

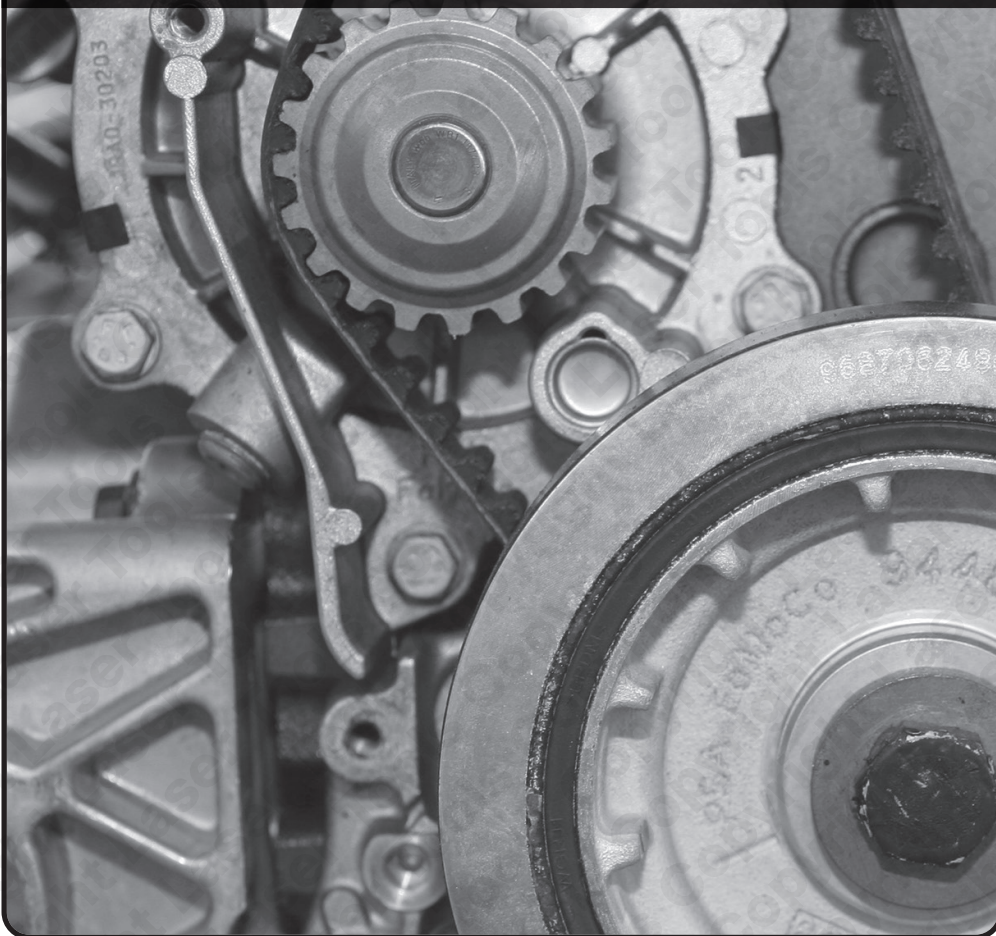
LASER[®]

Part No. 8514

Instructions

Engine Timing Tool Master Kit

PSA Wet Belt 1.0, 1.2 Petrol
(with Pulley Holding Tool)



www.lasertools.co.uk

Introduction

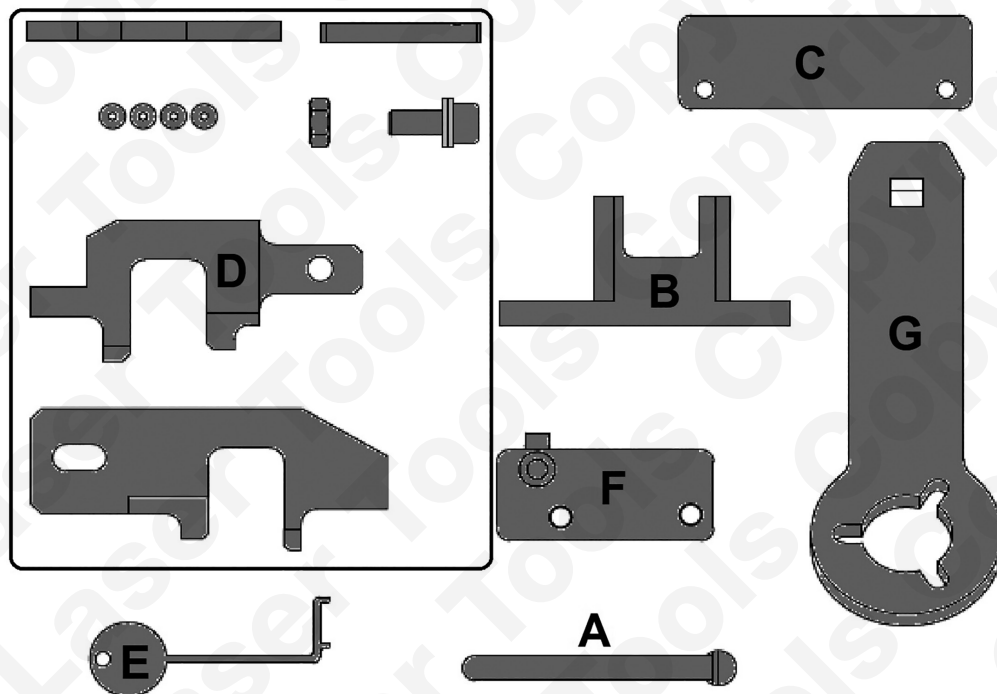
The 8514 kit brings together the Laser 8570 engine timing kit and Laser 8369 crankshaft pulley holding tool and the newly introduced 8870 exhaust camshaft alignment tool, for use on EB0 and EB2 wet belted engines from the PSA (Stellantis) group, into one complete master kit.

It features all the tools that allow the most cost effective method of timing these engines depending on the cam cover fitted (early EB2 engines have a one piece cam cover that must be removed to access the cams; later engines have a split plastic cam cover allowing a simpler method of timing to be used). The Laser 8570 kit provides the tools do the job in both ways allowing significant time saving to be made on the later engines.

- Applications include: Citroën DS, Peugeot, Toyota & Vauxhall/Opel models.
- Engine Applications include: EB0 1.0L & EB2 1.2L 3 cylinder wet belted engines, please see full applications list.
- Includes Laser Part No. 8369 crankshaft holding tool & Part No. 8870 camshaft holding tool.
- Contains tools equivalent to: OEM refs. 0109-2A, EN-52127-1, 0109-2B, 0197-N, EN-52127-2, J-0109-2C, J-0109-2D & 0109-2E.

Use in accordance with OEM instructions.

Components



			OEM Ref.	
Ref.	Comp. Code	Description	PSA	Vauxhall/Opel
A	C662	Flywheel Locking Tool	0109-2B	EN-52127-2
B	C994	Inlet Camshaft Timing Tool	J-0109-2C	N/A
C	C995	Exhaust Camshaft Timing Tool	J-0109-2D	
D	C661	Camshaft Setting Tool	0109-2A	EN-52127-1
E	C982	Cambelt Checking Tool	G-0109-6	N/A
F	C1066	Exhaust Camshaft Alignment Tool	0109-2E	
G	8369	Crankshaft Holding Tool		

Applications

Manufacturer	Model	Year	Engine Codes		
Citroën	Berlingo	2014 on	1.0	EB2DTSM (HNW)	HNN (EB2ADTX)
	C1	2014 - 2018	EB0 (ZMZ)	EB2F (HMT)	HNP (EB2ADT)
	C3	2012 on	EB0F (ZMZ)	EB2F (HMX)	HNS (EB2ADTS)
	C4	2014 on	ZMZ (EB0)	EB2F (HMZ)	HNV (EB2DT)
	C5	2019 on	ZMZ (EB0F)	EB2FA (HMR)	HNV (EB2DTM)
	C-Elysee	2012 on	1.2	EB2FAD	HNW (EB2DTSM)
	DS3	2013 on	(EB2ADT)	EB2FB (HMP)	HNX (EB2DT)
	DS4	2014 - 2019	(EB2ADTS)	EB2M (HMY)	HNX (EB2DTS)
	C-Elysee	2018 - 2020	(EB2FAD)	HMM (EB2FAD)	HNY (EB2DTS)
	DS7	2018 on	EB2FA	HMT (EB2F)	HNZ (EB2DT)
Vauxhall/Opel	Combo-E	2018 on	1PP (HM01)	HMP (EB2FB)	LEG/EB2ADTS
	Corsa-F	2019 on	EB2 (HMT)	HMR (EB2FA)	LEG/EB2DTS
	Crossland X	2017 on	EB2 (HMW)	HMT (EB2)	LES/B12XHT (EB2DTS)
	Grandland X	2017 - 2018	EB2 (HMZ)	HMT (EB2F)	LES/D12XHL (HNP/EB2ADT)
Peugeot	108	2014 - 2018	EB2ADT (HNK)	HMU (EB2D)	LES/D12XHT (EB2ADTS)
	208	2012 on	EB2ADT (HNP)	HMV (EB2M)	LES/D12XHT (HNS/EB2ADTS)
	301	2012 on	EB2ADTD	HMY (EB2M)	LES/EB2ADT
	308	2013 on	EB2ADTD (HNK)	HMZ (EB2)	LES/EB2DT
	508	2019 on	EB2ADTS	LEZ/EB2FA	LES/F12XHT (HNS/EB2ADTS)
	2008	2013 on	EB2ADTS (HNS)	HMZ (EB2F)	LEZ/EB2F
	3008	2014 on	EB2ADTX (HNN)	HNK (EB2ADTD)	
	5008	2014 on	EB2DT (HNZ)		
	Partner	2014 on	EB2DTM (HNV)		
	Rifter	2018 on	EB2DTS (HNW)		
Toyota	Aygo	2015 - 2018	EB2DTS (HNY)		

Always refer to the website for the most up to date applications:
www.lasertools.co.uk/product/8514

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.



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.

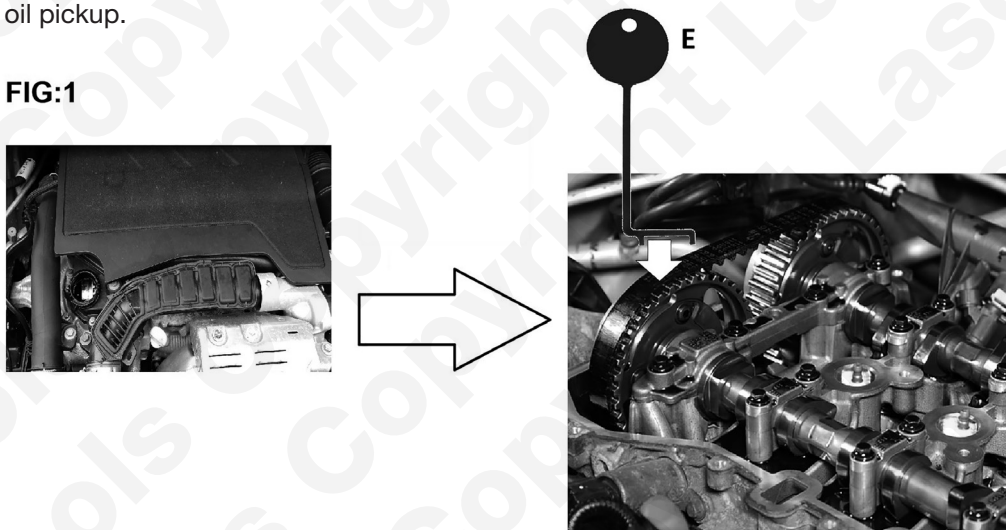
Instructions

Component Descriptions:

Component E = Cambelt checking tool:

It is possible to check the cambelt condition by checking it for swell. This can be done easily without dismantling the engine. Using component **E** through the oil filler cap opening, it is possible to confirm if the belt has swollen or not. If the checking gauge (**E**) does not fit on the belt it indicates the belt has swollen and must be replaced (figure 1). It is also advisable to remove the engine sump and clean out the oil pickup.

FIG:1

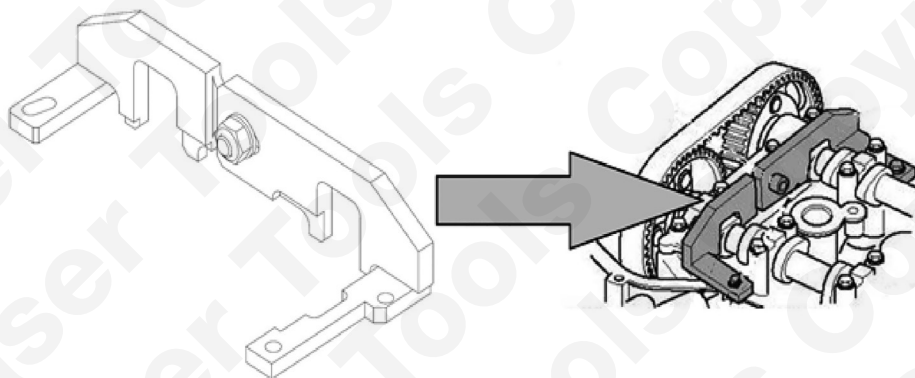


*NOTE: When working on earlier engines that do not have a split plastic cam cover use camshaft setting tool (**D**) to clamp the camshafts in place as shown in figure 2:*

Component D = Camshaft Alignment Assembly

Assemble the camshaft timing tool (**D**) and fit on the camshafts as shown in figure 2.

FIG:2



Instructions

*NOTE: When working on an engine with a split cam cover as shown in figure 3, use camshaft alignment tools (**B**) and (**C**) as shown in figures 4 and 5.*

*To fit component **C** the brake vacuum pump must be removed.*

FIG:3



FIG:4

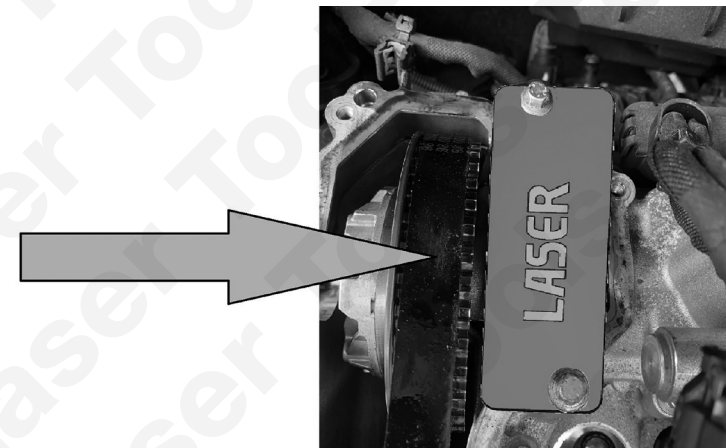
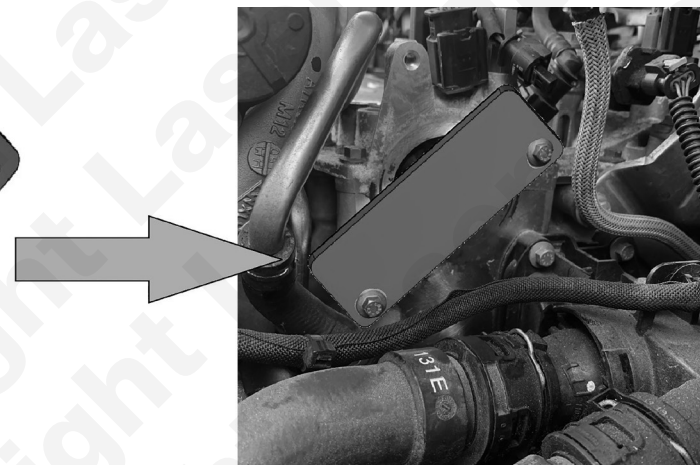
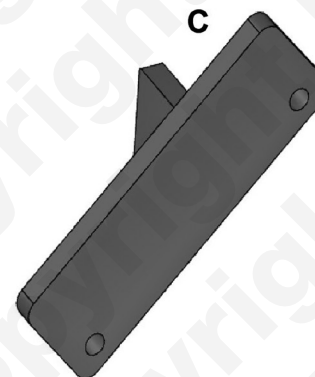


FIG:5



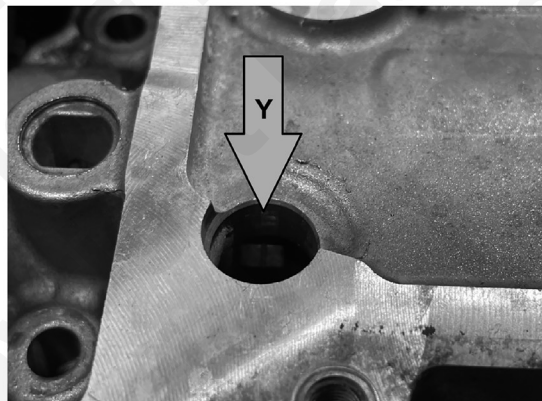
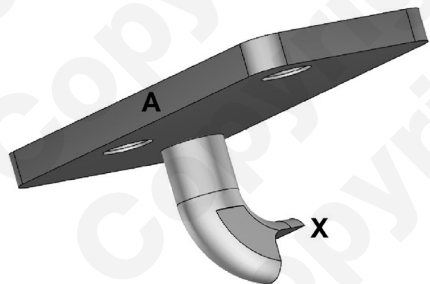
Instructions

Component F = Exhaust Camshaft Alignment

For additional accuracy and to help remove unwanted play from the exhaust camshaft insert (F) from the top of the cam cover box and locate it on the corner of the square on the exhaust camshaft as shown in figure 6.

Ensure that the finger (X) engages properly with the corner on the square on the camshaft (Y).

FIG:6



Bolt down using 2 cover bolts as shown in figure 7.

FIG:7

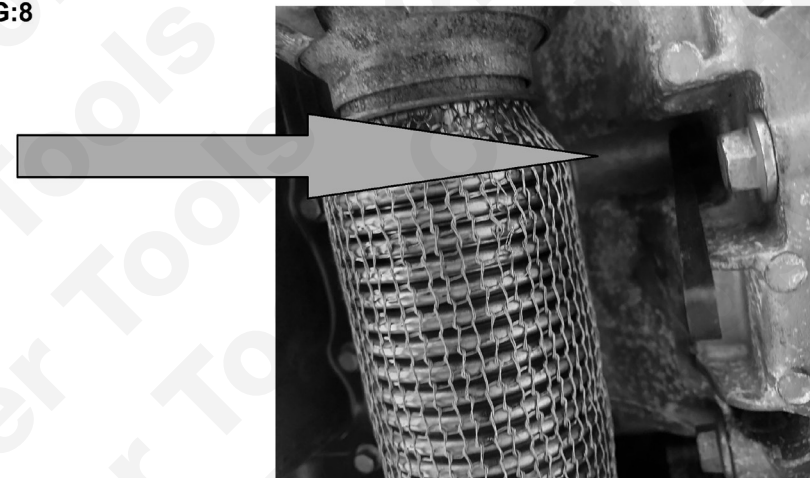
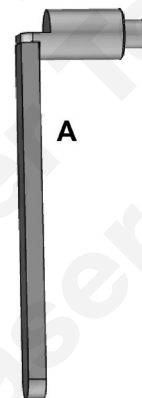


Instructions

Component A = Flywheel Alignment Tool

Insert into flywheel as shown in figure 8.

FIG:8



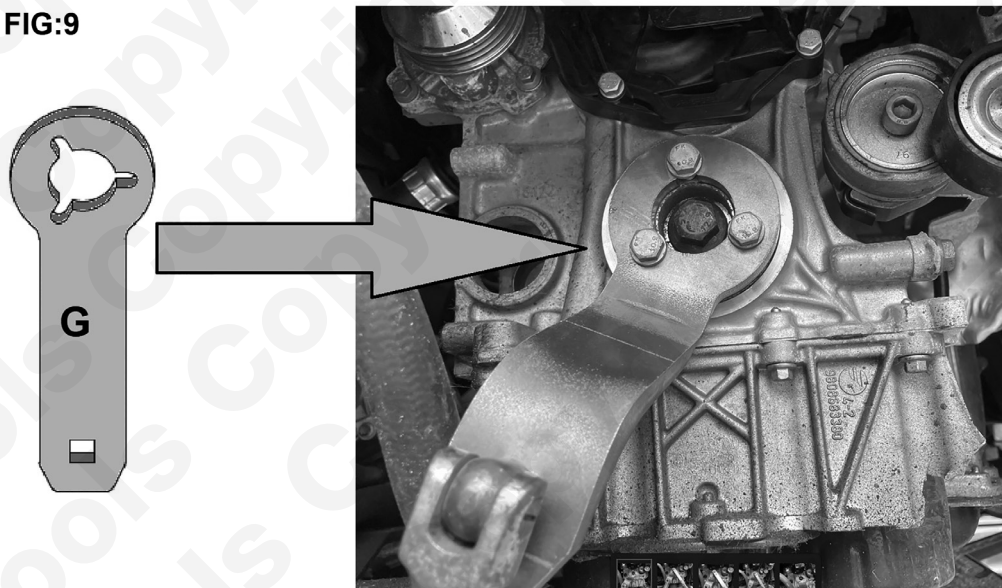
Instructions

Component G = Crankshaft Holding Tool

G is specially designed to bolt to the crankshaft in place of the front pulley and allow the crankshaft to be held with a 1/2" drive breaker bar to allow the user to loosen or tighten the main crankshaft sprocket without overloading the timing tools.

See figure 9.

FIG:9



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.

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.



Safety First. Be Protected.



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