Service Manual

JCB 8085

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Section 2 - Care & Safety

Section 3 - Routine Maintenance

Section B - Body & Framework

Section C - Electrics

Section E - Hydraulics

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Section J - Tracks

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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

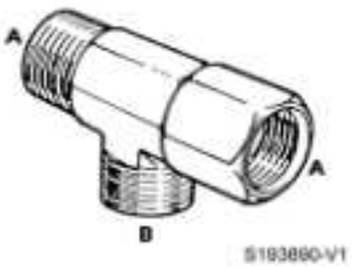


Fig 27. 'T' Adapters

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)
816/50043 3/4 in BSP (A) x 1/4 in BSP (B)
816/60096 3/4 in BSP (A) x 3/4 in BSP (B)



Fig 28. 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



Fig 29. Hexagon Spanners for Ram Pistons and End Caps

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

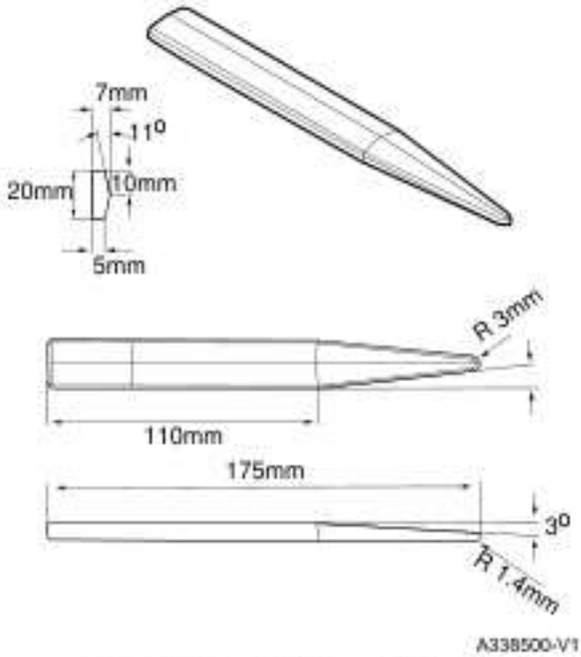


Fig 30. Piston Seal Assembly Tool

892/01027

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Slewing

Problem	Cause	Remedy
Insufficient Slew Force	– Performance reduction of slew motor – Thermal seizure of slew shaft	– *Replace slew motor – *Supply grease or Replace the slew shaft
Poor Braking Performance	– Low setting of brake valve – Clogged valve – Performance reduction of slew motor – Internal oil leakage of control valve	– *Adjust the pressure – *Wash the valve – *Replace slew motor – *Repair or replace valve assembly
Poor Stopping Performance	– Low setting of brake valve or port relief valve – Clogged valve – Performance reduction of slew motor – Internal oil leakage of control valve	– *Adjust the pressure – *Wash the valve – *Replace slew motor – *Repair or replace valve assembly
Abnormal Noise during Slewing	– Air in slew motor – Insufficient greasing of slew bearing	– Refill with oil – Add grease

Hydraulic Rams

Problem	Cause	Remedy
Insufficient Force of Hydraulic Ram	– Low pressure setting for the relief valve – Oil leakage inside the hydraulic ram – Damage of the hydraulic ram or rod – Oil leakage inside the control valve	– Adjust the pressure – Replace the ram seals – *Replace the hydraulic ram or rod – *Repair or Replace the valve assembly
Oil leakage outside the Hydraulic Ram	– Defective hydraulic ram seals – Hydraulic cylinder rod damage	– *Replace the hydraulic ram seals – *Replace the hydraulic ram rod

* Indicates jobs which should be done by a specialist. Refer to Service Manual.

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Schematic Diagrams

Schematic Hydraulic Circuits - Upper Structure

The following diagrams cover different variations of upper structure circuits followed by the undercarriage which is the same for all machine variations

Upper Structure Schematics

-9 Spool Standard	⇨ *Fig 8. (E-15)*
-9 Spool Electro Prop	⇨ *Fig 9. (E-16)*
-10 Spool Standard	⇨ *Fig 10. (E-17)*
-10 Spool 2 Electro Prop	⇨ *Fig 11. (E-18)*
Undercarriage - All Types	⇨ *Fig 12. (E-19)*

Key - Main Components (Upper Structure)

This key covers all variations of upper structure hydraulic circuits, Fig 8 to Fig 11. Some items will not be shown in all diagrams.

1	LH Joystick
2	RH Joystick
3	Slew Motor
4	Dozer Control Valve
5	Manifold Block
6	Track Control Valve
7	Swing/Auxiliary Control Valve (pedal)
8	Return Filter
9	Tank
10	Shuttle Valve
11	Main Valve Block
12	Swing Ram
13	Dipper Ram
14	Bucket Ram
15	Boom Ram
16	Double Check Valve
17	Oil Cooler
18	Rotary Coupling
19	Pump
20	Pressure Maintenance Valve
21	High Flow Coupling
22	High Flow Coupling
23	Low Flow Coupling
24	Low Flow Coupling
25	Swing/Auxiliary C.O. Valve
25a	Swing/Auxiliary C.O. Valve (ISO/SAE option)
26	C.O. Valve
26a	C.O. Valve (ISO/SAE option)
27	Electro-Proportioning Valve
28	Electro-Proportioning Valve

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Harness Drawings

Harness Key

Description	Harness Diagram	Wire List
Slewpan Harness	⇨ *Slewpan Harness - Sheet1 (C-40)*	⇨ *Slewpan Harness - Sheet4 (C-43)*
Cab Main Harness	⇨ *Cab Main Harness - Sheet1 (C-46)*	⇨ *Cab Main Harness - Sheet3 (C-48)*
ISO-SAE Control Harness	⇨ *ISO-SAE Control Harness (C-52)*	⇨ *ISO-SAE Control Harness (C-52)*
EP Auxiliary 9-Spool Harness	⇨ *EP Auxiliary 9-Spool Harness - Sheet 1 (C-53)*	⇨ *EP Auxiliary 9-Spool Harness - Sheet 2 (C-54)*
EP Auxiliary 10-Spool Harness	⇨ *EP Auxiliary 10-Spool Harness - Sheet 1 (C-56)*	⇨ *EP Auxiliary 10-Spool Harness - Sheet 2 (C-57)*
Lift Overload Extension	⇨ *Lift Overload Extension (C-59)*	⇨ *Lift Overload Extension (C-59)*
Oil Tacho. Link	⇨ *Oil Tacho. Link (C-59)*	⇨ *Oil Tacho. Link (C-59)*
Boom Light Harness	⇨ *Boom Light Harness (C-60)*	⇨ *Boom Light Harness (C-60)*
Refuel Pump Harness	⇨ *Refuel Pump Harness (C-60)*	⇨ *Refuel Pump Harness (C-60)*
Alternator Charge Lead	⇨ *Alternator Charge Lead (C-61)*	-
Travel Alarm (300mm ext.)	⇨ *Travel Alarm (300mm extension) (C-61)*	⇨ *Travel Alarm (300mm extension) (C-61)*
Travel Alarm (1000mm ext.)	⇨ *Travel Alarm (1000mm extension) (C-61)*	⇨ *Travel Alarm (1000mm extension) (C-61)*

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Part Number	Description	Tool Detail Reference
892/00074	Female Connector	Fig 28. (1-17)
892/00075	Female Connector	Fig 28. (1-17)
892/00077	Female Connector	Fig 28. (1-17)
892/00137	Hose	Fig 22. (1-16)
892/00167	Ram Seal Protection Sleeve	Fig 32. (1-18)
892/00223	Hand Pump	Fig 22. (1-16)
892/00253	Pressure Test Kit	Fig 18. (1-15)
892/00255	Pressure Test Adapter	Fig 20. (1-15)
892/00256	Pressure Test Adapter	Fig 20. (1-15)
892/00257	Pressure Test Adapter	Fig 20. (1-15)
892/00258	Pressure Test Adapter	Fig 20. (1-15)
892/00259	Pressure Test Adapter	Fig 20. (1-15)
892/00260	Pressure Test Adapter	Fig 20. (1-15)
892/00261	Pressure Test Adapter	Fig 20. (1-15)
892/00262	Pressure Test 'T' Adapter	Fig 19. (1-15)
892/00263	Pressure Test 'T' Adapter	Fig 19. (1-15)
892/00264	Pressure Test 'T' Adapter	Fig 19. (1-15)
892/00265	Pressure Test 'T' Adapter	Fig 19. (1-15)
892/00268	Flow Monitoring Unit	Fig 21. (1-15)
892/00269	Sensor Head	Fig 21. (1-15)
892/00270	Load Valve	Fig 21. (1-15)
892/00271	Adapter	Fig 21. (1-15)
892/00272	Adapter	Fig 21. (1-15)
892/00274	Adapter	Fig 22. (1-16)
892/00275	Adapter	Fig 21. (1-15)
892/00276	Adapter	Fig 21. (1-15)
892/00277	Adapter	Fig 21. (1-15)
892/00278	Gauge	Fig 22. (1-16)
892/00279	Gauge	Fig 22. (1-16)
892/00334	Ram Seal Fitting Tool	Fig 31. (1-18)
892/00706	Test Probe	Fig 22. (1-16)
892/01016	Ram Seal Protection Sleeve	Fig 32. (1-18)
892/01017	Ram Seal Protection Sleeve	Fig 32. (1-18)
892/01018	Ram Seal Protection Sleeve	Fig 32. (1-18)
892/01019	Ram Seal Protection Sleeve	Fig 32. (1-18)
892/01020	Ram Seal Protection Sleeve	Fig 32. (1-18)
892/01021	Ram Seal Protection Sleeve	Fig 32. (1-18)

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