SERVICE MANUAL

SD70/80 Axle

EN - 9823/1500 - ISSUE 1 - 08/2018

This manual contains original instructions, verified by the manufacturer (or their authorized representative).

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Foreword

The Operator's Manual

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You and others can be killed or seriously injured if you operate or maintain the machine without first studying the Operator's Manual. You must understand and follow the instructions in the Operator's Manual. If you do not understand anything, ask your employer or JCB dealer to explain it.

Do not operate the machine without an Operator's Manual, or if there is anything on the machine you do not understand.

Treat the Operator's Manual as part of the machine. Keep it clean and in good condition. Replace the Operator's Manual immediately if it is lost, damaged or becomes unreadable.

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01 - Machine

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24 - Brake System

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Install

1. The installation procedure is the opposite of the removal procedure. Additionally do the following steps.
2. Check the wheel nut torque at every specified duration until it stays correct.

   Duration: 2h
3. Bleed the brake system.
4. Apply Loctite 243 to the threads of bolt 1.
5. If the setting of the steering proximity switch is disturbed, adjust the front axle proximity switch.

   Refer to: PIL 25-15-00.

Trunnion Mounted

Remove

1. If the lift arm is raised, make sure the maintenance strut is installed correctly.
2. Remove the bolt 1.
3. Disconnect the propshaft coupling from the axle.
   - 3.1. If a drop box is installed, the propshaft coupling is still disconnected similarly.
   - 3.2. The drop box is lifted clear with the axle.
4. Disconnect the hydraulic hoses from the power track rod.
5. Plug all the open ports and hoses to prevent contamination.
6. Loosen the wheel nuts.
7. Raise the front end of the machine with a suitable lifting equipment.
8. Support the machine on each side with a suitable strut or blocks positioned under the chassis.
9. Remove the front wheels.
10. Remove the front mudguards.
11. Remove the nut 1 from the bracket at the steering trunnions.
12. Disconnect the brake hose at the axle.
13. Plug all the open ports and hoses to prevent contamination.
14. Remove the bolt 2.
15. Remove the pivot pin.
16. Remove the bolt 3 from the sway ram pivot bracket.
17. Lift away the bracket.
18. Tie the proximity sensor mounting bracket clear off the axle.
19. Support the axle on a suitable trolley jack.
20. Remove the trunnion bolt (x6) and the nut 2 (x6).
21. Remove the axle from the machine.
22. Collect the dowels.
23. Make a note of the shim positions (if installed).

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Technical Data

Table 39. Locking Fluids Approved Product Information

Subsection	Commercial name	Product Number	Colour	Shelf life	Strength	Comments
High strength	Loctite 270[1] R.A.S. threadlock for studs[1]	4101/0100	Green fluorescent Red	365d	80–120bar (1,159.4–1,739.1psi) breakaway strength	For the retention of threads up to M20 diameter where disassembly is unlikely and for locking bearings etc. onto shafts and into housing. Has a maximum gap fill of 0.05mm.
High strength	Loctite 638	4101/1400	Green, UV fluorescent	365d	More than 250bar (3,623.2psi) compressive shear strength	Maximum gap fill of 0.25mm. Maximum strength at room temperature.
High strength	Permabond A115[1] Loctite 262	4101/0500	Red, fluorescent	365d	100–150bar (1,449.3–2,173.9psi) prevailing strength	Fast curing (10–15min) thread locking up to M20, especially for use on oily surfaces, plated and clean parts.
High strength	Loctite 648[1] Permabond A118	4101/0600	Green, fluorescent	365d	More than 250bar (3,623.2psi) compressive shear strength	Designed for holding gears and sprockets onto gearbox shafts and rotors on electric motor shafts.
High strength	Loctite 2701	4101/1700	Green	365d	260–500bar (3,768.1–7,246.3psi) breakaway torque	Designed for permanent locking and sealing of threaded fasteners. Particularly suited for use on inactive substrates and/or where maximum resistance to hot oil is required.
Medium to high	Loctite 243	4101/1100	Blue	365d	140–340bar (2,029.0–4,927.5psi) breakaway torque	Suitable for all nuts, bolts, screws up to M36.
Medium strength	Permabond A119[1]	4101/0900	Blue	365d	80–120bar (1,159.4–1,739.1psi) static shear strength	Maximum gap fill of 0.25mm. Handling strength in 10–15min.
Medium strength	Loctite 640	4101/1200	Green, fluorescent	365d	150–330bar (2,173.9–4,782.6psi) static shear strength	Product has a slow cure rate, used on parts unlikely to be disassembled.
Medium strength	Loctite 242[1] Permabond A1042 Permabond A113	4101/0200	Blue, fluorescent	365d	80–120bar (1,159.4–1,739.1psi) static shear strength	Suitable for all nuts, bolts and screws up to M36 and hydraulic fittings up to 25mm in diameter. Permabond A113 and A1042 are the preferred choices. The difference between A113 and A1042 is timing for handling and working strength. A113 handling time 10–25min, working strength 1h. A1042 handling time 5–10min, working strength 30min.

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03 - Parts List

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24 - Brake System

Tool Category	Part No.	Description	Qty.	Comments
Special Tool	892/00223	Hand Pump Pressure Test	1	
Special Tool	892/00278	Pressure Gauge (0-40 Bar)	1	
Special Tool	992/04800	Flange Spanner	1	

25 - Steering System

Tool Category	Part No.	Description	Qty.	Comments
Special Tool	892/00334	Ram Seal Installation Tool	1	

27 - Driveline

Tool Category	Part No.	Description	Qty.	Comments
Special Tool	892/00224	Impulse Extractor	1	
Special Tool	892/00225	Bearing Removal Tool	1	
General Tool	892/00333	Heavy Duty Socket 19mm A/F x 3/4 in Drive	1	
Special Tool	892/00812	Drive Coupling Spanner	1	
General Tool	892/00822	Splined Bolt Socket	1	
Special Tool	892/00918	Setting Tool Kit	1	
Special Tool	921/52600	Spacer Kit	1	
Special Tool	921/53300	Spacer Kit	1	
Special Tool	921/M0229	Shim Kit	1	
Special Tool	992/00800	Extractor for Rear Axle Pivot Pin	1	
Special Tool	993/59500	Adaptor	1	
General Tool	993/70111	Torque Wrench (10-100Nm)	1	
Special Tool	997/11000	Support Bracket	1	

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