

580N
580SN-WT
580SN
590SN
Loader Backhoe

OPERATOR'S MANUAL

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1 - GENERAL INFORMATION

Intended use

This loader backhoe, with standard equipment and authorized attachments, is intended for general earth moving purposes, handling, ditch digging, etc. Use only approved accessories and attachments designed for your machine. This Operator's Manual does not include instructions for attachments. Read the manual(s) provided with the authorized attachment to learn safe maintenance and operation of the machine. Make sure the machine is suitably equipped for the type of work to be performed. Contact your dealer if you have any questions concerning the use of attachments for these machines.

All persons who will be operating this machine shall possess a valid local vehicle operating permit and/or other applicable local age work permits.

Do not use this machine for any purpose or in any manner other than as described in the manual, decals, or other product safety information provided with the machine. These materials define the machine's intended use.

Consult an authorized dealer or CNH America LLC on changes, additions, or modifications that can be required for this machine to comply with various country regulations and safety requirements. Unauthorized modifications will cause serious injury or death. Anyone making such unauthorized modifications is responsible for the consequences.

ATTENTION: *The fuel system and engine 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 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 done by a certified technician only!*

CNH America LLC technical manuals

Manuals are available from your dealer for the operation, service, and repair of your machine. For prompt convenient service, contact your dealer for assistance in obtaining the manuals for your machine.

Your dealer can expedite your order for Operator's Manuals, Parts Catalogs, Service Manuals, and maintenance records.

Always give the machine name, model, and product identification number (PIN) of your machine so your dealer can provide the correct manuals for your machine.

The company is continually striving to improve its products and therefore reserves the right to make improvements and changes when it becomes practical and possible to do so, without incurring any obligation to make changes or additions to the equipment sold previously.

All data given in this manual is subject to production variations.

NOTICE: *Operating and service messages displayed on the electronic operating panel may vary from what is shown in the Operator's Manual. Should this occur, adhere to the latest instruction on the electronic operating panel.*

Dimensions and weights are approximate only and the illustrations do not necessarily show the machine in standard condition. For exact information about any particular machine, consult your dealer.

Electro-Magnetic Compatibility (EMC)

Interference may arise as a result of add-on equipment which may not necessarily meet the required standards. As such interference can result in serious malfunction of the unit and/or create unsafe situations, you must observe the following:

- The maximum power of emission equipment (radio, telephones, etc.) must not exceed the limits imposed by the national authorities of the country where you use the machine.
- The electro-magnetic field generated by the add-on system should not exceed **24 V/m** at any time and at any location in the proximity of electronic components.
- The add-on equipment must not interfere with the functioning of the onboard electronics. Failure to comply with these rules will render the warranty null and void.

Note to the owner

This manual contains important information about the safe operation, adjustment, and maintenance of your loader backhoe. This manual is divided into chapters as outlined in the table of contents. Refer to the index at the end of this manual for locating specific items about your machine. The loader backhoe conforms to current safety regulations.

Use this manual as a guide. Your machine will remain a reliable working tool as long as it is kept in working condition and serviced properly.

DO NOT operate or permit anyone to operate or service this machine until you or the other persons have read and understand the safety, operation, and maintenance instructions in this manual. Use only trained operators who have demonstrated the ability to operate and service this machine correctly and safely.

The information in this manual is provided on the basis of information that was available at the time that the manual was written. Settings, procedures, part numbers, software, and other items can change. These changes can affect the service that is given to the machine. Ensure that you have the complete and most current information from your dealer before you start any machine operation.

The Operator's Manual is to be stored in the manual compartment equipped on this machine. Make sure this manual is complete and in good condition. Consult your dealer to obtain additional manuals or manuals in other languages. An AEM safety booklet is included with each machine. Take the time to read the booklet and understand its content.

Contact your dealer for any further information or assistance about your machine. Your dealer has Corporation approved service parts. Your dealer has technicians with special training that know the best methods of repair and maintenance for your machine.

Read the Operator's Manual

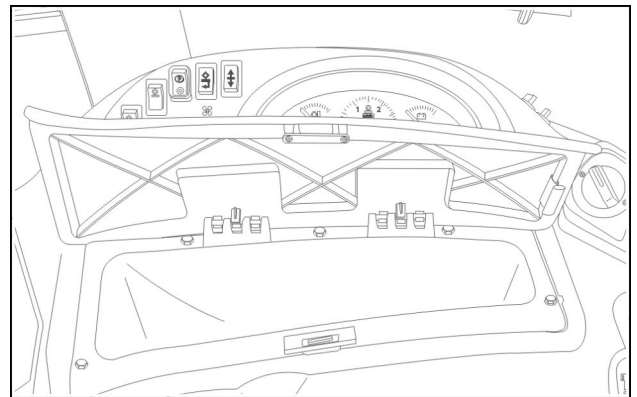
Improper operation of this machine can cause death or serious injury. Before using the machine, make certain that every operator

- is instructed in safe and proper use of the machine.
- reads and understands the manual(s) pertaining to the machine.
- reads and understands all safety decals on the machine.
- clears the area of other persons and domestic animals.
- learns and practices safe use of machine controls in a safe, clear area before operating this machine on a job site.

It is your responsibility to observe pertinent laws and regulations and follow CNH America LLC instructions on machine operation and maintenance.

Manual storage

Keep the Operator's Manual and the AEM safety booklet in the storage compartment provided on the loader backhoe. The Operator's Manual and the AEM safety booklet must be available for use by all operators.



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Identification numbers

Record the machine and part identification numbers. If needed, give these numbers to your dealer when you need parts or information for your machine. Keep a record of these numbers and your Manufacturer's Statement of Origin in a safe place. If the machine is stolen, report the numbers to your local law enforcement agency.

Machine identification

Model name

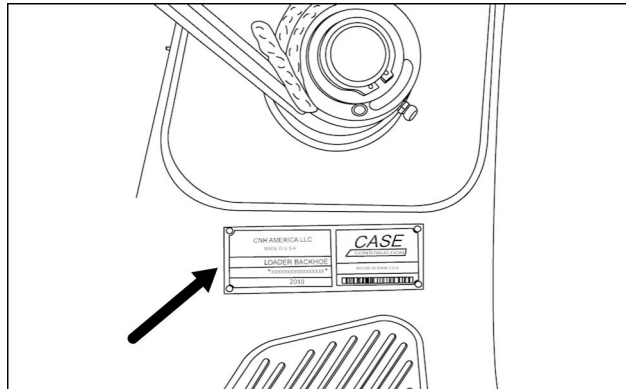
PIN

Model year

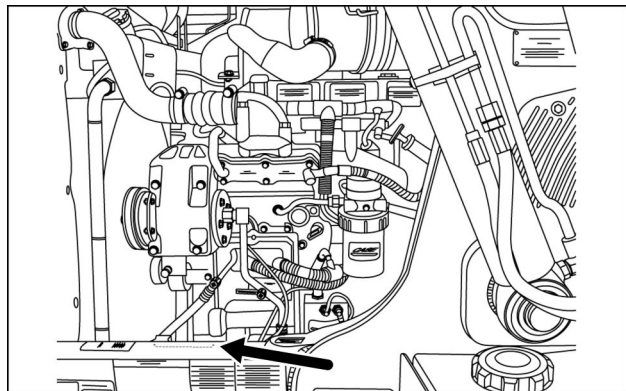
The PIN plate is located on the left-hand side beneath the pivot for the loader lift cylinder. The PIN is 17 characters long.

NOTE: Hoses removed for illustration clarity.

NOTE: The PIN is also stamped on the chassis.

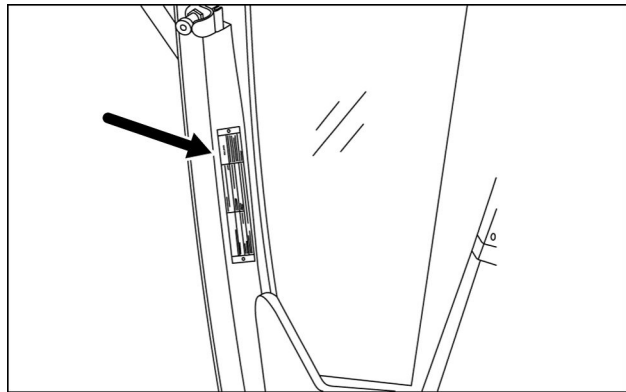


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RCPH10TLB325AAF 2

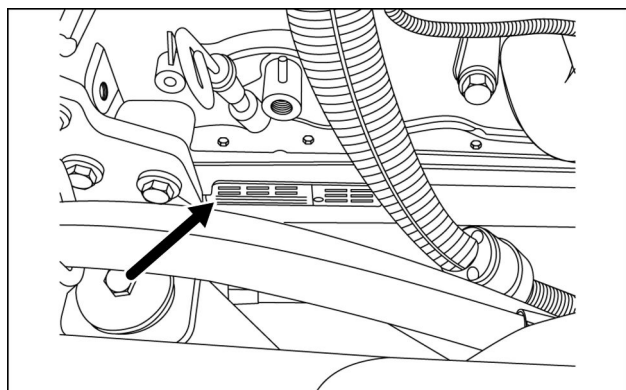
Roll-Over Protective Structure (ROPS)



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Engine - Mechanical (580N)

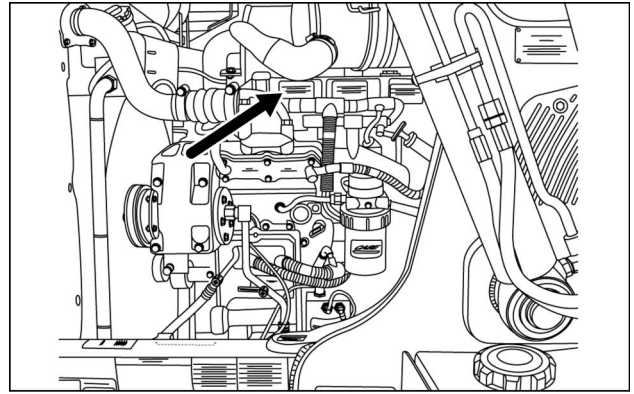
The PIN plate is on the oil pan.



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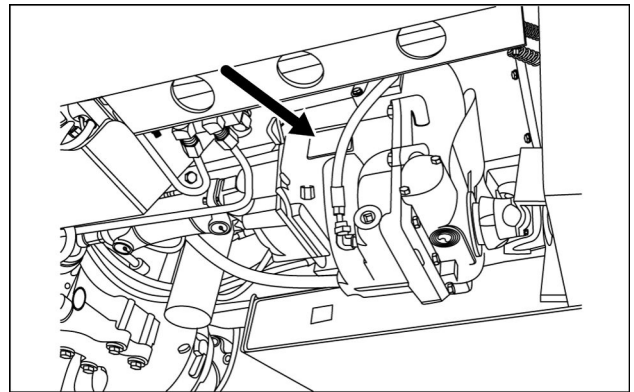
Engine - HPCR (580SN, 580SN-WT, 590SN)

The PIN plate is on the valve cover.



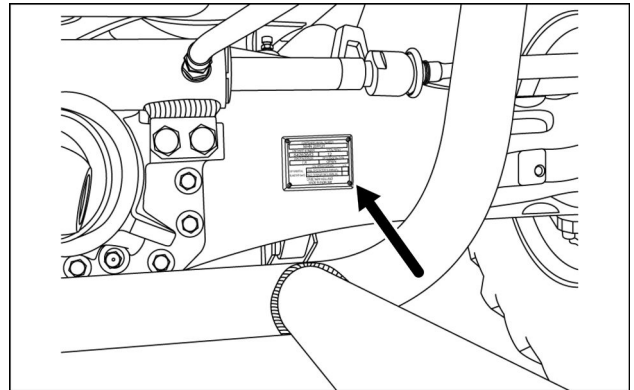
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Transmission



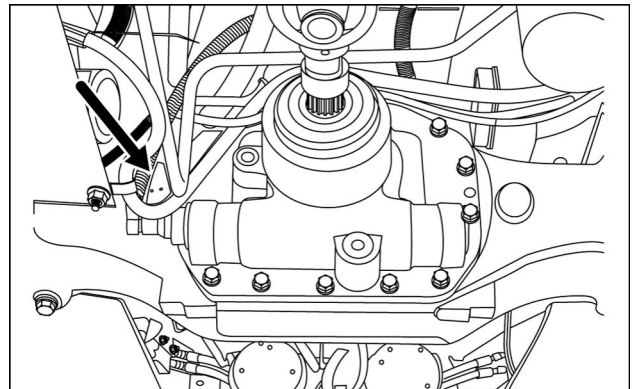
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Front drive axle (4WD)



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Rear axle



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Hydraulic pump

Not shown

Control valve

Not shown

Loader bucket

Not shown

Bucket type

PIN

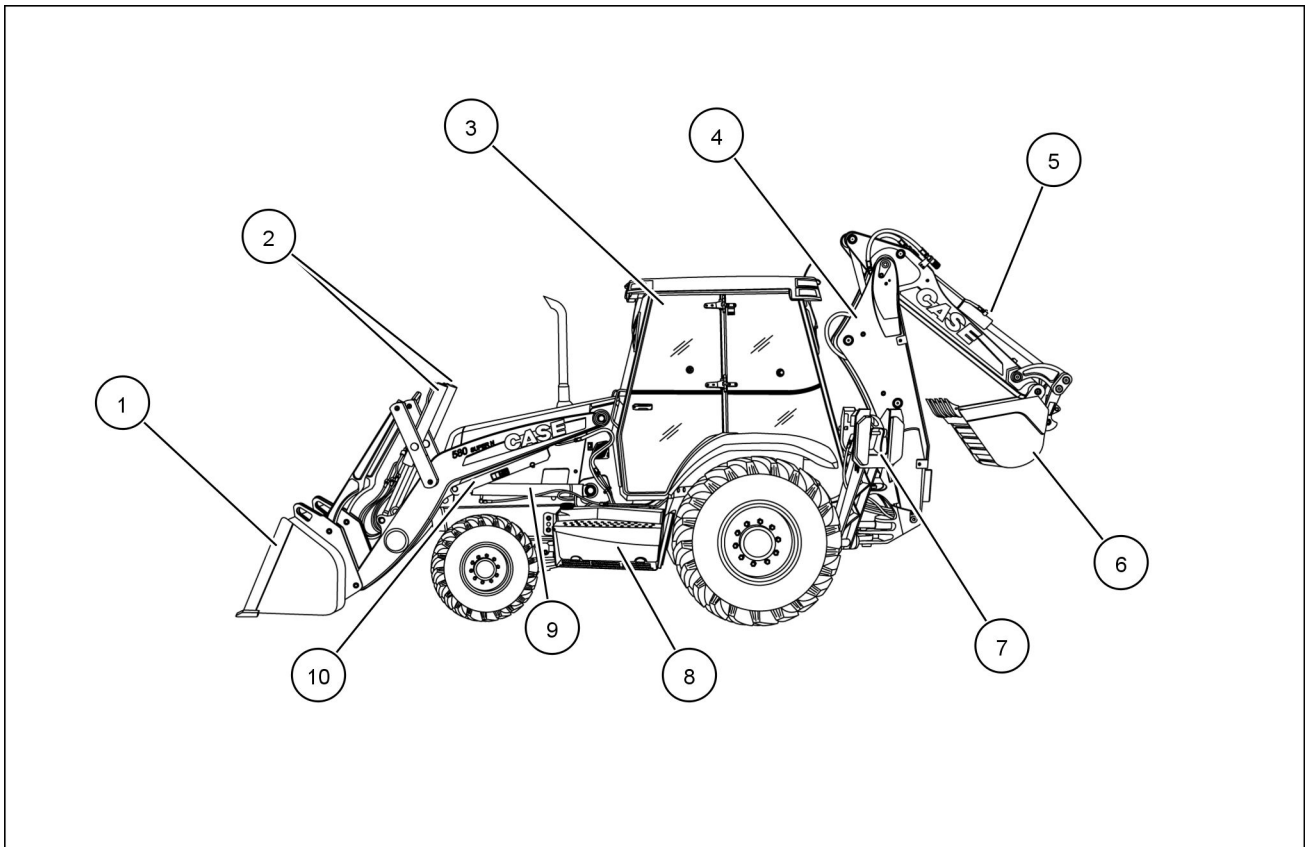
Backhoe bucket

Not shown

Bucket type

PIN

Component Identification

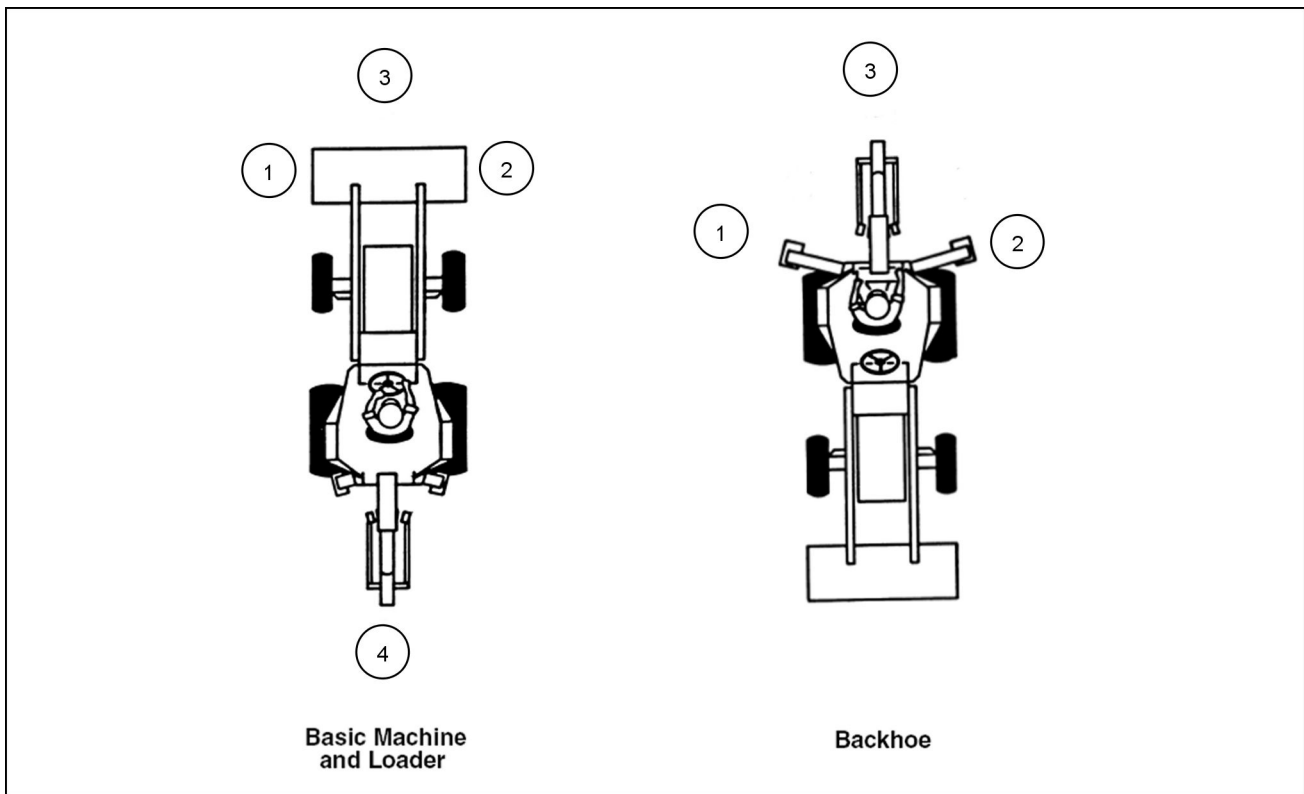


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- | | |
|------------------------------|---|
| 1. Loader bucket | 6. Backhoe bucket |
| 2. Bucket cylinders | 7. Stabilizer (shown in transport position) |
| 3. Cab | 8. Fuel tank and operator's step |
| 4. Boom | 9. Loader lift cylinder |
| 5. Dipper (Extendahoe shown) | 10. Lift arm support strut |

Right, left, front and rear of the machine

The terms right-hand and left-hand, when used in this manual, indicate the right and left sides of the machine as seen from the operator's seat.



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- 1. Left
- 2. Right
- 3. Front
- 4. Rear

2 - SAFETY INFORMATION

Safety rules and signal word definitions

Personal safety



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.

Throughout this manual and on machine decals, you will find the signal words DANGER, WARNING, and CAUTION followed by special instructions. These precautions are intended for the personal safety of you and those working with you.

Read and understand all the safety messages in this manual before you operate or service the machine.

! DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury. The color associated with DANGER is RED.

! WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury. The color associated with WARNING is ORANGE.

! CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. The color associated with CAUTION is YELLOW.

FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.

Machine safety

NOTICE: Notice indicates a situation which, if not avoided, could result in machine or property damage. The color associated with Notice is BLUE.

Throughout this manual you will find the signal word Notice followed by special instructions to prevent machine or property damage. The word Notice is used to address practices not related to personal safety.

Information

NOTE: Note indicates additional information which clarifies steps, procedures, or other information in this manual.

Throughout this manual you will find the word Note followed by additional information about a step, procedure, or other information in the manual. The word Note is not intended to address personal safety or property damage.

Proposition 65

CALIFORNIA

Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

Battery posts, terminals and related accessories contain lead and lead compounds. Wash hands after handling.

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Safety rules - General



Understand that your safety and the safety of other workers or bystanders is measured by how you service and operate this machine. Know the positions and operation of all controls before you try to operate. **CHECK ALL CONTROLS IN A SAFE AREA BEFORE STARTING YOUR WORK.**

READ THIS MANUAL COMPLETELY and make sure you understand the controls. All equipment has a limit. Make sure you understand the speed, brakes, steering, stability, and load characteristics of this machine before you start to operate.

Most accidents involving machine operation and maintenance can be avoided by following basic safety rules and precautions. Read and understand all the safety messages in this manual, the safety manual and the safety decals on the machine before you operate or service the machine. See your dealer if you have any questions.

The safety information given in this manual does not replace safety codes, insurance needs, or federal, state, and local laws. Make sure your machine has the correct equipment according to these rules or laws.

CNH America LLC is continuing to work for your safety by making loader backhoes with better protection and by providing rules for safe operation.

- Do not rush. Walk, do not run.
- Dirty or slippery steps, ladders, walkways and platforms can cause falls. Make sure these surfaces remain clean and clear of debris.
- Wear protective equipment when appropriate. Hard hats, protective glasses, protective shoes, gloves, reflector type vests, respirators, and ear protection are examples of equipment that may be required.
- Certain protective equipment should be replaced and renewed upon age and wear. Old hard hats may not afford the original user's intention. Faded and soiled vest are no longer as highly visible as original intent. See the manufacture's recommendation.
- Wear the seat belt to maximize the protection capability of the cab or ROPS. Inspect the mounting bolts for the seat belt and the ROPS, if equipped, on a daily basis to ensure their integrity.
- Do not permit riders on the machine or attachments.
- Remove all loose objects stored in the machine. Remove all objects which do not belong in or on the machine and its equipment.
- Do not operate this machine or perform maintenance work if you have not had appropriate training, and read and fully understand the instructions and warnings in this manual.

Safety rules - Air conditioning system



- The air conditioning system is under high pressure. Do not disconnect any lines. The release of high pressure can cause serious injury.
- Only a trained service technician shall service, repair, or recharge the air condition system.
- Always wear safety protection when working around the liquid refrigerant. The refrigerant can cause serious injury to eyes and skin.

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