Service Manual

JS370 - Tracked Excavators - Tier 2 JCB DieselMax Engine

Section 1 - General Information

Section 2 - Operator's Manual

Section B - Body and Framework

Section C - Electrics

Section E - Hydraulics

Section F - Transmission

Section J - Track and Running Gear

Section K - Engine

Section M - Electronic Data Systems



Publication No.
9813/4850-1



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 Aftermarket Training, Woodseat, Rocester, Staffordshire, ST14 5BW, England. Tel +44 1889 591300 Fax +44 1889 591400

World Class Customer Support

MidWestTech | JCB JS370 Tier 2 JCB DieselMax Tracked Excavator Service Manual | Publ... Order the manual at mid-west-tech.com >

Contents Page No.

Introduction
Identifying Your Machine 1-1-1

Safety
Introduction 1-2-3

Use
Introduction 1-3-5
Scope 1-3-6
Personnel 1-3-6
Applications 1-3-6
Newest Data 1-3-6
Format 1-3-7
Left Side, Right Side 1-3-8
Hydraulic Schematic Codes 1-3-9
Colour Codes 1-3-9

Routine Maintenance
Maintenance Schedules 1-4-11

General Procedures
Introduction 1-5-13
Parking the Machine and Making it Safe 1-5-14
Venting the Hydraulic Pressure 1-5-15
Connecting/Disconnecting Hydraulic Hoses 1-5-16
Battery Disconnection/Connection 1-5-17
Removing and Replacing Components 1-5-18
Preparation 1-5-18
Original Components 1-5-18
New Components 1-5-18
Torques and Fixings 1-5-18
Battery Charging System Precautions 1-5-19
Gas Hydraulic Bladder Accumulators 1-5-20
Replacement 1-5-20
Charging 1-5-20

Standard Torque Settings
Zinc Plated Fasteners and Dacromet Fasteners 1-23
Introduction 1-23
Bolts and Screws 1-23
Hydraulic Connections 1-27
'O' Ring Face Seal System 1-27
'Torque Stop' Hose System 1-30
JCB Standard Torque Settings 1-31
B.S.P. Port Connection (Colour Coded) 1-31
Hose Ends and Flanged Fittings (Colour Coded) 1-32

Service Consumables
Introduction 1-6-33
Sealing and Retaining Compounds 1-6-34

Service Tools
Numerical List 1-7-35

MidWestTech | JCB JS370 Tier 2 JCB DieselMax Tracked Excavator Service Manual |... Order the manual at mid-west-tech.com >

Contents Page No.

Tool Detail Reference 1-7-38
Section B - Body and Framework 1-7-38
Section C - Electrics 1-7-42
Section E - Hydraulics 1-7-43
Section K- Engine 1-7-58

MidWestTech | JCB JS370 Tier 2 JCB DieselMax Tracked Excavator Service Manual |... Order the manual at mid-west-tech.com >

Removal and Replacement

Removal

Note: *Before removing the HVAC/Air Conditioning Unit, the system must be discharged.*

⚠ WARNING

The air conditioning system is a closed loop system and contains pressurised refrigerant. No part of the system should be disconnected until the system has been discharged by a refrigeration engineer or a suitably trained person. You can be severely frostbitten or injured by escaping refrigerant.

4-3-4-1_2

⚠ CAUTION

Do not operate the air conditioning system when there is no refrigerant in the system, otherwise the compressor will be damaged.

4-3-4-4

⚠ WARNING

Do not carry out welding operations close to the air conditioning refrigerant circuit. A poisonous gas is produced when refrigerant comes into contact with naked flames. Do not smoke or allow naked flames close to the refrigerant circuit.

BF-1-9

The heater and air conditioning units are built into the same module, enabling the units to be interchanged as complete assemblies.

1 Working in the cab, remove the drivers seat from its runners to provide access to the heater unit.

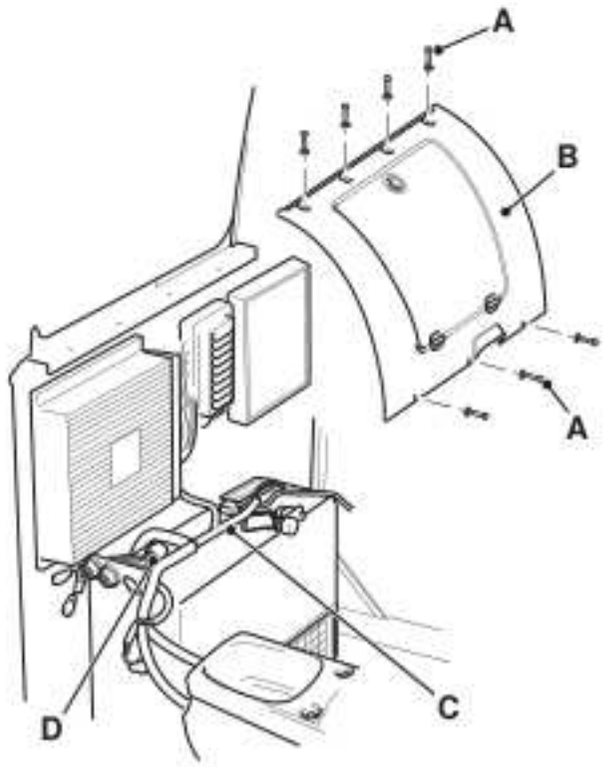


Fig 1.

2 Remove the fixing screws **A** and lift off the rear panel **B**.

3 Disconnect the harness **C** from the heater unit by releasing the cable ties. Disconnect the heater assembly plug **D**.

MidWestTech | JCB JS370 Tier 2 JCB DieselMax Tracked Excavator Service Manual |... Order the manual at mid-west-tech.com >

Specifications

Type	24V 55amp Alternator
No Load Speed	1250 rpm
Maximum Speed -	
Permanent	15000 rpm
Intermittent	18000 rpm
Weight	5.7 Kg

MidWestTech | JCB JS370 Tier 2 JCB DieselMax Tracked Excavator Service Manual |... Order the manual at mid-west-tech.com >

HVAC Devices

Introduction

This topic contains information about a machine DEVICE. Make sure you are referring to the correct device. Refer to the applications table.

Descriptions and procedures relate to the device and not related systems. For information about the systems refer to the relevant topics.

⇨ *Related Topics (M7-2)*
⇨ *ATC Control Panel (M7-3)*
⇨ *HVAC Unit (M7-5)*
⇨ *Compressor (M7-6)*

Use the information in this topic together with the following machine specific information in ***Section C***.

- Electrical schematics
- Harness and electrical connector details
- Earth points
- Fuse and relay locations
- General electrical test procedures

Note: *The schematics shown in this topic are intended to show the principle of operation. The actual wires and connectors may be different on each machine variant.*

MidWestTech | JCB JS370 Tier 2 JCB DieselMax Tracked Excavator Service Manual |... Order the manual at mid-west-tech.com >



Fig 8.

7 Lift out 2nd Reduction Sun Gear.



Fig 9.

8 Remove the O-ring from the ring gear. ⇨ *Fig 10. (E9-8)*.



Fig 10.

9 Lift out 2nd Reduction Planet gear assembly.



Fig 11.

10 Remove ring gear ⇨ *Fig 12. (E9-9)*.

MidWestTech | JCB JS370 Tier 2 JCB DieselMax Tracked Excavator Service Manual |... Order the manual at mid-west-tech.com >

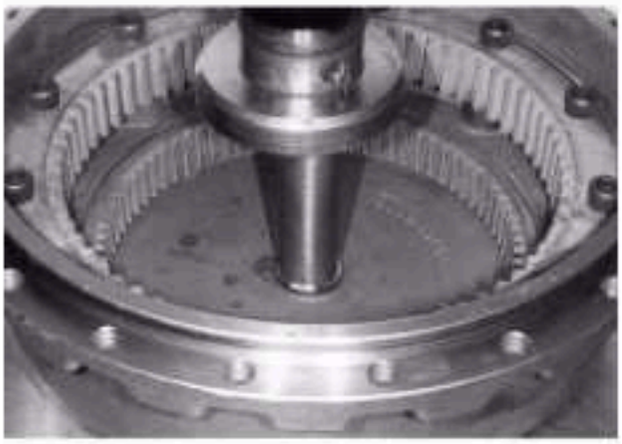


Fig 62.

22 Install Bonfig tool 6689969020 on the end cover (6) and using lifting tackle place the end cover (6) on the gearbox housing (13).



Fig 63.

23 Tighten the 20 M12 x 35 socket head screws (1), with a torque wrench to 130 Nm.



Fig 64.

24 Insert the M22 x 1,5 plugs (3) and the washers (2) into the oil draining-filling holes of the end cover (6).Tighten the plugs with a torque wrench to 60-70 Nm.



Fig 65.

25 Use pliers to assemble the circlip (20) into its seat in the coupling (19).

MidWestTech | JCB JS370 Tier 2 JCB DieselMax Tracked Excavator Service Manual |... Order the manual at mid-west-tech.com >