



# POWERTRAIN

 Sykes-Pickavant®

# ENGINE & TRANSMISSION

## PETROL COMPRESSION TESTING

### Petrol Compression Tester

- Checks cylinder compression to assist in the diagnosis of faulty valves, piston rings, cylinder heads and gaskets
- Features a shock protected, easy to read dual scale gauge for quick and accurate checks
- Pressure relief valve allows repeated cylinder tests without removing the gauge
- Available with 300mm or 460mm rubber hose with dual threads (M14 & M18)



Part No.	Description	Length (mm)	Gauge Dia. (mm)	Gauge Scale	Thread
314000	Petrol Compression Tester	305	83	0-20 bar / 0-300 psi	M14 & M18
314020	Petrol Compression Tester – Long	460	83	0-20 bar / 0-300 psi	M14 & M18
314005	Gauge Service Kit				

### 314003

### Petrol Compression Tester Kit

- Comprehensive kit based on **314000** Petrol Compression Tester
- The gauge features a dual scale (0-20 bar / 0-300 psi)
- Suitable for vehicles with M10, M12, M14 and M18 spark plug threads
- Includes thread chasers to prevent cross-threading resulting from dirty or damaged threads
- Optional extra long flexible adaptors available



#### Contents

Part No.	Description	Thread	Length (mm)
314000	Gauge Assembly	M14, M18	305
314002	M14 Extension – Short	M14 x 1.25	63
314004	M14 Extension – Long	M14 x 1.25	94
314007	M18 Extension	M18 x 1.50	57
314010	M10 Extension	M10 x 1.00	57
314012	M12 Extension	M12 x 1.25	57
660612	Thread Chaser	M10, M12	–
014100	Thread Chaser	M14, M18	–
314005	Gauge Service Kit	–	–

### Flexible Adaptors

- Two extra long adaptors designed to complement and extend the application capacity of Petrol Compression Testers **314000**, **314020** and **314003**



Part No.	Description	Thread	Length (mm)
314009	Extra Long Flexible Adaptor	M14	158
314011	Extra Long Flexible Adaptor	M12	380

# ENGINE & TRANSMISSION

314050

## Petrol Compression Test Kit – Quick Release

- Specially designed for deep seated spark plug ports with long narrow threads found on many modern petrol engines
- Specially designed self centring adaptors ensure minimal risk of cross threading when attempting to screw the compression adaptor in to the spark plug port, a must feature for deep seated spark plug ports
- Positive lock quick release connector ensures adaptors can't accidentally be left in the spark plug port
- Gauges features a dual scale (0-20 bar / 0-300 psi), adheres to DIN16005, DIN16063 and BS1780 standards
- Supplied with 500mm braided, flexible rubber hose



### Contents

Part No.	Description	Thread
31405070	Gauge Assembly	
314051	QR – Spark Plug Adaptor	M10 Universal
314052	QR – Spark Plug Adaptor	M12 Universal
314053	QR – Spark Plug Adaptor	M14 Universal
314054	QR – Spark Plug Adaptor	M14 Ford Duratec



## DIESEL COMPRESSION TESTING

314275

## Diesel Compression Test Kit – Common Rail Diesel (CRD)

- Comprehensive compression test kit specifically designed to cover a wide range of modern CRD injected engines
- Checks engine compression under cranking conditions
- Enables cylinder access through dummy injector and glow plug adaptors
- Includes large, shock protected gauge featuring dual scale (0-60 bar / 0-860 psi) DIN16005, DIN16063, BS1780 standards
- Pressure relief valve allows repeated cylinder tests without removing the gauge
- Includes CRD dummy injector and clamps for applications where it is easier to remove the injector
- Supplied with vehicle application list in blow moulded case
- Spare Parts:
  - 314005** Service Kit for Compression Gauge
  - 014215** Seal and Washer Kit



### Contents

Part No.	Description	Thread	Length (mm)
314201	Gauge Assembly	–	560
314219	Extension Rod	–	190
314278	Injector End	–	–
314287	Hdi Injector Clamp Piezo	–	–
31428870	Injector Clamp	–	–
314336	Lock Nut	–	–
314277	Dummy Glow Plug	M8 x 1.0	108
314231	Dummy Glow Plug	M8 x 1.0	114
314223	Dummy Glow Plug	M8 x 1.0	115
314216	Dummy Glow Plug	M9 x 1.0	135
314254	Dummy Glow Plug	M10 x 1.0	83

Part No.	Description	Thread	Length (mm)
314259	Dummy Glow Plug	M10 x 1.0	83
314252	Dummy Glow Plug	M10 x 1.0	93
314274	Dummy Glow Plug	M10 x 1.0	102
314249	Dummy Glow Plug	M10 x 1.0	113
314268	Dummy Glow Plug	M10 x 1.0	113
314217	Dummy Glow Plug	M10 x 1.0	160
314267	Dummy Glow Plug	M10 x 1.0	162
314209	Dummy Glow Plug	M10 x 1.25	130
314269	Dummy Glow Plug	M10 x 1.25	134
314271	Dummy Glow Plug	M10 x 1.25	145

## ENGINE &amp; TRANSMISSION

## DIESEL COMPRESSION TESTING cont.

314200

**Diesel Compression Test Kit – Standard Car** 

- Comprehensive compression test kit suitable for both direct and indirect injected engines
- Checks engine compression under cranking conditions
- Enables cylinder access through dummy injector and glow plug adaptors
- Includes large, shock protected gauge featuring dual scale (0-60 bar / 0-860 psi) DIN16005, DIN16063, BS1780 standards
- Pressure relief valve allows repeated cylinder tests without removing the gauge
- Supplied with vehicle application list in blow moulded case
- Spare Parts:
  - 314005** Service Kit for Compression Gauge
  - 014215** Seal and Washer Kit

**Contents**

Part No.	Description	Thread	Length (mm)
314201	Gauge Assembly	–	560
314730	90° Elbow Connector	–	–
314215	Dummy Glow Plug	M8 x 1.0	102
314220	Dummy Glow Plug	M10 x 1.0	63
314254	Dummy Glow Plug	M10 x 1.0	83
314259	Dummy Glow Plug	M10 x 1.0	83
314252	Dummy Glow Plug	M10 x 1.0	93
314274	Dummy Glow Plug	M10 x 1.0	102
314249	Dummy Glow Plug	M10 x 1.0	113
314210	Dummy Glow Plug	M10 x 1.25	73
314240	Dummy Glow Plug	M12 x 1.25	47
314235	Dummy Injector	M20 x 1.5	75
314225	Dummy Injector	M24 x 2.0	64

314295

**Diesel Compression Test Kit – Premier Car** 

- Comprehensive diesel compression test kit for both direct and indirect diesel injected engines
- Features additional applications compared with standard car kit for Mercedes, VW / Audi, Land Rover and PSA
- Includes large, shock protected gauge featuring dual scale (0-60 bar / 0-860 psi) DIN16005, DIN16063, BS1780 standards
- Pressure relief valve allows repeated cylinder tests without removing the gauge
- Supplied with vehicle application list in blow moulded case
- Spare Parts:

**314005** Service Kit for Compression Gauge**014215** Seal and Washer Kit**Contents**

Part No.	Description	Thread	Length (mm)
314201	Gauge Assembly	–	560
314730	90° Elbow Connector	–	–
314888	Poly Hose - Green	–	–
314246	Dummy Injector Spacer	–	–
314227	Dummy Glow Plug No 2	Mazda	–
314215	Dummy Glow Plug	M8 x 1.0	102
314216	Dummy Glow Plug	M9 x 1.0	135
314220	Dummy Glow Plug	M10 x 1.0	63
314254	Dummy Glow Plug	M10 x 1.0	83
314259	Dummy Glow Plug	M10 x 1.0	83
314252	Dummy Glow Plug	M10 x 1.0	93
314274	Dummy Glow Plug	M10 x 1.0	102
314249	Dummy Glow Plug	M10 x 1.0	113
314268	Dummy Glow Plug	M10 x 1.0	113
314234	Dummy Glow Plug	M10 x 1.0	119
314267	Dummy Glow Plug	M10 x 1.0	162
314241	Dummy Glow Plug	M10 x 1.25	64
314210	Dummy Glow Plug	M10 x 1.25	73
314269	Dummy Glow Plug	M10 x 1.25	134
314271	Dummy Glow Plug	M10 x 1.25	145
314240	Dummy Glow Plug	M12 x 1.25	47
314235	Dummy Injector	M20 x 1.5	75
314245	Dummy Injector	M22 x 1.5	118
314236	Dummy Injector	M22 x 1.5	73
314239	Dummy Injector	M24 x 1.5	73
314225	Dummy Injector	M24 x 2.0	64



# ENGINE & TRANSMISSION

## DIESEL COMPRESSION TESTING cont.

### Diesel Compression Tester Adaptors

- Range of glow plug adaptor sets designed to complement and extend the application capacity of Sykes-Pickavant diesel compression testers
- Each set contains the appropriate glow plug adaptors for a particular engine series, which often cover more than one manufacturer
- Applications for the full range of adaptor sets are provided with each set
- Optional dummy glow plug extension rod available to suit all kits  
**314219** Glow Plug Adaptor Extension 190mm

#### 314288

##### Applications:

- Mercedes CDI 2.0, 2.1, 2.2, 2.7, 3.0, 3.2, 3.9, 4.0 (M8 & M10)
- Opel / GM 1.7Di, DTI, CDTI, 2.0 / 2.2DT, DTI, DDTI
- Also fits VAG Common Rail 1.6, 2.0, 2.7, 3.0TDI



##### Contents

Part No.	Description
314223	Dummy Glow Plug / M8 x 1.00 x 115
314268	Dummy Glow Plug / M10 x 1.00 x 113
314269	Dummy Glow Plug / M10 x 1.25 x 134

#### 314289

##### Applications:

- INDIAN-TV 1.4D Fitted to Auris, IQ, Corolla, Urban Cruiser, Yaris
- Mini One W17D141.4D, 1CD-FTV 2.0D-4D, AD-FTV 2.0D-4D, 2AD-FH / TV 2.2D-4D
- S2/200D Fitted to Toyota and Lexus



##### Contents

Part No.	Description
314209	Dummy Glow Plug / M10 x 1.25 x 130
314271	Dummy Glow Plug / M10 x 1.25 x 145

#### 314291

##### Applications:

- Citroen 1.4, 1.6, 2.0, 2.2, 2.7HDI
- Fiat Scudo Ulysse 2.0JTD, 2.2JTD, 2.2JTM
- Ford 1.4, 1.6, 2.0, 2.2TDCI
- Jaguar / Land Rover 2.2, 2.7TD
- Peugeot 1.4, 1.6, 2.0, 2.2, 2.7HDI
- Volvo 1.6, 2.0, 2.4D



##### Contents

Part No.	Description
314231	Dummy Glow Plug / M8 x 1.00 x 114
314252	Dummy Glow Plug / M10 x 1.00 x 93
314277	Dummy Glow Plug / M8 x 1.00 x 108
31428570	Dummy Glow Plug / M8 x 1.00 x 76

#### 314292

##### Applications:

- Alfa Romeo 1.3JTDM 16V, 1.6JTDM 16V, 1.9JTD 8V, 1.9JTD 8V, 1.9JTD/M 16V, 2.0JTD, 2.4JTD 10V, 2.4JTD/M 20V
- Fiat 1.3MJTD 16V, 1.6JTD, 1.9JTD/M/DM, 2.0JTD, 2.3DJTDM, 2.4JTD, 3.0JTD
- Saab 1.9D, TID1.9D, TTID
- Vauxhall 1.3DTI, 1.3CDTI, 1.9CDTI, 2.0D CDTI



##### Contents

Part No.	Description
314216	Dummy Glow Plug / M9 x 1.00 x 135
314218	Dummy Glow Plug / M8 x 1.00 x 127
314231	Dummy Glow Plug / M8 x 1.00 x 114
314259	Dummy Glow Plug / M10 x 1.00 x 83

#### 314293

##### Applications:

- K9K 1.5DCI, F9Q 1.9DCI, D4192T 1.9D Fitted on Dacia, Nissan, Suzuki, Volvo
- M9R 2.0DCI, M9T 2.3CDTI Fitted on Nissan, Opel / GM, Renault
- G9T 2.2DCI, Y22DDT 2.2DCI, G9U 2.5DCI, Y25DDTI 2.5DCI Fitted on Nissan, Opel / GM, Renault



##### Contents

Part No.	Description
314217	Dummy Glow Plug / M10 x 1.00 x 160
314267	Dummy Glow Plug / M10 x 1.00 x 162
314274	Dummy Glow Plug / M10 x 1.00 x 102

#### 314294

##### Applications:

- Glow plug: Ford 1.8DT, TDCI, TDDI, 2.0 16V TDCI, 2.0, 2.2, 2.4, 3.2 DDDI
- Dummy Injector: Ford 2.0, 2.2, 2.4 Duratorq Diesel Injector



##### Contents

Part No.	Description
314249	Dummy Glow Plug / M10 x 1.00 x 113
314254	Dummy Glow Plug / M10 x 1.00 x 83
314281	Dummy Injector / M22 x 1.50 x 154

314285

**Diesel Compression Test Kit – Land Rover** 

- Diesel compression test kit developed for popular Land Rover models such as Discovery, Freelander, Range Rover, Defender and Evoque
- Checks engine compression under cranking conditions
- Includes large, shock protected gauge featuring dual scale (0-60 bar / 0-860 psi) DIN16005, DIN16063, BS1780 standards
- Pressure relief valve allows repeated cylinder tests without removing the gauge
- Spare Parts:  
**314005** Service Kit for Compression Gauge



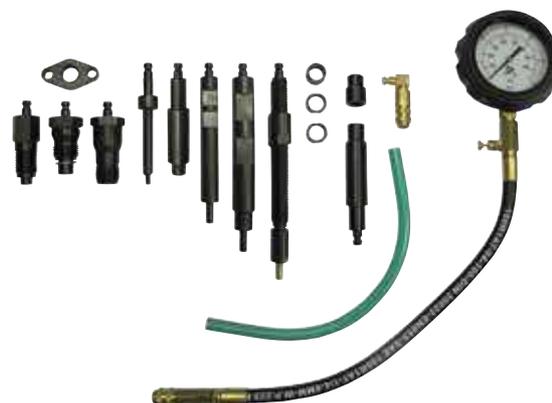
**Contents**

Part No.	Description	Thread	Length (mm)
314201	Gauge Assembly	–	560
31428570	Dummy Glow Plug	M8 x 1.0	76
314277	Dummy Glow Plug	M8 x 1.0	108
314274	Dummy Glow Plug	M10 x 1.0	102
314249	Dummy Glow Plug	M10 x 1.0	113

314280

**Diesel Compression Test Kit – LCV** 

- Specialist compression test kit designed to cover a wide range of direct and indirect diesel injected engines
- Specifically suited to light commercial vehicles
- Checks engine compression under cranking conditions
- Enables cylinder access through dummy injector and glow plug adaptors
- Includes large, shock protected gauge featuring dual scale (0-60 bar / 0-860 psi) DIN16005, DIN16063, BS1780 standards
- Pressure relief valve allows repeated cylinder tests without removing the gauge
- Supplied with vehicle application list in blow moulded case
- Spare Parts:  
**314005** Service Kit for Compression Gauge  
**014215** Seal and Washer Kit



**Contents**

Part No.	Description	Thread	Length (mm)
314201	Gauge Assembly	–	560
314730	90° Elbow Connector	–	–
314314	Centre Pillar	–	130
314316	Pilot Pin	–	7
314320	End Adaptor No 2	–	–
314326	Spacer No 2	–	–
314336	Lock Nut	–	–
314348	Iveco Injector End	–	–
314287	Hdi Injector Clamp Piezo	–	–
314888	Poly Hose - Green	–	355
314274	Dummy Glow Plug	M10 x 1.0	102
314249	Dummy Glow Plug	M10 x 1.0	113
314268	Dummy Glow Plug	M10 x 1.0	113
314267	Dummy Glow Plug	M10 x 1.0	162
314254	Dummy Glow Plug	M10 x 1.0	83
314252	Dummy Glow Plug	M10 x 1.0	93
314241	Dummy Glow Plug	M10 x 1.25	64
314210	Dummy Glow Plug	M10 x 1.25	73

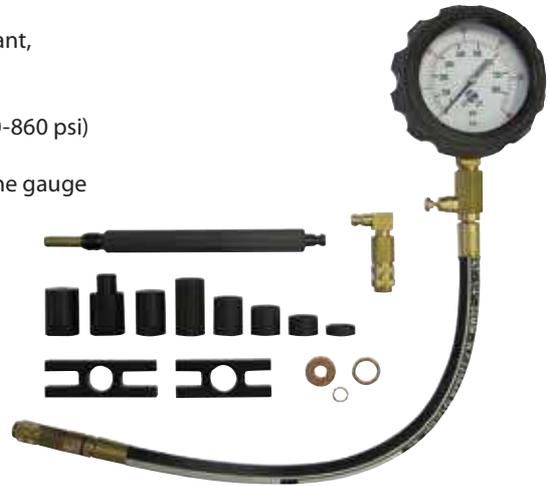
Part No.	Description	Thread	Length (mm)
314240	Dummy Glow Plug	M12 x 1.25	47
314221	Dummy Injector	Direct Injection	114
314242	Dummy Injector	Land Rover	152
314244	Dummy Injector	Land Rover	104
314230	Dummy Injector	Stanadyne	112
314238	Dummy Injector	VAG	–
314235	Dummy Injector	M20 x 1.5	75
314236	Dummy Injector	M22 x 1.5	73
314225	Dummy Injector	M24 x 2.0	64

DIESEL COMPRESSION TESTING cont.

314300

Diesel Compression Test Kit – HGV 

- Specialist compression test kit designed to cover a wide range of direct and indirect diesel injected engines
- Specifically suited to heavy duty diesel engines such as in industrial, plant, marine and agriculture equipment
- Checks engine compression under cranking conditions
- Includes large, shock protected gauge featuring dual scale (0-60 bar / 0-860 psi) DIN16005, DIN16063, BS1780 standards
- Pressure relief valve allows repeated cylinder tests without removing the gauge
- Supplied in blow moulded case
- Spare Parts:
  - 314005** Service Kit for Compression Gauge
  - 014215** Seal and Washer Kit



Contents

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



## CYLINDER LEAKAGE TESTING

### 313800

#### Cylinder Leakage Tester – Petrol & Diesel

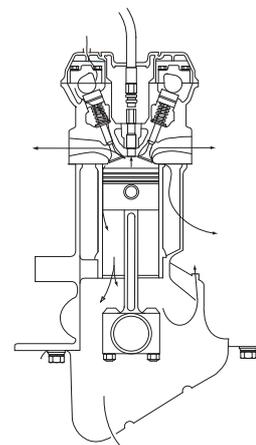
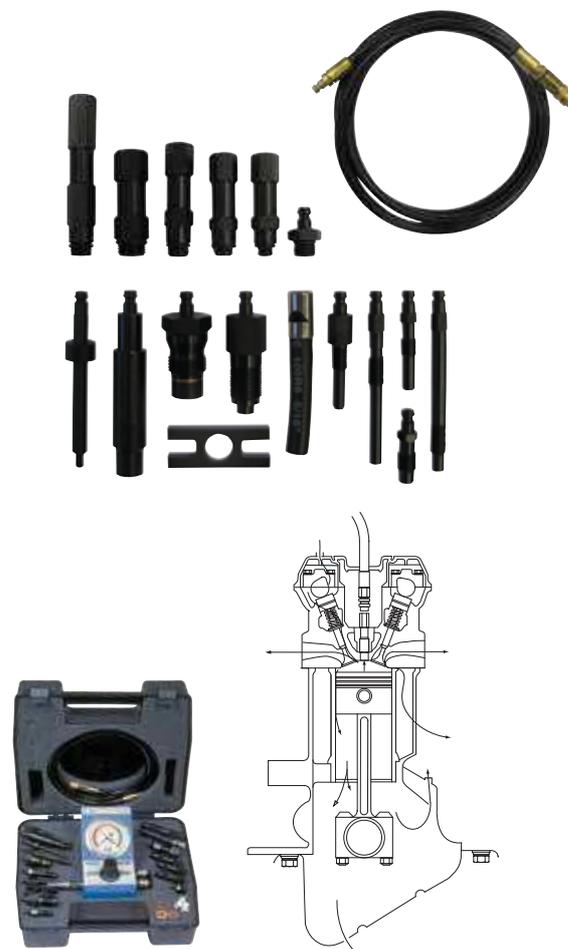
- An alternative to conventional compression testers which provides a direct indication to the location of the leak by measuring the rate of loss of compression for individual cylinders
- Helps to diagnose worn and broken piston rings, burnt and leaking valves and faulty head gaskets
- Supplied with a wide variety of adaptors to fit the majority of petrol and diesel engines on cars, LCV's, motorcycles, marine engines etc.
- Spare Parts:  
**014215** Seal and Washer Kit

#### Specifications - Gauge

Height	Width	Depth	Gauge Dia.	Air Pressure	Hose
100mm	200mm	175mm (inc. Adaptors)	70mm	Min 5bar - Max 8bar	2m

#### Contents

Part No.	Description	Thread	Length (mm)
313801	Cylinder Leakage Tester Assembly	–	–
014222	Clamp Plate	25mm Width 17mm Hole Dia.	63.5
313802	Hose Assembly	–	200
313803	Whistle Assembly	–	–
313811	Male Quick Connect Adaptor	M18	–
314274	Dummy Glow Plug	M10 x 1.0	102
314234	Dummy Glow Plug	M10 x 1.0	119
314210	Dummy Glow Plug	M10 x 1.25	73
314233	Dummy Glow Plug	M10 x 1.25	114
314240	Dummy Glow Plug	M12 x 1.25	47
314221	Dummy Injector	Direct Injection	–
314230	Dummy Injector	Stanadyne	–
314235	Dummy Injector	M20 x 1.5	75
314225	Dummy Injector	M24 x 2.0	64
314010	Spark Plug Adaptor / Extension	M10 x 1.0	57
314012	Spark Plug Adaptor / Extension	M12 x 1.2	57
314002	Spark Plug Adaptor / Extension	M14 x 1.25	63
314004	Spark Plug Adaptor / Extension	M14 x 1.25	94
314007	Spark Plug Adaptor / Extension	M18 x 1.5	57



### 313805

#### Cylinder Leakage Tester – Unit & Hose

- As per **313800** excluding adaptors
- Made available to customers owning a comprehensive Sykes-Pickavant compression tester already fitted with required adaptors
- Includes cylinder leakage tester assembly and 2 metre hose
- Supplied in blow moulded case with foam insert



## ENGINE &amp; TRANSMISSION

Diesel Compression Kit Contents Comparison Table - Reference by Part Number

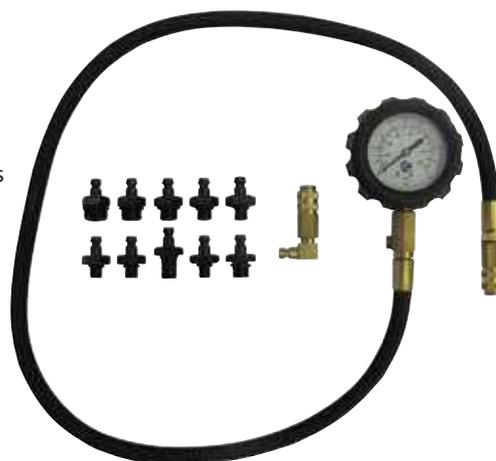
Ref.	Length (mm)	Thread	Make	Engine	Kit Contents									
					314200	314275	314285	314295	314288	314289	314291	314292	314293	314294
<b>Dummy Glow Plugs</b>														
314209	130	M10 x 1.25	Mini / Toyota	1.4D		●					●			
314210	73	M10 x 1.25	Old Ford / Vag	1.9PD	●			●						
314215	102	M8 x 1.0	Ford / PSA	1.4 / 1.6HDI	●			●						
314216	135	M9 x 1.0	Alfa / Fiat / GM	1.6 / 1.9 / 2.0D		●		●				●		
314217	160	M10 x 1.0	Renault / Nissan	M9R		●							●	
314218	127	M8 x 1.0	Fiat / Iveco	2.3 / 3.0JTD								●		
314220	63	M10 x 1.0	PSA / Renault	1.9D / DW8	●		●	●						
314223	115	M8 x 1.0	Mercedes	New CDI		●			●					
314231	114	M8 x 1.0	Flat / GM	1.3JTD		●					●	●		
314233	114	M10 x 1.25	Nissan	2.0D				●						
314234	119	M10 x 1.0	Land Rover	200 / 300TDI				●						
314240	47	M12 x 1.25	Common	Old apps	●			●						
314241	64	M10 x 1.25	Mitsubishi	Old apps				●						
314249	113	M10 x 1.0	Ford	2.0TDCI	●	●	●	●						●
314252	93	M10 x 1.0	PSA	2.0HDI	●	●		●			●			
314254	83	M10 x 1.0	Ford	1.8D	●	●		●						●
314259	83	M10 x 1.0	Alfa / Fiat / GM	1.9	●	●		●				●		
314266	126	M10 x 1.0	Audi	V6										
314267	162	M10 x 1.0	Nissan	2.2 / 2.5DCI		●		●					●	
314268	113	M10 x 1.0	Mercedes	CDi		●		●	●					
314269	134	M10 x 1.25	GM	1.7TD		●		●	●					
314271	145	M10 x 1.25	Toyota	2.0TD		●		●			●			
314274	102	M10 x 1.0	Renault / Nissan	1.5DCi	●	●		●					●	
314277	108	M8 x 1.0	Jaguar / PSA / Volvo	2.7D		●	●				●			
314285	76	M8 x 1.0	Ford / Land Rover	2.2TD4			●				●			
<b>Dummy Injectors</b>														
314219	190	–	Glow / Injector Ext			●								
314221	114	–	PSA / LTI Taxis	2.3 / 2.7DI										
314225	64	M24 x 2.0	Older Common Type	1.9 / 2.0 / 2.5	●			●						
314230	112	–	Stanadyne / Transit	2.5D										
314235	75	M20 x 1.5	Old Ford / Nissan	1.8 / 2.0 / 2.7	●			●						
314236	73	M22 x 1.5	Mercedes	2.0 / 2.3 / 2.5 / 2.9 / 3.0D				●						
314238	174	–	VW / Audi	1.9TDi										
314239	88	M24 x 1.5	Older Common Type	1.9 / 2.0 / 2.5				●						
314242	152	–	Land Rover	2.5 / 3.0TDi										
314244	104	–	Land Rover	2.5 CAV										
314245	118	M22 x 1.5	PSA / Rover	1.5				●						
314281	154	M22 x 1.5	Ford TDCi	2.0 / 2.2 / 2.4										●
314287	–	–	HDI Clamp Piezo			●								
314288	–	–	Clamp			●								
314730	–	–	Elbow Connector		●			●						

## OIL PRESSURE TESTING

## 314700

## Oil Pressure Test Kit

- Helps to diagnose worn oil pumps and engines, faulty oil pressure switches and pressure warning indicators
- Shock protected dual scale gauge for quick and 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
- Features a dual scale (0-10 bar / 0-150 psi) oil pressure test gauge meeting DIN16005, DIN16063 and BS1780 standards
- Includes a 1 metre oil primed hose and 10 x oil switch port adaptors
- Supplied in blow moulded case with foam insert



## Contents

Part No.	Description	Thread
314701	Gauge Assembly	–
314730	90° Elbow Connector	–
314711	Adaptor No. 1	R1/8 DIN 2999
314712	Adaptor No. 2	1/8 x 27 NPT
314713	Adaptor No. 3	1/4 x 18 NPT
314714	Adaptor No. 4	3/8 x 20 UNF
314715	Adaptor No. 5	1/2 x 20 UNF
314716	Adaptor No. 6	M10 x 1.0
314717	Adaptor No. 7	M12 x 1.5
314718	Adaptor No. 8	M14 x 1.5
314719	Adaptor No. 9	M16 x 1.5
314721	Adaptor No. 10	M18 x 1.5

## 314702

## Oil Pressure Test Gauge

- As per **314700** excluding adaptors
- Features a dual scale (0-10 bar / 0-150 psi) oil pressure test gauge meeting DIN16005, DIN16063 and BS1780 standards
- Supplied with extra long (2 metre) flexible, oil primed hose



CYLINDER HONING

028000

Cylinder Hone Kit 13-89mm

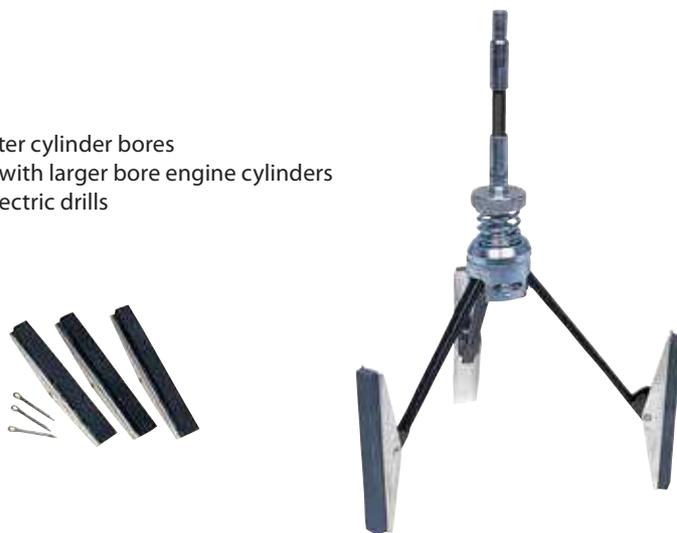
- Complete honing and deglazing set for 13-89mm diameter cylinder bores
- Designed for use on brake and clutch cylinders, motorcycle and small bore engine cylinders
- Flexible drive shaft for use with air or electric drills
- Supplied with **028002** medium grade 220 grit stone set



028100

Cylinder Hone Kit 50-180mm

- Complete honing and deglazing kit for 50-180mm diameter cylinder bores
- Ideal for use on passenger and light commercial vehicles with larger bore engine cylinders
- Features a robust, flexible drive shaft for use with air or electric drills
- Supplied with **028102** medium grade 220 grit stone set



Stone Sets

- Sets below for use with **028000** Cylinder Hone Kit 13-89mm
- Available in fine, medium or coarse hone stone sets
- Each set contains nine grit stones (three of each size) in 19, 29 and 50mm lengths
- Complete with replacement spring clips

- Sets below for use with **028100** Cylinder Hone Kit 50-180mm
- Available in fine, medium or coarse hone stone sets
- Each set contains three grit stones in 100mm lengths
- Complete with replacement cotter pins

Part No.	Grit	Length (mm)	Qty
028001	Fine - 400 grit	19, 29, 50	9 (three of each size)
028002	Medium - 220 grit	19, 29, 50	9 (three of each size)
028003	Coarse - 100 grit	19, 29, 50	9 (three of each size)

Part No.	Grit	Length (mm)	Qty
028101	Fine - 400 grit	100	3
028102	Medium - 220 grit	100	3
028103	Coarse - 100 grit	100	3

## PISTON RING COMPRESSING

### Piston Ring Compressors

- High quality, ratchet action piston ring compressors
- Available in medium, large and large long reach configurations to suit a wide range of applications
- Spring assisted ratchet locking mechanism with square drive key

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

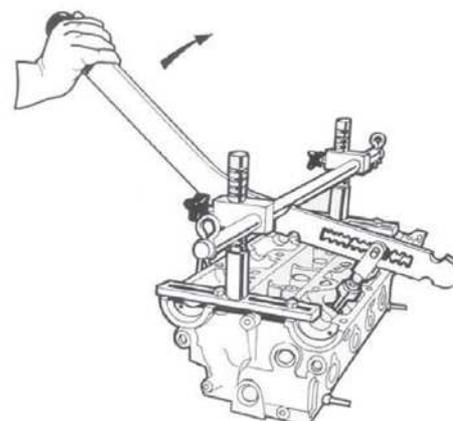
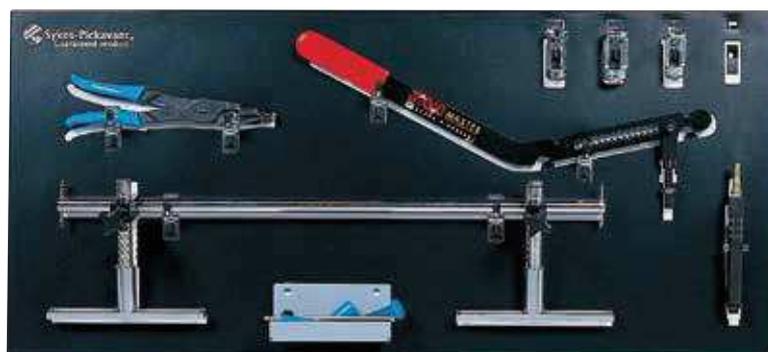
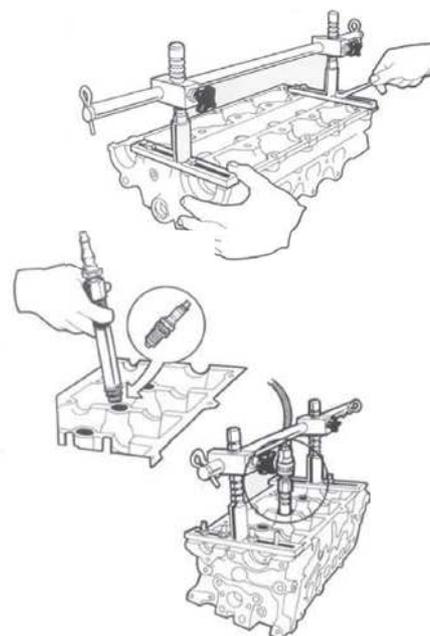


## VALVE REPAIR

039900

### Valve Service Centre

- Comprehensive on-car valve spring compressing system
- Allows removal of valve springs and valve stem oil seals without removing the engine cylinder head
- Features a reversible, multi-position lever and fully adjustable pillar and beam assembly for extensive range of adjustment, allowing use on a wide range of OHV and OHC petrol and diesel engines
- Air holding adaptor allows engine cylinder to be pressurised via the spark plug port retaining the valves in their closed/sealed position during cylinder head servicing
- Collet sizes: 25mm, 30mm and 30mm restricted access type (half-moon)
- Beam length: 700mm
- Maximum beam height: 165mm
- Mounted on strong metal panel
- Includes:
  - 039650 Air Holding Adaptor
  - 039700 Valve Stem Seal Pliers
  - 039800 Valve Stem Seal Installer Kit
  - 670006 Telescopic Pick-up Magnetic



VALVE REPAIR cont.

039650

**Air Holding Adaptor**

- Allows engine cylinder to be pressurised via the spark plug port retaining the valves in their closed/sealed position during cylinder head servicing
- Features M14/M18 spark plug threaded end and long reach, knurled shaft to access deep seated plugs
- Standard connection to workshop airline
- 17mm square drive
- Overall length: 195mm



039700

**Valve Stem Seal Pliers**

- Speciality pliers specific to valve stem seal removal
- Uniquely shaped, long reaching ribbed jaws provide good access and grip at valve stem seal
- Minimum working range from 7mm diameter
- Maximum reach: 80mm
- Overall length: 275mm



039800

**Valve Stem Seal Installer Kit**

- Handy tool for accurately installing valve stem seals
- Contains four drive collets and three pilots to suit a wide range of applications
- Can be used with **039650** Air Holding Adaptor on car with valves in situ, or with valves removed
- Made from hardened plastic to reduce the possibility of damage to seals or engine components

**Contents**

Description	Internal Dia. (mm)	External Dia. (mm)
Drive Collet	12	17.4
Drive Collet	12.7	18
Drive Collet	15.5	20
Drive Collet	18	23.8
Valve Pilot	-	7
Valve Pilot	-	8
Valve Pilot	-	8.6



670006

**Telescopic Pick-up Magnet**

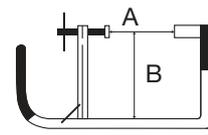
- Solid metal construction
- Strong magnetic tip capable of picking up small metallic objects
- Features telescopic shaft and in built pocket clip
- Extension range 135-490mm
- Holds weights up to 1.0kg



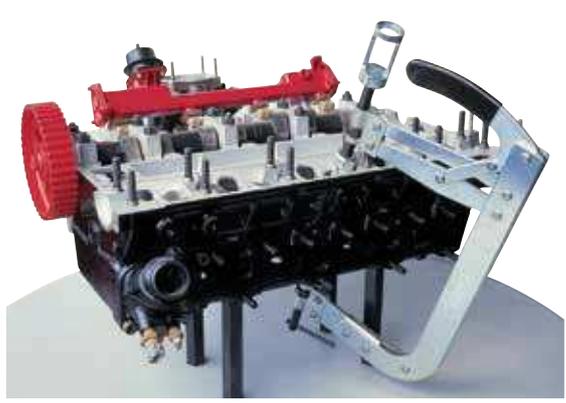
### Valve Spring Compressors

- For use in the removal of valve springs, valves and stem seals during cylinder head servicing or repair
- Available in various cam lock lever designs for use on OHC, OHV, petrol and diesel applications
- Cam action design provides consistent parallel lift with automatic locking function
- Manufactured with reinforced frames from rust-proofed steel

Part No.	Application	Style	Jaw (A)		Throat (B)
			Min (mm)	Max (mm)	(mm)
038000	Large engines such as medium and heavy commercial vehicles	Offset	75	165	245
		Straight	95	186	245
039500	Multivalve engines (includes 25 & 30mm adaptors)	–	35	142	150
660210	Small to medium engines	–	70	135	150
660430	Overhead cam engines	–	63	129	158



\* Dimensions quoted are with tool fully compressed.



VALVE REPAIR cont.

017800

Cylinder Head Stands

- Designed to support engine cylinder head during off car servicing
- Two piece set comprising of base and pillar type stands manufactured from high quality mild steel
- Essential to provide secure footing and avoid damage to cylinder head when working on bench
- Fits stud holes from 9 – 18mm

Base (mm)	Pillar (Ø mm)	Taper (mm)
250 x 38 x 6	200	8 - 19



Valve Grinders/Lappers

- Feature wooden handles that are resistant to oil and grease, suitable for workshop conditions
- Three size rubber suction cups available in four configurations



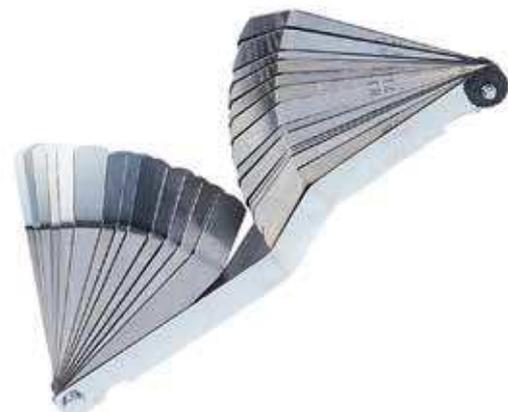
Part No.	Style	Length (mm)	Cup Diameter (Ø mm)
660902	Single Ended	224	32
660903	Single Ended	224	22
660904	Single Ended	224	19
660905	Double Ended	224	19 and 22



016400

Feeler Gauge - Cranked

- Professional 26 blade, cranked feeler gauge set
- Features 45° offset for reach to areas where access is restricted
- Thickness range: 0.005 – 0.762mm



## OIL FILTER REMOVAL

015500

### Adjustable Strap Spanner

- Fully adjustable, heavy duty strap spanner for a wide range of garage workshop tasks
- Features a strong, cast iron handle for exerting high leverage and polyester webbing strap for tight, strong grip
- Capacity: 279mm
- Spares: **015512** Spare Strap



### 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

038300



038400



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, 3/8" 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

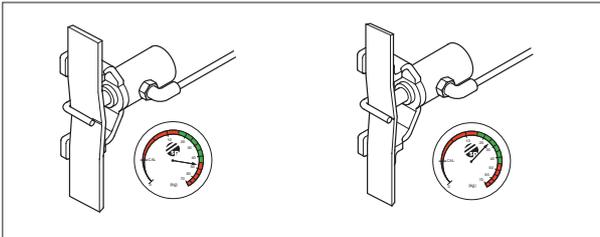


## ENGINE TIMING

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



077400

## Flexible Drive Belt Stretcher

- Designed to be a safe, easy and versatile option for flexible drive belt fitment
- Multi-application tool performs the work of three standard belt stretching units



077444

## Flexible Drive Belt Stretcher – Double Pulleys

- Specially designed two-piece tool for installing and dismantling stretch belts on double pulleys
- Ideal for double pulleys where the two pulleys are of different diameters
- Allows the belt to be installed in one operation
- Ideal for Ford Focus applications
- Threads: M8 x 1.25mm
- Bolt length: 80mm & 65mm



TRANSMISSION

085503

**GM Gearbox Bearing / Race Remover**

- For the removal of taper bearing cups from clutch housings in M32, MT 20-6 and MT 32-6 manual gearboxes
- Specifically designed to spread the load equally without danger of cracking the gearbox casing
- Applications: widely used in GM, Saab and Fiat Group



013703

**Universal Clutch Alignment Tool**

- Convenient kit for quick and effective clutch alignment on modern front wheel drive vehicles
- Suits vehicles with flywheel fitting diameters 12 – 20mm, with or without pilot/spigot bearings
- Features parallel expanding supports in place of more traditional tapered fittings which can be difficult to keep located
- Easy to change adaptors suitable for clutch centre sizes 14.4mm to 29mm



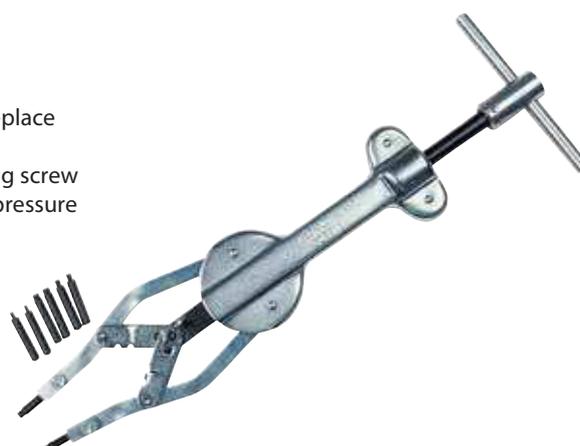
**Contents**

Description	Size (mm)
Small cone	14.4 – 21mm
Large cone	20.9 – 29mm
Sleeves	12, 14, 15, 16, 17, 18, 19 & 20mm
Alignment tool	-

028300

**Circlip Tool Set**

- Uniquely designed T-handle circlip remover used to remove and replace circlip rings on pistons, gears and transmission components
- Enables internal and external operation with the threaded adjusting screw providing precise adjustment without the need to maintain hand pressure like most standard circlip pliers
- Includes four sets of interchangeable tips
- Jaw capacity: 44 – 178mm



COOLING SYSTEM TESTING

331595

315 Series Cooling System Test Kit

- Provides extensive coverage for both popular and less popular models and is constantly updated as new models are released
- More than twenty specialist cooling system cap adaptors are available which act as a direct fit to the radiator or expansion tank
- Supplied with dual scale, 60mm diameter gauge and application listing
- All components of the '315' range are fully compatible with older SP Cooling System Kits and can be used to upgrade previous generations of Cooling System Pressure Test Kits which are fitted with quick-release connectors
- For older systems with a threaded connection, an adaptor is available **031868** Threaded Connection Adaptor
- All '315' Series cap adaptors are compatible with older Sykes-Pickavant Cooling System Kits:  
to use with 317 series hand pump - no adaptors are required  
to use with 318 series hand pump - adaptor **031868** is required



Contents

Part No.	Description	Hose Length (mm)	Gauge Dia. (mm)	Gauge Scale
331501	Hand Pump with Dual Scale Gauge	–	60	0-2.5 bar / 0-35 psi
331503	Hose Assembly with Quick Connector	600	–	–
Part No.	Description	Style	Qty	
See Page 25	Cooling System Adaptors	Threaded	16	
	Cooling System Adaptors	Bayonet	3	



315 Series Cooling System Tester - Optional Adaptors

Part No.	Applications	Image
331561	Mini Cooper S 2002 onwards	

Part No.	Applications	Image
331578	Dennis Dart PSV's, Optare Solo PSV's	

**315 Series Cooling System Tester Adaptors**

Part No.	Cap No.	General Applications	Image
331515	3	Chrysler, Citroen, Mercedes, Peugeot	
331567	4	Mazda, Suzuki, Toyota	
331571	5	Daihatsu, Honda, Hyundai, Kia, Mazda, Nissan, Suzuki	
331517	6	Chevrolet, Daewoo, Ford, GM	
331516	7	Alfa, Citroen, Fiat, Peugeot, Renault, Rover, Volvo	
331522	8	Seat, VW	
331535	9	Audi, Seat, Skoda, VW	
331548	10	BMW, Land Rover, Rover	
331512	11	Audi, Bentley, Porsche	
331555	12	Ford	

Part No.	Cap No.	General Applications	Image
331541	13	Mercedes	
331572	14	Ford	
331568	15	Ford, Jaguar, Volvo	
331563	16	Mercedes	
331565	17	BMW	
331556	18	Ford, Seat, VW	
331558	19	Toyota	
331575	20	Saab	
331573	21	Alfa, Ford, GM, Saab	
<p>Full application listing available to download at:  <a href="http://www.tridon.com.au">www.tridon.com.au</a>                      and  <a href="http://www.spexport.co.uk">www.spexport.co.uk</a></p>			

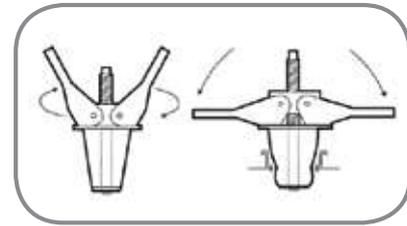
COOLING SYSTEM TESTING cont.

331900 & 331905

319 Series Cooling System Test Kits - Universal Expansion Plug System

These unique patented design Cooling System Test kits feature expansion plugs with a tapering rubber cone to fit a variety of radiator and header tank neck diameters. With a range of just five plug sizes, it is possible to cover a very wide range of applications, from small cars to commercial vehicles & heavy plant. Temperature testing can be carried out by using the thermometer in conjunction with the appropriate expansion plug and by observing the change (or lack of change) in the fluid temperature and by measuring the rate of change of temperature.

- Features a metal hand pump and precision gauge, with specially designed pressure release valve for safe de-pressurising of cooling systems
- A safety retaining clamp specially designed to provide added safety in certain applications by greatly reducing the risk of the expansion clamp slipping from its fixed position, particularly under high pressure in plastic expansion bottles, extreme cold or very high water temperatures
- Blanking caps are provided with both '319' series system testers in order to perform radiator sealing tests, off the vehicle
- Available in car or commercial vehicle kits designed to cover three types of system tests:
  - System Testing
  - Radiator Testing
  - Temperature Testing



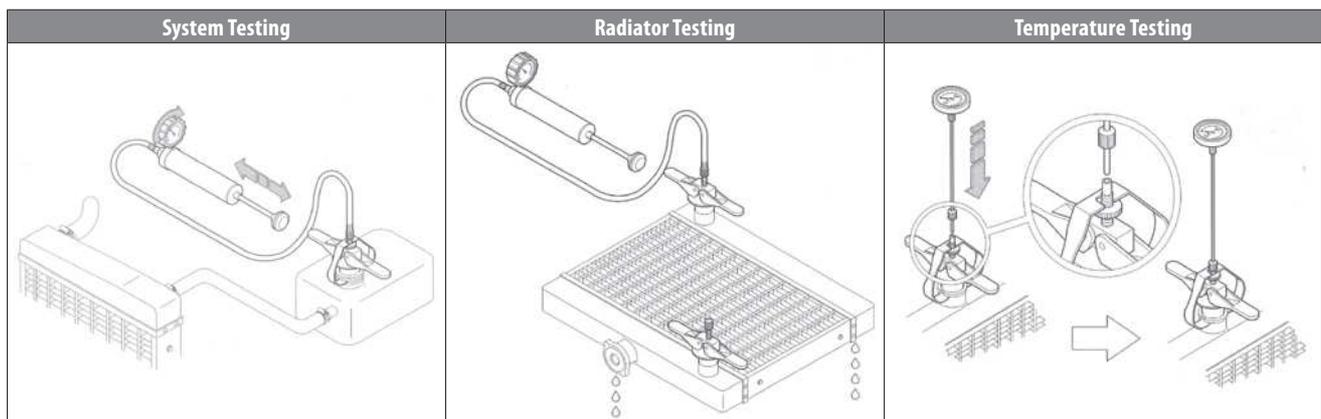
Expansion Plug



331900

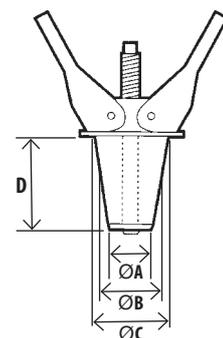


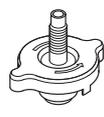
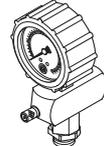
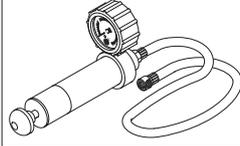
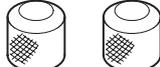
331905



Specifications – Expansion Plug

Part No.	D	ØA	ØA Expanded	ØB	ØB Expanded	ØC	ØC Expanded
03191100	70	21	24	30	32	38	38
03191200	70	27	29	35	37	42	42
03191300	70	33	36	41	44	50	50
03191400	70	40	44	53	56	65	65
03191500	70	27	29	40	42	44	44



Spare Parts and Specifications				Kit Part No.	
				319 Series Car/LCV Kit	319 Series HGV Kit
Part No.	Description	Specification	Picture	331900	331905
031911	Expansion Plug	21-38mm		•	–
031912	Expansion Plug	27-42mm		•	–
031913 031933 – less handle	Expansion Plug	33-50mm		•	•
031914	Expansion Plug	40-65mm		–	•
031915	Expansion Plug	27-44mm Mercedes		Option	
031916	Bayonet Cooling Adaptor	Small Japanese / Korean		•	–
031925	Cooling System Thermometer	-7°C - 120°C (20°F - 248°F)		•	•
031930	Airline Adaptor & Gauge Connector	2 bar / 30 psi		–	•
031901	Pump Gauge & Hose Assembly	2 bar / 30 psi		•	–
031928	Nut			•	•
031921	Blanking Caps			•	•
031929	Safety Retaining Clamp			•	•

COOLING SYSTEM TESTING cont.

331400

**HGV Cooling System Pressure Test Kit**

- High quality HGV Cooling System Pressure Test Kit developed for popular vehicle makes such as DAF, Iveco, MAN, Mercedes, Renault, Scania and Volvo
- Features a high capacity, metal bodied hand pump with dual scale (0-2.5 bar / 0-36 psi) and quick-connect hose assembly
- Includes seven aluminium reservoir pressure caps designed to be direct fit to application
- Supplied in blow moulded case with vehicle application list



**Contents**

Part No.	Description	Cap Ref.	Internal Dia. (mm)	Application / Specification
331401	Pump & Gauge Assembly	–	–	0-2.5 bar / 0-36 psi
331403	Quick Connect Hose Assembly	–	–	545mm
331411	Reservoir Cap Adaptor	1	69	<b>DAF</b> – XF95, XF105 <b>ERF</b> - EC
331412	Reservoir Cap Adaptor	2	60	<b>SCANIA</b> – 94, 113, 114, 124, 125, 144, 164 , 4 Series
331413	Reservoir Cap Adaptor	3	42	<b>VOLVO</b> – FH12
331414	Reservoir Cap Adaptor	4	46	<b>IVECO</b> – Daily, 2000, C series <b>RENAULT</b> – Kerax, Magnum, Midlum, Premium
331415	Reservoir Cap Adaptor	5	52	<b>MAN</b> – E2000, F2000, L2000, TGA
331416	Reservoir Cap Adaptor	6	44	<b>DAF</b> – LF55 <b>MERCEDES</b> – Actros, Atego, Axor, Eco 8401 <b>MAN</b> – F90, F2000, TGA/L/M/S <b>IVECO</b> – Euro Star, Euro Tech, Euro, Trakker, Euro Strahlis <b>VOLVO</b> – FL, FM
331417	Reservoir Cap Adaptor	7	50	<b>MERCEDES</b> – Sprinter & Vito -2006 <b>DEUTZ</b> - 1015

331478

**HGV Cooling System Pressure Tester - Optional Adaptor**

Part No.	Applications	Image
331478	Dennis Dart PSV's, Optare Solo PSV's	

## COOLANT/ANTI-FREEZE FLUID TESTING

032010

### Refractometer

- This multi-purpose tool tests coolant battery acid, AdBlue and screen wash using an optical prism test technique
- Features internal light for use in poor light conditions
- Coolant – tests both propylene and ethylene based anti-freeze coolant solutions and determines the freezing point
- Battery acid – indicates the specific gravity of the battery electrolyte
- AdBlue – indicates % concentration of AdBlue additive
- Screen wash – shows the freezing point of screenwash fluids
- Freezing point shown in °C



Coolant	Battery	Windscreen	AdBlue
0 to -50 degrees C	1.1 to 1.4 kg/ltr	0 to -40 degrees C	30 m- 35%

032000

### Professional Anti-Freeze Tester

- A quality instrument used to ascertain the volume percentage of ethylene glycol based coolants in an engine cooling system
- It works by showing the lowest temperature in °C to which the cooling system is protected



032002

### Anti-Freeze Hydrometer – Polypropylene Glycol

- Anti-freeze/coolant hydrometer designed for modern aluminium alloy engines
- Modern aluminium alloy engines require a 'non-corrosive' antifreeze solution, hence polypropylene
- Features a dual scale gauge which measures the volume percentage of polypropylene glycol contained in the cooling system
- Temperature range -5°C to -40°C



331950

### Combustion Leakage Tester

- An accurate and fast testing kit for diagnosis of cylinder head gasket leaks
- Essential tool for detecting the presence of combustion gases in the cooling system
- Suitable for use with both petrol and diesel engines
- Designed to be used in conjunction with **331595** '315' Series cooling system tester adaptors via the quick-connection fitting
- Can also be used in conjunction with older Sykes-Pickavant 317 series cap adaptors
- Supplied with both standard and sensitive reaction test fluid (250ml)
- Replacement bottles of reaction fluid available:  
**331942** Standard - 250ml (white cap)  
**331944** Sensitive - 250ml (black cap)



FUEL PRESSURE TESTING – SINGLE AND MULTI-POINT SYSTEMS

314860

Fuel Injection Pressure Test Kit – Single & Multi-Point Systems 

- Designed for diagnosis and testing of mechanical and electronic multi-point and single point fuel injection systems
- Features four connector sets with an extensive range of banjo fittings and connections, plus three hose coupler sets all to suit a comprehensive range of modern and older applications
- Includes four additional specific adaptors such as to fit the 'self-test' point on modern Ford and GM vehicles
- All fittings feature quick coupling adaptors with built-in shut-off valves for secure connections and efficient use
- Two shock protected and fuel resistant dual scale gauges feature convenient hooks for suspending under bonnet and relief valves for safe release of pressure
- Supplied in plastic case with foam insert



Contents

Part No.	Description	Length (mm)	Specifications
314871	Multi Point Gauge Assembly	290	0-10bar / 0-145psi
317872	Single Point Gauge Assembly	290	0-2bar / 0-30psi
314873	T-Connector & Tap Assembly	125	–
314855	Quick Connect Hose Assembly (2)	635	–
314827	Hose Coupling Set	300	1/4"
314828	Hose Coupling Set	300	5/16"
314829	Hose Coupling Set	300	3/8"
314802	Connector Set	varies	M8 x 1.0 – Male, Female, Long Male, Long Female, Banjo
314803	Connector Set	varies	M10 x 1.0 – Male, Female, Banjo
314804	Connector Set	varies	M12 x 1.0 & M12 x 1.5 Male, Female, Banjo
314805	Connector Set	varies	M14 x 1.5 – Male, Female, Banjo, Short & Long Conical
314830	Conical Adaptor	50	1/4" BSP
314876	Conical Adaptor	50	M16 x 1.5
314870	GM Adaptor	145	–
314880	Ford EEC IV Adaptor	145	–
314817	PGMFI Adaptor	68	–
314864	M6 Connector	50	M6 x 1.0
314885	System Connector (2)	350	Fiat, Alfa, Lancia Special Connectors
314890	System Connector (2)	350	Renault Special Connectors



314875

**Fuel Injection Pressure Test Kit – Multi-Point** 

- Designed for modern electronic, multi-point fuel injection systems
- Assists in the diagnosis of common fuel injection faults such as no start, stalling and performance hesitation
- Includes T-piece with fuel tap, schrader valve connectors and hose adaptors for secure connections on modern applications
- All fittings feature quick coupling adaptors with built-in shut-off valves for secure connections and efficient use
- Shock protected and fuel resistant dual scale gauge features a convenient hook for suspending under bonnet and relief valve for safe release of pressure
- Supplied in plastic case with foam insert



**Contents**

Part No.	Description	Length (mm)	Specifications
314871	Multi Point Gauge Assembly	290	0-10bar / 0-145psi
314873	T-Connector & Tap Assembly	125	–
314863	Double Ended QR Hose Assembly	160	–
314818	Schrader Valve Connector	30	7/16"
314819	Schrader Valve Connector	30	7.7mm
314857	QR Schrader Valve Connector	40/90°	8mm
314885	System Connector (2)	350	Fiat, Alfa, Lancia Special Connectors
314890	System Connector (2)	350	Renault Special Connectors

314680

**Combined Fuel Injection Pressure Test Kit**  

- Designed for fuel pressure testing on modern multi-point petrol engines and low pressure systems on common rail diesel (CRD) vehicles
- This kit combines the applications from both:  
**314875** Multi-Point Petrol engine kit  
**314610** CRD Low Pressure Test Kit
- Features shock protected and fuel resistant dual scale pressure gauge with hook for suspending under bonnet, and relief valve for safe release of pressure
- Includes large dial vacuum gauge with hose and fittings, T-piece connector with fuel tap, and quick coupling adaptors and hose connectors



**Contents**

Part No.	Description	Length (mm)	Specifications
314871	Multi-Point Gauge Assembly	290	0-10 bar / 0-145 psi
314782	Vacuum Gauge & Hose Assembly	290	0-2 bar / 0-30 psi
314873	T-Connector & Tap Assembly	125	–
314885	Quick-Connect Hose Adaptors – Univ. (2)	350	8mm
314890	T-Connector Hose Adaptors – Renault (2)	350	10, 12mm
314880	Schrader Hose Adaptor - Ford EECIV	150	8mm
314870	Schrader Hose Adaptor – GM	150	7/16"
314615	Diesel Hose Connector Set (4)	280	1/4" Bore
		300	3/8" Bore



# FUEL & EXHAUST

## FUEL PRESSURE TESTING - SCHRADER VALVE CONNECTIONS

314895

### Fuel Injection Pressure Test Kit – Schrader Valve Connections

- Fuel pressure test kit containing three schrader test port adaptors and flexible quick-release (QR) hose for ease of access
- Where available, Schrader test ports are the preferred method of measuring fuel pressure on vehicles with fuel rails
- Provides a secure connection while being more efficient and easier to use
- Features shock protected and fuel resistant dual scale pressure gauge with hook for suspending under bonnet and relief valve for safe release of pressure
- Suitable for popular applications such as:  
 8mm Schrader valve connector - fitted on BMW, Ford, Mini, PSA, VAG and Volvo models  
 7/16 Schrader valve connector - fitted on Chrysler, Mercedes, Vauxhall and Opel models  
 M8 QR Schrader valve connector - fitted on Alfa Romeo, Fiat and new Ford Ka
- Supplied in cardboard carton



**Contents**

Part No.	Description	Length (mm)	Specifications
314871	Multi-Point Gauge Assembly	290	0-10 bar / 0-145 psi
314863	Double Ended QR Hose	160	-
314818	Schrader Valve Connector	30	7/16"
314819	Schrader Valve Connector	30	8mm
314857	QR Schrader Valve Connector	40 / 90°	M8

### Fuel Injection Schrader Valve Connector Kits

- Schrader valve connector sets available separately for use with any SP Fuel Injection Pressure Test Kit
- Where available, Schrader test ports are the preferred method of measuring fuel pressure on vehicles with fuel rails due to the quick and secure connection
- Applications - as per **314895** Test Kit above
- Supplied in vinyl wallet



Part No.	Description
314850	Four Piece Set
314865	Two Piece Set

## FUEL PRESSURE TESTING – VOLKSWAGEN AUDI GROUP (VAG)

314925

### VAG Fuel Pump Pressure Test Kit – PD & FSI Engines

- Fuel pressure tester specially designed to suit “Pumpe Düse” (PD) and Fuel Stratified Injection (FSI) engines as used by the Volkswagen Audi Group (VAG)
- Features a shock protected, dual scale test gauge up to 20 bar as both PD and FSI engines operate at a higher pressure than conventional systems
- Includes special PD fuel pump quick connector, two FSI fuel pump connectors for 1.6, 1.8, and 2.0L FSI engines with Bosch fuel pumps and extra long (600mm) hose assembly for ease of access



#### Contents

Part No.	Description	Length (mm)	Specifications
314901	Pressure Gauge with Hose	600	0-20 bar / 0-300 psi
314814	PD Fuel Pump Adaptor	32	M12
314818	FSI Adaptor	29	Female
314878	FSI Adaptor	60	Male
314846	Banjo Bolt Assembly	40	M12 x 1.5 x 90°

314920

### VAG Fuel Pump Pressure Test Kit – PD Engines

- Fuel pressure tester specially designed to suit “Pumpe Düse” (PD) engines as used by the Volkswagen Audi Group (VAG)
- Features a shock protected, dual scale test gauge up to 20 bar
- Includes special PD fuel pump quick connector and extra long (600mm) hose assembly for ease of access



#### Contents

Part No.	Description	Length (mm)	Specifications
314901	Pressure Gauge with Hose	600	0-20 bar / 0-300 psi
314814	PD Fuel Pump Adaptor	32	M12

# FUEL & EXHAUST

## FUEL PRESSURE TESTING – COMMON RAIL DIESEL (CRD)

314610

### Common Rail Diesel (CRD) Low Pressure Test Gauge Kit

- Low pressure test gauge set for common rail diesel systems
- Measures low pressure feed from the fuel (lift) pump to the high pressure pump
- Also measures fuel return pressure where necessary
- Features a shock protected and fuel resistant, dual scale gauge with hook for suspending under bonnet, and relief valve for safe release of pressure
- Includes T-piece with fuel tap, Quick Connect (QC) hose adaptors 8 and 10mm (male and female), and Schrader valve connectors
- Helps to diagnose poor/non- starting, loss of engine power, blocked filters or fuel pipes
- Available with **314620** CRD Fuel Return Flow Kit as a combined set (**314600**) for a complete CRD low pressure test solution



**Contents**

Part No.	Description	Length (mm)	Specifications
314871	Multi-Point Gauge Assembly	290	0-10 bar / 0-145 psi
314873	T-Connector & Tap Assembly	125	-
314885	Quick-Connect Hose Adaptors – Univ. (2)	350	8mm
314615	Diesel Hose Connector Set (4)	280	1/4" Bore
		300	3/8" Bore

314620

### Common Rail Diesel (CRD) Fuel Return Flow Kit

- Designed to assist in the diagnosis of CRD engine and fuel system faults by measuring the fuel return output of solenoid injectors
- Used on the injector return side of a CRD system to help diagnose symptoms such as poor or no engine starting, poor engine running, poor acceleration and general lack of engine power
- Features a compact six chamber acrylic block design with graduation scale for easy to read comparison across all cylinders
- Includes fuel resistant, highly flexible rubber hoses
- Suitable for use with Bosch, Delphi, Denso and Siemens solenoid injectors via clearly identifiable adaptors
- Supplied in a plastic case with foam insert and carry handle
- Available with **314610** CRD Low Pressure Test Gauge Kit as a combined set (**314600**) for a complete CRD low pressure test solution



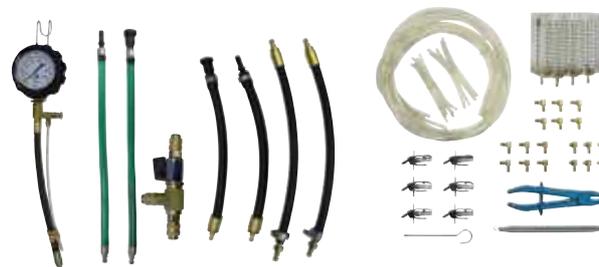
**Contents**

Part No.	Description	Identifier	Qty
314621	Bosch Adaptor Set	C1	6
314622	Siemens Adaptor Set	C2	6
314623	Denso Adaptor Set	C3	6
314624	Delphi Adaptor Set	Plastic	6
314625	Rubber Hose Set	-	6
035700	Brake & Fuel Line Clamp	-	1

314600

### Common Rail Diesel (CRD) Low Pressure Combined Kit

- A complete low pressure testing solution for common rail diesel systems
- Consists of:
  - 314610** CRD Low Pressure Test Gauge Kit
  - 314620** CRD Fuel Return Flow Kit



314650

**Common Rail Diesel (CRD) High Pressure Fuel Test Kit** 

- Designed to assist in the diagnosis of common CRD fault symptoms such as:
  - Poor or non-starting
  - Rough running (non-cylinder specific misfire)
  - Lack of power
  - Flat spots and/or hesitation on acceleration
- Enables measurement of delivery pressure output from the CRD high pressure pump (max 600 bar) under engine cranking conditions
- High pressure test gauge includes pressure limiting valve to prevent extreme pressure building in test kit and allows direct connection to the high pressure pump providing cranking pressure measurement of the pump
- Electronic sensor tester tests the high pressure sensor signal at the sensor allowing comparison to code reader component data (ECU vs Actual) with engine running
- Includes a selection of pipes and adaptors covering many applications with M12 x 1.5 / M14 x 1.5 connections
- Supplied with instructions in a protective blow moulded case

**Contents**

Part No.	Description	Length (mm)	Specifications
31465970	High Pressure Gauge Assembly	185	0-600 bar / 0-8,000 psi
300725	Digital Diesel Fuel Meter	–	12V, 0-5V input, 0-1500 bar
314651	Pipe Adaptor (male to male)	34	M12 x 1.5 (m) / M14 x 1.5 (m)
314657	Pipe Adaptor (female to male)	36	M12 x 1.5 (f) / M14 x 1.5 (m)
314652	Fuel Pipe	120	50° Bend
314656	Fuel Pipe	120	65° Bend
314653	Fuel Pipe	120	90° Bend x 70 x 50
314654	Fuel Pipe	120	90° Bend x 80 x 40
314655	Fuel Pipe	120	90° Compound Bend



Work with care on  
CRD High Pressure  
Fuel Systems

Pressure up to 1700 bar  
max. (25,000 psi)

314660

**CRD High Pressure Test Set** 

- As per **314650** kit above excluding Electronic Sensor Tester (**300725**)
- Contains:
  - High Pressure Gauge 0-600 bar (0-8,000 psi)
  - 5 x High Pressure Fuel Pipes
  - 2 x Fuel Pipe Adaptors



Work with care on  
CRD High Pressure  
Fuel Systems

Pressure up to 1700 bar  
max. (25,000 psi)

300725

**Digital Diesel Fuel Pressure Meter** 

- As per **314650** kit above excluding high pressure gauge and pipe components (**314660**)
- Uses voltage to measure the high pressure from the common rail pressure sensor by back probing signal wire under cranking and running conditions
- Ideal for making comparative pressure tests against ECU readings and actual rail pressure
- Converts signal to psi and bar
- Pressure range 0-1500 bar (22,000 psi)
- Operates on 12 volt supply



Work with care on  
CRD High Pressure  
Fuel Systems

Pressure up to 1700 bar  
max. (25,000 psi)

VACUUM TESTING

013900

Vacuum System Tester

- For identifying faults on vacuum operated and controlled fuel and ignition systems, emission control systems and automatic transmissions
- Assists in the diagnosis of mechanical engine faults; checks fuel and vacuum pumps, vacuum advance/retard timing mechanisms, exhaust gas re-circulation systems, canister purge valves, fuel pressure regulators and MAP sensors
- Identifies leaks in fuel lines, air conditioning systems, heater cores, two stroke engine crankcases
- Features fully serviceable, precision die cast metal hand pump with dual scale gauge 0-76cm (0-30 ins) hg mercury
- Comprehensive range of tapered nozzles and manifold plugs for most vacuum test applications, including a 32mm rubber cap adaptor for obtaining vacuum where standard tapered nozzles are not suitable
- Supplied with three snap-over bleed nipple adapters plus 120ml reservoir jar for brake bleeding applications
- Complete with comprehensive instruction manual and storage case



Specifications

Max. Vacuum	Stroke Volume	Max. Pressure	Gauge Scale	Gauge Accuracy	Gauge Dia.	Overall Length	Reservoir Volume	Hose Length	Hose Dia.	In Line Reducer Dia.
23-25 hg 0-1 bar	1 cu.in.	60 psi 0-4 bar	0-76cm (0-30ins) hg	+/- 2% @ 20ins hg	53	235	120ml	610mm x 2	6.35	6.35 to 4.75

To upgrade for testing turbo charger waste gates: **013907** Compound Gauge Assembly

027600

Air Blow Gun

- Used for cleaning carburettor jets, fuel lines, brake pipes etc, the gun has an infinitely variable air flow with fingertip control and is also suitable for the dispensing of some low viscosity fluids
- High velocity 100mm nozzle, cranked for easy access
- High impact resistant body
- Body threaded 1/4" BSP to accept a quick coupler if required



## DIESEL FUEL INJECTOR TOOLS

### 185800

### Hydraulic Injector Puller Kit

- A unique concept designed specifically for the removal of stubborn or seized diesel injectors
- Provides controlled force to aid the removal of seized injectors where there is insufficient access for traditional slide hammers
- Uses a 12T hydraulic cylinder mounted to a multi-position frame with adjustable legs of different lengths, and a selection of mounting adaptors to allow alignment of the tool with the injectors
- Adjustable to be correctly positioned on most cylinder heads
- Supplied with injector adaptors for most modern injector types
- Includes injector solenoid and tamperproof socket set
- Supplied in blow moulded case with foam insert and instructional CD
- Requires the use of a porta power hydraulic hand pump sold separately **200170** Two Speed Hydraulic Hand Pump



#### Specifications – Hydraulic Cylinder

Stroke (mm)	Oil Capacity (C.C.)	Dia (mm)	Height (mm)	
			Retracted	Extended
8	14.8	73	60	68

#### Contents

Part No.	Description	Size (mm)	Length (mm)	Qty
SH5120	12T Hydraulic Cylinder	See table above		1
085814	Injector Adaptor	M14	39	1
085816	Injector Adaptor	M16	52	1
085817	Injector Adaptor	M17	52	1
085820	Injector Adaptor	M20	49	1
085825	Injector Adaptor	M25	42	1
085827	Injector Adaptor	M27	41	1
185801	Mounting Frame	300 x 300	20	1
185802	Support Legs	19	50	4
185803	Support Legs	19	100	4
185804	Support Legs	19	200	4
185805	Hex Head Bolt Mountings	17	20	4
185806	Hex Head Bolt Mountings	19	20	4
185807	Concave Head Bolt Mountings	15	20	4
185808	Tapered Cone Head Bolt Mountings	6	20	4
185809	Hex Injector Dismantling Tool	-	75	1
185810	Centre Spindle - Short	M16/M18	125	1
185813	Centre Spindle - Long	M16/M18	175	1
015125	Injector Solenoid Socket	25	100	1
015127	Injector Solenoid Socket	27	100	1
015129	Injector Solenoid Socket	29	100	1
015130	Injector Solenoid Socket	30	100	1
08585670	Tamperproof Socket	6 x 10	71	1
08585770	Tamperproof Socket	7 x 10	71	1



### Hydraulic Injector Puller Add-On Kits

- Two 'add-on' kits designed specifically to operate with Sykes-Pickavant **185800** Hydraulic Injector Puller
- Ensures precise and correct tool alignment while reducing risk of damage to cylinder head
- Enables direct application of pulling force
- Kits include adaptor plates and support legs

Part No.	Description	Application
<b>185825</b>	Renault M9R Injector Puller Add-on	Nissan / GM 2.0L DCI (M9R)
<b>185830</b>	PSA Injector Puller Add-on	PSA 2.0L / 2.2L HDI



DIESEL FUEL INJECTOR TOOLS cont.

085700

Diesel Injector Puller

- Convenient and efficient injector puller for use with clamp-down injectors Lucas and Bosch type
- Features slide hammer mechanism with M8 x 0.75, M12 x 1.5, M14 x 1.5 & GM M17 adaptors
- Suitable for a wide variety of car, LCV & HGV applications with Lucas and Bosch type clamp down injectors
- M17 adaptor is ideal for GM Vauxhall/Opel injectors (X20DTH/Y20DTH series engines)
- Slide hammer weight: 0.5kg
- Overall length: 210mm



Injector Seal Extractors

- Designed specially to remove the copper injector base seal when it has become stuck in the cylinder head following removal of the injector
- Traditionally done using a 'pick' – these tools allow safe and easy removal without risk of damage to the cylinder head
- Suitable for both direct and indirect injected diesel engines - car, LCV, HGV
- Ideal for use when carbon deposits have caused the seal to become seized in place
- Available in split collet T-handle or heavy duty, tapered head slide hammer design

Part No.	Description	Operating Range (mm)	Overall Length (mm)	Slide Hammer Weight (g)
085810	Injector Seal Extractor – Split Collet, T-handle	6.4-8.0	215	–
085815	Injector Seal Extractor – HD Tapered Head, Slide Hammer	4.0-13.0	350	500



017500

Diesel Injector Seat Cutter Set

- Designed for the cleaning and/or cutting of injector seats and chambers when changing or reconditioning diesel injectors
- Helps to avoid 'blow-by' due to poorly seated injectors
- Includes:
  - Removal tool for copper washers
  - Injector blanking plugs to avoid debris entering the cylinders
  - Wire brush cleaning set for chamber walls
  - Centralising stem to improve correct cleaning seating angle

Contents

Part No.	Description	Length (mm)	Dia. (mm)	Face
01750170	Seat Cutter No. 1	38	17	Flat – 19mm dia. shank
01750270	Seat Cutter No. 2	38	17	Flat – 17mm dia. shank
01750370	Seat Cutter No. 3	38	15	Flat – 19mm dia. shank
01750470	Seat Cutter No. 4	38	17	120° – 21mm dia. shank
01750570	Seat Cutter No. 5	38	17	160° – 17mm dia. shank
017500-02	Top Cone & Spring Shaft Set	250 (Shaft)	24.5, 22, 20.5 (bushes)	–
017500-03	Pin & Plug Set	200 (shaft) 16 (bushes)	5 (shaft) 7 (bushes)	–
017500-04	Brush Set	2 x Long 2 x Short	9 (long) 20 (short)	–
085810	Injector Seal Extractor	215	6.5-8.0	–



**314500****Diesel Injector Tester & Aspirator (DITA)**

- Mechanical pressure tester and aspirator for checking the correct operation of mechanical diesel injectors
- Tests nozzle opening pressure, injector spray pattern and correct needle seating
- Assists in the diagnosis of injector chatter and back leakage
- Suitable for testing all mechanical injectors with 12mm and 14mm screw fittings
- Bench mounted
- Safety features:
  - Mechanically damped gauge prevents over-pressurisation
  - Built-in aspirator removes test fluid spray away from the operator
  - Visual inspection of the injector spray pattern against mirrored disc
  - Safety viewing screen
  - Universal clamp for holding injectors securely whilst carrying out test procedures
  - Reservoir level indicator (test fluid can be re-used)
  - Complete with 12mm and 14mm quick-fit injector adaptors
- Designed to test for:
  - Nozzle opening pressure
  - Injector spray pattern
  - Injector condition and chatter
  - Injector back leakage and needle seating
- Use in conjunction with **314594** RITA (below) to test modern electronic diesel injectors

**Specifications**

Gauge Diameter	Gauge Scale	Max Injector Dia.	Injector Adaptor (2)	Handle Length	Clamp Spread	Height	Width	Depth
107mm	600 bar/ 8700psi	70mm	12 & 14mm	380	70	330mm	450mm	410mm

**314595****Remote Injector Test Actuator (RITA)**

Modern diesel engines and injectors have increased in sophistication and in many cases operate via a signal from the engine control unit to an electronic trigger built in the injector. The Remote Injector Test Actuator (RITA) has been designed to operate as the trigger during modern injector testing.

- Designed to operate in conjunction with the **314500** DITA (above) to allow the spray pattern from suspect injectors to be observed
- Can generate pulses suitable to drive Piezo and non Piezo injector types
- Duration of the pulse and repetition rate can be adjusted to simulate a range of operating conditions
- Suitable for Bosch, Delphi, Denso and Siemens series of automotive common rail injectors
- Supplied complete with electrical mains cable and a universal connection cable to suit Bosch, Denso, Delphi, Piezo and general purpose applications
- No calibration required



314595



314595 &amp; 314500

EXHAUST GAS TESTING

314400

Catalyst Back Pressure Tester

Many factors can cause an exhaust blockage causing general poor running and high fuel consumption. A visual inspection of the exhaust system is time consuming and often of limited use. The Catalyst Back Pressure Tester works by simply fitting into the oxygen (lambda) sensor port to measure the back pressure in the exhaust.

- Features a calibrated, dual scale gauge with colour coding to indicate a progressive pass/fail for idle and loaded tests
- Includes a 2m heat resistant gauge hose for dynamic testing
- Fits most European, Japanese and Asian vehicles with M12 x 1.25 and M18 x 1.5 oxygen (lambda) sensor ports
- Gauge scale: -1 to + 2 bar (-30 inHg to 30 psi)
- Spare Parts:
  - 314404 Optional Toyota Adaptor M12 x 1.25
  - 314415 Seals and Washers Service Kit



Tech Tip

Exhaust backpressure is vital for optimum engine performance. If exhaust flow becomes restricted it can cause a variety of poor performance symptoms.

Symptoms

- Poor engine performance
- Lack of high speed power
- Engine stall
- Poor fuel economy
- Increased engine operating temperature / overheating

Testing

The Sykes-Pickavant Catalyst Back Pressure Tester (314400) is equipped with a specialist low pressure test gauge and connectors to fit most modern vehicle lambda (O2 Sensor) ports.

A partially restricted converter, muffler or pipe may flow enough exhaust at idle not to cause a problem, but chokes breathing at higher engine speeds.

General Good Values

- @ Idle <1.5 psi
- @ 2000 rpm <3.0 psi
- @ 4000 rpm <4.0-8.0 psi

Test values will vary vehicle to vehicle depending on exhaust size, design and number of restrictors.

Contents

Part No.	Description	Specifications
314401	Pressure Gauge and Hose Assembly	-1 to + 2 bar (-30 inHg to 30 psi)
314402	Oxygen (Lambda) Connector	M18 x 1.5
314403	Oxygen (Lambda) Connector	M12 x 1.25
014105	Thread Restorer	M18 x 1.5
014106	Thread Restorer	M12 x 1.25

016900

Oxygen (Lambda) Sensor Socket Set

- For the fast and efficient removal of a variety of oxygen (lambda) sensors
- Sockets have recesses/windows to allow for sensor cables
- Manufactured from chrome vanadium/molybdenum with chemical black finish
- 3/8" square drive
- Seven piece set supplied in blow moulded storage case

Contents

Part No.	Size (mm)	Depth (mm)	Slot Width (mm)	Offset (mm)
016901	29	90	8	-
016902	22	90	21	-
019603	27	85	27 (window)	-
016904	22	80	8	-
016905	1 1/6"	75	-	-
016906	22	50	10	30
016907	22	30	8	55

