Service Manual

Fastrac 2155 and 2170

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Auxiliary Power Harness - CAD 332/R8215

⇨ *Fig 43. (C-125)*

Key to Connectors:

APS1	Auxiliary Power Interconnect
APS2	Terminal Posts
APS3	3-Pin Power Socket
APS4	Convenience Socket
APS5	Convenience Socket Relay

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Table 5. Moderate Faults

Error Code	Fault	Control Unit pin no.	Possible Cause	
22	Position sensor signal faulty.	6	i	Sensor open circuit or not connected.
			ii	Possible short circuit or short to earth.
			iii	Position sensor needs adjusting.
23	Set command control potentiometer signal faulty.	22		Potentiometer open circuit or not connected.
24	Upper limit control potentiometer signal faulty.	3		Potentiometer open circuit or not connected.

Table 6. Minor Faults

Error Code	Fault	Control Unit pin no.	Possible Cause	
31	Right force-sensing pin signal faulty.	26	i	Sensor open circuit or not connected.
			ii	Possible short circuit or short to earth.
			iii	Possible overload of force sensing pin.
32	Left force-sensing pin signal faulty.	7	i	Sensor open circuit or not connected.
			ii	Possible short circuit or short to earth.
			iii	Possible overload of force sensing pin.
33	Battery switched voltage below 11.5V.	24		Check battery.
34	Lowering control potentiometer signal faulty.	23		Potentiometer open circuit or not connected.
36	Mix control potentiometer signal faulty.	4		Potentiometer open circuit or not connected.
37	Hitch fails to lift with active current at pin 37.	37		If engine running:
			i	No oil pressure.
			ii	Valve seized.

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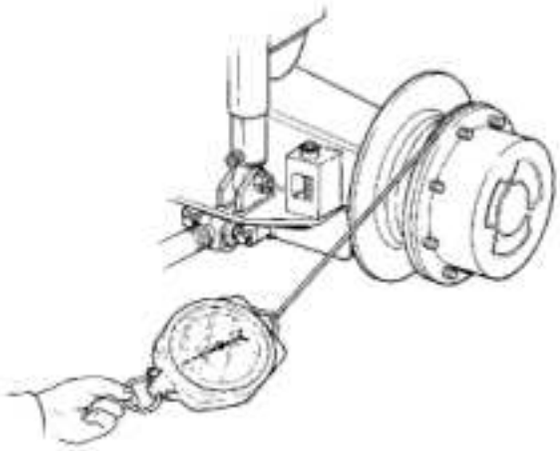


Fig 38.

b Use a spring balance and cord wrapped around the planet carrier flange as shown. ⇨ *Fig 38. (F-154)* Pull the spring balance so that the hub rotates; record the rolling force reading. (Ignore the extra force needed to start the rotation.).

c Subtract seal drag rolling force (see step 15) from this reading. The result should be 10 to 120 N (2 to 27 lbf).

d Renew bearings if necessary. Remove the planet gear carrier after checking rolling force.

Note: *A high rolling force reading may indicate that the oil seal was damaged during fitting.*

20 Press the driveshaft thrust pad **8** (chamfered side uppermost) into the recess in the planet gear carrier **2**.

21 Fit planet gears **4** and spacer with circlip **7**. Check the end float of the planet gears, which should be between 0.4 mm to 0.75 mm (0.016 in to 0.030 in).

Note: *If planet gears **4** or sungear **10** are worn, renew the complete set.*

22 Slide spacer **10A** onto driveshaft **9** and use a hollow tube of suitable bore to tap fully home. Fit sungear **10**, counterbore towards the inside of the hub, and secure with circlip **11**.

23 Insert the driveshaft **9** part way into the axle until about 100 mm (4 in) is left between the sunwheel **10** and the annulus carrier **15**. Oil and fit a new 'O' ring **3** to the face of the bearing carrier **22**.

Note: *Driveshaft **9** has a cutaway spline at one end. Ensure that this end is inserted into the axle.*

24 Engage the planet gears **4** in the carrier **2** with the sun gear **10** on the driveshaft **9**. Ensure that the two tapped holes in the carrier **2** align with the two similar holes in the bearing carrier **22**, to take bolts **1**.

Note: *Never hammer the hub in the centre. Hammering dislodges the thrust pad **8**.*

25 Push the hub assembly towards the axle, manoeuvring it as necessary to engage the driveshaft with the spline in the differential unit. Ensure that the planet gear carrier **2** butts fully against the wheel bearing carrier **22**. Both mating surfaces must be clean and sealed with JCB Multi gasket.

26 After applying JCB Threadlocker and Sealer to the threads, fit and tighten bolts **1** to a torque of 56 Nm (42 lbf ft, 5.7 kgf m).

27 On ABS machines replace the ABS sensors (***see Section G***).

28 Fit the brake calliper **20** (***see Section G***).

29 Refill the hub with oil (***see Section 3)***.

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To Configure Spool Valve Slices

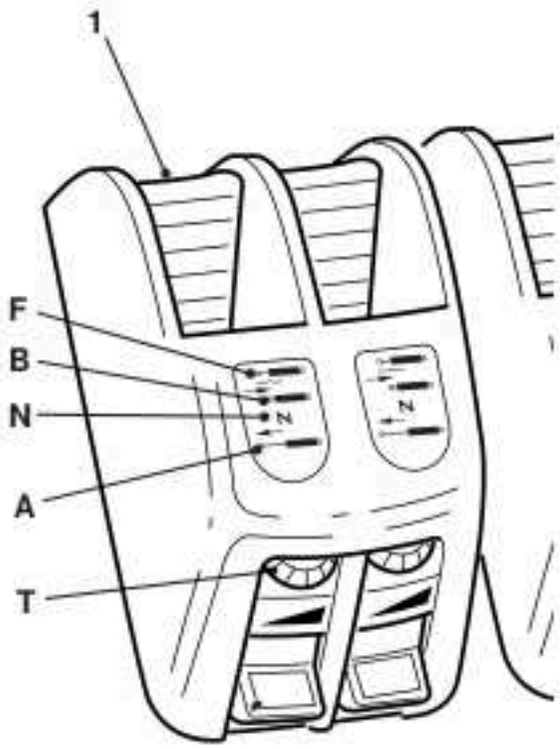


Fig 7.

2 Switch the Ignition `On'.

3 As the first instrument panel buzzer has finished sounding engage the transport lock **K**.

4 Before the second instrument panel buzzer has finished sounding, cycle the green spool lever **1** from its central neutral position to extend **A**, then to retract **B**, and back to neutral **N**. ⇨ *Fig 7. (C-55)*

The instrument panel will display a code and begin to count down from 25 seconds. Upon access, the current valve slice configuration status will be displayed.

Valve Slices Currently Configured

Upon accessing Configuration Mode the spool valve slices which are configured for that particular machine will be displayed on the instrument panel. Slices configured for 2000 and 8000 series can be identified by the prefix `CV'.

Some examples of valve slice configuration that may be seen on the instrument panel are as follows. ⇨ *Fig 8. (C-55)* to ⇨ *Fig 12. (C-56)*



Fig 8. One or more slices connected but not configured.



Fig 9. All four slices connected and configured correctly.



Fig 10. Default slice is connected ready to be configured as slice number 2.



Fig 11. Slices 1 and 3 configured to suit a 2000 series Fastrac. Slices 2 and 4 either not connected or not in a Bosch state.

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Start Service Master

1 Double click on the Service master icon. ⇨ *Fig 11. (C-12)*. (The icon is found on the desktop or in the 'Start' menu -'Programs' - 'JCB'.)



Fig 11.

2 The Service master chooser window will open. ⇨ *Fig 12. (C-12)*



Fig 12.

3 Open the drop down menu to see the machines and components supported by Service master tools. ⇨ *Fig 13. (C-12)*

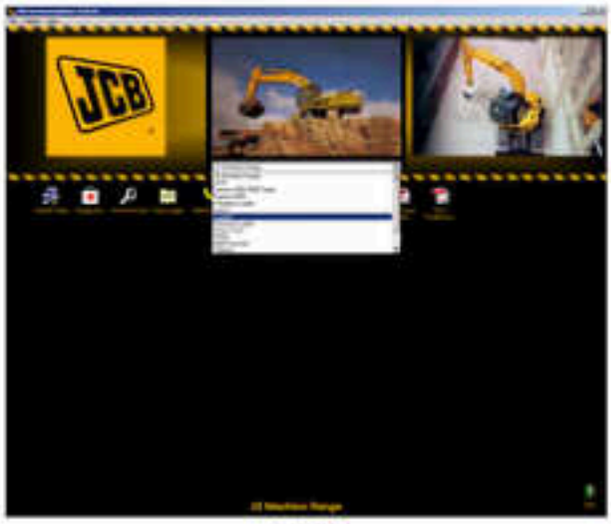


Fig 13.

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