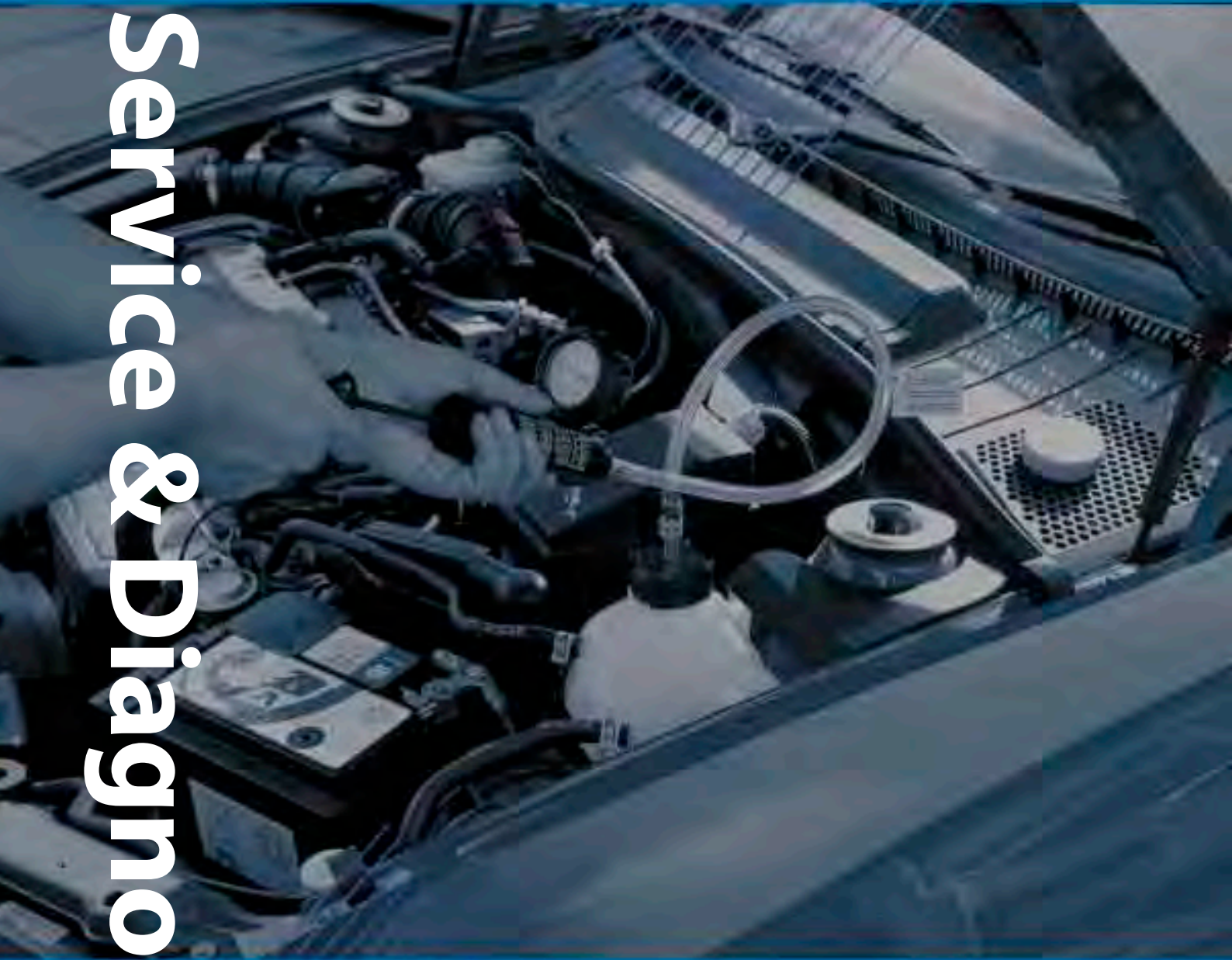




Service & Diagnostics



Engine

Valve Spring Compressors

039900

Valvemaster® Service Centre

- Air-assisted valve spring compressing system.
- Removes valve springs and replaces stem seals without removing the cylinder head from the vehicle.
- Universal mounting brackets enable use on a wide range of OHV and OHC petrol and diesel engines.
- Reversible, multi-position lever and precise height adjustment for maximum flexibility.
- Kit includes air holding adapter, valve stem seal pliers, seal installer kit and telescopic magnetic pick-up.
- Mounted on strong metal panel.



Contents

Part No.	Qty	Description
039601	1	Pillars (2), Beam (1) Set
039604	1	Clevis Assembly
039606	1	Adjustment Collar Assembly
039603	1	Beam
039608	1	Lever
039650	1	Air Holding Adaptor
039501	1	Valve Spring Adaptors
039700	1	Valve Stem Seal Pliers
039800	1	Valve Stem Seal Installer Kit
670006	1	Telescopic Magnetic Pick-Up Tool
155428	1	Storage Panel

039650

Air Holding Adaptor

- Long reach 14/18mm spark plug adaptor for connection to standard workshop airline.
- Cylinder pressure holds the valve in position whilst spring is removed.



039700

Valve Stem Seal Pliers

- Compact, but long reaching tips are specially shaped to improve grip of stem seal.
- Working range from 7mm diameter.
- Mild steel with moulded plastic handles for operator comfort.



039800

Valve Stem Seal Installer Kit

- A series of drive collets and pilots to install valve stem seals accurately without damaging the seal or spring.



670006

Telescopic Magnetic Pick-up

- Extends from 135mm to 490mm.



Engine Valve Spring Compressors

038000

Valve Spring Compressor Large Engines

Heavy duty valve spring compressor for removing valves in larger engines to enable valve repair and replacement, seal and guide replacement, decokes etc.

Suitable for a wide range of medium and heavy commercials, buses, tractors etc.

- Rust-proofed steel with reinforced frame.
- Cam action provides parallel lift with automatic locking action.
- Geared hand wheel adjustment.
- Straight and offset jaws.
- See table page 7 for specifications.

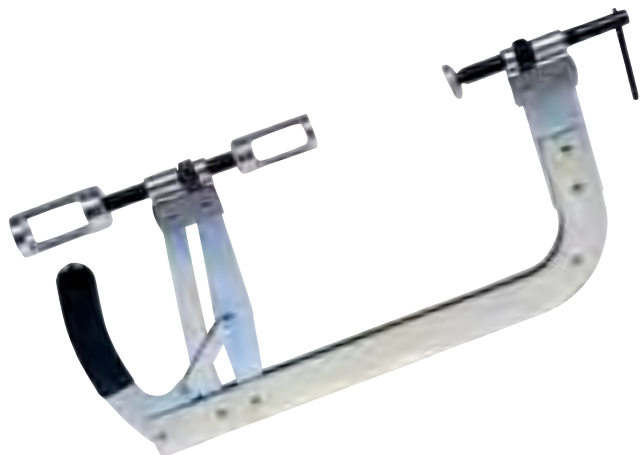


039500

Valve Spring Compressor Multivalve Engines

Removes valves in multivalve petrol and diesel engines. Direct action compressor lever and special adaptors give improved visibility.

- Easy to use in areas with restricted access.
- Complete with 25mm and 30mm valve spring adaptors.
- Rust proofed steel with reinforced frame.
- See table page 7 for specifications.



Engine Valve Spring Compressors

660210

Valve Spring Compressor Small/Medium Engines

Removes valves in small/medium petrol and diesel engines.

- Cam action provides parallel lift.
- Automatic locking action.
- Simple to operate T bar and screw adjuster.
- With straight, adjustable width jaws.
- See table below for specifications.



660430

Valve Spring Compressor Overhead Cam Engines

Removes valves in OHC petrol and diesel engines.

Also fits a wide variety of small and medium size OHV engines.

- Cam action tool provides parallel lift.
- Automatic locking action.
- Simple to operate T bar and screw adjuster.
- Open, 'bucket' style jaw gives excellent visibility aiding access to difficult areas.
- See table below for specifications.



Valve Spring Compressor Specifications

Part No.	Suits	Style	A: Jaw		B: Throat
			Min (mm)	Max (mm)	(mm)
038000	Large Engines	Offset	75	165	245
		Straight	95	186	245
039500	Multivalve Engines	–	35	142	150
660210	Small/Medium Engines	–	70	135	150
660430	Over Cam Engines	–	63	129	158



* Dimensions quoted are with tool fully compressed.

Engine Valve Grinders

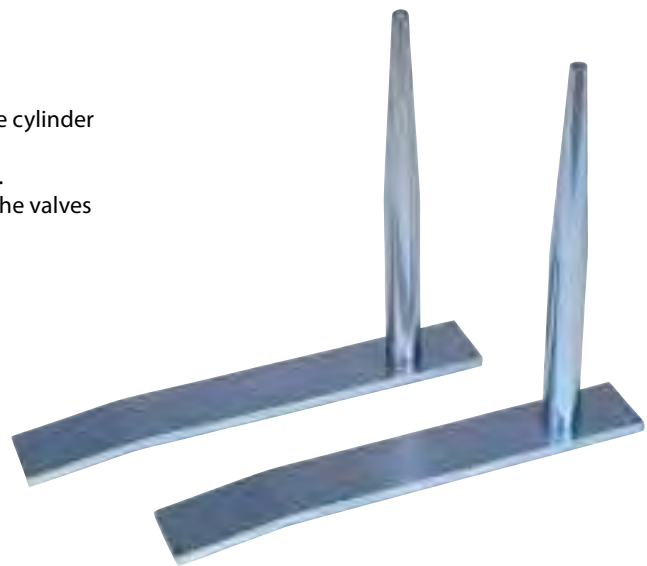
- For grinding and lapping valves.
- Wooden handles, rubber suction cup for firm, positive grip.



Part No.	Style	Suits	Length (mm)	Cup Diameter (mm)
660902	Large, single ended	For commercial vehicles, agricultural and industrial engines	224	32
660903	Medium, single ended	For cars, light commercial vehicles, agricultural and industrial engines	224	22
660904	Small, single ended	For cars, light commercial vehicles, motorcycles, marine and generator engines	224	19
660905	Small/medium, double ended	For cars, commercial vehicles, motorcycles, industrial, marine and generator engines	224	19 and 22

Engine Cylinder Head Stands

- A set of 2 base and pillar type stands to securely support the cylinder head whilst carrying out repairs.
- Essential to avoid damage when working on cylinder heads.
- Can be used on most types, including OHC engines where the valves protrude through the head.
- Fits stud holes from 9 to 18mm.
- High quality mild steel.



Part No.	Base	Pillar	Taper
017800	250 x 38 x 6mm	200 x 19mm diameter	8 - 19mm

Engine Cylinder Hones

028000

Cylinder Hone 4-in-1 Set

- Complete honing and deglazing kit for cylinder bores from 13 - 89mm.
- Suitable for use on brake and clutch cylinders, motorcycles and small bore car engine cylinders.
- Can be used with electric or air powered drills.
- Flexible drive shaft for easy alignment.
- Complete with medium grade 220 grit stones.

Cylinder Hone Stone Sets (to suit 028000)

- Each set contains 3 x 19mm, 3 x 29mm, 3 x 50mm stones and 9 x replacement spring clips.

Set Part No.	Grit
028001	Fine, 400 grit
028002	Medium, 220 grit
028003	Coarse, 100 grit



028100

Cylinder Hone

- Suitable for use on large bore engine cylinders on cars and commercial vehicles 50 - 180mm.
- Can be used with electric or air powered drills.
- Flexible drive shaft for easy alignment.
- Complete with medium grade 220 grit stones.

Cylinder Hone Stone Sets (to suit 028100)

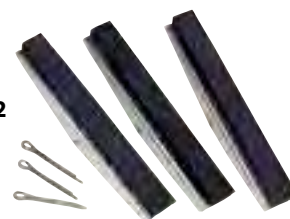
- Each set contains 3 x 100mm stones and 3 replacement cotter pins.

Set Part No.	Grit
028101	Fine, 400 grit
028102	Medium, 220 grit
028103	Coarse, 100 grit

028100



028102



Engine Piston Ring Compressors

- Complete with square drive key.
- With spring assisted ratchet type lock.



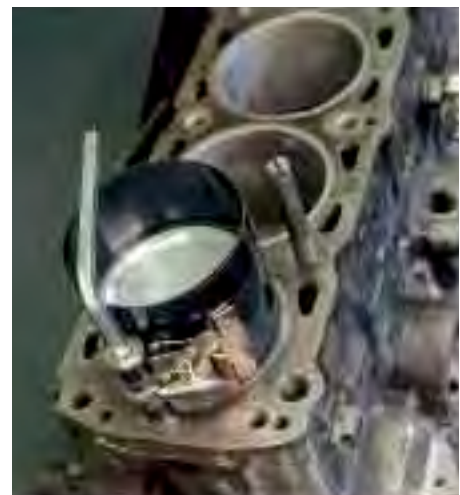
660370



660373



032200



Part No.	Type	Suits	Depth (mm)	Capacity (Ø mm)
660370	Ratchet	For cars and light commercial vehicles	Standard (80)	Medium (57-125)
660373	Ratchet	For commercial vehicles, industrial and agricultural over square engines	Standard (80)	Large (90-175)
032200	Ratchet	For large commercial vehicles, industrial and agricultural engines	Long (165)	Large (90-175)

Engine Petrol Compression Testers

- Large, shock protected, easy to read dual scale gauge for accurate checks.
- 0-20 bar.
- Quick and easy to connect dual threaded coupling to M14 and M18 spark plug ports.
- Pressure relief valve enables repeated cylinder testing without removing the gauge.
- Flexible rubber hose for easy access.
- DIN16005, DIN16063 and BS1780.

Extensions:

- 314004** M14 x 2 (64 and 94mm) for deep seated plug ports
- 314007** M18 for Ford Pinto
- 314009** M14 for Ford Zetec plus Duratec engines
- 314010** M10 x 1.0mm x 57mm
- 314011** M12 for Renault
- 314012** M12 x 1.25mm x 57mm



314000

314020

Part No.	Length (mm)	Gauge Dia. (mm)	Scale	Adaptor Thread
314000	305	83	0-20 bar / 0-300 PSI	M14, M18
314020	460	83	0-20 bar / 0-300 PSI	M14, M18
314005	Gauge Service Kit To Suit 314000, 314020			

Engine Petrol Compression Testers

314003 Petrol Compression Tester Set

- Comprehensive kit based on 314000 Petrol Compression Tester for vehicles with M10, M12, M14 and M18 spark plug threads.
- Complete with extensions, thread chasers and service kit.



Contents and Specifications

Part No.	Description	Length (mm)	Adaptor Thread	Gauge dia. (mm)	Scale
314000	Gauge Assembly	305	M14, M18	83	0-20 bar / 0-300 PSI
314002	Extension	63	M14 x 1.25	-	-
314006	Extension	94	M14 x 1.25	-	-
314007	Extension	57	M18 x 1.50	-	-
314010	Extension	57	M10 x 1.00	-	-
314012	Extension	57	M12 x 1.25	-	-
014100	Thread Chaser	95	M14, M18	-	-
014400	Thread Chaser	95	M10, M12	-	-
314005	Gauge Service Kit	-	-	-	-

314009 Zetec Adaptor

- Use with Sykes-Pickavant petrol compression testers.
- Long reach enables easy access to spark plug port on Ford Zetec engines.

Part No.	Length (mm)	Adaptor Thread
314009	158	M14



314050 Petrol Compression Tester Set – for Deep Seated Plug Ports

- Modern engines present difficult access to the plug ports making this tool very useful to overcome these new applications.
- Quick Release Petrol Compression Test Set – a specially designed 'quick release' system, enables easy access for deep-seated plug ports.
- Positive lock chuck ensures adaptors can't be left in spark plug port.
- Specially designed self-centring adaptors ensure minimal risk of cross-threading.
- 500mm braided high pressure hose.
- 20 bar Pressure Gauge assembly.
- **Adaptors:** 10 / 12 / 14mm & Ford 14mm Duratec QR.

Contents

Part No.	Description	Length (mm)	Gauge dia. (mm)	Scale
31405070	Gauge and Hose Assembly	500	83	0-20 bar / 0-300 PSI
314051	M10 Universal Adaptor	-	-	-
314052	M12 Universal Adaptor	-	-	-
314053	M14 Universal Adaptor	-	-	-
314054	M14 Ford Duratec Adaptor	-	-	-

Essential tool for the following vehicle applications

1.4 Petrol Engine	1.6 Non-turbo Petrol Engine	1.6 Turbo Petrol Engine
2006-present Peugeot 207 2007-present MINI One 2007-present Peugeot 308	2006-present Peugeot 207 Sport 2007-present MINI Cooper 2008-present Citroen C4	2006-present Peugeot 207 CC/GT 2007-present Peugeot 308 2008-present Citroen C4 2006-present Peugeot 207 RC 2007-present MINI Cooper S 2008-present Peugeot 308



Engine Diesel Compression Testers

314255 Diesel Compression Testing Kit - Europe

- Applications: Audi, Citroen, Peugeot, Rover

Contents

Part No.	Description	Length (mm)	Gauge Dia (mm)	Scale
314201	Gauge Assembly	560	83	0-60 BAR / 0-860 PSI
314237	Dummy Glow Plug - Peugeot / Citroen (Rover 115D)			
314225	M24 Dummy Injector Assembly			



314250 Diesel Compression Testing Kit - Mercedes

- Applications: Mercedes vehicles with OM601, 602, 603, 615, 616 and 617 engines.

Contents

Part No.	Description	Length (mm)	Gauge Dia (mm)	Scale
314201	Gauge Assembly	560	83	0-60 BAR / 0-860 PSI
314240	Dummy Glow Plug - Mercedes, Landrover			
314225	M24 Dummy Injector Assembly			

314200 Diesel Compression Tester - Standard Kit (Passenger Vehicles)

Comprehensive test kit for both direct and indirect diesel injected engines.

- Checks engine compression under cranking conditions.
- Enables cylinder access through dummy injector and glowplug adaptors.
- Built in pressure relief valve enables repeat tests without dismantling.
- Gauge to DIN16005, DIN16063, BS1780 standards
- For dummy glow plug/injector vehicle application list refer to pages 16 - 25.
- **Spare Parts**
 - 314005 Service Kit for 314201 Compression Tester
 - 014215 Seal Kit

Contents

Part No	Description	Length (mm)	Thread	Gauge Dia (mm)	Scale
314201	Gauge Assembly	560	—	83	0-60 BAR / 0-860 PSI
314730	90° Elbow Connector	—	—	—	—
314210	Dummy Glow Plug	73	M10 x 1.25	—	—
314215	Dummy Glow Plug	102	M8 x 1.00	—	—
314220	Dummy Glow Plug	63	M10 x 1.0	—	—
314225	Dummy Injector	64	M24 x 2.00	—	—
314235	Dummy Injector	75	M20 x 1.5	—	—
314240	Dummy Glow Plug	47	M12 x 1.25	—	—
314243	Dummy Glow Plug	90	M10 x 1.0	—	—
314249	Dummy Glow Plug	113	M10 x 1.0	—	—
314252	Dummy Glow Plug	93	M10 x 1.0	—	—
314254	Dummy Glow Plug	83	M10 x 1.0	—	—
314259	Dummy Glow Plug	83	M10 x 1.0	—	—



Use with Optional Kit 314205 to upgrade for HGV / Industrial / Plant applications (in conjunction with gauge 314201)

Engine Diesel Compression Testers

314205

Diesel Injector Mandrel Upgrade Kit (Commercial Vehicles)

- Use with **314200** Diesel Engine Compression Tester to upgrade the applications range to cover commercial vehicles.

Contents and Specifications

Part No.	Description	Overall Length (mm)	Int. Thread	Ext. Thread
314251	Centre Pillar	185	5/16 x 24 UNF	1/2 x 20UNF
314260	Spacer Set	–	–	–
Part No.	Description	Ext. Dia. (mm)	Length (mm)	
314256	End Adapter	20.5	30	–
314257	End Adapter	23.6	32	–
314258	End Adapter	23.6	41	–
014215	Replacement Seal and Washer Set			
Part No.	Description	Length (mm)	Width (mm)	Hole Dia. (mm)
014222	Clamp Plate	63.5	25	17
014255	Clamp Plate	76.2	15	17



314270

Diesel Compression Tester Adaptor Upgrade Kit (Passenger Vehicles)

- Upgrades **314200** to **314295**.
- Contains all additional adaptors within foam lid insert.
- For dummy glow plug/injector vehicle application list refer to pages 16 - 25.

Contents







Part No	Description	Length (mm)	Thread
314233	Glow Plug Adaptor	114	M10 x 1.25
314234	Dummy Glow Plug	119	M10 x 1.0
314236	Dummy Injector	73	M22 x 1.5
314239	Dummy Injector	88	M24 x 1.5
314241	Dummy Glow Plug	64	M10 x 1.25
314245	Dummy Injector	118	M22 x 1.5
314253	Dummy Glow Plug	133	M10 x 1.0
314267	Dummy Glow Plug	162	M10 x 1.0
314268	Dummy Glow Plug	113	M10 x 1.0
314269	Dummy Glow Plug	135	M10 x 1.25
314271	Dummy Glow Plug	145	M10 x 1.25
314273	Dummy Glow Plug	122	M9 x 1.00



Engine Diesel Compression Testers

Adaptor Sets

- Diesel Compression Adaptor Sets to suit **314200, 314300**.
- A new range of short sets of adaptors for Sykes-Pickavant Diesel Compression Testers.
- A cost effective way of updating your existing kit – as and when you need to.
- Suitable for all previous models of Sykes-Pickavant Diesel Compression Testers.
- Each set contains the appropriate adaptors for a particular engine series, which often cover more than one manufacturer.
- For dummy glow plug/injector vehicle application list refer to pages 16 - 25.
- Applications for the full range of adaptor sets are provided with each short set.

Set Part No.	Image	Suits
314288		GM Astra G/H/Corsa C/Fontera B/Meriva/Omega B/Sintra/Signum/Vectra B/C/Zafira 1.7ddti/cdti/di/2.0dti/2.2dtr/3.0cdti MERC C/E/CLK/S/V Class/Vito/Sprinter 2.2/2.7/3.2/3.9cdi
314289		NISSAN Almera/Primera/X trail 2.2ddt/2.2ddti TOYOTA Avensis/Corolla/Previa/Landcruiser 2.0/3.0d
314291		CITROEN Berlingo/c/c1/c2/c3/c4/c5/c8/Evasion/Synergie/Jumpy/Dispatch/Jumper/Relay/Picasso/Xantia/Xsara/1.4/1.6/2.0/2.016v/2.2hdi FORD Fiesta/Focus/Cmax/Fusion/1.4/1.6tdc LANCIA Phedra/Zeta 2.0/2.0 16v/2.2jtd FIAT Ducato/Scudo/Ulysse/2.0/2.0 16v/2.2jtd MAZDA 2/1.4 PEUGEOT 107/1007/206/206cc 406/406cc/407/607/806/807/Boxer/Expert/Partner/207/306/307/307cc/1.4/1.6/2.0/2.0 16v/2.2hdi SUZUKI Grand Vitara/Liana 1.4/2.0 31429100 TOYOTA Aygo 1.4 VOLVO S40/V50 1.6
314292		FIAT 146/156/147/159/166/1.9jtd/16v/1.9jtdm8v/16v/2.4jtd FIAT Brava/Bravo/Croma/Doblo/Cargo/Grande/Punto/Idea/Panda/Stilo/Strada/ 1.3d Multijet/1.3jtd/16v/1.9d/Multijet/1.9jtd/2.4d Multijet LANCIA Kappa/Lyba/Musa/Thesis/Ypsilon/ 1.3 Multijet/1.3jtd/1.9jtd/1.9 Multijet/2.4jtd Punto/Marea/Multapla GM Aglia/Astra h/Corsa c/d/Meriva/Signum/Tigra/Vectra c/ Zafira 1.3cdti/1.9cdti/16v SAAB 9.3/1.9tid SUZUKI wagon r + 1.3ddis
314293		NISSAN Almera/Interstar/Kubistar/Micra/Note 1.5dci/2.2dci/2.5dci RENAULT Clio/Espace iv/Kangoo/Laguna 2/Master/Megana/Modus/Senic 2/Trafic/Vel Satis 1.5dci/2.2dci/2.5dci VAUXHALL Mavano 2.2dci/2.5dci
314294		FORD Fiesta/Focus/Mondeo/Transit/ Connect 1.8tdci/1.8tdci/2.0ddi/2.0dci/2.4ddi JAGUAR 2 Od C Type

Engine

Diesel Compression Testers

314295

Diesel Compression Tester - Premier Car Kit (Passenger Vehicles)

- A wide variety of popular dummy glow plug and injector applications with additional applications coverage.
- Contains additional glow plug adaptors and dummy injectors for Mercedes, VW/Audi, Landrover and Peugeot/Citroen applications.
- For dummy glow plug/injector vehicle application list refer to pages 16 - 25.
- Use with optional kit **314205** to upgrade for HGV / Industrial / Plant applications (in conjunction with gauge **314201**).
- **Spare Parts:**
314005 Service Kit for 314201 Compression Tester
014215 Seal Kit



Contents

Part No	Description	Length (mm)	Thread	Gauge Dia (mm)	Scale
314201	Gauge Assembly	560	–	83	0-60 BAR / 0-860 PSI
314730	90° Elbow Connector	–	–	–	–
314210	Glow Plug Adaptor	73	M10 x 1.25	–	–
314215	Dummy Glow Plug	102	M8 x 1.0	–	–
314220	Dummy Glow Plug	63	M10 x 1.0	–	–
314225	Dummy Injector	64	M24 x 2.0	–	–
314233	Glow Plug Adaptor	114	M10 x 1.25	–	–
314234	Glow Plug Adaptor	119	M10 x 1.0	–	–
314235	Dummy Injector	75	M20 x 1.5	–	–
314236	Dummy Injector	73	M22 x 1.5	–	–
314239	Dummy Injector	88	M24 x 1.5	–	–
314240	Glow Plug Adaptor	47	M12 x 1.25	–	–
314241	Glow Plug Adaptor	64	M10 x 1.25	–	–
314243	Dummy Glow Plug	90	M10 x 1.0	–	–
314245	Dummy Injector	118	M22 x 1.5	–	–
314249	Dummy Glow Plug	113	M10 x 1.0	–	–
314252	Dummy Glow Plug	93	M10 x 1.0	–	–
314253	Dummy Glow Plug	133	M10 x 1.0	–	–
314254	Dummy Glow Plug	83	M10 x 1.0	–	–
314259	Dummy Glow Plug	83	M10 x 1.0	–	–
314267	Dummy Glow Plug	162	M10 x 1.0	–	–
314268	Dummy Glow Plug	113	M10 x 1.0	–	–
314269	Dummy Glow Plug	135	M10 x 1.25	–	–
314271	Dummy Glow Plug	145	M10 x 1.25	–	–
314273	Dummy Glow Plug	122	M9 x 1.0	–	–

Diesel Compression Testers - Light Commercial Vehicle

314280

Diesel Compression Tester Kit - Light Commercial Vehicles (LCV)

- A new addition to the range of Sykes Pickavant Compression Tester Kits.
- A specialist kit for the LCV (van) market.

Features

- Selection of 10 Dummy Glowplugs and 11 Injector Profiles.
- Dual scale 80mm Pressure Gauge with built-in pressure relief valve.
- Flexible rubber hose (355mm) for ease of access.
- Suitable for both direct and in-direct injection engines.
- Full vehicle applications and spare parts information provided.
- For dummy glow plug/injector vehicle application list LCV refer to pages 27 - 28.

Contents

Part No.	Description	Overall Length (mm)	Gauge Dia (mm)	Scale
314201	Gauge Assembly	560	83	0-60 BAR / 0-860 PSI
314730	Elbow Connector	-	-	-
Part No.	Description	Details		
314242	Dummy Injector	Mercedes Sprinter		
314244	Dummy Injector	Citroen, Fiat, Iveco, Renault		
314221	Dummy Injector	Ford Transit, Peugeot		
314225	Dummy Injector	M24 x 2.0, Peugeot, Citroen, Renault, Merc, Fiat		
314230	Dummy Injector	Stanadyne		
314235	Dummy Injector	M20 x 1.5, Nissan		
314236	Dummy Injector	M22 x 1.5, Mercedes Sprinter, Vito		
314238	Dummy Injector	Renault Master		
Iveco	Injector Assembly	Made Up From The Following: 314336, 314326, 314314, 314316, 314348		
HDI	Injector Assembly	Made Up From The Following: 314286, 314314, 314316, 314320		
MAXUS	Injector Assembly	Made Up From The Following: 314336, 314314, 314316, 314320		
314252	Dummy Glowplug	M10 X 1.0, Peugeot, Citroen, Fiat, Renault, Iveco		
314254	Dummy Glowplug	M10 X 1.0, Ford Transit		
314268	Dummy Glowplug	M10 X 1.0, Mercedes Sprinter, Vito		
314274	Dummy Glowplug	M10 x 1.0, VW Transporter		
314249	Dummy Glowplug	M10 X 1.0, Ford Duratorq		
314253	Dummy Glowplug	M10 X 1.0, Renault		
314210	Dummy Glowplug	M10 X 1.25, Toyota		
314220	Dummy Glowplug	M10 X 1.0, Nissan, Renault		
314240	Dummy Glowplug	M12 X 1.25, Landrover, Mercedes		
314241	Dummy Glowplug	M10 X 1.25 Peugeot, Citroen, Renault, Nissan		



Designed for modern LCV's (vans) such as:

Citroen – Jumper/Relay 1.9D, 2.0Hdi, 2.2Hdi, 2.5D, 2.8Hdi

Fiat – Ducato – 1.9D, 2.0JTD, 2.3JTD, 2.5D, 2.8D, 2.8JTD

Ford – Transit and Connect – 1.8D, 1.8TDCi, 1.8TDDi, 2.0DI, 2.0TDCi, 2.2TDCi, 2.4D, 2.4TDCi, 2.5D

Iveco – Daily/Turbo Daily – 2.3D, 2.5D, 2.8D, 3.0D

LDV – Pilot/Convoy/Maxus – 1.9D, 2.3D, 2.4DTD, 2.4TDi, 2.5D, 2.5CRD

Mercedes – Sprinter/Vito – 2.2D, 2.2CDi, 2.3D, 2.7D, 2.9D

Nissan – Interstar/Primastar/Cabstar – 1.9DCi, 2.2DCi, 2.3D, 2.5DCi, 2.5D, 2.7D

Opel – Movano/Vivaro – 1.9DTi, 1.9CDTi, 2.2DTi, 2.5DTi, 2.5CDTi

Peugeot – Expert/Boxer/Boxer 2 – 1.9D, 2.0Hdi, 2.5D, 2.8Hdi

Renault – Traffic/Master – 1.9D, 1.9DCi, 2.1D, 2.2DCi, 2.5D, 2.5DCi, 2.8DTi

Toyota – Hi-Lux/Hi-Ace – 2.5D, 2.5D4D

VW – Transporter/LT – 1.9D, 2.4D, 2.5SDi, 2.5TDi, 2.8D

Diesel Compression Testers - Heavy Goods Vehicle

314300

Diesel Compression Tester - HGV / Commercial Starter Kit

- A starter kit of adaptors and clamping plates for checking compression on both direct and indirect commercial diesel injected engines.
- Suitable for all types of heavy duty diesel engines -HGV, Industrial, Plant, Marine, Agricultural
- Gauge to DIN16005, DIN16063, BS1780 standards.
- **Spare Parts**
314005 Service kit for **314201** Compression Tester
014215 Seal Kit

Contents of 314300 consists of:

314205 Injector Mandrel Kit

314201 Diesel Compression Gauge

Contents

Part No.	Description	Overall Length (mm)	Gauge Dia. (mm)	Scale
314201	Gauge Assembly	560	83	0-60 bar/ 0-860 PSI
Part No.	Description	Length (mm)	Int. Thread (mm)	Ext. Thread
314251	Centre Pillar	185	5/16 x 24 UNF	1/2 x 20UNF
314260	Spacer Set	-	-	-
Part No.	Description	Ext. Diameter (mm)	Length (mm)	
314256	End Adaptor	20.5	30	
314257	End Adaptor	23.6	32	
314258	End Adaptor	23.6	41	
014215	Replacement Seal And Washer Set			
Part No.	Description	Length (mm)	Width (mm)	Hole Dia. (mm)
014222	Clamp Plate	63.5	25	17
014255	Clamp Plate	76.2	15	17
314730	90° Elbow Connector	-	-	-



Can be upgraded for testing diesel engine cars - choose from the following adaptors

Part No.	Description	Details
314210	Dummy Glowplug	M10 x 1.25, Toyota
314212	Dummy Glowplug	M12 x 1.25
314214	Dummy Glowplug	M14 x 1.25, Landrover 2.25D
314221	Dummy Injector	114mm long, Ford Transit, Peugeot
314225	Dummy Injector	M24 x 2.0, PSA, Renault, Mercedes, Fiat
314230	Dummy Injector	112mm long, Stanadyne
314233	Dummy Glowplug	M10 x 1.25, Mazda
314234	Dummy Glowplug	M10 x 1.0, Landrover
314235	Dummy Injector	M20 x 1.5, Nissan
314236	Dummy Injector	M22 x 1.5, Mercedes Sprinter, Vito

Diesel Compression Testers - Heavy Goods Vehicle

314395

Diesel Engine Compression Tester Comprehensive HGV / Commercial Master Kit

- A comprehensive Master Kit covering the majority of HGV, Industrial, Plant, Marine and Agricultural applications.
- The universal mandrel system allows the user to duplicate a wide variety of injectors.
- A selection of common dummy injectors are also included.
- The kit is supplied with detailed application information.
For each application, the user is able to assemble the required components to create the necessary 'dummy' injector.
- The correct combination of components for each application is clearly identified in the applications & instructions booklet, with a scale diagram showing the order of assembly.
- Gauge to DIN16005, DIN16063, BS1780 standards.
- Kit supplied with comprehensive vehicle application information book.

Contents

Part No	Description	Length (mm)	Gauge Dia (mm)	Scale
314201	Gauge Assembly	560	83	0-60 BAR / 0-860 PSI
Part No	Description	Part No	Description	
314730	90° Elbow Connector	314328	Spacer No. 4	
314005	Service Parts Kit	314329	Spacer No. 5	
314230	Dummy Inj. – Stanadyne	314330	Spacer No. 6	
314236	Dummy Inj. – Mercedes OM601	314331	Clamping Plate No. 1	
314311	Washer	314332	Clamping Plate No. 2	
314312	Centre Pillar 80mm	314333	Clamping Plate No. 3	
314313	Centre Pillar 115mm	314334	Shouldered Nut No. 1	
314314	Centre Pillar 130mm	314335	Shouldered Nut No. 2	
314315	'O' Ring	314336	Lock Nut	
314316	Pilot Pin 7mm	314337	Screw Collar	
314317	Pilot Pin 9mm	314338	Screw Collar	
314318	Pilot Pin 9mm – Short	314339	Screw Collar	
314319	End Adaptor No. 1	314340	Clamping Plate – Perkins Prima	
314320	End Adaptor No. 2	314341	Spacer – Perkins Prima	
314321	End Adaptor No. 3	314342	Dummy Injector – DAF 620	
314322	End Adaptor No. 4	314343	Dummy Injector – Volvo	
314323	Conical End Adaptor	314344	Dummy Injector – Cummins B	
314324	End Adapter	314345	Dummy Injector – Isuzu 4BD2	
314325	Spacer No. 1	314346	Dummy Injector – Isuzu 4JG2	
314326	Spacer No. 2	314347	Copper Washers Kit	
314327	Spacer No. 3			



Engine Cylinder Leakage Tester

313800

Cylinder Leakage Tester

Helps to diagnose worn and broken pistons and rings, burnt and leaking valves and faulty head gaskets.

Measures rates of loss for individual cylinders, giving a direct indication of the problem.

Complete with dummy spark plug, glow plug and injector adaptors for connection to a wide range of cars, light commercials, motorcycles, boats and auxiliary engines.

- Simple to use with colour coded gauge for fast visual indication of cylinder condition.
- Quick coupling adaptors for fast, secure connection.
- Dual air flow output - low for testing, high for identifying source of leak.
- Uses standard PCL compatible airline adaptor.
- Can be upgraded for testing commercial vehicles - **314205** Diesel Injector Mandrel Kit (see page 13).

Specifications

Height	110mm
Width	200mm (including adaptors)
Depth	175mm
Gauge diameter	70mm
Minimum input air pressure	5 bar
Maximum input air pressure	8 bar
Hose	2m

Contents

Part No.	Description	Thread Size
314210	Dummy Glowplug	M10 X 1.25
314212	Dummy Glowplug	M12 X 1.25
314214	Dummy Glowplug	M14 X 1.25
314221	Dummy Injector	
314225	Dummy Injector	M24 X 2.0
314230	Stanadyne Dummy Injector	
314233	Dummy Glowplug	M10 X 1.25
314234	Dummy Glowplug	M10 X 1.0
314235	Dummy Injector	M20 X 1.5
314004	Extension Set	M14
314007	Spark Plug Adaptor	M18
314010	Spark Plug Adaptor	M10
314012	Spark Plug Adaptor	M12
014222	Clamp Plate	-
	Male Quick Coupling Adaptor	M18

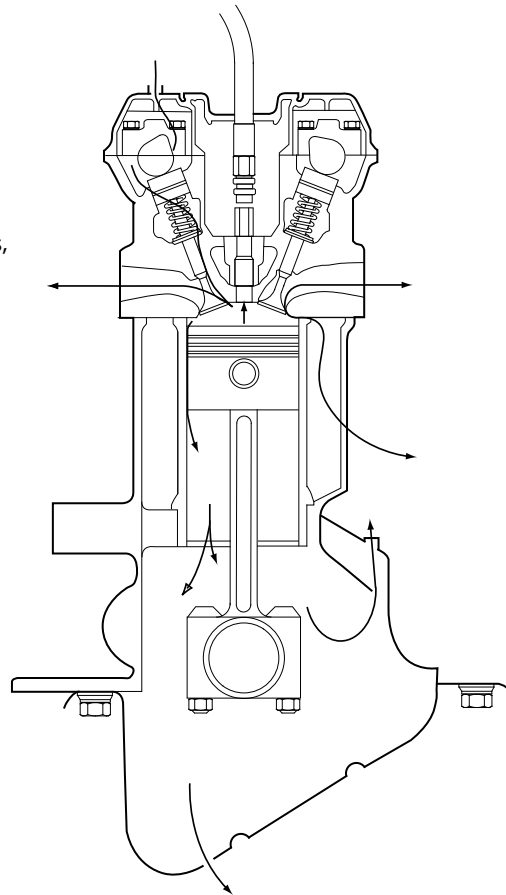
Supplementary dummy injector available

314236 Dummy Injector for Mercedes OM601

Spare Parts

313801 Test Unit Complete with Airline Fittings

313803 Hose Assembly 2m



Engine Common Rail Diesel (CRD) Kits

314610 CRD Low Pressure Test Gauge Kit

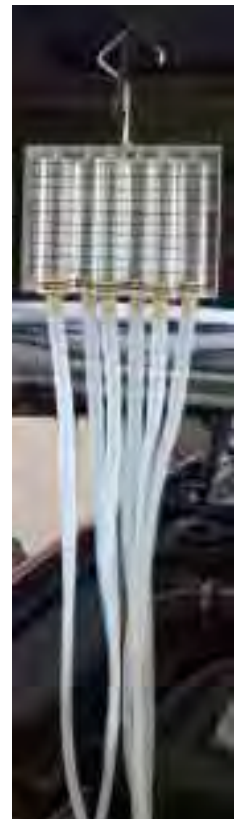
Pressure test kit for the Low Pressure side of CRD systems.

- Measures low pressure feed from the fuel pump in the fuel tank to the high pressure pump.
- Also measures fuel return pressure where necessary.
- **Helps to diagnose**
 - Non-starting
 - Poor starting
 - Loss of engine power
 - Blocked filters
 - Blocked fuel lines
- **Contents**
 - 10 bar Low Pressure Gauge assembly c/w relief valve and leak-off pipe
 - 8mm & 10mm male and female connectors
 - Universal connectors
 - T Connector assembly with tap.
- When combined with **314620** CRD Fuel Return Flow Kit, creates a complete test kit for the Low Pressure side of CRD.



314620 CRD Injector Fuel Return Flow Kit

- Designed for use on the injector return side of a CRD system.
- **Helps to diagnose**
 - Poor or no engine starting
 - Poor engine running
 - Poor acceleration
 - General lack of engine power
- **Contents**
 - Graduated acrylic measuring block for up to 6 cylinders
 - Injector adaptor sets for: Bosch/Delphi/Denso/Siemens
 - Set of reduction pipes for small diameter flow back ports
 - Under bonnet hanging hook
- **Features & Benefits:**
 - Compact acrylic block design provides easy to read cylinder comparison (much easier to compare than with plastic bottles, due to compact design, and graduation scale)
 - Fuel resistant, highly flexible rubber hoses – (6)
 - Injector adaptors clearly marked for identification
Bosch – Delphi – Denso - Siemens
 - Replacement adaptor sets (6) readily available
- When combined with **314610** CRD Low Pressure Test Gauge Kit, creates a complete test kit for the low pressure side of CRD.



Spare Parts

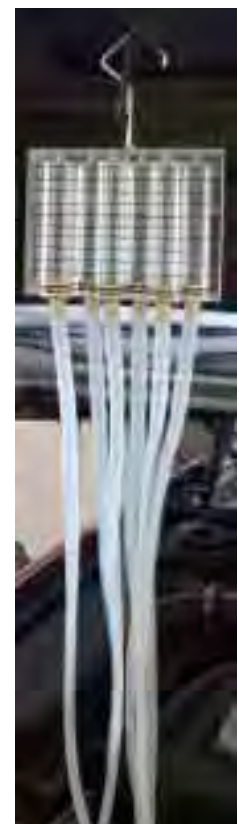
Part No	Adaptor Set
314621	Bosch (C1) set of 6
314624	Delphi set of 6
314623	Denso (C3) set of 6
314622	Siemens (C2) set of 6
314625	Rubber Hoses set of 6



Engine Common Rail Diesel (CRD) Kits

314600 CRD Combined Kit

- Designed for use on the injector return side and pressure test kit for the Low Pressure side of a CRD system. Consist of **314620** CRD Fuel Return Flow Kit & **314610** CRD Low Pressure Test Gauge Kit.
- Measures low pressure feed from the fuel pump in the fuel tank to the high pressure pump.
- Also measures fuel return pressure where necessary.
- **Helps to diagnose**
 - Poor or no engine starting
 - Poor engine running
 - Poor acceleration
 - General lack of engine power
 - Blocked filters
 - Blocked fuel lines
- **Consists of**
 - 10 bar Low Pressure Gauge assembly c/w relief valve and leak-off pipe
 - 8mm & 10mm male and female connectors
 - Universal connectors
 - T Connector assembly with tap
 - Graduated acrylic measuring block for up to 6 cylinders
 - Injector adaptor sets for: Bosch/Delphi/Denso/Siemens
 - Set of reduction pipes for small diameter flow back ports
 - Under bonnet hanging hook
- **Features & Benefits**
 - Compact acrylic block design provides easy to read cylinder comparison
 - Fuel resistant, highly flexible rubber hoses – (6)
 - Injector adaptors clearly marked for identification
Bosch – Delphi – Denso – Siemens
 - Replacement adaptor sets (6) readily available



Spare Parts

Part No	Adaptor Set
314621	Bosch (C1) set of 6
314624	Delphi set of 6
314623	Denso (C3) set of 6
314622	Siemens (C2) set of 6
314625	Rubber Hoses set of 6



Engine

Common Rail Diesel (CRD) Kits

314650

CRD High Pressure Test Kit

- Specifically designed to allow direct measurement of the delivery pressure of the high pressure pump, under engine cranking conditions.
- **This CRD High Pressure Test Kit, consists of the following:**
 - High Pressure Gauge and Manifold block
 - Selection of High Pressure pipes and adaptors
 - High Pressure Electronic Sensor Tester (300725)
 - Test Instructions
- **Features**
 - Measures delivery pressure output from the CRD High Pressure pump (max 1700 bar) under engine cranking conditions
 - Measures common rail pressure via the vehicles electronic pressure sensor with engine running
 - Connects to all common CRD systems via the pipes and adaptors supplied M12 x 1.5 / M14 x 1.5 connections
 - Fault diagnosis is possible using a combination of:
 - High Pressure pump pressure, via the HP Gauge assembly
 - HP Sensor pressure readings, via the Electronic HP Sensor tester
 - ECU Pressure readings, via a code reader / scan tool

Note: It is important that technicians follow the instructions carefully - Diesel fuel under high pressure can be dangerous if instructions are not followed.

Contents

Part No.	Description
314660	CRD High Pressure Gauge, Manifold block & Selection of High Pressure pipes and adaptors
300725	High Pressure Electronic Pressure Sensor Tester



Diesel Injector & Glow Plug Tools

017500

Diesel Injector Seat Cutter Kit

- Injectors can be extremely difficult to remove, due to the build up of carbon deposits and the effects of corrosion. Once they have been removed, by whatever method possible, the injector seat is often in a condition that makes it almost impossible to successfully seat the injector, and there can be a high risk of ‘blow-by’ occurring as a result. (‘blow-by’ is the leaking of combustion gases from the cylinder, via the injector seat, and can lead to various poor running and starting symptoms, excessive smoke, tar build-up, noise and loss of compression and power).
- This kit allows the technician to ‘re-face’ the seat, in order for the new or re-conditioned injector to be fitted correctly. (NB it is recommended that re-facing of injector seats is done with the cylinder head removed to avoid the risk of metal filings entering the combustion chamber).
- This kit has been designed for the cleaning and/or re-cutting of injector seats on modern common rail diesel engines.



Contents

Part No.	Description
017501	1 x Cutters No. 1, 19mm flat, for Bosch Injectors (Mercedes CRD)
017502	1 x Cutters No. 2, 17mm flat, for Delphi/Bosch Injectors (BMW/Peugeot/Citroen/Renault/Ford)
017503	1 x Cutters No. 3, 15mm flat, Universal applications
017504	1 x Cutters No. 4, 19mm angled for Fiat/Iveco applications
017505	1 x Pilot Post
017506	1 x T Handle

085810

Diesel Injector Seal Extractor

- Designed specially to remove the copper injector base seal when it has become stuck in the cylinder head – traditionally done using a ‘pick’ – this new tool allows safe and easy removal without risk of damage to the head.
- Simple to use – utilises SP’s well known “split collet” technology to grip the seal and allow it to be pulled out from the head.
- Simple adjustment – expands from 6.4mm to 8.0mm.
- Speed of use – no more fiddling with picks, hooks etc trying to retrieve stuck seals and washers.
- Recommended to be used in conjunction with **017500** Diesel Injector Seat Cutter Set.
- Can also be fitted with Split Collet **095800** (8.0 – 11.0mm) if required.

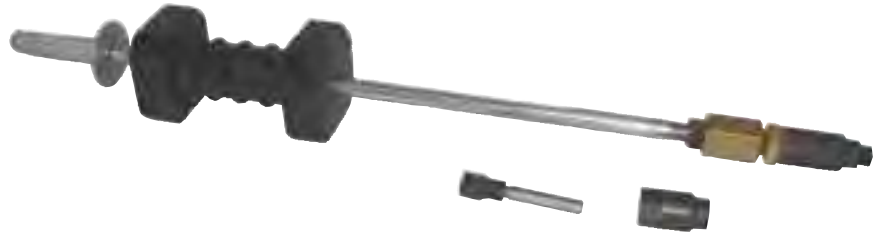


Engine Diesel Injector & Glow Plug Tools

085800

Injector Remover Kit with Slide Hammer

- For the removal of Bosch and Delphi injectors.
- Special Hex designed adaptors, allow use of impact wrench to loosen injectors.
- **Contents**
 - Heavy Duty Slide Hammer
 - Bosch Injector Dismantling Tool
 - Screw-in adaptor for Delphi injectors
 - Slide hammer adaptor



085805

Injector Remover Set for Bosch/Delphi

- For use with slide hammers with 5/8" UNF thread pattern.
- Special Hex designed adaptors allow use of impact wrench to loosen injectors.
- **Contents**
 - Bosch Injector Dismantling Tool
 - Screw-in adaptor for Bosch injectors
 - Screw-in adaptor for Delphi injectors
 - Slide hammer adaptor



085700

Diesel Injector Puller

- For use with Lucas and Bosch type clamp-down injectors.
- Slide hammer mechanism c/w M8, M12 & M14 adaptors.
- For safe and damage free extraction of difficult to remove injectors.
- Universal tool with a wide variety of Car, LCV (Van) and HGV applications.



085910 / 085920

Diesel Glow Plug Removal Kits

- Sets of specialist drills and taps for the safe and effective removal of broken / damaged glow plugs.
- Two sets available, covering the most popular sizes of heater plugs (M8 x 1.0 and M10 x 1.0).
- Each set contains precision engineered components, allowing for the removal of broken parts, without damaging the engine block, and leaving a clean cut thread for fitting of the replacement glow plug.
- Full instructions supplied with each kit.



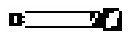


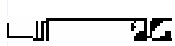

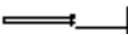





Part No.	Description
085910	M8 x 1.0 Set Kit
085920	M10 x 1.0 Set Kit

Engine Diesel Injector & Glow Plug Tools

077570

Diesel Injector Pump Timing Kit – 11 piece

- **Applications:** Bosch EP & VE Rotary/CAV Rotodiesel/Peugeot XUD/ Nippon Denso/Kikki.
- For Bosch Rotary and Lucas, CAV Rotodiesel DPC Rotary, Injection Pumps – Top Entry.
- With a special Top Dead Centre indicator for the Peugeot XUD engine range.
- This set includes special purpose adaptors and extensions complete with an interchangeable Dial Test Indicator which measures up to 8mm with increments of 0.01mm. Adjustable bezel for zero and limit tabs.

Ref.	Description	
A	M8 Adaptor, long	
B	Extension, long 99mm	
C	Thread convertor M8-M12	
D	Piston Height Adaptor M14	
E	Extension	
F	Probe	
G	Mounting Bracket Assembly	
H	Dial Test Indicator, 41dia x 8 x 0.01mm	
I	M8 Adaptor, short	
J	Extension, short 40.8mm	
K	M10 Adaptor, short	



Timing Adaptor Components for Bosch Rotary VE Pumps



Pump Timing Components for Lucas, CAV Rotodiesel DPC Rotary Injection Pumps

Application	A	B	C	D	E	F	G	H	I	J	K
Alfa Romeo	•	•				•	•	•			
Audi	•	•				•	•	•			•
Bedford	•	•	•			•					
BMW	•	•				•	•	•			
Citroen				•	•	•			•	•	
Dacia						•			•	•	
Daihatsu	•	•				•	•	•			
Fiat	•	•				•	•	•	•	•	
Ford	•	•				•	•	•	•	•	•
Isuzu	•	•				•	•	•			
Iveco	•	•				•	•	•			
Lancia	•	•				•	•	•			
Landrover	•	•				•	•	•			
Leyland/Daf						•			•	•	
Mazda	•	•				•	•	•			
Mitsubishi	•	•				•	•	•			
Nissan	•	•				•	•	•			
Opel						•			•	•	
Peugeot				•	•	•			•	•	
Renault	•	•				•	•	•	•	•	•
Rover	•	•				•	•	•	•	•	
Seat	•	•				•	•	•			
Volkswagen	•	•				•	•	•			•
Volvo	•	•				•	•	•			

Engine

Diesel Injector & Glow Plug Tools

660663

Diesel Injection Fuel Pipe Wrench – 17mm

- 3/8" sq dr 12 point restricted access wrench.
- **Applications:** Renault Laguna.



660664

Diesel Injection Fuel Pipe Wrench – 14mm

- 3/8" sq dr 12 point restricted access wrench.
- **Applications:** Mercedes light vehicles and vans



660666

Diesel Injection Pump Wrench – 13mm

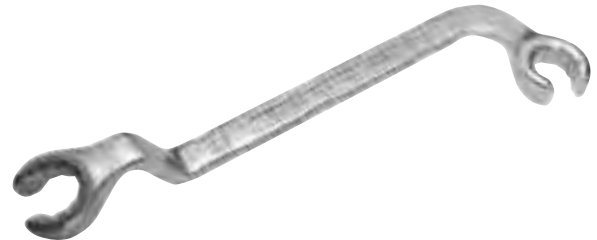
- Easy access wrench for injection pumps – 12 point ring wrench.
- **Applications:** Alfa Romeo, Audi, Chrysler, Citroen, Fiat, Ford, Nissan, Opel, Peugeot, Renault, Rover, Seat, Volkswagen, Volvo.



660668

Diesel Injection Pipe Wrench – 14mm

- Special double-ended cranked wrench for easy access.
- **Applications:** HDI engines.



015200

Diesel Injector Socket Set - 4 piece

- Set of 4 chrome vanadium sockets (chemical black finish) with recesses for injector pipes.
- Designed for the fast and efficient installation and removal of diesel injectors.
- Suitable for a variety of applications.
- In plastic storage case.

Part No.	Size	Depth
015200	22mm	80mm
	22mm	100mm
	27mm	80mm
	28mm	80mm



Tensioners - VAG Group (Volkswagen & Audi)

07756001

VAG Tensioner Wrench – 140mm

- For holding the tensioner when tightening the locking nut on many petrol and diesel engine models of Audi & Volkswagen cars.
- Handle length 140 mm.
- OEM REF* V.159 T10020



07756002

VAG Tensioner Wrench – 210mm

- For holding the tensioner when tightening the locking nut on many petrol and diesel engine models of Audi & Volkswagen cars. Similar to above, but with longer handle, length 210 mm.
- As preferred for larger engines e.g. 1.9 TD & 2.0 16V.



07756003

VAG Tensioner Wrench

- This tension lever has been introduced to suit the latest design of tensioner as now fitted to the following models:
 - SEAT Alhambra 2.0
 - Volkswagen Lupo 3L 1.2 TDI, Lupo/Polo 1.4 TDI, Golf/Bora/Beetle/Sharan 1.9 TDI, Passat 1.9 TDI
- OEM REF* 3387 U-30009



07756005

VAG Multi Position Tensioner

- For holding the tensioner when tightening the tensioner nut.
- Suitable for Petrol and Diesel applications.
- To give better access on the same applications as the 07756001 and 07756002.




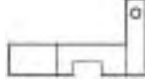

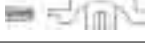



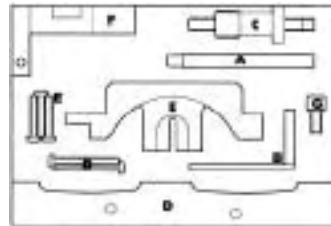
*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine Timing & Locking - BMW

077582 BMW Engine Timing Tool Kit for Petrol – 7 piece


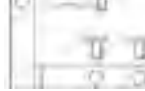

- **Applications: Petrol** BMW N40, N45, N46 chain driven engines 116 / 118 / 120 (E87), 316 (E46), 318 / 320 (E90), Z4 2.0 (E85)

Ref.	OEM Ref.*	Description	
A	11 5 120	Flywheel Timing Pin	
B	11 9 190	Flywheel Timing Pin	
C	11 9 340	Timing Chain Pre-Tensioning Tool	
D	11 9 292	Inlet Camshaft Alignment Tool	
E	11 9 350	Sensor Gear Alignment Tool	
F	11 9 291	Exhaust Camshaft Alignment Tool	
G	11 9 293	Camshaft Alignment Tool Bolt M8 x 25	



077583 BMW, Mini Engine Timing Tool Kit for Petrol – 3 piece

- **Applications: Petrol** BMW MINI 1.6, Mini One, Cooper, Cooper S 2001 – 06

Ref.	OEM Ref.*	Description	
A	11 8 250	Camshaft Sprocket Holding Tool	
B	11 8 370	Engine Support Bracket	
C	11 8 244	Tensioner Assembly Tool	



077585 BMW Pump Remover for Diesel

- This tool is suitable for the safe removal from the pump socket and to retain the position of pump sprocket in-situ, whilst the pump is being removed.
- **Applications: Diesel** BMW 318d/Compact (E46), 320d/td Compact (E46) 330d, (E46), 42d (E39), 525d (E60/61) 530d (E39), 530d (E60/61) 535d (E60/E61), (E38) X5, 3.0d (E53), Land Rover Freelander (Td4), Rover 75.



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.





*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine Timing & Locking - BMW

077581

BMW M47/M57 Timing Tool Kit for Diesel – 4 piece

- **Applications: Diesel** BMW 2.0D, 3.0D (320D, 520D, 530D, X3, X5) / Land Rover Freelander TD4 / Rover 75 2.0D

Ref.	OEM Ref.*	Description	
A	11 2 300	Crankshaft TDC Setting Pin for all engines	
B	11 6 320	Camshaft Locking Tool	
C	11 6 322	Locking Clamp	
D	11 3 340	Tensioner Pin (2)	


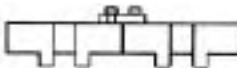


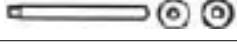
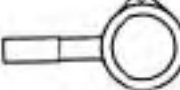

NB - This kit ref 077581 is also suitable for Land Rover Freelander TD4 and rover 75 2.0D applications.



077580

BMW Master Timing Tool Kit for Petrol & Diesel – 7 piece

- **Applications:**
Petrol - BMW 1.6i up to 2.8i (M40, M42, M43, M44, M50, M52, M60)
Diesel - BMW 2.5D (M51) / Opel Omega / Range Rover

Ref.	OEM Ref.*	Description	
A	11 2 300	Crankshaft TDC Setting Pin for all engines	
B	11 2 240	Camshaft Locking Tool – exhaust	
C	11 3 190	Camshaft Locking Tool	
D	11 3 320	Camshaft Locking Tool	
E	11 4 220 11 3 390	Primary Timing Chain Pre-load Tool	
f	11 5 490	VANOS Unit Engagement Wrench	
G		Tensioner Pin (2)	

NB – This kit ref 077580 is also suitable for Opel Omega 2.5D & Range Rover 2.5D applications



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine Timing & Locking - Fiat/Alfa/Lancia

077514

Variator Socket for Alfa Romeo

- The valve advance – retard system (variator) runs off the inlet camshaft and is exposed when replacing the timing belt.
- This variator often fails, resulting in poor and noisy engine performance.
- The replacement of this variator is only possible with this socket.
- 16V Alfa Romeo twin spark engines.
- 24mm hex Drive.



07751A

Fiat, Lancia 1.4 12v Engine Timing Tool Kit for Petrol – 4 piece

- These tools are necessary for use when servicing the engine and replacing the timing belt.
- For use on Fiat 1.4 12v engines used on Fiat Brava, Bravo and Lancia Ypsilon eng. codes 182 A3.000, 182 A5.000 (95-00)

Ref	OEM Ref.*	Description
A	1 860 899 000	Camshaft Timing Tool (1)
B	1 860 901 000	Crankshaft Timing Tool c/w Studs



07751B

Fiat 1.6 16v Twin Cam Engine Timing Tool Kit for Petrol – 5 piece

- This kit is necessary for use on timing belt / engine timing applications.
- For use on Fiat Brava, Bravo, Doblo, Doblo Cargo, Marea, Marea Weekend, Multipla, Palio, Stilo 1.6 16v twin cam engine code 182 A4.000, 182 A6.000 and 182 B6.000.
- **Ref B** Tensioning Tool includes the facility to interchange the connecting screw from M8 to M10 as introduced on models from (2000 on). It is recommended to liberally lubricate the tensioner assembly, prior to using the tool, as it can become seized.
- Supplied in metal case.



Ref	OEM Ref.*	Description
A	186 0874 000	Camshaft Locking Tools. (A= Inlet, B= Exhaust)
B	186 0876 000	Tensioning Tool (2)
C	186 0771 000	Flywheel Locking Tool



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine Timing & Locking - Fiat/Alfa/Lancia

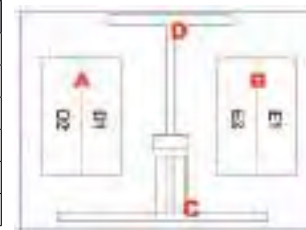
07751C

Fiat 1.8 16v Engine Timing Tool Kit for Petrol – 6 piece

- This kit is necessary for use on timing belt / engine timing applications.
- **Ref A** for Camshaft Setting Tools for Fiat Barchetta & Coupe models (96-on).
- **Ref B** for Exhaust Camshaft Tools Fiat Brava, Bravo and Marea models (95-on).
- **Ref C** Flywheel Locking Tool is also suitable for 1.9D and 2.4D Turbo engines.
- The correct position of the camshaft alignment tools is important and the I/D No. is marked on the tool.
- The plain face of the tool faces the flywheel.
- The following table lists the correct position of each tool, by detailing at which cylinder and at which camshaft the tool replaces the bearing cap.
- Supplied in metal case.



Ref	OEM Ref.*	Description			
		I/D No.	Tool		Cylinder No.
A	1 860 847 000/1	D1	Inlet Camshaft	-	2
A	1 860 847 000/2	D2	-	Exhaust Camshaft	3
B	1 860 875 000/1	E1	Inlet Camshaft	-	2
B	1 860 875 000/2	E2	-	Exhaust Camshaft	3
C	1 860 898 000	Flywheel Locking Tool			
D	1 860 845 000	Tensioning Tool			



07751D

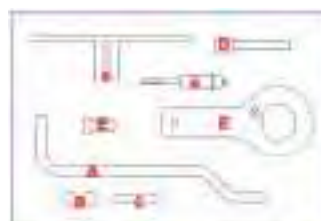
Fiat, Alfa JTD, 2.1 TD, 2.4 T Engine Timing Tool Kit for Diesel – 7 piece

- This kit is necessary when servicing the engine and setting the correct valve timing when replacing the timing belt.
- For use on many Alfa Romeo and Fiat models including:
 - Diesel** - Alfa Romeo 147, 156 1.9 JTD
 - Diesel** - Fiat Punto, Brava, Bravo, Stilo, Marea, Marea Weekend, Multipla, Idea, Doblo/Cargo, Multijet 120, Ulysse, Scudo, Ducato

Suits models using the following diesel engines:

Diesel Engine	Engine Codes
1,9D, 1,9 JTD, 1,9 TD, 2,4 JTD (95-06)	182 A7.000 (TD 100), 182 B4.000, 188 A2.000, 188 A3.000, 192 A1.000
1,9 JTD (03-07)	188 B2.000
1,9 TD (95-03)	182 A8.000 (TD75)
1,9 D (00-06)	223A6.000
1,9 JTD (02-09)	182B9.000, 223A7.000
1,9D (05-09)	186A9.000
1,9 D/TD (94-02)	D8B, D9B, DJY
1,9/2,4 JTD (97-09)	323.02, 325.01, 342.02, 362.02, 937 A2.000
1,9 JTD (02-09)	192A5.000, 192B1.000, 937A3.000, 937A4.000, 937A5.000
2,1 TD 12v (96-00)	P8C

Ref	OEM Ref.*	Description
A	1 860 863 000	Flywheel / Crankshaft Timing Pin
B	-	M8 x 35 Setscrew (2)
C	-	M8 x 40 Setscrew
D	1 860 965 000	Camshaft Alignment Pin
E	1 860 905 000/010	Crankshaft Locking Tool and Bolt
F	1 860 898 000	Flywheel Locking Tool



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine Timing & Locking - Fiat/Alfa/Lancia

077516

Fiat/Iveco 2.3JTD/3.0JTD Engine Timing Tool Kit for Diesel – 4 piece

- This kit of tools enables the Locking of the Crankshaft, Camshaft and Timing sensor timing position so as to enable timing belt change.
- Suitable for use on models and engines below:

Model	Engine Size	Engine Code	Year	Ref	Qty	Description
Fiat				A	1	Crankshaft Locking Pin
Ducato	2.3JTD	F1AE0481C	02-06	B	2	Camshaft Setting Pins
Ducato	3.0JTD	F1CE0481D	06-	C	1	Sensor Position Locking Pin
Iveco						
Daily	2.3JTD	F1AE0481A	04-			
Daily	2.3JTD	F1AE0481B	04-			
Daily	3.0JTD	F1CE0481A	04-			



077511

Fiat Group 1.2 16v Engine Timing Tool Kit for Petrol – 5 piece

- **Applications: Petrol** Alfa / Fiat / Lancia 1.2 16v engines

Ref	OEM Ref.*	Description	
A	1 860 992000	Piston Height Adaptor (2)	
B	1 860 985000	Camshaft Locking Tools (2)	
C	1 860 987000	Tension Adjustment Wrench	



077512

Fiat Group JTD Series Engine Timing Tool Kit for Diesel – 9 piece

- **Applications: Diesel** Alfa / Fiat / Lancia 1.3JTD / 1.9JTD engines / Opel 1.3CDti, 1.9DTi

Ref	OEM Ref.*	Description	
A	EN-46781	Camshaft Alignment Tool (2)	
B	KM6130 KM6349	Auxiliary drive belt tensioner holding pin	
C	EN-46785	Crankshaft Alignment Pin c/w retention Spring	
D	EN-46788	Crankshaft Alignment Tool	
E	EN-46789	Camshaft Alignment Tool (2)	
F	EN-46789-100	Camshaft Alignment Screw for use when high Pressure pump remains fitted	
G	1 860 898 000	Flywheel Locking Tool	



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine Timing & Locking - Fiat/Alfa/Lancia

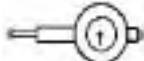

















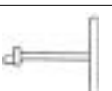
077510

Fiat Group Master Timing Tool Kit for Petrol & Diesel – 24 piece

- **Applications:**

Petrol - Alfa / Fiat / Lancia 1.4, 1.6, 1.8, 2.0 Twinspark, 1.2, 1.4, 1.6, 1.8 16v

Diesel - Alfa / Fiat / Lancia 1.6, 1.7, 1.9D /TD, 2.1TD, 2.4TTD

Ref	OEM Ref.*	Description	
A	-	Dial Test Indicator	
B	1 895 443 000	Adaptor – TDC Indicator	
C	1 860 443 000	Tensioning Tool – Pry	
D	1 825 041 000	Camshaft Alignment Tool 2 of each	
E	1 825 042 000		
F	1 860 847 000		
G	1 860 875 000		
H	1 860 892 000		
I	1 860 899 000	Camshaft Alignment Tool	
J	1 860 703 000	Flywheel Locking Tool	
K	1 860 161 000	Flywheel Locking Tool	
L	1 860 766 000	Flywheel Locking Tool	
M	1 860 771 000	Flywheel Locking Tool	
N	1 860 846 000	Flywheel Locking Tool	
O	1 860 898 000	Flywheel Locking Tool	
P	1 860 901 000	Crankshaft Timing Tool	
Q	1 860 905 000	Crankshaft Timing Tool	
R	1 860 933 000	Crankshaft Timing Tool	
S	1 860 874 000	Camshaft Alignment Tool (2)	
T	1 860 876 000	Tensioning Tool	
U	1 860 932 000	Camshaft Alignment Tool	
W	1 822 154 000	Balancer Shaft Belt Tensioning Tool	
X	1 860 845 000	Tensioning Tool	



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

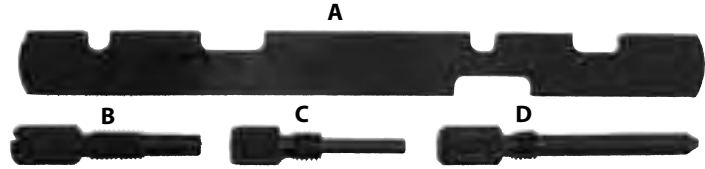
*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine Timing & Locking - Ford

077523 Ford Zetec Timing Tool Kit for Petrol – 4 piece

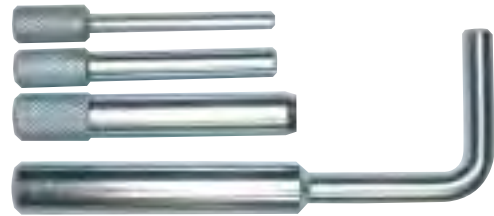
- **Applications: Petrol** 1.25/1.4/1.6/1.8/2.0 16v Petrol
Now updated to include latest 1.6 TI-VCT series eg, Focus/CMax 1.6

Ref.	OEM Ref.*	Description
A	Ford 303-376 (21-162B) Mazda 49JE01 054	Camshaft Setting Bar
B	Ford 303-507 (21-210) Mazda 49JE01 061	Camshaft TDC Timing Pin
C	Ford 303-620 (21-163)	Camshaft TDC Timing Pin
D	Ford 21-2599(303-748)	Camshaft TDC Timing Pin



077521 Ford Duratorq Timing Tool Kit for Diesel – 4 piece

- **Applications: Diesel** Ford Duratorq 1.4TDCi, 2.0 TDCi, 2.4Di (belt & chain models).
- Also suitable for PSA Group 1.4 – 1.6HDi applications.



077522 Ford Duratorq Timing Tool Kit for Diesel – 9 piece

- **Applications: Diesel** Ford Duratorq 1.4TDCi, 2.0TDCi, 2.4Di (belt & chain models) / Peugeot, Citroen (PSA Group) 1.4, 1.6HDi

Ref	OEM Ref.*	Description	
A		Camshaft Sprocket Alignment Pin 6mm	
B	0194A 21-260 303-732	Crankshaft/Fuel Pump Alignment pin 5mm (2)	
C	0194C 21-262 303-734	Flywheel Locking Pin 11mm	
D	0194B 21-263 303-735	Camshaft Sprocket Locking Pin 8mm	
E	21-234/251	Flywheel Locking Pin 14mm	
F		Fuel Pump Cover Removal Tool	
G	303-1151	Locking Tool, Fuel Injection Pump Sprocket	
H	310-083A	Key for TX45 Torx fasteners	
I		Tensioner Pin	



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.


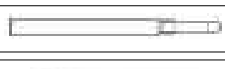


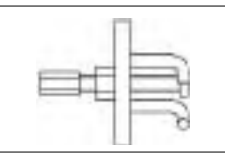
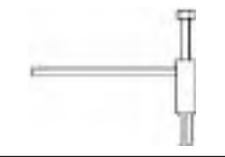

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine Timing & Locking - Ford

077525

Ford TDCi Timing Tool Kit for Diesel – 7 piece

- **Applications: Diesel** Ford 1.8 TDDi/1.8 TDCi engines 2000 – 2006
- Special tools required for both belt and chain are included in this set.
- Suitable for use on many popular models: Fiesta, Focus, Transit Connect and Tourneo Connect.

Ref	OEM Ref.*	Description	
A	21-162B 303-367 303-376B	Camshaft Alignment Plate	
B	21-104 303-193	Crankshaft TDC Alignment Pin	
C	6 mm. drill bit	Camshaft Alignment Pin.	
D	21-168 303-393	Flywheel Locking Tool.	
E	21-229 303-651	Camshaft Sprocket Puller	
F	23-067 303-095	Fuel Sprocket Remover	
G	21-230 303-652	Chain Cover Alignment Tool	

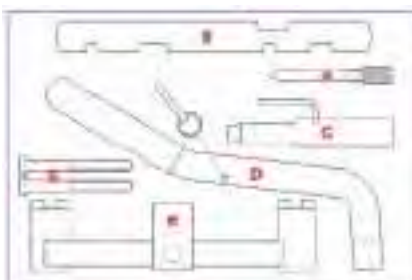


077556

Ford, Renault, Volvo 1.6/2.0 16v 2.5 20v Timing Tool Kit for Petrol – 5 piece

- This set of tools enables the correct engine valve timing to be made.

Ref.	OEM Ref.*	Description
A	303-748	Crankshaft aligning tool
B	21-162B 303-376	Camshaft aligning tool
C	Mot.1340	Crankshaft Timing Pin.
D	Mot.1348	Tensioning Tool (auxiliary drive belt)
E	Mot. 1337	Camshaft Setting Tool
Optional	Mot.799	Sprocket Holding Tool



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

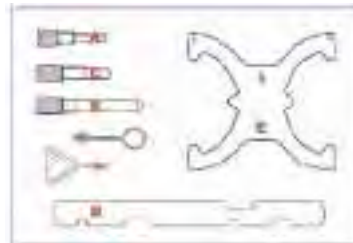
Engine Timing & Locking - Ford

077526 Ford Timing Tool Kit for Petrol – 7 piece

- **Applications: Petrol** Ford Fiesta, Fusion, Escort, Orion, Focus, C Max, Mondeo, Cougar, Transit Connect.
- This kit is necessary for use on timing belt replacement and chain driven engine valve timing applications (97-09):
 - 1.25 / 1.4 / 1.6 eng. codes DHA, DHB, DHC, DHD, DHE, DHF, DHG, FHA, FHE, L1T and L1V
 - 1.25 / 1.4 / 1.6 eng. codes FUJA, FUJB, FXJA, FYJA, FYJB, F8JA, F8JB, M7JA, M7JB
 - 1.6 / 1.8 16v eng. codes L1E, L1G, L1H, L1K, RDA, RDB, RKC, RQB, RQC
 - 1.4 / 1.6 eng. codes FXDA/C, FXDB/D, FYDA/C, FYDB/D, FYDH
 - 1.6 eng. codes HWDA, HWDB
 - 1.6 Ti-VCT eng. code HXDA
 - 1.6 / 1.8 / 2.0 eng. codes L1N, NGB, NGC, RKF, RKF, RKH, EBDA, EDDB, EDDC, EDDD, EDDF, EYDB, EYDC, EYDD/E, EYDF, EYDG, EYDI, EYDJ, EYPA



Ref	OEM Ref.*	Description
A	21.210	Crankshaft Timing Pin
B	303-748	Crankshaft Timing Pin
C	21-163 / 303-620	Crankshaft Timing Pin
D	21-162B/303-376	Camshaft Alignment Bar
E	303-1097	Camshaft Sprocket Locking Tool
F		Tensioner Locking Pin
G	303-1054	Tensioner Locking Pin



077527 Ford Timing Tool Kit for Diesel – 13 piece

- **Applications: Diesel** Ford Fiesta, Fusion, Escort, Orion, Focus, C Max, Mondeo, Cougar, Transit Connect.
- This kit is necessary for use on timing belt replacement and chain driven engine timing applications:
 - 1.4 TDCi eng. codes F6JA, F6JB, F6JC
 - 1.6 TDCi eng. codes HHJA, HHJB
 - 1.8D/TD eng. Codes RFK, RFN, RKD, RTJ, RTK, RVA
 - 1.6 TDCi eng. codes G8DA, G8DB, HHDA
 - 1.9 TDI eng. code AFN
 - 2.0 TDCi eng. codes G6DA, G6DB, G6DC
 - 2.0 TDCi eng. codes AZBA, QXBA, AZWA, QXWA, QXWB
 - 2.0/2.4 TD/TDCi eng. codes D5BA, D6BA, FMBA/BD2FA, D4FA, F4FA



Ref	OEM Ref.*	Description
A	21-162B/303-376	Camshaft Alignment Bar
B	21-104 / 303-193	Crankshaft Timing Pin
C	21-768 / 303-393. -01 & -02	Flywheel Locking Tool and Adaptors
D	21.262	Camshaft Alignment Pin
E	21-234	Crankshaft TDC Alignment Pin
F	21-251 / 303-698	Crankshaft TDC Alignment Pin
G	303-1059	Crankshaft TDC Alignment Pin
H	21-260	Crankshaft TDC Alignment Pin
I	23-019	Injection Pump Alignment Pin
J	303-735	Camshaft Alignment Pin
K	23-029	Camshaft Alignment Pin
L	23-047	Injection Pump Alignment Pin
M	21-105	Camshaft Alignment Pin



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine Timing & Locking - Ford







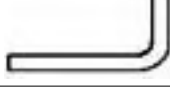
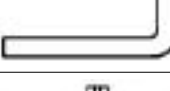

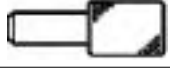
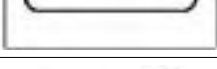
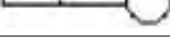
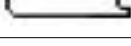
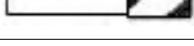


077520

Ford Master Timing Tool Kit for Petrol & Diesel – 16 piece

Applications:

Petrol Ford 1.25, 1.3, 1.4, 1.6 SOHC, 1.6, 1.8, 2.0 16v

Diesel Ford 1.8D, 1.8TD, 1.9TDi, 2.5Di & Turbo

Ref	OEM Ref.*	Description	
A	21-162B 303-367	Camshaft Setting Strap	
B	21-210	Crankshaft timing pin	
C	21-163 303-620	Crankshaft timing pin	
D		Shim Set (2)	
E	21-104 303-193	Crankshaft timing pin	
F	23-019	6mm Injection Pump Setting Pin and Washer	
G	21-123	9.5mm Setting Pin	
H	23-020	12.7mm Setting Pin	
I	21-168	Flywheel Locking Tool	
J	23-047	15.4mm Injection Pump Setting Pin	
K	21-105	Camshaft Setting Bracket	
L	23-019	Injection Pump Pulley Timing Pin 6mm	
M	23-058 310-084	Tensioner Locking Tool	
N	23-029	8.25mm Setting Pin	
O	23-059 310-085	Crankshaft Locking Tool	
P		Tooth Block, Long – Flywheel Locking Tool	



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

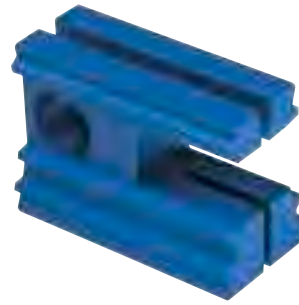
Engine

Timing & Locking - GM

022800

Cam Locking Tool – Ecotec 16V 1.4, 1.6

- Simple and easy to use. Locks twin camshaft to allow engine repairs to be carried out such as timing belt replacement.
- **Applications:** GM Corsa B, Tigra, Astra F 1993 on, Vectra 1995 on.



022900

Cam Locking Tool – Ecotec 16V 1.8, 2.0

- Simple and easy to use. Locks twin camshaft to allow engine repairs to be carried out such as timing belt replacement.
- **Applications:** GM Astra F, Cavalier, Calibra. Vectra, Omega



023100

TDC Indicator for Diesel – GM

- Essential tool to determine TDC.
- **Applications:** Diesel GM 17Dr, x 17DTi 1992 – 1998, Astra F (Kadett) 1.7D / TD, Astravan 1.7D, Cavalier 1.7D.



077534

GM 1.6 16v Timing Tool for Petrol

- GM Vauxhall/Opel Camshaft Locking Tool
- **Applications:** Diesel Astra H/Meriva/Zafira 1.6 16v 2003 on



077531

GM Vauxhall & Opel Ecotec Series Locking Tool Kit for Petrol – 4 piece

- **Applications: Petrol** GM 1.4, 1.6, 1.8, 2.0 Eco-Tec engines
- Suitable for models Corsa / Tigra / Meriva / Astra / Vectra / Zafira / Omega / Frontera and Sintra with engines 1.4/ 1.6/ 1.8/ 2.0 and 2.2 16v (95-04) Ecotec (Belt driven)

Ref.	OEM Ref.*	Description	
A	KM 852	Camshaft Locking Tool	
B	KM 853	Camshaft Locking Tool	
C	KM 652	Flywheel Locking Tool	
D	KM 911	Flywheel Locking Tool	



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

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Engine Timing & Locking - GM

077535

GM Vauxhall, Opel, Saab Engine Timing Kit for Petrol – 4 piece


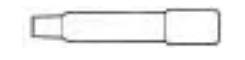



- **Applications:**
Petrol GM Vauxhall / Opel / Saab V6 engines,
Vectra 2.5, Saab 900 2.5, Saab 9-3 2.5, Saab 9-5 3.0



077532

GM Vauxhall & Opel Ecotec Series Timing Tool Kit for Petrol – 5 piece

- **Applications: Petrol** GM 1.0, 1.2, 12v (X10XE), 1.2 16v (X12XE)


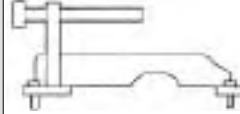
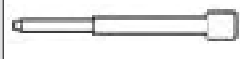
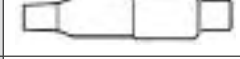

Ref.	OEM Ref.*	Description	
A	KM 953	Camshaft Timing Tool	
B	KM 952	Crankshaft Locking Pin	
C	KM 954	Camshaft Position (CMP) sensor disc setting tool	
D	KM 955	Tensioner Retaining Pin	
E	KM 955	Tensioner Retaining Pin	



077533

GM Vauxhall & Opel Diesel Timing Tool Kit for Diesel – 5 piece

- **Applications: Diesel** Astra, Astravan, Zafira, Vectra, Omega, Sintra, Frontera with X20DTL / X20DTH / X22DTH 2.0 & 2.2 Eco Tec Diesel Engines.
- Additional GM Vauxhall/Opel applications:
1.3/1.9 CDTi Diesel – refer to kit ref **077512**, 2.2/2.5 Tdi Diesel – refer to kit ref **077552**

Ref.	OEM Ref.*	Description	
A	KM 933	Timing Adjustment Wrench	
B	KM 933	Timing Adjustment Bracket Assembly	
C	KM 927	Injection Pump Setting Pin	
D	KM 929	Flywheel Locking Pin	
E	KM 932	Camshaft Timing Tool	



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine Timing & Locking - GM



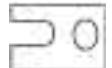
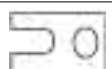

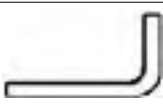


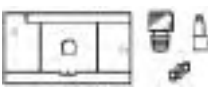

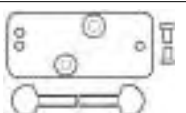

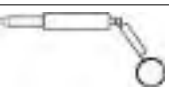
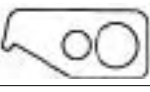


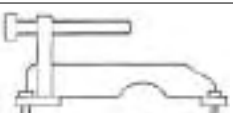

077530

GM Vauxhall/Opel Master Timing Tool Kit for Petrol & Diesel – 25 piece

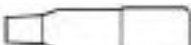
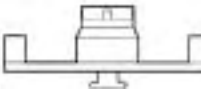

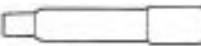

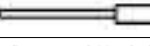

• **Applications:**

Petrol GM 1.0, 1.2, 1.3 12v, 1.2, 1.4, 1.6, 1.8, 2.0 16v

Diesel GM 1.5D/TD, 1.6D, 1.7TD, 2.0/2.2Di, 2.0/2.4TDi, 3.0/3.1TD, Isuzu 2.0D

Ref	OEM Ref.*	Description	
A	KM 666	Tensioner Adjuster	
B	KM 8070	Camshaft Setting Bracket	
C	KM 852	Camshaft Setting Tool	
D	KM 853	Camshaft Setting Tool	
E	KM 517B	Flywheel Locking Tool	
F	KM 6011	Flywheel Locking Pin 9.5mm Dia.	
G		Locking Screw M8 x 40mm	
H		Locking Screw M6 x 30mm	
I-L	KM 661-1	Camshaft Position Measuring Tool	
M	KM 571-B	Dial Test Indicator 51 Dia. x 10 x 0.01mm	
N	KM 661-2	Camshaft Position Locking Tool	
O	KM 851	TDC Indicator	
P	KM 951	Flywheel Locking Pin	
Q	KM 652	Flywheel Locking Tool	
R	KM 911	Flywheel Locking Tool	
S	KM 933	Timing Adjustment Wrench	
T	KM 933	Timing Adjustment Bracket Assembly	
U	KM 927	Injection Pump Setting Pin	



Ref	OEM Ref.*	Description	
V	KM 929	Flywheel Locking Pin	
W	KM 932	Camshaft Timing Tool	
X	KM 953	Camshaft Timing Tool	
y	KM 952	Crankshaft Locking Pin	
Z	KM 954	Camshaft Position (CMP) sensor disc setting tool	
AA	KM 955	Tensioner Retaining Pin	
AB	KM 955	Tensioner Retaining Pin	

Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine

Timing & Locking - Mercedes & Chrysler

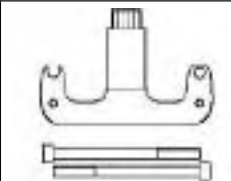
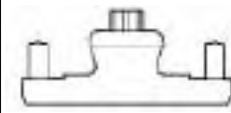

077600

Mercedes Engine Timing Tool Kit for Petrol & Diesel – 3 piece

- **Applications:**

Petrol Mercedes C Class, E Class, SLK 1.8, 2.0, 2.3

Diesel Mercedes 2.0, 2.2, 2.7, 3.3, 4.0 CDi engines
Mercedes 2.5, 2.9, 3.0 D/DT engines,
Chrysler 2.2, 2.7, CRD engines

Ref	OEM Ref.*	Description	
A	60158902400 0 8932	Flywheel Plate Locking Tool c/w Bolts M6 x 90mm (2)	
B	60258900400 0 8933	Flywheel Plate Locking Tool	
C	11158903150 0 8929	Camshaft Locking Pin Set (2)	



Engine

Timing & Locking - Peugeot, Citroen (PSA Group)

077541

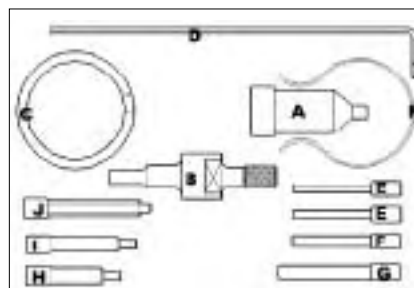
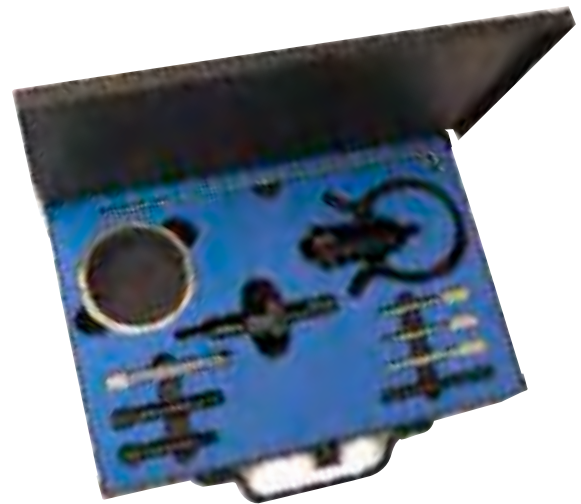
– 11 piece

- **Applications:**

Petrol Peugeot 206, 307, 406, 607, 806, 807 1.8/2.0/2.2 16v (EW Series)

Citroen Xsara/Picasso, C4, C5, C8 1.8/2.0/2.2 16v (EW Series)

Ref.	OEM Ref.*	Description
A	0189-C	Flywheel Locking Pin
B		Flywheel Locking Pin
C		Tensioner Adjusting Tool
D		Tensioner Locking Tool
E	0132-AB 4527-T-S2	Camshaft Locking Pin 5mm (2)
F	0189-B	Crankshaft Timing Pin
G	0132.AJ2 0188-M 4533-TAC2	Tensioner Setting Pin
H	0189-A	Camshaft Timing Pin
I	0189-AZ	Camshaft Timing Pin
J	0189-L	Inlet Camshaft Timing Pin (VTC)
K	0132.AK/0153-AK 0187-J 0188-K/0189-K 4533-TAD	Timing Belt Retaining Clip



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

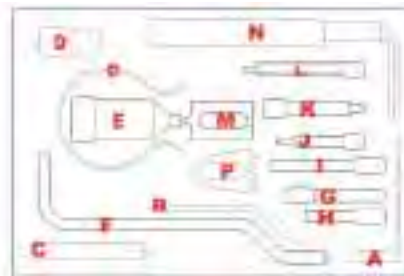
Timing & Locking - Peugeot, Citroen (PSA Group)

077543

Peugeot, Citroen (PSA Group) Timing Tool Kit for Petrol – 16 piece

- This kit is necessary for use on timing belt replacement and chain driven engines timing applications.
- **Applications: Petrol**
Peugeot 1.1, 1.4, 1.6, 1.8, 1.9, 2.0, 3.0, Citroen 1.0, 1.4, 1.6, 1.8, 1.9, 2.0, 3.0

Ref.	OEM Ref.*	Description
A	0132-X, 4507-TJ, 9767.89	Tensioning Tool
B	4507-TA, 4507-TJ	Crankshaft Locking Pin
C	0132-R, 0153-AE	Camshaft Alignment Pin (2)
D	0132-QZ	Crankshaft Locking Pin
E	0189-C,	Crankshaft Locking Tool
F	0153-G, 0153-Y, 0153-N, 0188-D, 7004-TG, 7014-TJ, 7017-TR, 9767.34	Crankshaft Locking Pin
G	0189-B	Camshaft Alignment Pin
H	0132-AJ2	Camshaft Alignment Pin
I	5711-TC	Camshaft Alignment Pin
J	0189-A	Camshaft Alignment Pin
K	0189-AZ	Camshaft Alignment Pin
L	0189-L	Camshaft Alignment Pin
M	0134-AF, 0134-C	Flywheel Locking Tool
N	7017-TW	Tension Wrench
O	0132-AK, 0187-J, 0188-K, 0189-K, 4533-TAD	Belt Retention Clip
P	0153-A, 6012-T, 9765.54, 9044-T	Flywheel Locking Tool

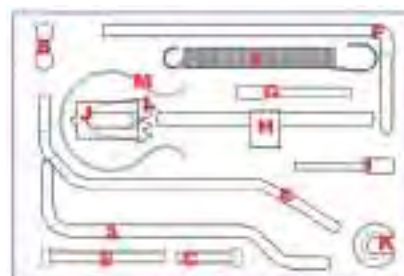


077544

Peugeot, Citroen (PSA Group) Timing Tool Kit for Diesel – 13 piece

- This kit is necessary for use on timing belt replacement and chain driven engines timing applications.
- **Applications: Diesel**
Peugeot 1.4, 1.5, 1.8, 1.9, 2.0, 2.1, 2.5, 2.8, Citroen 1.6, 1.5, 1.7, 1.8, 1.9, 2.0, 2.1, 2.2, 2.5

Ref.	OEM Ref.*	Description
A	0153-G, 0153-Y, 0153-N, 0188-D, 7004-TG, 7014-TJ, 7017-TR, 9767.34	Crankshaft Locking Pin
B	M8 x 35	Setscrew (2)
C	M8 x 40	Setscrew (1)
D	M8 x 80	Setscrew
E	7017-TR	Flywheel Locking Pin
F	0118-X	Crankshaft Locking Pin and Spring
G	0189-B/0194-B	Timing Pin.
H	0178-E	Tension Wrench
I	0132-AB, 4527-TS2, 5711.TD, 0194-A	Camshaft Timing Pin
J	0134-AF, 0134-C	Flywheel Locking Tool
K	1 860 638 000	Tension Spacer
L	0153-A, 6012-T, 9765.54, 9044-T	Flywheel Locking Tool
M	0132-AK, 0187-J, 0188-K, 0189-K, 4533-TAD	Belt Retention Clip



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Timing & Locking - Peugeot, Citroen (PSA Group)

077540

Peugeot, Citroen (PSA Group) Master Timing Tool Kit for Petrol and Diesel – 30 piece

● **Applications:**

Petrol PSA 1.0, 1.1, 1.4, 1.6, 1.8, 1.9, 2.0 inc 12v and 16v models

Diesel PSA 1.4D, 1.7D, 1.8D, 1.9TD, 2.0HDi, 2.2HDi, 2.5TD



Ref.	OEM Ref.*	Description	
A	0132-X 4507-TJ 9767.89	Tensioning Tool 8mm Sq.	
B	0132-Q 5711-TA	Crankshaft Timing Pin 6mm	
C	0132-R 4507-TB 9767.27	Camshaft Timing Pin (2)	
D	7014-TM	Camshaft Timing Pin (2)	
E	0132-QZ 4507-TA	Flywheel Locking Pin	
F	0189-C	Flywheel Locking Pin	
G	0153-N 0188-D 7004-TG	Crankshaft Timing Pin 8mm	
H		Locking Screw Set M8 (3)	
J	7017-TR	Crankshaft Timing Pin 7mm	
K	0153-N D0188-Y 0288-D 7099-TM	Crankshaft Timing Pin 8mm	
L	0188-X	Setscrew M8 x 70mm	
M	0118-X	Flywheel Locking Pin	
N	0132-AB 4257-T-S2 5711-TD	Camshaft Locking Pin 5mm (2)	
O	Q188-H	Injection Pump Timing Pin	
P	0189-B	Crankshaft Timing Pin	
Q	4527-T-S1	Injection Pump Timing Pin	
R	0132.AJ1 4533-TAC1	Camshaft Timing Pin	
S	0132.AJ2 0188-M 4533-TAC2	Camshaft Timing Pin	
T	5711-TC 9041-TZ	Camshaft Timing Pin (2)	

Ref.	OEM Ref.*	Description	
U	0189-A	Camshaft Timing Pin	
V	0189-AZ	Camshaft Timing Pin	
W	0189-L	Inlet Camshaft Timing Pin (VTC)	
X	0178-E 0188-J/J1 5711-TE	Tensioner Adjuster	
Y	0134-AF 0188-F	Flywheel Locking Tool	
Z	0188-J2	Tensioner Adjuster	
AA	7017-TW	Tensioner Wrench 8mm	
AB	0132.AK 0189-K 4533-TAD	Timing Belt Retaining Clip	
AC	0153-A 6012-T 9765-54	Flywheel Locking Tool	
AD	0188-P/P2 7015-T	Crankshaft Pulley Remover	

Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine Timing & Locking - Renault

077554 Renault Camshaft Sprocket Tool for Petrol

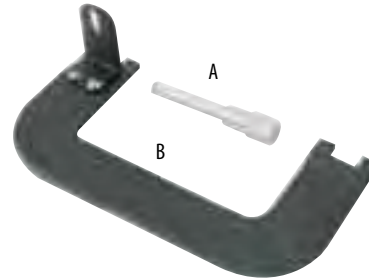
- **Applications: Petrol** Renault 2.0 Turbo Engines (F4R), Laguna2, Megane2, Scenic2 ('02 – '08).



077553 Renault Engine Timing Kit for Petrol




- **Applications: Petrol** Renault 2.0 IDE engines (F5R), Laguna 2.0, Megane 2.0 ('99 – '05).

Ref.	OEM Ref.	Description
A	Mot 1054	Crankshaft Timing Pin
B	Mot 1526	Camshaft Setting Bar



077551 Renault 16v Engine Timing Kit for Petrol – 3 piece











- **Applications: Petrol** Renault 1.4, 1.6, 1.8, 2.0 16v engines (K4, K4M, F4P, F4R)

Ref.	OEM Ref.*	Description	
A	Mot 1489	Crankshaft Timing Pin	
B	Mot 1054	Crankshaft Timing Pin	
C	Mot 1496	Camshaft Setting Tool	



077552 Renault dCi Diesel Engine Kit for Diesel – 11 piece

- **Applications: Diesel** Renault 1.5dCi, 1.9dCi/Nissan 1.5dCi/Opel 2.2, 2.5 TDi

Ref.	OEM Ref.*	Description	
A	Mot 1536 KM 6203	Flywheel Setting Pin	
B	Mot 1537 KM 6204	Camshaft Locking Tool – Exhaust	
C		Locking Screw M8 x 60mm (2)	
D	Mot 1534 KM 6205	Camshaft Locking Tool – Inlet	
E	Mot 1538	Hi-Pressure Fuel Pump Pulley Locking Pin	
I	Mot 1489	Crankshaft Timing Pin	
J		Tensioning Screw M6 x 45mm	
K	Mot 1054	Flywheel Locking Pin	
L	Mot 1430	Camshaft Timing Pin	
M	Mot 1543	Tension Pre-Setting Tool	



NB – Kit ref **077552** is also suitable for Nissan 1.5dCi, Nissan Interstar/Primastar 1.9/2.2/2.5 dCi and Opel Vivaro/Movano 1.9/2.2/2.5 TDi applications.

Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine Timing & Locking - Rover

022400

Rover MGF K16 DOHC Camshaft Locking Tool for Petrol

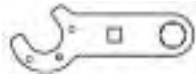








- Compact, simple to use tool essential for securely locking camshafts in position whilst carrying out cam belt replacement, cylinder head repairs or engine rebuilds.
- Specifically designed for use on Rover 'K' series 16 valve engines.
- Made from lightweight anodised aluminium.
- **Applications: Petrol** K Series 16 valve engines on Rover and MGF vehicles.

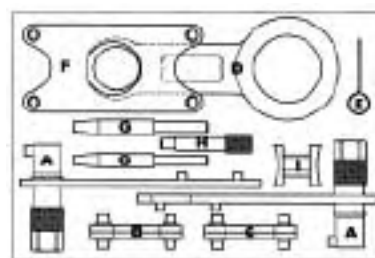


077610

Landrover / MG / Rover KV6 Engine Timing Tool Kit for Petrol – 9 piece

- This set of tools enables the correct valve timing to be made when servicing the engine often referred to as a quad cam and replacing both front and rear timing belts.
- **Applications: Petrol** Rover 2.0/2.5 V6 / Land Rover / MG

Ref	OEM Ref.*	Description	
A	18G 1747	Camshaft Locking Tool	
B	12-187	Camshaft Locking Adaptor - 2.0l	
C	12R208	Camshaft Locking Adaptor - 2.5l	
D	12-175	Rear Camshaft Sprocket Setting Tool	
E		Tensioner Pushrod Retention Pin	
F	LRT 12-175	Rear Camshaft Sprocket Setting Tool	
G	18G 1746A LRT 12-198	Rear Camshaft Sprocket Guide Pin	
H	18G 1747-5 LRT 12-232	Crankshaft Locking Pin	
I	18G 1747-1 LRT 12-195	Rear Cam Sprocket Spreader	



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine

Timing & Locking - Volkswagen, Audi (VAG Group)

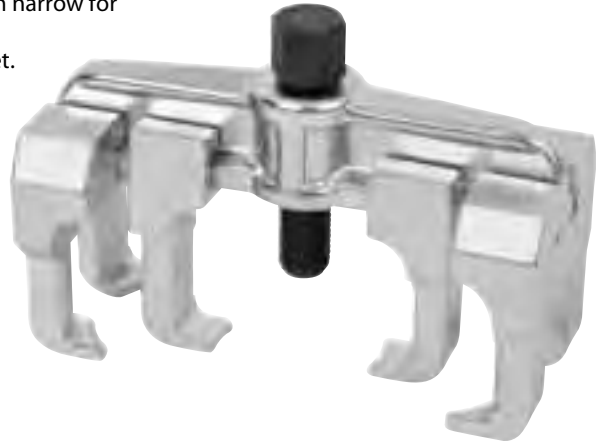
077575

VAG Camshaft Sprocket Pulley Puller for Petrol & Diesel

- Suitable for use with VAG V6/V8 engines 1996-2007 (petrol & diesel).
- Fits both 5 and 6 spoke camshaft pulleys.
- This camshaft sprocket pulley puller has been specifically designed for use on Audi, Skoda and Volkswagen Audi V6, V8 engines and 4 and 6 cylinder engines with 5 or 6 spoke camshaft pulleys.
- The three types of pulling arms will fit any number of spokes on the Camshaft Sprocket; 23mm wide spokes for odd number of spokes, 17mm narrow for spokes and 2 x universal tool for even number of spokes.
- Hex head 17mm with ball end for reducing damage to sprocket.

Make	Model
Audi	A6 Quattro (99-05), S6 (00-04), A8 (97-06), S8 (99-03), RS4 (03-05), RS6 (03-04), A4 (97-07), Cabrio (03-06), A6 (97-05), Allroad (00-05)
VW	Tourag (03-06), Phaeton (03-04), Passat (98-05)
Skoda	Superb (02-07)

Engine	Engine Code
Petrol 3.7 V8 (Belt)	AKC,AQG
Petrol 4.2 V8 (Belt)	ANK,AQF,AQH,AQJ,ARS,ARU,ASG,AWN,AWU,AVN,AVP,AXQ,BCY,BGH,BGJ,BHX
Petrol 3.0 V6 30v.	ASN,AVK,BBJ
Diesel 2.5TDi V6 (Belt)	AFB,AKE,AKN,AYM,BAU,BCZ,BDG,BDH,BFC



077562

VAG 2.0TDi Timing Tool Kit for Diesel - 6 piece

- **Applications: Diesel** Audi, Skoda, Volkswagen 2.0TDi PD Series engines





Ref	OEM Ref.*	Description
A	T10100	Crankshaft Setting Tool
B	T10050	Camshaft Setting Tools
C	T20102	Injection Pump Locking Pin (2)
D	T10115	Tensioner Pulley Locking Pin
E	T10060A	Auxillary Drive Tensioner Locking Pin



077563

Audi Engine Timing Tool Kit for Petrol - 4 piece

- This set of tools enables the correct valve timing to be made when servicing the engine.
- **Applications: Petrol** Audi A4, A6, A8 2001-ON 3.0 V6 30v engines (ASN/BBJ)

Ref	OEM Ref.*	Description	
A	T40026	Crankshaft Aligning Tool	
B	T40030	Camshaft Aligning Tools (2)	
C	T40028	Camshaft Sprocket Adjusting Tool	
D	T40011	Tensioner Pin	



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

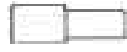



Engine

Timing & Locking - Volkswagen, Audi (VAG Group)

077564

Volkswagen Transporter 2.4D Engine Timing Service Kit for Diesel - 4 piece

- **Applications:** Diesel VAG Transporter/LT2.4D engines AAB/AJA (02/95 - 2003)

Ref	OEM Ref.*	Description	
A	2064 U-20003	Injection Pump Sprocket Locking Pin Ø15,4 mm.	
B	2065A U-40021	Camshaft Setting Bar	
C		Shim Set (2)	
D	T10025	Crankshaft Damper Holding Tool	



077565

Volkswagen Camshaft Setting Plate for Petrol

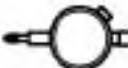
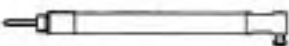
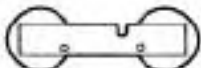

- This tool is used to hold the camshafts in position.
- **Applications:** VW Golf, Bora, Corrado, Passat, Sharan, Transporter Petrol engines 2.3/2.8/2.9, Ford Galaxy 2.8



077566

VAG Valve Timing Tool Kit for Petrol - 4 piece

- **Applications:** Petrol Volkswagen, Audi, Skoda 1.4/1.6 FSI engines (AXU/BAG/BLF/BLP/BKG/BLN/BTS)

Ref	OEM Ref.*	Description	
A	VAS 6079	Dial Test Indicator	
B	T10170	Piston Height Adaptor	
C	T10171	Camshaft Alignment Tool	
D	T40011	Tensioner Pin	



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

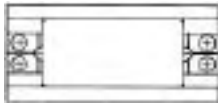
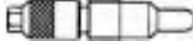

Engine

Timing & Locking - Volkswagen, Audi (VAG Group)

077568

Audi Valve Timing Tool Kit for Petrol - 4 piece

- **Applications: Petrol** Audi 2.4/3.2 FSI Chain Drive engines (AUK/BKH/BDW)

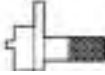
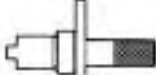
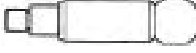
Ref	OEM Ref.*	Description	
A	T40070	Camshaft Aligning Tools (2)	
B	T40069	Crankshaft Aligning Tool	
C	T40071	Timing Chain Tensioner Locking Pin	



077561

VAG 1.2 6v / 12v – 3 Cyl. Engines Timing Kit for Petrol – 4 piece

- **Applications: Petrol** Seat, Skoda, Volkswagen 1.2 3 cylinder engines (AWY and BMD 6v/AZQ and BME 12v)



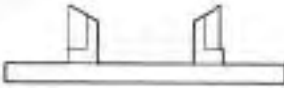
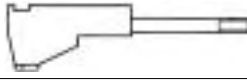


Ref.	OEM Ref.*	Description	
A	T10123	Camshaft Aligning Tool (2) 12v	
B	T10120	Camshaft Aligning Tool 6v	
C	T10121	Camshaft Locking Tool	



077567

VAG 2.0 FSI Engine Timing Tool Kit for Petrol - 6 piece

- **Applications: Petrol** Audi, Volkswagen 2.0 FSI Direct Injection engines (AXW/BHD/BMB/AWA/AXX/BPY/BWA/BUL/BWE/BEB)

Ref	OEM Ref.*	Description	
A	T10020	Tension Wrench	
B	T40011	Tensioner Pin	
C	T10252	Camshaft Aligning Tool	
D	3366	Automatic Chain Tensioner Retainer	
E	T10092	Chain Tensioner Retaining Screw And Nut	
F	T10060/A	Auxiliary Drive Belt Tensioner Locking Pin	



Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine Timing & Locking - Volkswagen, Audi (VAG Group)

077560

VAG Timing Tool Master Kit for Petrol and Diesel – 18 piece

- **Applications:** Audi, Seat, Skoda, Volkswagen

Petrol 1.4, 1.6, 1.8, 1.8T, 2.0, 2.2

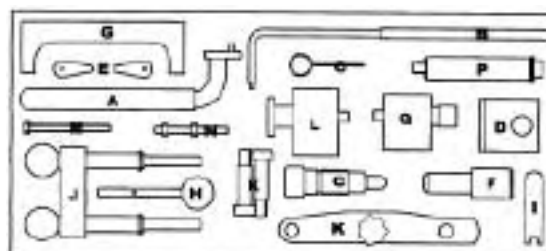
1.8, 2.0 16v

2.6, 2.8 24v

Diesel 1.2, 1.4, 1.9TDi, 1.7, 1.9SDi, 2.5, 2.8 TDi



Ref.	OEM Ref.*	Description	
A	V.159 T 10020	Tension Wrench	
B	3387 U-30009	Tension Wrench	
C	3242	Crankshaft Locking Tool	
D	3458	Camshaft Aligning Tool	
E		Shim Set (2)	
F	2064 U-20003	Injection Pump Pulley Timing Pin	
G	2065A U-40021	Camshaft Setting Bracket	
H	3359 T20102 U-40074	Injection Pump Pulley Timing Pin	
I	T10008 310-084 (23-058)	Tensioner Locking Tool	
J	T10016	Camshaft Locking Tool	



Ref.	OEM Ref.*	Description	
K	3418 T20038	Camshaft Setting Bracket	
L	T10050 310-085 (23-059)	Crankshaft Locking Tool	
M		Setscrew M5 x 60mm	
N	T20046	Stud and Nuts, M5 x 55mm	
O	T20046	Tensioner Pin	
P	3369	Support Guides	
Q	T10100	Crankshaft Locking Tool	

Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine Timing & Locking - General

077542

Land Rover/Jaguar TDV6 Timing Tool Kit for Diesel

- **Applications: Diesel** Land Rover, Jaguar, Peugeot, Citroen (PSA group) 2.7D



077515

Peugeot, Citroen (PSA Group)/Fiat/Renault 2.5 2.8TDi Vans Timing Tool Kit for Diesel

- **Applications: Diesel** Fiat Ducato, Iveco Daily, Citroen Jumper/Relay, Peugeot Boxer, Renault Master/Trafic – 2.8D, 2.8HDI, 2.8TDi
- This kit of tools enables the engine timing position to be held when replacing the timing belt on 2.5-2.8D/TDi/HDI/JTD Engines.



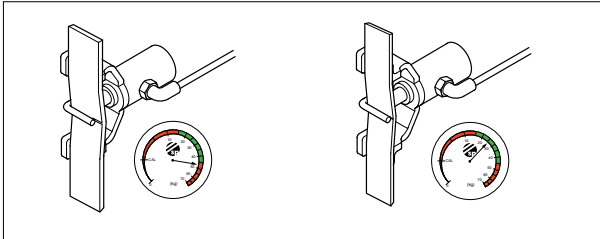
Refer to pages 66-75 for full Timing & Locking Tool Vehicle Application List.

Engine Timing & Locking - General

316600

Timing Belt Tension Gauge

- For accurate tensioning of timing belts, minimising the risk of premature failure due to incorrect belt tension.
- Features remote gauge for ease of access, with oil filled piston.
- Gauge scale in Kg as recommended by vehicle manufacturers. Supplied with calibration strip.
- Suitable for use on all Timing Belts, v Belts, Industrial Belts up to 12mm thick.



077524

Universal Sprocket Holding Wrench

- A multi-application wrench with variable adjustment.
- **Applications: Diesel** chain driven and diesel belt driven Ford Focus, Fiesta, Tourneo, Transit



077420

Cam Belt Pulley Puller

- Removes pulleys by using the holes in the pulley, to avoid risk of damage.
- Special compact design allows for in-situ use.
- Adjustable legs allow for variable diameters of pulley.

Part No.	Spread	Reach	Diameter
077420	40-70mm	40mm	90mm



Engine Oil & Fuel Filter Removers

Adjustable Oil Filter Removers - Heavy Duty

- Professional tools – heavy duty construction.
- Three-legged self-gripping design.
- Heavy duty gear mechanism for longer life.
- Forged steel.

Part No.	Suits Diameter	Square Drive
038180	80-120mm	3/8" (c/w 1/2" sq dr. adaptor)
038195	95-165mm	1/2"



038100 Adjustable Oil Filter Remover

A spider-type oil filter wrench designed for use where access is limited.

- The geared legs automatically tighten as the load increases, securely gripping the filter for safe, easy removal.
- 19mm hex or 3/8" square drive.
- **Capacity:** 62-93mm.



015500 Adjustable Strap Spanner

Fully adjustable, heavy duty strap spanner for a wide range of garage workshop tasks.

- With strong, cast iron handle for exerting high leverage and polyester webbing strap for tight, strong grip.
- **Capacity:** 279mm.

Spares: 015512 Spare Strap



038500 Swivel Jaw Filter Remover

- 90° swivel hinged jaws.
- Jaws swivel a full 90° giving flexible access to filters with even the most awkward access.
- Poly grip handles.
- **Capacity:** 57 – 120mm dia.



Engine Oil & Fuel Filter Removers

Oil Filter Removers - Band Type

- Strong non stretch steel band with die cast screw mechanism.
- Tool is looped over filter and tightened using one hand, ideal where access is restricted.

Part No.	Suits	Capacity	Spare Band Part No.
038300	Heavy Commercial Vehicles, Plant etc	110 - 155mm	038301
038400	Cars, Light Commercial Vehicles etc.	65 - 100mm	038401



038600 Oil Filter Remover - Strap Type

For removing oil, fuel and water filters, gripping hubs and brake drums, removing exhausts etc.

- Strong steel shank and tough polyester strap.
- Compact design gives high leverage in restricted areas.
- 13/16" hex and 1/2" square drive.
- Self-tightening band designed for fast, secure filter removal.
- **Capacity:** 300mm dia.
- **Spares:** 038605 Spare Strap



038900 Heavy Duty Oil Filter Remover - Chain Type

- For removing large oil, fuel and water filters on commercial vehicles, plant machinery, industrial engines etc.
- Robust construction with mild steel shank and heavy duty leaf link chain.
- 1" hex and 1/2" square drive.
- **Capacity:** 150mm.



039000 Diesel Fuel Filter Remover - GM Vauxhall / Opel / Saab

- Two piece tool for removal of Diesel Fuel Filters
- Equivalent to manufacturer's own GM OEM* Tool EN-46784-010 + EN-46784-020
- Suits Astra H / Vectra C / Zaffira with 1.9CDTi engines, Saab 1.9TD engines and Alfa / Fiat 1.9JTD engines.



*Reference to manufacturer's original equipment (OEM) part numbers are solely for identification purposes.

Engine Oil Pressure Tester

314700

Oil Pressure Tester Kit

Helps to diagnose worn oil pumps and engines, faulty oil pressure switches and warning indicators.

- Large, shock protected easy to read dual scale gauge for accurate oil pressure checks.
- Permanently oil primed, long flexible hose enables access to difficult to reach oil switch ports.
- Small profile, quick coupling adaptors with built in shut-off valve for fast, secure connection.
- Complies with DIN16005, DIN 16063 and BS1780.
- Scale 0-10 bar, 0-150 PSI.

Contents and Specifications

Part No.	Description	Overall Length	Gauge Diameter	Scale
314701	Gauge with hose	1145mm	80mm	0-10 bar 0-150 PSI
Part No.	Description	Thread	Adaptor No.	
314711	Adaptor	R1/8 DIN 2999	1	-
314712	Adaptor	1/8 x 27 NPT	2	-
314713	Adaptor	1/4 x 18 NPT	3	-
314714	Adaptor	3/8 x 20 UNF	4	-
314715	Adaptor	1/2 x 20 UNF	5	-
314716	Adaptor	M10 x 10	6	-
314717	Adaptor	M12 x 1.5	7	-
314718	Adaptor	M14 x 1.5	8	-
314719	Adaptor	M16 x 1.5	9	-
314721	Adaptor	M18 x 1.5	10	-
314730	90° Elbow Adaptor			

Also available:

314702 Oil Pressure Gauge and 2m hose



Fits engines with oil switch threads as specified, including the following:

Alfa	Audi	BMW	Citroen
Daihatsu	Fiat	Ford	Honda
Hyundai	Isuzu	Jaguar	Lada
Lancia	Mazda	Mercedes	Mitsubishi
Nissan	Opel	Peugeot	Renault
Rover	Saab	Skoda	Subaru
Suzuki	Toyota	Vauxhall	Volkswagen
Volvo	Zastava		

Engine Feeler Gauges

- All blades are etch marked with both metric and imperial sizes.
- Hardened and tempered to withstand prolonged workshop use.

016200

Feeler Gauge - 38 Blade

- 0.038mm - 0.889mm.
- Contains brass blades for use on electronic ignition, sizes 0.203mm, 0.254mm and 0.305mm.

016400

Feeler Gauge - 26 Cranked Blade

- 0.005mm to 0.762mm.
- 45 degree angle offset allows the blade to be used where access is restricted.



Engine

General Engine Tools

- A range of 4 different styles of Spark Plug Socket, to provide the widest possible choice and to suit all applications.
- Specifically designed to avoid misalignment between spark plug and socket, thereby eliminating potential damage to the spark plug insulator.
- Conforms to ISO11168.

Standard Depth Spark Plug Sockets

Part No.	Square Drive	Depth	Spark Plug Hex
033402	3/8" sq. dr.	90mm	16mm hex
033404	3/8" sq. dr.	90mm	18mm hex
033406	3/8" sq. dr.	90mm	19mm hex
033408	3/8" sq. dr.	90mm	21mm hex
033410	3/8" sq. dr.	90mm	14mm bi-hex



Extra Long Spark Plug Sockets

Part No.	Square Drive	Depth	Spark Plug Hex
033412	3/8" sq. dr.	250mm	16mm hex
033414	3/8" sq. dr.	250mm	21mm hex
033416	3/8" sq. dr.	250mm	14mm bi-hex



Magnetic Spark Plug Sockets - Standard Depth

Part No.	Square Drive	Depth	Spark Plug Hex
033422	3/8" sq. dr.	84mm	16mm hex
033424	3/8" sq. dr.	84mm	18mm hex
033426	3/8" sq. dr.	84mm	21mm hex



Long Handled, Hinged Spark Plug Sockets

Part No.	Square Drive	Length	Spark Plug Hex
033452	3/8" sq. dr.	385mm	16mm hex
033456	3/8" sq. dr.	385mm	21mm hex



300701

HT (Spark) Test Set - 4 piece

- Snap fit adaptors for quick connection between spark plug and HT lead, giving a visual check for spark.



Engine

General Engine Tools

Drain Plug Keys

- Double-ended keys suitable for removing square and hex drain and filler plugs on sumps, gearboxes, differentials etc on a wide range of vehicles.
- Manufactured from durable carbon steel with a hardened and tempered electroplate finish.

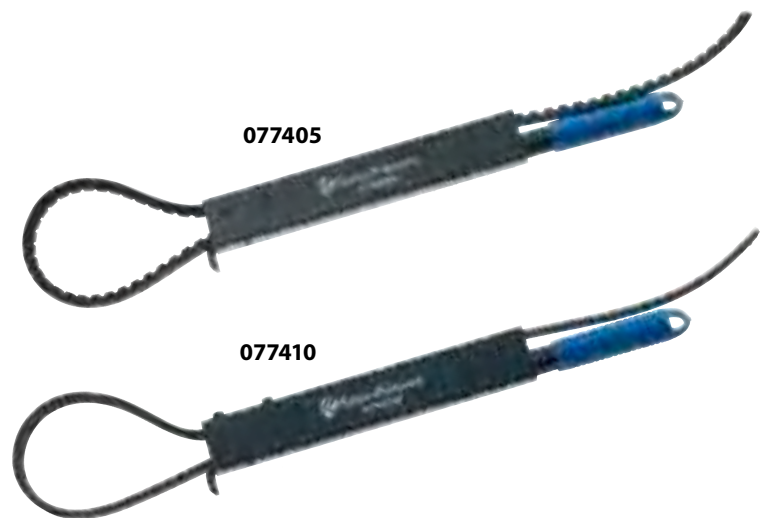
Part No.	Description
660391	5/16" hex x 3/8" hex
660392	8mm sq. x 3/8" sq.
660393	11mm sq. x 12mm hex
660394	13mm sq. x 14mm hex
660395	17mm hex x 1/2" hex
660396	8mm hex x 10mm hex



Pulley Holding Tools

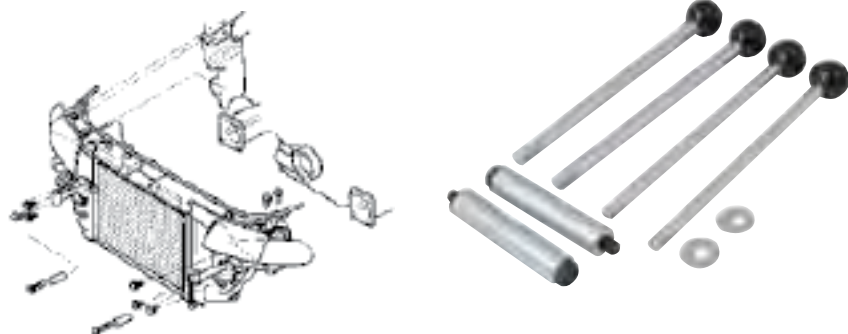
- Ideal tools for holding belt pulleys when removing or replacing the pulleys on water pumps, alternators, power steering pumps etc.
- Can also be used to rotate camshafts and crankshafts during engine timing service work.
- The hold is tighter than with a normal strap wrench, therefore these tools can also be used to remove oil & fuel filters where access permits.

Part No.	Description	Handle Length	Belt Length
077405	V Belt	365mm	800mm
077410	Grooved	365mm	800mm



077569 Guide Pin Set - Volkswagen, Audi (VAG Group)

- This set of guides resolves the problem of accessibility when servicing the engine. It eliminates the need to disconnect hoses and cables. Replacing the front fasteners at each side of the vehicle with a guide rail enables the complete front section including bumper, lights etc to be slid forward.
- This set has the three sizes necessary (8 mm, 10 mm and 17mm).



Engine General Engine Tools

077425

Ribbed Pulley Puller

- Adjustable 2 leg puller for removing automotive pulleys.
- Puller leg design grips the grooves on the pulley.
- Suitable for pulley diameters 130 – 155mm.



Thread Chasers

- For reforming female threads, cleaning spark plug bore threads in cylinder heads.
- Chemical black finish.

Part No.	Size
014100	14/18mm
014400	10/12mm

014100
14/18mm



014400
10/12mm



Viscous Fan Hub Spanners

- For removing thermo viscous fan hubs, they are cranked and have a slim profile for easy access.
- Manufactured from case hardened steel with a zinc plate finish.

Part No.	Description	Suits
031100	32mm	Ford, BMW
031200	36mm	Ford, GM



Belt Tensioning Adjusters-GM

- Used for tightening cam belts (eccentric water pumps), these belt tensioning adjusters overcome the problem of difficult access and provide high torque without tilt or slip.
- Made from strong, alloy steel and chrome plated.

Part No.	Description
031300	41mm
031400	46mm



031300

031400