Service Manual

JS175W Auto

Section 1 - General Information

Section 2 - Care & Safety

Section 3 - Routine Maintenance

Section B - Body & Framework

Section C - Electrics

Section D - Controls

Section E - Hydraulics

Section F - Transmission

Section K - Engine



Publication No.
9803/6550-1



Copyright © 2004 JCB SERVICE. All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any other means, electronic, mechanical, photocopying or otherwise, without prior permission from JCB SERVICE.

Issued by JCB Technical Publications, JCB Service, World Parts Centre, Boonhouse, Uttoxeter, Staffordshire, ST14 5PR, England. Tel +44 1889 590312 Fax +44 1889 590377

World Class Customer Support

MidWestTech | JCB JS175W Auto Wheeled Excavator Service Manual | Publication 9803-6... Order the manual at mid-west-tech.com >

Contents Page No.

Introduction
About this Publication ..... 1 - 1
Schematic Codes ..... 1 - 2

Identifying your Machine
Identification Plates ..... 1 - 3

Torque Settings
Zinc Plated Fasteners and Dacromet Fasteners ..... 1 - 5
Hydraulic Connections ..... 1 - 9

Service Tools
Numerical List Section B - Body and Framework ..... 1 - 13
Tool Detail Reference Section B - Body and Framework ..... 1 - 14
Numerical List Section C - Electrics ..... 1 - 17
Tool Detail Reference Section C - Electrics ..... 1 - 18
Numerical List Section E- Hydraulics ..... 1 - 19
Tool Detail Reference Section E- Hydraulics ..... 1 - 21

Service Consumables
Sealing and Retaining Compounds ..... 1 - 29

MidWestTech | JCB JS175W Auto Wheeled Excavator Service Manual | Publication 9... Order the manual at mid-west-tech.com >

Contents Page No.

Safety Notices
Introduction ..... 2 - 1
Safety Check List ..... 2 - 2
General Safety ..... 2 - 3
Operating Safety ..... 2 - 5
Maintenance Safety ..... 2 - 7
Safety Decals ..... 2 - 10

MidWestTech | JCB JS175W Auto Wheeled Excavator Service Manual | Publication 9... Order the manual at mid-west-tech.com >

Contents Page No.

Maintenance

Service Requirements ..... 3 - 1
Health and Safety ..... 3 - 3
Service Schedules ..... 3 - 7
Lubricants and Capacities ..... 3 - 15
Cleaning the Machine ..... 3 - 17
Checking for Damage ..... 3 - 18
Daily Checking ..... 3 - 19
Bolt and Nut Torque Specifications ..... 3 - 21
Checking the FOPS Structure ..... 3 - 23
Seat Belt ..... 3 - 24
Greasing ..... 3 - 25
Tyres and Wheels ..... 3 - 28
Electrical System ..... 3 - 29
Engine ..... 3 - 33
Fuel System ..... 3 - 41
Hydraulic System ..... 3 - 47
Gearboxes ..... 3 - 57
Front Axle ..... 3 - 59
Rear Axle ..... 3 - 62
Windscreen ..... 3 - 64
Troubleshooting ..... 3 - 65

MidWestTech | JCB JS175W Auto Wheeled Excavator Service Manual | Publication 9... Order the manual at mid-west-tech.com >

Slew

Table 37. Insufficient slew force

Cause	Remedy
Performance reduction of slew motor	Replace slew motor(1)
Thermal seizure of slew shaft	Supply grease or replace the slew shaft(1)

Table 38. Idle slew during slew braking

Cause	Remedy
Low setting of brake valve	Adjust the pressure(1)
Clogged valve	Wash the valve(1)
Performance reduction of slew motor	Replace slew motor(1)
Internal oil leakage of control valve	Repair or replace valve assembly(1)

Table 39. Idle slew during slew stopping

Cause	Remedy
Low setting of brake valve or port relief	Adjust the pressure(1)
Clogged valve	Wash the valve(1)
Performance reduction of slew motor	Replace slew motor(1)
Internal oil leakage of control valve	Repair or replace valve assembly(1)

Table 40. Abnormal noise during slew

Cause	Remedy
Air in slew motor	Refill with oil
Insufficient greasing of slew bearing	Add grease

Hydraulic ram

Table 41. Insufficient force of hydraulic ram

Cause	Remedy
Low pressure setting for the relief valve	Adjust the pressure(1)
Oil leakage inside the hydraulic ram	Replace the ram seals(1)
Damage of the hydraulic ram or rod	Replace the hydraulic ram or rod(1)
Oil leakage inside the control valve	Repair or replace the valve assembly(1)

Table 42. Oil leakage outside the hydraulic ram

Cause	Remedy
Defective hydraulic ram seals	Replace hydraulic ram seals(1)
Hydraulic cylinder rod damage*	Replace hydraulic ram rod(1)

(1) Indicates jobs which should be done by a specialist. Refer to Service Manual.

MidWestTech | JCB JS175W Auto Wheeled Excavator Service Manual | Publication 9... Order the manual at mid-west-tech.com >

Main Harness D

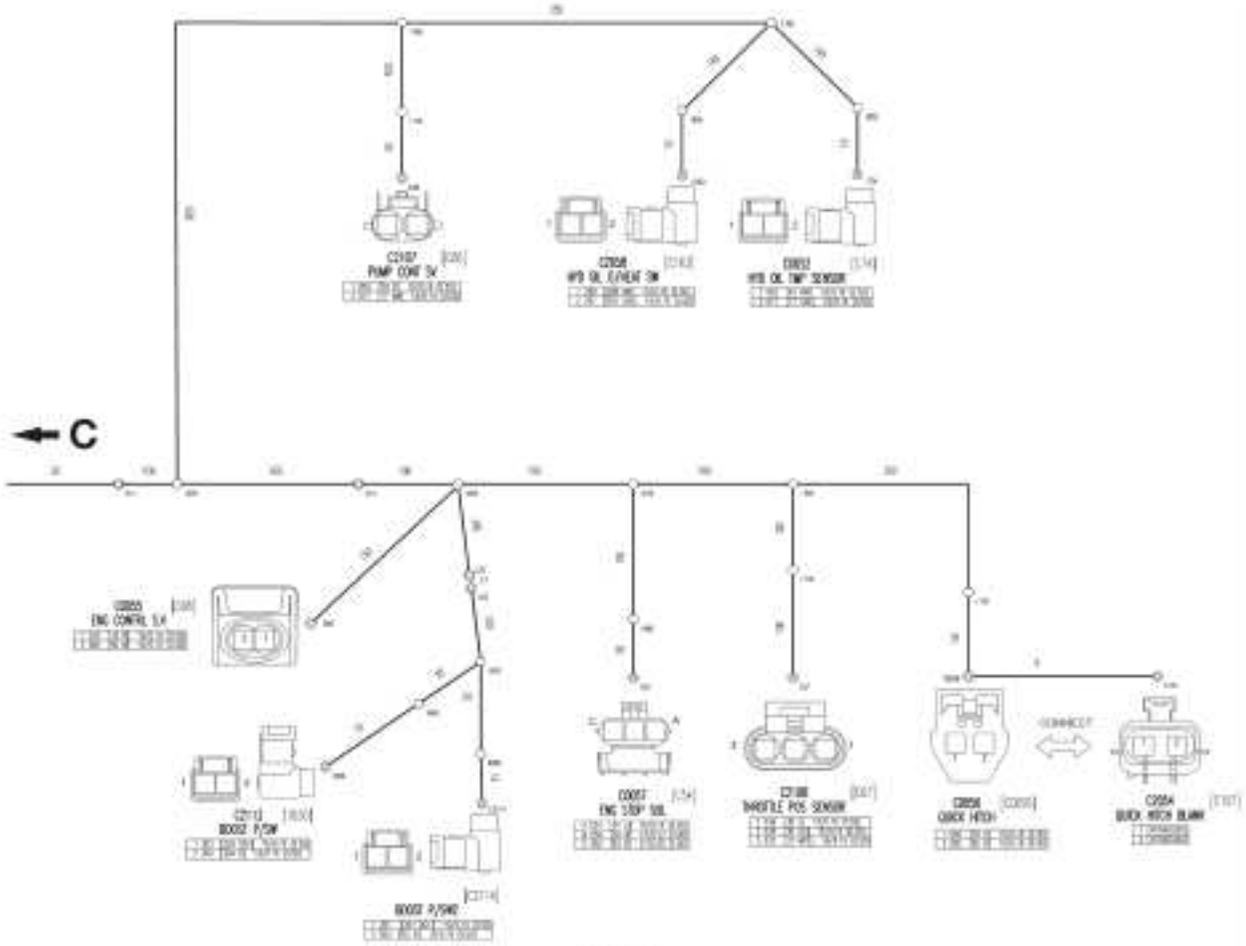


Fig 235.

MidWestTech | JCB JS175W Auto Wheeled Excavator Service Manual | Publication 9... Order the manual at mid-west-tech.com >

Test 011: Testing Swing brake pressure

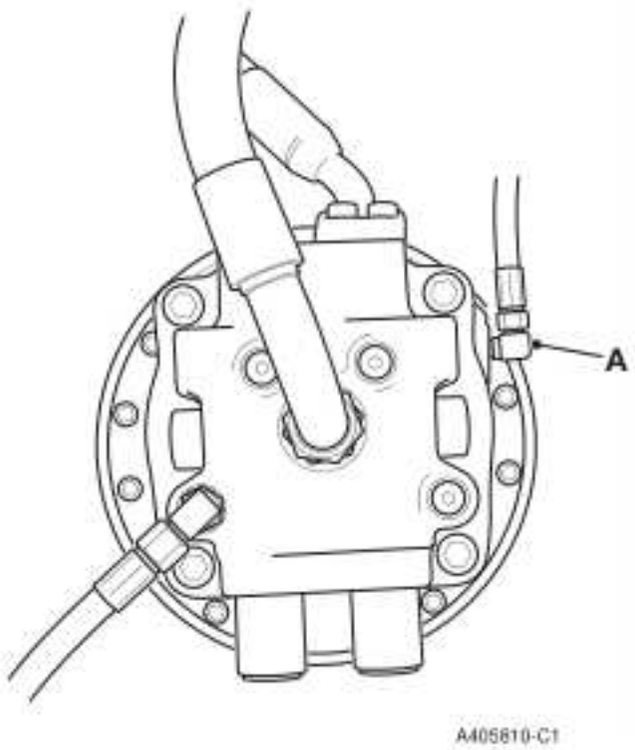


Fig 369.

Fit pressure test gauge 0 - 60 bar (1000 lb in²) into hose connection on hose **A** on the Slew Motor.

IWarm up hydraulic system to 50°C

	Pressure at port A (expected pressure)
With engine at max rpm's no services selected record pressure	0 bar (0 lb in²)
Select slew service record pressure	40 bar (580 lb in²)
Deselect slew service and leave excavator pressure switch closed. record pressure	40 bar (580 lb in²)
Select 100% slew lock record pressure	after 5 secs 0 - 1.5 bar (21.75lb in²)

MidWestTech | JCB JS175W Auto Wheeled Excavator Service Manual | Publication 9... Order the manual at mid-west-tech.com >

Fault Finding

JCB Service Master

Service Master is a gateway application allowing a large number of Vehicle Support Applications to be linked using one familiar interface. The interface acts as a graphical tool for selecting the target vehicle from a database of Vehicle Families and triggering the particular Service Tool Application desired. This removes the need for a user to 'remember' every individual service tool available and select which one is intended for a particular machine.

The Service Master also provides several key features that will accompany all JCB projects, a Multi Language editing tool that provides a means of individual text string translation for all JCB applications and the means to select a localised language translation for each JCB application.

The contents of this document aim to explain to you, the User, how to operate this application and to make most of its functionality.



Fig 168.

MidWestTech | JCB JS175W Auto Wheeled Excavator Service Manual | Publication 9... Order the manual at mid-west-tech.com >

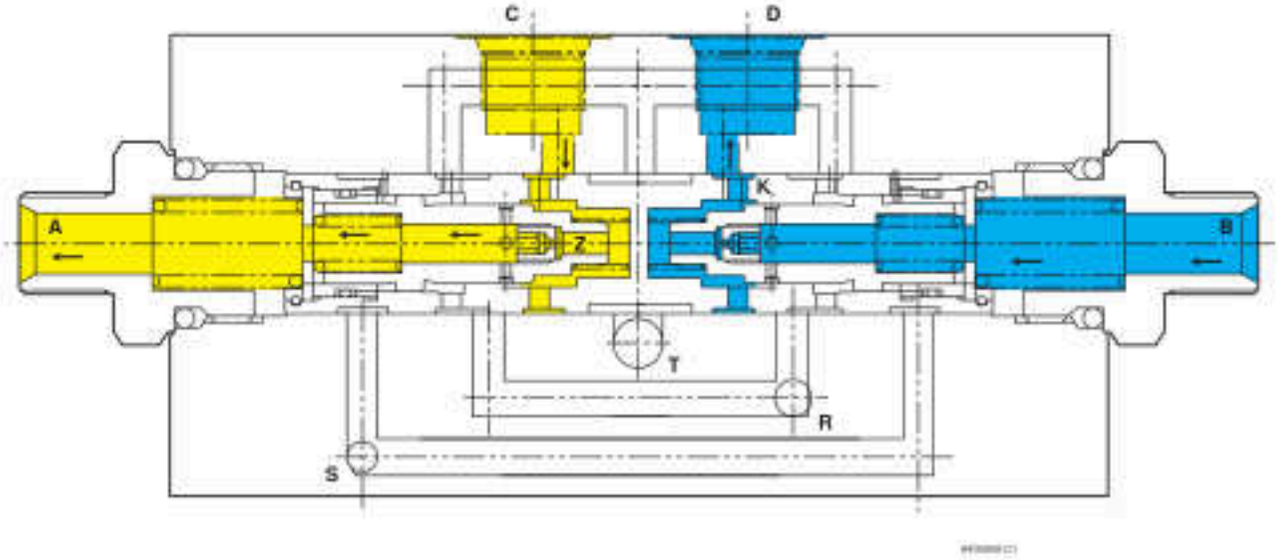


Fig 129. Cushion valve - Pressure applied to S port (Piloted Open)

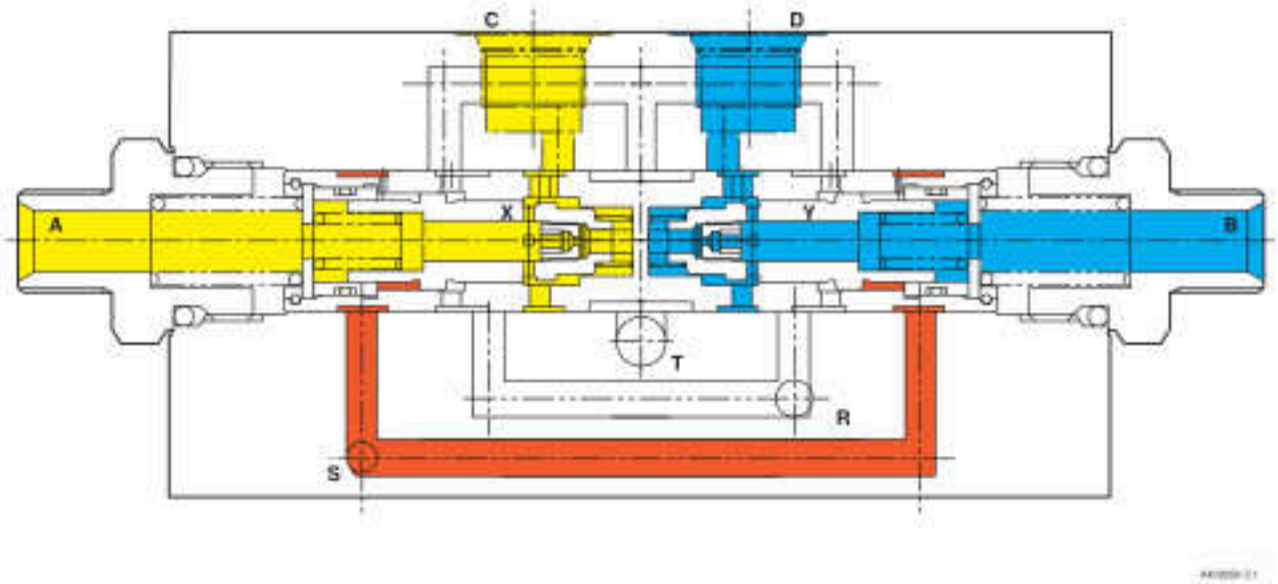


Fig 130. Cushion valve - No Pressure applied

MidWestTech | JCB JS175W Auto Wheeled Excavator Service Manual | Publication 9... Order the manual at mid-west-tech.com >