



621D
Wheel Loaders

Operator's Manual
Revision Date 09/2004

Bur 6-36661NA



CASE

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

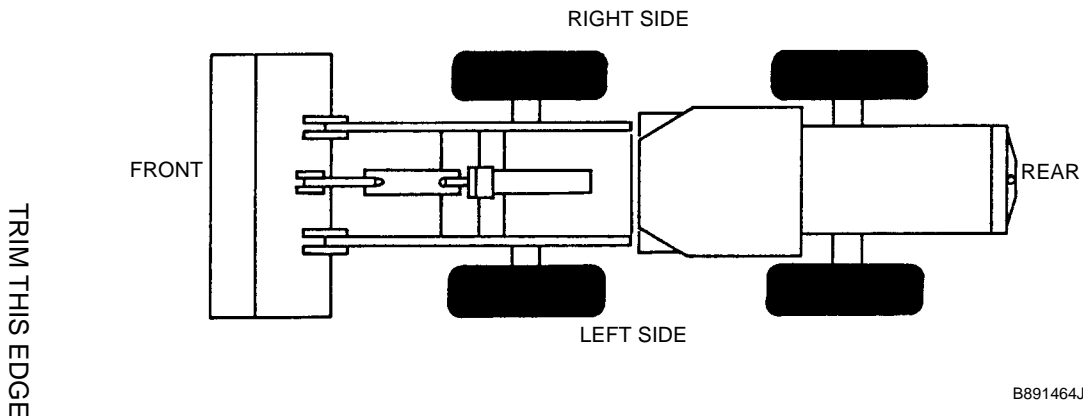
CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

AFTER DELIVERY CHECK

Two copies of the After Delivery Check are in the back of this manual. One copy is for you and one copy is for the dealer. Make sure that your dealer does the After Delivery Check after the first 100 hours of machine operation.

RIGHT, LEFT, FRONT AND REAR SIDES OF THE MACHINE

Right-hand and left-hand, when used in this manual, indicate the right and left sides of the machine as seen from the operators seat.

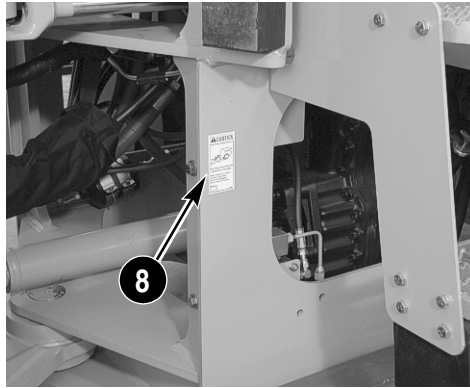


B891464J

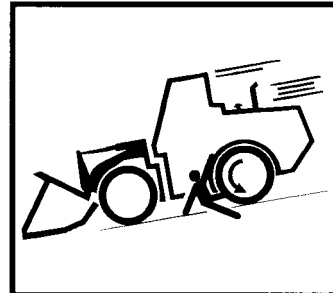
TRIM THIS EDGE

- If you have extreme conditions, such as a fire, etc., and you are forced to leave the machine, do not step off the machine. Jump as far from the machine as possible with your feet together and do not touch the ground with your hands.
- Then, hop away with your feet together until you are a safe distance from the machine and the electrical current. Do not take large steps. Because of the voltage differential across the ground, one foot can be in a higher voltage area than the other foot. This difference can kill you.
- Do not operate the machine if you do not feel well. This can be dangerous for you and for the people around you.
- You must make a judgment if weather, road, or earth conditions will permit safe operation on a hill, ramp, or rough ground.
- Stay away from hazardous areas such as ditches, overhangs, etc. Walk around the work area before you start and look for hazards.
- Be alert and always know the location of all workers in your area. Keep all other persons completely away from your machine. Injury or death can result if you do not follow these instructions.
- Keep the loader bucket low when moving around the work area and be careful when you raise the load to dump.
- Operate the machine within the specified capacities and limits. Lifting capacities, digging depths, etc, are shown in the Specifications section of this manual.
- Operate the machine controls from the operators seat only.
- Digging through underground cables, pipes, lines, etc., can cause injury or death. Learn the location of all underground hazards before you operate your machine in any area.
- When working in areas where traffic is heavy always have a person direct the traffic and direct other persons for you. Have guard rails, warning signs, etc., as required for your job.
- Stop operating the machine if a malfunction occurs. Watch the indicator and warning lamps in the machine. Listen and smell for things that are not normal on your machine.
- Drive around large objects such as large rocks or trees.

TRIM THIS EDGE



8  **CAUTION**



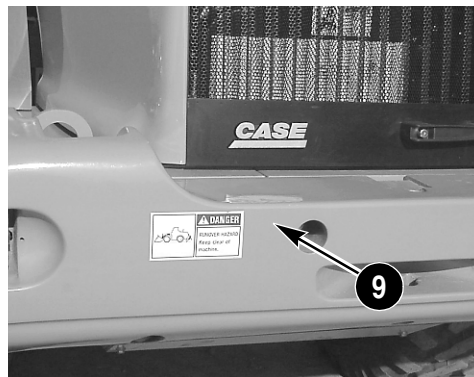
RUNOVER HAZARD

Block wheels to prevent machine movement before disengaging park brake for towing.

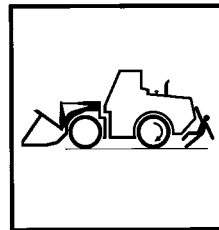


329049A1

BD00M026/329049A1



9



! WARNING

RUNOVER HAZARD
Keep clear of machine.

328752A1

BD01E117 / 328752A1



RAISE BUCKET SLOWLY

BI97D020



LOWER BUCKET SLOWLY

BI97D026

TRIM THIS EDGE



TURN MACHINE LEFT
SWING LOAD LEFT

BI97D034



TURN MACHINE RIGHT
SWING LOAD RIGHT

BI97D033

To stop movement, stop moving hand and make a fist

To stop movement, stop moving hand and make a fist.

TRIM THIS EDGE

Bur 6_36661na

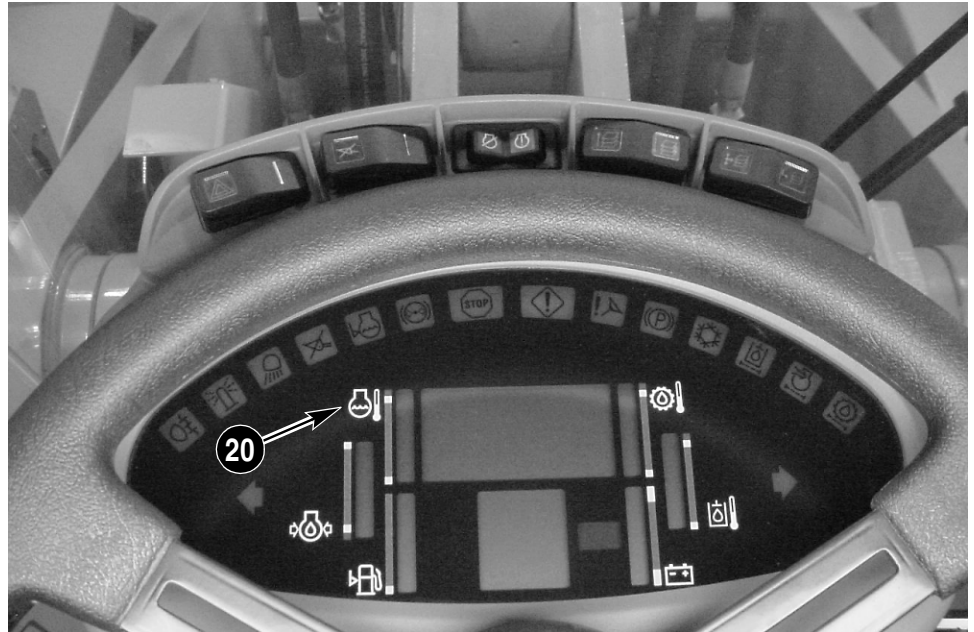
LEFT PAGE

INSTRUMENTS/CONTROLS

COOLANT LEVEL	Low Coolant Level.	Bring the machine to a safe stop and shut the engine OFF immediately. Check the coolant levels after allowing the engine and the coolant to cool down. Contact your Dealer.
COOLANT TEMPERATURE	High Engine Coolant Temperature.	Bring the machine to a safe stop and shut the engine OFF immediately. Check the coolant levels after allowing the engine and the coolant to cool down. Contact your Dealer.
HYDRAULIC OIL TEMPERATURE	High Hydraulic Oil Temperature.	Bring the machine to a safe stop and shut the engine OFF immediately. Contact your Dealer.
TRANSMISSION OIL TEMPERATURE	High Transmission Oil Temperature.	Bring the machine to a safe stop and shut the engine OFF immediately. Contact your Dealer.

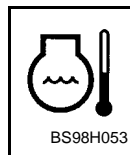
TRIM THIS EDGE

INSTRUMENT PANEL INDICATORS



BD02B020

TRIM THIS EDGE



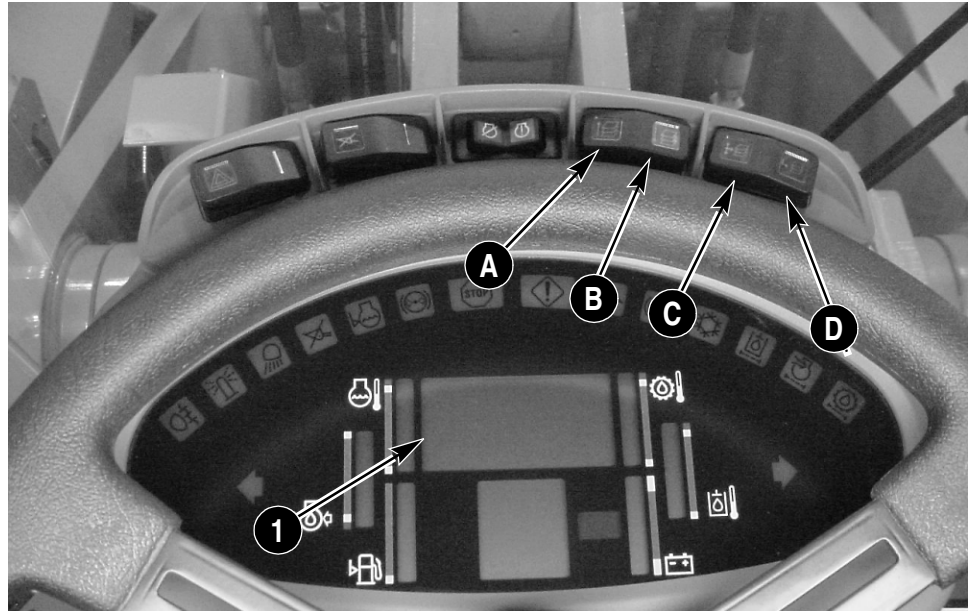
20. ENGINE COOLANT TEMPERATURE GAUGE:

The Engine Coolant Temperature gauge indicates the coolant temperature of the engine. The engine coolant temperature is shown with indicator bars. Normal operating temperature is in the green zone. When the engine coolant temperature increases the bars move into the yellow zone and begin to flash, the warning alarm sounds for three seconds. The caution master indicator turns yellow. When the temperature continues to increase the bars move into the red zone and continue to flash and the warning alarm sounds continuously. The stop master indicator turns red. The machine **MUST NOT** be operated when the temperature is in the red zone.

ENGINE COOLANT TEMPERATURE GAUGE				
Gauge Indication	Condition	Master Indicator	Gauge Status	Alarm Status
20°C and below (68°F and below)	Coolant temperature is very low	Caution (Yellow)	Flashes	3 Seconds
20 to 105°C (68 to 221°F)	Coolant temperature is normal			
105 to 110°C (221 to 230°F)	Coolant temperature is high	Caution (Yellow)	Flashes	3 Seconds
110°C and above (230°F and above) (See the note below.)	Coolant temperature is very high	Stop (Red)	Flashes	Continuous

NOTE: Stop the engine immediately and correct the problem.

GAUGE DISPLAY



BD02B020

A. UP COUNT
B. DOWN COUNT

C. PROGRAM
D. RESET

TRIM THIS EDGE

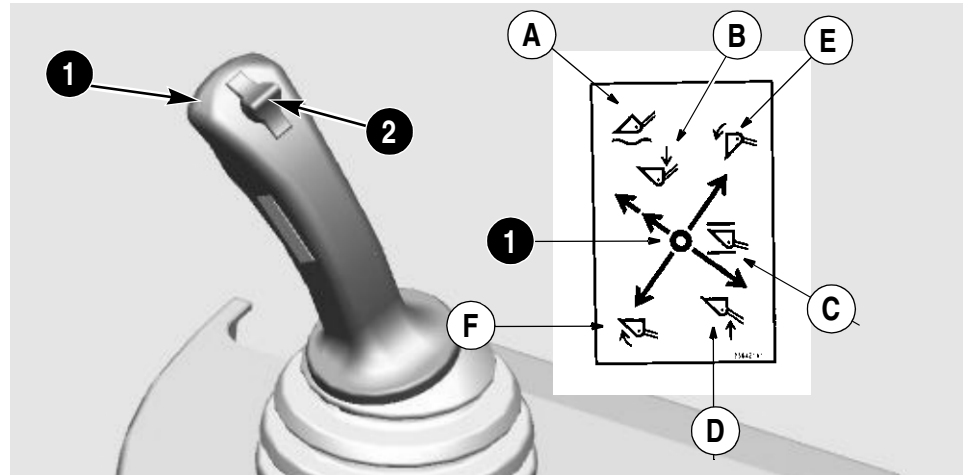
Programming Your Gauge Display

When you start your machine you will see the Hourmeter in the **Display Center**. Your wheel loader is shipped from the factory with **Gauge Display 05**. To check what **Gauge Display** your machine currently is using do the following:

- Press the **program** (C) switch (left side of the **program/reset** (C, D) switch).
- Press the **up count** (A) switch until the display reads **010**.
- Return the **program/reset** (C, D) switch to the **OFF** (center) position.
- Read the number (**01, 02, 03, 04, 05, 06, 07, or 08**) shown on the **Display Center**. If this is the **Gauge Display** you want, press the **reset** (D) switch (right side of the **program/reset** (C, D) switch) momentarily and you are done.
- If you want a different **Gauge Display**, press the **up count** (A) switch until the display reads the **Gauge Display** you want (between **01 to 08**).
- Press the **reset** (D) switch (right side of the **program/reset** (C, D) switch) momentarily.

LOADER CONTROL LEVERS

TWO SPOOL VALVE - ONE CONTROL LEVER



BS01E136 / BS00B353

1. LIFT ARM AND BUCKET CONTROL

A. 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

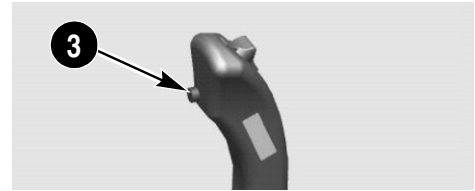
B. LOWER

C. HOLD: The loader arms and bucket will not move when the control lever is in the HOLD position. When released, the control lever will automatically return to the HOLD position. You must manually move the control lever from the FLOAT position to the HOLD position.

D. RAISE

E. DUMP

F. ROLLBACK



BS01E142

2. AUXILIARY F-N-R Switch: This switch will allow the operator to put the Transmission in Forward, Neutral or Reverse. To activate this auxiliary F-N-R switch the proper sequence must be followed. See page 112 and 114 in this manual. Push the switch forward to place the Transmission in Forward, Place the switch in the middle position to place the transmission in Neutral and Pull the switch rearward to put the Transmission in Reverse.

NOTE: See *Transmission Operation/Initial Machine Movement* for moving the machine after engine start up.

3. KICKDOWN BUTTON
(DOWNSHIFT TRANSMISSION)

74

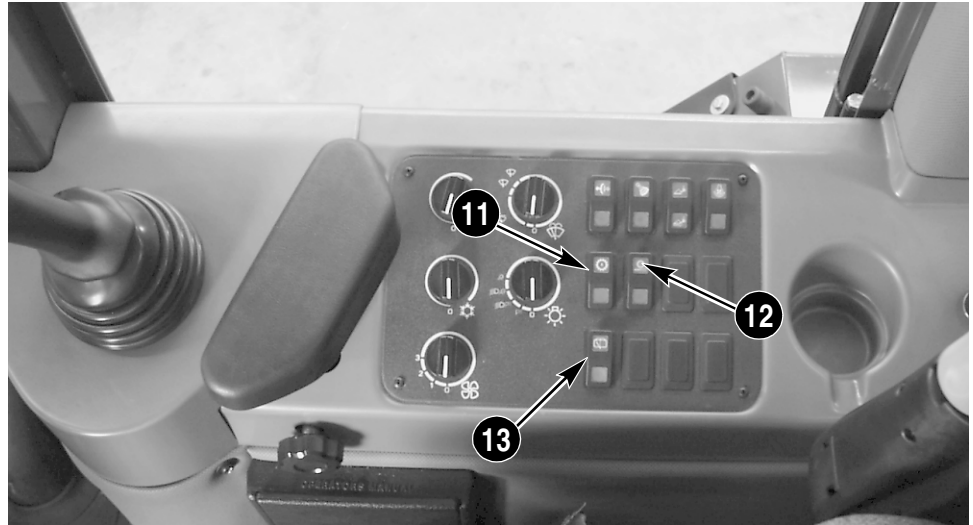
TRIM THIS EDGE

Bur 6_36661na

LEFT PAGE

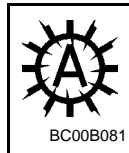
TRIM THIS EDGE

SIDE CONSOLE



BS00M473

TRIM THIS EDGE



BC00B081

11. AUTOSHIFT SWITCH:

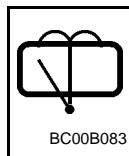
The autoshift switch is used to select the automatic or manual mode of operation for the transmission. When the autoshift switch is in the ON position the transmission will automatically shift UP and DOWN between 1st or 2nd and the highest speed setting on the transmission lever (see Transmission Operation in this manual for complete operation).



BC00B094

12. RIDE CONTROL SWITCH: (If equipped)

Push on the top of the function switch for the ON position. Ride Control can be left ON at all times, whether loading or roading. In the on position ride control will automatically activate when ground speed is above 5 km per hour (3.1 mph) and automatically shut off when ground speed is below 5 km per hour (3.1 mph). The indicator light on the lower half of the switch will illuminate when ride control is activated. To turn Ride Control OFF, push on the bottom of the function switch for the OFF position.



BC00B083

13. REAR WIPER/WASHER SWITCH (IF EQUIPPED):

The rear wiper/washer switch has three positions. OFF - The switch is completely off when the bottom of the switch is pushed down. ON - Push down on the top of the switch for the ON position WASH - Push down on the top of the switch and hold, washer fluid will continue to flow as long as the switch is held down.

TRIM THIS EDGE



RD98K266

4. SLIDE ADJUSTMENT LEVER:

Pull this lever up and adjust the seat forward or rearward as required. Release the lever to lock the seat in position.

5. WEIGHT ADJUSTMENT KNOB:

To adjust the seat for your weight you must pull the release lever out of the knob, Use the release lever to turn the knob clockwise to increase the weight resistance. Turn the knob counterclockwise to decrease the weight resistance.

6. HEIGHT ADJUSTMENT, STANDARD SEAT:

Lift the seat all the way up, drop the seat to the lowest position. Lift the seat to the desired position. The seat will lock into accepted positions.

Optional Air Ride Seat



RD98K267

1. LUMBAR ADJUSTMENT KNOB:

Turn the knob clockwise to increase the lumbar support, turn the knob counterclockwise to decrease the lumbar support.

2. ARMREST HEIGHT CONTROL ADJUSTMENT:

Turn the knob to raise or lower the armrest to the desired position.

NOTE: Each armrest will pivot to the up position.



RD98K268

3. RECLINER ADJUSTMENT HANDLE:

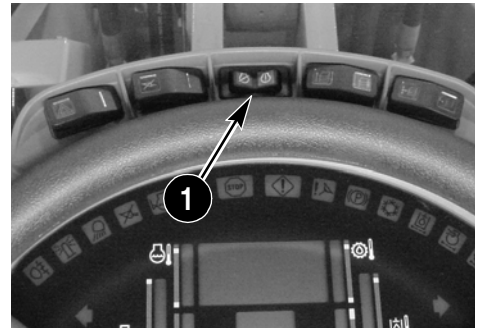
Lift up on the handle, move the backrest to the desired position, release the handle to lock the backrest in position.

Cold Weather Starting

1. Turn the key switch to the ON position and check the instrument cluster. If the machine is equipped with a grid heater, wait for the grid heater indicator light (1) to go OFF before turning the key switch to the START position.

NOTE: *If the weather is cold, See Cold Weather Starting in this manual.*

2. Turn the key switch to the START position until the engine starts, then release the key.

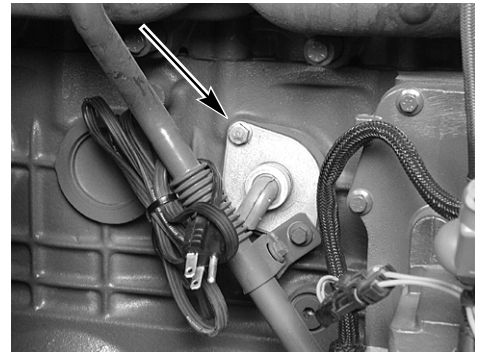


BD02B020

1. GRID HEATER INDICATOR LIGHT

Engine Coolant Heater (If Equipped)

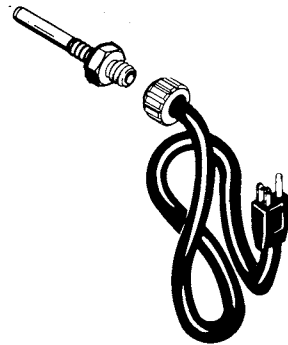
The left side of the engine cylinder block has a passage for installing a coolant heater. See your dealer for this optional heater. Follow the heater manufacturers instructions for installation.



BD02N067

Engine Oil Heater (If Equipped)

The engine oil heater is installed on the side of the engine oil pan. See your dealer for this optional heater. Follow the heater manufacturers instructions for installation.



B830662P

TRIM THIS EDGE

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

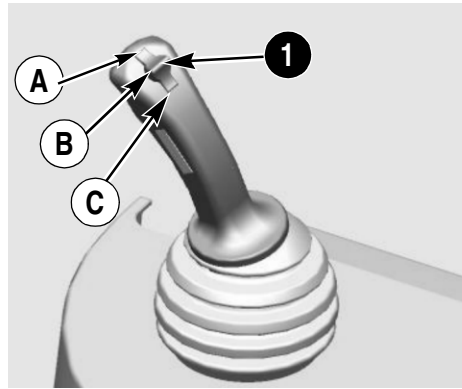
- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



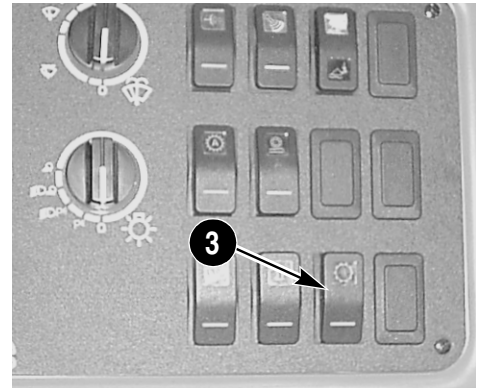
- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

AUXILIARY F-N-R SWITCH FOR JOYSTICK CONTROL LEVER APPLICATIONS



B S01E154



BD01E113

1. AUXILIARY F-N-R SWITCH
 - A. FORWARD
 - B. NEUTRAL
 - C. REVERSE

To actuate the Auxiliary F-N-R switch the following conditions **MUST** be met:

1. The machine must be stopped.
2. The engine must be running.
3. The Auxiliary F-N-R Switch (1) must be in Neutral (B).

When steps 1 through 4 have been met the Auxiliary F-N-R Switch may be enabled by pushing down on the top of the switch (3). The indicator light on the bottom of the switch will illuminate.

The Auxiliary F-N-R Switch will be **DEACTIVATED** and F-N-R control will default back to the Transmission Control Lever if:

1. The engine is stopped.
2. The parking brake is applied.
3. The transmission control lever is taken out of the neutral position.



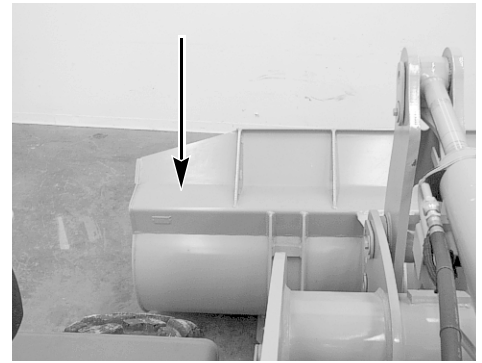
RD98K322

4. The Transmission Control Lever (2) must be in neutral.

TRIM THIS EDGE

BUCKET LEVEL INDICATOR

The bottom of the bucket is parallel with the ground when the flat portion of the bucket, (shown) is horizontal.

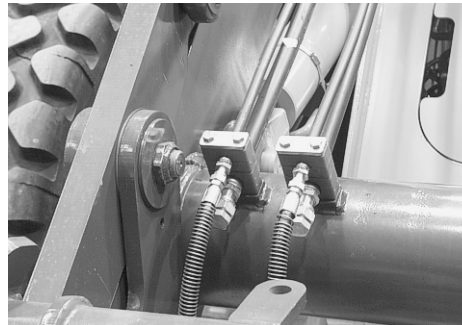


BD00N076

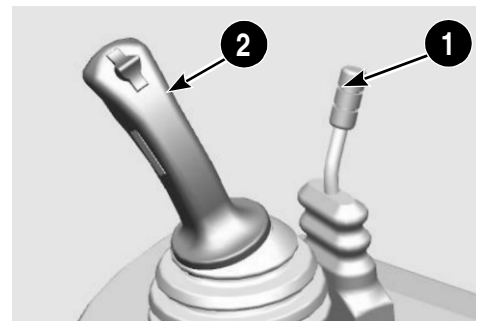
AUXILIARY HYDRAULIC CONNECTION (IF EQUIPPED)

Your Wheel Loader is equipped with an Auxiliary Hydraulic System. A control lever on the console controls flow to the auxiliary hydraulic connection points on the lift arms. The auxiliary control lever (1) used with a joystick (2) is equipped with mechanical detents to lock it into full forward, full rearward and neutral positions. Auxiliary control levers on non-joystick machines **DO NOT** have mechanical detents.

TRIM THIS EDGE



BD00N032



BS01E143

Auxiliary Hydraulic System Specifications

621D Wheel Loader (XT and Z-Bar Linkage)

Maximum System Pressure250 Bar (3 625 PSI)

Maximum Capacity at 2 150 Engine RPM 184 L/min (48.6 GPM)

NOTE: *Maximum system pressure measured on the machine at the pump pressure port.*

OPERATING IN HOT WEATHER

To prevent damage to the machine, do the following:

1. Keep the coolant at the correct level in the radiator.
2. Use the correct solution of ethylene glycol and water in the cooling system.
3. Test the radiator cap before hot weather starts. Replace the cap as required. See your dealer.
4. Clean all dirt and debris from the cooling system and engine area.
5. Check the condition of the drive belts.
6. Use lubricants of the correct viscosity.
7. Check Battery fluid levels monthly.

TRIM THIS EDGE

SYSTEMGARD LUBRICATION ANALYSIS PROGRAM

Ask your dealer about our lubricant analysis program, Systemgard. Through this service, your lubricants are tested in an independent laboratory. You simply remove a sample of lubricant from your machine and send the sample to the independent Systemgard laboratory. After the sample is processed, the laboratory will report back to you and guide you with maintenance requirements. Systemgard can help support your equipment up time and provide you with a service that can pay back dividends when you trade for another piece of Case equipment.

TRIM THIS EDGE



B830752T

PLASTIC AND RESIN PARTS

Avoid using gasoline, kerosene, paint thinner, etc., when cleaning plastic windows, console, instrument cluster, monitor, gauges, etc. Use ONLY water, mild soap and a soft cloth when you clean these parts.

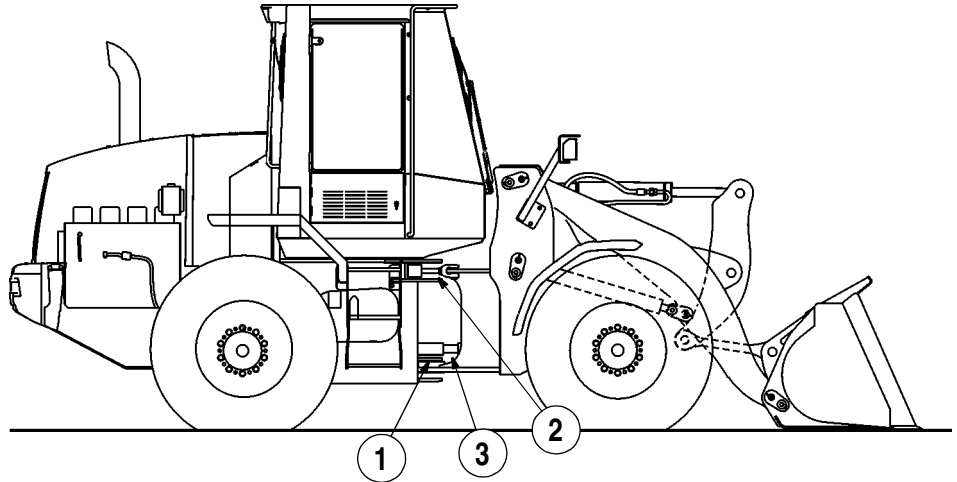
Using gasoline, kerosene, thinners, etc., will cause discoloration, cracking or deformation of the part being cleaned.

GREASE FITTINGS - 1000 HOURS

Z-Bar and XT Linkage

Use Case AKCELA Molydisulfide Grease

TRIM THIS EDGE



1. Lower Chassis Pivot	1
2. Upper Chassis Pivot	1
3. Center Drive Shaft Slip Joint	1

BC00N081

Engine Oil Change and Filter Replacement

Change the engine oil and replace the filter after every 500 hours of operation or once a year whichever occurs first.

NOTE: For more complete removal of foreign material, change the engine oil while the engine is still warm from operation.

IMPORTANT: You must shorten the oil change interval if you use diesel fuel with a sulphur content of more than 0.5%.

Change the engine oil more frequently when the engine operating conditions are severe (frequent stopping and starting and high or low engine temperatures.)

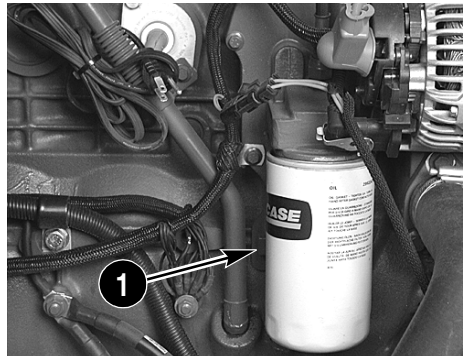
1. Before draining the oil, have a container that will hold at least 22.7 liters (6 US gallons).
2. Remove the engine oil drain plug.
7. Turn the new oil filter onto the base until the gasket makes contact with the base. Continue to tighten the filter for 3/4 turn with your hand.

NOTE: When changing engine oil the oil flow rate can be improved if the oil fill cap or dipstick is removed from the engine while draining.

IMPORTANT: Do not use a filter strap wrench to install the oil filter. An oil filter strap wrench can cause a leak if the filter is dented.

3. Open the rear engine access doors.
8. Install the drain plug.
9. See Engine Lubrication in this manual for the correct type and quantity of oil. Put new oil into the engine.

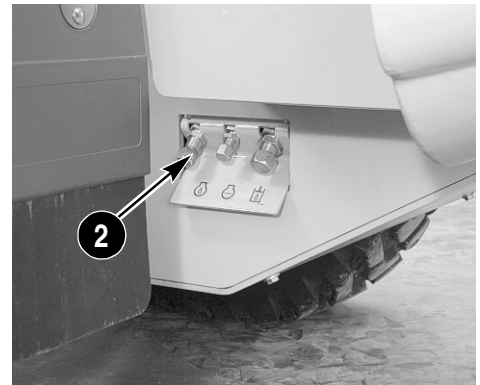
TRIM THIS EDGE



BD02N070

1. ENGINE OIL FILTER

4. Turn the oil filter counterclockwise to remove. Discard the oil filter.
5. Use a clean cloth and wipe the sealing surface of the oil filter base to remove all dirt.
6. Apply a thin layer of clean grease or oil to the gasket of the new oil filter.



BD00M031

2. ENGINE OIL DRAIN

TRIM THIS EDGE

Diesel Fuel

Use No. 2 diesel fuel in the engine of this machine. The use of other fuels can cause the loss of engine power and high fuel consumption.


In very cold temperatures, a mixture of No. 1 and No. 2 diesel fuels is temporarily permitted. See the following Note.

NOTE: See your fuel dealer for winter fuel requirements in your area. If the temperature of the fuel lowers below the cloud point (wax appearance point), wax crystals in the fuel will cause the engine to lose power or not start.


The diesel fuel used in this machine must meet the specifications in the chart below or Specification D975-81 of the American Society for Testing and Materials.

Specifications for Acceptable No. 2 Diesel Fuel

API Gravity, Minimum	API Gravity, Minimum	34
Flash Point, Minimum		60°C (140°F)
Cloud Point (wax appearance point), Maximum		-20°C (-5°F) See Note Above
Pour Point, Maximum		-26°C (-15°F) See Note Above
Distillation Temperature, 90% Point		282 to 338°C (540 to 640F)
Viscosity, at 38°C (100°F)		
Centistokes		2.0 to 4.3
Cetane Number, Minimum		43 (45 to 55 for winter or high altitudes)
Water and Sediment, by Volume, Maximum		0.05%

 **WARNING:** Engine fuel is flammable and can cause a fire or an explosion. Do not fill the fuel tank or service the fuel system near an open flame, welding, burning cigars, cigarettes, etc.

SA022

 **WARNING:** Never refuel the machine when the engine is hot or running. Never smoke while refueling.

M139C

Transmission Oil Level

See this page for the two methods to check the transmission oil level.



BD01E133

1. Park the machine on a level surface.
2. Apply the parking brake.
3. Shift the transmission to NEUTRAL.
4. Run the engine at idle speed.
5. If the oil level is at or below the bottom of the crosshatch region, put the transport/service link in the LOCKED position and add oil to raise the oil level up to the top of the crosshatch region. See Transmission Service Specifications in this manual for the correct oil.

Cold Oil Level Check

Before you start the engine, check the transmission oil level in the sight gauge. If the oil level is below the arrow, add oil to raise the oil level up to the arrow. See Transmission Service Specifications in this manual for the correct type of oil.

Warm Oil Level Check

Check the transmission oil level every 50 hours of operation when the oil is at operating temperature. Do the following.

Oil Change, Filter Replacement, and Breather Cleaning

Change the transmission oil and replace the filter after the first 100 hours of operation with a new machine or if the transmission has been replaced or rebuilt. Then, do the above service and clean the breather every 1000 hours or operation.

If possible, drain the oil when the oil is at operating temperature. More contamination is removed when the oil is at operating temperature.

1. Put the transport/service link in the LOCKED position, apply the parking brake, and stop the engine.
2. Clean the area around the filters, drain plug, breather, and filler tube.
3. Have a container that will hold approximately 30.3 liters (8 U.S. Gallons).

TRIM THIS EDGE

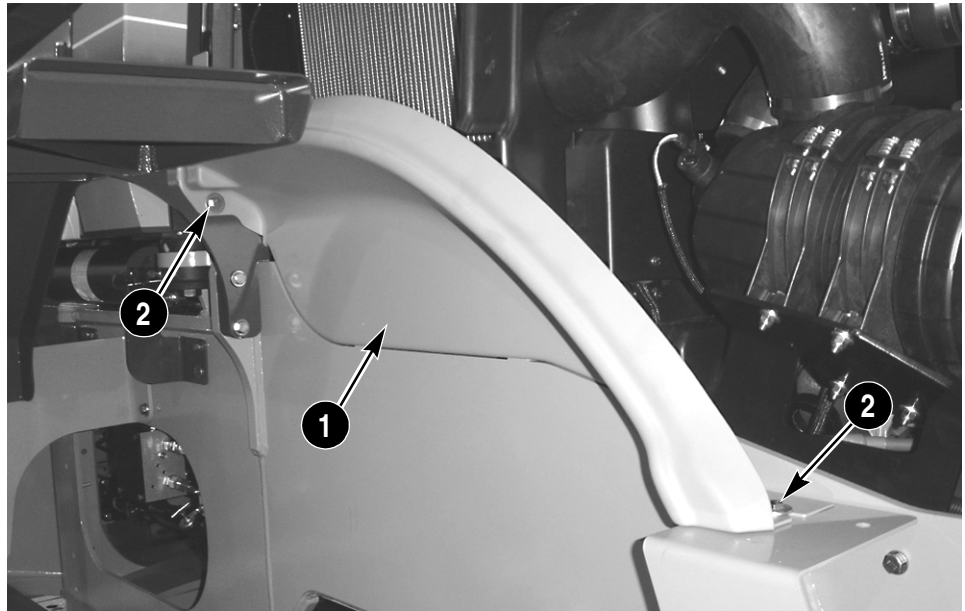
RADIATOR/COOLER ACCESS FOR CLEANING

(Additional radiator access can be gained on both the LH & RH sides of the machine).

1. Remove bolts from each end of the plastic fender insert.
2. Slide fender insert to the rear of the machine 25mm (1 inch) to disengage fender insert from rear frame side plate.
3. The lower areas and radiator/cooler in general can be cleaned using shop-vacuum and or pressure washer.

IMPORTANT: *Be careful not to bend or damage radiator/cooler fins during cleaning. **DO NOT** exceed 6890 kPa (1000 psi) nozzle pressure when cleaning.*

TRIM THIS EDGE

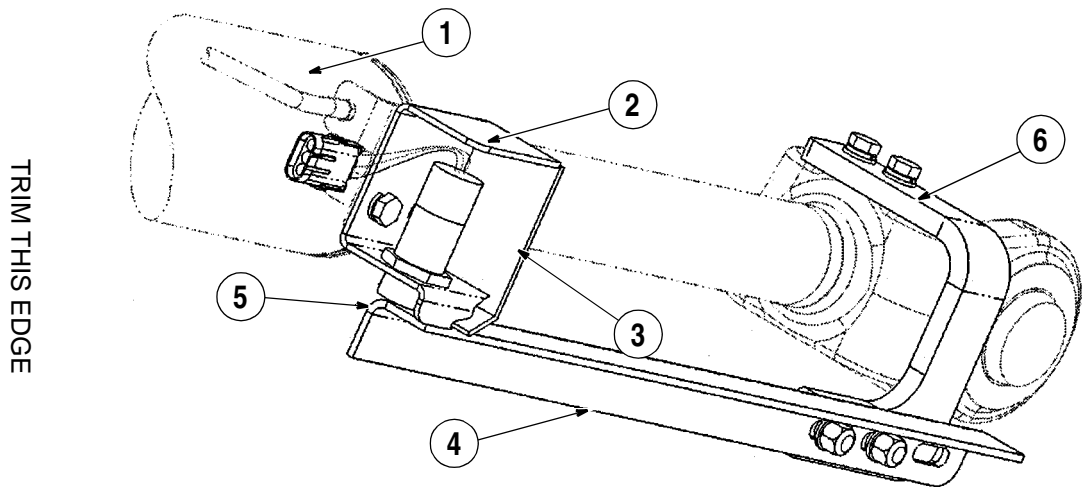


1. INSERT 2. BOLTS

BD04G022

5. Make sure the proximity switch and all the mounting bolts are tight. Start the engine. Set the detent switch to the on position, and set the return to travel/float detent switch to the return to travel position. Raise the lift arms to approximately the horizontal position. Put the loader control lever in the raise position, and verify that the electromagnet holds it in that position until the height control target passes in front of the proximity switch. Next, with the lift arms still raised, put the loader control lever in the lower position, and verify that the electromagnet holds it in that position until the return to travel target passes in front of the proximity switch. Position the bucket flat on the ground. Shut the machine off.

XT Return To Dig Adjustment Procedure



BS00N078

- | | |
|--------------------------------------|----------------------------|
| 1. Tilt Cylinder (Left Hand Side) | 4. Target Bar |
| 2. Proximity Switch Mounting Bracket | 5. Proximity Switch |
| 3. Proximity Switch Guard | 6. Target Mounting Bracket |

1. Start the engine. Raise the lift arms until they are approximately horizontal. Roll the bucket all the way back. Lower the arms until they are on the ground. Shut the machine off.
2. Loosen the bolts holding the target mounting bracket to the tilt cylinder clevis. Align the target mounting bracket parallel to the tilt cylinder, and tighten the bolts.
3. Loosen the bolts holding the target bar to the target mounting bracket. Align the target bar parallel to the tilt cylinder, and tighten the bolts.

FIRE EXTINGUISHER MOUNTING (IF EQUIPPED)

Type of Fire Extinguisher

It is recommended that you have a fire extinguisher on your machine. The fire extinguisher shown below is available from your dealer and can be installed on the machine.

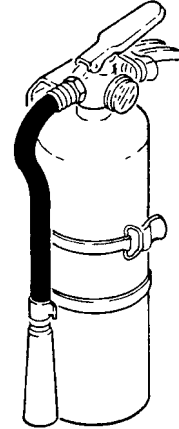
This dry chemical fire extinguisher has a 5 pound capacity and is approved for Class A, B and C type fires. The operating temperature is from -65° to 120°F (-54° to 49°C).

Inspection and Care

EVERY MONTH - It is recommended that you inspect the fire extinguisher once each month for damage and to insure that the gauge is working correctly.

EVERY 6 MONTHS - Have the dry chemical removed and refilled by a fire equipment technician.

ONCE EACH YEAR - Have the fire equipment technician inspect the fire extinguisher.



153L95

IMPORTANT: *DO NOT* mount the Fire Extinguisher on any part of the ROPS or FOPS structure. *DO NOT* make any modifications to the ROPS or FOPS structure.

NOTES

TRIM THIS EDGE

Removal from Storage

Do not start the engine until steps 1 through 10 have been done.

1. Change the fuel filter.
2. Put coolant in the engine cooling system.
3. Check the condition of the drive belts. Replace if required.
4. Check the engine oil level.
5. Check the hydraulic oil level.
6. Check the transmission oil level.
7. Check the oil level of both axles.
8. Lubricate the machine at all grease fittings.
9. Use petroleum base solvent and remove the Case Rust and Corrosion Preventive from the hydraulic cylinder rods.
10. See Battery Service in this manual and install the batteries.
11. Fill the fuel tank.
12. Prime the turbocharger with clean engine oil. See your Service Manual or your dealer.
13. Start the engine. It is important that you use the Starting the Engine procedure in this manual for priming the turbocharger lines with oil.

TRIM THIS EDGE

Weight Adjustments for Optional Equipment 621D Z-Bar

ITEM	POUNDS	(kg)
17.5 x 25, L2	-1 156	-524
17.5 x 25, L3	-948	-430
17.5 R 25, XTLA	-1 016	-461
17.5 R 25, XHA	-792	-359
20.5 x 25, L2	-100	-45
20.5 x 25, L3	228	104
20.5 R 25 XHA	380	173
ROPS Canopy	-295	-134

Weight Adjustments for Optional Equipment 621D XT

TRIM THIS EDGE

ITEM	POUNDS	(kg)
17.5 x 25, L2	-1 156	-524
17.5 x 25, L3	-948	-430
17.5 R 25, XTLA	-1 016	-461
17.5 R 25, XHA	-792	-359
20.5 x 25, L2	-100	-45
20.5 x 25, L3	228	104
20.5 R 25, XHA	380	173

IMPORTANT: *The use of rear tire ballast is not permitted.*

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL