## **Service Manual**



## **JZ140 ZTS**

Section 1 - General Information

Section 2 - Care and Safety

Section 3 - Maintenance

Section B - Body and Framework

Section C - Electrics

Section E - Hydraulics

Section F - Transmissions

Section J - Track and Running Gear

Section K - Engine



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retrieval system, or trans-ission from JCB SERVICE.

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### **Section 1**



## **General Information**

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### Introduction

#### **About this Publication**

This publication is designed for the benefit of JCB Distributor Service Engineers who are receiving, or have received, training by JCB Technical Training Department.

These personnel should have a sound knowledge of workshop practice, safety procedures, and general techniques associated with the maintenance and repair of hydraulic earthmoving equipment.

Renewal of oil seals, gaskets, etc., and any component showing obvious signs of wear or damage is expected as a matter of course. It is expected that components will be cleaned and lubricated where appropriate, and that any opened hose or pipe connections will be blanked to prevent excessive loss of hydraulic fluid and ingress of dirt. Finally, please remember above all else SAFETY MUST COME FIRST!

The manual is compiled in sections, the first three are numbered and contain information as follows:

- 1 General Information includes torque settings and service tools.
- 2 Care & Safety includes warnings and cautions pertinent to aspects of workshop procedures etc.
- 3 Routine Maintenance includes service schedules and recommended lubricants for all the machine.

The remaining sections are alphabetically coded and deal with Dismantling, Overhaul etc. of specific components, for example:

- A Attachments
- B Body & Framework...etc.

The page numbering in each alphabetically coded section is not continuous. This allows for the insertion of new items in later issues of the manual.

Section contents, technical data, circuit descriptions, operation descriptions etc. are inserted at the beginning of each alphabetically coded section.

All sections are listed on the front cover; tabbed divider cards align directly with individual sections on the front cover for rapid reference.

Where a torque setting is given as a single figure it may be varied by plus or minus 3%. Torque figures indicated are for dry threads, hence for lubricated threads may be reduced by one third.

'Left Hand' and 'Right Hand' are as viewed from the rear of the machine facing forwards.

This Service Manual covers the following machines: JZ140



# Section 1 - General Information Introduction

Schematic Codes

### **Schematic Codes**

#### **Colour Codes**

The following colour coding, used on illustrations to denote various conditions of oil pressure and flow, is standardised throughout JCB Service Publications.

Red	<b>Full Pressure</b> : Pressure generated from operation of a service. Depending on application this may be anything between neutral circuit pressure and MRV operating pressure.
Pink	Pressure: Pressure that is above neutral circuit pressure but lower than that denoted by Red.
Orange	Servo: Oil pressure used in controlling a device (servo).
Blue	Neural: Neutral circuit pressure.
Green	Exhaust:
Light Green	Cavitation: Oil subjected to a partial vacuum due to a drop in pressure (cavitation).
Yellow	Lock Up: Oil trapped within a chamber or line, preventing movement of components (lock up).



## **Identifying your Machine**

#### **Identification Plates**

#### **Data Plate**

Your machine has a Data Plate, located on the outside the cab as shown at  $\bf A$ . The machine serial number is inscribed at  $\bf B$  which is the baseplate of the rear frame and the engine number is at  $\bf C$ .

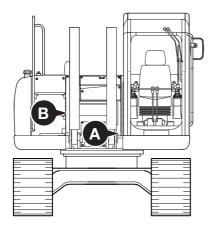


Fig 1.



Fig 2.

# Typical Vehicle Identification Number (VIN)

**1 2 3 4 5 6 7**SLP JZ 14 C 4 E 1137000

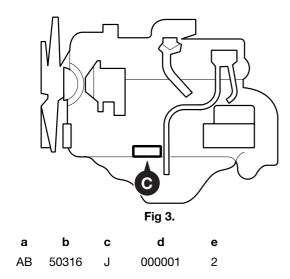
- 1 World Manufacturer Identification (SLP = JCB)
- 2 Machine Type ( JZ = Tracked)
- **3** Machine Model (14 = 140)
- 4 Generation
- **5** Year of Manufacture (1 = 2001, 2 = 2002, 3 = 2003, 4 = 2004, 5 = 2005, 6 = 2006)
- 6 Manufacturers Location (E = England)
- 7 Machine Serial Number (1137001)



**Identification Plates** 

#### **Typical Engine Identification Number**

If the engine is replaced by a new one, the data plate serial number will be wrong. Either stamp the new number on the plate or stamp out the old one. This will prevent the wrong number being quoted when you order replacement parts.



- **a** Engine Type (AB= 4 cylinder turbo)
- **b** Engine Parts List
- c Country of Manufacture
- d Engine Serial Number
- e Year of Manufacture

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### **Torque Settings**

#### Introduction - Zinc Plated Fasteners and Dacromet Fasteners

Some external fasteners on machines are assembled using an improved type of corrosion resistant finish. This type of finish is called Dacromet and replaces the original Zinc and Yellow plating used on earlier machines.

The two types of fasteners can be readily identified by colour and part number suffix as follows:

Fastener Type	Colour	Part Number
Zinc and Yellow	Golden finish	'Z' (e.g. 1315/3712Z)
Dacromet	Mottled silver finish	'D' (e.g. 1315/3712D)

**Note:** As the Dacromet fasteners have a lower torque setting than the Zinc and Yellow fasteners, the torque figures used must be relevant to the type of fasteners.

**Note:** A Dacromet bolt should not be used in conjunction with a Zinc and Yellow plated nut, as this could change the torque characteristics of the torque settings further. For the same reason, a Dacromet nut should not be used in conjunction with a Zinc and Yellow plated bolt.

**Note:** All bolts used on JCB machines are high tensile and must not be replaced by bolts of a lesser tensile specification.

**Note:** Dacromet bolts, due to their high corrosion resistance are used areas where rust could occur. Dacromet bolts are only used for external applications. They are not used in application such as gearbox and engine joint seams or internal applications.

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