

821F
921F
Tier 4
Wheel Loader

OPERATOR'S MANUAL

Part number 84548506
2nd edition English
February 2012
Replaces part number 84324413



Contents

1 GENERAL INFORMATION

Note to the owner.....	1-1
Operator's manual storage	1-3
Right, left, front, and rear of the machine.....	1-4
Machine components.....	1-5
Note to the owner.....	1-7
Product identification	1-8
Electro-Magnetic Compatibility (EMC)	1-10

2 SAFETY INFORMATION

Safety rules and signal word definitions	2-1
Safety rules — California Proposition 65 Warning	2-2
Personal safety	2-3
Safety rules - Utility safety	2-4
Safety rules.....	2-5
Safety rules.....	2-6
Safety rules - Operating precautions	2-7
Safety rules - Maintenance precautions	2-9
Safety rules - Fuel handling	2-10
Safety rules — Burn Prevention.....	2-11
Safety rules.....	2-12
Safety rules.....	2-13
Safety rules - Support strut and service link	2-14
Safety signs	2-16

3 CONTROLS/INSTRUMENTS

ACCESS TO OPERATOR'S PLATFORM

Proper entry and exit	3-1
-----------------------------	-----

OPERATOR'S SEAT

Overview	3-2
----------------	-----

FORWARD CONTROLS

Front console	3-7
Steering column	3-8
Pedal controls	3-10
Parking brake.....	3-12

LEFT-HAND SIDE CONTROLS

Transmission controls	3-13
Joystick steering.....	3-15

RIGHT-HAND SIDE CONTROLS

Overview	3-17
Two function valve.....	3-19
Three function valve	3-23
Four function valve	3-27
Wrist rest	3-29

EXTERIOR CONTROLS

Hood switch and master disconnect.....	3-30
--	------

INSTRUMENT CLUSTER

Overview	3-34
Status and warning icons.....	3-35
Display settings.....	3-43
Keypad	3-44
Operator preferences.....	3-52

SIDE CONSOLE

Overview	3-57
Switch operations.....	3-58
Climate controls	3-63

CLIMATE CONTROLS

Cab air louvers	3-65
Windows.....	3-67

4 OPERATING INSTRUCTIONS

COMMISSIONING THE UNIT

Before starting the engine	4-1
Run in period of a new machine.....	4-2

STARTING THE UNIT

Starting the engine	4-3
Operating in extreme temperatures	4-5
Cold temperature operation	4-6
Transport/service link.....	4-8

STOPPING THE UNIT

Stopping the engine	4-11
---------------------------	------

MOVING THE UNIT

Before operating the transmission.....	4-13
Ride control.....	4-14
Control levers.....	4-15
Auxiliary forward, neutral, reverse (F-N-R) switch.....	4-20
Automatic mode	4-24
Loader functions.....	4-25

<https://www.ebooklibonline.com>

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

<https://www.ebooklibonline.com>

5 TRANSPORT OPERATIONS

RECOVERY TRANSPORT

Safety rules	5-1
Transporting the machine	5-2
Moving a disabled machine	5-4

6 WORKING OPERATIONS

LOADER OPERATIONS

Operating tips	6-1
Changing loader attachments	6-4
Coupling to the attachment	6-6
Uncoupling the attachment	6-9
Joystick operation	6-13

7 MAINTENANCE

GENERAL INFORMATION

Servicing	7-1
Support strut for loader lift arm	7-3
Releasing pressure in the hydraulic system	7-5
Fluids and lubricants	7-7
Biodiesel fuels	7-12
Selective Catalytic Reduction (SCR) - Overview	7-14
Selective Catalytic Reduction (SCR) system	7-17

MAINTENANCE CHART

Maintenance Chart	7-20
-------------------------	------

Daily inspection

General	7-22
---------------	------

Every 10 hours

Engine oil	7-26
------------------	------

Every 50 hours

Bucket/attachment grease fittings	7-27
Grease machine and attachments	7-28
Hydraulic oil level	7-29
Transmission oil level	7-30
Engine coolant	7-31

Initial 100 hours

Wheel torque	7-32
Change engine oil and filter (Initial)	7-34
Clean in-line DEF supply filter (Initial)	7-36
Fuel prefilter (Initial)	7-37
Fuel filter (Initial)	7-38
Replace hydraulic oil filter (Initial)	7-39

Every 100 hours

Grease fittings	7-40
-----------------------	------

Every 250 hours

Grease drive shaft slip joints	7-42
Cab air filter - Recirculation filter	7-43
Wheels and tires	7-45

Every 500 hours

Engine oil and filter	7-47
Replace fuel prefilter	7-49
Fuel filter	7-50
Fuel tank sediment	7-51
Axle oil level	7-52
Roll over protective structure	7-53
Battery fluid level	7-55

Every 1000 hours

Pivot points	7-56
Articulation fittings	7-57
Hydraulic oil filter	7-58
Drive belt	7-59
Cab air filter - Recirculation filter	7-61
Replacing the engine breather filter	7-63

Every 1500 hours

Front and rear axle	7-64
Transmission fluid and filter	7-66
Clean breather	7-68
Selective catalytic reduction system - Clean in-line supply filter	7-69
Calibrating the gear box	7-70
Transmission declutch pressure adjustment 4-speed transmission only	7-72

Every 2000 hours

Hydraulic oil and filters	7-73
Engine coolant	7-75
Engine air filters	7-77
Frame and cab - lubricate	7-79

Engine valve clearance.....	7-80
-----------------------------	------

Every 3000 hours

Selective catalytic reduction system - replace supply module filter.....	7-81
--	------

As required

Fuel pre-filter.....	7-82
Clean selective catalytic reduction system tank filter.....	7-83
Air conditioning condenser.....	7-85
Height control and return to travel.....	7-86
Return to dig.....	7-88
Parking brake.....	7-90
Secondary steering.....	7-94
Cab service.....	7-95

ELECTRICAL SYSTEM

Battery service.....	7-98
Battery electrolyte level.....	7-101
Auxiliary battery connections.....	7-102
Battery removal and installation.....	7-104
Fuses and relays.....	7-105
Work lights.....	7-111
Driving lights.....	7-112
Additional features.....	7-113

STORAGE

Preparation.....	7-114
Every 30 days.....	7-115
Removal.....	7-115

8 SPECIFICATIONS

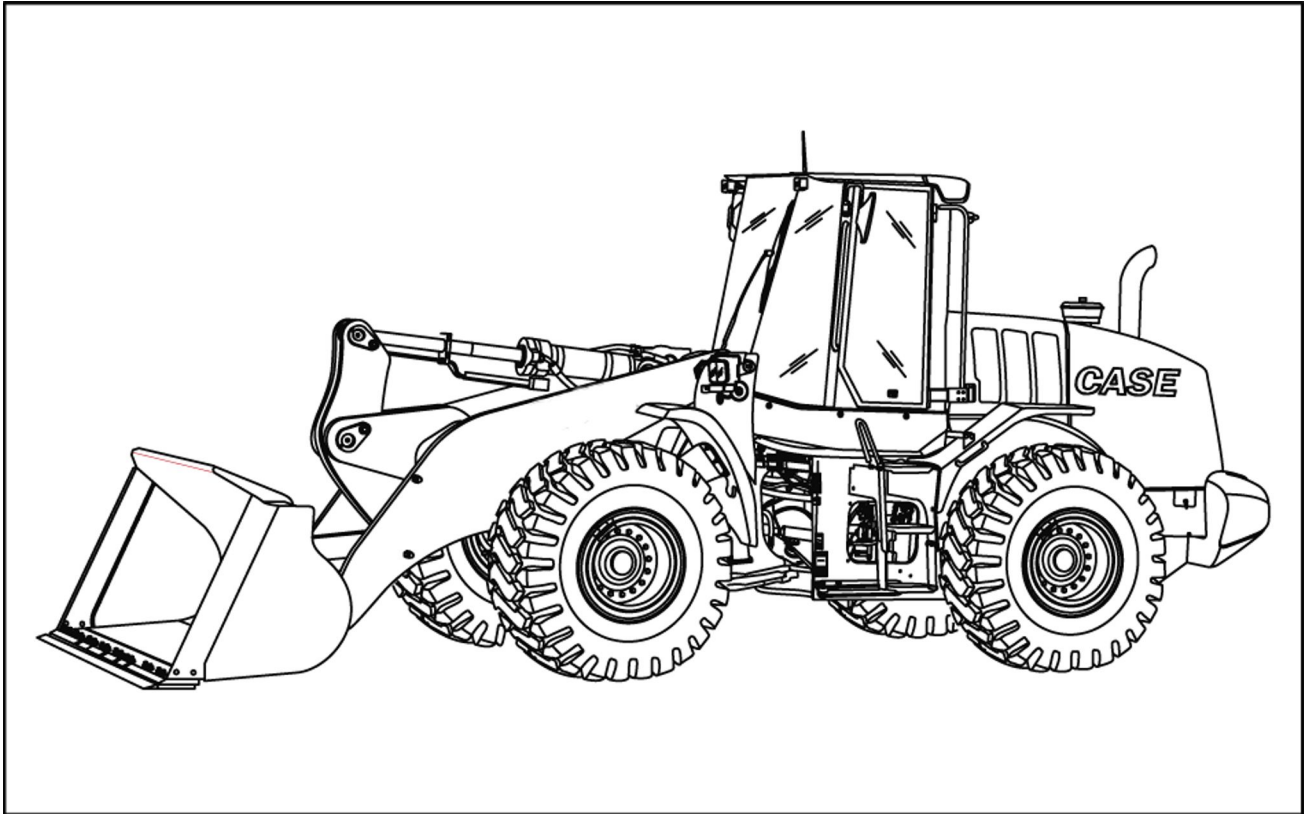
General specifications.....	8-1
Lift capacities - 821F and 921F Hydraulic Lift Capacities.....	8-9
Machine specifications and dimensions - General specifications.....	8-13
Weight adjustments - Material weights and weight adjustments.....	8-32
Torque charts.....	8-34
Material weights.....	8-36

9 ACCESSORIES

General accessories.....	9-1
--------------------------	-----

1 - GENERAL INFORMATION

Note to the owner



RCPH10WHL094FAH 1

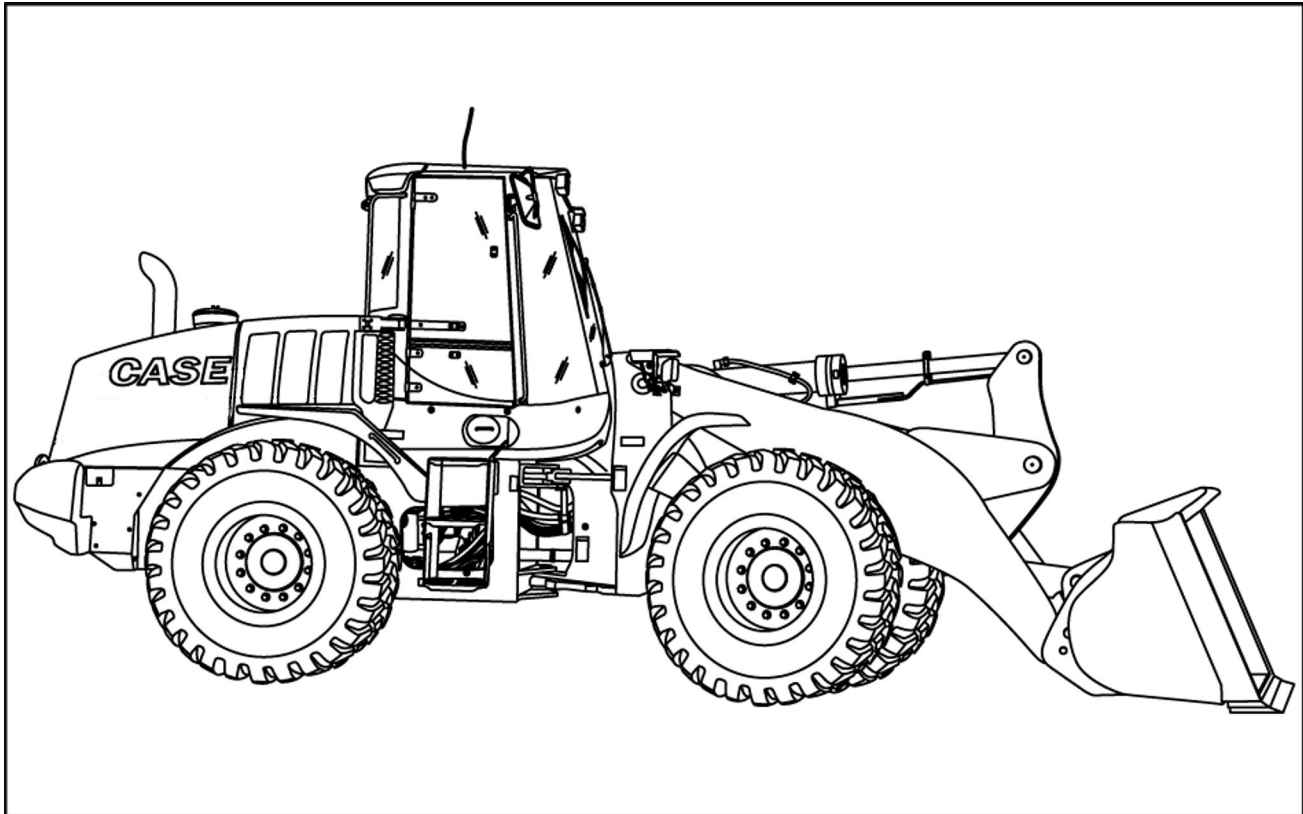
Read this manual before you start the engine or operate the machine. If you need more information, see your authorized dealer.

This manual contains important information about the safe operation, adjustment, and maintenance of your machine. Refer to the index at the back of this manual for locating specific items about your machine. The wheel loader conforms to current safety regulations.

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.

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

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!*



RAIL12WEL0125GA 2

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.

This Wheel Loader, with standard equipment and attachments is intended to be used for digging and general earth moving purposes such as land leveling, truck loading, and material rehandling. This machine is not intended to be used for lifting other objects or transporting loads at high speeds.

DO NOT use this machine for any application or purpose other than those described in this manual, decals, or other product safety information provided with the machine. These materials define the machine's intended use.

If the loader is to be used in an application that involves special attachments or equipment, such as forestry, etc., consult an authorized dealer. Consult an authorized dealer on changes, additions or modifications that can be required for this machine to comply with various country regulations and safety requirements.

Before permitting a new operator on this machine, make certain:

- That the operator has received the necessary training to operate the machine correctly and safely.
- That the operator has read and understands the instructions given in this manual.

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

This Operators Manual is to be stored in the manual compartment equipped on this machine. Make sure this manual is complete and in good condition. Contact your dealer to obtain additional manuals or manuals in languages other than that of the country of use.

Your dealer is at your disposal for any further information. He will also provide any after-sales service you may require and genuine replacement parts, your guarantee of quality and match.

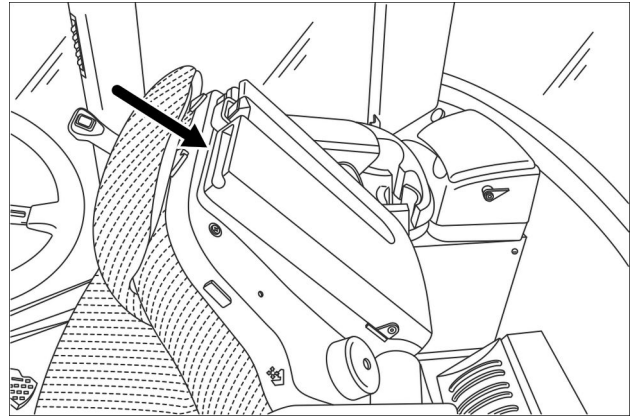
Case Construction customer assistance is also available. Call 1-866-54-CASE6 (1-866-542-2736) or email: casecustomerassistance.na@cnh.com.

Operator's manual storage

To access the operator manual storage area located on the back of the operator's seat, release the latch on top of the seat and open the compartment.

READ THIS MANUAL COMPLETELY and make certain 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.

DO NOT remove this manual or the safety manual from the machine. See your dealer for additional manuals. Keep the Operator's Manual and the safety video in the storage compartment provided on the machine. The Operator's Manual and safety video must be available for use by all operators.



RCPH10WHL089BAL 1



When you see this symbol read your operator's manual.

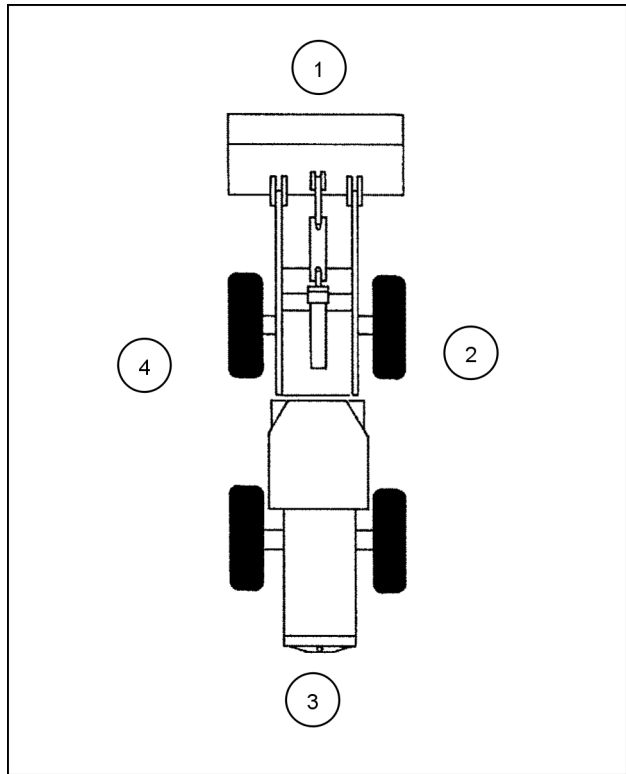


When you see this symbol refer to your repair manual.

Right, left, front, and rear of the machine

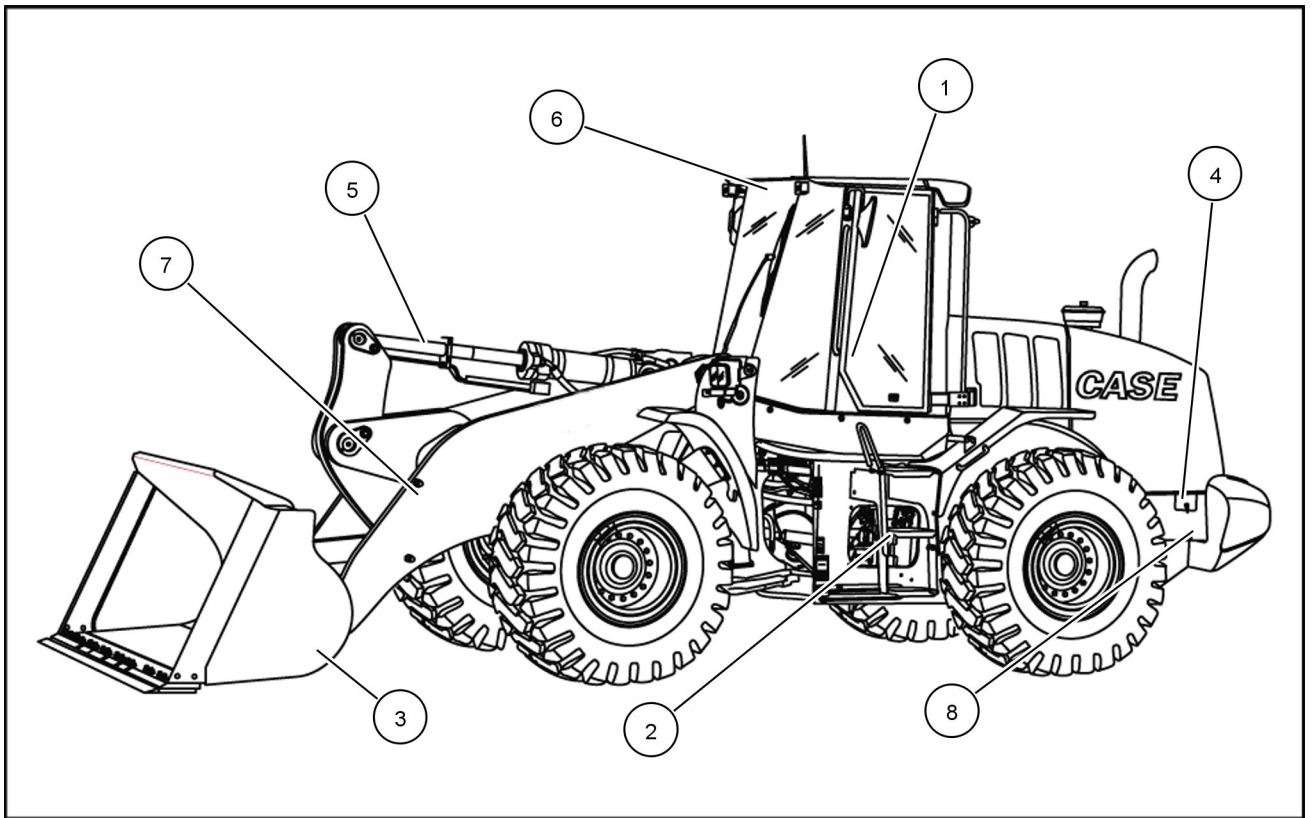
The terms right-hand, left-hand, front, and rear are used in this manual to indicate the sides as they are seen from the operator's seat.

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



RCPH10WHL003BAH 1

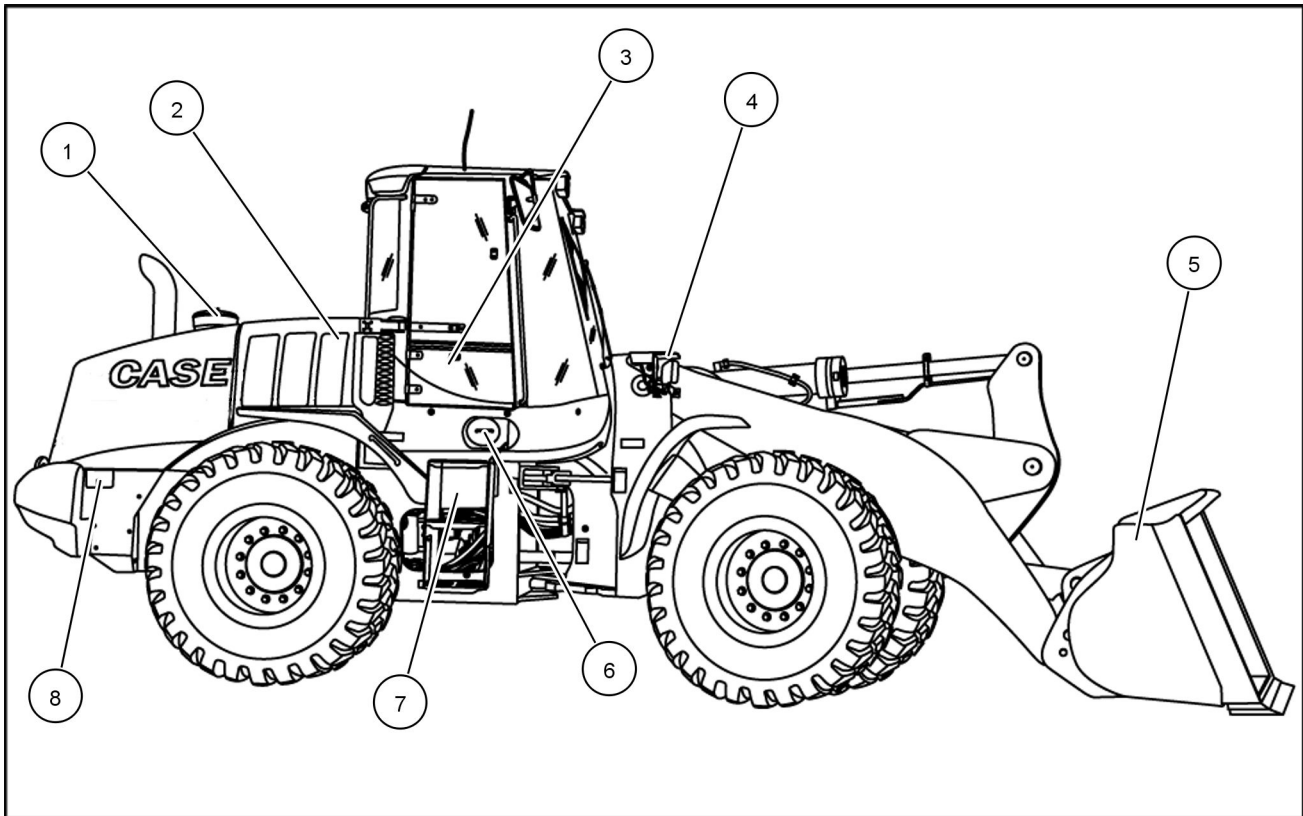
Machine components



RCPH10WHL094FAH 1

- | | |
|---|---|
| 1. Cab door and hand holds | 5. Bucket cylinder |
| 2. Steps | 6. Roll Over Protection System (ROPS) cab |
| 3. Bucket | 7. Loader lift arms |
| 4. Electric disconnect and optional battery jump post | 8. Battery access |

1 - GENERAL INFORMATION



RAIL12WEL0125GA 2

- | | |
|-------------------------|---|
| 1. Pre-cleaner | 5. Bucket |
| 2. Sliding access panel | 6. Cab air filter access |
| 3. Fuse access door | 7. Windshield washer reservoir |
| 4. Driving lights | 8. Diesel Exhaust Fluid (DEF) fill tank |

Note to the owner

This manual contains information concerning the adjustment and maintenance of your new equipment. You have purchased a dependable machine, but only by proper care and operation can you expect to receive the performance and long service built into this equipment. Please have all operators read this manual carefully and keep it available for ready reference.


Your authorized dealer will instruct you in the general operation of your new equipment. Your dealer's staff of factory-trained service technicians will be glad to answer any questions that may arise regarding the operation of your machine.

Your authorized dealer carries a complete line of genuine service parts. These parts are manufactured and carefully inspected to insure high quality and accurate fitting of any necessary replacement parts. Be prepared to give your dealer the model and product identification number of your new equipment when ordering parts. Locate these numbers now and record them below. Refer to the 'General Information' section of this manual for the location of the model and product identification numbers of your machine.

PLEASE RECORD THE FOLLOWING INFORMATION

Model

Date Purchased

	<p>This is the safety alert symbol. It is used with and without signal words to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.</p>
--	---

⚠ WARNING

Illustrations in this manual may show protective shielding open or removed to better illustrate a particular feature or adjustment.

Replace all shields before operating the machine.

Failure to comply could result in death or serious injury.

W0012A

IMPROVEMENTS

CNH America LLC is continually striving to improve its products. We reserve the right to make improvements or changes when it becomes practical and possible to do so, without incurring any obligation to make changes or additions to the equipment sold previously.



Suggest:

If the above button click is invalid.

Please download this document first, and then click the above link to download the complete manual.

Thank you so much for reading

Product identification

Model, serial number, and year of manufacture

Record the machine and part identification numbers. When ordering parts, obtaining information or assistance, always supply your dealer with the type and serial number of your machine or accessories. 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.

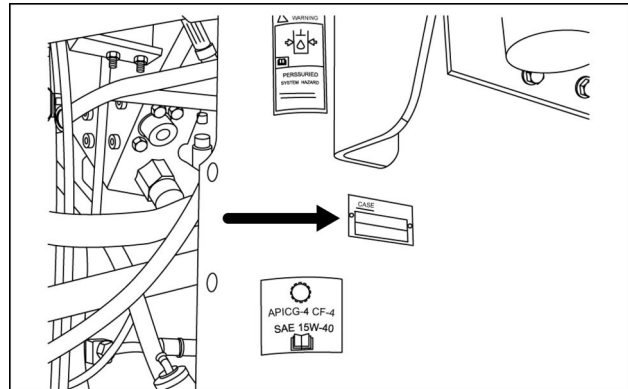
Machine identification

Model name

PIN

Model year

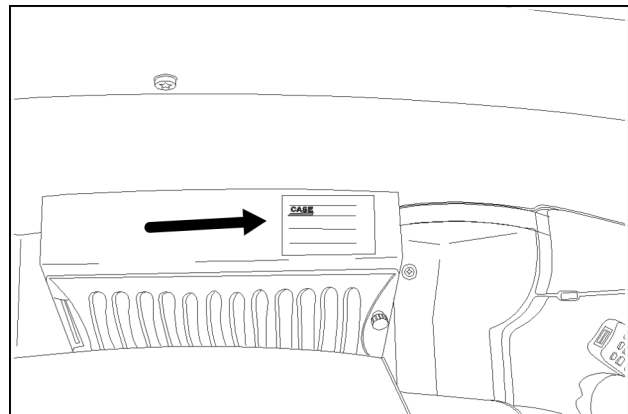
The Product identification number (PIN) plate is located on the left-hand side of the machine.



RCIL10WHL014AAL 1

Roll-Over Protective Structure (ROPS)

The serial number plate is behind the operator's seat on the air filter cover.

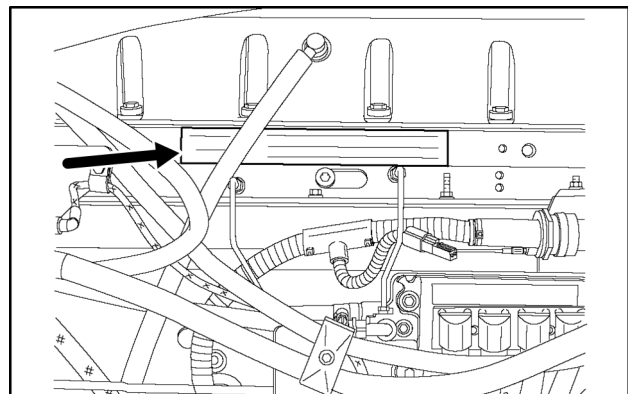


RCIL10WHL013AAL 2

Engine make and model

Engine serial number

The serial number plate is on the engine block.



RCIL10WHL015AAL 3

<https://www.ebooklibonline.com>

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

<https://www.ebooklibonline.com>