Service Manual

JS200W - Wheeled Excavators - Tier 2 and Tier 4i Engines

Section 1 - General Information

Section 2 - Operator's Manual

Section B - Body & Framework

Section C - Electrics

Section D - Controls

Section E - Hydraulics

Section F - Transmission

Section K - Engine



Publication No.

9813/4050-01



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Contents Page No.

Introduction
Identifying Your Machine 1-1

Safety
Introduction 1-3

Use
Introduction 1-5
Scope 1-6
Personnel 1-6
Applications 1-6
Newest Data 1-6
Format 1-7
Left Side, Right Side 1-8
Hydraulic Schematic Codes 1-9
Colour Codes 1-9

Routine Maintenance
Maintenance Schedules 1-11

General Procedures
Introduction 1-13
Parking the Machine and Making it Safe 1-14
Venting the Hydraulic Pressure 1-15
Connecting/Disconnecting Hydraulic Hoses 1-16
Battery Disconnection/Connection 1-17
Removing and Replacing Components 1-18
Preparation 1-18
Original Components 1-18
New Components 1-18
Torques and Fixings 1-18
Battery Charging System Precautions 1-19
Gas Hydraulic Bladder Accumulators 1-20
Replacement 1-20
Charging 1-20

Service Consumables
Introduction 1-23
Sealing and Retaining Compounds 1-24

Torque Settings
Introduction 1-25
Zinc Plated Fasteners and Dacromet Fasteners 1-26
Introduction 1-26
Bolts and Screws 1-26
Hydraulic Connections 1-30
'O' Ring Face Seal System 1-30
'Torque Stop' Hose System 1-36
'Positional Type' Hydraulic Adaptors 1-37
Fitting Procedure 1-37

Service Tools
Numerical List 1-39

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Contents Page No.

Tool Detail Reference 1-42
Section B - Body and Framework 1-42
Section C - Electrics 1-46
Section E - Hydraulics 1-47
Section H - Steering 1-59

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Schematics - Component Keys

Connector Code	Device	Harness Location	Sheet
C001	ECU: JCB Engine	Revolver Harness	2
C002	Resistor: CAN Termination	Revolver Harness	13
C003	Module: JCB Engine Fuse & Relay	Revolver Harness	2
C004	Converter: Voltage 24/12V	Revolver Harness	2
C006	Pump: Fuel Lift	Revolver Harness	2
C007	Sensor: Water In Fuel	Revolver Harness	2
C008	Sensor: Engine Oil Level	Revolver Harness	6
C009	Solenoid: Engine Starter Motor	Revolver Harness	2
C010	Motor: Starter+	Revolver Harness	2
C012	Switch: Battery Isolator	Revolver Harness	2
C015	ECU: Machine Control (J1)	Cab Harness	5
C016	ECU: Machine Control (J2)	Cab Harness	6
C018	Light: Working - Revolver RH	Revolver Harness	8
C019	Pump: Re-fuelling	Revolver Harness	4
C020	Switch: Re-Fuelling Pump	Revolver Harness	3
C021	Sensor: Fuel Level	Revolver Harness	5
C022	Alarm Horn	Revolver Harness	4
C023	Sensor: Boom Overload	Revolver Harness	3
C024	Diode: Alternator Suppression	Revolver Harness	2

Connector Code	Device	Harness Location	Sheet
C025	Socket: Beacon - Main	Revolver Harness	8
C026	Motor: Screenwash Pump	Revolver Harness	7
C027	Sensor: Air Filter Restriction	Revolver Harness	5
C028	Sensor: Coolant Level	Revolver Harness	6
C030	Fusebox: Primary	Revolver Harness	2
C033	Relay: Ignition	Revolver Harness	3
C036	Sensor: Pressure - Upper Pilot	Revolver Harness	5
C037	Sensor: Pressure Travel Pilot	Revolver Harness	6
C038	Solenoid: Cooling Fan Control	Revolver Harness	5
C039	Sensor: Pressure - AC	Revolver Harness	16
C040	Solenoid: AC Compressor Clutch	Revolver Harness	16
C041	Alarm Travel	Revolver Harness	6
C042	Alternator: 24V 55A	Revolver Harness	2
C045	Solenoid: Pump Control	Revolver Harness	6
C046	Sensor: Hydraulic Oil Temperature	Revolver Harness	5
C047	Solenoid: Max Flow	Revolver Harness	6
C048	Solenoid: Travel Speed	Revolver Harness	5
C049	Solenoid: Swing Lock	Revolver Harness	6
C050	Solenoid: Swing Isolate	Revolver Harness	6

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Fault Code	Description
C130E	Slew Shut Off Solenoid Open Circuit
C130F	Boom Priority Solenoid Short Circuit
C131A	Lever lock switch fault. Only one lever lock signal when lever lock is lowered
C1310	Boom Priority Solenoid Open Circuit
C1311	Travel Alarm Solenoid Short Circuit
C1312	Travel Alarm Solenoid Open Circuit
C1313	Refuel Pump Relay Short Circuit
C1314	Refuel Pump Relay Open Circuit
C1315	Controls Enable Solenoid Fault Condition
C1316	Pilot pressure sensor voltage above normal (more than 4.5 V, sensor fault)
C1317	Pilot pressure sensor voltage below normal (less than 0.5 V, sensor fault)
C1318	Controls enable solenoid valve sticking. Pilot pressure sensor indcates servo pressure when lever lock is rasied or low pilot pressure when lever lock is lowered.
C1321	Brake accumulator pressure low
C1322	Both forward & reverse inputs are active
C1323	Vref shorted to battery
C1324	Vref shorted to ground
C1325	Brake accumulator sensor shorted to battery
C1326	Brake accumulator sensor shorted to ground
C1327	Swing rotation sensor shorted to battery
C1328	Swing rotation sensor shorted to ground
C1329	Forward drive output open-circuited
C132A	Forward drive output short-circuited
C132B	Reverse drive output open-circuited
C132C	Reverse drive output short-circuited
C132D	Left turn indicator output open-circuited
C132E	Left turn indicator output short-circuited
C132F	Right turn indicator output open-circuited
C1330	Right turn indicator output short-circuited
C1331	Rear fog lights output open-circuited
C1332	Rear fog lights output short-circuited
C1333	Reverse lights output open-circuited
C1334	Reverse lights output short-circuited
C1335	Pump 1 output open-circuited
C1336	Pump 1 output short-circuited
C1337	Pump 2 output open-circuited
C1338	Pump 2 output short-circuited
C1339	Front LH stabilizer/dozer output open-circuited

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Assembly

Input

1 Measure the dimension from the axle drive housing **X**

Dimension **X** e.g 149.09mm



Fig 57.

2 Measure the pinion **Y**

Dimension **Y** e.g. 116.00mm



Fig 58.

3 Measure the bearing width dimension **Z**



Dimension **Z** e.g. 32.00mm. Since the installed bearing is subject to a pre load whilst in position, you can expect a reduction of size of 0.1mm hence dimension **Z** becomes 31.90mm

From this the size of shim required can be determined.

149.00-148.10(116.00+31.90) = 1.01. Shim size should be 1.00mm

4 Insert the pre sized shim into the inner bearing hole.



Fig 59.

5 After cooling the bearing outer ring, position it into the inner bearing hole using the fixture

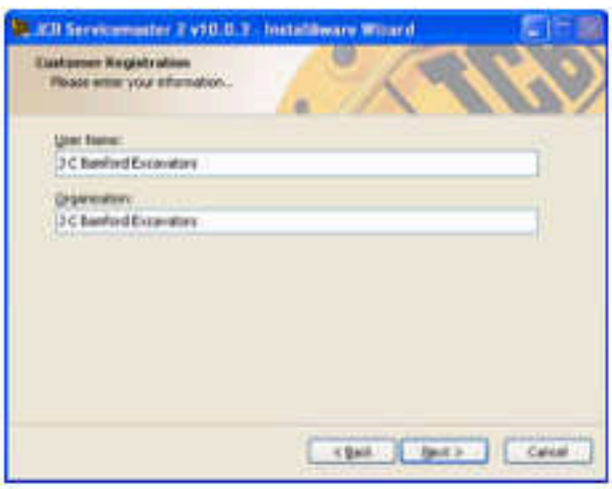
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T040310-5

Fig 7.

6 The next screen requires you to put in your username and organization. Once inserted, click next.



T040310-6

Fig 8.

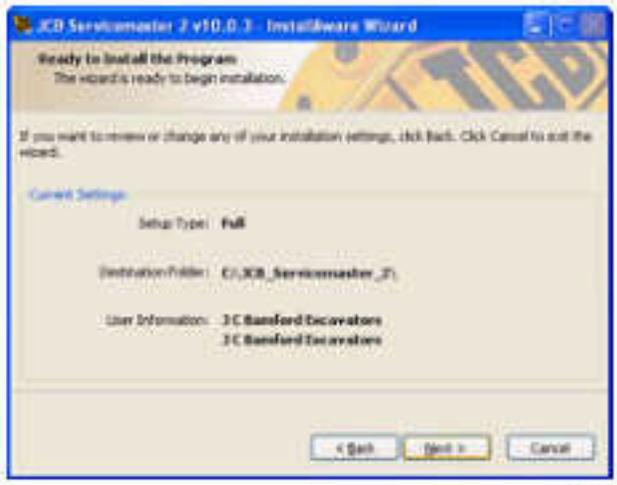
7 On the next screen, please choose "Complete" to do the full install to your laptop.



T040310-7

Fig 9.

8 The next screen shows you where ServiceMaster will be installed to on your computer. Click next to begin the install.



T040310-7

Fig 10.

9 During the install you may get a number of errors indicating language files for TransLink haven't been found. Please click Ignore, these files will be installed later via WebUpdate.

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Schematic Diagrams - T4i Engine Machines

Table 1. Sheets

- ⇨ Sheet 2 of 22 - High Current and Power Distribution (C-12)
- ⇨ Sheet 3 of 22 - Ignition, 12 Volt Distribution, Switch Backlighting (C-13)
- ⇨ Sheet 4 of 22 - Secondary Fuses and Power Distribution (C-14)
- ⇨ Sheet 5 of 22 - Machine ECU (MECU) - Connector J1 (C-15)
- ⇨ Sheet 6 of 19 - Machine ECU (MECU) - Connector J2 (C-16)
- ⇨ Sheet 7 of 22 - Screen Wash and Wipers (C-17)
- ⇨ Sheet 8 of 22 - Worklights and Beacon, Operator Seat Electrical Functions (C-18)
- ⇨ Sheet 9 of 22 - Cab Roof Electrical Components - Wiper, Worklights, Radio Speakers (C-19)
- ⇨ Sheet 10 of 22 - DECU J1 and J2, Livelink, Cameras (C-20)
- ⇨ Sheet 11 of 22 - Earth Connections, Revolving Frame (C-21)
- ⇨ Sheet 12 of 22 - Earth Connections, Cab (C-22)
- ⇨ Sheet 13 of 22 - CANbus (C-23)
- ⇨ Sheet 14 of 22 - Hydraulic ECU (HECU) Connector J1 (C-24)
- ⇨ Sheet 15 of 22 - Hydraulic ECU (HECU) Connector J2 (C-25)
- ⇨ Sheet 16 of 22 - Options - Arm Limiter, Dual ISO/SAE Controls, Auxiliary Hydraulics, Hydraulic Cab Raise (C-26)
- ⇨ Sheet 17 of 22 - Heater Only Option, Reversing Fan (C-27)
- ⇨ Sheet 18 of 22 - Heating Ventilation and Air Conditioning (HVAC) Option (C-28)
- ⇨ Sheet 19 of 22 - JCB Dieselmax T4i Engine (C-29)(1)
- ⇨ Sheet 20 of 22 - Wheeled ECU (WECU) Connector J1 (C-30)
- ⇨ Sheet 21 of 22 - Wheeled ECU (WECU) Connector J2 (C-31)
- ⇨ Sheet 22 of 22 - Road Lights (C-32)

(1) The machine electrical harnesses connect to the engine electrical harnesses at connector IC23. For details of the engine electrical harness and devices refer to the applicable engine Service Manual.

- ⇨ Schematics - Component Keys (C-55)

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