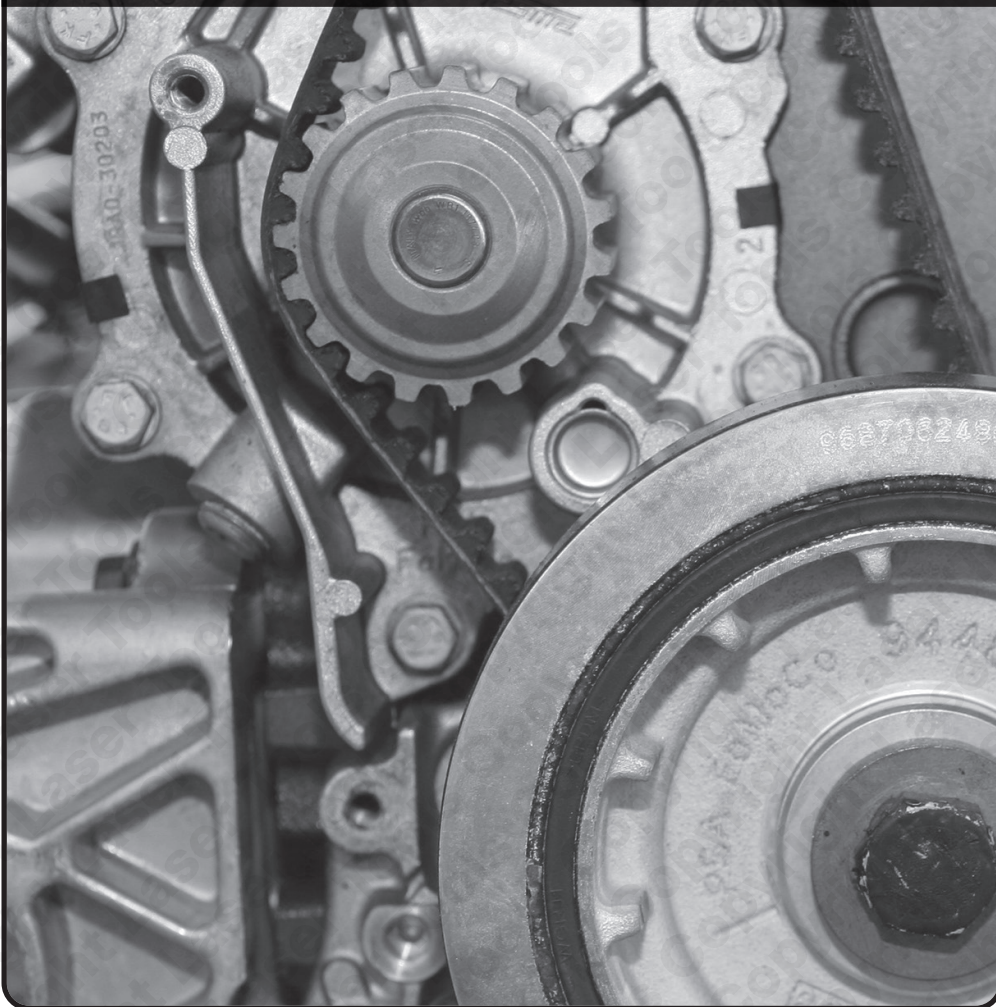


# LASER®

Part No. 8194

## Instructions

### Engine Timing Tool Kit for Volvo Diesel & Petrol



[www.lasertools.co.uk](http://www.lasertools.co.uk)

## Introduction

This kit combines the Laser 8108 (diesel kit) and the 8134 (petrol kit) to provide all the timing tools required to set the engine timing on Volvo 1.5L and 2.0L petrol engines, as well as the 2.0L diesel engines found across the Volvo range from 2012.

- Applications include: Volvo S60 (2013 - 2018), S80 (2013 - 2018), S90 (from 2016), V40 (2014 - 2019), V60 (2013 - 2018), V70 (2013 - 2016), V90 (from 2016), XC40 (from 2017), XC60 (from 2013), XC70 (2013 - 2016) and XC90 (from 2014).
- Engine code applications include: diesel 2.0L D4204T; petrol 1.5L B4154 and 2.0L B4204T.
- Provides the camshaft timing tools for petrol 1.5 and 2.0L, as well as the crankshaft locking tools for diesel and petrol.
- Equivalent to OEM refs. 999 7490, 999 7497, 999 7495 & 999 7233.

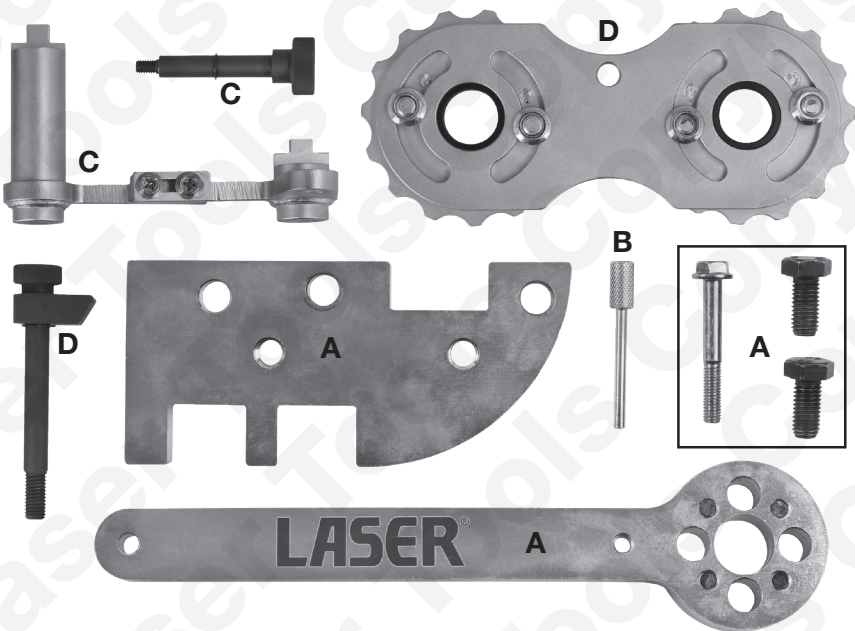
*Designed to be used in accordance with OEM instructions.*

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.



## Components



Ref.	Comp. Codes	OEM Ref.	Description
A	C961	999 7495	Crankshaft Pulley Holding Tool Components
B	C962	999 7233	High-Pressure Fuel Pump Sprocket Locking Tool
C		999 7490	Camshaft Setting Tools
D		999 7497	Camshaft Sprocket Locking Tool

## Applications

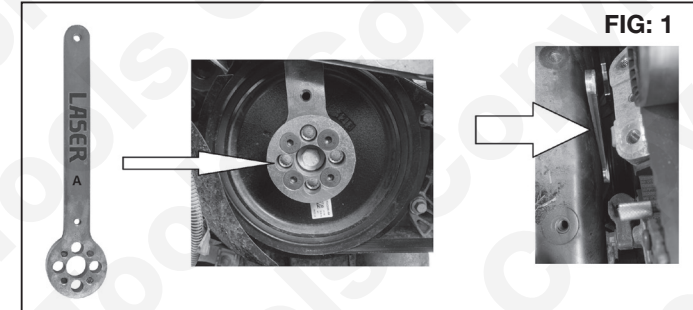
Model	Year	Engine Codes	
Volvo 2.0L Diesel			
S60	2013 - 2018	D4204T11	
S80	2013 - 2016	D4204T12	
S90	2016 - on	D4204T14	
V40	2014 - 2019	D4204T16	
V60	2013 - 2018	D4204T17	
V70	2013 - 2016	D4204T20	
V90	2016 - on	D4204T23	
XC40	2017 - on	D4204T4	
XC60	2013 - on	D4204T5	
XC70	2013 - 2016	D4204T6	
XC90	2014 - on	D4204T8	
		D4204T9	
Volvo 1.5L & 2.0L Petrol			
S60	2013 - 2018	1.5L	(2.0L continued)
S80	2013 - 2016	B4154T2	B4204T9
S90	From 2016	B4154T3	B4204T23
V40	2014 - 2020	B4154T4	B4204T26
V60	2013 - 2018	B4154T5	B4204T27
V70	2013 - 2016		B4204T29
V90	From 2016	2.0L	B4204T31
XC40	From 2017	B4204T11	B4204T35
XC60	From 2013	B4204T17	B4204T/B1APHEV
XC70	2013 - 2016	B4204T19	B4204T37
XC90	From 2014	B4204T20	B4204T38
		B4204T21	B4204T43

Always refer to the website for most up to date applications:  
[www.lasertools.co.uk/product/8194](http://www.lasertools.co.uk/product/8194)

## Instructions - Volvo 2.0L Diesel (Part No. 8108)

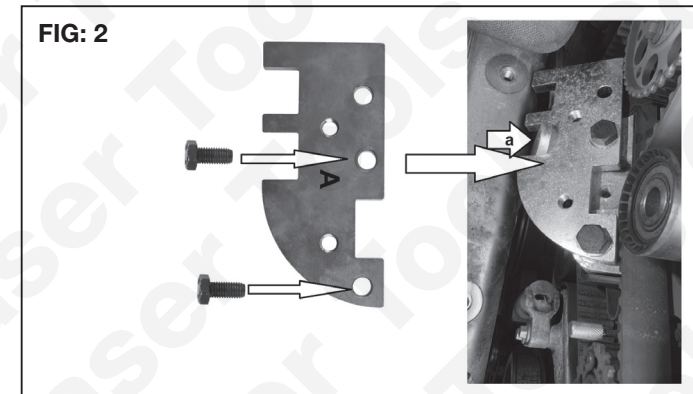
- Always refer to manufacturer specific data and instructions.
- Support the engine from underneath.
- Mark the position of, and then remove, the right hand engine mounting, upper torque reaction link and bracket.

1. The crankshaft holding tool (A) is assembled from 2 major components. A lever and a holding bracket. It is required to hold the crankshaft while the pulley bolt is being loosened or tightened. Fit as shown in figure 1 and 2.

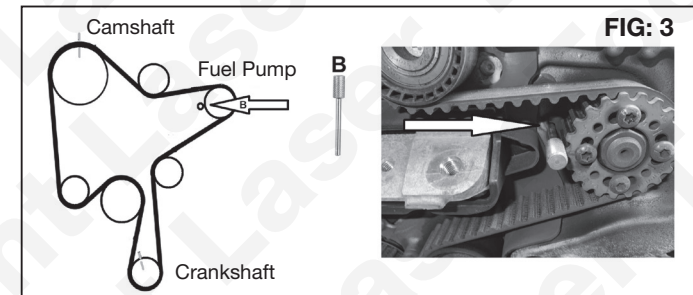


Once A is fitted and tightened, the crankshaft pulley bolt can be removed allowing the pulley and lower cover to be removed.

2. Once the pulley is removed, align the timing marks as shown in figure 3 and fit the fuel pump locking tool (B).



**NOTE:** Remove and fit the camshaft drive belt in accordance with manufacturer's instructions.

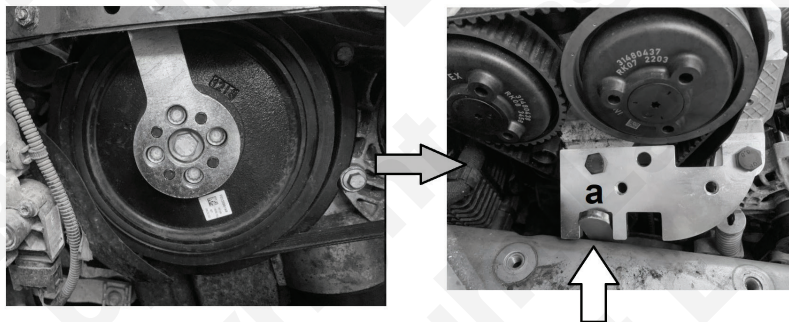




## Instructions - Volvo 1.5L & 2.0L Petrol (Part No. 8134)

1. For petrol engines align the crankshaft lever with the first slot (a) in the mounting bracket as shown in figure 1.

FIG. 1

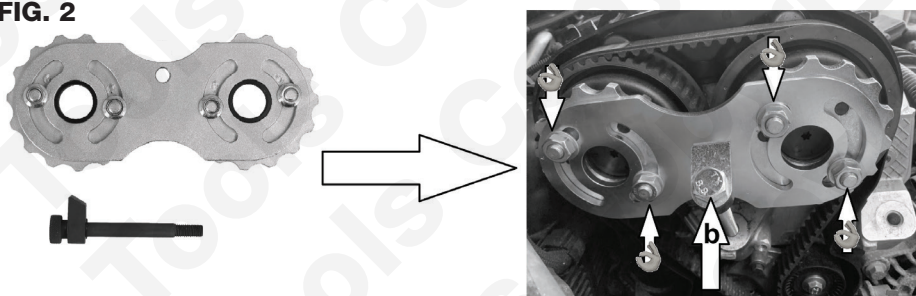


2. Remove the crankshaft pulley centre bolt, the pulley holding bolts, the alignment tool and the timing belt lower cover.

### Camshaft Alignment:

1. With the crankshaft pulley removed, turn the crankshaft to align the crankshaft timing marks.
2. Fit the camshaft sprocket locking tool (D) as shown in figure 2. Tighten the main fixing bolt (b) just enough to hold the sprocket locking tool in place and hand tighten the sprocket tool nuts.

FIG. 2

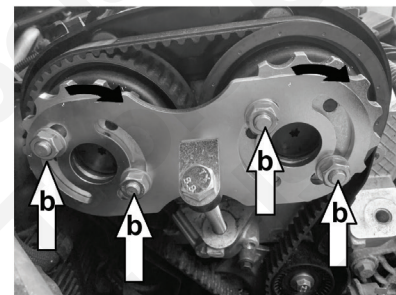


## Instructions - Volvo 1.5L & 2.0L Petrol (continued)

3. Turn the camshaft sprocket adjuster wheels clockwise as far as they will go and tighten the holding bolts (b) to 25Nm as shown in figure 3.

FIG. 3

b = 25Nm

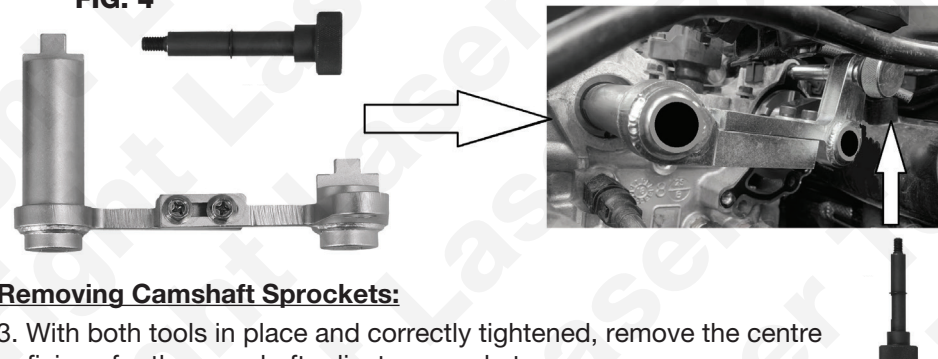


4. Slacken the belt tensioner and remove the cambelt.

### Removing Camshaft Sprockets:

1. When removing the camshaft sprockets, the camshaft must be held in its timed position by fitting the camshaft setting tool (C) at the other end of the engine to the camshaft sprockets. This will require the removal of the petrol high pressure fuel pump and pipes.
2. With the camshaft sprocket Holding tool in place, fit the camshaft setting tool (C) as shown in figure 4.

FIG. 4



### Removing Camshaft Sprockets:

3. With both tools in place and correctly tightened, remove the centre fixings for the camshaft adjuster sprockets.
4. Remove the sprocket holding tool and the sprockets as required.

**IMPORTANT:** Ensure the camshaft locking tool (C) remains in place to hold the camshafts in their timed positions.

Follow the OEM vehicle manufacturer's procedure for fitting the camshaft sprockets and camshaft drive belt.

## 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.



**Safety First. Be Protected.**

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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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