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# Engine timing tools

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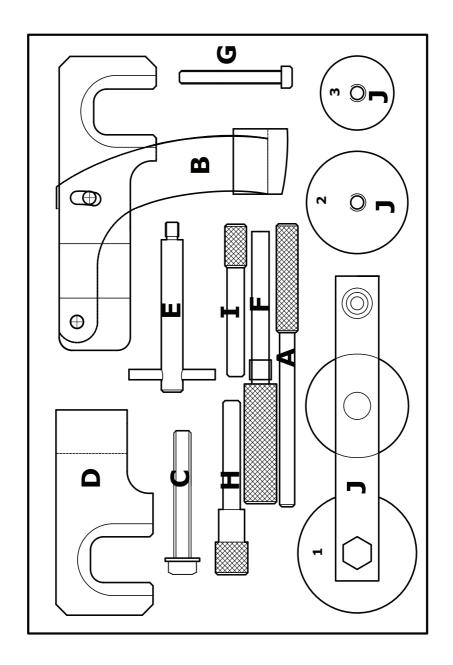
Nissan 1.5 | 1.9 | 2.2 dCi Renault 1.5 | 1.9 | 2.2 dCi Opel 2.2 | 2.5 DTi

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# K 10539

www.kamasatools.com

## Pack Layout



## **Component identity**

Part No	OEM Ref	Description	Identification
A 23164-18	Mot 1536 KM 6203	Flywheel Setting Pin	
B 23164-19	Mot 1537 KM 6204	Camshaft Locking Tool Exhaust	
C 23164-19E		Locking Screw M8 x 60 mm (2)	
D 23164-20	Mot 1534 KM 6205	Camshaft Locking Tool Inlet	
E 23164-17	Mot 1538	Hi-Pressure Fuel Pump Pulley Locking Pin	
F 23054-04	Mot 1489	Crankshaft Timing Pin	
G 23061-08		Tensioning Screw M6 x 30 mm	[
H 23069-23	Mot 1054	Flywheel Locking Pin	
l 23069-25	Mot 1430	Camshaft Timing Pin	
J 23069-59	Mot 1543	Tension Pre-setting Tool	

# Applications

Manufac- turer	Model	Туре	Туре	Year	Compo- nent
Renault Diesel	Clio	1.5 dCi	K9K 702/704/710	01-06	I, L
	Mégane/ Scénic	1.9D	F8Q620, F8Q784	95-99	J, K, M
	Mégane/ Scénic	1.9D	F9Q 710/716/ 720/722/730/734/736	97-02	J, K, M
	Mégane/ Scénic	1.9 dCi	F9Q 732	99-06	J, K, M
	Laguna	1.9 TD	F9Q 718	99-06	J, K, M
	Trafic	1.9 dCi	F9Q 760	01-06	J, K, M
	Laguna	1.9 dCi	F9Q 718, F9Q 760	99-06	J, K, M
	Laguna ll	2.2 dCi	F9Q 750, F9Q 754	01-06	A, B, C, D, E
	Espace / Grand Es- pace	2.2 dCi	F9Q 820	02-06	A, B, C, D, E
	Espace	2.2 dCi	G9T 742/743	02-	A, B, C, D, E
	Master	2.2 dCi	G9T 710/720, G9U 720	00-03	A, B, C, D, E
	Trafic	2.2 dCi	F9Q 820	00-06	A, B, C, D, E
Nissan Diesel	Micra / Kubistar	1.5 dCi	К9К	02-06	J
	Primastar	1.9 / 2.5 dCi	F9Q 718, F9Q 760, G9U 720	02-	A, B, C, D, E, M
	Interstar	1.9 / 2.2 / 2.5 dCi	F9Q 718, F9Q 760, G9T 710/720, G9U 720	02-	A, B, C, D, E, M
Opel Diesel	Vivaro	2.2 TDi	G9T	04-	
	Movano	2.2 / 2.5 TDi	G9T 720	00-06	A, B, C, D, E
	Movano	2.2 / 2.5 TDi		00-06	A, B, C, D, E

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# **Engine Timing Tools**

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This set of tools enables the correct engine timing to be made when servicing the Clio 1.5 K9K | 1.9 F9Q 750 | 754 & 2.2 | 2.5 dCi G9 engines used in Renault Laguna II | Espace | Trafic & Master and 2.2DTi ('00-'05 ) engine codes G9T 720 in models Opel Movano 2.2 TDi. Also Nissan 1.5dCi | 1.9 | 2.5dCi

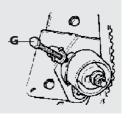
### **Component Applications**

### **Tensioning Adjustment Screw**

To enable the correct tension to be applied to the timing belt.

### **Crankshaft Timing Pins**

There are two different pieces included in this set. As with the camshaft timing pin, they are inserted through the engine block and used to position the crankshaft to achieve the correct timing position of the first cylinder. It is important that these pieces are used to set the timing position, but are not to be used to lock the flywheel.





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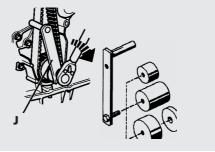
### **Tensioning Tools**

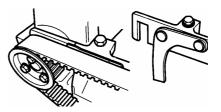
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To enable the correct pre-tension to be applied to the timing belt. This tool has 3 interchangeable covers and a spacing washer to suit the variety of tensioner used.

Install the exhaust camshaft locking tool **B** and hold in place using a setscrew **C**.

If the tool cannot be fitted correctly, rotate the crankshaft one turn clockwise. Slacken the sprocket fasteners, but check that during installation the fasteners are not positioned at the end of the slots.





Install the inlet camshaft locking tool **D** over the vertical flats on the camshaft.

images courtesy of Autodata<sup>tm</sup> Further information can be found at www.autodata.ltd.uk

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#### **Safety Precautions**

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- If the engine has been identified as an Interference engine, damage to the engine will occur if the timing belt has been damaged. A compresion 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 has been removed
- To make turning the engine easier, remove the spark plugs
- 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
- Check the ignition timing after the belt has been replaced.
- 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

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 recheck the camshaft and crankshaft timing positions.

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