

Service Manual

TM200
TM270
TM300

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Sample of manual. Download All 504 pages at:

<https://www.arepairmanual.com/downloads/jcb-tm200tm270tm300-farm-master-telescopic-service-repair-manual/>

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Introduction

This publication is designed for the benefit of JCB Distributor Service Engineers who are receiving, or have received, training by JCB Technical Training Department.

These personnel should have a sound knowledge of workshop practice, safety procedures, and general techniques associated with the maintenance and repair of hydraulic earthmoving equipment.

Renewal of oil seals, gaskets, etc., and any component showing obvious signs of wear or damage is expected as a matter of course. It is expected that components will be cleaned and lubricated where appropriate, and that any opened hose or pipe connections will be blanked to prevent excessive loss of hydraulic fluid and ingress of dirt. Finally, please remember above all else **SAFETY MUST COME FIRST!**

The manual is compiled in sections, the first three are numbered and contain information as follows:

- 1** = **General Information** - includes torque settings and service tools.
- 2** = **Care & Safety** - includes warnings and cautions pertinent to aspects of workshop procedures etc.
- 3** = **Routine Maintenance** - includes service schedules and recommended lubricants for all the machine.

The remaining sections are alphabetically coded and deal with Dismantling, Overhaul etc. of specific components, for example:

- A** = **Attachments**
- B** = **Body & Framework** ...etc.

The page numbering in each alphabetically coded section is not continuous. This allows for the insertion of new items in later issues of the manual.

Section contents, technical data, circuit descriptions, operation descriptions etc. are inserted at the beginning of each alphabetically coded section.

All sections are listed on the front cover; tabbed divider cards align directly with individual sections on the front cover for rapid reference.

Where a torque setting is given as a single figure it may be varied by plus or minus 3%. Torque figures indicated are for dry threads, hence for lubricated threads may be reduced by one third.

'Left Hand' and 'Right Hand' are as viewed from the rear of the machine facing forwards.

Colour Codes

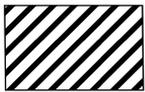
The following colour coding, used on illustrations to denote various conditions of oil pressure and flow, is standardised throughout JCB Service Publications

-  **Red** — **Full Pressure**
Pressure generated from operation of a service. Depending on application this may be anything between neutral circuit pressure and M.R.V. operating pressure.
-  **Pink** — **Pressure**
Pressure that is above neutral circuit pressure but lower than that denoted by red.
-  **Orange** — **Servo**
Oil pressure used in controlling a device (servo).
-  **Blue** — **Neutral**
Neutral circuit pressure.
-  **Green** — **Exhaust**
-  **Light Green** — **Cavitation**
Oil subjected to a partial vacuum due to a drop in pressure (cavitation).
-  **Yellow** — **Lock Up**
Oil trapped within a chamber or line, preventing movement of components (lock up).

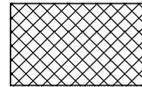
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Black & White Codes

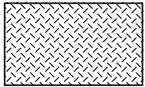
The following black and white coding, used on illustrations to denote various conditions of oil pressure and flow, is standardised throughout JCB Service Publications



Neutral Circuit Pressure.



Oil subjected to a partial vacuum due to a drop in pressure (cavitation).



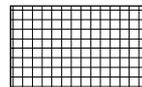
Pressure generated by the operation of a service. Depending on application this may be anything between Neutral Circuit Pressure and M.R.V. Operation Pressure.



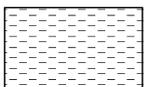
Oil trapped within a chamber or line preventing movement of components (lock-up).



Pressure that is above Neutral Circuit Pressure but lower than that denoted above.



Oil pressure used in a controlling device (servo).



Exhaust.

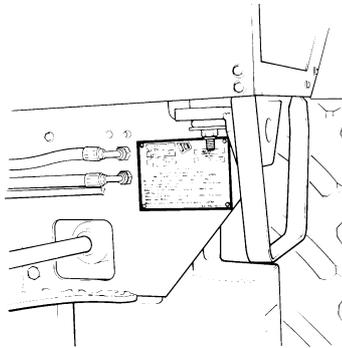
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Machine Identification Plate

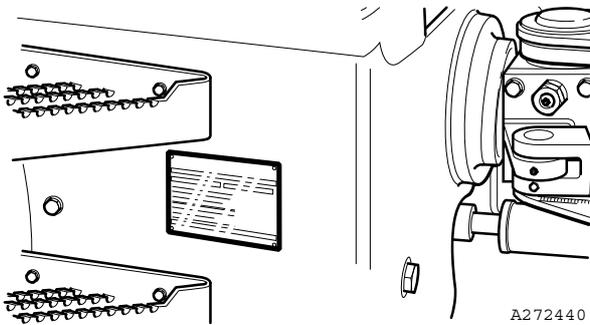
Your machine has an identification plate mounted as shown. The serial numbers of the machine and its major units are stamped on the plate.

TM200



S114730

* TM270 & TM 300



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The serial number of each major unit is also stamped on the unit itself. If a major unit is replaced by a new one, the serial number on the identification plate will be wrong. Either stamp the new number of the unit on the identification plate, or simply stamp out the old number. This will prevent the wrong unit number being quoted when replacement parts are ordered.

The machine and engine serial numbers can help identify exactly the type of equipment you have.

CE	JCB	J.C.BAMFORD EXCAVATORS LTD. ROCESTER, STAFFS, ENGLAND CONSTRUCTOR		EN 29001 FM21018
		Product Identification Number		
	V I N Vehicle Identification Number			
	ENGINE SERIAL NUMBER		FRONT AXLE SERIAL NUMBER	
	TRANSMISSION SERIAL NUMBER		REAR AXLE SERIAL NUMBER	
	WEIGHT kg		ENGINE POWER kW @ RPM	

#17/0000

U.K. and R.O.W.

Typical Vehicle Identification Number (VIN)

SLP 270 A T V E 0787034
A B C D E F G

- A** World Manufacturer Identification
- B** Machine Model
- C** Steer Type (A = Articulated)
- D** Build Type (T = Telescopic Handler)
- E** Year of Manufacture:

R = 1994	1 = 2001
S = 1995	2 = 2002
T = 1996	3 = 2003
V = 1997	4 = 2004
W = 1998	5 = 2005
X = 1999	6 = 2006
Y = 2000	7 = 2007
- F** Manufacturer Location (E = England)
- G** Product Identification Number (PIN)

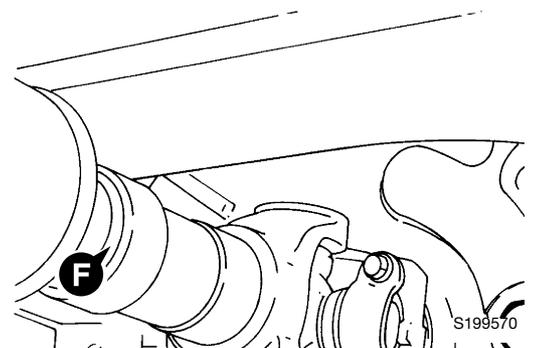
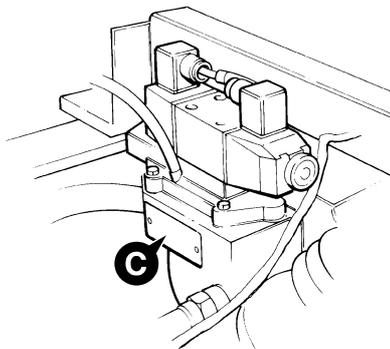
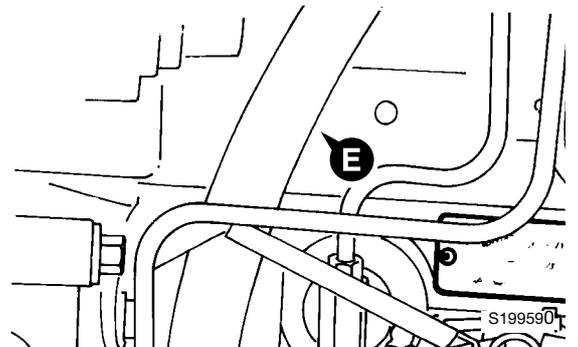
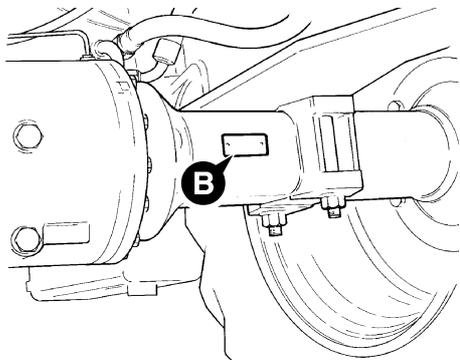
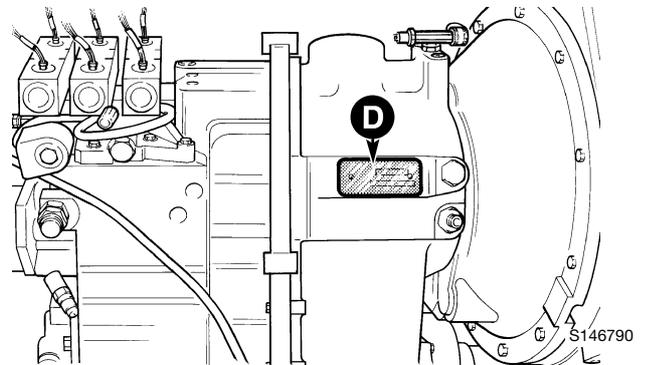
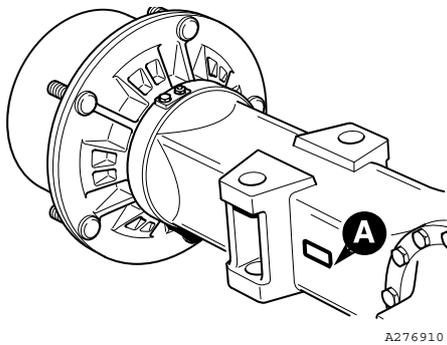
Typical Engine Identification Number

AB 50262 U 500405 P
A B C D E

- A** Engine Type
AB = 4 cylinder turbo
- B** Build Number
- C** Country of Origin
- D** Engine Sequence Number
- E** Year of Manufacture

Serial Plates

- A** TM200 Axles
- * **B** TM270 & TM300 Axles
- C** Syncro Shuttle Transmission
- D** Powershift Transmission
- E** Engine
- F** Transfer Gearbox



TORQUE SETTINGS

Use only where no torque setting is specified in the text. Values are for dry threads and may be within three per cent of the figures stated. For lubricated threads the values should be REDUCED by one third.

UNF Grade 'S' Bolts

Bolt Size in	Hexagon (A/F) (mm)	Hexagon (A/F) in	Torque Settings		
			Nm	kgf m	lbf ft
1/4	(6.3)	7/16	14	1.4	10
5/16	(7.9)	1/2	28	2.8	20
3/8	(9.5)	9/16	49	5.0	36
7/16	(11.1)	5/8	78	8.0	58
1/2	(12.7)	3/4	117	12.0	87
9/16	(14.3)	13/16	170	17.3	125
5/8	(15.9)	15/16	238	24.3	175
3/4	(19.0)	1 1/8	407	41.5	300
7/8	(22.2)	1 5/16	650	66.3	480
1	(25.4)	1 1/2	970	99.0	715
1 1/4	(31.7)	1 7/8	1940	198.0	1430
1 1/2	(38.1)	2 1/4	3390	345.0	2500

Metric Grade 8.8 Bolts

Bolt Size	(mm)	Hexagon (A/F) mm	Torque Settings		
			Nm	kgf m	lbf ft
M5	(5)	8	7	0.7	5
M6	(6)	10	12	1.2	9
M8	(8)	13	28	3.0	21
M10	(10)	17	56	5.7	42
M12	(12)	19	98	10	72
M16	(16)	24	244	25	180
M20	(20)	30	476	48	352
M24	(24)	36	822	84	607
M30	(30)	46	1633	166	1205
M36	(36)	55	2854	291	2105

Rivet Nut Bolts/Screws

Bolt Size	(mm)	Torque Settings (for steel rivet nuts)		
		Nm	kgf m	lbf ft
M3	(3)	1.2	0.12	0.9
M4	(4)	3.0	0.3	2.0
M5	(5)	6.0	0.6	4.5
M6	(6)	10.0	1.0	7.5
M8	(8)	24.0	2.5	18.0
M10	(10)	48.0	4.9	35.5
M12	(12)	82.0	8.4	60.5

Note: All bolts used on JCB machines are high tensile and must not be replaced by bolts of a lesser tensile specification.

JCB Standard Torque Settings B.S.P. Port Connection (Colour Coded)

Note: All adapters, elbows and hoses should be tightened to JCB standard torque settings unless stated otherwise.



1/8" ADAPTER
14mm



5/8" ADAPTER
30mm



1/4" ADAPTER
19mm



3/4" ADAPTER
32mm



3/8" ADAPTER
22mm



1" ADAPTER
41mm



1/2" ADAPTER
27mm

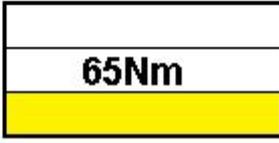


1 1/4" ADAPTER

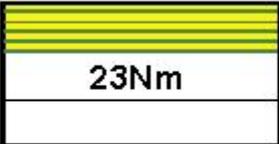
JCB Standard Torque Settings for Hose Ends and Flanged Fittings (Colour Coded)

Note: All adapters, elbows and hoses should be tightened to JCB standard torque settings unless stated otherwise.

HOSE END FITTINGS

 <p>24Nm</p>	<p>1/4" BSP HOSE 19mm</p>	 <p>65Nm</p>	<p>5/8" BSP HOSE 30mm</p>
 <p>40Nm</p>	<p>3/8" BSP HOSE 22mm</p>	 <p>95Nm</p>	<p>3/4" BSP HOSE 32mm</p>
 <p>55Nm</p>	<p>1/2" BSP HOSE 27mm</p>	 <p>120Nm</p>	<p>1" BSP HOSE 41mm</p>
 <p>189Nm</p>		<p>1 1/4" BSP HOSE</p>	

SPLIT FLANGE and FLANGED PIPE FITTINGS

 <p>23Nm</p>	<p>M8 CAPSCREW 6mm</p>	 <p>62Nm</p>	<p>M12 CAPSCREW 10mm</p>
 <p>40Nm</p>	<p>M10 CAPSCREW 8mm</p>	 <p>94Nm</p>	<p>M14 CAPSCREW 12mm</p>
 <p>170Nm</p>		<p>M16 CAPSCREW 14mm</p>	

Service Tools Numerical List

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4101/0451	JCB Threadlocker	5 - 1	892/00264	Pressure Test 'T' Adaptor	6 - 1
4101/0550	JCB Threadlocker and Sealer (high strength) 10 ml	5 - 1	892/00265	Pressure Test 'T' Adaptor	6 - 1
4101/0552	JCB Threadlocker and Sealer (high strength) 200 ml	5 - 1	892/00268	Flow Monitoring Unit	6 - 1
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Service Tools Numerical List (cont'd)

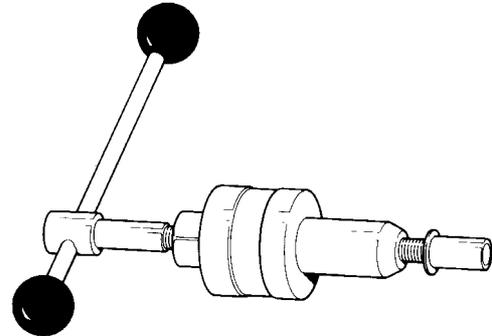
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892/00916	Clutch Pack Spring Compressor	7 - 3	7219/0001	10 Way Socket Connector
892/00918	Setting Tool Kit	7 - 5	7219/0002	10 Way Pin Housing
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7216/0002	6 Way Pin Housing	5 - 2		
7216/0003	6 Way Socket Retainer	5 - 2		
7216/0004	6 Way Pin Retainer	5 - 2		
7218/0001	8 Way Socket Connector	5 - 2		
7218/0002	8 Way Pin Housing	5 - 2		

Service Tools

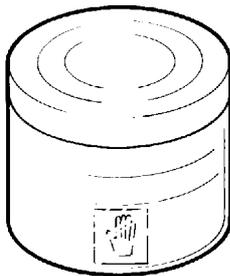
Section B - Body & Framework

826/01099	M6 x 16 mm Rivet Nut
826/01101	M6 x 19 mm Rivet Nut
826/01103	M8 x 18 mm Rivet Nut
826/01102	M8 x 21 mm Rivet Nut
826/01104	M10 x 23 mm Rivet Nut
826/01105	M10 x 26 mm Rivet Nut

Installation Tool Available from:
 Bollhoff Fastenings Ltd.
 Midacre
 The Willenhall Estate
 Rose Hill
 Willenhall
 West Midlands
 WV13 2JW



S261210



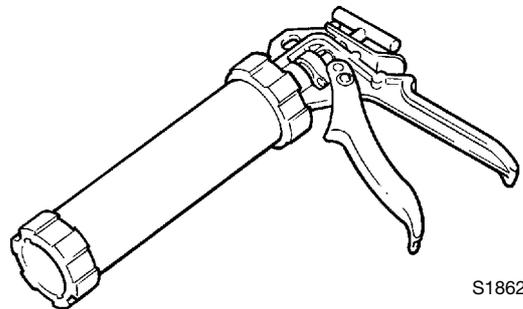
Hand Cleaner - special blend for the removal of polyurethane adhesives

JCB part number - 4104/1310
 (454g; 1 lb tub)

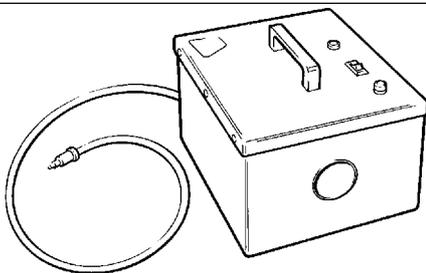
S186240

Cartridge Gun - hand operated - essential for the application of sealants, polyurethane materials etc

JCB part number - 892/00845



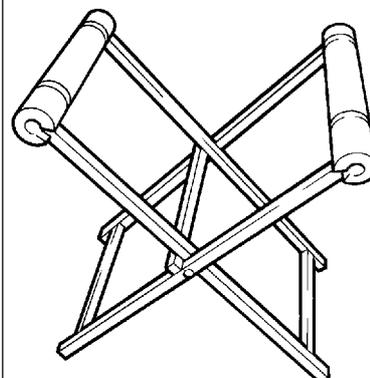
S186270



12V Mobile Oven - 1 cartridge capacity - required to pre-heat adhesive prior to use. It is fitted with a male plug (703/23201) which fits into a female socket (715/04300).

JCB part number - 992/12300

S186250



Folding Stand for Holding Glass -

essential for preparing new glass prior to installation.

JCB part number - 892/00843

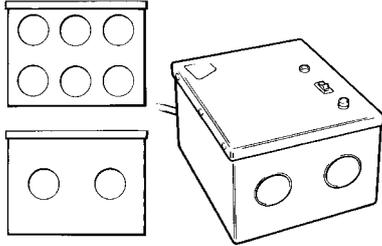
S186280

Service Tools (cont'd)

Section B - Body & Framework

240V Static Oven - available with 2 or 6 cartridge capacity - required to pre-heat adhesive prior to use. No plug supplied. Note: 110V models available upon request - contact JCB Technical Service.

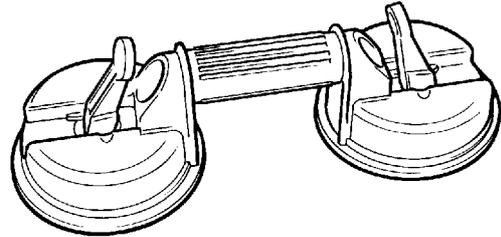
JCB part number:
 992/12400 - 2 Cartridge x 240V
 992/12600 - 6 Cartridge x 240V



S186260

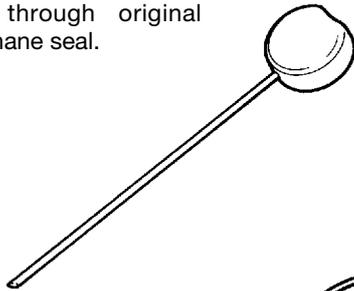
Glass Lifter - minimum 2 off - essential for glass installation, 2 required to handle large panes of glass. Ensure suction cups are protected from damage during storage.

JCB part number - 892/00842

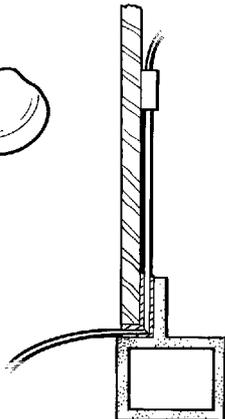


S186300

Wire Starter - used to access braided cutting wire (below) through original polyurethane seal.



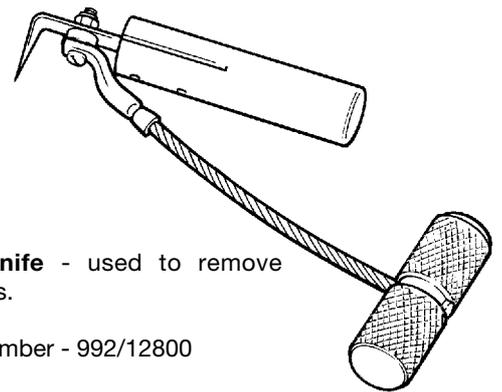
JCB part number - 892/00848



S186310

Cut-Out Knife - used to remove broken glass.

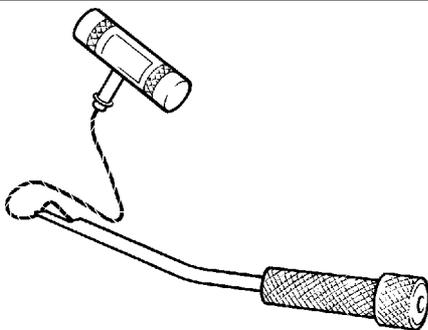
JCB part number - 992/12800



S186340

Glass Extractor (Handles) - used with braided cutting wire (below) to cut out broken glass.

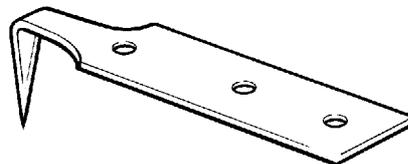
JCB part number -892/00846



S186320

'L' Blades - 25 mm (1 in) cut - replacement blades for cut-out knife (above)

JCB part number - 992/12801 (unit quantity = 5 off)



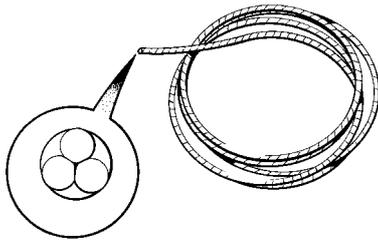
S186350

Service Tools (cont'd)

Section B - Body & Framework

Braided Cutting Wire - consumable heavy duty cut-out wire used with the glass extraction tool (above).

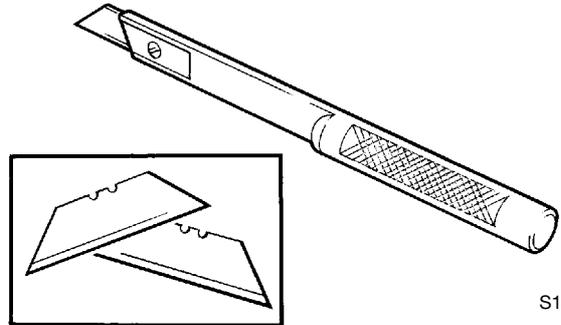
JCB part number - 892/00849
(approx 25 m length)



S186330

Long Knife - used to give extended reach for normally inaccessible areas.

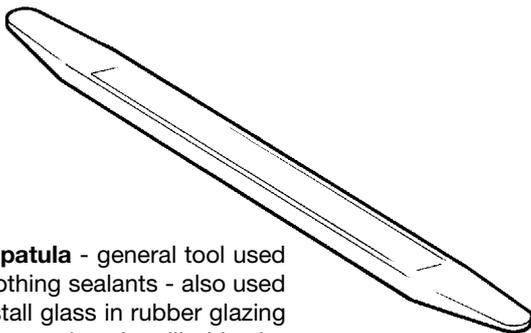
JCB part number - 892/00844



S186360

Nylon Spatula - general tool used for smoothing sealants - also used to re-install glass in rubber glazing because metal tools will chip the glass edge.

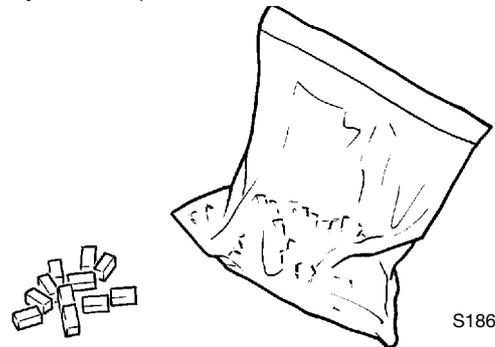
JCB part number - 892/00847



S186470

Rubber Spacer Blocks - used to provide the correct set clearance between glass edge and cab frame.

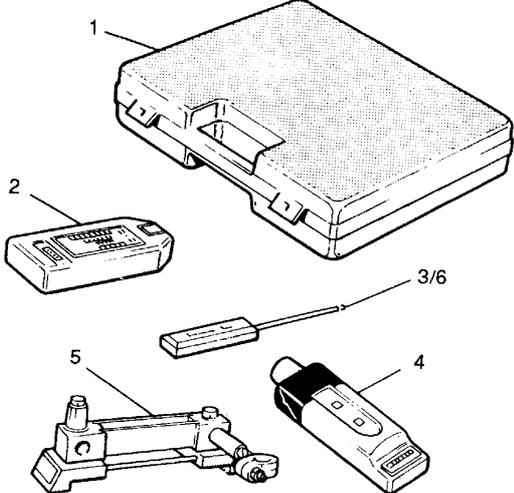
JCB part number - 926/15500
(unit quantity = 500 off)



S186550

Service Tools (cont'd)

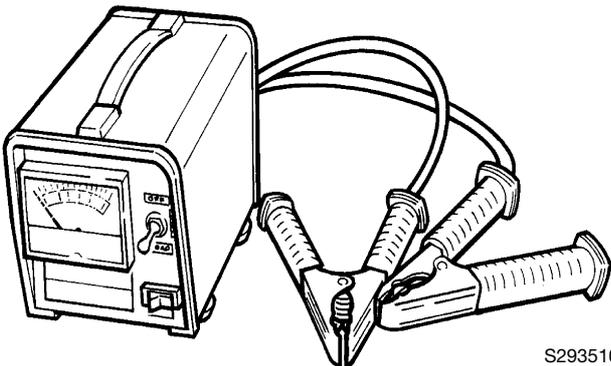
Section C - Electrics



1 892/00283 Tool Kit Case
 2 892/00298 Fluke Meter 85
 3 892/00286 Surface Temperature Probe
 4 892/00284 Venture Microtach Digital Tachometer
 5 892/00282 100 amp Shunt - open type
 6 892/00285 Hydraulic Temperature Probe

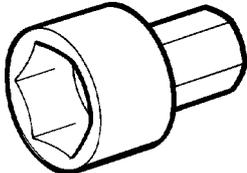
S188231

993/85700 Battery Tester



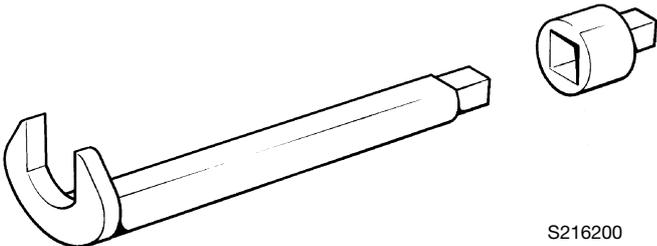
S293510

892/00882 Socket for Alternator Pulley Nut



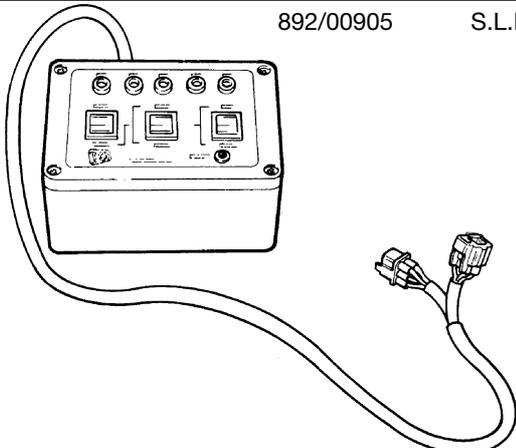
S216770

825/00410 15 mm Crowfoot Wrench
 825/99833 Adaptor



S216200

892/00905 S.L.I. Test Box

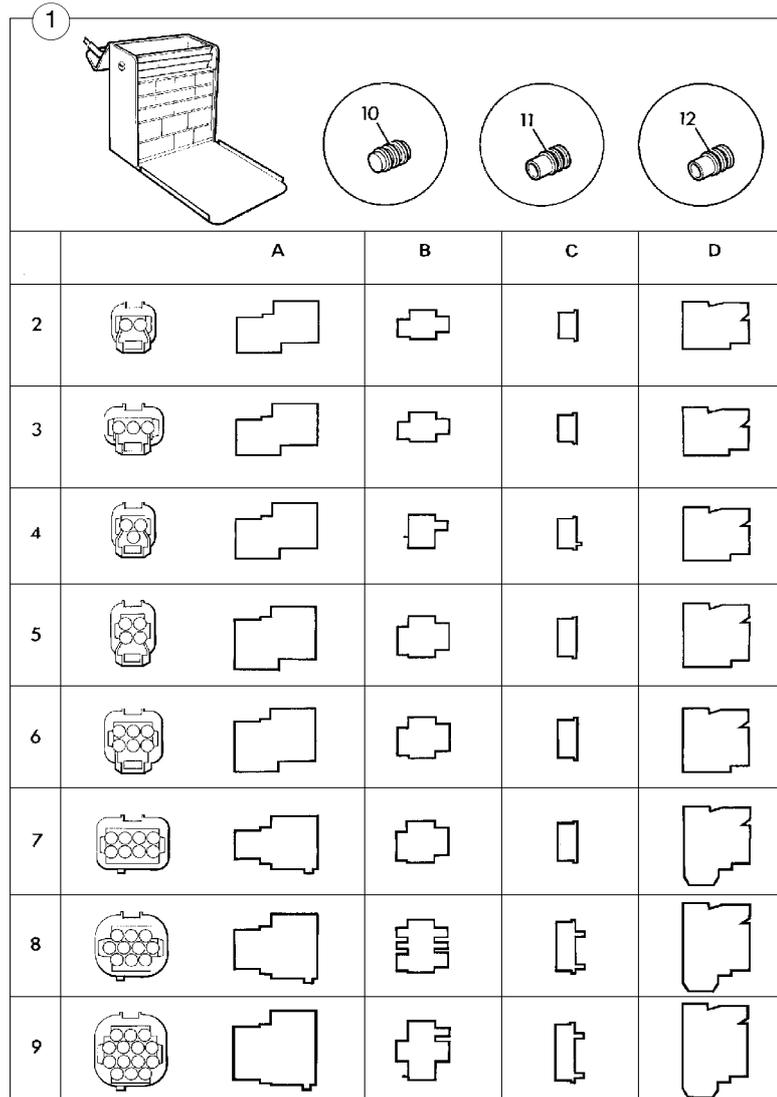


S244691

Service Tools (cont'd)

Section C - Electrics

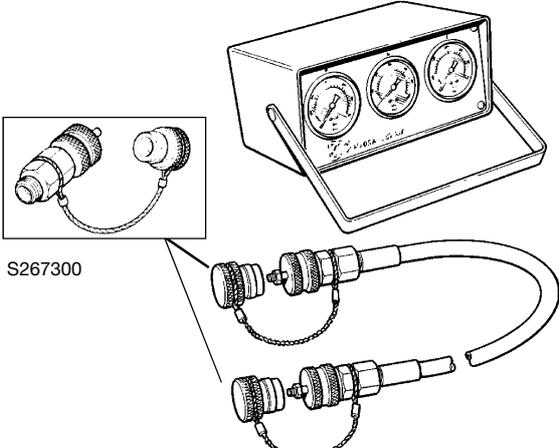
2A	:7212/0002	Electrical Repair Kit	6A	:7216/0002	6 Way Pin Housing
2B	:7212/0004	2 Way Pin Housing	6B	:7216/0004	6 Way Pin Retainer
2C	:7212/0003	2 Way Pin Retainer	6C	:7216/0003	6 Way Socket Retainer
2D	:7212/0001	2 Way Socket Retainer	6D	:7216/0001	6 Way Socket Connector
3A	:7213/0002	2 Way Socket Connector	7A	:7218/0002	8 Way Pin Housing
3B	:7213/0004	3 Way Pin Housing	7B	:7218/0004	8 Way Pin Retainer
3C	:7213/0003	3 Way Pin Retainer	7C	:7218/0003	8 Way Socket Retainer
3D	:7213/0001	3 Way Socket Retainer	7D	:7218/0001	8 Way Socket Connector
4A	:7213/0006	3 Way Socket Connector	8A	:7219/0002	10 Way Pin Housing
4B	:7213/0008	3 Way Pin Housing (DT)	8B	:7219/0004	10Way Pin Retainer
4C	:7213/0007	3 Way Pin Retainer (DT)	8C	:7219/0003	10 Way Socket Retainer
4D	:7213/0005	3 Way Socket Retainer (DT)	8D	:7219/0001	10 Way Socket Connector
5A	:7214/0002	3 Way Socket Connector (DT)	9A	:7219/0006	14 Way Pin Housing
5B	:7214/0004	4 Way Pin Housing	9B	:7219/0008	14 Way Pin Retainer
5C	:7214/0003	4 Way Pin Retainer	9C	:7219/0007	14 Way Socket Retainer
5D	:7214/0001	4 Way Socket Retainer	9D	:7219/0005	14 Way Socket Connector
		4 Way Socket Connector	10	:7210/0001	Dummy Plug
			11	:7210/0002	Wire Seal (1.4 - 2.2 mm dia.)
			12	:7210/0003	Wire Seal (2.2 - 2.9 mm dia.)



S188380

Service Tools (cont'd)

Section E - Hydraulics

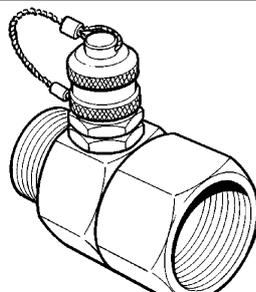


Hydraulic Circuit Pressure Test Kit

892/00253	Pressure Test Kit
:892/00201	Replacement Gauge 0-20 bar (0-300 lbf/in ²)
:892/00202	Replacement Gauge 0-40 bar (0-600 lbf/in ²)
:892/00203	Replacement Gauge 0-400 bar (0-6000 lbf/in ²)
:892/00254	Replacement Hose
993/69800	Seal Kit for 892/00254 (can also be used with probe 892/00706)
892/00706	Test Probe

S267300

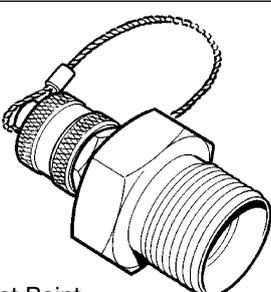
S188121



S188131

Pressure Test 'T' Adapters

892/00262	1/4 in M BSP x 1/4 in F BSP x Test Point
892/00263	5/8 in M BSP x 5/8 in F BSP x Test Point
892/00264	3/4 in M BSP x 3/4 in F BSP x Test Point
892/00265	1 in M BSP x 1 in F BSP x Test Point



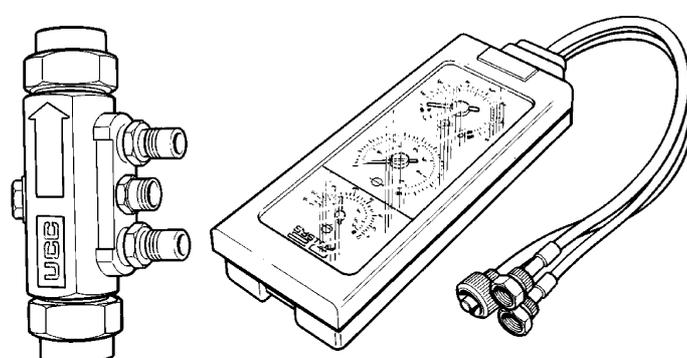
Pressure Test Adapters

892/00255	1/4 in BSP x Test Point
892/00256	3/8 in BSP x Test Point
892/00257	1/2 in BSP x Test Point
892/00258	5/8 in BSP x Test Point
892/00259	1 in BSP x Test Point
892/00260	1.1/4 in BSP x Test Point
892/00261	5/8 in UNF x Test Point

S200141

Flow Test Equipment

892/00268	Flow Monitoring Unit
892/00269	Sensor Head 0 - 100 l/min (0 - 22 UK gal/min)
892/00293	Connector Pipe
892/00270	Load Valve
1406/0021	Bonded Washer
1604/0006	Adapter 3/4 in M x 3/4 in M BSP
892/00271	Adapter 3/4 in F x 5/8 in M BSP
892/00272	Adapter 5/8 in F x 3/4 in M BSP
892/00275	Adapter 1/2 in F x 3/4 in M BSP
892/00276	Adapter 3/4 in F x 3/8 in M BSP
892/00277	Adapter 3/8 in F x 3/4 in M BSP
892/00273	Sensor Head 0 - 380 l/min
892/00294	Connector Pipe
1604/0008	Adapter 1 in M x 1 in M BSP



S188151

Service Tools (cont'd)

Section E - Hydraulics

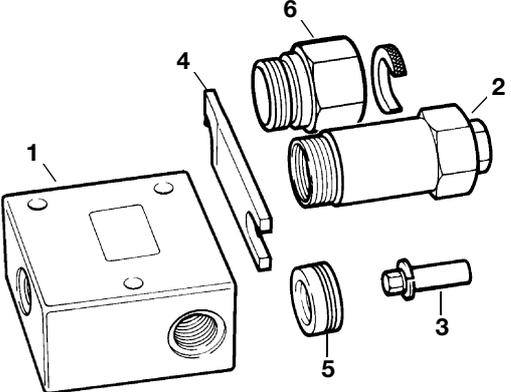
892/00881 Valve Spool Seal Fitting Tool



S261220

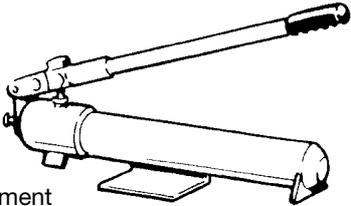
Components for Valve Block A.R.V. Testing

892/00309	A.R.V. Pressure Test Kit
1 : 892/00340	Test Block Body
2 : 892/00341	Setting Body
3 : 993/68300	Adjusting Pin
4 : 892/00343	Spanner
5 : 892/00345	Anti-cavitation Lock Out Bung
6 : 892/00335	A.R.V. Cartridge Removal Tool



S196700

Hand Pump Equipment



892/00223	Hand Pump
892/00137	Micro-bore Hose 1/4 in BSP x 3 metres
892/00274	Adapter 1/4 in M BSP x 3/8 in M BSP Taper
892/00262	1/4 in M BSP x 1/4 in F BSP x Test Point
892/00706	Test Probe
892/00278	Gauge 0 - 40 bar (0 - 600 lbf/in ²)
892/00279	Gauge 0 - 400 bar (0 - 6000 lbf/in ²)

S193850

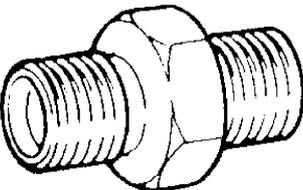
Bonded Washers

1406/0011	1/4 in. BSP
1406/0018	1/2 in. BSP
1406/0021	3/4 in. BSP
1406/0029	1.1/4 in. BSP



S188140

Male Adapters - BSP x BSP



1606/0003	3/8 in. x 1/4 in.
1604/0003	3/8 in. x 3/8 in.
1606/0004	1/2 in. x 1/4 in.
1606/0007	1/2 in. x 3/8 in.
1604/0004	1/2 in. x 1/2 in.
1606/0008	3/4 in. x 3/8 in.
1606/0009	3/4 in. x 1/2 in.
1604/0006	3/4 in. x 3/4 in.

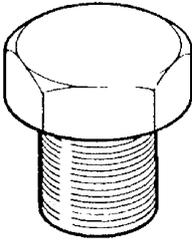
S193860

Service Tools (cont'd)

Section E - Hydraulics

Female Cone Blanking Plug

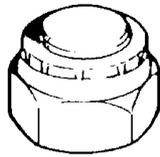
892/00055	1/4 in. BSP
892/00056	3/8 in. BSP
892/00057	1/2 in. BSP
892/00059	3/4 in. BSP



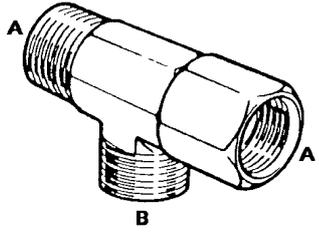
S193870

Male Cone Blanking Cap

816/00294	1/4 in. BSP
816/00189	3/8 in. BSP
816/00190	1/2 in. BSP
816/00196	3/4 in. BSP

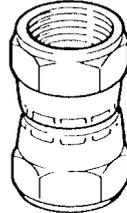


S193880



S193890

892/00047	3/8 in. BSP (A) x 1/4 in. BSP (B)
892/00048	1/2 in. BSP (A) x 1/4 in. BSP (B)



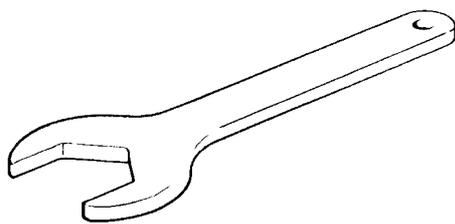
S193900

Female Connectors

892/00074	3/8 in. BSP x 3/8 in. BSP
892/00075	1/2 in. BSP x 1/2 in. BSP
892/00077	3/4 in. BSP x 3/4 in. BSP

Hexagon Spanners for Ram Pistons and End Caps

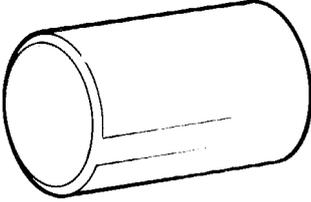
992/10800	50mm A/F
992/09300	55mm A/F
992/09400	65mm A/F
992/09500	75mm A/F
992/09700	95mm A/F



S193930

Service Tools (cont'd)

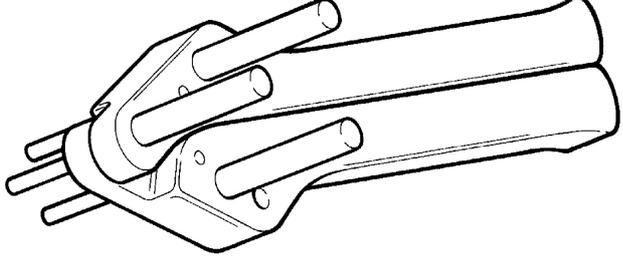
Section E - Hydraulics



Gland Seal Protection Sleeves

892/00231	For 60 mm Rod Diameter
892/00232	For 70 mm Rod Diameter
892/00233	For 75 mm Rod Diameter

S216240



892/00334 Gland Seal Fitting Tool

S216250

Service Tools (cont'd)

Section F - Transmission

892/00295 End Float Setting Tool

S188190

892/00825 Reverse Clutch End Float Setting Tool (Powershift transmission only)

S190760

990/00083 End Float Setting Tool

S188180

892/00812 Drive Coupling Spanner for front and rear axle yoke couplings.

S196720

892/00179 Bearing Press (use with appropriate adapters)

S188200

992/07608 Bearing Adapter
 992/07609 Bearing Adapter
 992/07610 Bearing Adapter
 992/07611 Bearing Adapter
 992/07612 Bearing Adapter
 992/07613 Bearing Adapter

S188160

A 892/00920 Flow Test Adapter
B 892/00301 Flow Test Adapter
C 892/00302 Flow Test Adapter

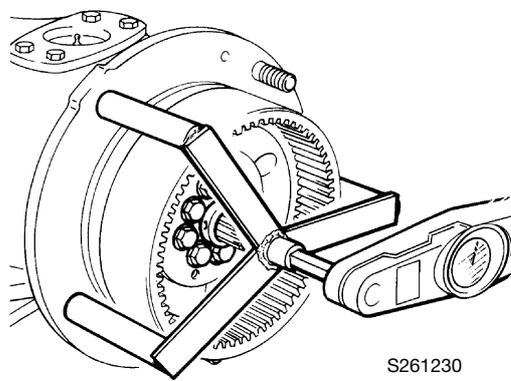
S188210

892/00922 12.2" Torque Converter Alignment Tool

S267260

Service Tools (cont'd)

Section F - Transmission



S261230

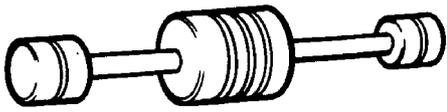
Torque Measuring Tool for Wheel Hub Seals

Manufacture locally, procedures in this manual show checking the wheel hub seal using a rolling force. However, the torque can be measured using above locally manufactured tool.

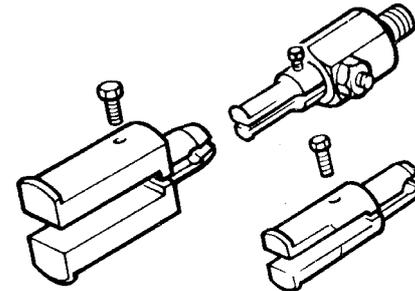
Bearing rolling torque is 12 to 22 Nm (9 to 16 lbf ft) excluding seal drag. Maximum permissible including seal drag is 40 Nm (29.5 lbf ft).

892/00224

Impulse Extractor Set for Hub Bearing Seals



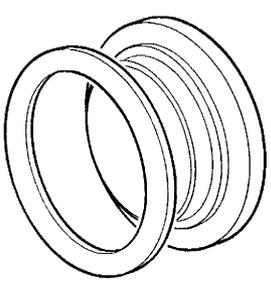
S197070



S197080

892/00225 Adapter - Impulse Extractor
 Small 17mm to 25mm
 Medium 25mm to 45mm
 Large 45mm to 80mm

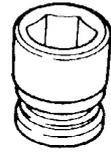
993/59500 Adapter - Impulse Extractor (syncro shuttle and powershift transmission)



S227760

892/00891

Fitting Tool Assembly for Wheel Hub Seals

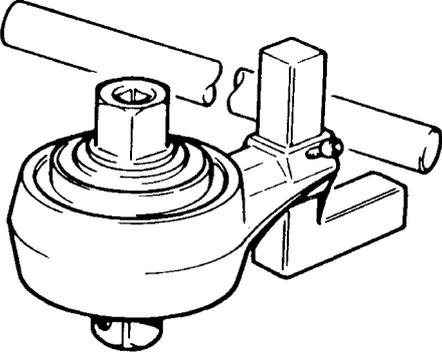


S216290

892/00817 17 mm A/F x 3/4in. square drive
 892/00818 22 mm A/F x 3/4in. square drive
 892/00819 15 mm A/F x 1/2in. square drive
 892/00333 19 mm A/F x 3/4in. square drive

Service Tools (cont'd)

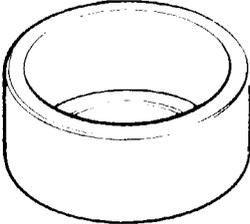
Section F - Transmission



992/04000

Torque Multiplier (use in conjunction with a torque wrench to give a 5:1 multiplication when tightening pinion nuts)

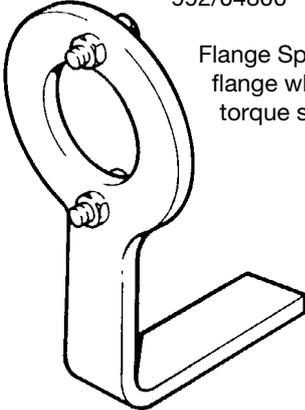
S197030



892/00174

Measuring Cup - Pinion Head Bearing

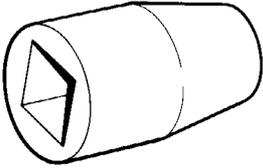
S190770



992/04800

Flange Spanner - for locking pinion flange while pinion nut is slackened or torque set

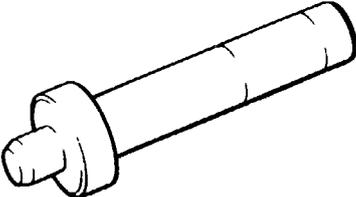
S197040



892/00822

Splined Bolt Socket for driveshafts

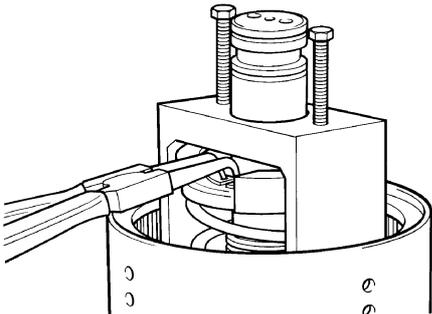
S197060



892/00182

Bearing Pad Driver

S216310



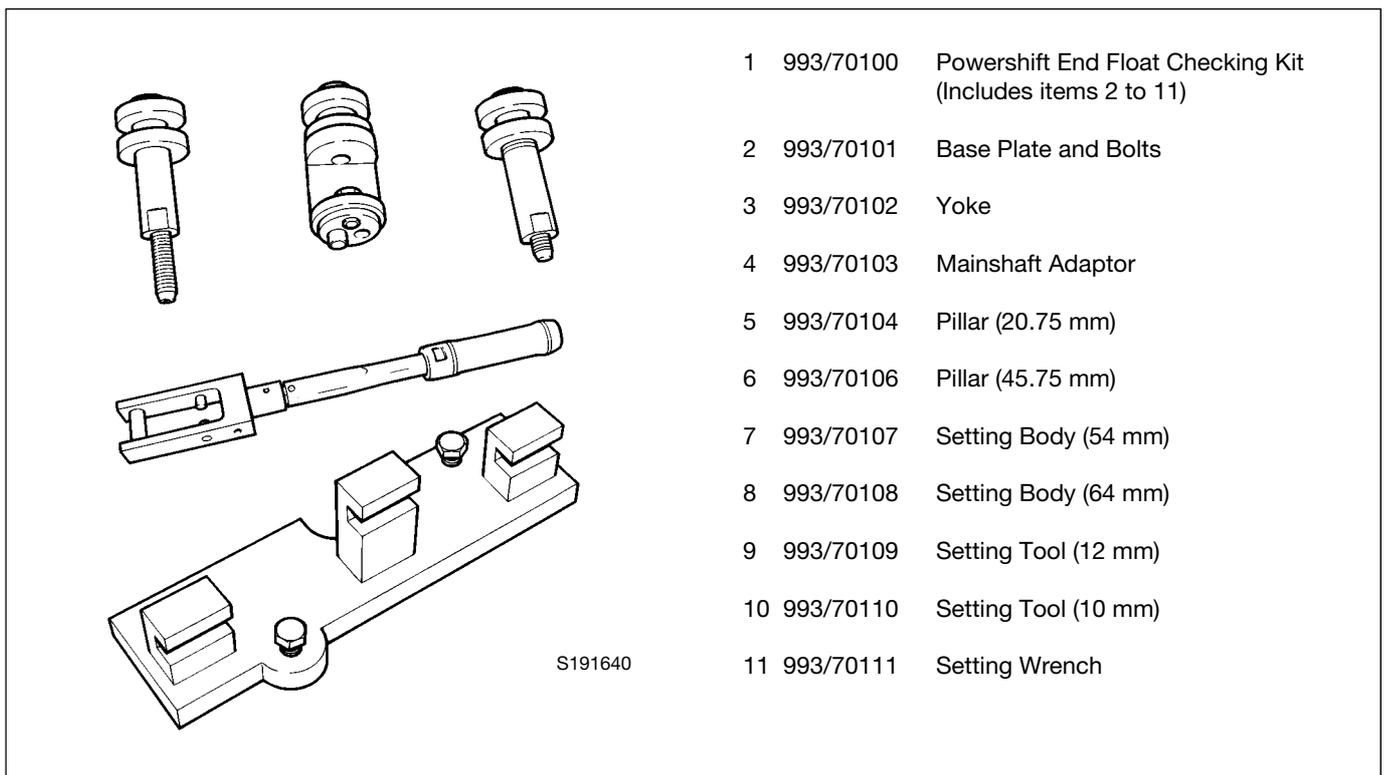
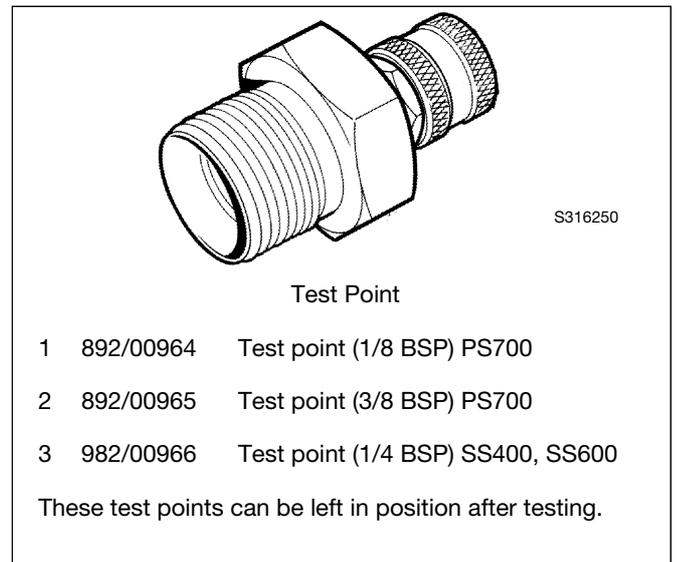
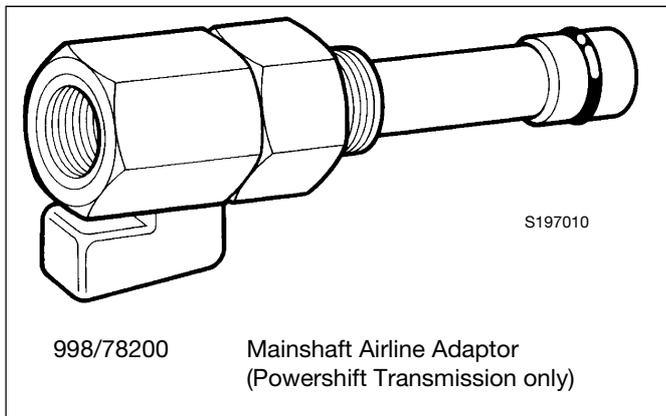
892/00916

Clutch pack spring compressor

S259320

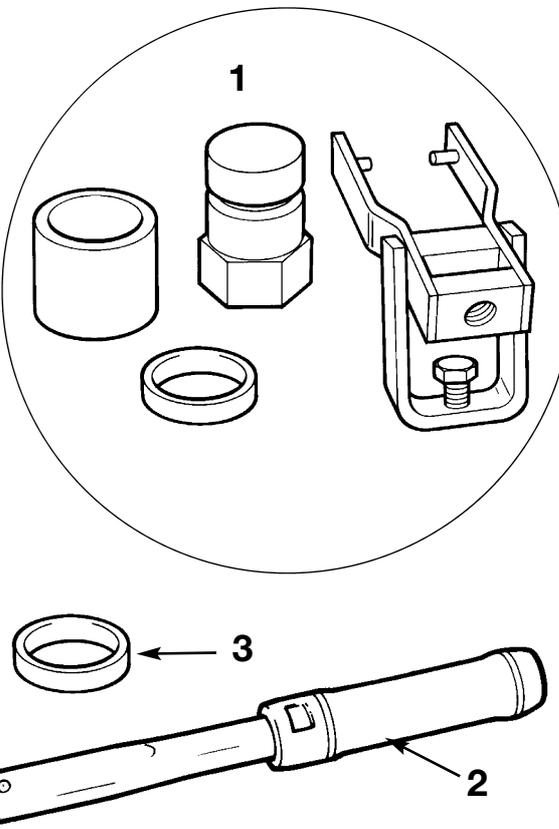
Service Tools (cont'd)

Section F - Transmission



Service Tools (cont'd)

Section F - Transmission



Solid Spacer Setting Kit

1	892/00918	Setting Tool Kit
2	993/70111	Breakback Torque Wrench
3	921/52600	Spacer Kit

Comprises of:

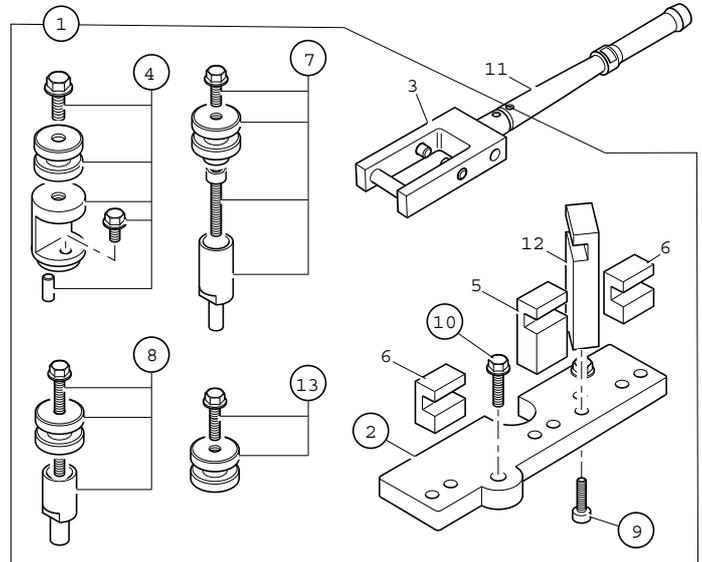
921/52601	Spacer 12.75
921/52602	Spacer 12.80
921/52603	Spacer 12.85
921/52604	Spacer 12.90
921/52605	Spacer 12.95
921/52606	Spacer 13.00
921/52607	Spacer 13.05
921/52608	Spacer 13.10
921/52609	Spacer 13.15
921/52610	Spacer 13.20
921/52611	Spacer 13.25
921/52612	Spacer 13.30
921/52613	Spacer 13.35
921/52614	Spacer 13.40
921/52615	Spacer 13.45
921/52616	Spacer 13.50
921/52617	Spacer 13.55
921/52618	Spacer 13.60
921/52619	Spacer 13.65
921/52620	Spacer 13.70
921/52621	Spacer 13.75
921/52622	Spacer 13.80
921/52623	Spacer 13.85
921/52624	Spacer 13.90
921/52625	Spacer 13.95
921/52626	Spacer 14.00

S316260

Service Tools (cont'd)

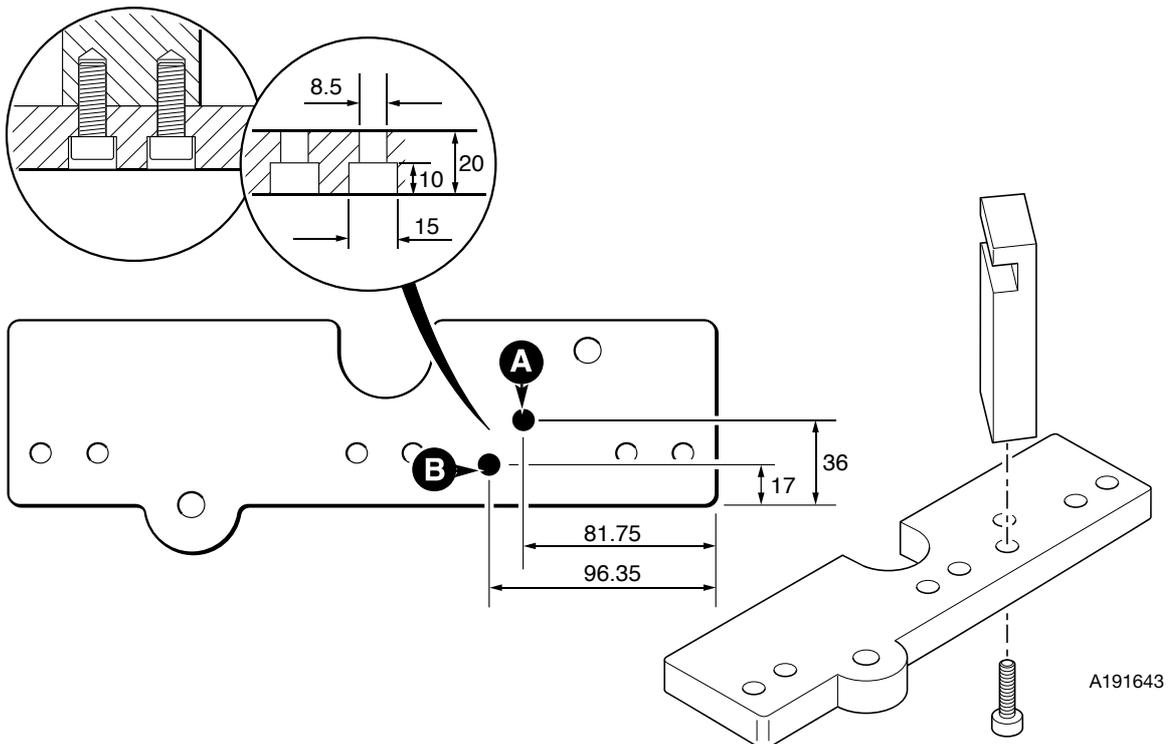
Section F - Transmission

- 1 993/70100 Powershift Endfloat Checking Kit (Includes items 2 to 13)
- 2 993/70101 Base Plate
- 3 993/70160 Yoke Assy
- 4 993/70130 Mainshaft Adapter Assy
- 5 993/70104 Mainshaft Pillar
- 6 993/70106 Layshaft/Reverser Pillar
- 7 993/70120 Layshaft Setting Assy
- 8 993/70140 Reverser Setting Assy
- 9 1391/3305 Capscrew (M8x20)
- 10 826/01417 Setscrew (M10x30) Flanged
- 11 993/70111 Setting Wrench (this is not part of the kit)
- 12† 993/70112 Input Shaft Pillar
- 13† 993/70150 Input Setting Assy



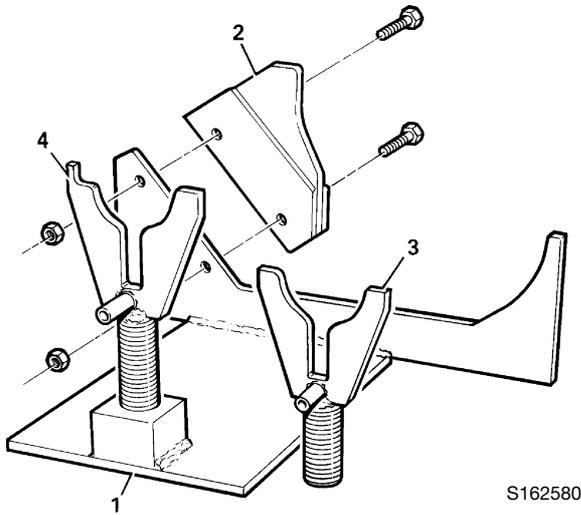
A191642

†If these items are not in your kit they can be ordered separately but the base plate 2 will have to be drilled to secure item 12, see A and B. Measurements are in mm. Apply JCB Threadlocker and Sealer and tighten item 9 to 25-30Nm (18-22 lbf ft).



Service Tools (cont'd)

Section F - Transmission



S162580

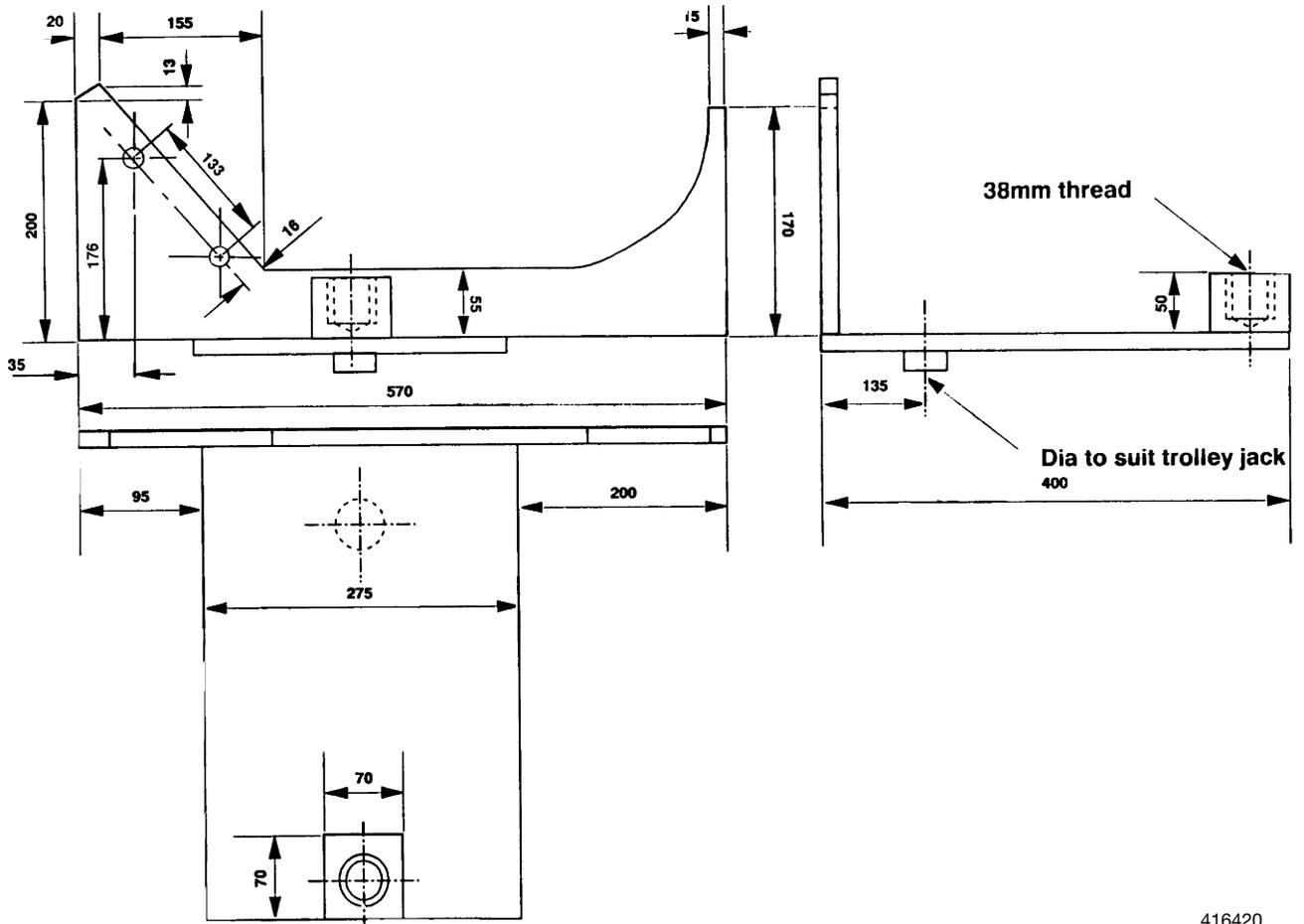
Fixture for Syncro Shuttle & Powershift Gearbox removal & replacement

Manufacture locally - items 1 to 4 on this and next page.

Note: When removing/replacing a Syncro Shuttle Gearbox, use items 1, 2 and 3.

When removing/replacing a Powershift Gearbox, use items 1 and 4.

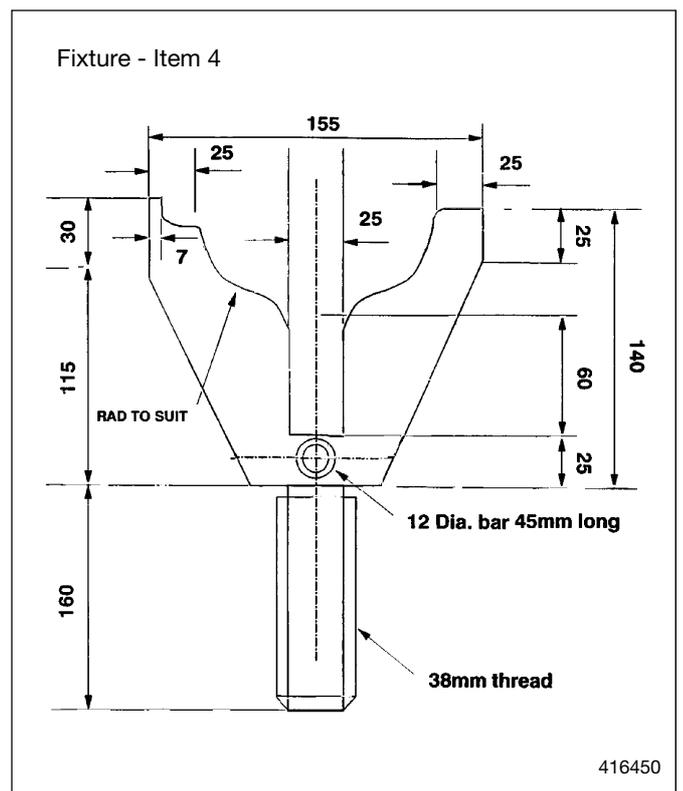
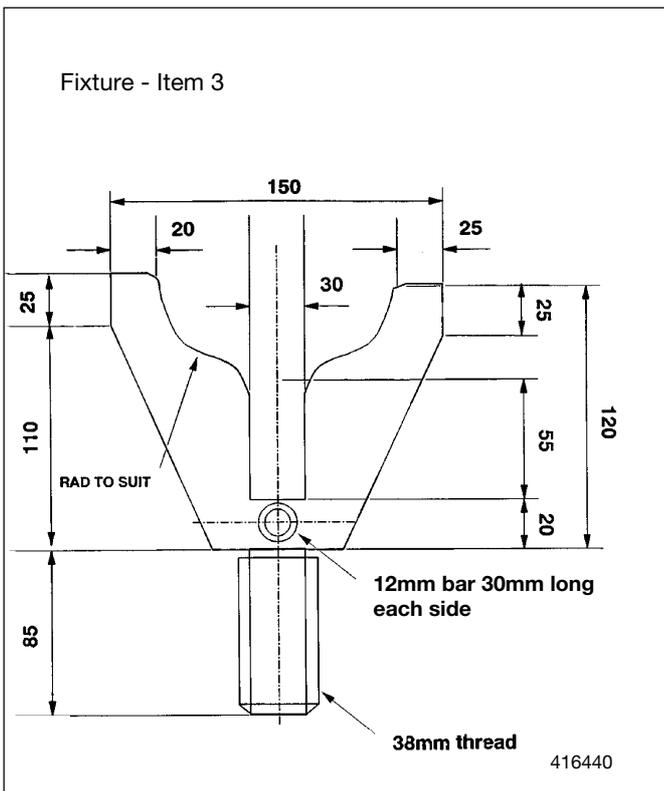
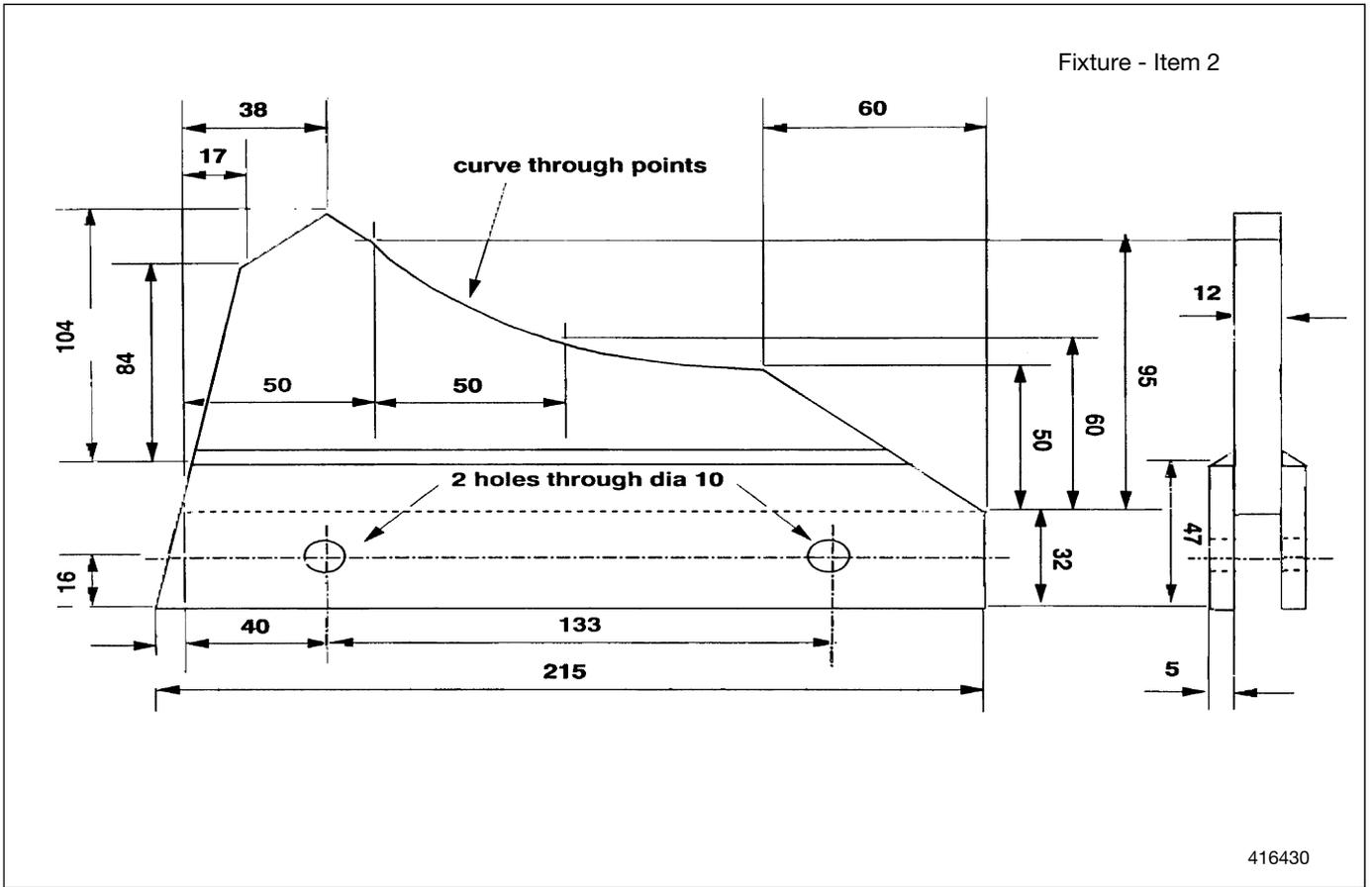
Fixture - Item 1



416420

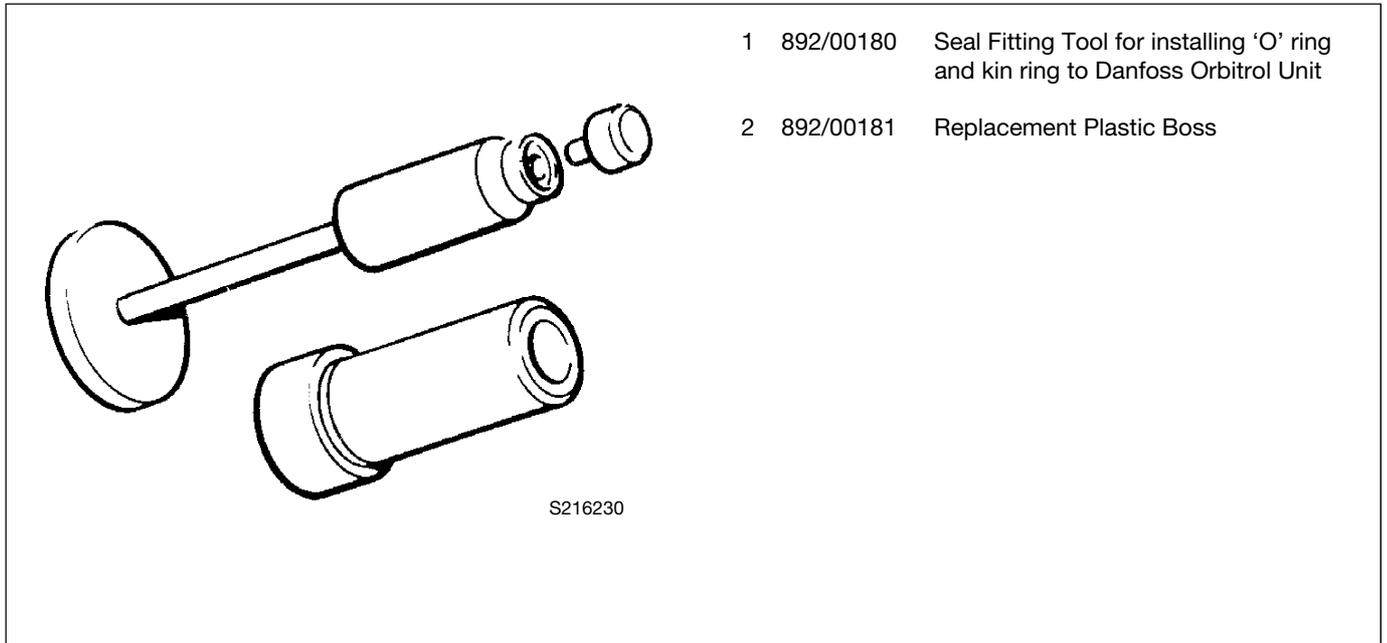
Service Tools (cont'd)

Section F - Transmission

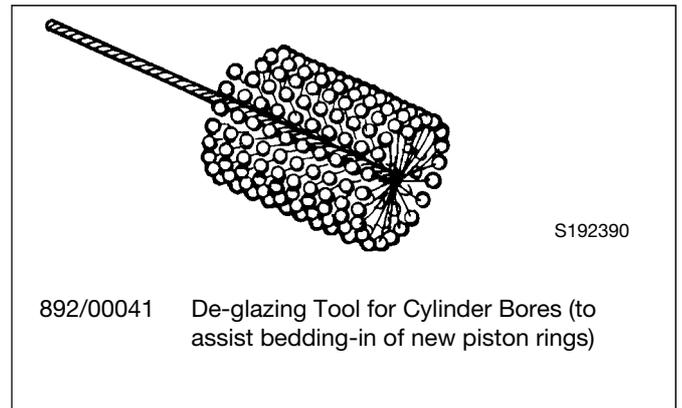
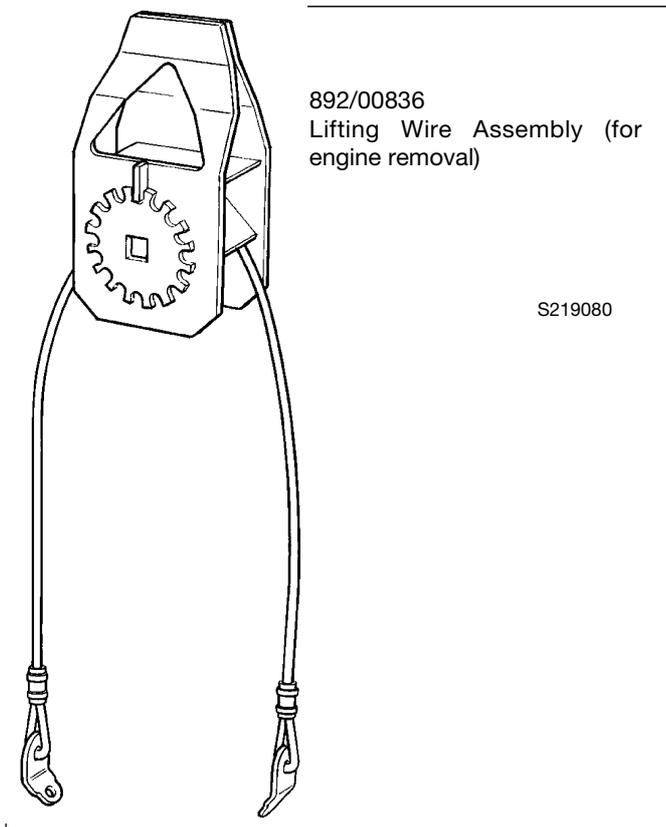


Service Tools (cont'd)

Section H - Steering



Section K - Engine



For details of other engine service tools refer to Engine Service Manuals,

1000 Series Publication No. 9806/0100
New 1000 Series Publication No. 9806/2140

Sealing and Retaining Compounds

JCB Multi-Gasket	A medium strength sealant suitable for all sizes of gasket flanges, and for hydraulic fittings of 25-65 mm diameter.	4102/1212	50 ml
JCB Threadlocker	For threads of 50 mm diameter upwards, e.g. suction strainer.	4101/0451	50 ml
JCB Threadlocker (High Strength)	A high strength locking fluid for use with threaded components. Gasketing for all sizes of flange where the strength of the joint is important.	4102/0551	50 ml
JCB Retainer (High Strength)	For all retaining parts which are unlikely to be dismantled.	4101/0651	50 ml
JCB Threadlocker and Sealer	A medium strength locking fluid for sealing and retaining nuts, bolts, and screws up to 50 mm diameter, and for hydraulic fittings up to 25 mm diameter.	4101/0250 4101/0251	10 ml 50 ml
JCB Threadlocker and Sealer (High Strength)	A high strength locking fluid for sealing and retaining nuts, bolts, and screws up to 50 mm diameter, and for hydraulic fittings up to 25 mm diameter.	4101/0550 4101/0552	10 ml 200 ml
JCB Threadseal	A medium strength thread sealing compound.	4102/1951	50 ml
JCB Activator	A cleaning primer which speeds the curing rate of anaerobic products.	4104/0251 4104/0253	Aerosol (1 ltr) Bottle (200 ml)
JCB Cleaner/Degreaser	For degreasing components prior to use of anaerobic adhesives and sealants.	4104/1557	Aerosol (400 ml)
* Anti-Seize Paste	A compound used for assembly and prevention of parts seizure.	4003/0211	
Direct Glazing Kit	For one pane of glass; comprises items marked † below plus applicator nozzle etc.		
† Ultra Fast Adhesive	For direct glazing	4103/2109	310 ml
† Active Wipe 205	For direct glazing	4104/1203	250 g
† Black Primer 206J	For direct glazing	4201/4906	30 ml
Clear Silicone Sealant	To seal butt jointed glass.	4102/0901	