Service Manual

3000 XTRA Series Fastrac

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Transmission Harness

Table 23. Key to Connectors

VBS	Valve Block Splice
PDS	Powershift Dump Splice
RBS	Range Box Splice
PBPS	PTO Brake 12V Splice
SSGS	Speed Sensor Ground Splice
SSPS	Speed Sensor 12V Splice
R1FL	Range Sol 1F-Low
MCL	Master Clutch Lube
R1RXL	Range Sol 1R-Extra Low
4WD	4 Wheel Drive
R2S	Rail 2 Pos Sens H/M
MCOT	M/Clutch Oil Temp
R2RM	Range Sol 2R-Medium
TOS	Trans O/P Spd Sens
R2FH	Range Sol 2F-High
PRS	PTO Rear Speed Sens
TRIS	Range I/P Spd Sens
R1S	Rail 1 Pos Sens L/XL
TOT	Trans Oil Temp
PRB	PTO Rear Brake
MCB	Master Clutch Brake
PPS	PTO 540/1000 Pos Sens
PR	PTO Rear Clutch
PFB	PTO Front Brake
MC	Master Clutch
PSC	Powershift Solenoid C
PSE	Powershift Solenoid E
OPS	Low Oil Pressure Switch
PSB	Powershift Solenoid B
PSD	Powershift Solenoid D
PSR	Powershift Solenoid R
PSA	Powershift Solenoid A
PF	PTO Front Clutch
PFS	PTO Front Speed Sens

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Grey Slice

Code	Description
Y0000	Valve block CanBus Communication fault - Grey Slice
Y0001	Valve block CanBus Communication fault Grey Slice
Y0002	Implausible CanBus Data Received Message - Grey Slice
Y0003	Implausible CanBus Data Received Message Grey Slice
Y0004	Potentiometer / PWM Fault - Grey Slice
Y0005	EEPROM Inconsistent - Grey Slice
Y0006	No faults but valve has switched off for >4 seconds - Grey Slice
Y0007	Valve Slice Supply Voltage < 11 volts: Grey Slice
Y0008	Valve Slice Supply Voltage > 16 volts - Grey Slice
Y0009	Spool Movement Too short - Grey Slice
Y0010	Excessive Internal Spool Movement - Grey Slice
Y0011	Float Position Not Reached - Grey Slice
Y0012	Spool Valve Operated Manually - Grey
Y0013	Supply Voltage < 8 Volts - Grey Slice
Y0014	Supply > 36 but < 45 volts - Grey Slice
Y0015	High Over Voltage Supply > 45 volts - Grey Slice
Y0016	Output Stage Fault - Grey Slice
Y0017	Valve block internal Position transducer fault Grey Slice
Y0018	Spool Valve Cannot return To The Neutral Position Grey Slice
Y0019	Spool Not In Neutral When Powered Up Grey Slice
Y0020	Program Memory Error Grey Slice
Y0021	Spool valve Off Line Grey Slice
Y0050	Main lever electrical input too low Grey slice
Y0051	Main lever electrical input too high Grey slice
Y0054	Flow or duration control driver open circuit. -Grey slice
Y0055	Flow or duration control too low. - Grey slice
Y0056	Flow or duration control too high. - Grey slice
Y0070	Implausible main control lever position Grey Slice
Y0071	Spool valve very high temperature Grey Slice
Y0100	Grey Slice Spool Lever : Signal Plausibility Fault
Y0101	Grey Slice Spool Lever : Signal Fault
Y0102	Grey Slice Spool Lever : Signal Fault
Y0124	Grey Slice Controls message from ACE not received by ECU1
Y0201	Spool movement too short Grey Slice
Y0203	Spool valve very high temperature Grey Slice

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Technical Data

Flow Rates

Total Pump Flow at maximum system pressure and 2200 engine rev/min. ***Note:*** *When checking flow, be aware of the maximum flow through the spools (see below).*				
	Standard Pump	127 litres/min	28 UK gal/min	33.5 US gal/min
Maximum flow from each spool				
	Standard Spool Valve	100 litres/min	22 UK gal/min	26.4 US gal/min

Pressures

Maximum system pressure at 1500 engine rev/min	210 bar	214 kgf/cm²	3045 lbf/in²
Pilot stand-by pressure - no service selected	18 bar	18.4 kgf/cm²	260 lbf/in²

Spool Valve

All external hydraulics spools	Electronic, 4 position double acting with provision for timed hydraulic kick-out and flow control.

Other Hydraulic Circuits

Note: *For technical data of other hydraulic systems, refer to the following sections of the Service Manual:*

Section F - Transmission

Section H - Steering

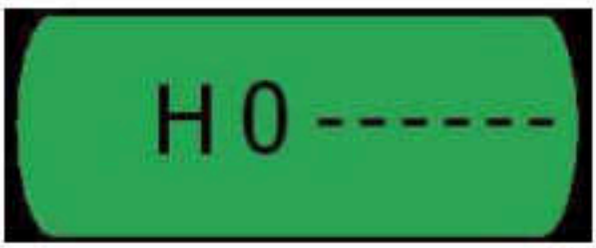
Section S - Suspension

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Valve Slices Currently Configured

Upon accessing Configuration Mode the spool valve slices which are connected and configured will be displayed on the instrument panel. Slices configured are identified by the prefix `H'.

Some examples of valve slice configuration that may be seen on the instrument panel are as follows:



C671783

Fig 7. One or more slices connected but none yet configured. ('0' indicates Bosch state)



C671740

Fig 8. All six slices connected and configured correctly.



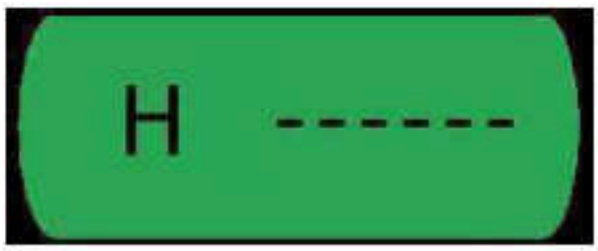
C671669

Fig 9. A Bosch default slice is connected ('0') and can be configured as either slice 2 or 5. Slices have been connected and configured to positions 1, 3. 4 and 6.



C671768

Fig 10. Slices 1, 2, 3, 4 and 6 (front hitch) configured. Slice 5 either not fitted or not connected.



C671758

Fig 11. Either: No slices connected, CAN2 wiring or supply fuse fault or non-compatible slice connected. Slices each need returning to Bosch state first using the following method:

Configuring `Bosch' Slices

The object of this procedure is to make sure that each valve slice is correctly identified to its proper position number on the Fastrac. ⇨ *Table 1. (E3-5)* When configured, each valve slice will store this identity even if it is unplugged.

To wipe the slice memory it must be restored to Bosch state, ⇨ *Returning Configured Slices to Bosch State (E3-8)*

As with earlier machines, only one new valve slice can be configured at a time.

Configuration is very quick. To avoid confusion it is best to work methodically through the configuration process and configure all valve slices.

Configuration Procedure

In this procedure valve slices are connected one at a time, configured from their Bosch state and then disconnected again before proceeding.

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Start Service Master

1 Double click on the Service master icon. ⇨ *Fig 7. (C6-5)*. (The icon is found on the desktop or in the `Start' menu - `Programs' - 'JCB'.)



Fig 7.

2 The Service master chooser window will open. ⇨ *Fig 8. (C6-5)*



Fig 8.

3 Open the drop down menu to see the machines and components supported by Service master tools. ⇨ *Fig 9. (C6-5)*

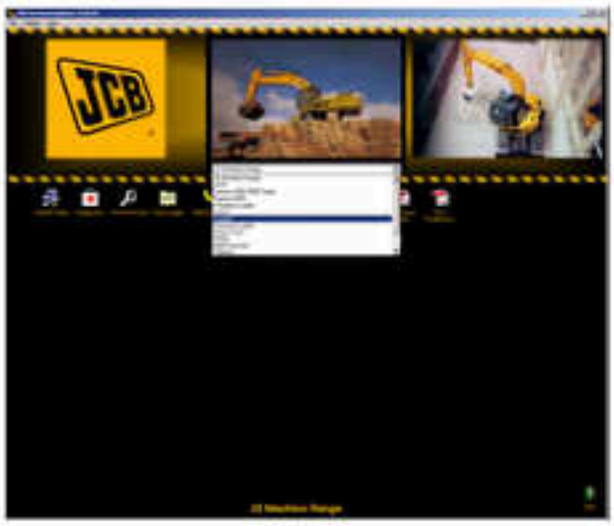


Fig 9.

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