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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.

Safety Warnings



This safety alert system identifies important safety messages in this manual. When you see this symbol, be alert, your safety is involved, carefully read the message that follows, and inform other operators.

In this publication and on the machine, there are safety notices. Each notice starts with a signal word. The signal word meanings are given below.

⚠ DANGER

Denotes an extreme hazard exists. If proper precautions are not taken, it is highly probable that the operator (or others) could be killed or seriously injured.

INT-1-2-1

⚠ WARNING

Denotes a hazard exists. If proper precautions are not taken, the operator (or others) could be killed or seriously injured.

INT-1-2-2

⚠ CAUTION

Denotes a reminder of safety practices. Failure to follow these safety practices could result in injury to the operator (or others) and possible damage to the machine.

INT-1-2-3

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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.

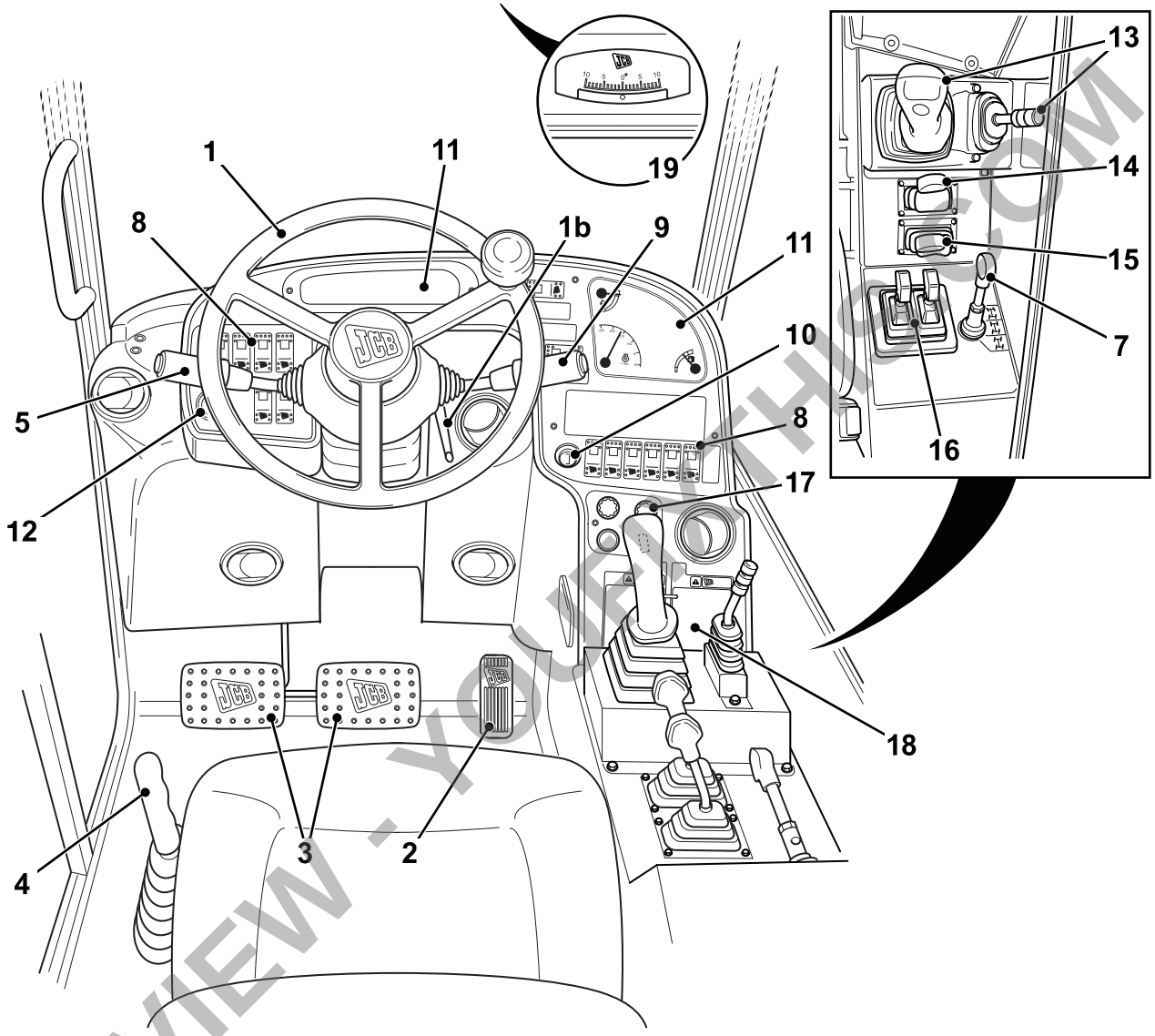
Remember

BE CAREFUL
BE ALERT
BE SAFE

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Cab Layout



T015930-6-C2

Fig 18.

Notice: *The cab layout illustration is of a typical machine, for variations see the relevant page in this manual.*

⇒ ***Component Key (36)***.

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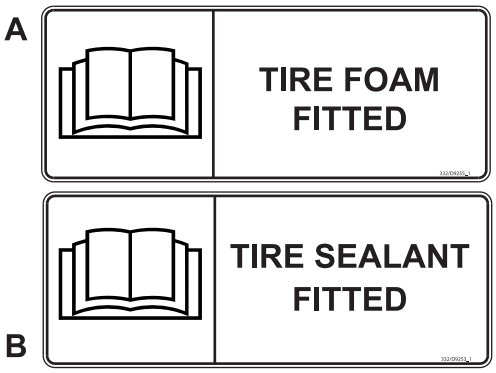
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Tires and Wheels

Tire Ballast

Before you start a maintenance procedure on a tire or a wheel assembly, you must identify if tire ballast is installed. If the tire contains ballast, you must obey the following warnings.

*Notice: A decal is used to show if tire ballast (**A**) or tire sealant (**B**) is installed.* ⇨ *Fig 140. (186)*



T025150-1

Fig 140.

⚠ WARNING

Tire Ballast

Installing tire ballast requires special equipment and training. Have the job done by your JCB Dealer or a tire specialist.

Non-approved tire ballast can cause damage to the machine's drive train and structures. It will also affect manufacturer's warranty.

For advice consult your JCB Distributor.

5-3-2-7U_5

⚠ WARNING

Installing and removing a wheel with tire ballast requires special equipment and training. Have the job done by your JCB Dealer or a tire specialist.

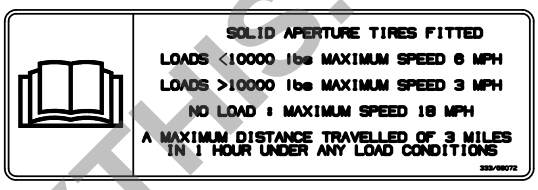
5-3-2-8U_2

Semi Solid Tires

Some machines are fitted with optional semi solid wheels and tires. For service or maintenance please refer to your JCB dealer.

Semi solid tires are subject to load, speed and distance limitations. ⇨ *Semi Solid Tires (208)*

***Notice:** A decal is used to show if semi solid tires are fitted.* ⇨ *Fig 141. (186)*



T069090

Fig 141.

⚠ WARNING

Wheels fitted with semi-solid tires are heavy. Removing and installing them requires special equipment and training. Have the work carried out by your JCB dealer or a tire specialist.

5-6-1-5U

⚠ WARNING

Do not fit pneumatic tires on a wheel made for a solid tire. Do not fit a solid tire on a wheel made for a pneumatic tire. If you are unsure of the correct specification for your machine, contact your local JCB Distributor or a trained specialist.

12-6-1-1U

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Handling Uneven Loads

P5-2072U

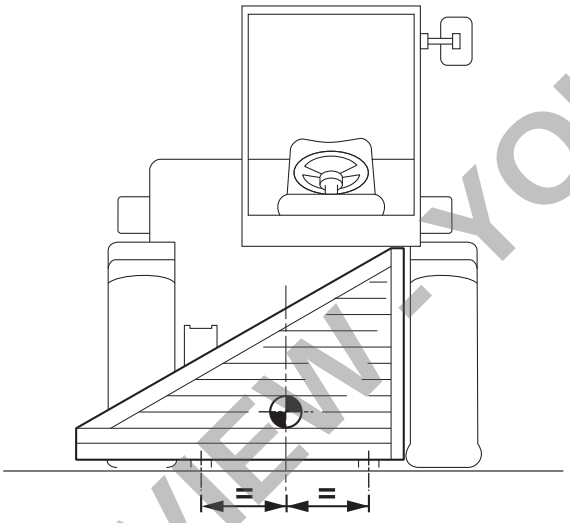
Important: *Use extra caution when operating the boom and carriage with an uneven load.*

1 Find the load's Center of Gravity. On packaged loads it may be marked on the box.

If you cannot find out the load's center of gravity, do the following: Make trial lifts at different positions until you are sure the load is stable on the forks. Do not raise the load more than a few centimetres when you make the trial lifts.

2 Position the machine so that the load's center of gravity is halfway between the forks. ⇒ *Fig 59. (80)*.

3 Pick/Place the load, this will depend on what kind of load it is. If it is palleted, follow the procedure for palleted loads. If it is not palleted, it may be necessary to secure the load to the forks using suitable chains. Stop the engine before allowing anyone to approach the forks.



A239570

Fig 59.

Stacking Loads

T2-070

Box Pallets

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

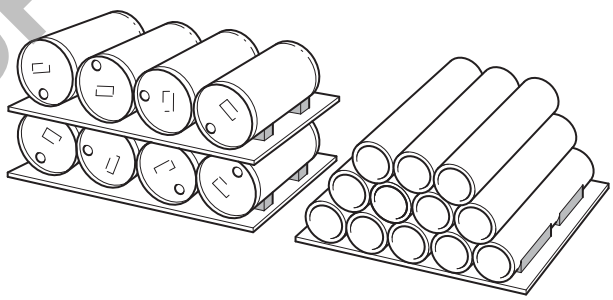


151990-3

Fig 60.

Cylindrical Loads

Stack cylindrical loads tightly together and level. Wedge both ends of each row. If building a pyramid stack, wedge both ends of the bottom row.



151990-4

Fig 61.

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Routine Maintenance

Service Requirements

Introduction

T3-095U

Your machine has been designed and built to give maximum performance, economy and ease of use under a wide variety of operating conditions. Prior to delivery, your machine was inspected both at the Factory and by your Distributor to ensure that it reaches you in optimum condition. To maintain this condition and ensure trouble free operation it is important that the routine services, as specified in this Manual, are carried out by an approved JCB Distributor at the recommended intervals.

This section of the Manual gives full details of the service requirements necessary to maintain your JCB machine at peak efficiency.

A Service Manual for your machine is available from your JCB Distributor. The Service Manual contains information on how to repair, dismantle and assemble your machine correctly.

It can be seen from the Service Schedules on the following pages that many essential service checks should only be carried out by a JCB trained specialist. Only JCB Distributor Service Engineers have been trained by JCB to carry out such specialist tasks, and only JCB Distributor Service Engineers are equipped with the necessary special tools and test equipment to perform such tasks, thoroughly, safely, accurately and efficiently.

JCB regularly updates its Distributors advising them of any product developments, changes in specifications and procedures. Therefore only a JCB Distributor is fully able to maintain and service your machine.

A Service Record Sheet or Book is provided which will enable you to plan your service requirements and keep a service history record. It should be dated, signed and stamped by your Distributor each time your machine is serviced.

Remember, if your machine has been correctly maintained, not only will it give you improved reliability but its resale value will be greatly enhanced.

Owner/Operator Support

JCB together with your Distributor wants you to be completely satisfied with your new JCB machine. If you do encounter a problem however, you should contact your Distributor's Service Department who are there to help you!

You will have been given the names of the relevant service contacts at your Distributor when the machine was installed.

To get the most from your Distributor please help them to satisfy you by:

1 Giving your name, address and telephone number.

2 Quoting your machine model and serial number.

3 Date of purchase and hours of work.

4 Nature of the problem.

Remember, only your JCB Distributor has access to the vast resources available at JCB to help support you. In addition, your Distributor is able to offer a variety of programmes covering Warranty, Fixed Price Servicing, Safety Inspections, including weight tests, covering both legal and insurance requirements.

Environmental Protection Agency and California Air Resources Board

The original owner and all subsequent owners of this machine are free to elect a suitable competent repair shop or person of the owners choosing to conduct maintenance, replacement or repair of engine parts/systems.

JCB strongly recommend the use of genuine JCB Service approved parts when conducting maintenance, replacement or repair of any engine component in order to assure the performance and safety of the machine. If replacement parts other than genuine JCB Service approved parts are used, only manufacturer warranted parts of equivalent performance should be used. In this case, the remaining emissions component warranties

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Pre-start Cold Checks, Service Points and Fluid Levels

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

	Operation	10	50	100(1)	500	1000	1500	2000	8000
ENGINE									
Oil level	- Check	☐							
Coolant Quality/ level	- Check	☐							
Coolant or Oil Leaks	- Check	☐							
Water Sedimentor	- Check for Contamination and Drain		☐						
Fuel Filter (machine mounted)	- Change				☐				
Oil and Filter (2) (3)	- Change				☐				
All Hoses - Condition	- Check				☐				
Radiator (4)	- Clean				☐				
Front End Accessory Drive (FEAD) Belt Condition	- Check				☐				
Fuel Filter (engine mounted)	- Change					☐			
Air Cleaner Outer Element (4)	- Change					☐			
Crankcase Ventilation Filter	- Change						☐		
Air Cleaner Inner Element	- Change							☐	
Valve Clearances(5)	- Check and Adjust							☐	
Oil Filler and Dipstick O-rings	- Change							☐	
Cooling system	- Drain and Fill							☐	
Front End Accessory Drive (FEAD) Belt	- Change								☐
Injectors(5)	- Change								☐
Injector(s) Leak-Off Rail (5)	- Change								☐
High Pressure Fuel Lines(5)	- Change								☐
TRANSMISSION, AXLES AND STEERING									
Transmission Mount Security	- Check			☐					
Transmission Oil Level	- Check	☐	☐	☐	☐				

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Removing the Maintenance Strut

1 Park the machine on level, solid ground with the wheels in the straight ahead position.

If necessary, refer to ***Stopping and Parking the Machine***.

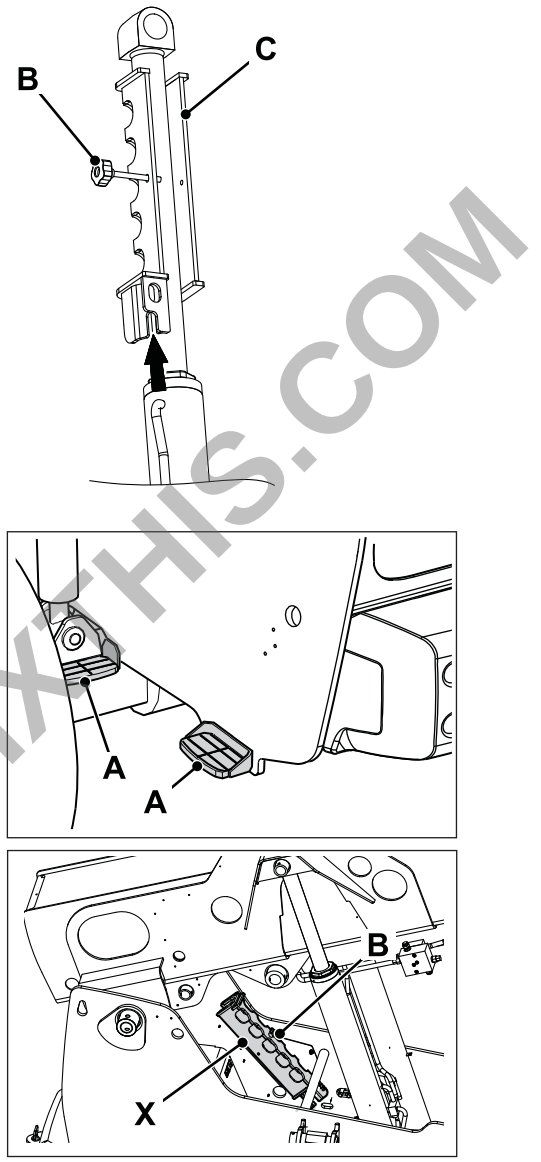
2 Raise the boom just enough to allow the strut to removed.

3 Stop the engine and remove the starter key.

4 Use the steps **A** for access and support the strut **C**. Undo the hand bolt **B** and lift the strut clear of the steel pipe on the lift ram.

Notice: *Some machines have two steps on the chassis and no step on the axle.*

5 Secure the strut with hand bolt **B** in its stowage position **X**.



C084260

Fig 76.

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Brakes

Park Brake

Introduction

T3-071

WARNING

Do not use a machine with a faulty park brake.

3-2-3-10_2

WARNING

Non approved modifications to drive ratios, machine weight or wheel and tire sizes may adversely affect the performance of the park brake.

3-2-3-11U

Make sure that you obey all health and safety precautions before you test or adjust the park brake.

If you have any queries concerning the park brake test or adjustment procedures, consult your local JCB distributor.

Testing the Park Brake

T3-087

WARNING

Before testing the park brake make sure the area around the machine is clear of people.

2-2-4-5



A339340

– The park brake must be fully engaged when the lever is vertical.
– The park brake warning light must come on when the park brake is engaged.

1 Enter the machine. Fasten your seat belt (if fitted) and park the machine on a level dry surface.

2 Fully apply park brake.

3 Start the engine and raise the attachments to the appropriate travel position.

4 Select fourth gear.

5 Push down hard on foot brake pedal.

6 Select forward drive. The park brake warning light must illuminate.

WARNING

If the machine starts to move during the following test, immediately apply the foot brake and reduce the engine speed.

2-2-5-1

7 Test the park brake as follows:

a Move the park brake lever fractionally forward until the park brake warning light is just extinguished.

b Slowly release the foot brake pedal.

c If the machine has not moved, use the accelerator to gradually increase the engine speed to approximately 1500 RPM. The machine should not move.

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Wheel Nuts

Checking the Wheel Nut Torques

T3-014_3

WARNING

If, for whatever reason, a wheel stud is renewed, all the studs for that wheel must be changed as a set, since the remaining studs may have been damaged.

2-3-2-8

On new machines, and whenever a wheel has been removed, check the wheel nut torques every two hours until they stay correct.

Every day, before starting work, check that the wheel nuts are tight.

Tighten the wheel nuts (in a diagonal sequence) to the torque value shown.

Table 10.

Front	Rear
Nm (lbf ft)	**Nm (lbf ft)**
680 (500)	680 (500)

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