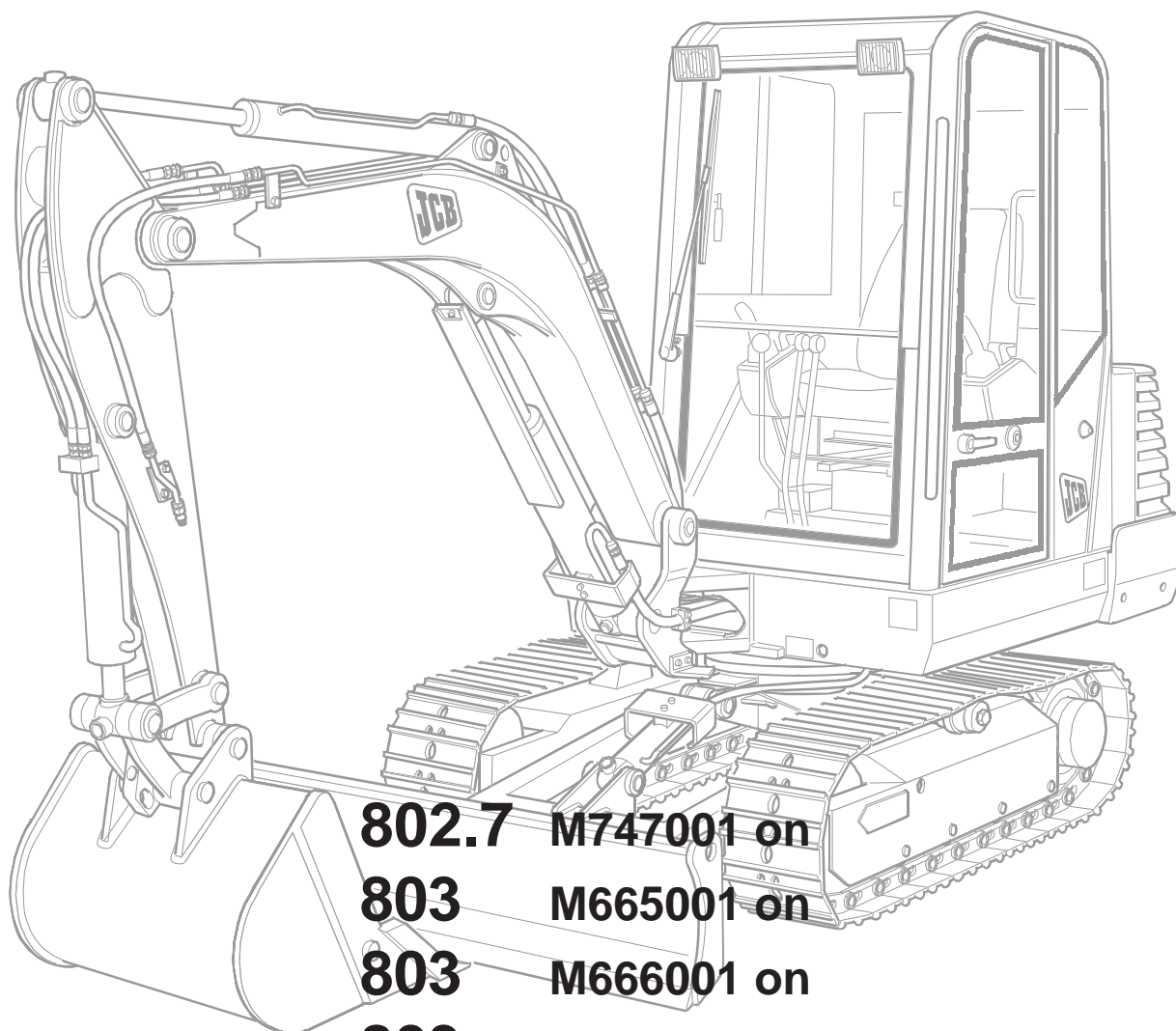




# MINI-EXCAVATOR SERVICE MANUAL

HYDRAPOWER

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**802.7** M747001 on

**803** M665001 on

**803** M666001 on

**803** M765001 on

**804** M734001 on

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## Introduction

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

It is assumed that such personnel have at least a sound knowledge of workshop practice, safety procedures and general techniques associated with the maintenance and repair of hydraulic earth moving equipment. Details of such are therefore generally omitted from this manual, the intention being to convey only the more specialised information concerning particular aspects of the machine or component in question.

For example, renewal of oil seals, gaskets etc. and any component showing obvious wear or damage is expected as a matter of course and information on these matters is therefore only included where a specialised procedure or range of wear tolerances is required. Similarly, it is expected that components will be thoroughly cleaned and lubricated where appropriate, also that any opened hose or pipe connections will be blanked to prevent entry of dirt and excessive loss of hydraulic fluid.

For convenience the manual is divided into sections, e.g. 'Hydraulics', 'Electrics' etc., but to find details of a specific component, reference should be made to the alphabetical index at the back of the book.

Illustrations showing a dismantled component are numbered as a guide to the dismantling sequence which can generally be reversed for assembly.

Torque settings quoted are given as 'mean' figures, which may be varied by  $\pm 3\%$ .

'Left Hand' and 'Right Hand' are as viewed from the rear of the machine or engine.

Replacement or additional pages for this manual will be issued from time to time and should be inserted in place of the existing pages which should be removed and destroyed.

Where possible, revised pages will bear an asterisk (\*) against the new information, the page issue number in the bottom right hand corner being similarly marked.

A *Service Tools Microfiche*, detailing special tools required, is available separate.

**FLUIDS, LUBRICANTS, CAPACITIES AND SPECIFICATIONS****LUBRICANTS AND CAPACITIES**

**Note:** To promote thorough running-in, engines of new machines are fitted at the factory with JCB 10W/30 Multigrade oil. This oil should be drained after the first 100 hours operation and the engine filled with the recommended grade as shown in the engine lubrication chart. JCB 10W/30 Multigrade should also be used for the first 100 hours operation whenever a new or reconditioned engine is fitted into the machine. Alternatively, where a new or reconditioned engine requires protection against corrosion during prolonged storage, Mobilaroma 524 may be used during the storage period and for the first 100 hours operation. It is essential that both these oils are replaced by the recommended lubricant after the first 100 hours operation.

ITEM	CAPACITY Litres (UK Gal) [US Gal]	FLUID / LUBRICANT	INTERNATIONAL SPECIFICATION
<b>Fuel Tank</b> 802.7 M747001 on 803 to M665001 on & 666001 on 804 M734001 on 803 M765001 on	50 (11.0) [13.2]  45 (9.9) [11.8]	Diesel Oil (See <b>Types of Fuel</b> )	ASTM D975-66T Nos. 1D, 2D
<b>Engine (Oil)</b> *First 100 hours only	4.5 (1.0) [1.2]	<b>JCB 10W/30 Multigrade</b> above - 15°C (5°F) * <b>JCB 5W/20 Multigrade</b> - 15°C to - 25°C (5 °F to - 13°F)	MIL-L-46152, API CC/SF API CC/SE (recommended)
*After first 100 hours		<b>JCB 15W/40 Multigrade</b> above - 10°C (14°F) * <b>JCB 5W/20 Multigrade</b> - 10°C to - 25°C (14°F to -13°F)	SAE15W/40, MIL-L-46152B, API CD/SE MIL-L-2104D API CC/SE or API CD/SE
<b>Engine (Coolant)</b> Canopy Cab	4.5 (1.0) [1.2] 5.0 (1.1) [1.3]	<b>JCB Universal Antifreeze/water</b> ( See <b>Coolant Mixtures</b> )	ASTM D3306-74
<b>Track Gearbox</b> (each)	1.2 (0.26) [0.3]	<b>JCB SAE 30 Engine Oil</b> ( NOT Multigrade )	API CD/SF, MIL-L-46152B MIL-L-2104B
<b>Slew Gearbox</b> Lubrication to M665736 *802.7 M747001 on 803 M666001 on 804 M734001 on *803 M765001-027	0.6 (0.13) [0.15] 0.7 (0.15) [0.18] 0.7 (0.15) [0.18] 0.7 (0.15) [0.18]	<b>JCB HD90 Gear Oil</b>  <b>JCB HD90 Gear Oil</b> below 0°C (32°F) <b>JCB HD 140 Gear Oil</b> 0°C to 40°C (32°F to 104°F) Lubricated from hydraulic system	API-GL-5, MIL-L-2105D API-GL-5, MIL-L-2105D API-GL-5, MIL-L-2105D
*803 M765028 on			
<b>Track Idler Wheels</b>	Sealed Unit	<b>JCB HD90 Gear Oil</b>	API-GL-5, MIL-L-2105D
<b>Track Rollers</b> (bottom) (top)	Sealed Unit Sealed Unit	<b>JCB HD90 Gear Oil</b> <b>JCB HD90 Gear Oil</b>	API-GL-5, MIL-L-2105D API-GL-5, MIL-L-2105D
<b>Hydraulic Tank</b> *803 to M666704 *804 to M734085 *802.7M747001 on *803 M666705 on *803 M765001 on *804 M734086 on	90 (20) [24] 90 (20) [24] 62 (14) [16.8] 62 (14) [16.8] 61 (13.5)[16.2] 62 (14) [16.8]	<b>JCB Hydraulic fluid 46</b> below - 10°C (14°F) <b>JCB Special Hydraulic Fluid</b> over 40°C (104°F)	

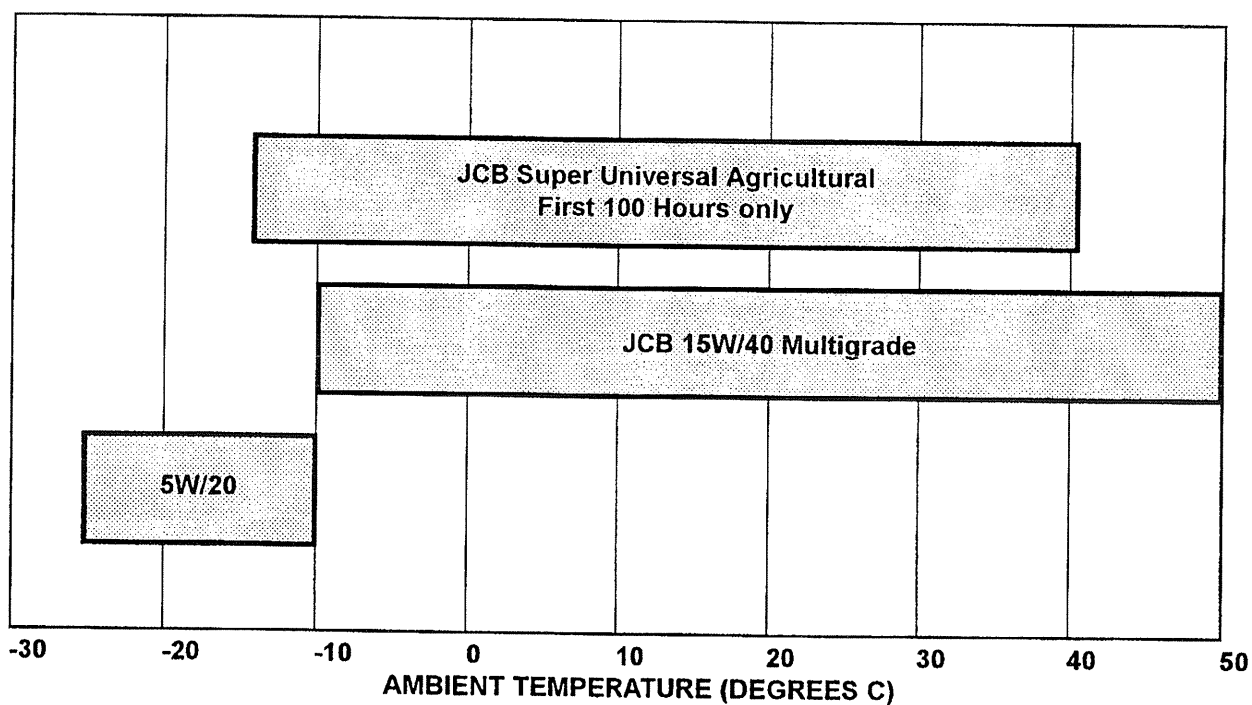
## FLUIDS, LUBRICANTS, CAPACITIES AND SPECIFICATIONS

ITEM	CAPACITY Litres (UK Gal)	FLUID / LUBRICANT	INTERNATIONAL SPECIFICATION
#Slew Ring Bearings Gear Teeth		JCB MPL Grease JCB Slew Pinion Grease ##	Lithium based, No. 2 consistency.
All Other Grease Points		JCB MPL Grease	Lithium based, No. 2 consistency.

### ## WARNING

JCB Slew Pinion Grease is harmful. It contains bitumen compounds 2811 with possible risks of irreversible effects. Excessive contact may lead to dermatitis or skin cancer. Always use a barrier cream or wear gloves. Wash contaminated skin thoroughly with soap and water. In the event of contact with the eye, immediately wash with plenty of water and seek medical advice.

### ENGINE LUBRICATION CHART



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