Service Manual



Side Engine Loadalls

Section 1 - General Information

Section 2 - Care and Safety

Section 3 - Routine Maintenance

Section A - Attachments

Section B - Body and Framework

Section C - Electrics

Section D - Controls

Section E - Hydraulics

Section F - Transmission

Section G - Brakes

Section H - Steering

Section K - Engine

Section L - Flowshare



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Section 3 - Electrics



Notes:	

Section 1



General Information

Service Manual - Side Engine Loadalls

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Section 1 - General Information

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Section 1 - General Information

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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 and Framework...etc.

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.

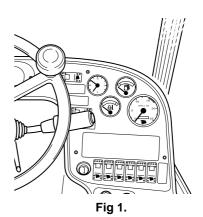
Where a torque setting is given as a single figure it may be varied by plus or minus 3%. Torque figures indicated are for dry threads, hence for lubricated threads may be reduced by one third.

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

Applicable Machines

This manual contains topics that relate to JCB side engine Loadall machines with JCB Dieselmax engines and analogue cab instrumentation. ⇒ Fig 1. (1 1-1)

Serial Numbers 1422000 to 1441999.



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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	Full Pressure : 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).



Machine Identification

Machine Identification Plate

The machine has an identification plate mounted as shown. ⇒ Fig 2. (1-3). The serial numbers of the machine and its major units are stamped on the plate.

Note: The machine model and build specification is indicated by the VIN (earlier machines) or PIN (later machines). A detailed description of the VIN/PIN numbering system is included later in this section.⇒ Typical Product Identification Number (PIN) (1-5)

Note: The machine identification plate fitted to European Tractor Type Approved Builds is different to the one shown.
⇒ Typical Product Identification Number (PIN) (1-5).

The serial number of each major unit is also stamped on the unit itself. If a major unit is replaced by a new one, the serial number on the identification plate will be wrong. Either stamp the new number of the unit on the identification plate, or simply stamp out the old number. This will prevent the wrong unit number being quoted when replacement parts are ordered.

The machine and engine serial numbers can help identify exactly the type of equipment you have.

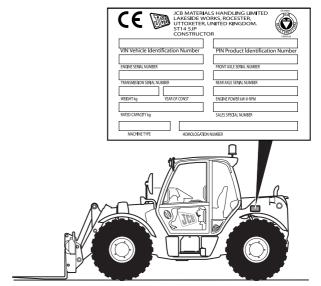


Fig 2.



Section 1 - General Information Machine Identification

Machine Identification Plate

Typical Vehicle Identification Number (VIN)

SLP 5AA J A 2 E 0123456 1 2 3 4 5 6 7

- 1 World Manufacturer Identification (3 Digits)
- 2 Machine Model (3 Digits)

Standard Builds:

5AA = 531-70	5AH = 533-105
5AB = 535-95	5AJ = 535-125
5AC = 536-60	5AK = 535-140
5AD = 541-70	5AL = 540-140
5AF = 540-170	

European Tractor Type Approved Builds:

5TA = 531-70	5TC = 536-60
5TB = 541-70	5TD = 535-95

3 Engine Type (1 Digit)

```
J = JCB Dieselmax (SA Build)
K = JCB Dieselmax (SB Build)
L = JCB Dieselmax (SC Build)
```

4 Gearbox Model (1 Digit)

```
E = 3 \text{ Speed (PS750)} H = 4 \text{ Speed (PS760)}

F = 3 \text{ Speed (PS760)} J = 6 \text{ Speed (PS760)}

G = 4 \text{ Speed (PS750)}
```

5 Year of Manufacture:

5 = 2005	7 = 2007
6 - 2006	8 - 2008

6 Manufacturer Location (1 Digit)

E = England

7 Machine Serial Number (7 Digits)

Each machine has a unique serial number.

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Section 1 - General Information Machine Identification

Machine Identification Plate

Typical Product Identification Number (PIN)

JCB5AAJEC70123456 1 2 3 4 5 6 7

- 1 World Manufacturer Identification (3 Digits)
- 2 Machine Model (3 Digits)

Standard Builds:

5AA = 531-70	5AJ = 535-125
5AB = 535-95	5AK = 535-140
5AC = 536-60	5AL = 540-140
5AD = 541-70	5AR = 536-70
5AF = 540-170	
5AH = 533-105	

European Tractor Type Approved Builds:

5TA = 531-70	5TD = 535-95
5TB = 541-70	5TE = 536-70
5TC = 536-60	

3 Engine Type (1 Digit)

JCB Dieselmax (Tier 2): J = Naturally Aspirated, 63kW (84.5Hp) K = Turbocharged, 74.2kW (100Hp) L = Turbocharged and Intercooled, 93kW (125Hp)

4 Gearbox Model (1 Digit)

E = 3 Speed (PS750)	H = 4 Speed (PS760)
F = 3 Speed (PS760)	J = 6 Speed (PS760)
G = 4 Speed (PS750)	M = 4 Speed (SS700)

- 5 Randomly generated check letter (1 Digit)
- 6 Year of Manufacture (1 Digit)

7 = 2007	A = 2010
8 = 2008	B = 2011
9 = 2009	C = 2012

7 Machine Serial Number (7 Digits)

Each machine has a unique serial number.

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