

Articulated Dump Truck - 722

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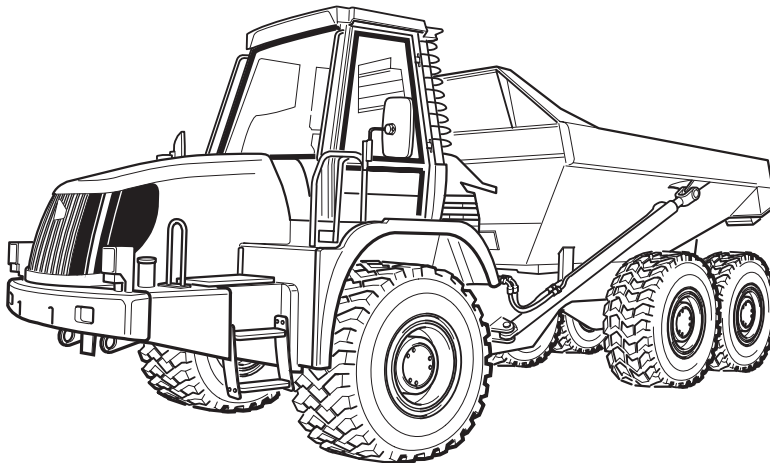
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Section 1 - General Information

Contents

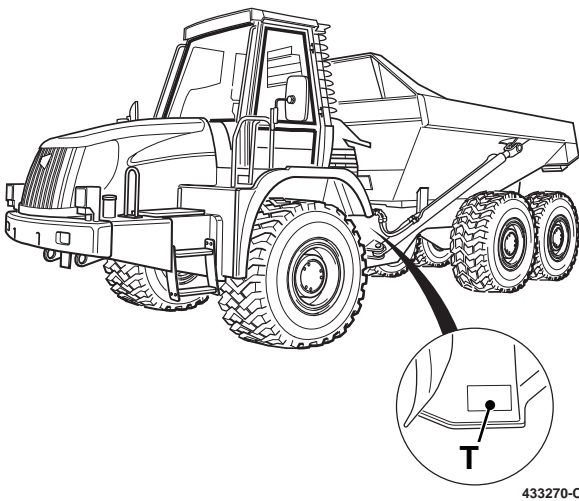
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Identification

Vehicle Identification

Vehicle Identification Plate

Your machine has an identification plate **1T**, mounted on the left side of the machine as shown. The serial number of the machine and its major units are stamped on the plate



433270-C1

Fig 1.

Explanation of the Vehicle Identification Number (VIN)

SLP	722	3	E	537000
A	B	C	D	E

A	World Manufacturer Identification	SLP = JCB
B	Machine Model	722
C	Year of Manufacture	
P	= 1993	V = 19971 = 2001
R	= 1994	W = 19982 = 2002
S	= 1995	X = 19993 = 2003
T	= 1996	Y = 20004 = 2004

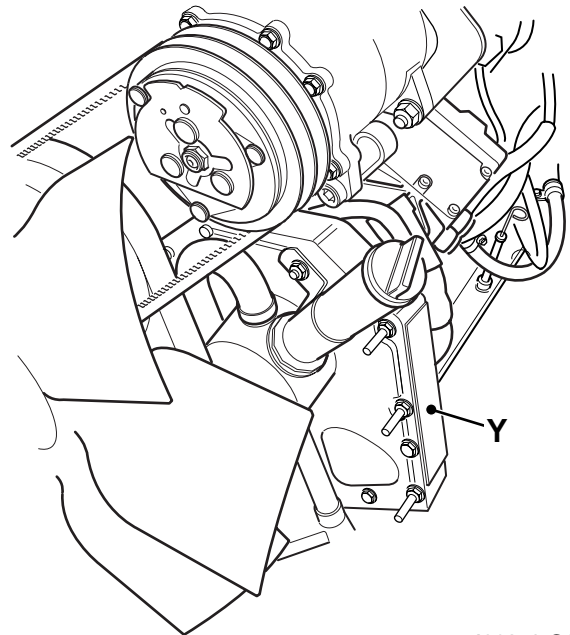
- D Manufacturing Location E - England
- E Machine Serial Number 0537000

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.

Unit Identification

The engine serial number is stamped on a plate **2Y**, which is fastened to the left side of the cylinder block.



432870-C1

Fig 2.

The Transmission serial number is stamped on a plate **3Z**, located at the bottom front of the transmission unit, as shown.

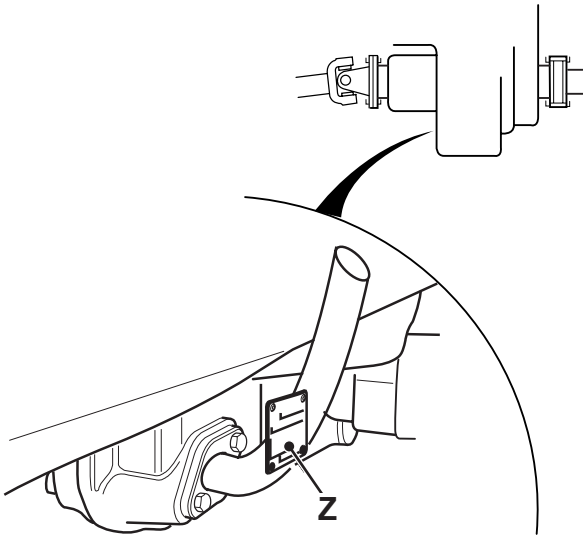


Fig 3.

Torque Settings

Zinc Plated Fasteners and Dacromet Fasteners

T11-002

Introduction

Some external fasteners on JCB machines are manufactured using an improved type of corrosion resistant finish. This type of finish is called Dacromet and replaces the original Zinc and Yellow Plating used on earlier machines.

The two types of fasteners can be readily identified by colour and part number suffix. ⇒ [Table 1. Fastener Types](#) (1-3).

Table 1. Fastener Types

Fastener Type	Colour	Part No. Suffix
Zinc and Yellow	Golden finish	'Z' (e.g. 1315/3712Z)
Dacromet	Mottled silver finish	'D' (e.g. 1315/3712D)

Note: As the Dacromet fasteners have a lower torque setting than the Zinc and Yellow fasteners, the torque figures used must be relevant to the type of fastener.

Note: A Dacromet bolt should not be used in conjunction with a Zinc or Yellow plated nut, as this could change the torque characteristics of the torque setting further. For the same reason, a Dacromet nut should not be used with a Zinc or Yellow plated bolt.

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

Note: Dacromet bolts, due to their high corrosion resistance are used in areas where rust could occur. Dacromet bolts are only used for external applications. They are not used in applications such as gearbox or engine joint seams or internal applications.

Bolts and Screws

Use the following torque setting tables only where no torque setting is specified in the text.

Note: Dacromet fasteners are lubricated as part of the plating process, do not lubricate.

Torque settings are given for the following conditions:

Condition 1

- Un-lubricated fasteners
- Zinc fasteners
- Yellow plated fasteners

Condition 2

- Zinc flake (Dacromet) fasteners
- Lubricated zinc and yellow plated fasteners
- Where there is a natural lubrication. For example, cast iron components

Verbus Ripp Bolts

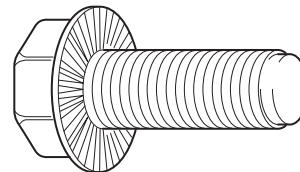


Fig 4.

Torque settings for these bolts are determined by the application. Refer to the relevant procedure for the required settings.



Section 1 - General Information Torque Settings

Zinc Plated Fasteners and Dacromet Fasteners

Table 2. Torque Settings - UNF Grade 'S' Fasteners

Bolt Size		Hexagon (A/F)	Condition 1			Condition 2		
in.	mm	in.	Nm	kgf m	lbf ft	Nm	kgf m	lbf ft
1/4	6.3	7/16	11.2	1.1	8.3	10.0	1.0	7.4
5/16	7.9	1/2	22.3	2.3	16.4	20.0	2.0	14.7
3/8	9.5	9/16	40.0	4.1	29.5	36.0	3.7	26.5
7/16	11.1	5/8	64.0	6.5	47.2	57.0	5.8	42.0
1/2	12.7	3/4	98.0	10.0	72.3	88.0	9.0	64.9
9/16	14.3	13/16	140.0	14.3	103.2	126.0	12.8	92.9
5/8	15.9	15/16	196.0	20.0	144.6	177.0	18.0	130.5
3/4	19.0	1 1/8	343.0	35.0	253.0	309.0	31.5	227.9
7/8	22.2	1 15/16	547.0	55.8	403.4	492.0	50.2	362.9
1	25.4	1 1/2	814.0	83.0	600.4	732.0	74.6	539.9
1 1/8	31.7	1 7/8	1181.0	120.4	871.1	1063.0	108.4	784.0
1 1/4	38.1	2 1/4	1646.0	167.8	1214.0	1481.0	151.0	1092.3

Table 3. Torque Settings - Metric Grade 8.8 Fasteners

Bolt Size		Hexagon (A/F)	Condition 1			Condition 2		
ISO Metric Thread	mm	mm	Nm	kgf m	lbf ft	Nm	kgf m	lbf ft
M5	5	8	5.8	0.6	4.3	5.2	0.5	3.8
M6	6	10	9.9	1.0	7.3	9.0	0.9	6.6
M8	8	13	24.0	2.4	17.7	22.0	2.2	16.2
M10	10	17	47.0	4.8	34.7	43.0	4.4	31.7
M12	12	19	83.0	8.5	61.2	74.0	7.5	54.6
M16	16	24	205.0	20.9	151.2	184.0	18.8	135.7
M20	20	30	400.0	40.8	295.0	360.0	36.7	265.5
M24	24	36	690.0	70.4	508.9	621.0	63.3	458.0
M30	30	46	1372.0	139.9	1011.9	1235.0	125.9	910.9
M36	36	55	2399.0	244.6	1769.4	2159.0	220.0	1592.4



Section 1 - General Information Torque Settings

Zinc Plated Fasteners and Dacromet Fasteners

Table 4. Metric Grade 10.9 Fasteners

Bolt Size		Hexagon (A/F)	Condition 1			Condition 2		
ISO Metric Thread	mm	mm	Nm	kgf m	lbf ft	Nm	kgf m	lbf ft
M5	5	8	8.1	0.8	6.0	7.3	0.7	5.4
M6	6	10	13.9	1.4	10.2	12.5	1.3	9.2
M8	8	13	34.0	3.5	25.0	30.0	3.0	22.1
M10	10	17	67.0	6.8	49.4	60.0	6.1	44.2
M12	12	19	116.0	11.8	85.5	104.0	10.6	76.7
M16	16	24	288.0	29.4	212.4	259.0	26.4	191.0
M20	20	30	562.0	57.3	414.5	506.0	51.6	373.2
M24	24	36	971.0	99.0	716.9	874.0	89.1	644.6
M30	30	46	1930.0	196.8	1423.5	1737.0	177.1	1281.1
M36	36	55	3374.0	344.0	2488.5	3036.0	309.6	2239.2

Table 5. Metric Grade 12.9 Fasteners

Bolt Size		Hexagon (A/F)	Condition 1			Condition 2		
ISO Metric Thread	mm	mm	Nm	kgf m	lbf ft	Nm	kgf m	lbf ft
M5	5	8	9.8	1.0	7.2	8.8	0.9	6.5
M6	6	10	16.6	1.7	12.2	15.0	1.5	11.1
M8	8	13	40.0	4.1	29.5	36.0	3.7	26.5
M10	10	17	80.0	8.1	59.0	72.0	7.3	53.1
M12	12	19	139.0	14.2	102.5	125.0	12.7	92.2
M16	16	24	345.0	35.2	254.4	311.0	31.7	229.4
M20	20	30	674.0	68.7	497.1	607.0	61.9	447.7
M24	24	36	1165.0	118.8	859.2	1048.0	106.9	773.0
M30	30	46	2316.0	236.2	1708.2	2084.0	212.5	1537.1
M36	36	55	4049.0	412.9	2986.4	3644.0	371.6	2687.7



Section 1 - General Information Torque Settings

Zinc Plated Fasteners and Dacromet Fasteners

Table 6. Torque Settings - Rivet Nut Bolts/Screws

Bolt Size		Nm	kgf m	lbf ft
ISO Metric Thread	mm			
M3	3	1.2	0.1	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

Table 7. Torque Settings - Internal Hexagon Headed Cap Screws (Zinc)

Bolt Size		Nm	kgf m	lbf ft
ISO Metric Thread				
M3		2.0	0.2	1.5
M4		6.0	0.6	4.5
M5		11.0	1.1	8.0
M6		19.0	1.9	14.0
M8		46.0	4.7	34.0
M10		91.0	9.3	67.0
M12		159.0	16.2	117.0
M16		395.0	40.0	292.0
M18		550.0	56.0	406.0
M20		770.0	79.0	568.0
M24		1332.0	136.0	983.0

Service Tools

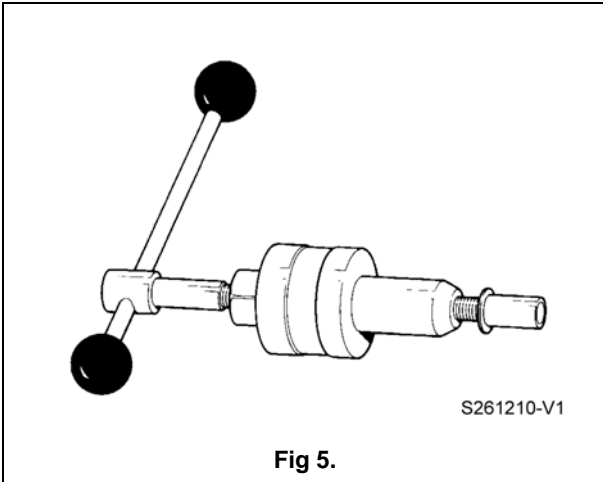
Numerical List Section B - Body and Framework

The tools listed in the table are special tools required for removal and replacement of Body and Framework parts. These tools are available from JCB Service.

Note: Tools other than those listed will be required. It is expected that such general tools will be available in any well equipped workshop or be available locally from any good tool supplier.

Part Number	Description	Tool Detail Reference
825/99849	Dummy Bush	⇒ Fig 16. (□ 1-10)
825/99852	Bearing Locator	⇒ Fig 17. (□ 1-10)
826/01106	M6 x 19mm Rivet Nut	⇒ Fig 5. (□ 1-8)
826/01177	M8 x 18mm Rivet Nut	⇒ Fig 5. (□ 1-8)
826/01176	M10 x 23mm Rivet Nut	⇒ Fig 5. (□ 1-8)
826/01179	M6 x 16mm Rivet Nut	⇒ Fig 5. (□ 1-8)
826/01333	M10 x 26mm Rivet Nut	⇒ Fig 5. (□ 1-8)
892/00842	Glass Lifter	⇒ Fig 7. (□ 1-8)
892/00843	Glass Stand	⇒ Fig 6. (□ 1-8)
892/00844	Long Knife	⇒ Fig 15. (□ 1-10)
892/00846	Glass Extractor (Handles)	⇒ Fig 11. (□ 1-9)
892/00847	Nylon Spatula	⇒ Fig 8. (□ 1-8)
892/00848	Wire Starter	⇒ Fig 10. (□ 1-9)
893/00849	Braided Cutting Wire	⇒ Fig 12. (□ 1-9)s
926/15500	Rubber Spacer Blocks	⇒ Fig 9. (□ 1-9)
992/12800	Cut-Out Knife	⇒ Fig 14. (□ 1-10)
992/12801	'L' Blades	⇒ Fig 13. (□ 1-10)

Section B - Body and Framework

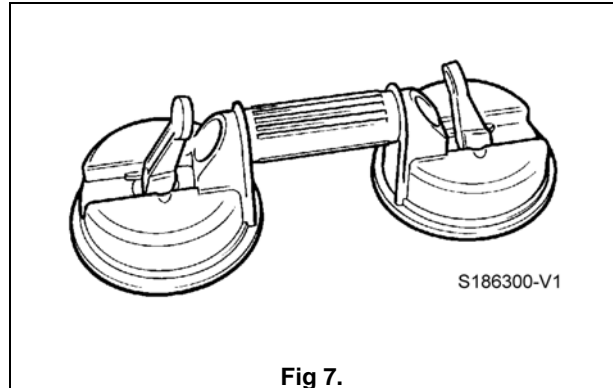


Note: 826/01179 M6 x 16mm Rivet Nut, 826/01106 M6 x 19mm Rivet Nut, 826/01177 M8 x 18mm Rivet Nut, 826/01176 M10 x 23mm Rivet Nut, 826/01333 M10 x 26mm Rivet Nut

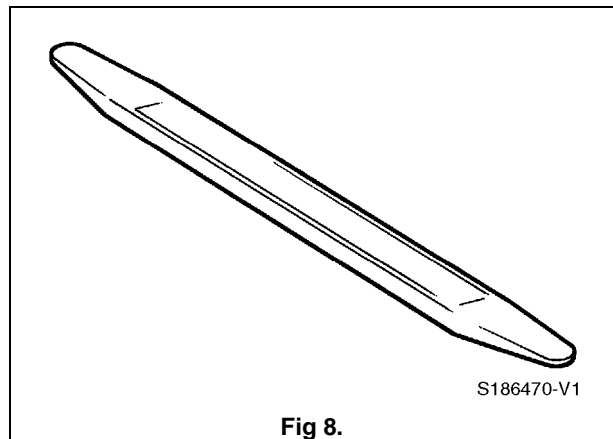
Installation Tool Available from:

Bollhoff Fastenings Ltd.
 Midacre
 The Willenhall Estate
 Rose Hill
 Willenhall
 West Midlands, WV13 2JW

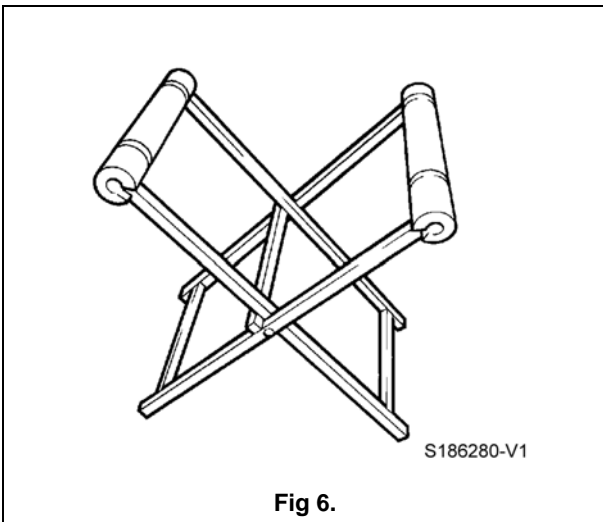
Folding Stand for Holding Glass - essential for preparing new glass prior to installation.



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



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.



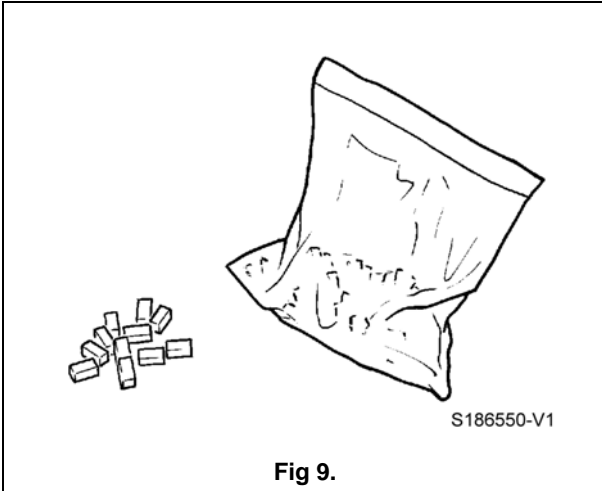


Fig 9.

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

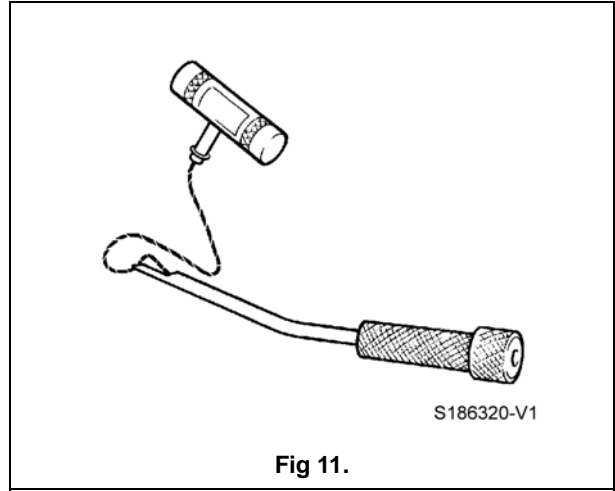


Fig 11.

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

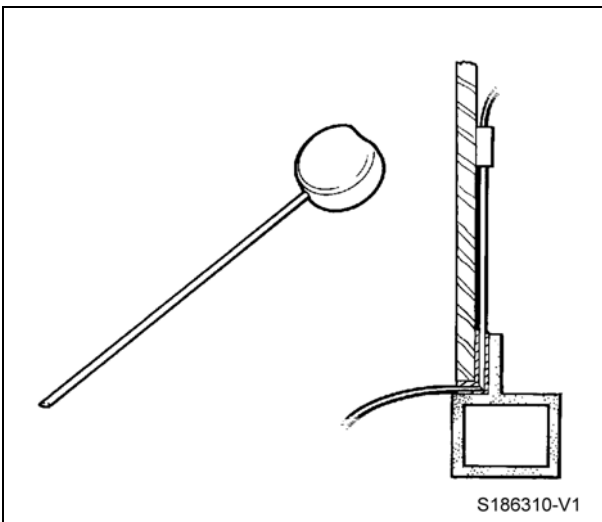


Fig 10.

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

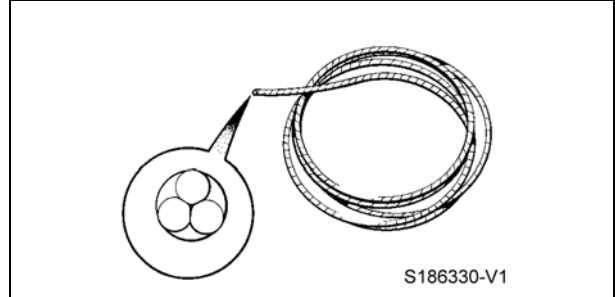
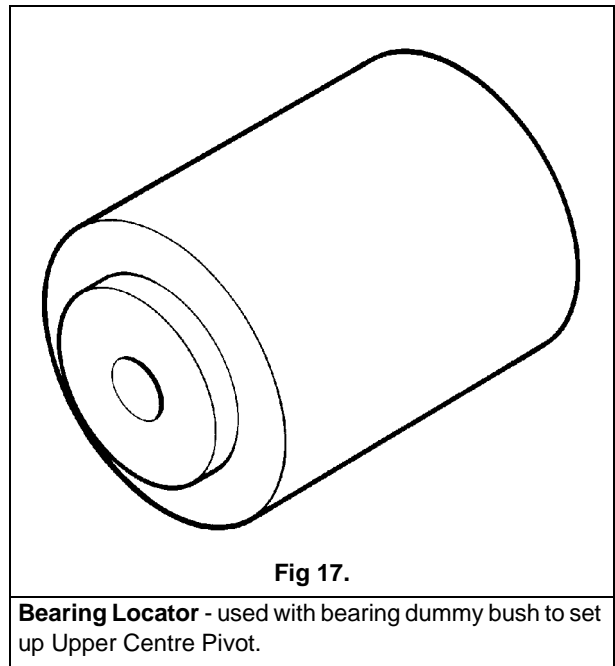
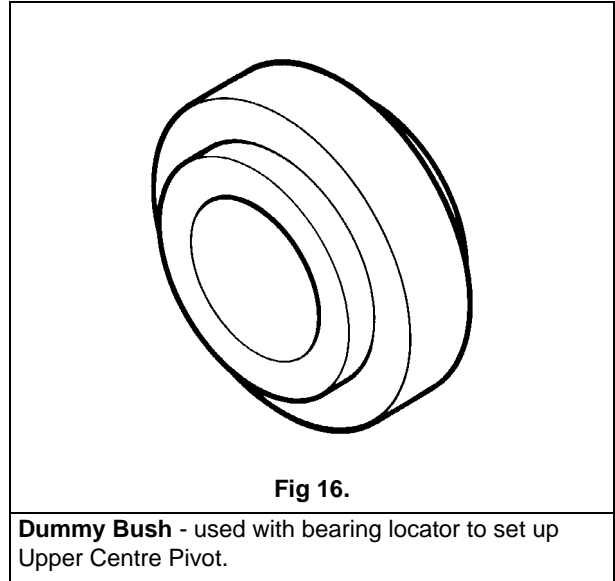
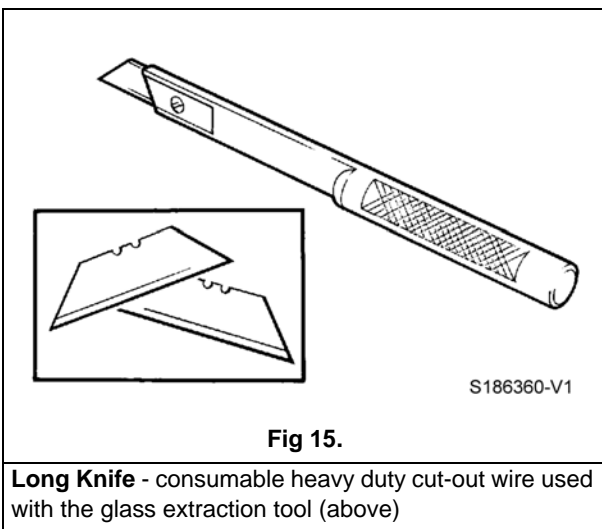
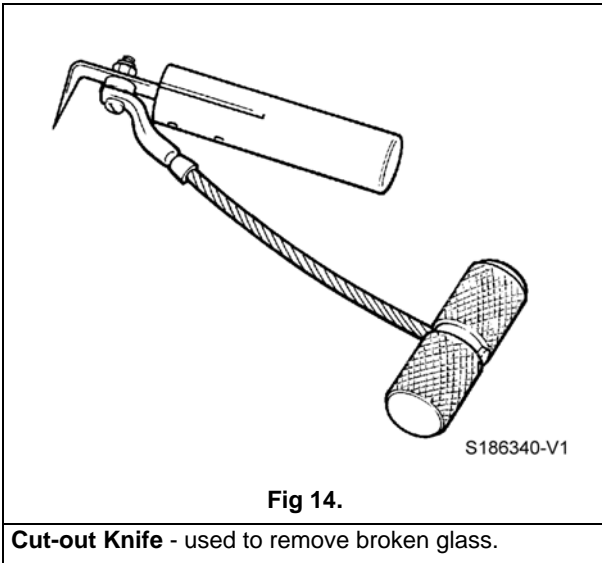
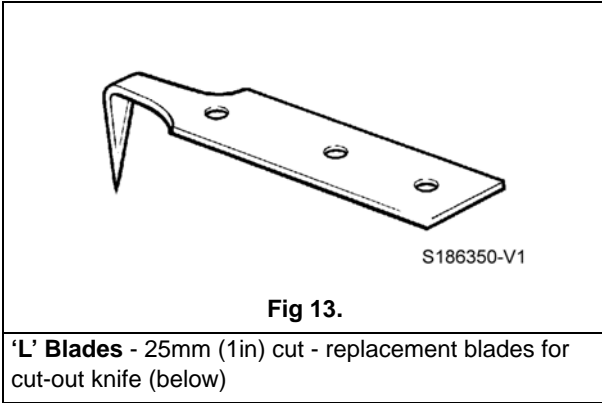


Fig 12.

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





Numerical List Section C - Electrics

The tools listed in the table are special tools required for testing electrics. These tools are available from JCB Service.

Note: *Tools other than those listed will be required. It is expected that such general tools will be available in any well equipped workshop or be available locally from any good tool supplier.*

Part Number	Description	Tool Detail Reference
892/00282	Shunt	⇒ Fig 18. (□ 1-12)
892/00283	Tool Kit Case	⇒ Fig 18. (□ 1-12)
892/00284	Digital Tachometer	⇒ Fig 18. (□ 1-12)
892/00285	Hyd. Oil Temperature Probe	⇒ Fig 18. (□ 1-12)
892/00286	Surface Temperature Probe	⇒ Fig 18. (□ 1-12)
892/00298	Fluke Meter	⇒ Fig 18. (□ 1-12)
892/01033	Diagnostic Lead	⇒ Fig 20. (□ 1-12)

Section C - Electrics

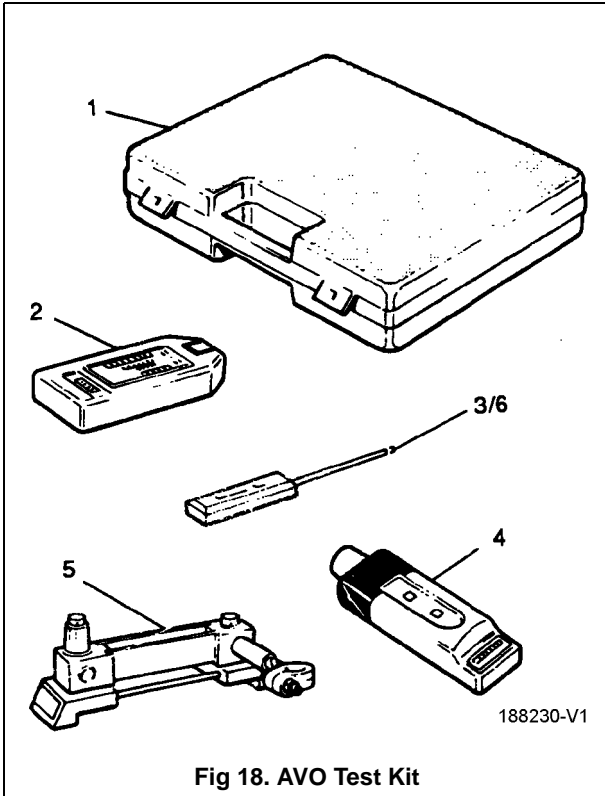


Fig 18. AVO Test Kit

1	892/00283 Tool Kit Case
2	892/00298 Fluke Meter
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

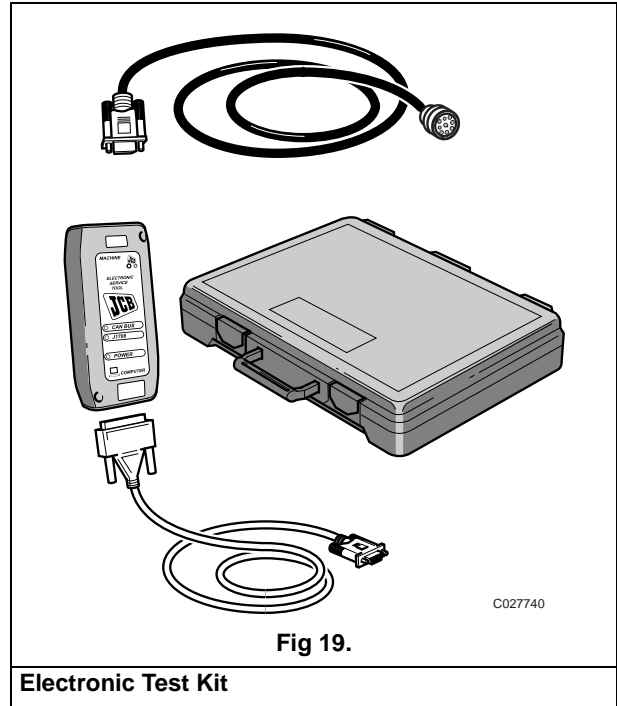


Fig 19.
Electronic Test Kit

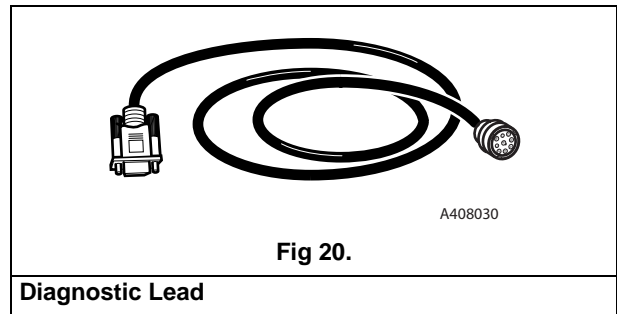


Fig 20.
Diagnostic Lead

Numerical List Section E - Hydraulics

The tools listed in the table are special tools required for testing, removing and replacing hydraulics. These tools are available from JCB Service.

Note: Tools other than those listed will be required. It is expected that such general tools will be available in any well equipped workshop or be available locally from any good tool supplier.

Part Number	Description	Tool Detail Reference
1406/0011	Bonded Washer	⇒ Fig 24. (□ 1-15)
1406/0014	Bonded Washer	⇒ Fig 24. (□ 1-15)
1406/0018	Bonded Washer	⇒ Fig 24. (□ 1-15)
1406/0021	Bonded Washer	⇒ Fig 24. (□ 1-15)
1406/0029	Bonded Washer	⇒ Fig 24. (□ 1-15)
816/00189	Blanking Cap	⇒ Fig 25. (□ 1-16)
816/00190	Blanking Cap	⇒ Fig 25. (□ 1-16)
816/00193	Blanking Cap	⇒ Fig 25. (□ 1-16)
816/00196	Blanking Cap	⇒ Fig 25. (□ 1-16)
816/00197	Blanking Cap	⇒ Fig 25. (□ 1-16)
816/00294	Blanking Cap	⇒ Fig 25. (□ 1-16)
816/15118	Pressure Test Adapter	⇒ Fig 22. (□ 1-15)
816/55038	Pressure Test Adapter	⇒ Fig 22. (□ 1-15)
816/55040	Pressure Test Adapter	⇒ Fig 22. (□ 1-15)
892/00055	Blanking Plug	⇒ Fig 23. (□ 1-15)
892/00056	Blanking Plug	⇒ Fig 23. (□ 1-15)
892/00057	Blanking Plug	⇒ Fig 23. (□ 1-15)
892/00058	Blanking Plug	⇒ Fig 23. (□ 1-15)
892/00059	Blanking Plug	⇒ Fig 23. (□ 1-15)
892/00060	Blanking Plug	⇒ Fig 23. (□ 1-15)
892/00137	Micro-Bore Hose	⇒ Fig 29. (□ 1-16)
892/00167	Ram Seal Protection Sleeve	⇒ Fig 32. (□ 1-17)
892/00180	Seal Fitting Tool	⇒ Fig 30. (□ 1-17)
892/00181	Replacement Plastic Boss for 892/00180	⇒ Fig 30. (□ 1-17)
892/00223	Hand Pump	⇒ Fig 29. (□ 1-16)
892/00253	Pressure Test Kit	⇒ Fig 21. (□ 1-15)
892/00255	Pressure Test Adaptor	⇒ Fig 26. (□ 1-16)
892/00256	Pressure Test Adaptor	⇒ Fig 26. (□ 1-16)
892/00257	Pressure Test Adaptor	⇒ Fig 26. (□ 1-16)
892/00258	Pressure Test Adaptor	⇒ Fig 26. (□ 1-16)
892/00259	Pressure Test Adaptor	⇒ Fig 26. (□ 1-16)



Section 1 - General Information Service Tools

Numerical List Section E - Hydraulics

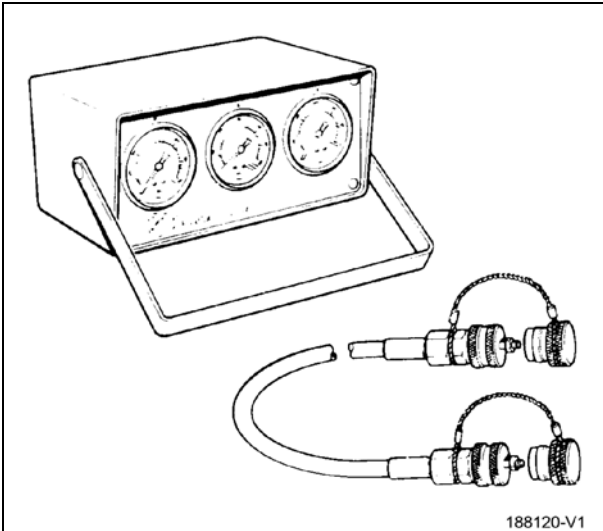
Part Number	Description	Tool Detail Reference
892/00260	Pressure Test Adaptor	⇒ Fig 26. (□ 1-16)
892/00261	Pressure Test Adaptor	⇒ Fig 26. (□ 1-16)
892/00262	Pressure Test Adaptor	⇒ Fig 22. (□ 1-15)
892/00263	Pressure Test Adaptor	⇒ Fig 22. (□ 1-15)
892/00264	Pressure Test Adaptor	⇒ Fig 22. (□ 1-15)
892/00265	Pressure Test Adaptor	⇒ Fig 22. (□ 1-15)
892/00279	Gauge	⇒ Fig 29. (□ 1-16)
892/00334	Ram Seal Fitting Tool	⇒ Fig 28. (□ 1-16)
892/00706	Test Probe	⇒ Fig 29. (□ 1-16)
892/01016	Ram Protection Sleeve	⇒ Fig 32. (□ 1-17)
892/01017	Ram Protection Sleeve	⇒ Fig 32. (□ 1-17)
892/01018	Ram Protection Sleeve	⇒ Fig 32. (□ 1-17)
892/01019	Ram Protection Sleeve	⇒ Fig 32. (□ 1-17)
892/01021	Ram Protection Sleeve	⇒ Fig 32. (□ 1-17)
892/01023	Ram Protection Sleeve	⇒ Fig 32. (□ 1-17)
892/01024	Ram Protection Sleeve	⇒ Fig 32. (□ 1-17)
892/01025	Ram Protection Sleeve	⇒ Fig 32. (□ 1-17)
892/01026	Ram Protection Sleeve	⇒ Fig 32. (□ 1-17)
992/09300	55mm A/F Hexagon Spanner for Ram Pistons and End Caps	⇒ Fig 27. (□ 1-16)
992/09400	65mm A/F Hexagon Spanner for Ram Pistons and End Caps	⇒ Fig 27. (□ 1-16)
992/09500	75mm A/F Hexagon Spanner for Ram Pistons and End Caps	⇒ Fig 27. (□ 1-16)
992/09600	85mm A/F Hexagon Spanner for Ram Pistons and End Caps	⇒ Fig 27. (□ 1-16)
992/09700	95mm A/F Hexagon Spanner for Ram Pistons and End Caps	⇒ Fig 27. (□ 1-16)
992/09900	115mm A/F Hexagon Spanner for Ram Pistons and End Caps	⇒ Fig 27. (□ 1-16)
992/10000	125mm A/F Hexagon Spanner for Ram Pistons and End Caps	⇒ Fig 27. (□ 1-16)

The following parts are replacement items for kits and would normally be included in the kit numbers above.

Replacement items for kit no. 892/00253

Part Number	Description	Tool Detail Reference
892/00201	Replacement Gauge	⇒ Fig 21. (□ 1-15)
892/00202	Replacement Gauge	⇒ Fig 21. (□ 1-15)
892/00203	Replacement Gauge	⇒ Fig 21. (□ 1-15)
892/00254	Replacement Hose	⇒ Fig 21. (□ 1-15)

Section E - Hydraulics

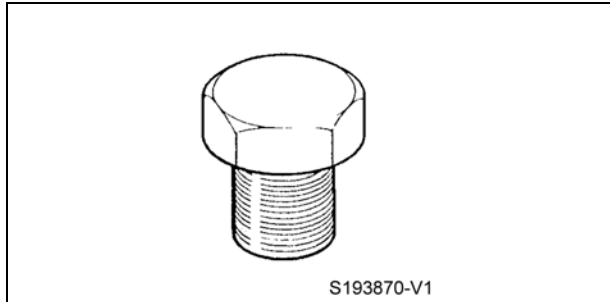


188120-V1

Fig 21. 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

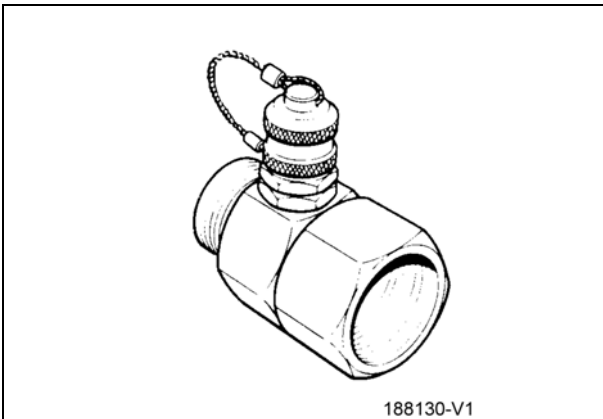
816/55038 3/8 in M BSP x 3/8 in F BSP x Test Point
816/55040 1/2 in M BSP x 1/2 in F BSP x Test Point
892/00263 5/8 in BSP x 5/8 in F BSP x Test Point
892/00264 3/4 in BSP x 3/4 in F BSP x Test Point
892/00265 1 in M BSP x 1 in F BSP x Test Point



S193870-V1

Fig 23. Female Cone Blanking Cap

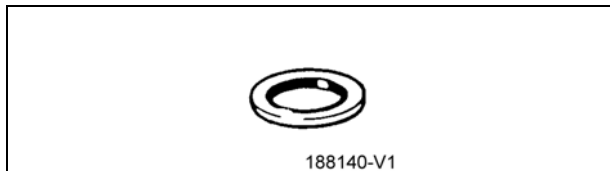
892/00055 1/4 in BSP
892/00056 3/8 in BSP
892/00057 1/2 in BSP
892/00058 5/8 in BSP
892/00059 3/4 in BSP
892/00060 1 in BSP



188130-V1

Fig 22. Pressure Test 'T' Adapters

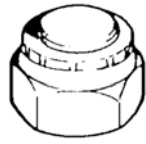
892/00262 1/4 in BSP x 1/4 in F BSP x Test Point
--



188140-V1

Fig 24. Bonded Washers

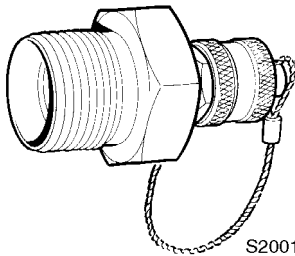
1406/0011 1/4 in BSP
1406/0018 1/2 in BSP
1406/0014 5/8 in BSP
1406/0021 3/4 in BSP
1406/0029 1.1/4 in BSP



S193880-V1

Fig 25. Male Cone Blanking Cap

816/00294 1/4 in BSP
816/00189 3/8 in BSP
816/00190 1/2 in BSP
816/00197 5/8 in BSP
816/00196 3/4 in BSP
816/00193 1 in BSP



S200140-V1

Fig 26. 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
816/15118 3/4 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

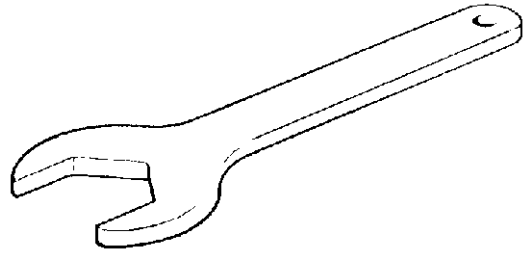


Fig 27. Hexagon Spanners

992/09300 55mm A/F
992/09400 65mm A/F
992/09500 75mm A/F
992/09600 85mm A/F
992/09700 95mm A/F
992/09900 115mm A/F
992/10000 125mm A/F

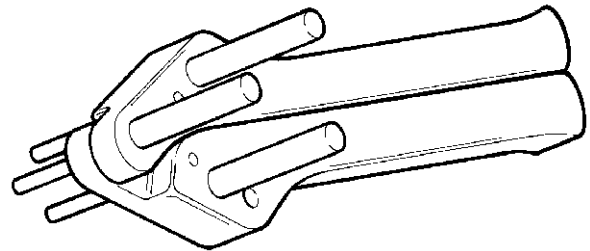
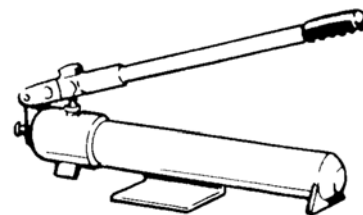


Fig 28. Ram Seal Fitting Tool

892/00334



S193850-V1

Fig 29. Hand Pump Equipment

892/00223 Hand Pump
892/00137 Micro-bore Hose 1/4 in BSP x 5 metres

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