

Fastrac 2155 and 2170

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General Information

Service Manual - Fastrac 2155 and 2170

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Section 1 - General Information

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Identifying the Machine

Serial Numbers

Serial Number Plate

Each machine has a serial number plate located at **X**. The 17 digit Vehicle Identification Number (VIN), and the serial numbers of the engine and transmission are stamped on the plate.

60 = 60 kph

E **Authenticity Code**

F **Year Code** (e.g. 7 = 2007)

G **Serial number**

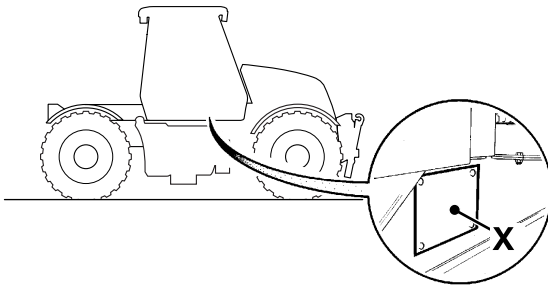


Fig 1.

Typical Vehicle Identification No. (VIN)



Fig 2.

A Manufacturing code

B Engine type

25 = 2170

26 = 2155

C Transmission type (gearbox & axle combination)

H = 60 kph

D Vehicle max. speed

40 = 40 kph

50 = 50 kph

Unit Identification

The serial number of each major unit is also stamped on the unit itself as shown below. If a major unit is replaced by a new one, the serial number on the 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.

Engine	M
Gearbox assembly (all three gearboxes)	N
Speed Gearbox	P
Front axle	R
Rear axle	S

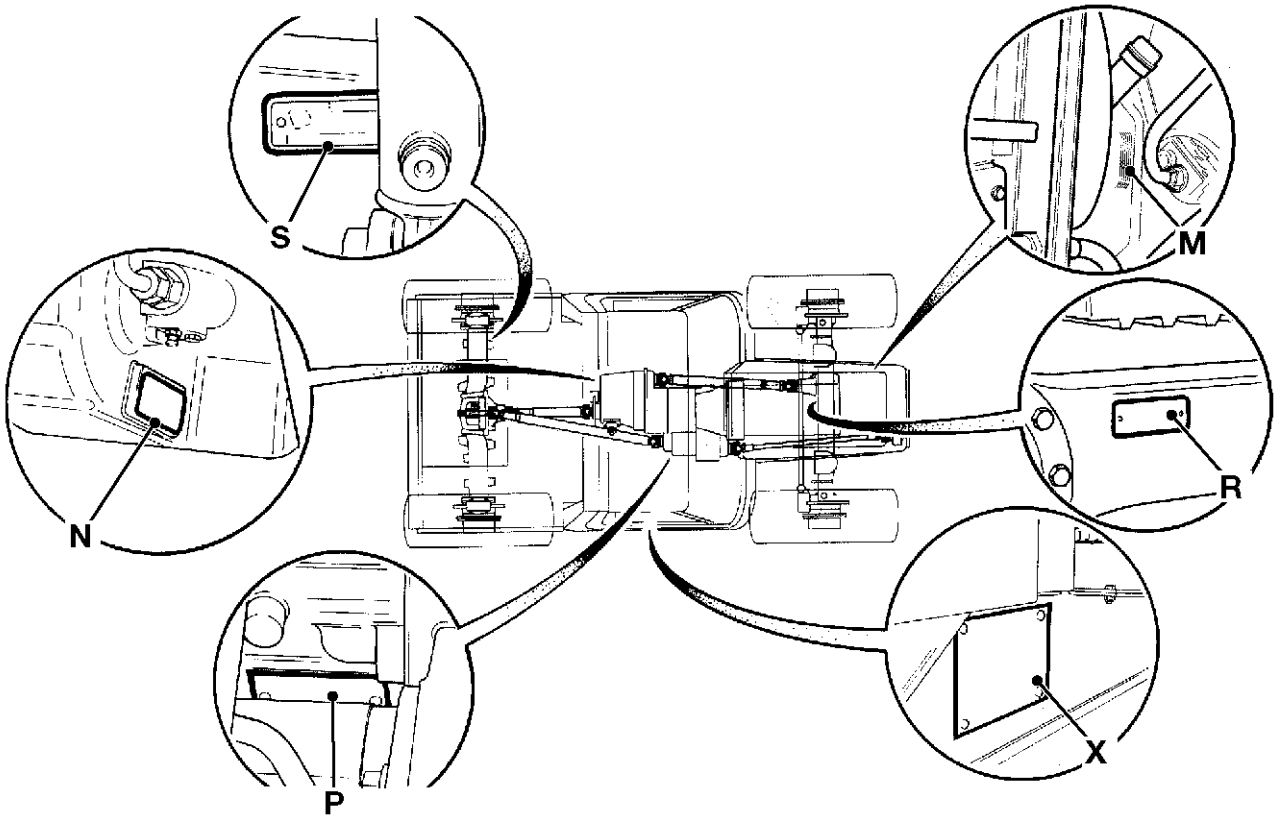


Fig 3.

Special Tools

Numerical List

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
1406/0011	Bonded Washer	⇒ Fig 39. (□ 1-19)
1406/0014	Bonded Washer	⇒ Fig 39. (□ 1-19)
1406/0018	Bonded Washer	⇒ Fig 39. (□ 1-19)
1406/0021	Bonded Washer	⇒ Fig 39. (□ 1-19)
1406/0029	Bonded Washer	⇒ Fig 39. (□ 1-19)
1604/0003A	Adapter	⇒ Fig 32. (□ 1-18)
1604/0004A	Adapter	⇒ Fig 32. (□ 1-18)
1604/0006A	Adapter	⇒ Fig 40. (□ 1-20)
1604/2055	Adapter	⇒ Fig 32. (□ 1-18)
1606/0004	Adapter	⇒ Fig 32. (□ 1-18)
1606/0007A	Adapter	⇒ Fig 32. (□ 1-18)
1606/0008	Adapter	⇒ Fig 32. (□ 1-18)
1606/0009	Adapter	⇒ Fig 32. (□ 1-18)
1606/0012	Adapter	⇒ Fig 32. (□ 1-18)
1606/0014	Adapter	⇒ Fig 32. (□ 1-18)
1606/0015	Adapter	⇒ Fig 32. (□ 1-18)
1606/0016	Adapter	⇒ Fig 32. (□ 1-18)
1606/0017	Adapter	⇒ Fig 32. (□ 1-18)
1606/2052	Adapter	⇒ Fig 32. (□ 1-18)
1612/2054	Adapter	⇒ Fig 40. (□ 1-20)
4104/1310	Hand Cleaner	⇒ Fig 3. (□ 1-9)
718/20323	Connecting Lead	⇒ Fig 27. (□ 1-15)
718'20324	Connecting Lead	⇒ Fig 28. (□ 1-15)
721/10664	Connecting Lead	⇒ Fig 29. (□ 1-15)
816/00017	Adapter	⇒ Fig 35. (□ 1-19)
816/00189A	Blanking Cap	⇒ Fig 37. (□ 1-19)
816/00190A	Blanking Cap	⇒ Fig 37. (□ 1-19)
816/00439	Adapter	⇒ Fig 32. (□ 1-18)



Section 1 - General Information Special Tools

Numerical List

Part Number	Description	Tool Detail Reference
816/00440	Adapter	⇒ Fig 32. (□ 1-18)
816/15007A	Adapter	⇒ Fig 32. (□ 1-18)
816/15008	Adapter	⇒ Fig 32. (□ 1-18)
816/15118	Adapter	⇒ Fig 33. (□ 1-18)
816/20008	Adapter	⇒ Fig 40. (□ 1-20)
816/20013	Adapter	⇒ Fig 40. (□ 1-20)
816/50005	Adapter	⇒ Fig 35. (□ 1-19)
816/50043	Adapter	⇒ Fig 35. (□ 1-19)
816/55038	Adapter	⇒ Fig 34. (□ 1-18)
816/55040	Adapter	⇒ Fig 34. (□ 1-18)
816/55045	Adapter	⇒ Fig 34. (□ 1-18)
816/60096	Adapter	⇒ Fig 35. (□ 1-19)
816/90022	Blanking Cap	⇒ Fig 37. (□ 1-19)
816/90045	Blanking Cap	⇒ Fig 37. (□ 1-19)
816/90205	Blanking Cap	⇒ Fig 37. (□ 1-19)
816/90274	Blanking Cap	⇒ Fig 37. (□ 1-19)
826/01099	Rivet Nut	⇒ Fig 2. (□ 1-8)
826/01101	Rivet Nut	⇒ Fig 2. (□ 1-8)
826/01102	Rivet Nut	⇒ Fig 2. (□ 1-8)
826/01103	Rivet Nut	⇒ Fig 2. (□ 1-8)
826/01104	Rivet Nut	⇒ Fig 2. (□ 1-8)
826/01105A	Rivet Nut	⇒ Fig 2. (□ 1-8)
892/00047	Adapter	⇒ Fig 35. (□ 1-19)
892/00048	Adapter	⇒ Fig 35. (□ 1-19)
892/00049	Adapter	⇒ Fig 35. (□ 1-19)
892/00055A	Blanking Cap	⇒ Fig 36. (□ 1-19)
892/00056A	Blanking Cap	⇒ Fig 36. (□ 1-19)
892/00057	Blanking Cap	⇒ Fig 36. (□ 1-19)
892/00058A	Blanking Cap	⇒ Fig 36. (□ 1-19)
892/00059A	Blanking Cap	⇒ Fig 36. (□ 1-19)
892/00060	Blanking Cap	⇒ Fig 36. (□ 1-19)
892/00051	Adapter	⇒ Fig 35. (□ 1-19)
892/00074	Connector	⇒ Fig 38. (□ 1-19)
892/00075	Connector	⇒ Fig 38. (□ 1-19)
892/00076	Connector	⇒ Fig 38. (□ 1-19)
892/00077	Connector	⇒ Fig 38. (□ 1-19)
892/00078	Connector	⇒ Fig 40. (□ 1-20)



Section 1 - General Information Special Tools

Numerical List

Part Number	Description	Tool Detail Reference
892/00137	Hose	⇒ Fig 43. (□ 1-21)
892/00174	Measuring Cup	⇒ Fig 48. (□ 1-22)
892/00179	Bearing Press	⇒ Fig 65. (□ 1-25)
892/00201	Replacement Gauge	⇒ Fig 41. (□ 1-20)
892/00202	Replacement Gauge	⇒ Fig 41. (□ 1-20)
892/00203	Replacement Gauge	⇒ Fig 41. (□ 1-20)
892/00223	Hand Pump	⇒ Fig 43. (□ 1-21)
892/00224	Impulse Extractor	⇒ Fig 49. (□ 1-22)
892/00225	Adapter for Impulse Extractor	⇒ Fig 50. (□ 1-22)
892/00254	Replacement Hose	⇒ Fig 42. (□ 1-21)
892/00255	Adapter	⇒ Fig 33. (□ 1-18)
892/00256	Adapter	⇒ Fig 33. (□ 1-18)
892/00257	Adapter	⇒ Fig 33. (□ 1-18)
892/00258	Adapter	⇒ Fig 33. (□ 1-18)
892/00259	Adapter	⇒ Fig 33. (□ 1-18)
892/00260	Adapter	⇒ Fig 33. (□ 1-18)
892/00261	Adapter	⇒ Fig 33. (□ 1-18)
892/00262	Adapter	⇒ Fig 43. (□ 1-21)
892/00263	Adapter	⇒ Fig 34. (□ 1-18)
892/00264	Adapter	⇒ Fig 34. (□ 1-18)
892/00265	Adapter	⇒ Fig 34. (□ 1-18)
892/00266	Adapter	⇒ Fig 34. (□ 1-18)
892/00267	Adapter	⇒ Fig 34. (□ 1-18)
892/00268	Flow Monitoring Unit	⇒ Fig 40. (□ 1-20)
892/00269	Sensor Head	⇒ Fig 40. (□ 1-20)
892/00270	Load Valve	⇒ Fig 40. (□ 1-20)
892/00271	Adapter	⇒ Fig 40. (□ 1-20)
892/00272	Adapter	⇒ Fig 40. (□ 1-20)
892/00273	Sensor Head	⇒ Fig 40. (□ 1-20)
892/00274	Adapter	⇒ Fig 40. (□ 1-20)
892/00275	Adapter	⇒ Fig 40. (□ 1-20)
892/00276	Adapter	⇒ Fig 40. (□ 1-20)
892/00277	Adapter	⇒ Fig 40. (□ 1-20)
892/00278	Gauge	⇒ Fig 43. (□ 1-21)
892/00279	Gauge	⇒ Fig 42. (□ 1-21)
892/00280	Gauge	⇒ Fig 42. (□ 1-21)
892/00284	Tachometer	⇒ Fig 24. (□ 1-14)

Part Number	Description	Tool Detail Reference
892/00285	Hydraulic Oil Temperature Probe	⇒ Fig 23. (□ 1-14)
892/00293	Connector Pipe	⇒ Fig 40. (□ 1-20)
892/00298	Fluke Meter	⇒ Fig 22. (□ 1-14)
892/00311	Brake Test Kit	⇒ Fig 68. (□ 1-27)
892/00312	Dummy End Plate	⇒ Fig 51. (□ 1-23)
892/00314	Accumulator and Gas Spring Pressure Test Adapter	⇒ Fig 70. (□ 1-27)
892/00318	Hose and Adapter Kit	⇒ Fig 44. (□ 1-21)
892/00333	Heavy Duty Socket, 19 mm A/F	⇒ Fig 47. (□ 1-22)
892/00347	Connector	⇒ Fig 41. (□ 1-20)
892/00706	Test Probe	⇒ Fig 43. (□ 1-21)
892/00801	Clutch Spanner	⇒ Fig 17. (□ 1-12)
892/00802	Rotor Puller Set	⇒ Fig 19. (□ 1-12)
892/00803	Rotor Installer Set	⇒ Fig 21. (□ 1-13)
892/00807	Front Plate Puller	⇒ Fig 18. (□ 1-12)
892/00808	Shaft Protector	⇒ Fig 20. (□ 1-12)
892/00812	Drive Coupling Spanner	⇒ Fig 45. (□ 1-22)
892/00817	Heavy Duty Socket, 17 mm A/F	⇒ Fig 47. (□ 1-22)
892/00818	Heavy Duty Socket, 22mm A/F	⇒ Fig 47. (□ 1-22)
892/00819	Heavy Duty Socket, 15 mm A/F	⇒ Fig 47. (□ 1-22)
892/00842	Glass Lifter	⇒ Fig 8. (□ 1-10)
892/00843	Folding Stand	⇒ Fig 6. (□ 1-9)
892/00844	Long Knife	⇒ Fig 14. (□ 1-11)
892/00845	Cartridge Gun	⇒ Fig 4. (□ 1-9)
892/00846	Glass Extractor	⇒ Fig 11. (□ 1-11)
892/00847	Nylon Spatula	⇒ Fig 15. (□ 1-12)
892/00848	Wire Starter	⇒ Fig 9. (□ 1-10)
892/00849	Braided Cutting Wire	⇒ Fig 13. (□ 1-11)
892/00892	Speed Gearbox Locking Tool	⇒ Fig 53. (□ 1-23)
892/00916	Spring Compressor	⇒ Fig 54. (□ 1-23)
892/00918	Setting Tool Kit	⇒ Fig 55. (□ 1-23)
892/00945	Sleeve for M30 Pinion	⇒ Fig 55. (□ 1-23)
892/01074	Data Link Adapter Kit	⇒ Fig 25. (□ 1-14)
892/01045	Peg Socket - wet clutch	⇒ Fig 60. (□ 1-24)
892/01046	Mandrel - wet clutch	⇒ Fig 61. (□ 1-24)
892/01047	Jig - wet clutch	⇒ Fig 62. (□ 1-25)
892/01048	Clutch Pack Retainer - wet clutch	⇒ Fig 64. (□ 1-25)
892/01049	Guide Rod - Wet Clutch	⇒ Fig 59. (□ 1-24)



Section 1 - General Information Special Tools

Numerical List

Part Number	Description	Tool Detail Reference
892/01050	Mandrel - Wet Clutch	⇒ Fig 63. (□ 1-25)
892/01051	Intermediate Gear Retaining Tool - Wet Clutch Transmission	⇒ Fig 58. (□ 1-24)
892/01052	Locking Plate - Wet Clutch	⇒ Fig 57. (□ 1-24)
892/01053	Adapter for impulse extractor (PTO intermediate shaft, wet clutch transmission)	⇒ Fig 49. (□ 1-22)
892/01066	Combination Lead	⇒ Fig 30. (□ 1-16)
892/10885	Connecting Lead	⇒ Fig 26. (□ 1-15)
992/12300	Mobile Oven	⇒ Fig 5. (□ 1-9)
992/12400	Static Oven	⇒ Fig 7. (□ 1-10)
992/12600	Static Oven	⇒ Fig 7. (□ 1-10)
992/12800	Cut-out Knife	⇒ Fig 10. (□ 1-10)
992/12801	'L' Blades	⇒ Fig 12. (□ 1-11)
992/15500	Rubber Spacer Blocks	⇒ Fig 16. (□ 1-12)
993/45400	Torque Multiplier	⇒ Fig 46. (□ 1-22)
993/59300	2/4WD Pressure Test Adapter and Clamp	⇒ Fig 52. (□ 1-23)
993/68101	Slide Hammer	⇒ Fig 1. (□ 1-8)
993/68102	End Stops	⇒ Fig 1. (□ 1-8)
993/68103	Adapter	⇒ Fig 1. (□ 1-8)
993/68104	Adapter	⇒ Fig 1. (□ 1-8)
993/68105	Adapter	⇒ Fig 1. (□ 1-8)
993/68106	Adapter	⇒ Fig 1. (□ 1-8)
993/68107	Bar	⇒ Fig 1. (□ 1-8)
993/68108	Adapter	⇒ Fig 1. (□ 1-8)
993/68109	Adapter	⇒ Fig 1. (□ 1-8)
993/68110	Adapter	⇒ Fig 1. (□ 1-8)
993/68111	Adapter	⇒ Fig 1. (□ 1-8)
993/69800	Seal Kit	⇒ Fig 41. (□ 1-20)

Tool Detail Reference

Section B - Body and Framework

Note: Not all service tools are illustrated.

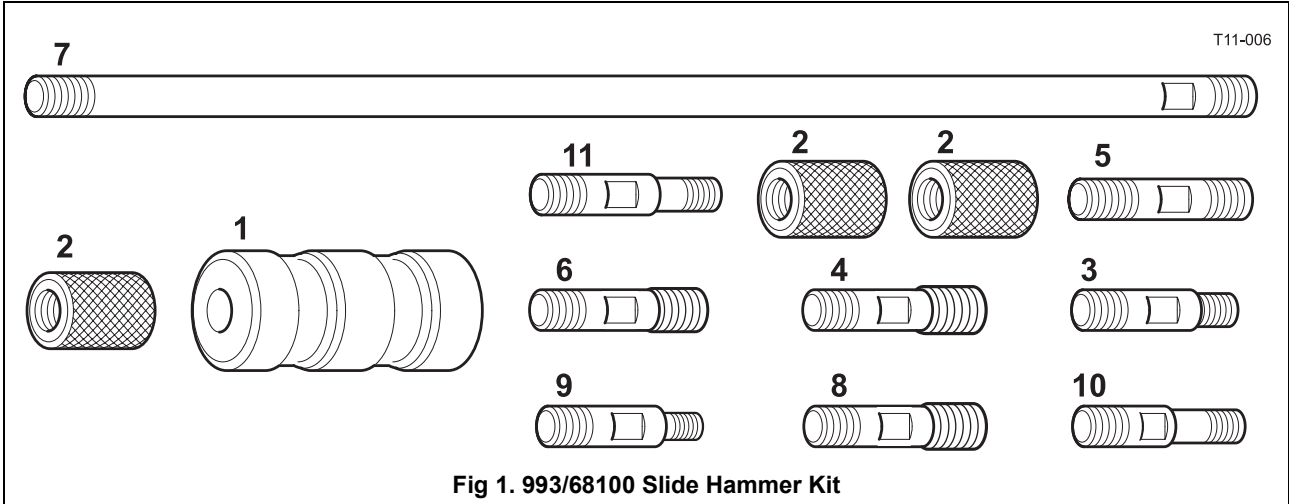


Fig 1. 993/68100 Slide Hammer Kit

1	993/68101	Slide Hammer	7	993/68107	Bar - M20 x M20 X 800 mm
2	993/68102	End Stops	8	993/68108	Adaptor - M20 x 7/8" UNF
3	993/68103	Adaptor - M20 x 5/8" UNF	9	993/68109	Adaptor - M20 x M12
4	993/68104	Adaptor - M20 x 1" UNF	10	993/68110	Adaptor - M20 x 5/8" UNF (Shoulder)
5	993/68105	Adaptor - M20 x M20	11	993/68111	Adaptor - M20 x 1/2" UNF
6	993/68106	Adaptor - M20 x M24			

	1	826/01099	M6 x 16 mm Rivet Nut
		826/01101	M6 x 19 mm Rivet Nut
		826/01102	M8 x 18 mm Rivet Nut
		826/01103	M8 x 21 mm Rivet Nut
		826/01104	M10 x 23 mm Rivet Nut
		826/01105A	M10 x 26 mm Rivet Nut
	2	-	Installation Tool available from: Bollhoff Fastenings Ltd (www.bollhoff.com)

Fig 2. Rivet Nut Tool

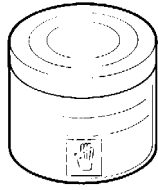


Fig 3.

Hand Cleaner - special blend for the removal of polyurethane adhesives.

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

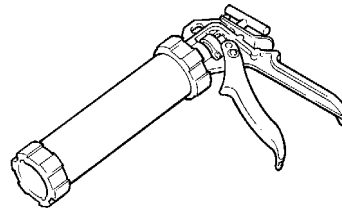


Fig 4.

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

JCB part number - 892/00845

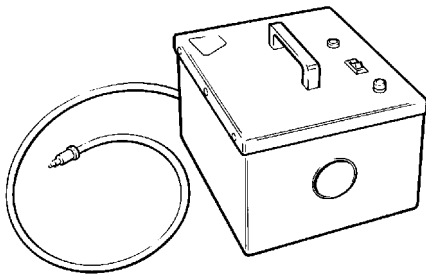


Fig 5.

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

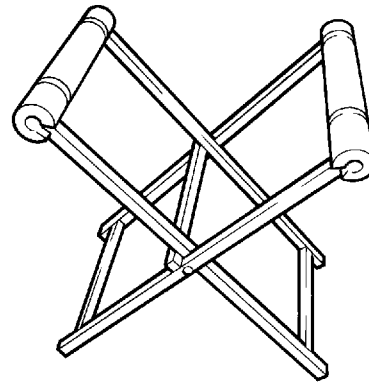


Fig 6.

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

JCB part number - 892/00843

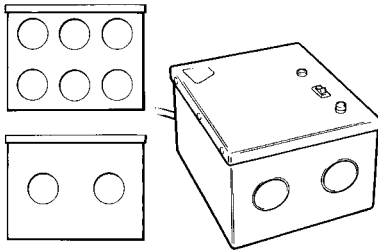


Fig 7.

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 240V9

992/12600 - 6 Cartridge x 240V

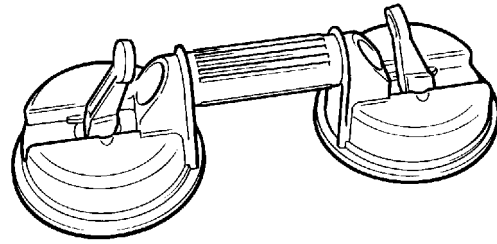


Fig 8.

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

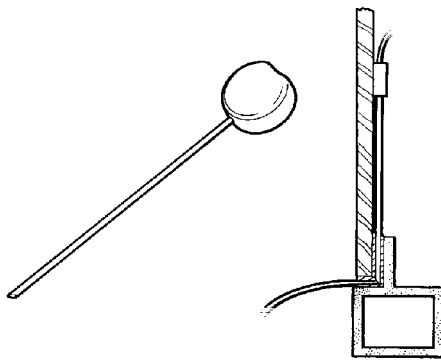


Fig 9.

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

JCB part number - 892/00848

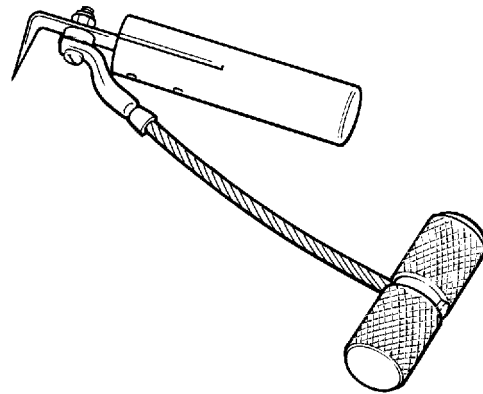


Fig 10.

Cut-Out Knife - used to remove broken glass.

JCB part number - 992/12800

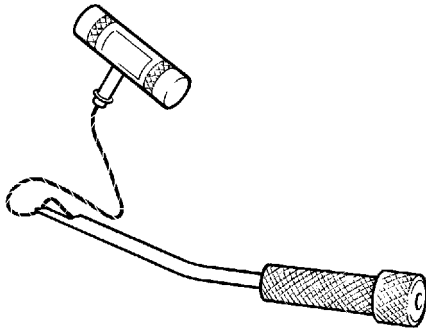


Fig 11.

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

JCB part number - 892/00846

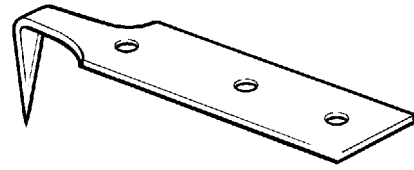


Fig 12.

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

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

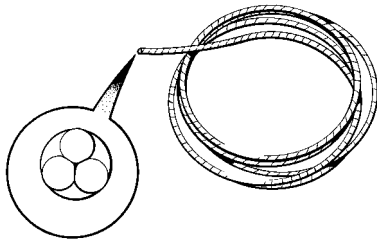


Fig 13.

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)

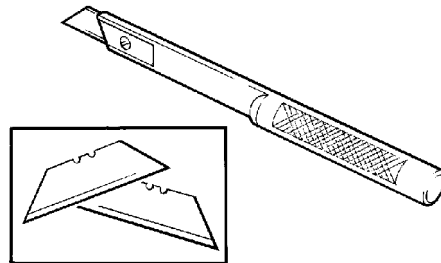


Fig 14.

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

JCB part number - 892/00844

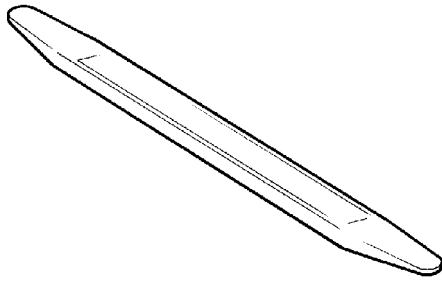


Fig 15.

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

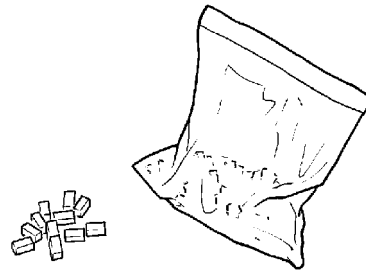


Fig 16.

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)

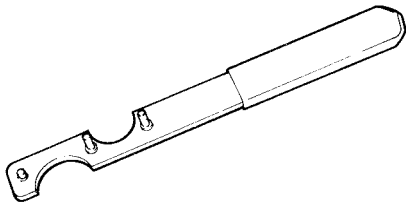


Fig 17.

892/00801 Clutch Spanner for air conditioning compressor

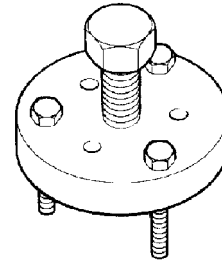


Fig 18.

892/00807 Font Plate Puller for air conditioning compressor

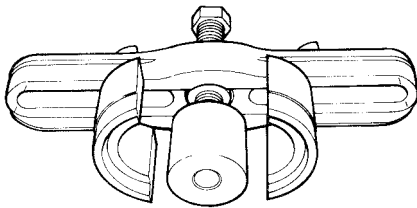


Fig 19.

892/00802 Rotor Puller Set for air conditioning compressor



Fig 20.

892/00808 Shaft Protector for air conditioning compressor

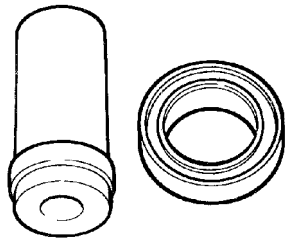
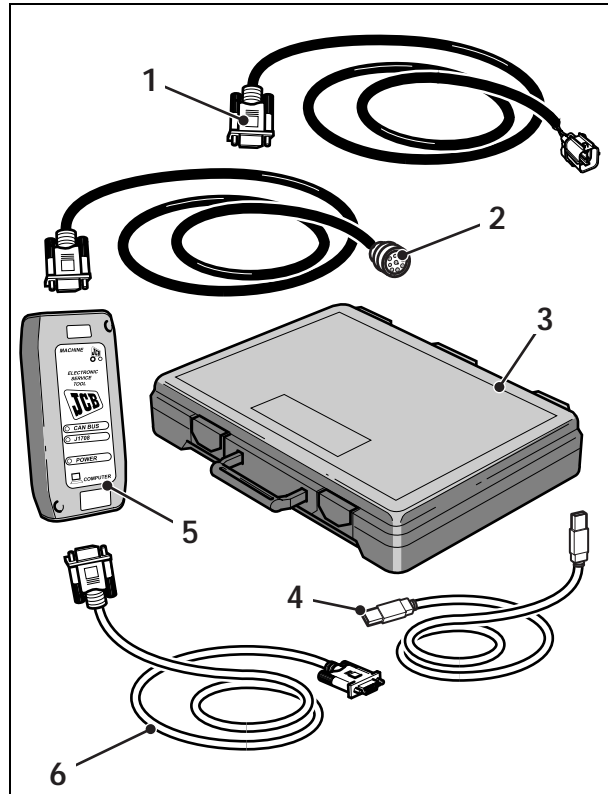
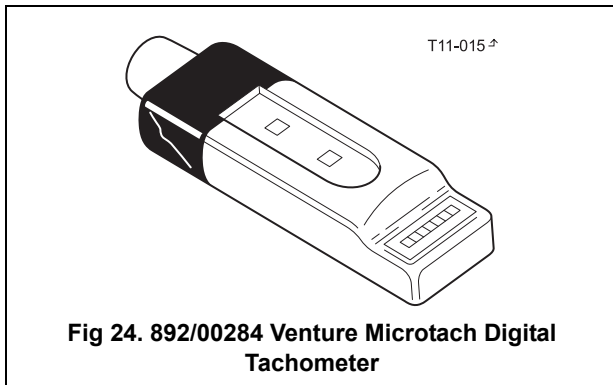
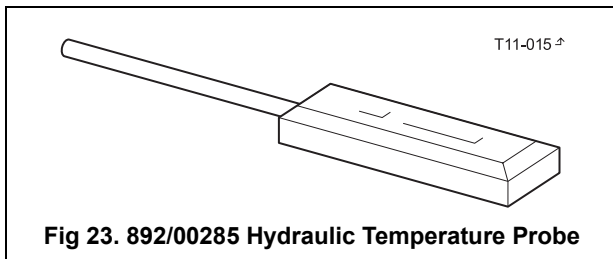
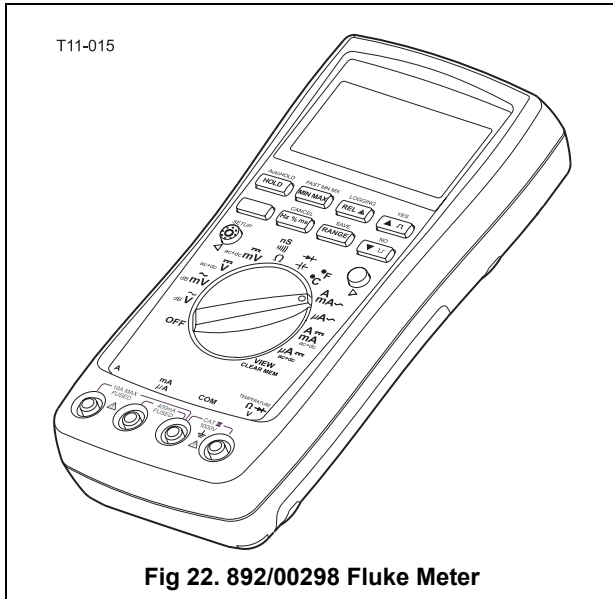


Fig 21.

892/00803 Rotor Installer Set for air conditioning compressor

Section C - Electrics



1	Interconnecting cable, DLA to machine ECU diagnostics socket - 721/10472.
2	Interconnecting cable, DLA to machine ECU diagnostics socket - 718/20237.
3	Kit carrying case.
4	Interconnecting cable, DLA to laptop PC USB port - 718/20235.
5	Data Link Adaptor (DLA), enables data exchange between the machine ECU (Electronic Control Unit) and a laptop PC loaded with the applicable diagnostics software - 718/26500.
6	Interconnecting cable, DLA to laptop PC serial port - 718/20236.

Note: Item 1 of the Data Link Adapter Kit is unsuitable for use with the Fastrac. See **To Connect the Laptop (Section C)**.

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