

# **Loadall Range**

**Publication No. 9803/3350**



## Contents

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**This Service Manual covers the following machines:-**

**520 from machine No. 500001, 520HL, 520 Farm Special, 520M,  
525, 525B, 525B HL, 525B Farm Special,  
530, 530 HL, 530B, 530B HL,  
540B, 540BM.**

**Information covers 2 and 4 wheel drive machines.**

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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 Technical 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 earthmoving 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 compiled in 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.

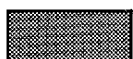
Illustrations showing a dismantled component are numbered as a guide to the dismantling sequence which can generally be reversed for assembly.

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.

The following coding is used on hydraulic circuit illustrations to denote various conditions of oil pressure and flow.



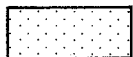
1. Neutral Circuit Pressure.



2. Pressure generated by the operation of a service. Depending on application, this may be anything between Neutral Circuit Pressure and MRV Operating Pressure.



3. Pressure that is above neutral pressure but lower than that denoted by 2.

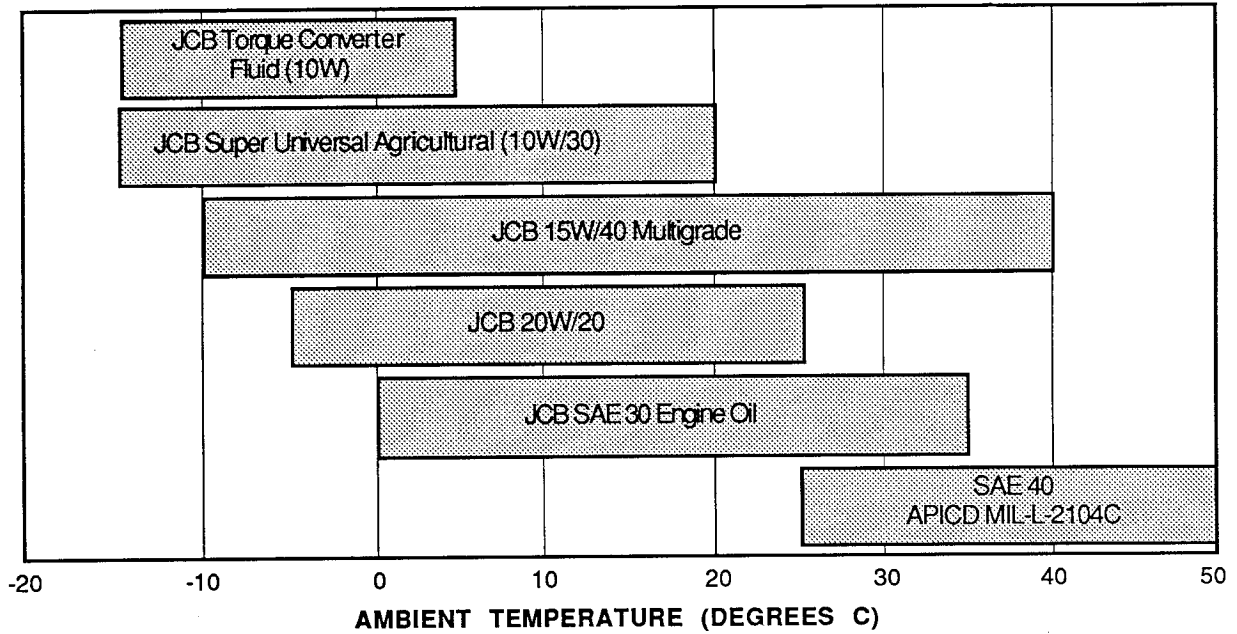


4. Exhaust.

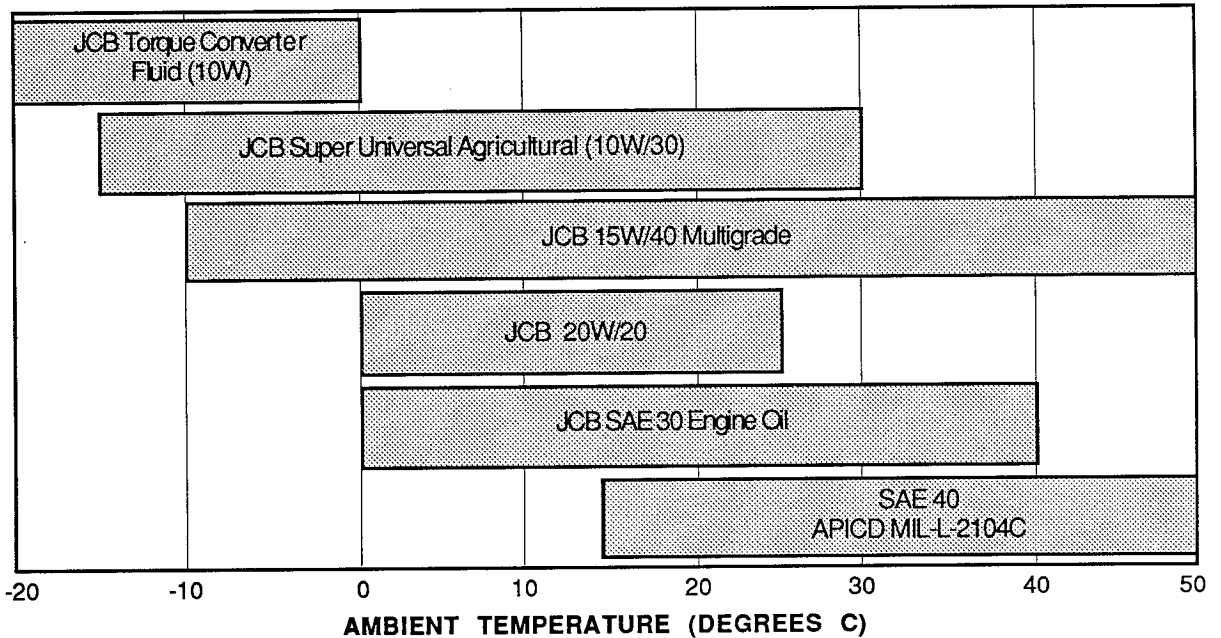


**ENGINE LUBRICATION CHART**

**LEYLAND 4/98 ENGINE**



**PERKINS 4.236 & T4236 ENGINES**



1-1A

1-1A

## LUBRICANTS &amp; CAPACITIES

\* Note: To promote thorough running-in, engines of new machines are filled at the factory with JCB 10W/30 Multi-grade oil. This oil should be drained after the first 100 hours operation and the engine filled with the appropriate 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 to the machine. Alternatively, where a new or reconditioned engine requires protection against corrosion during prolonged storage, Mobilarma 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	LUBRICANT	CAPACITY	Litres	UK gal	US gal
* ENGINE	(See separate chart)	4/98 Engine: 4.236 Engine:	9.7 11	2.1 2.4	2.5 2.9
SHUTTLE REVERSER See Note 2	† JCB T/C Oil Type C3 (SAE 10W)	From dry:	11	2.4	2.9
GEARBOX See Note 2	† JCB 15W/40 Multigrade		2.6	0.6	0.7
* JCB TRANSMISSION See Note 2	JCB Special Transmission Fluid	From dry: 2WD 4WD	17.25 18.25	3.8 4.0	4.5 4.8
DRIVE AXLE (FRONT)	JCB Special Gear Oil		29.5	6.5	7.8
DRIVE AXLE (REAR-4WD)					
520-4 to m/c 500281	JCB HD90 Gear Oil ††	Differential:	6.0	1.3	1.6
520M-4 to m/c 560019		Hubs (each):	0.75	0.17	0.2
525-4 to m/c 271055					
520-4 from m/c 500282	JCB HD90 Gear Oil ††	Differential:	15	3.3	4.0
520M-4 from m/c 560020		Hubs (each):	1.3	0.3	0.3
525-4 from m/c 271056					
525B-4					
530-4 from m/c 271300					
530B-4/540B-4/540BM-4					
HYDRAULIC SYSTEM					
Below 38 deg C	JCB Special Hydraulic Fluid	520/520M/525B: 525/530:	87-100 225-228	19-22 49-51	23-26 58-60
Above 38 deg C	JCB High Performance Hydraulic Fluid	530B/540B/540BM	160-170	35-37	42-45
	Note: Capacities vary according to number of services fitted.				
* BRAKE SYSTEM	JCB Light Hydraulic Fluid				

Note 2: The JCB Transmission replaces the shuttle reverser and gearbox from the following machine serial numbers:—

JCB520: 502201  
 JCB520M: 560401  
 JCB525B: 272701  
 JCB530B: 580601  
 JCB540B: 274201

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