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, carefuly 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

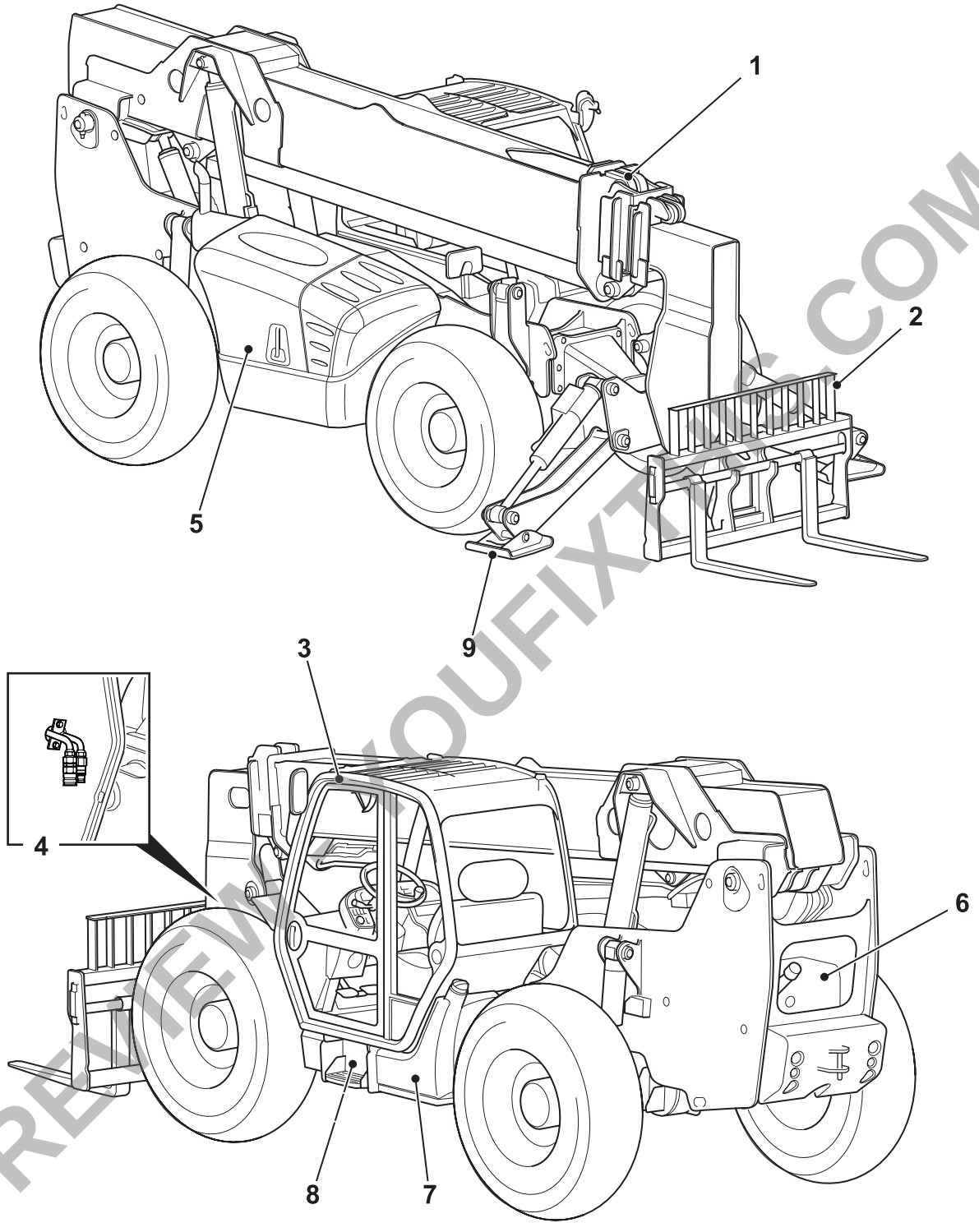
⚠ CAUTION

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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T018020-11

Fig 2.

⇒ *Component Location (2)*.

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Stabilizer Controls (if fitted)

⚠ WARNING

Do not allow debris to accumulate in the cavity between the cylinder and the stabilizer leg. Remove and clean away all debris that may have built-up.

0001U

The use of stabilizers increases the stability of the machine when lifting.

The lateral position of the machine is indicated by an inclinometer **A** fitted in the cab. Use inclinometer to check that the machine is level before operating the boom. The machine is level when the inclinometer shows zero degrees (0°).

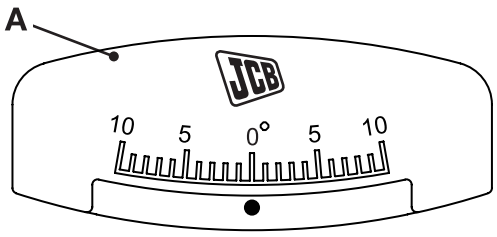


Fig 37.

Reposition the machine if a level position cannot be achieved.

Ensure the stabilizer legs are in the down position and the weight of the machine is supported. ⇨ *Stabilizer indicator lights (53)*.

Do not extend the boom more than necessary.

Isolate the stabilizer control levers before operating the machine.

Lower and Raise Stabilizers

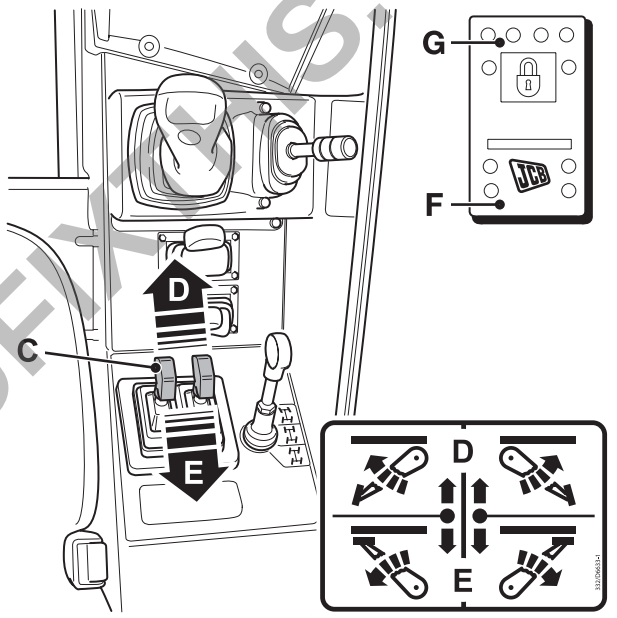
To isolate the control levers **C** press bottom of switch **F**. To make the control levers operable press top of switch **G**.

Before traveling on the public highway, fully raise both stabilizer legs and isolate control levers **C**.

When working with the stabilizers lowered isolate the control levers **C** before operating the boom controls.

D Lower

E Raise



T015920-4

Fig 38.

Notice: *510-56 machines have a system of interlocks to prevent the operation of the machine beyond pre-set limits. In some conditions, this system isolates the stabilizer controls.* ⇨ *Interlock System (84)*.

Notice: *During operation of the stabilizer controls, machines with the RAS system automatically go into 'cushioned mode' and an intermittent audible alarm sounds.*

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Windshield Washer

Checking the Level

The washer bottle **A** is found to the left of the operator seat.

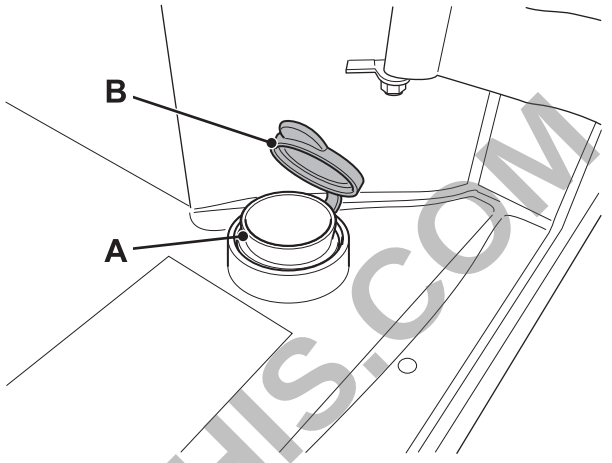
1 Make the machine safe with the boom lowered. Refer to ***Prepare the Machine for Maintenance***.

2 Get access to the washer bottle **A**.

3 Remove the washer bottle cap **B**.

4 Fill the washer bottle with a suitable liquid. The liquid should contain a de-icing fluid to prevent freezing. Do not use engine coolant antifreeze.

5 Install the washer bottle cap **B**.



T015910-2

Fig 152.

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Service Schedules

Introduction

T3-036-2

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

⚠ WARNING

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

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

To prevent anyone starting the engine, remove the starter key. Disconnect the battery when you are not using electrical power. If you do not take these precautions you could be killed or injured.

8-3-1-1

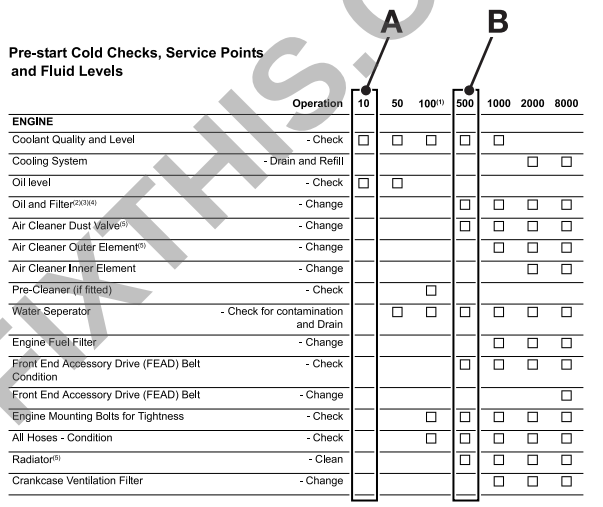
Apart from the daily jobs, the schedules are based on machine running hours. Keep a regular check on the hourmeter readings to correctly gauge service intervals. Do not use a machine which is due for a service. Make sure any defects found during the regular maintenance checks are rectified immediately.

How to Use the Service Schedules

T3-012_3

In the example shown, **A** shows all service requirements to be carried out every 10 hours and **B** shows the requirements to be carried out every 500 hours.

Important: *Services should be carried out at either the hourly interval or calendar interval, whichever occurs first. Refer to* ***Calendar Equivalents****.*



795390-1

Calendar Equivalents

T3-051

Every 10 Hours = Daily

Every 50 Hours = Weekly

Every 500 Hours = Six Months

Every 1000 Hours = Yearly

Every 2000 Hours = 2 Years

Every 6000 Hours = 6 Years

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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.

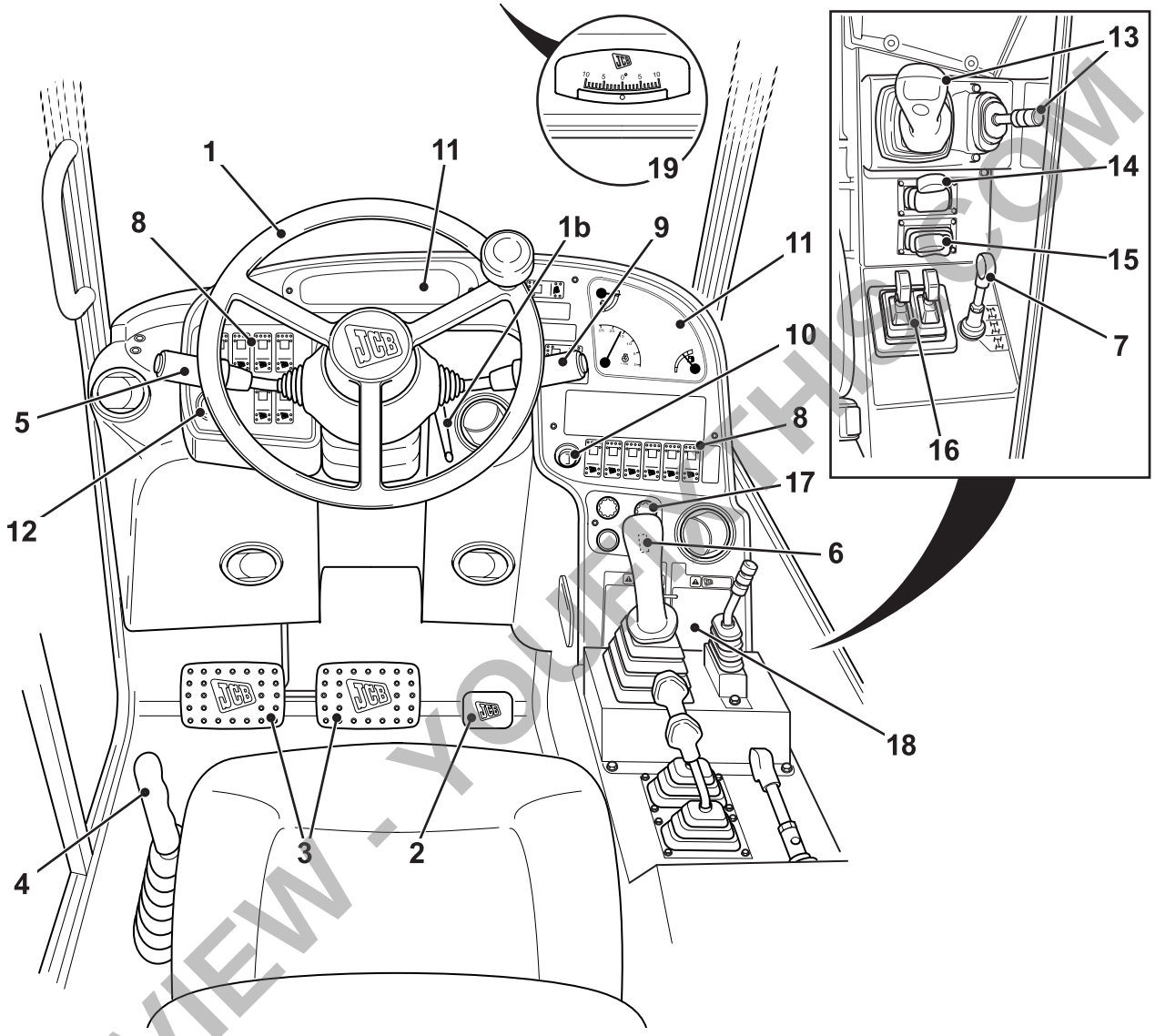
Remember

BE CAREFUL
BE ALERT
BE SAFE

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Cab Layout



T015930-6

Fig 20.

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

⇒ ***Component Key (35)***.

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Optional Attachments

Introduction

T4-002U_2

⚠ WARNING

Use only the JCB approved attachments that are specified for your machine. Operating with non-specified attachments can overload the machine, causing possible damage and machine instability which could result in injury to yourself or others.

The use of non-approved attachments could invalidate your warranty.

2-4-5-2_1

A wide range of optional attachments is available to increase the versatility of your machine. Only JCB approved attachments are recommended for use with your machine. Consult your JCB Distributor for the full list of approved attachments available.

JCB attachments are designed and manufactured specifically to suit the machine's hydraulic system, mounting arrangements and safe load requirements. Attachments which are not designed for use with this machine may cause damage and create safety hazards for which JCB cannot be held responsible. In addition the machine's warranty, and any other legislative compliance may be affected by the use of non JCB approved attachments.

2-4-1-13U_2

⚠ CAUTION

If you have an attachment which is not covered in the Operator Manual do not install it, use it or remove it until you have obtained, read and understood the pertinent information. Install attachments only on the machines for which they were designed.

5-5-1-1_2

This part of the manual includes general information on attachment operation and instructions for instalation and removal of attachments.

Some attachments are supplied complete with instructions on safety, instaling, removing, operation and maintenance. Read and fully understand the information before fitting, using and servicing the attachment. If there is anything you do not understand, ask your JCB Distributor.

Before using any attachment, read again ***Working With The Machine*** in the Operation section and consider how the attachment is going to affect operational safety. With the attachment fitted, there may be changes in the machine's center of gravity or overall dimensions. This could have an effect on, for example, machine stability, the gradients on which it is safe to operate or the safe distance from power lines.

Practice using attachments off the job before working with them for the first time.

If your machine needs the hydraulic system adapting to facilitate the use of auxiliary attachments, you must consult your distributor. Only suitably qualified personnel must re-route hydraulic hoses.

All optional attachments will have limits on their operation. i.e. lifting capacity, speeds, hydraulic flow rates, etc. Always check in the literature supplied with the attachment or in the SPECIFICATION section of this manual. Some specification limits may also be displayed on the attachments Data/Rating Plate.

⚠ CAUTION

Some attachments may contact parts of the machine when in the fully folded position. Take extra care to avoid damage to the machine.

3-4-1-4

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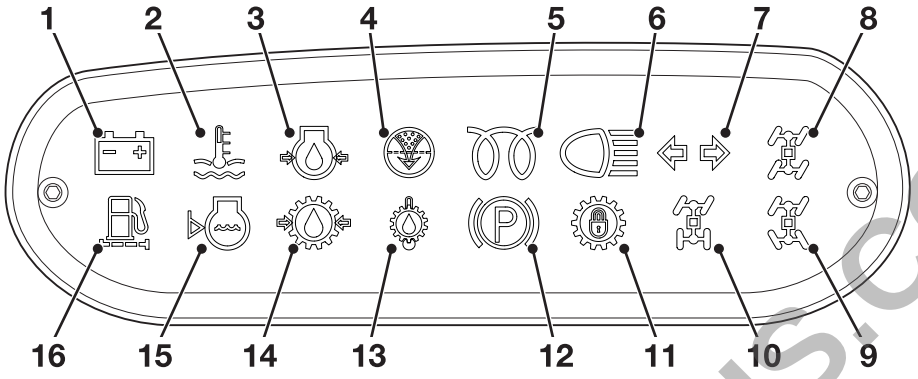
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Warning Lights

Warning Cluster



795634-1

Fig 28.

When the starter switch is set to position **I**:

- An audible alarm will sound. The alarm should stop when the engine is started. ⇒ ***Starting the Engine (🗋 62)***.
- All the warning lights should illuminate briefly as a bulb and system check.

⚠ CAUTION

If any of the audible/visual warnings operate while the engine is running, stop the engine as soon as it is safe to do so and rectify the fault.

4-2-1-2

1 No Charge

Audible/Visual. Lights if the battery charging circuit fails while the engine is running. The light should go out a few seconds after the engine is started.

2 Not used.

3 Engine Oil Pressure Low

Audible/Visual. Operates if the engine oil pressure drops too far. The light should go out when the engine is started.

4 Air Filter Blocked

Audible/Visual. Lights if the engine air filter blocks up.

5 Cold Start

Visual Only. ⇒ ***Starter Switch (🗋 41)***.

6 High Beam On

Visual only. Lights up when the headlight high beams are switched on. ⇒ ***Multi-Purpose Steering Column Switch (4-Speed Transmission) (🗋 40)***.

7 Turn Signals

Visual only. Flashes with the turn signals. ⇒ ***Multi-Purpose Steering Column Switch (4-Speed Transmission) (🗋 40)***.

8 Not used.

9 Not used.

10 Not used.

11 Not used.

12 Park Brake Engaged

Visual only. ⇒ ***Park Brake Lever (🗋 36)***.

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Health and Safety

Lubricants

T3-060U_2

Introduction

It is most important that you read and understand this information and the publications referred to. Make sure all your colleagues who are concerned with lubricants read it too.

Hygiene

JCB lubricants are not a health risk when used properly for their intended purposes.

However, excessive or prolonged skin contact can remove the natural fats from your skin, causing dryness and irritation.

Low viscosity oils are more likely to do this, so take special care when handling used oils, which might be diluted with fuel contamination.

Whenever you are handling oil products you should maintain good standards of care and personal and plant hygiene. For details of these precautions we advise you to read the relevant publications issued by your local health authority, plus the following.

Storage

Always keep lubricants out of the reach of children.

Never store lubricants in open or unlabelled containers.

Waste Disposal

⚠ CAUTION

It is illegal to pollute drains, sewers or the ground. Clean up all spilt fluids and/or lubricants.

Used fluids and/or lubricants, filters and contaminated materials must be disposed of in accordance with local regulations. Use authorised waste disposal sites.

INT-3-2-14

All waste products should be disposed of in accordance with all the relevant regulations.

The collection and disposal of used oil should be in accordance with any local regulations. Never pour used engine oil into sewers, drains or on the ground.

Handling

⚠ WARNING

Oil

Oil is toxic. If you swallow any oil, do not induce vomiting, seek medical advice. Used engine oil contains harmful contaminants which can cause skin cancer. Do not handle used engine oil more than necessary. Always use barrier cream or wear gloves to prevent skin contact. Wash skin contaminated with oil thoroughly in warm soapy water. Do not use gasoline, diesel fuel or kerosene to clean your skin.

INT-3-2-3U

New Oil

There are no special precautions needed for the handling or use of new oil, beside the normal care and hygiene practices.

Used Oil

Used engine crankcase lubricants contain harmful contaminants.

Here are precautions to protect your health when handling used engine oil:

1 Avoid prolonged, excessive or repeated skin contact with used oil.

2 Apply a barrier cream to the skin before handling used oil. Note the following when removing engine oil from skin:

- **a** Wash your skin thoroughly with soap and water.
- **b** Using a nail brush will help.
- **c** Use special hand cleansers to help clean dirty hands.
- **d** Never use gasoline, diesel fuel, or kerosene for washing.

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506-36, 507-42, 509-42, 510-56

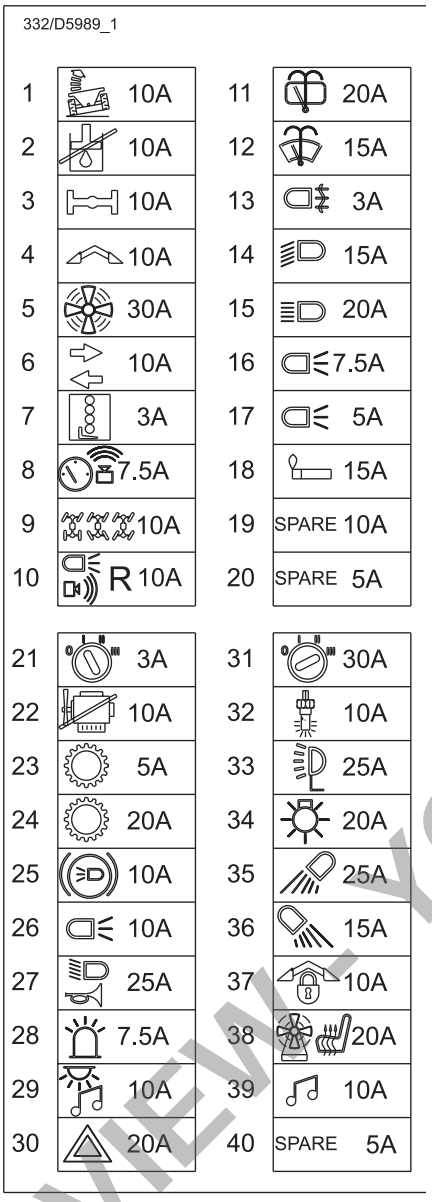


Fig 111.

Notice: *All the fuses are shown (including optional equipment fuses). Your machine may not be equipped with all the fuses shown.*

Table 8.

Fuse No.	Circuit	Rating (Amps)
1	Sway hydraulics	10
2	Hydraulic Isolation	10
3	Rear Axle Stabilization (RAS) (if fitted)	10
4	Stabilizer transducer supply (if fitted)	10
5	Cab heater	30
6	Turn signals	10
7	Spare	3
8	Instruments	7.5
9	Steer mode selector	10
10	Reversing alarm/lights	10
11	Rear/roof wiper	30
12	Front wiper	15
13	Fog light	3
14	Dipped beam	15
15	High beam	20
16	Left hand sidelights	7.5
17	Right hand sidelights	5
18	Cell phone/cigarette lighter	15
19	Spare	10
20	Spare	5
21	Starter relay	3
22	Engine shut-off solenoid (ESOS)	10
23	Transmission	5
24	Transmission dump	20
25	Brake lights	10
26	Parking lights	10
27	Headlight flasher, horn	25
28	Beacon	7.5
29	Interior light, radio	10
30	Four-way flashers	20
31	Neutral start	30
32	Cold start	10
33	Boom worklight	25
34	Roadlights	20
35	Front worklamps	25
36	Rear worklamps	15
37	Stabilizer isolation (if fitted)	10
38	Heated seat, Face fan	20
39	Radio	10
40	Spare	5

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