Service Manual

331HST and 335 HST

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Schematic Diagrams

JCB T331 and T335 HST

⇨ *Fig 1. (C-4)*

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Rear Axle

Fault:

⇨ *Table 15. Noises (F-15)*

Table 15. Noises

Possible Cause	Action
Worn or damaged bearing.	Replace.
Worn gear or wheel shaft.	Replace.

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Power Steering Valve Unit

Specification

Model number	OSPM 80 ON
Displacement	80 cm^3/rev (4.9 in^3/rev)
Rated flow	7 - 20 l/min (1.5 - 4.4 gpm)
Maximum system pressure	177 bar (2567 lbf/in^2)
Maximum back pressure	20 bar (290 lbf/in^2)
Maximum temperature	90 deg C
Input torque	0.8 - 1.5 Nm (7.08 - 13.3 lbf in)
Inlet relief pressure setting	108 - 113 bar (1566 - 1639 lbf/in^2)
Recommended filtration (ISO4406)	22/20/17
Weight	2.7 Kg (6.0 lb)

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Hydraulic System

Fault:

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⇨ *Table 26. Independent PTO clutch slips or is slow in engaging (E-47)*
⇨ *Table 27. Independent PTO clutch is too quick in engaging (E-48)*

Table 14. Lift will not rise

Possible Cause	Action
Insufficient engine speed.	Increase engine speed slightly.
Insufficient transmission oil.	Replenish.
Suction line taking in air.	Tighten securely or replace broken parts.
Damaged or worn hydraulic pump.	Repair or replace pump.
Incorrect adjustment or worn link.	Adjust or replace link.
Excessive load.	Reduce load.
Broken cylinder.	Replace.
Viscosity of transmission oil too low.	Replace oil with SAE80 grade.
Incorrectly adjusted relief valve.	Adjust relief false to correct setting.
Internal leaks.	Inspect cylinder and valves. Replace damaged seals.
Sticking sequential valve spool.	Disassemble and wash spool clean. Replace if necessary.
Damaged control valve: Sticking compensator plunger (unloading valve 1. Blocked orifices in pilot passage. Sticking poppet (unloading valve 2). Sticking check valve plunger.	 Lap valve after repairing minor flaws with oil stone. Clean with compressed air. Correct minor flaws with oil stone. Lap valve after repairing minor flaws with oil stone.
Sticking poppet in slow return check valve.	Lap poppet after cleaning and repairing minor flaws with oil stone.

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Charging System

Fault:

⇨ *Table 19. Battery is low in charge or discharge (C-15)*
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Table 19. Battery is low in charge or discharge

Possible Cause	Action
Loose or worn alternator drive belt.	Check, adjust tension or replace.
Defective battery: It will not accept or hold a charge. Electrolyte level Low.	Check condition of battery and replace if necessary.
Excessive resistance due to loose charging system connections.	Check, clean and tighten circuit connections.
Faulty alternator.	Check, and repair or replace.

Table 20. Battery is charging at a high rate (battery over heating)

Possible Cause	Action
Defective battery.	Check condition of battery and replace if necessary.
Faulty alternator.	Check, and repair or replace.

Table 21. No output from alternator

Possible Cause	Action
Alternator drive belt is broken.	Replace and tension correctly.
Loose connection or broken cable in charge system.	Inspect system, tighten connections and repair or replace faulty wiring.
Faulty voltage regulator.	Check and replace.
Faulty alternator.	Check, and repair or replace.

Table 22. Intermittent or low alternator output

Possible Cause	Action
Faulty external charging circuit connections.	Inspect system, clean and tighten connections.
Faulty rotor slip rings or brushes in alternator.	Inspect, repair or replace.
Defective monitor and warning light.	Check and replace.
Faulty rectifier or rectifying diodes in alternator.	Check and replace.

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