SERVICE MANUAL

EXCAVATOR
JCB140

EN - 9823/0350 - ISSUE 1 - 05/2018

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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Fault-Finding

Fault		
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Table 106. Pressure does not rise at all

Cause	Remedy
The main poppet, sleeve or pilot poppets are sticking open or foreign matter is in the valve seat.	Check whether foreign matter is in each poppet.
	Check whether each part is sliding smoothly.
	Clean all the parts.

Table 107. Relief pressure is unstable

Cause	Remedy
The pilot poppet seat is damaged.	Replace the damaged parts.
The piston is sticking to the main poppet.	Remove the surface scratches. Clean all the parts.

Table 108. Relief pressure is out of control

Cause	Remedy
Wear due to foreign matter.	Replace the worn parts.
Lock nut and adjuster are loose. (if installed)	Reset the pressure and tighten the lock nut to the rated torque.

Table 109. Oil leakage

Cause	Remedy
Damaged seat or worn O-ring.	Replace damaged or worn parts. Check whether each part is sliding smoothly.
Parts are sticking due to foreign matter.	Check for scratches, cuts or foreign matter. Clean all the parts.

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Device Code	Description	Harness
CANSHDS1	CAN Shield (1)	Chassis Harness
CANSHDS5	CAN Shield (5)	Fascia Harness
CR17	to Radio	Cab Roof Harness
CR19	to Radio	Cab Roof Harness
EP31	to Rev Earth Point 3	Chassis Harness
EP32	to Rev Earth Point 2	Chassis Harness
EP33	to Rev Earth Point 3	Chassis Harness
EP71	Earth Point 071	Cab Harness
EP72	Earth Point 072	Cab Harness
EP73	Earth Point 073	Cab Harness
FB1	Primary Fusebox	Chassis Harness
FRM1	Starter Relay	Cab Harness
IC1	to Chassis Harness	Cab Harness
IC1	to Cab Harness 1	Chassis Harness
IC10	to Cab Harness	Fascia Harness
IC10	to Fascia Harness	Cab Harness
IC3	to Cab Harness 2	Chassis Harness
IC3	to Chassis Harness	Cab Harness
IC4	Boom Lamp	Chassis Harness
IC4	Cab Roof Harness I/C	Boom Lamp Harness
IC7	to Cab Roof Harness	Cab Harness
IC7	to Cab Harness	Cab Roof Harness
NC CUT1	cut end	Fascia Harness
NC CUT4	cut end	Cab Harness
RB1	Micro Relay Base Module	Cab Harness
S18	Earth Chassis 1	Chassis Harness
S20	Earth Chassis 3	Chassis Harness
S205	Splice - Ignition	Chassis Harness
S217	Splice - Sensor Ground	Chassis Harness
S218	Splice - Travel	Chassis Harness
S221	Splice - Accessories Socket Ground	Chassis Harness
S222	Battery Splice Chassis	Chassis Harness
S223	Ignition Splice Chassis	Chassis Harness
T1	Alternator Ground	Chassis Harness
T2	to ECU Ground	Cab Harness
T6		Starter Motor Earth Lead
T7		Starter Motor Earth Lead
C012C	Livelink Ground	Chassis Harness

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03 - Parts List

Introduction

Consumables

Description	Part No.	Size
Antifreeze HP/Coolant ASTM D6210 Concentrate	4006/1101	5 L
	4006/1120	20 L
	4006/1103	200 L
Black Polyurethane Sealant	4102/2310	0.31 L
Black Primer/Activator	4104/2304	0.1 L
Cleaner/Degreaser - General purpose solvent based parts cleaner	4104/1557	0.4 L
EP Hammer Grease	4003/2107	0.4 kg
	4003/2106	12.5 kg
Extreme Performance Moly Grease	4003/1327	0.4 kg
	4003/1326	12.5 kg
Glass Replacement Kit	993/55701	-
Hand Cleaner	4104/1310	-
JCB Autogrease	4003/2305	0.5 kg
JCB Glass Cleaner	4006/3175	0.75 L
JCB Liquid Maintenance	993/99166	0.4 L
JCB Multi-Gasket	4102/1212	0.05 L
JCB Retainer (High Strength)	4101/0651	0.05 L
JCB Threadlocker and Sealer (High Strength)	4101/0550	0.01 L
	4101/0552	0.2 L
JCB Threadlocker and Sealer (Medium Strength)	4101/0250	0.01 L
	4101/0251	0.05 L
JCB Threadseal	4102/1951	0.05 L
Polyurethane Adhesive	4103/2110	0.31 L
Special HP Grease	4003/2020	0.5 kg
	4003/2017	0.4 kg
	4003/2006	12.5 kg
	4003/2005	50 kg
Special Hammer Grease	4003/1119	0.4 kg
Special MPL-EP Grease	4003/1501	0.4 kg
	4003/1506	12.5 kg
	4003/1510	50 kg
Special Slew Pinion Grease	4003/1619	0.4 kg
Special Slide Grease	4003/1115	0.4 kg
Surface Cleaning Fluid	4103/1204	1 L
Threaded Insert (M10 x 23mm)	826/01104	-
Threaded Insert (M10 x 26mm)	826/01105A	-
Threaded Insert (M6 x 16mm)	826/01099	-
Threaded Insert (M6 x 19mm)	826/01101	-
Threaded Insert (M8 x 18mm)	826/01102	-
Threaded Insert (M8 x 21mm)	826/01103	-
Wiring Splice (0.5-1.5mm Red, contains 50 off)	892/00351	-
Wiring Splice (1.5-2.5mm Blue, contains 50 off)	892/00352	-
Wiring Splice (3-6mm Yellow, contains 50 off)	892/00353	-

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Figure 293.



19. Install new O-rings on to plugs. Install plugs in to the rear flange and temporarily tighten with an Allen key.

Figure 294.



20. Install the pistons in to the rear flange.

Figure 295.



21. Install new O-rings on to plugs. Install plugs in to the rear flange and temporarily tighten with an Allen key.

Figure 296.



22. Insert the brake spool into the flange.

Figure 297.



23. Install a new O-ring on to the plug. Install washer and spring on to the plug.

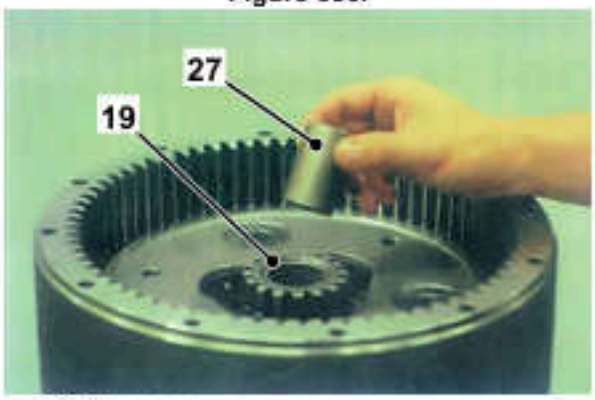
Figure 298.



24. Install plug in to the rear flange making sure that the spring does not get deformed. Temporarily tighten the plug.

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Figure 336.

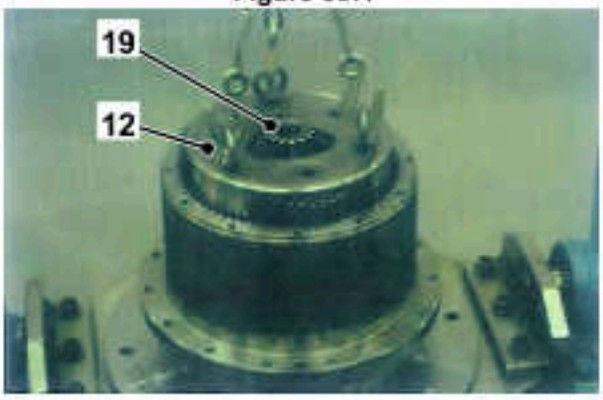


19 Sun gear
27 Coupling

9. Attach three eyebolts to second reduction planet carrier assembly and remove from housing using suitable lifting equipment.

10. Remove the second stage sun gear.

Figure 337.



12 Carrier
19 Sun gear

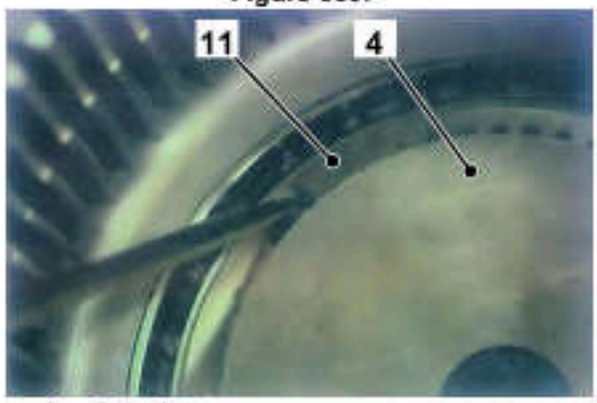
11. Fix gearbox assembly to a workbench.

Figure 338.



12. Using a punch and hammer, tap lock washers from groves in spindle and remove.

Figure 339.

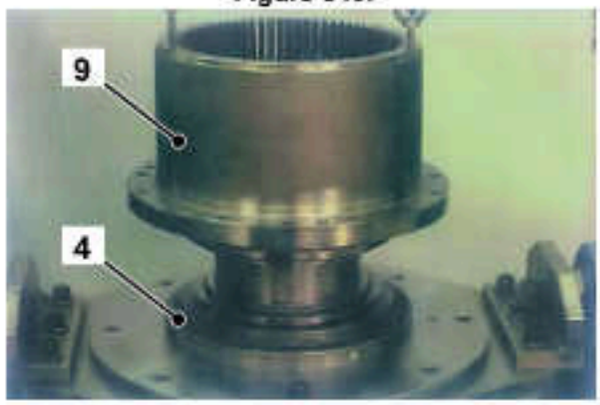


4 Spindle
11 Lock washer

13. Release the housing from the workbench.

14. Fit two eye bolts to the hub and use suitable lifting equipment to lift it clear of the spindle.

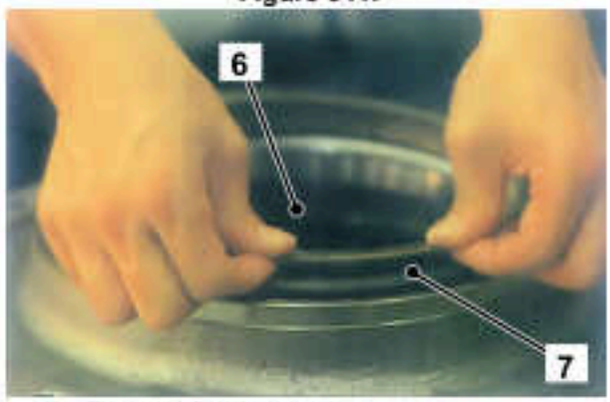
Figure 340.



4 Spindle
9 Hub

15. Remove the floating seal.

Figure 341.



6 External floating seal
7 Internal floating seal

16. Only remove bearing if a replacement is available as removal will cause damage.

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