the pin).

**Components B/C** 

Components B and C are both crankshaft position locking tools and whilst they work on the same principle they are different. Use the appropriate tool unit for the vehicle as recommended by the manufacturers' instructions.

Note: A crankshaft pulley requiring the T10050 has its timing mark aligned with a tooth where as a pulley requiring the T10100, the timing mark is between the teeth.





#### **Component G**

The sprocket holding tool G allows the user to hold the appropriate sprocket whilst loosening its fixing without damaging the locking pins.

#### **Component H**

The camshaft hub puller is required when dismantling the upper cylinder head. It is used to remove the cam to cam gears so they can be timed to each other correctly.

#### **Component I**

For removing and installing the balance shaft module.

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.



Guarantee

5130 Instructions V5



TOOL

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