

Case Backhoe 580n Operator Manual

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

OPERATOR'S MANUAL

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Contents

1 GENERAL INFORMATION

Intended use.....	1-1
CNH America LLC technical manuals.....	1-1
Electro-Magnetic Compatibility (EMC).....	1-2
Note to the owner.....	1-2
Read the Operator's Manual.....	1-3
Manual storage.....	1-3
Identification numbers.....	1-4
Component Identification.....	1-7
Right, left, front and rear of the machine.....	1-8

2 SAFETY INFORMATION

Safety rules and signal word definitions.....	2-1
Proposition 65.....	2-2
Safety rules - General.....	2-3
Safety rules - Air conditioning system.....	2-3
Safety rules - Basic operating.....	2-4
Safety rules - Battery.....	2-6
Safety rules - Electrical storm safety.....	2-7
Safety rules - Fire or explosion prevention.....	2-7
Safety rules - Fuel handling precautions.....	2-8
Safety rules - Hazardous chemicals.....	2-8
Safety rules - Lifting and overhead loads.....	2-8
Safety rules - Maintenance precautions.....	2-9
Safety rules - Mounting and dismounting.....	2-10
Safety rules - Operator precautions.....	2-10
Safety rules - Specific precautions to this machine.....	2-11
Safety rules - Transporting precautions.....	2-11
Safety rules - Utility precautions.....	2-12
Safety rules - Wheels and tires.....	2-12
Ductile iron.....	2-13
Operator protective structure.....	2-13
Seat belt.....	2-14
Safety decals.....	2-15
Bucket and hydraulic coupler decals.....	2-29
Hand signals.....	2-34
Do Not Operate hang tag.....	2-38

3 CONTROLS/INSTRUMENTS

ACCESS TO OPERATOR'S PLATFORM

Machine access.....	3-1
---------------------	-----

OPERATOR'S SEAT

Operator seat.....	3-2
--------------------	-----

FORWARD CONTROLS

Front console - Left-hand switch panel	3-6
Front console - Right-hand switch panel	3-8
Steering column	3-9
Gear selector	3-11
Pedal controls	3-13

RIGHT-HAND SIDE CONTROLS

Loader functions	3-14
Console controls	3-18
Heating, ventilation or air-conditioning control	3-20
Instrument cluster	3-26
Advanced instrument cluster	3-30

REARWARD CONTROLS

Console controls	3-38
Backhoe controls - Mechanical	3-41
Backhoe controls - Pilot	3-47

OVERHEAD CONTROLS

Dome light	3-52
------------------	------

4 OPERATING INSTRUCTIONS

COMMISSIONING THE UNIT

Run in period of a new machine	4-1
Engine speed	4-1

STARTING THE UNIT

Before starting the engine	4-2
Normal engine starting	4-3
Cold temperature operation	4-4
Hot temperature operation	4-5
Booster battery procedure	4-6

STOPPING THE UNIT

Shutting down the engine	4-7
--------------------------------	-----

MOVING THE UNIT

Before operating the machine	4-8
Uniform braking	4-9
Transmission gears	4-10
Machine direction	4-12
Traveling on a hill	4-12
Differential lock system	4-12
Ride control	4-13

5 TRANSPORT OPERATIONS

RECOVERY TRANSPORT

Towing the machine	5-1
Transporting on a trailer	5-3

6 WORKING OPERATIONS

GENERAL INFORMATION

FNR shift sensitivity	6-1
Display brightness	6-2
Maximum throttle/Cold start idle	6-3
Brake enabled idle	6-5
Throttle sensitivity	6-7

LOADER OPERATIONS

Personal safety	6-8
Job layout	6-9
Comfort Steer	6-10
Detent position for 4 in 1 bucket control switch	6-11
Loader digging force	6-14
Bucket level, position and depth indicators	6-16
Return to dig	6-18
Lifting with the loader	6-20
Changing loader attachments	6-20

BACKHOE OPERATIONS

Personal safety	6-23
Basic instructions	6-23
Backhoe danger area	6-24
Swing lock	6-25
Extendahoe lock	6-25
Stabilizer pads	6-26
Backhoe transport position	6-28
Before operating the backhoe	6-30
Filling the backhoe bucket	6-32
Power lift	6-33
Moving the machine while digging	6-34
Lifting with the backhoe	6-35
Changing backhoe attachments	6-37

7 MAINTENANCE

GENERAL INFORMATION

Safety rules	7-1
General safety before you service	7-2

Hour meter	7-2
Support strut for loader lift arm	7-3
Hood latch	7-5
Fire extinguisher	7-6
Welding on the machine	7-7
Battery access and care	7-8
Capacities	7-10
Consumables	7-12
Fuses and relays	7-14
Definition Fuse, Relay and Diode Icon definitions	7-17
Diagnostic/service tool port	7-22
Heater coolant shutoff valve	7-22

MAINTENANCE CHART

Maintenance Chart	7-23
-------------------------	------

At warning message display

Engine air filters	7-25
Hydraulic filter(s)	7-27
Fuel system water separator	7-28

Initial 10 hours

Air conditioning belt	7-30
Wheel nut and bolt torque	7-32

Every 10 hours or daily

Engine oil level	7-33
Loader, backhoe, extendahoe grease fittings	7-35

Initial 20 hours

Transmission fluid level	7-44
Front axle fluid level - Four wheel drive	7-45
Rear axle fluid level	7-46

Every 50 hours

Fuel system water separator	7-47
Coolant reservoir (deaeration reservoir) fluid level	7-50
Hydraulic reservoir fluid level	7-51
Front axle grease fittings	7-52
Loader hydraulic coupler lock pins	7-53
4 in 1 bucket pivots and grease fittings	7-53

Initial 100 hours

Hydraulic filter(s)	7-55
Transmission filter	7-57
Fuel filters	7-59
Service brakes	7-62

Parking brake	7-63
---------------------	------

Every 100 hours

Backhoe swing control	7-64
Extendable dipper control	7-64
Spark arresting muffler	7-65

Every 250 hours

Battery	7-66
Air conditioning belt	7-67
Front axle fluid level - Four wheel drive	7-69
Front axle breather	7-70
Front axle drive shaft	7-70
Rear axle fluid level	7-71
Rear axle breather	7-71
Rear axle drive shaft	7-71
Fuel tank	7-72
Transmission fluid level	7-73
Air conditioning compressor seals	7-74

Every 500 hours

ROPS cab and seat mount	7-75
Operator's seat	7-77
Fuel filters	7-78
Engine oil and filter	7-81

Every 600 hours

Battery fluid level	7-82
---------------------------	------

Every 1000 hours

Hydraulic fluid and filter(s)	7-84
Hydraulic reservoir breather	7-86
Cab intake filter	7-87
Engine valve	7-87
Crankcase ventilation filter	7-87
Front axle fluid	7-88
Rear axle fluid	7-90
Transmission fluid and filter	7-91
Engine air filters	7-93
Parking brake	7-95

Every 2000 hours

Cooling system	7-96
----------------------	------

As required

Bleed air from the fuel system	7-99
Prime turbocharger lines	7-101

Hydraulic pump	7-102
Tire pressure	7-103
Operator's seat	7-104
Grille screen and radiator area	7-106
Fan belt	7-107
Ride control accumulator	7-108
Pilot control accumulator	7-108
Disable parking brake	7-109
Auxiliary hydraulic pressure and flow.....	7-111

ELECTRICAL SYSTEM

Stop, tail, flasher and turn signal lamps - Cab	7-113
Stop, tail, flasher and turn signal lamps - ROPS canopy	7-116
Driving and flood lamps	7-118
Dome lamp	7-121
Instrument cluster lamps	7-122

8 TROUBLESHOOTING

ALARM(S)

Seat switch alarm.....	8-1
------------------------	-----

9 SPECIFICATIONS

Engine	9-1
Powertrain	9-3
Hydraulics	9-5
Travel speeds.....	9-6
Machine overall dimensions.....	9-9
Loader lift capacities.....	9-16
Backhoe/extendahoe lift capacities.....	9-16
Noise levels.....	9-26
Torque	9-27

10 ACCESSORIES

General accessories.....	10-1
--------------------------	------

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

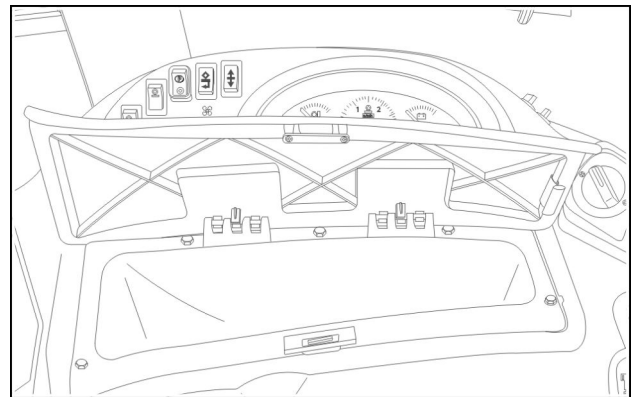
Improper operation of this machine can cause death or serious injury. Before using the machine, make certain that every operator

- 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

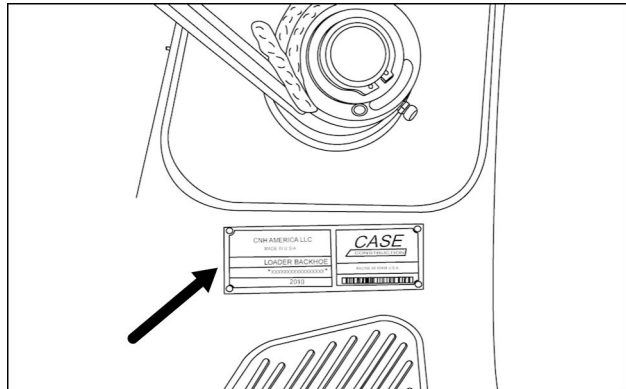
PIN

Model year

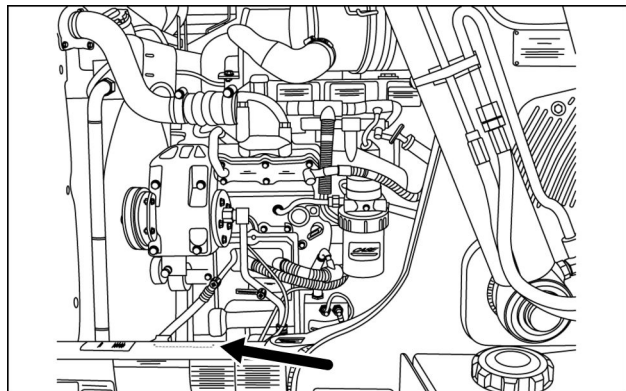
The PIN plate is located on the left-hand side beneath the pivot for the loader lift cylinder. The PIN is 17 characters long.

NOTE: Hoses removed for illustration clarity.

NOTE: The PIN is also stamped on the chassis.

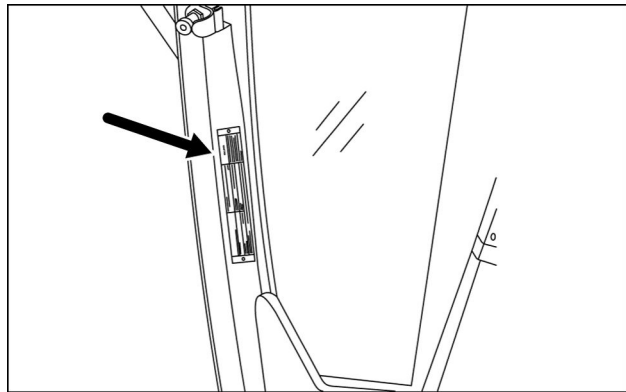


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RCPH10TLB325AAF 2

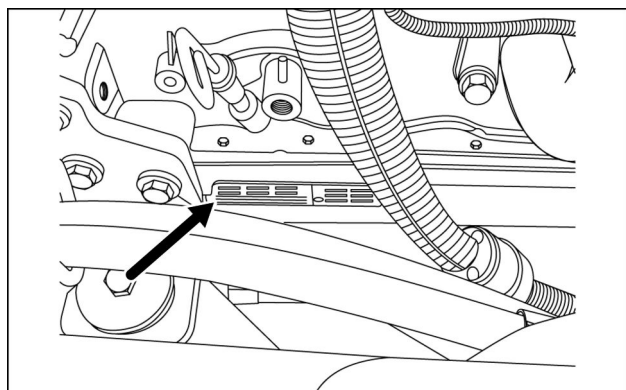
Roll-Over Protective Structure (ROPS)



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Engine - Mechanical (580N)

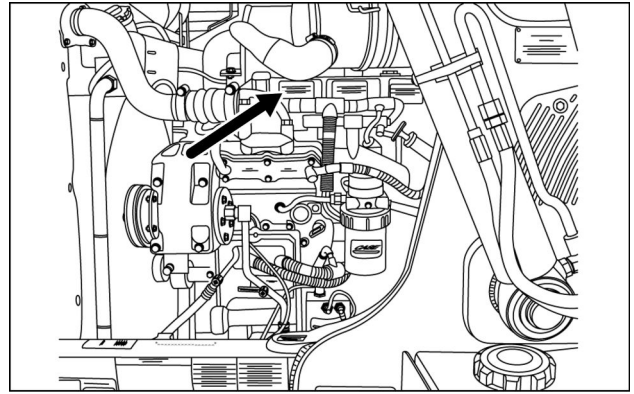
The PIN plate is on the oil pan.



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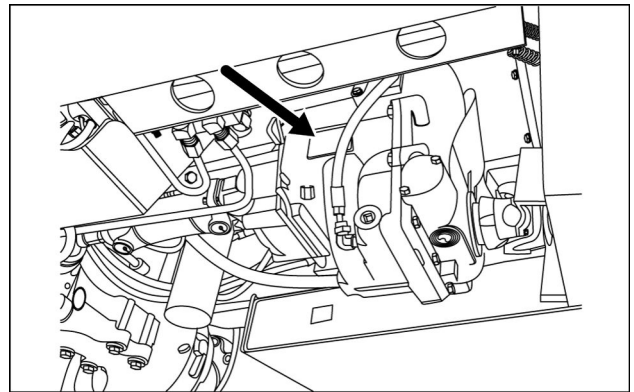
Engine - HPCR (580SN, 580SN-WT, 590SN)

The PIN plate is on the valve cover.



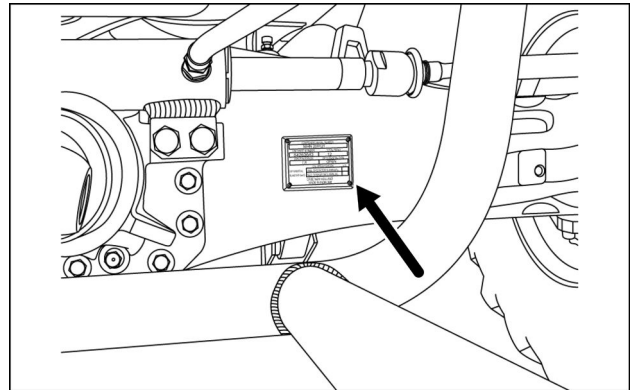
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Transmission



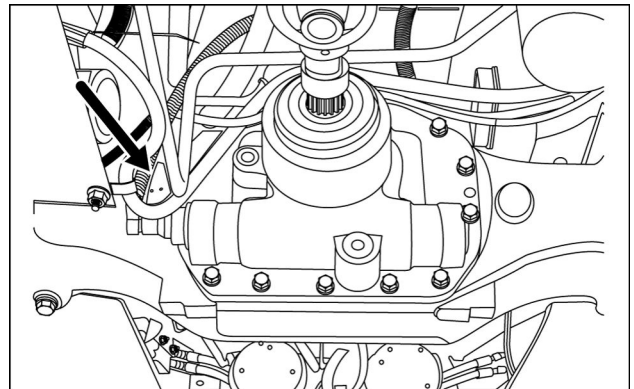
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Front drive axle (4WD)



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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

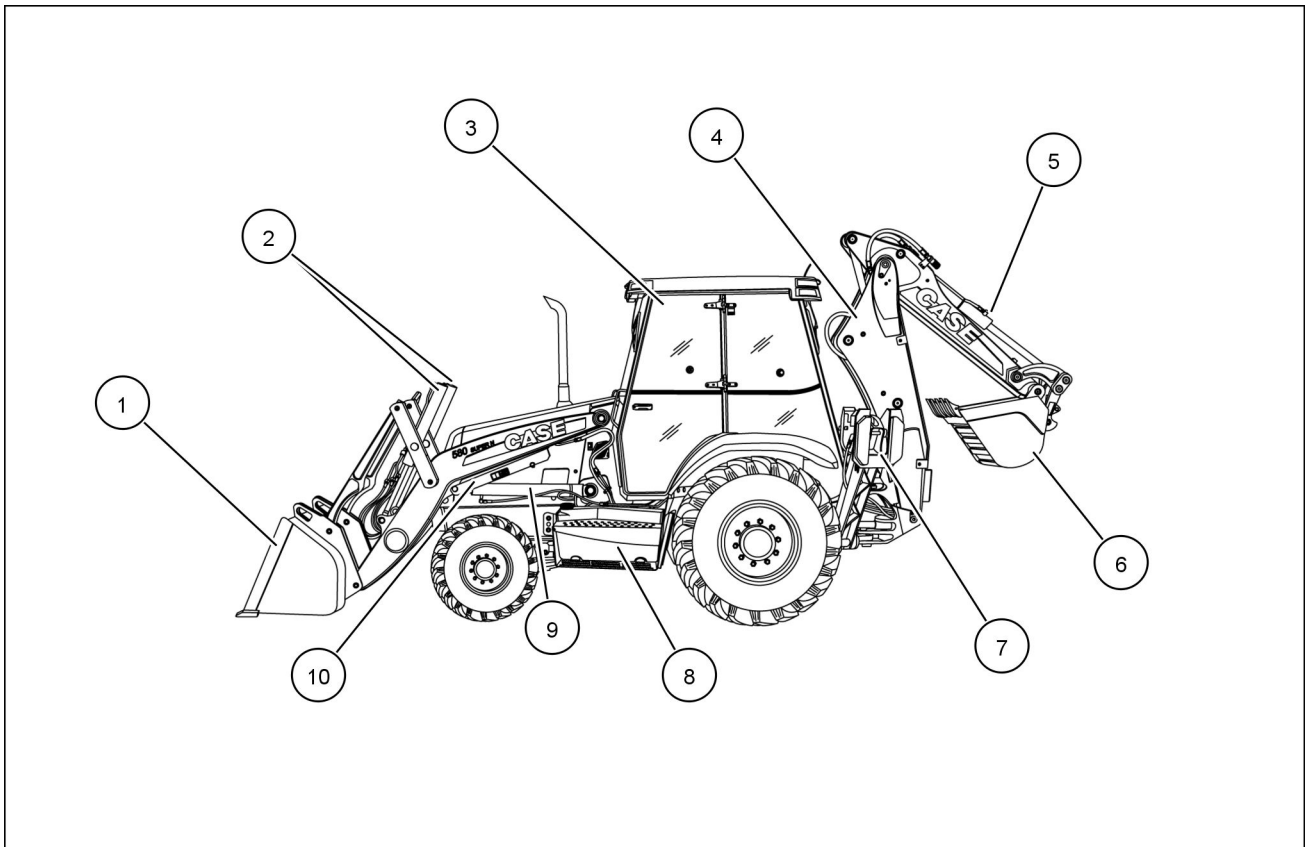
Backhoe bucket

Not shown

Bucket type

PIN

Component Identification

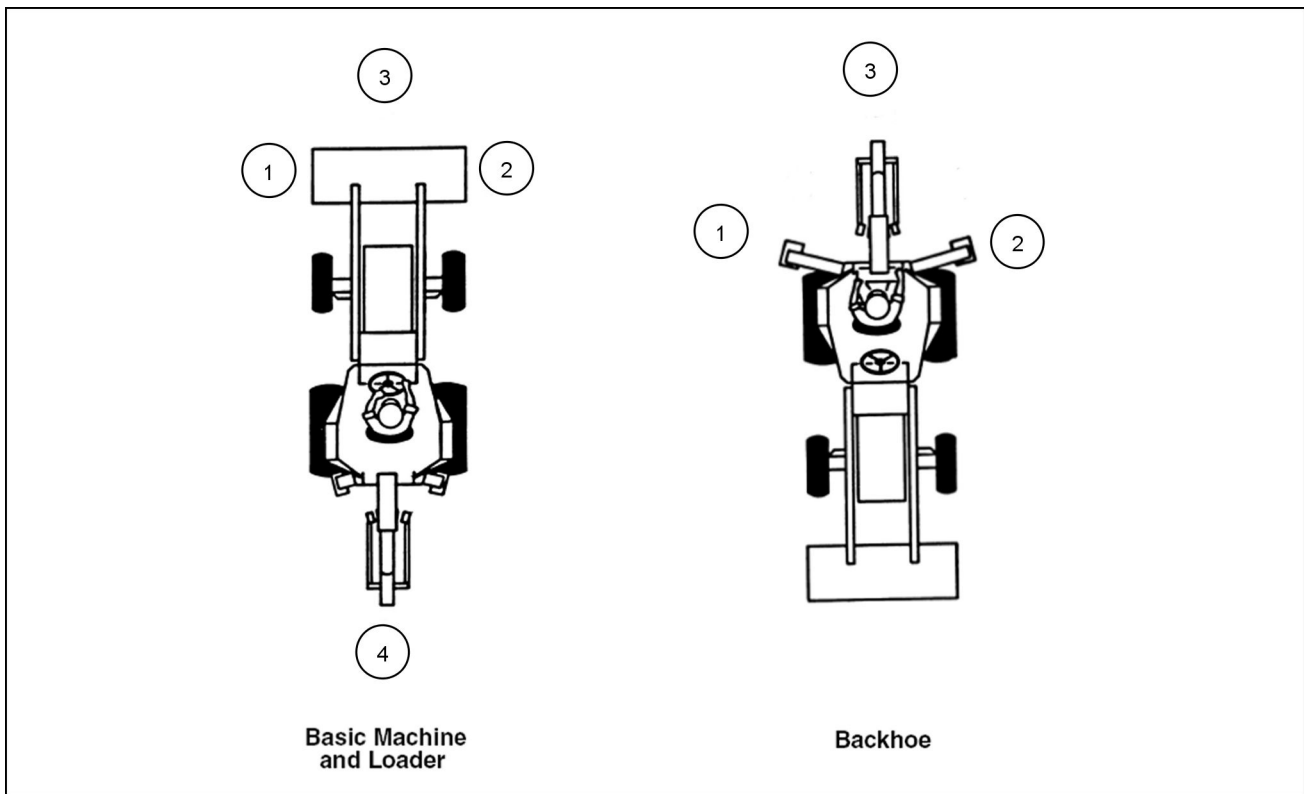


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- | | |
|------------------------------|---|
| 1. Loader bucket | 6. Backhoe bucket |
| 2. Bucket cylinders | 7. Stabilizer (shown in transport position) |
| 3. Cab | 8. Fuel tank and operator's step |
| 4. Boom | 9. Loader lift cylinder |
| 5. Dipper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

Safety rules - Basic operating



- Always check the operating and the road safety of the machine before starting.
- Always make sure the working area is clear of other persons, domestic animals, tools, etc. before you start operating the machine.
- Another worker or bystander within the operating area of a machine can be struck or crushed by the machine or its equipment. DO NOT allow anyone to enter the work area.
- Always sound horn before starting the machine.
- Never operate the engine in enclosed spaces as harmful exhaust gases may build up.
- Check brakes, steering, and other machine control devices in accordance with maintenance instructions, prior to starting operation. Observe all gauges or warning instruments for proper operation. Operate all controls to ensure proper operation. If any malfunctions are found, remove the key and attach a 'Do Not Operate' tag on the machine until the malfunction is corrected.
- If a failure that causes loss of control such as steering, service brakes, or engine occurs, stop the machine motion as quickly as possible. Make sure the machine is securely parked. Remove the key and attach a 'Do Not Operate' tag on the machine until the malfunction is corrected or the machine can be safely towed.
- **⚠ WARNING**
 - **Escaping fluid!**
Hydraulic fluid or diesel fuel leaking under pressure can penetrate the skin and cause infection or other injury. To prevent personal injury: Relieve all pressure before disconnecting fluid lines or performing work on the hydraulic system. Before applying pressure, make sure all connections are tight and all components are in good condition. Never use your hand to check for suspected leaks under pressure. Use a piece of cardboard or wood for this purpose. If injured by leaking fluid, see your doctor immediately.
Failure to comply could result in death or serious injury.
- Make sure all components are in good condition and tighten all connections before starting the engine or pressurizing the system.
- Make sure all guards and shields are in good condition and properly installed before operating machine. Never operate the machine with the shields removed. Always close access doors or panel before operating the machine.
- Before starting the engine, be sure all operating controls are in the neutral or park lock position.
- Start the engine only from the operator's seat.
- Operate controls only when seated in the operator's seat, except for those controls expressly intended for use from other locations.
- Do not allow other persons to ride on the machine or on an attachment/implement.
- Operate and drive the machine with care and at speed compatible with conditions. Use extra caution when operating over rough ground, on slopes, and when turning.
- If your machine has a cab, make sure that all windows are clean and that the windshield wipers work correctly.
- Dust, fog, smoke, etc., can decrease your vision and cause an accident. Stop the machine or decrease the speed until you can see.
- Understand the machine limitations and keep the machine under control.
- Before you operate at night, check that all lamps illuminate.
- Select a gear that will prevent excessive speed when going downhill. Do not coast downhill.
- DO NOT attempt to remove material from any part of the machine while it is being operated or components are in motion.
- When using the backhoe:
 - Position the stabilizer pads for maximum stability.
 - Install a guard rail and warning signs to keep other persons away from the machine if operating in an area with reduced visibility, such as a building.
 - Place the direction control lever and the transmission in neutral and apply the parking brake before turning the operator's seat around to the backhoe position.
 - Ensure the seat is locked into position.
 - Know which control pattern is engaged before actuating the hydraulics (pilot control machines only).

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