

SERVICE/INSPECTION CHECKLIST

DATE: 03/2023	ISSUE: 1	NUMBER: 14/177
SUBJECT: 14/177: Service/Inspection Checklist - JCB 4 Cyl Mech Engine (T2/BS2, T3/BS3)		
PRODUCTS AFFECTED: JCB T2/BS2 DA Engine, JCB T2/BS2 DB Engine, JCB T2/BS2 DC Engine, JCB T2/BS2 SA Engine, JCB T2/BS2 SB Engine, JCB T2/BS2 SC Engine, JCB T3 444 Elec Engine (4 Cyl), JCB T3/BS3 DD Engine, JCB T3/BS3 DF Engine, JCB T3/BS3 DG Engine, JCB T3/BS3 SD Engine, JCB T3/BS3 SF Engine, JCB T3/BS3 SG Engine		
TO BE CARRIED OUT: Information Only		
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Machine and Dealer Information

Table 1.

Dealer Stamp (Below): 	Machine Type:
	Serial Number:
	Distributor:
	Depot:
	Job Number:
	Hourmeter Reading:
	Date of Registration:
	Date of Service:
	Customer Name:
	Engineer Name:

Introduction

WARNING Maintenance must be done only by suitably qualified and competent persons.

Before doing any maintenance make sure the machine is safe, it must be correctly parked on firm, level ground.

To prevent anyone starting the engine, remove the Ignition key. Disconnect the battery (by means of the battery isolator if installed) when you are not using electrical power. If you do not take these precautions you could be killed or injured.

A badly maintained engine is a danger to the operator and the people working around the operator. Make sure that the regular maintenance and lubrication tasks listed in the service schedules are done to keep the engine in a safe and efficient working condition.

To ensure the correct functioning of the engine and emissions control system all operation and maintenance must be conducted in accordance with the instructions in this manual. Incorrect operation, maintenance or repair of the engine and emissions control system may lead to reduced product life, loss of performance or malfunctions. It is the engine owner's responsibility to ensure maintenance is conducted properly in accordance with the requirements in this manual.

Apart from the daily tasks, the schedules are based on the engine running hours. Keep a regular check on the hourmeter readings to correctly gauge the service intervals. When there is no hourmeter installed, use the calendar equivalents to determine the service intervals.

Do not use a engine which is due for a service. Make sure any defects found during the regular maintenance checks are corrected immediately.

More frequent checks of engine components than the engine manufacturer recommends do not invalidate emissions warranty.

How to Use the Maintenance Schedules

The schedules show the service tasks which must be done and their intervals.

The services must be done at either the hourly interval or the calendar equivalent, whichever occurs first.

The intervals given in the schedules must not be exceeded. If the engine is operated under severe conditions (high temperature, dust, water, etc.) shorten the intervals.

Table 2.

<input type="radio"/>	Service task can be completed by a competent operator. Details of how to complete the service task are given in the Operator's Manual.
<input type="checkbox"/>	We recommend that a Service Engineer completes the service task. Details of how to complete the service task are given in the Service Manual.

Maintenance Intervals

General

Table 3.

Interval (h)	Calendar Equivalent
10	Daily
50	Weekly
500	6 months
1000	Yearly
1500	1 Year and 6 months
2000	2 Years
8000	8 Years

Pre-start Cold Checks, Service Points and Fluid Levels

Table 4.

Component	Task	10	50	500	1000	2000	8000
Coolant quality and level	Check	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cooling system	Drain/refill					<input type="checkbox"/>	<input type="checkbox"/>
Oil level	Check	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Oil and filter ^(1, 2)	Replace			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air cleaner outer element ^(3, 6)	Replace				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air cleaner inner element ^(3, 6)	Replace					<input type="checkbox"/>	<input type="checkbox"/>

Water separator and engine fuel filter ⁽⁵⁾	Drain			○	□	□	□	□	□
Water separator fuel filter (Pre filter)	Replace				□	□	□	□	□
Engine fuel filter (Main filter)	Replace					□	□	□	□
Fuel lubricity filter (if fitted)	Replace				□	□	□	□	□
FEAD (Front End Accessory Drive) belt condition	Check				□	□	□	□	□
FEAD belt	Replace								□
Engine mounting bolts for tightness	Check				□	□	□	□	□
All hoses - condition	Check				□	□	□	□	□
Radiator ⁽³⁾	Clean				□	□	□	□	□
CCV (Crankcase Ventilation) breather Gauze	Clean						□	□	□
Valve clearances ⁽⁴⁾	Check/adjust						□	□	□
Oil filler and dipstick seals ⁽⁴⁾	Check						□	□	□
Rocker cover and injector seals ⁽⁴⁾	Replace						□	□	□
Injectors ⁽⁴⁾	Replace								□
Injector(s) leak off rail ⁽⁴⁾	Replace								□
High pressure fuel lines ⁽⁴⁾	Check condition								□

(1) If operating under arduous conditions, change the engine oil and filter every 250 hours.

(2) The oil service interval will be affected if there is a high sulphur content in the fuel. Refer to Fuel System for more information.

(3) If operating in dusty working environments, carry out these tasks more frequently.

(4) Jobs which should only be done by a specialist.

(5) Drain the filter whenever red band moves up from its position.

(6) Refer machine operator manual for replacement schedule.

Functional Tests and Final Inspection

Table 5.

Component	Task	10	50	100 ⁽¹⁾	500	1000	1500	2000	6000
Engine									
Idle speed ⁽²⁾	Check and adjust			□	□	□	□	□	□
Exhaust smoke (excessive)	Check (condition)		○	□	□	□	□	□	□
Exhaust system security ⁽²⁾	Check (condition)			□	□	□	□	□	□
Air Inlet system security	Check (condition)			□	□	□	□	□	□
Throttle system and control cable (Mechanical engine only) ⁽²⁾	Check (condition)			□	□	□	□	□	□

(1) First 100 hours service only, to be completed by your JCB dealer.

(2) Jobs which should only be done by a specialist.

Paintwork Defects

Figure 102.