Engine Timing Tools
Ford 2.2 TDCi Transit

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Introduction

This kit has been developed specifically for the chain driven 2.2 common rail diesel engines fitted in the Ford Transit from around 2006 with the engine numbers listed below.

Description:

The kit consists of the components required to lock the crankshaft and cam sprockets in their timed position to allow the removal and replacement of the cam chain and associated components.

Plan Layout
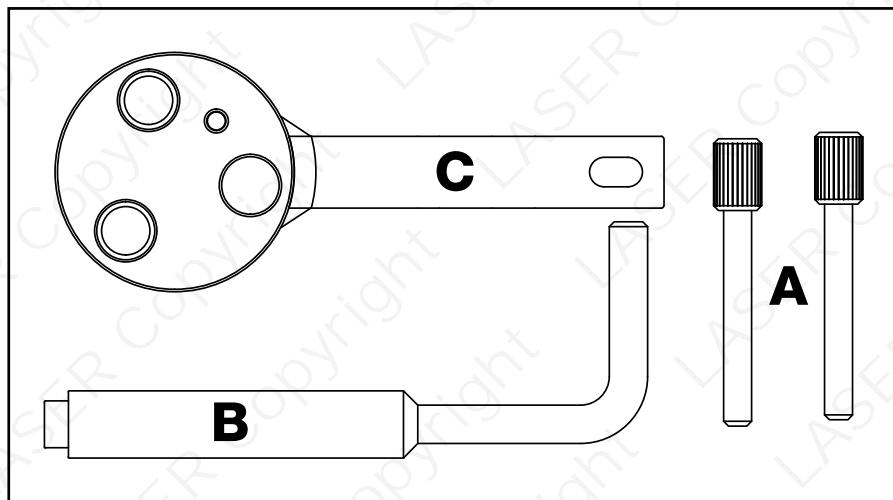
Ref	Code	Oem Code	Description
A	C091		Camshaft Timing Pins 6mm (2)
B	C342	303-698	21-251	Crankshaft (Flywheel End) Alignment Pin
C	C624	303-1587	Crankshaft Sprocket Locking Tool

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 Cam belt.

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

Always consult a suitable work shop manual before attempting to change the Cam belt or Chain.

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

ALWAYS USE A REPUTABLE WORKSHOP MANUAL

N.B The information given below is for reference only. We recommend the use of Manufacturer data or Autodata.

Manufacturer	Capacity	Description	Engine code	Start year
Ford Transit	2.2	TDCi	CYFA	2011
	2.2	TDCi	CYFB	2011
	2.2	TDCi	DRFA	2011
	2.2	TDCi	DRFB	2011
	2.2	TDCi	P8FA	2006
	2.2	TDCi	P8FB	2006
	2.2	TDCi	PGFA	2008
	2.2	TDCi	PGFB	2008
	2.2	TDCi	QVFA	2006
	2.2	TDCi	QWFA	2006
	2.2	TDCi	SRFA	2008
	2.2	TDCi	SRFB	2008
	2.2	TDCi	SRFC	2008
	2.2	TDCi	SRFD	2008
	2.2	TDCi	SRFE	2008
	2.2	TDCi	UHFA	2011
	2.2	TDCi ECOnetic	CYFC	2011
	2.2	TDCi ECOnetic	DRFC	2011
	2.2	TDCi HDT	USRA	2011

Instruction

Preparation and precautions:

- Raise the front of the vehicle and remove the right hand front wheel and inner wheel arch where required.
- Remove the engine under shield, top cover, air intake, auxiliary drive belt(s) and crankshaft position sensor.
- Ensure the engine is at TDC No1 cyl.

Component Descriptions:

Component A

Camshaft pulley locking tools, designed to be fitted as shown once the engine has been locked at TDC No1 cyl. by fitting component **B**. Ensure the camshaft pulley marks are aligned as shown Fig. 1.

Component B

Turn the crankshaft till the camshaft marks align. Remove the crankshaft TDC sensor and insert **B** as shown in Fig. 2.

Component C

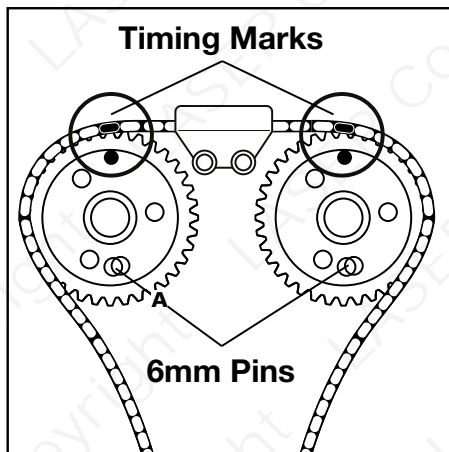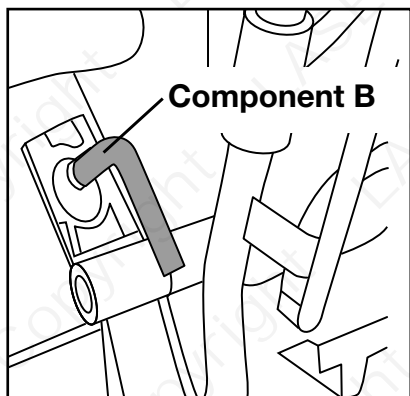Used to align the crankshaft pulley when refitting. Fit as shown in Fig. 3.

Timing Marks

A

6mm Pins

Fig. 1

Component B

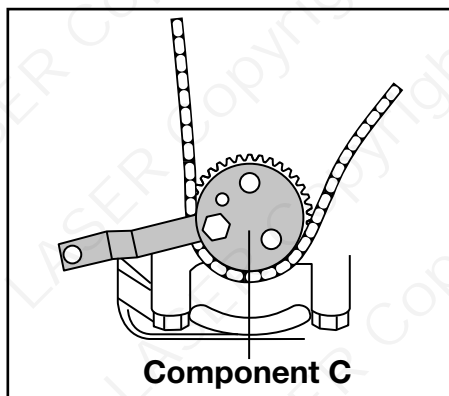**Fig. 2**

Component C

Fig. 3

Warning

Incorrect or out of phase engine timing can result in damage to the valves.

The 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/belt has been removed (unless specifically stated)

- Do not use the timing chain/belt to lock the engine when slackening or tightening crankshaft pulley bolts

- Mark the direction of the chain/belt 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

- Remove spark or glow plugs to make the engine turn easier

- Check the diesel injection pump timing after replacing the chain

- Observe all tightening torques