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Safety Notices

Important Information

T1-042

The Operator Manual

⚠ WARNING

You and others can be killed or seriously injured if you operate or maintain the machine without first studying the Operator Manual. You must understand and follow the instructions in the Operator Manual. If you do not understand anything, ask your employer or JCB dealer to explain it.

INT-1-4-2

Do not operate the machine without an Operator Manual, or if there is anything on the machine you do not understand.

Treat the Operator Manual as part of the machine. Keep it clean and in good condition. Replace the Operator Manual immediately if it is lost, damaged or becomes unreadable.

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Typical Product Identification Number

The PIN, weight, engine power, year of manufacture and serial number of the machine are stamped on the identification plate. ⇒ *Fig 6. (40)*.

J	C	B	5	1	5	4	0	L	9	1	6	2	7	5	0	1
1			2						3	4	5					

1 World Manufacturer Identification (3 Digits)

2 Machine Model (5 Digits)

3 Randomly Generated Check Letter (1 Digit)

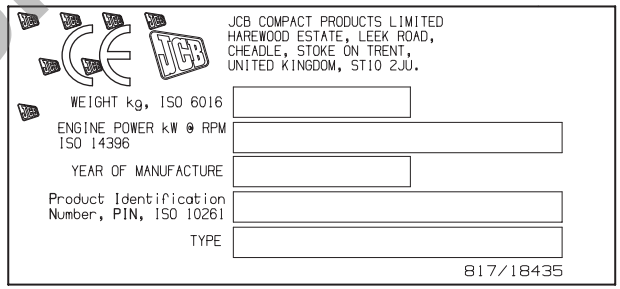
4 Year of Manufacture (1 Digit)

9 = 2009	A = 2010
B = 2011	C = 2012

5 Machine Serial Number (7 Digits)

Each machine has a unique serial number.

Note: *For later models, the year of manufacture was removed and the machine serial number was increased to 8 digits.*



817-18435-2

Fig 6.

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Operation

Introduction

T2-006_2

The aim of this part of the manual is to guide the operator step-by-step through the task of learning how to operate the machine efficiently and safely. Read the ***Operation*** section through from beginning to end.

Before you start the machine, you must know how the machine operates. Use your manual to identify each control lever, switch, gauge, button and pedal. Do not guess. If there is anything you do not understand, ask your JCB distributor.

The operator must always be aware of events happening in or around the machine. Safety must always be the most important factor when you operate the machine.

When you understand the operating controls, gauges and switches, practice using them. Drive the machine in an open space, clear of people. Get to know the 'feel' of the machine and its driving controls.

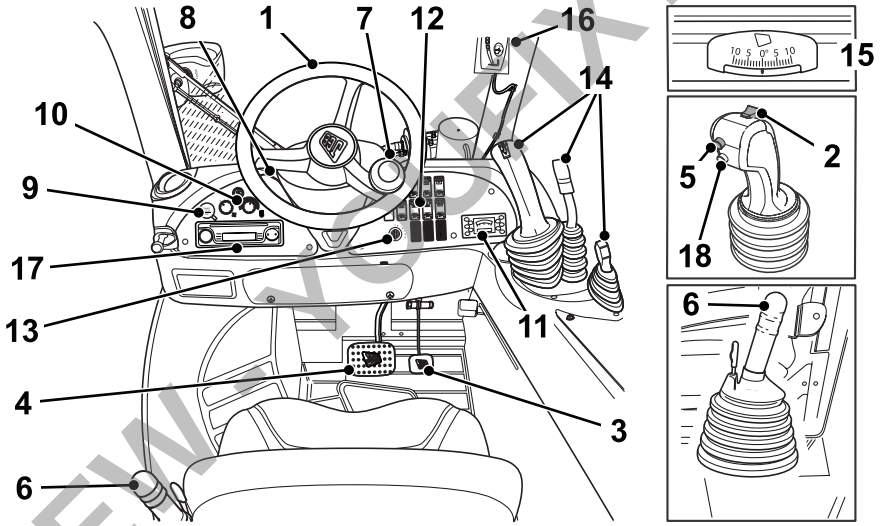
Finally, do not rush the job of learning, make sure you fully understand everything in the ***Operation*** section. Take your time and work efficiently and safely.

Remember

BE CAREFUL
BE ALERT
BE SAFE

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Cab Layout



T042880

Fig 20.

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Hose Burst Protection Valves

Checking the Hose Burst Protection Valves

Introduction

P5-3001_2

The hose burst protection valves 'lock' to prevent uncontrolled movement of the ram pistons if hydraulic pressure fails or a hose bursts. The valves are mounted directly on the rams.

⚠ WARNING

Keep people clear of the machine while you do these checks.

5-3-4-2

Check each movement in turn.

Important: *Ensure the machine is parked on firm level ground before carrying out the following procedures.*

Boom Lift Rams

P5-3031

1 Start the engine. Make sure the park brake is engaged, the transmission is in neutral.

2 Raise the boom to about 45°.

3 With the engine running at mid speed, operate the control lever to lower the boom. While the boom is moving, switch off the engine. Boom movement should slow as the engine slows and stop as the engine stops.

If the boom continues moving after the engine has stopped, both boom hose burst protection valves are faulty. Do not use the machine until the fault has been put right.

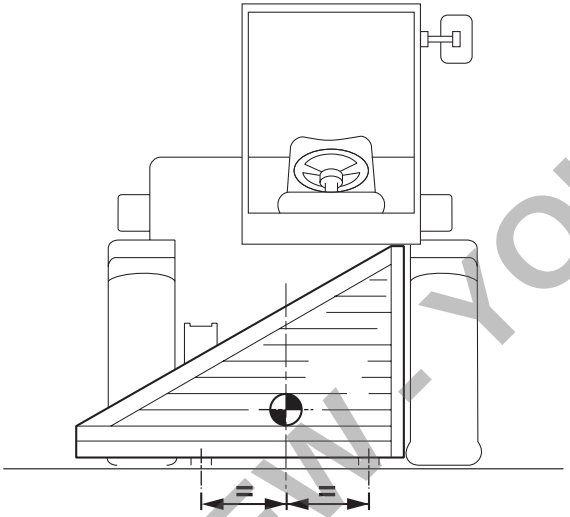
Boom Extension Ram

1 Start the engine. Make sure the park brake is engaged and the transmission is in neutral.

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Stop the engine before allowing anyone to approach the forks.



A239570

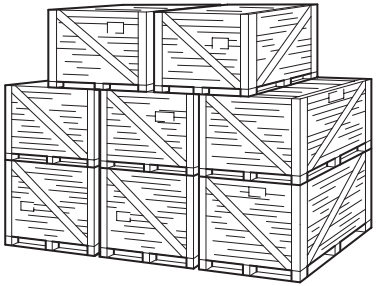
Fig 62.

Stacking Loads

T2-070

Box Pallets

Stack box pallets straight and square. For extra stability, stagger the top row.



151990-3

Fig 63.

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i Check that the overall height of the load is within regulations. Adjust if necessary.

j Secure the cab.

k Cover the exhaust pipe.

3 Anchor the machine to the trailer with chains. The anchor points are shown on the illustration. ⇒ *Fig 73. (🗋 173)*.

4 Measure the maximum height of the machine from the ground. Make sure the truck driver knows the clearance height before he drives away.

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Fluids, Lubricants and Capacities

Specifications

Table 1.

Item	Capacity Litres (Gal)	Fluid/Lubricant	International Specification
Fuel Tank	50 (11)	Diesel	⇒ ***Acceptable and Unacceptable Fuels (205)***
Engine (Oil)	8.0 (1.76)	JCB Extreme Performance Engine Oil 15W/40	ACEA A3/B3/E3/E5 API CH-4/ SJ
Engine (Coolant)	22 (4.8)	JCB HP Performance Antifreeze and Inhibitor/Water. ⇒ ***Coolant Mixtures (207)***.	ASTM D3306/D4985
Hydraulic Tank(1)	58 (12.76)	JCB High Performance 10W/30	API CF4/SG
Hydraulic System(2)	80 (17.6)	In extreme temperatures, below -12°C use JCB Optimum Performance Hydraulic Fluid 46	JCB4002/2000

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Pre-start Cold Checks, Service Points and Fluid Levels

	Operation	10	50	250	500	1000	2000
ENGINE							
Oil Level	Check	☐	☐	☐	☐	☐	☐
Oil and Filter[1]	Change				☐	☐	☐
Fuel Lift Pump	Check				☐	☐	☐
Fuel Lift Pump[6]	Change					☐	☐
Injector Nozzle[6][2]	Change						
Radiator	Clean		☐	☐	☐	☐	☐
Cooling Fan	Check/Clean		☐	☐	☐	☐	☐
Coolant Level and Quality	Check	☐	☐	☐	☐	☐	☐
Cooling System	Drain and Refill					☐	☐
Air Cleaner Outer Element[3]	Change				☐	☐	☐
Air Cleaner Inner Element[3]	Change					☐	☐

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Diagnostic Fault Codes

P5-2014

When the system detects a fault, the audible alarm will sound and various combinations of lights on the display will indicate a fault code for approximately 10 seconds.

The audible alarm and the fault code display cancel after 10 seconds and all LEDs on the display will flash continuously as long as the fault remains. Press and release display button **E** to show the fault code for a further 10 seconds.

When the fault clears, the display will return to normal.

⚠ WARNING

If the Load Moment Indicator is faulty, contact your JCB Distributor. Do not try to repair it yourself.

12-2-1-1

If any of these fault codes are displayed, switch the starter key off and on again. Contact your JCB distributor if the fault does not clear.

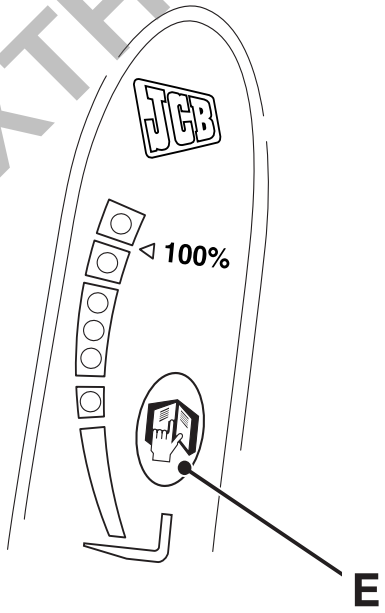


Fig 43.

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⚠ WARNING

You could be killed or seriously injured if you operate a machine with a damaged or missing ROPS/FOPS. If the Roll Over Protection Structure (ROPS)/Falling Objects Protection Structure (FOPS) has been in an accident, do not use the machine until the structure has been renewed. Modifications and repairs that are not approved by the manufacturer may be dangerous and will invalidate the ROPS/FOPS certification.

INT-2-1-9_6

For assistance, contact your JCB distributor. Failure to take these precautions could result in death or injury to the operator.

Check the structure for damage. Check that the mounting bolts **A** are installed and undamaged. Torque tighten the nuts. ⇨ *Table 4. Torque Settings (231)*

Important: *If the rubber mountings are damaged or showing signs of movement replace the bolts, nuts and mountings.*

Important: *The threads on the mounting bolts **A** are a preset length so make sure that the nuts are tightened to the top of the thread. The bolt head and nut must be in contact with the rubber mounting. Make sure that the bolt does not move up and down when tightened. If there is movement replace the bolts, nuts and mountings.*

Table 4. Torque Settings

Item	Nm	lbf ft
A	184	136

Note: *Remove the underfloor cover for access to the rear left cab mount.* ⇨ *Underfloor Cover (251)*

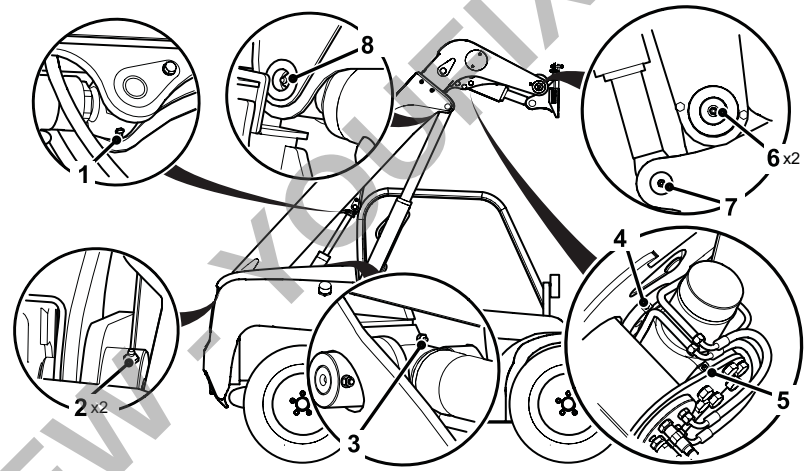
Note: *Remove the left instrument panel for access to the bolt on the front left cab mount.* ⇨ *Left Instrument Panel (257)*

Note: *Remove the right cab panel for access to the bolt on the rear right cab mount.* ⇨ *Right Cab Panel (259)*

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Grease Points

Boom Pivot Grease Points



C090230-C2

Fig 84.

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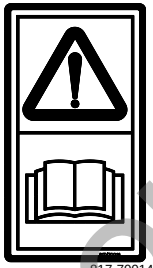
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Part Numbers and Descriptions

ISO-01A

Part Number: 332/G4040

Description: Warning. Read the operator manual before you operate the machine.



817-70014-3

ISO-10A

Part Number: 332/G4040

Description: Crush hazard. Wear the seatbelt when you operate the machine.

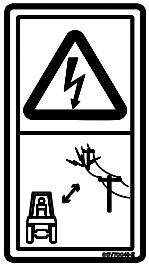


817-70029-3

ISO-05B

Part Number: 332/G4040

Description: Electrical hazard. Keep a safe distance away from power lines.



817-70040-2

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Removing Attachments

Note: *Deposit attachments on firm, level ground whenever possible. This will make later refitting easy and safe.*

1 Lower the Attachment to the Ground.

2 Read the information given in the following pages or the attachment handbook. Pay particular attention to the safety notices and any specific notes about removing the attachment.

⚠ WARNING

Keep other people clear of the area while you disengage the attachment. If a second person is to be involved in this procedure, ensure that he keeps clear of the machine and attachment until signalled by you to proceed.

5-5-1-3_1

3 Disconnect the Hydraulic Hose(s) (If Necessary),

Refer to ***Quick Release Couplings*** and ***Release the Hydraulic Pressure***.

4 Move Quickhitch levers (one each side of hitch plate) fully out, as at position **C**, to retract locking pins **D**.

5 Start the engine.

6 Tilt the carriage forward slowly to withdraw the lower end of the carriage from the attachment. Then lower the boom slowly to withdraw the carriage from the attachment lip **B**. Carefully reverse the machine away from the attachment (or retract the boom).

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b If the engine is cold, turn the starter switch to the 'heat' position **II** to pre-heat the engine. ⇨ *Starter Switch (74)*

The engine pre-heat warning light will illuminate. Fully depress the accelerator pedal and hold it down. Turn the starter switch to position **III** and hold it there until the engine starts or for a maximum of 20 seconds.

Note: *If the engine has not started after 20 seconds, release the starter key. Wait two minutes before attempting another start. This will allow the starter motor to cool down.*

4 Release the starter key as soon as the engine starts. The switch will return to 'IGN' position **I**.

5 Ease off on the accelerator pedal to reduce engine speed.

6 Once the engine has started, check that all the warning lights have gone off. Do not race the engine until the low oil pressure light has gone out. ⇨ *Warning Lights (80)*

7 Check that the audible alarm is silent.

Note: *The engine noise and or tone may be louder than usual when cold. This is normal and is due to the fuel injection pump being advanced. The engine will become quieter when the engine reaches normal operating temperature.*

Note: *If any warning lights fail to go off, or come on while the engine is running, stop the engine as soon as it is safe to do so.*

Note: *New engines do not require a running-in period. The engine/machine should be used in a normal work cycle immediately; glazing of the piston cylinder bores resulting in excessive oil consumption, could occur if the engine is gently run-in. Under no circumstances should the engine be allowed to idle for extended periods; (e.g. warming up without load).*

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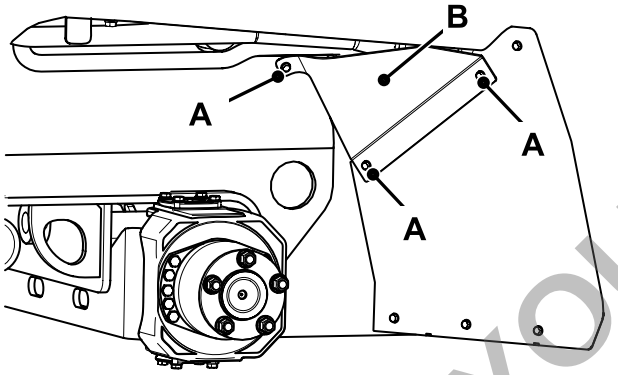


Fig 97.

Left Instrument Panel

Removal and Replacement

Removal

1 Make the machine safe with the boom lowered. ⇨ *How to Make the Machine Safe (Boom Lowered) (🗋 211)*

Note: *If the machine is fitted with a radio remove this before removing the panel.*

2 Remove the screws **B**. ⇨ *Fig 99. (🗋 259)*

3 To prevent damage to the wires and the connectors **C**, carefully move the panel **A** forward.

4 Put a label on the electrical connectors to aid replacement.

5 Disconnect all connections and remove the panel.

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