

SERVICE MANUAL

Backhoe Loaders
BI00C / BI00CLR / BI00CTC
BII0C / BII0CTC / BII5C

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B100C - B100CLR - B100CTC

B110C - B110CTC

B115C



SECTION 00 - SAFETY RULES

SAFETY INSTRUCTIONS

 **WARNING** 

This warning symbol points out important messages involving your safety.

Carefully read the safety rules contained herein and follow advised precautions to avoid potential hazards and to safeguard your safety and personal integrity.

In this manual you will find this symbol together with the following keywords:

 **WARNING** 

This symbol warns about the possibility of potential damages to the machine that can involve the operator's safety.

 **WARNING** 

With specific warnings about potential dangers for the operator's or other persons integrity directly or indirectly involved.

The non-compliance with the warnings preceded by the above-mentioned keywords (WARNING and DANGER) can cause serious accidents or even the death of the persons involved.

Moreover, in the present Manual, some instructions are given with text in italics, preceded by the words **NOTE** and **CAUTION**.

NOTA: *it emphasizes and underlines to the operator the correct technique or correct procedure to follow.*

 **WARNING** 

This symbol warns about the possibility of potential damages to the machine that can involve the operator's safety.

FOREWORD

Loader backhoes B100C - B100CLR - B100CTC - B110C - B110CTC - B115C have been designed to perform most earth-moving operations.

If you use this machine for duties involving the use of attachments, accessories, or special tools, consult your Dealer to make sure that the adaptations or modifications carried out are in conformity with the machine's technical specifications and with current regulations on safety.

Any modifications or adaptations which are not approved by the manufacturer may invalidate the machine's original conformity with safety requirements.

The machine must be used according to its intended use, respecting the safety and precautionary rules and strictly following the operating instructions.

Any functional disorders, especially those affecting the safety of the machine, should therefore be rectified immediately.

———— **⚠ DANGER ⚠** ————

A different use of the excavator or of its working equipment:

- for lifting or transporting persons;
- as working platform;
- for lifting loads without the attachment being approved for this purpose;
- for pulling loads;
- is considered unintended use.

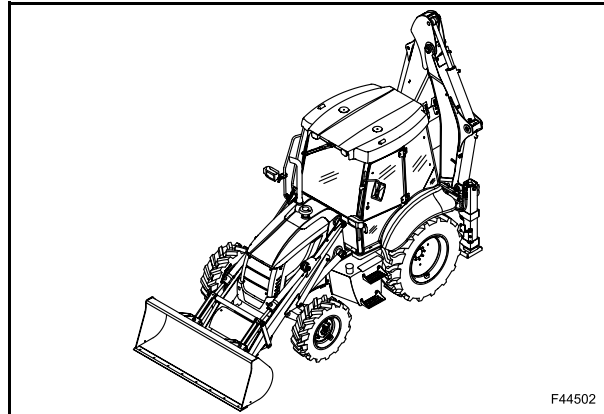
Unintended use may cause injury or life-threatening risks for the operator and for other persons.

The manufacturer/supplier cannot be held responsible for any damage resulting from unintended use. The risk involved in such misuse lies entirely with the user.

———— **⚠ DANGER ⚠** ————

It is absolutely forbidden to tamper with and/or change the setting of any of the hydraulic system valves to avoid damaging machine components, with a consequent risk for personal safety.

The current Operator's Manual is the user's guide for correct run-in, use and maintenance of the machine.



Carefully read this Operator's Manual and store it in the cab for quick location and reference.

Instructions concerning safety, operation and maintenance have been developed to permit safe service and repair of this machine without any risk.

In the event of queries or suggestions relevant to your machine do not hesitate to address to your Dealer.

Dealers have qualified and trained personnel at disposal as well as Original Spares, means and equipment suitable to carry out all necessary maintenance.

Any modifications or adaptations which are not approved by the manufacturer may invalidate the machine's original conformity with safety requirements.

IMPORTANTE: *the engine and fuel system on your machine are designed and built to government emissions standards. Tampering by dealers, customers, operators and users is strictly prohibited by law. Failure to comply with this prohibition could result in government fines, rework charges, invalid warranty, legal action and possible confiscation of the machine until rework to original condition is completed. Engine service and/or repairs must be carried out by a certified technician only.*

NOTA: *each machine is supplied complete with a copy of this Manual. Descriptions and illustrations provided herein are not binding. The Manufacturer, provided that the basic characteristics of machine types described and shown in this Manual remain the same, reserves the right to change components, parts and accessories supplied without any commitment to timely update this publication; and this any time it deems it convenient for improvement purposes or due to commercial or manufacturing requirements. For exact information, please consult your Dealer or contact the Manufacturer's Branch Offices, who remain at your disposal for further help.*

SPARE PARTS

The "non-genuine" spare parts have not been checked and authorized by the Manufacturer.

The assembly and/or use of such products may have negative effects on the machine design features and could impair its operation safety.

The Manufacturer is not liable for any damage caused by "non-genuine" spare parts or accessories.

WARRANTY

This machine is under warranty according to the regulations in force in Your Country and in compliance with the sales agreement drawn up with the Dealer.

The warranty, however, expires if the operation and maintenance instruction for this machine and contained in this manual, have not been followed.

SAFETY INSTRUCTIONS

Carefully read the safety rules contained herein and follow advised precautions to avoid potential hazards and to safeguard your safety and personal integrity.

Your safety and that of the people around you depends on you.

It is essential that you understand this manual for a correct inspection, lubrication and repair of this machine.

Read this manual carefully and check that:

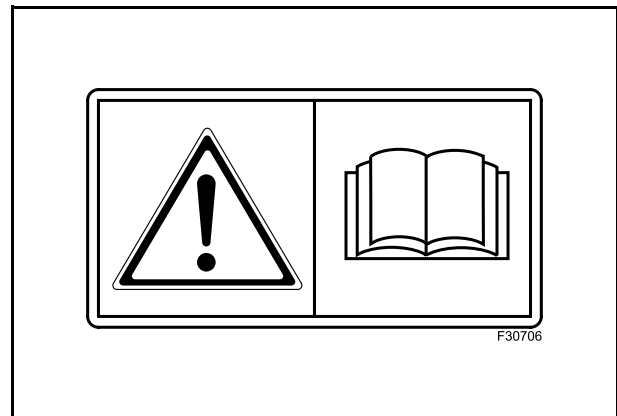
- you understand fully the symbols on the controls and the safety signs used in this manual and on the machine;
- you understand fully the speed, stability, braking and steering characteristics of the machine. If you are in any doubt, consult your Dealer.

The safety messages in this section concern situations which may arise during normal machine operation, servicing and repair. These safety messages also indicate the different ways of coping with these situations. Other safety messages are used throughout the manual to indicate specific dangers.

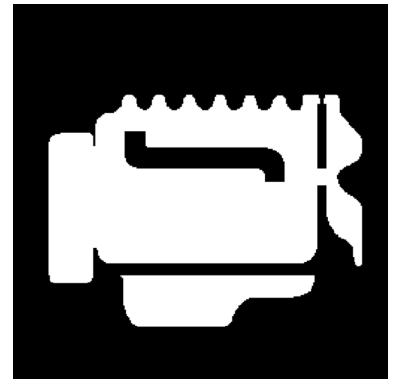
The information given in this chapter is a summary of the basic rules to respect at all times and does not exempt you from observing traffic regulations or the requirements of insurance companies.

The presence of grease, oil, mud or (in winter) ice on the steps and access handles can cause accidents. Make sure they are always clean.

When mounting or dismounting from the machine always face the machine and use the steps and access handles on the left-hand side of the machine.



B100C - B100CLR - B100CTC
B110C - B110CTC
B115C



SECTION 10 - ENGINE

REMOVAL AND INSTALLATION THE ENGINE HOOD, THE RADIATOR AND ENGINE 3
 PRELIMINARY OPERATIONS 3

BATTERY 4
 DISCONNECT 4

ENGINE HOOD 6
 REMOVE 6

RADIATOR 9
 REMOVE 9

ENGINE 16
 REMOVE 16
 INSTALL 26

RADIATOR 35
 INSTALL 35

ENGINE HOOD 41
 INSTALL 41

BATTERY 44
 CONNECT 44

ENGINE ERROR CODES 46

REMOVAL AND INSTALLATION OF THE ENGINE HOOD, THE RADIATOR AND ENGINE

Preliminary operations

- Position the machine on a flat and compact surface.
- Apply the parking brake and chock the wheels with wedges.
- Use only the recommended tools.
- Do not insert hands or extraneous components between parts.
- Disconnect the battery before proceeding.

 **WARNING** 

Do not allow unauthorized persons to repair or service this machine. Be certain to read the Use and Maintenance Manual with care before starting, operating, servicing, refuelling or repairing this machine.

Turn the **STARTER SWITCH** to the **OFF** position and display the “**DO NOT START**” warning notice.

IMPORTANT: *From this point onwards, mark all electrical connections and hydraulic pipes to facilitate the process of RESTORING CONNECTIONS DURING REFITMENT.*

- Unscrew the cap of the hydraulic oil tank slowly to release the air pressure from inside the tank.
- Move the control lever repeatedly back and forth to release pressure in the hydraulic circuit.
- With oil warm, remove plug from the bottom of the machine and drain the oil into a receptacle of suitable capacity.

 **DANGER** 

Fluid under pressure; Before removing the plug or cap, turn slowly to release pressure from the system. See the Use and Maintenance Manual.

Put a container below radiator drain. Remove radiator cap. Remove cap and drain coolant into container. Install cap after coolant has drained. Install radiator cap.

Put a container below engine oil drain. Remove cap and drain oil into container. Install cap after oil has drained.

Battery - Disconnect

———— **⚠ WARNING ⚠** ————

Explosive gas!

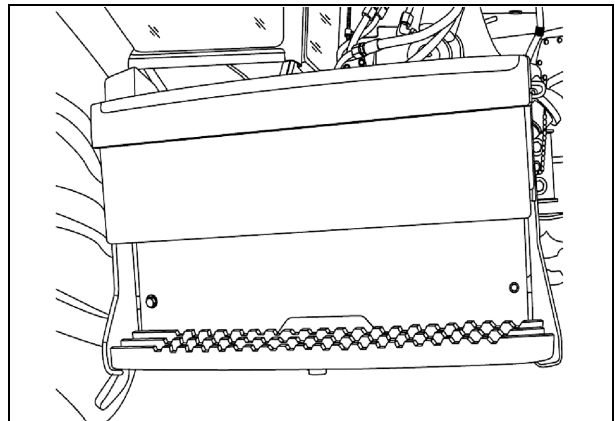
Batteries emit explosive hydrogen gas and other fumes while charging. Ventilate the charging area. Keep the battery away from sparks, open flames, and other ignition sources. Never charge a frozen battery. Failure to comply could result in death or serious injury.

———— **⚠ WARNING ⚠** ————

Hazardous chemicals!

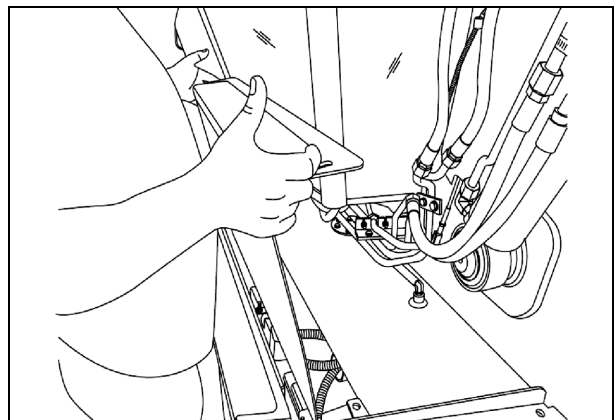
Battery electrolyte contains sulfuric acid. Contact with skin and eyes could result in severe irritation and burns. Always wear splash-proof goggles and protective clothing (gloves and aprons). Wash hands after handling. Failure to comply could result in death or serious injury.

Remove the battery cover hardware.



TBR00002

Remove the battery cover.



TBR00003



Suggest:

If the above button click is invalid.

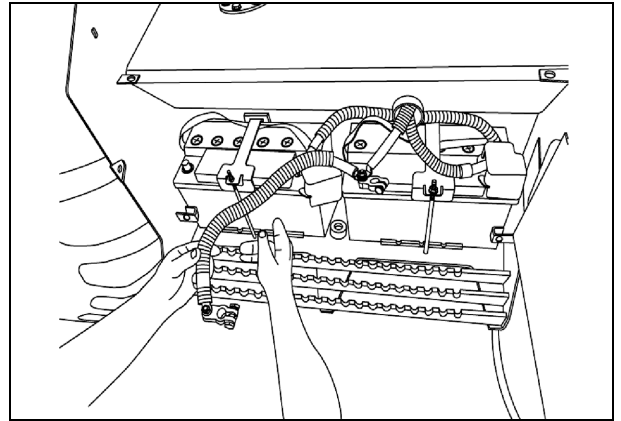
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first, and then click the above link

to download the complete manual.

Thank you so much for reading

Disconnect the negative battery cable from the negative battery terminal.



TBR00004

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