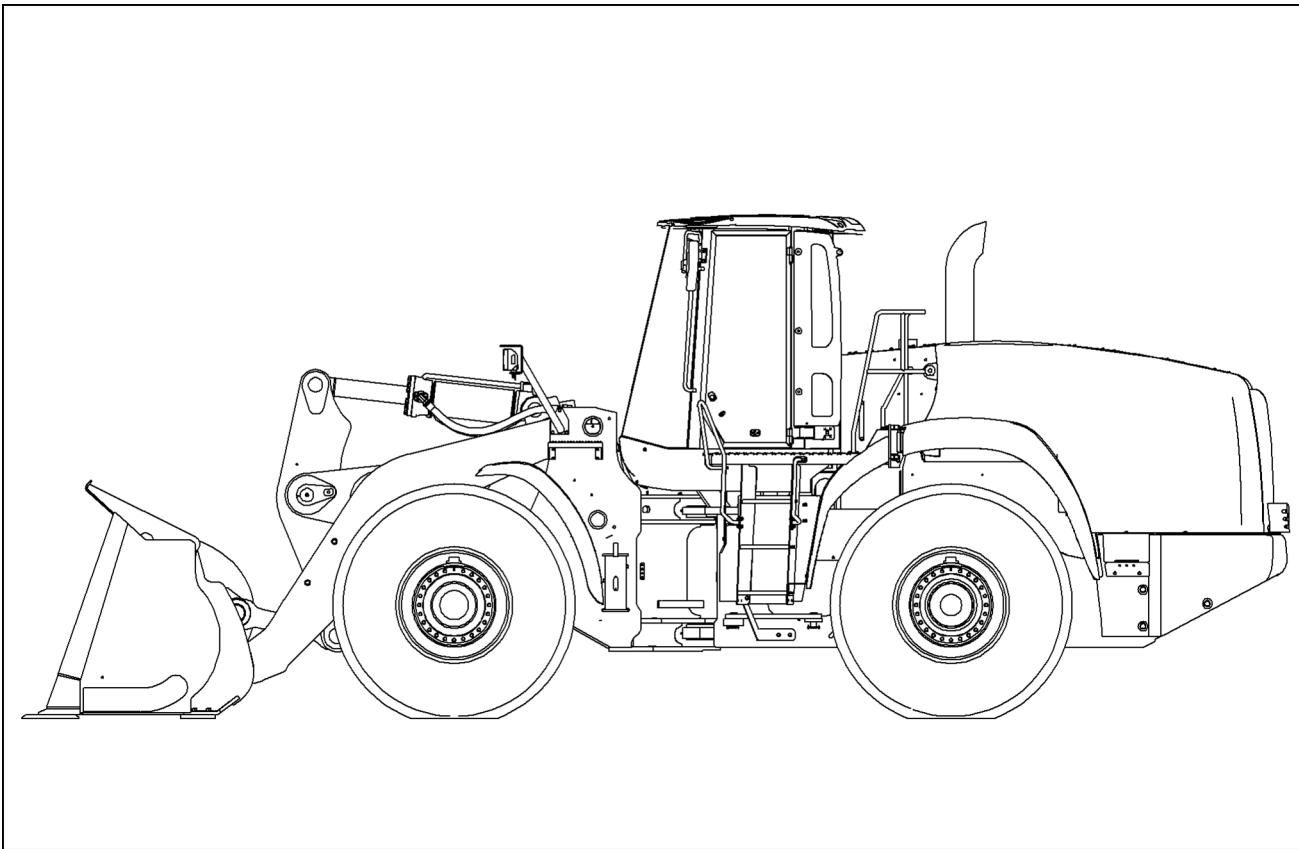


# 1 - GENERAL INFORMATION

## Note to the Owner [60619556]



LEEN1T0001FA 1

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

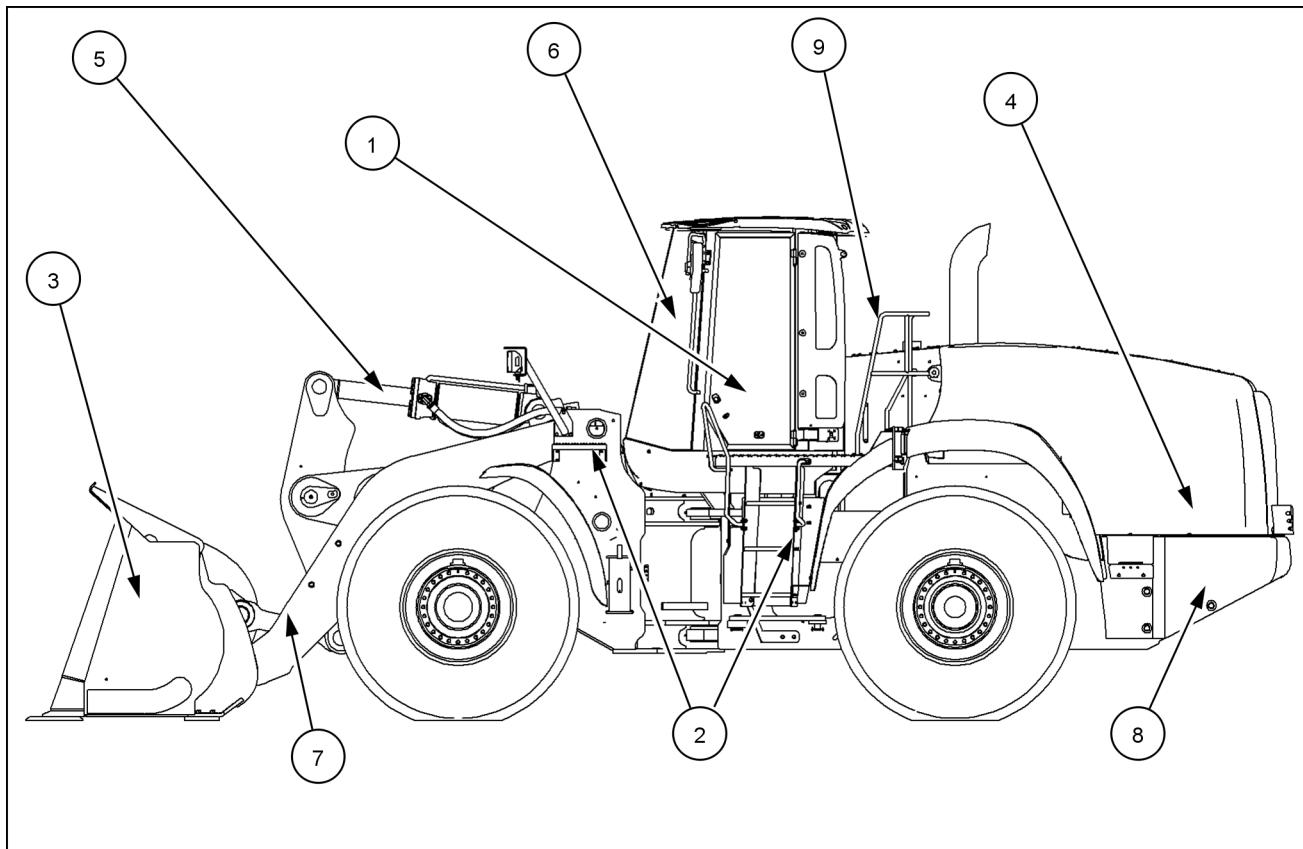
This manual contains important information about the safe operation, adjustment, and maintenance of your machine. Refer to the index at the back of this manual for locating specific items about your machine. The wheel loader conforms to current safety regulations.

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!*

## Machine components [60620131]



LEEN11T0001FA 1

1. Cab door and hand holds	6. ROPS cab
2. Steps	7. Loader lift arms
3. Bucket	8. Battery access
4. Electric disconnect and optional battery jump post	9. Hand rails
5. Bucket cylinder	

## Seat belt precautions [60622193]

### ⚠ WARNING

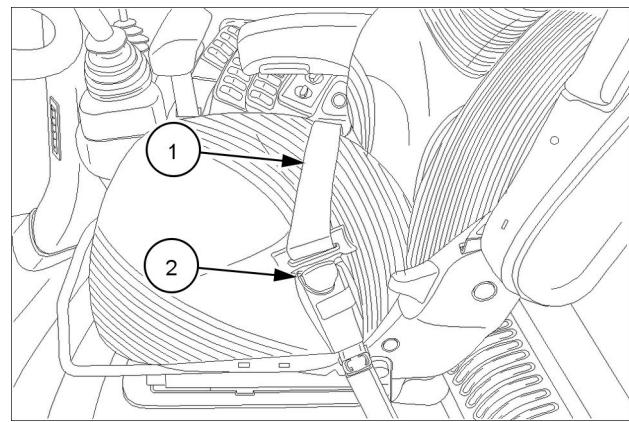
#### Roll-over hazard!

Securely fasten the seat belt. Your machine is equipped with a Roll-Over Protective Structure (ROPS) cab, ROPS canopy, or ROPS frame for your protection. The seat belt can help ensure your safety if it is properly used and maintained. Never wear a seat belt loosely or with slack in the belt system.

Failure to comply could result in death or serious injury.

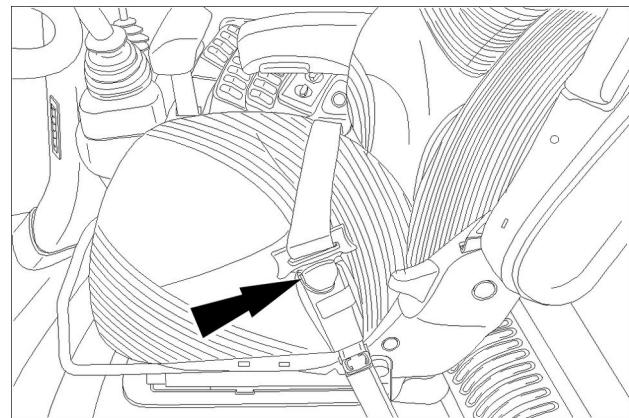
W0143A

1. Insert the metal end of the right-hand belt strap into the latch mechanism on the left-hand side of the seat.
2. Tighten the seat belt by pulling on the loose end of the right-hand seat belt.

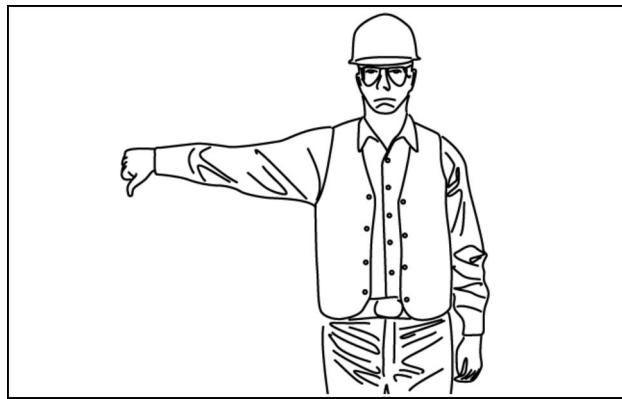


1. Right-hand belt strap
2. Latch mechanism

1. To unlatch the seat belt, press the red button on the left-hand side mechanism.

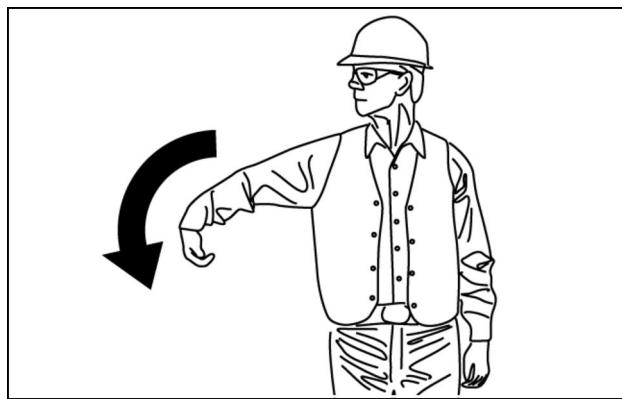


Lower the boom



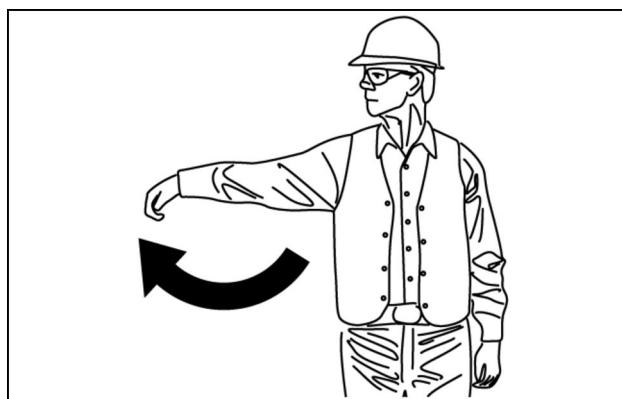
LEEN11T0020AA 16

Retract arm



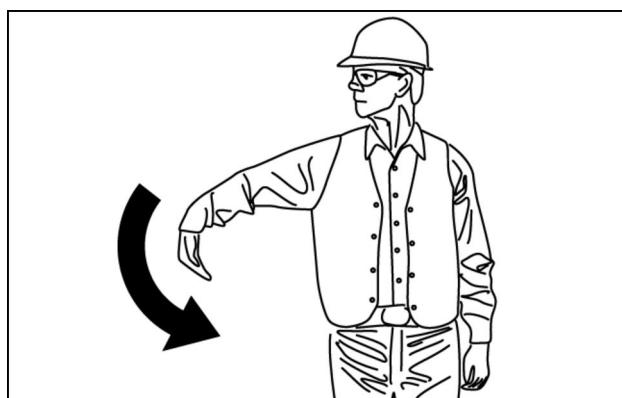
LEEN11T0021AA 17

Extend arm



LEEN11T0022AA 18

Fill tool



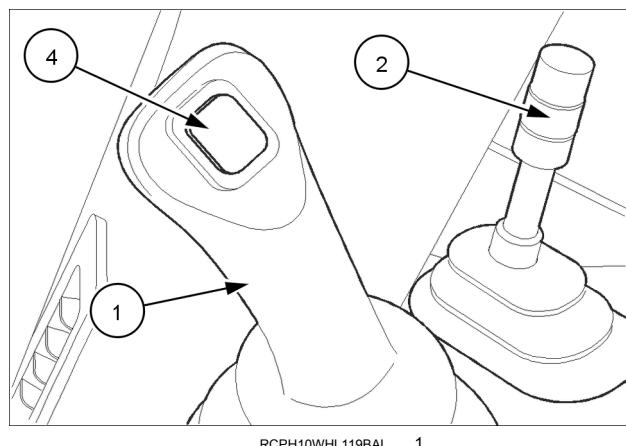
LEEN11T0023AA 19

## Three function valve [60629819]

### Three function valve - two control levers

#### 1. LIFT ARM AND BUCKET CONTROL

- A. DUMP
- B. ROLLBACK
- C. HOLD - The loader arms and bucket will not move when the control lever is in the HOLD position. The control lever will automatically return to the HOLD position when released. You must manually move the control lever from the FLOAT position to the HOLD position.
- D. FLOAT (DETENT) - This is a detent position. When in the FLOAT (detent) position, the loader bucket can follow the level of the ground without movement of the control lever



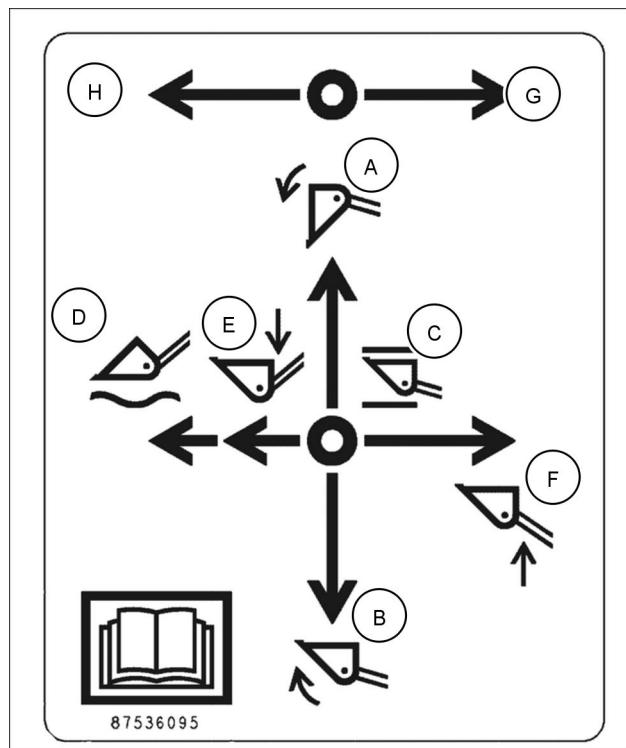
#### E. LOWER

#### F. RAISE

#### 2. AUXILIARY CONTROL

#### G. AUXILIARY FUNCTION

#### H. AUXILIARY FUNCTION



## EXTERIOR CONTROLS

### Hood switch and master disconnect [60630030]

#### ⚠ WARNING

**Automatic closure!**

**Keep your hands and body and all personnel clear of the machine hood as it closes.**

**Failure to comply could result in death or serious injury.**

W0048A

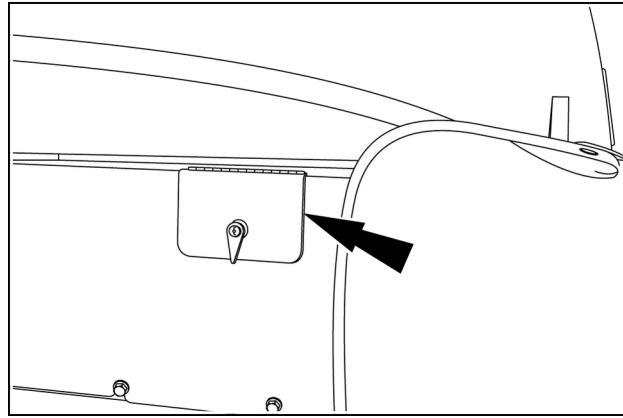
#### Hood Switch

The hood switch is located on the left side of the machine. The hood, left, and right side engine covers allow access to both engine sides, air cleaner and coolers. A locking mechanism is provided for the hood switch cover. Use the machine key to open and close this cover.

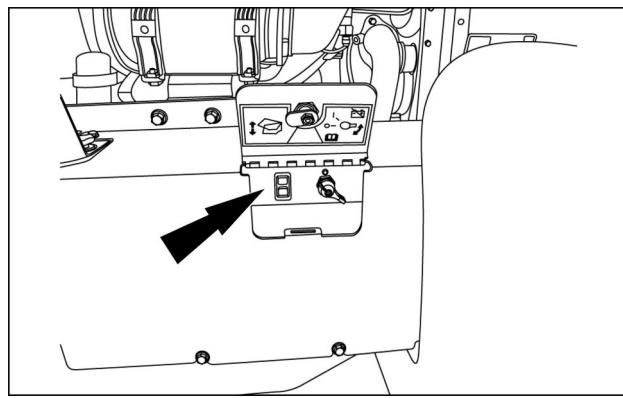
1. Insert the key. Make sure to completely insert the key for proper operation.

**NOTICE:** *Damage can occur to the key or locking mechanism if key is improperly inserted and turned.*

2. After releasing the lock, remove the key and open the cover.
3. The hood switch will automatically raise the hood on the machine. Keep all tools, service equipment, and personnel away from the hood when it is automatically opening and closing.

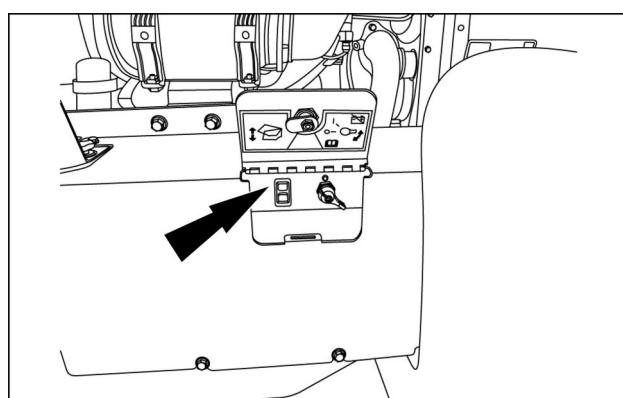


RCPH10WHL425AAH 1



RCPH10WHL106AAH 2

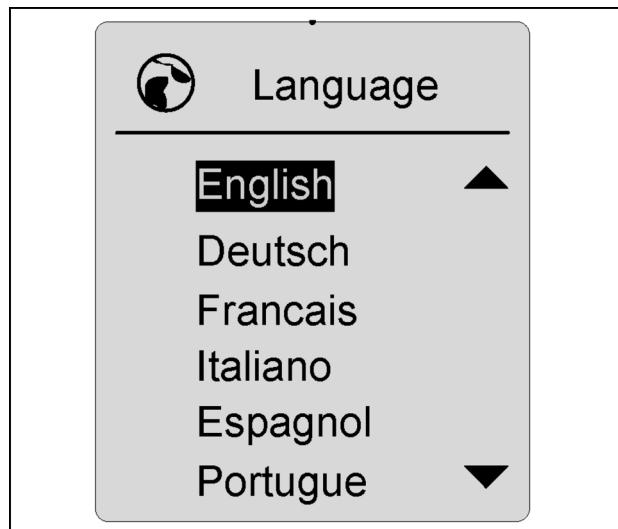
4. Push up on the switch to raise the hood. The switch will remain in the up position for hands free opening. To close the hood, push down on the switch. As a built in safety measure, the down control must be held in order to lower the hood.



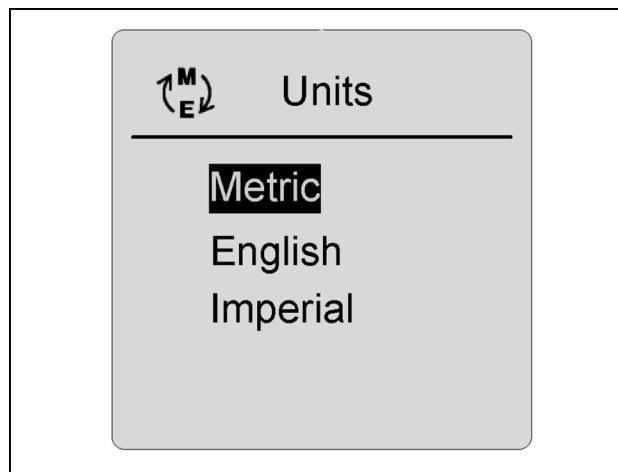
RCPH10WHL106AAH 3

## Languages

Choose the preferences desired: language in English, Spanish, Portuguese, Italian, German, French; measurement units in metric, English, or Imperial; and clock units in 12 or 24 hour cycles. Highlight the preference you wish to change and press the confirm key. The preference will flash and allow you to scroll through the choices. When the correct preference is chosen, press the confirm key, then use the escape key to return to the main driving screen in order to lock the preference into memory.



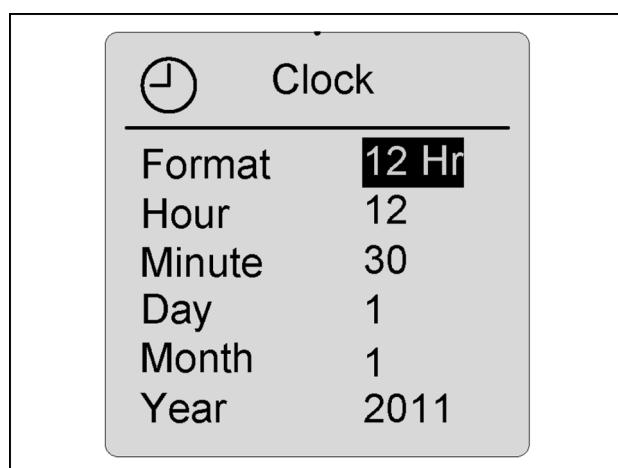
RCPH10WHL361BAH 2



RCPH10WHL362BAH 3

## Clock

Setting the hour and date - From the select screen, choose the clock designation and press the confirm key. Use the arrow keys to show field for time and date by pressing the arrow key. When the correct time and date have been entered by using the up and down arrow keys (up increases the numbers - down decreases the numbers), press the confirm key to lock in correct time. Press the escape key to return to the main driving screen and lock selections into memory.



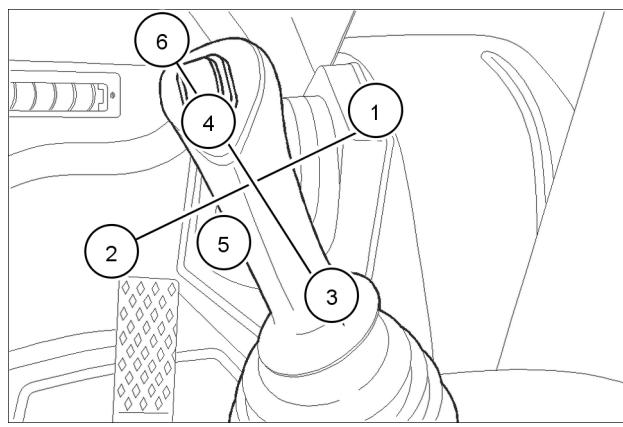
RCPH10WHL363BAH 4

## Control levers [60632679]

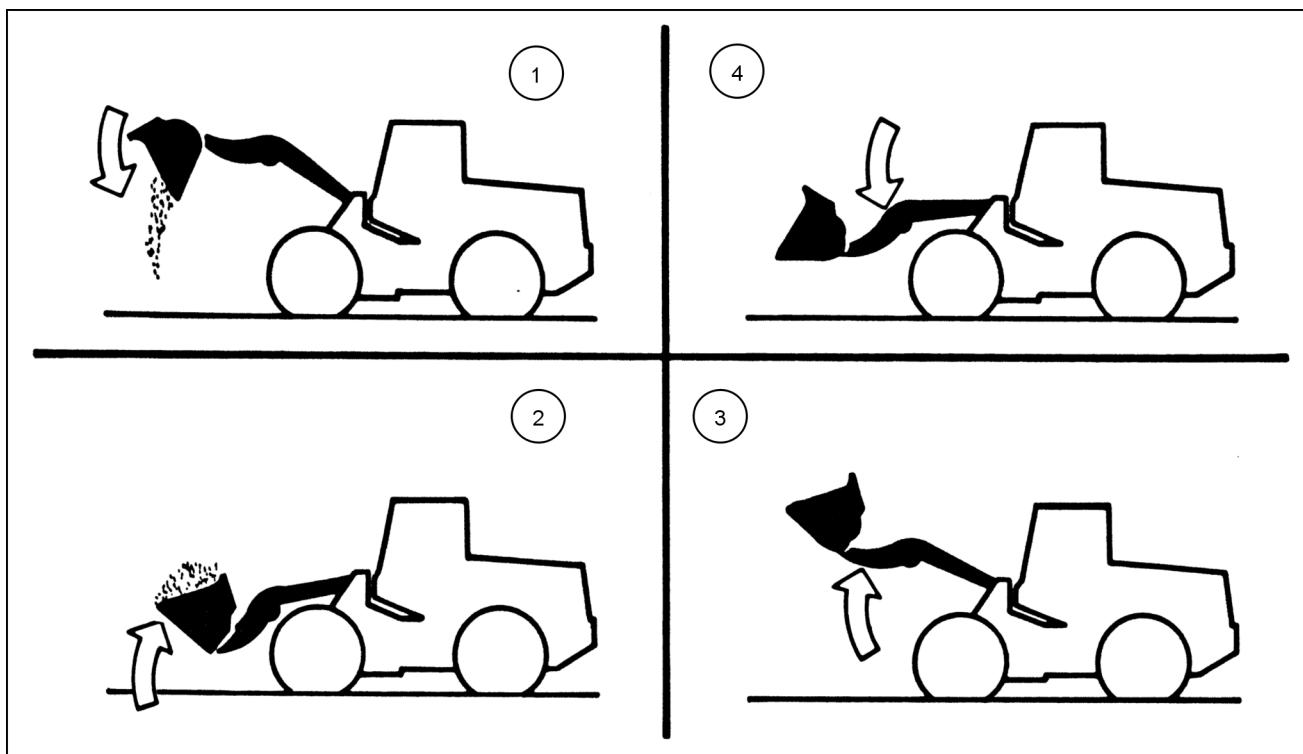
### Two function valve - one control lever

**NOTE:** This page shows the basic loader control lever positions.

See loader function switches in this manual for return-to-dig, bucket height control and return-to-travel/float switches.



RCPH10WHL121BAL 1



RCPH10WHL045BAH 2

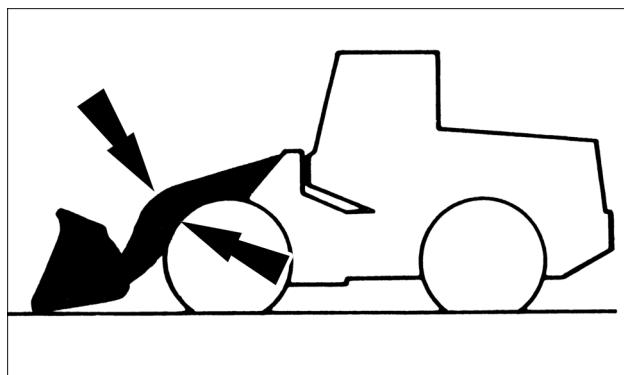
1. Dump bucket
2. Rollback bucket
3. Raise lift arms
4. Lower lift arms
5. Hold - The loader arms and bucket will not move when the control lever is in the hold position. When re-

leased, the control lever must be manually moved from the float position to the hold position. (only with magnets engaged.)

6. Float (detent) - This is a detent position. When in the float (detent) position, the loader bucket can follow level of the ground without movement of the control lever. (only with magnets engaged.)

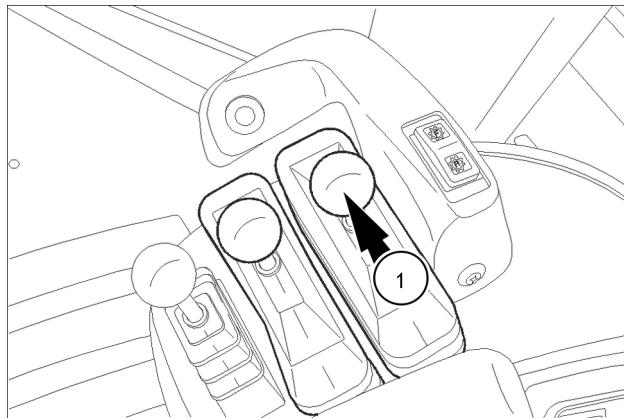
## Float

The float function is used to let the loader bucket float across rough ground.



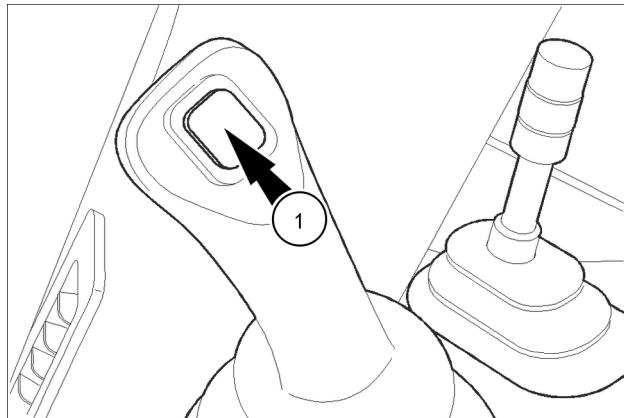
RCIL10WHL018AAL 8

To actuate, move the control lever into the FLOAT detent. The control lever will remain in this position until manually removed. To enable this function press the bottom of the Return-To-Dig/Float switch.



RCPH10WHL110BAL 9

### 1. Float



RCPH10WHL119BAL 10

### 1. Float

## Joystick operation [60633834]

### ⚠ WARNING

Driving hazard!

Check all controls and safety devices in a safe, open area before starting work.

Failure to comply could result in death or serious injury.

W0248A

### ⚠ WARNING

Driving hazard!

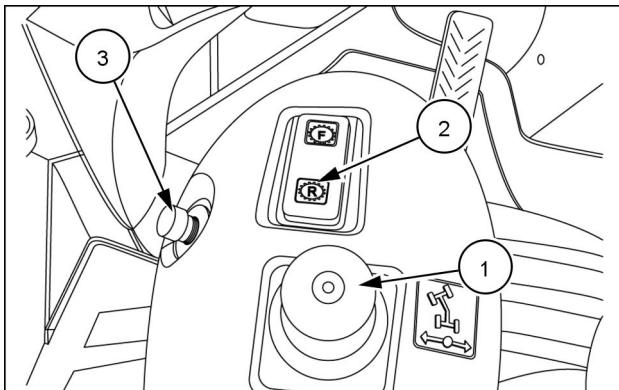
Always use the primary steering when traveling on a public road or highway. The left armrest must be raised and in a locked position during travel. Do not use joystick steering when traveling on a public road or highway.

Failure to comply could result in death or serious injury.

W0451A

### Joystick steering control lever (optional)

The joystick steering control lever allows the loader to be operated using hand controls located on the left operator seat armrest. It allows for steering capabilities at the operator's fingertips. Moving the lever right or left steers the machine in the right or left direction. When the Joystick is released, the lever will return to the neutral position automatically. The machine will remain in the last direction chosen. Forward and reverse are accomplished with the F-N-R switch. Use the joystick steering controls for short cycle, repetitive high production load and carry operations to reduce operator fatigue and increase operating efficiency.



RCIL10WHL188BAL 1

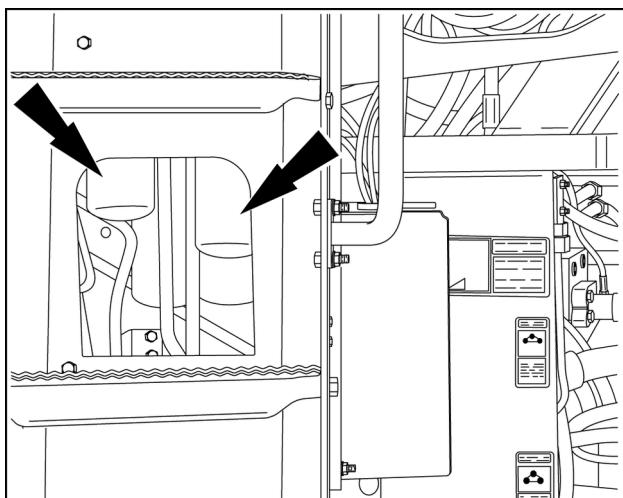
1. Joystick steering control lever
2. Forward-neutral-reverse switch
3. Kick-down switch

## MAINTENANCE CHART

## Maintenance Chart [60634374]

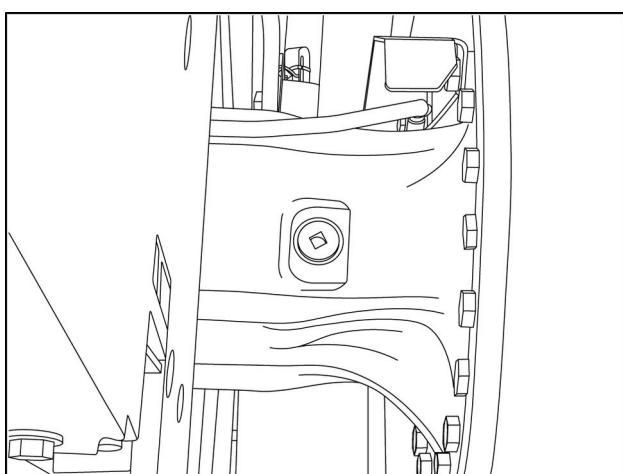
Interval	Page no.	Maintenance action	Change fluid			
			Adjust			
			Cleaning			
			Drain fluid			
			Replace			
			Grease			
			Check			
Interval	Page no.	Maintenance action	No. of pts.			
Daily inspection	7-18	General		X		
Every 10 hours	7-22	Engine oil level		X		
Every 50 hours	7-23	Bucket/attachment grease fittings			X	
	7-24	Hydraulic oil level		X		
	7-25	Transmission oil level		X		
	7-27	Engine coolant		X		
Initial 100 hours	7-28	Wheel torque		X		
	7-29	Axle cooler filters (if equipped)			X	
	7-31	Fuel filter (Initial)				X
	7-32	Fuel filters			X	
	7-34	Replace hydraulic oil filter (Initial)			X	
Every 100 hours	7-35	Grease fittings		X		
	7-37	Grease machine and attachments		X		
Every 250 hours	7-39	Grease drive shaft slip joints		X		
	7-40	Cab air filter				X
	7-42	Engine accessory drive belt		X		
	7-43	Wheels and tires				X
Every 500 hours	7-45	Engine oil and filter			X	
	7-48	Replace fuel prefilter			X	
	7-49	Fuel filter		X		
	7-51	Fuel tank sediment				X
	7-52	Axle oil level		X		
	7-53	Roll over protective structure		X		
	7-56	Battery fluid level		X		
Every 1000 hours	7-57	Pivot points			X	
	7-58	Articulation fittings			X	
	7-59	Drive belt				X
	7-61	Cab air filter			X	
	7-63	Replacing the engine breather filter			X	
	7-65	Engine valve clearance		X		
Every 1500 hours	7-66	Change front and rear axle oil			X	
	7-69	Transmission fluid and filters				X
	7-72	Calibrating the gear box				X
	7-73	Transmission declutch pressure adjustment				X
Every 2000 hours	7-74	Hydraulic oil and filter				X
	7-78	Engine coolant				X
	7-80	Engine air filters			X	
	7-83	Frame and cab - lubricate		X		

3. Turn the filters counterclockwise to remove.
4. Lubricate the gasket of the new filter with clean oil and install. After the filter makes contact with the filter head, tighten an additional 1/2 turn.



RCPH11WHL114AAH 3

5. Start the engine and run at **1000 RPM**. Have an assistant check for leaks around the filter area. Stop the engine and check the oil level in the axles.
6. To check axle oil, remove the oil plug from the axle center section on the front axle.
7. Remove the oil plug from the end of the rear axle beam. Oil level should be level with the bottom of the plug. Top off if necessary.
8. Clean and install the plug.



RCPH11WHL228AAH 4

**NOTICE:** Never use a filter wrench to tighten a new filter on install.

## Grease machine and attachments [60635046]

### Machine grease fittings

Service specifications	
Grease Specification	Akcela Moly grease

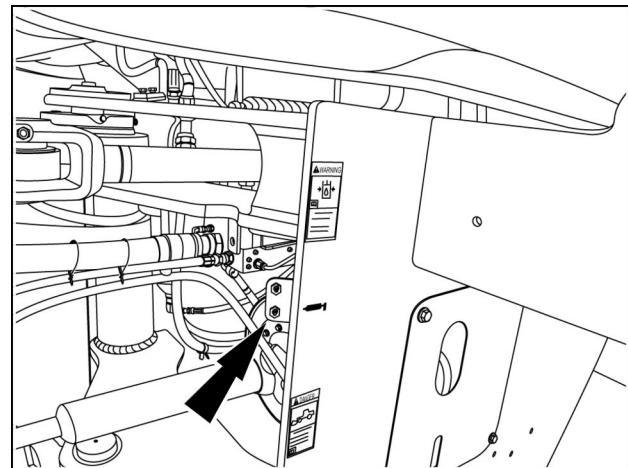
Grease the machine at the remote locations when the hour meter registers 50 hours.

Clean around the area to be greased before service.

**NOTE:** In severe conditions, such as immersion in water, it may be necessary to reduce the greasing service intervals.

### Steering cylinder

Steering cylinder remote grease location. (Rear left of machine)

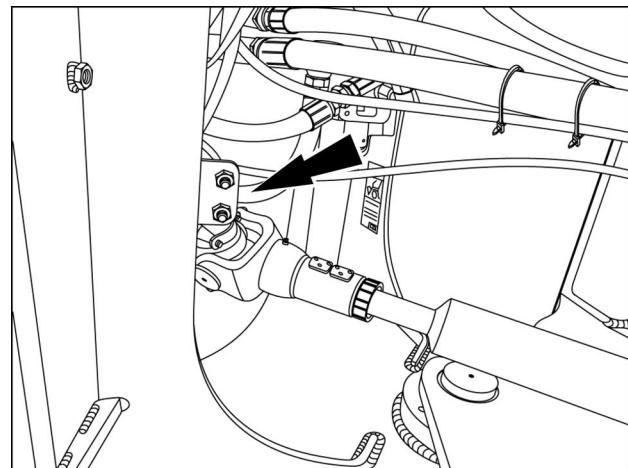


RCPH10WHL457AAH 1

### Drive shaft carrier bearing

### Tilt cylinder

Grease the drive shaft carrier bearing and the tilt cylinder at the remote grease locations. (Front left of machine)



RCPH10WHL456AAH 2

## Transmission fluid and filters [60636477]

### ⚠ WARNING

#### Chemical hazard!

When handling fuel, lubricants, and other service chemicals, follow the manufacturer's instructions.

Wear Personal Protective Equipment (PPE) as instructed. Do not smoke or use open flame. Collect fluids in proper containers. Obey all local and environmental regulations when disposing of chemicals.

Failure to comply could result in death or serious injury.

W0371A

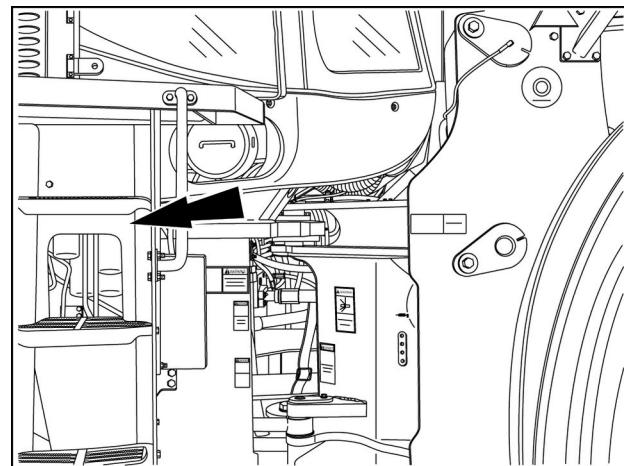
Change the transmission fluid and filter every 1500 hours or more frequently when operating conditions are severe. Shorten service intervals in severe applications which involve running the torque converter under high load for more than 25 % of operation time. Applications include basement digging or land clearing. Reduce intervals as well if using low viscosity oil.

#### Prior operation:

Keep all non-authorized personnel clear of the area. Park the machine on level ground, in neutral with the parking brake applied and the attachment lowered to the ground.

Oil Type	
Non- Akcela NEXPLORE™ fluid (other brands)	Akcela NEXPLORE™ fluid
Normal conditions - 1000	Normal conditions - 1500
Severe conditions - 500	Severe conditions - 1000
<b>1021F Specifications (with filter change)</b>	<b>45.4 l (12.0 US gal)</b>
<b>1121F Specifications (with filter change)</b>	<b>45.4 l (12.0 US gal)</b>

1. Lower bucket/attachment to the ground and lock the pilot control lock lever.
2. Put the transport/service link into the locked service position to avoid unexpected articulation, and stop the engine.
3. Remove panel for easier access to transmission filters, if desired.



RCPH11WHL113AAH 1

## Checking for cylinder leakage

A cylinder rod should be slightly oily. Check that there are no leaks after a period of work, when the whole hydraulic system is at normal operating temperature.

1. Wipe the rod and bearing clean on the cylinder to be checked.
2. Operate normally for five or ten minutes.
3. Extend the cylinder rod.
4. Carry out the leak test.

Rod Appearance	Test	Conclusion
Dry	Slight traces of oil when a piece of paper is wiped over <b>20 cm (7.9 in)</b> of the rod.	Normal
Slightly greasy	Paper remains stuck to rod when run over rod.	Normal
Oily	Paper remains stuck when placed on rod.	Normal
Very oily or weeping	Each time the cylinder rod is extended, a ring of oil can be seen on the rod.	See your dealer
Leakage	Each time the rod retracts, the excess oil drips from the gland.	

## Fire extinguisher (not supplied)

It is strongly recommended a fire extinguisher be kept on the machine. An extinguisher is not supplied but can be purchased separately and placed in the rear left-hand side compartment. A specific bracket has been provided for this purpose.

Maintenance specifications	
Every month	Examine the fire extinguisher and make sure it is not damaged.
Every six months	Have an approved specialist empty and refill the fire extinguisher.
Every year	Have an approved specialist examine the fire extinguisher.

## Welding on the machine

### **⚠ DANGER**

Improper operation or service of this machine can result in an accident.

Any unauthorized modifications made to this machine can have serious consequences. Consult an authorized dealer on changes, additions, or modifications that may be required for this machine. Do not make any unauthorized modifications.

Failure to comply will result in death or serious injury.

D0030A

Whenever carrying out a welding operation on the machine as authorized by the manufacturer and in accordance with manufacturer's instructions, disconnect the batteries, disconnect the alternator B+ and D+ terminal wires, and connect the welding apparatus ground cable to the component on which the welding operation is to be performed.

Always connect the welding apparatus to the same structure that is being welded.

Never connect the welding apparatus ground to a component of the hydraulic system.