BI643728
Revision No 1
3 July 2014

Operation Manual

CL210 Load Haul Dump

Bucyrus Serial Number 5004091 (Caterpillar Serial Number BA200542)

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

Section 2
General Safety and Precautions

This section contains specific safety precautions that shall be followed whilst the machine is being used by suitably qualified operators. This list is *NOT* all inclusive and a measure of commonsense should always be applied together with established and ongoing site specific risk assessment and safety procedures.

ONLY TRAINED AND AUTHORISED OPERATORS SHALL OPERATE THIS MACHINE

DO NOT use the machine for any purpose other than its intended use.

DO NOT for any reason exceed the indicated capacity of the machine.

DO NOT operate the machine unless all operator checks and scheduled servicing have been performed. Report any damage or faulty operation immediately and do not operate the machine until the fault has been corrected.

DO NOT tie down or tow equipment such that the chains or slings are not rated for the capacity of the machine and equipment.

DO NOT operate the machine unless:

- There are no tags attached stating otherwise.
- All covers and guards are correctly installed.
- Personal protective equipment is worn.

DO NOT start the machine unless:

- There are no tags attached stating otherwise.
- The area around the machine is clear.
- The park brake is applied.
- Transmission is in *neutral*.
- All water and oil levels are checked.
- All site specific checks are completed.

DO NOT leave the machine unless:

- The machine is parked in a safe place.
- The transmission is in *neutral*.
- The park brake is applied and brake head pressure is *zero*.
- The lift arms are lowered or any attachment is flat on the ground or supported.
- The engine is stopped.

DO NOT work on the machine in low ventilated areas while the engine is running.

ALWAYS sound the horn before starting the engine to alert anyone who may be around the machine.

ALWAYS ensure that the operator's compartment door is closed and made secure before operating the machine.

TRANSMISSION GEAR CONTROL LEVER

The transmission gear control lever has four positions, *first, second, third* and *fourth*. Shifting from one range to another can be made at any time conditions permitting. Momentarily decrease engine revs when selecting a higher gear. Momentarily increase engine revs when selecting a lower gear.

NOTICE

The transmission in the machine is modulated. This prevents severe shocks being transmitted through the drive train when the transmission direction is changed.

TRANSMISSION DIRECTIONAL CONTROL LEVER

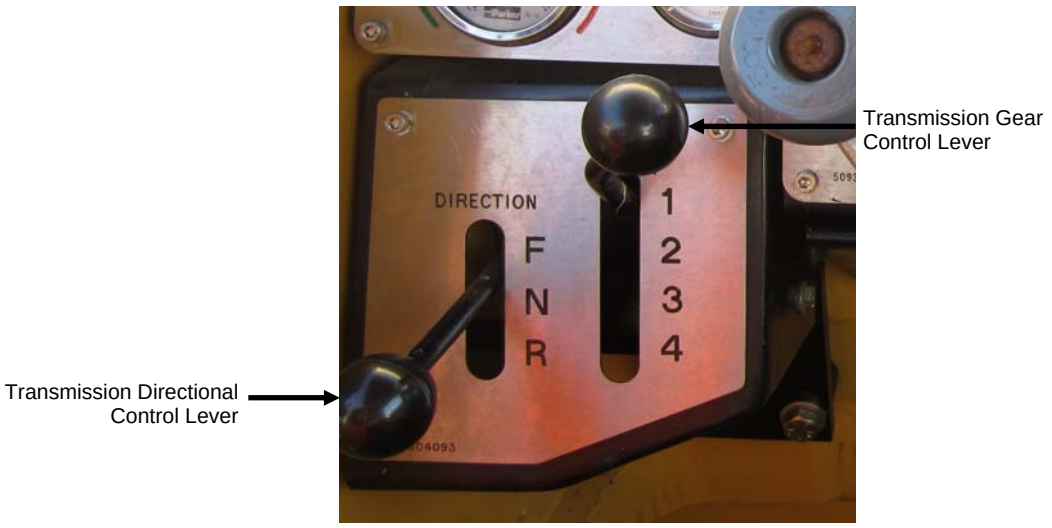
A directional control lever controls the transmission and direction of travel. This lever has three positions, *forward, neutral* and *reverse*. The engine should be at low idle when the transmission is shifted from the *neutral* position to either *forward* or *reverse* direction.

NOTICE

The transmission must be placed in the *neutral* position for the starter motor to engage when starting the engine.

WARNING

If the engine starts when the transmission is not in neutral, the machine should be tagged out of service until the problem is rectified.



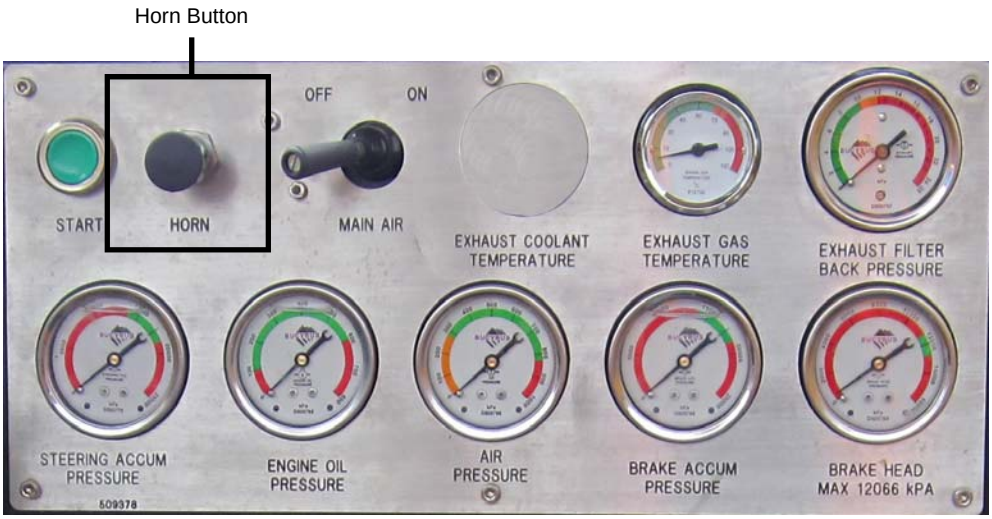
TRANSMISSION CONTROLS

HORN BUTTON

Pushing this button sounds the air horn.

NOTICE

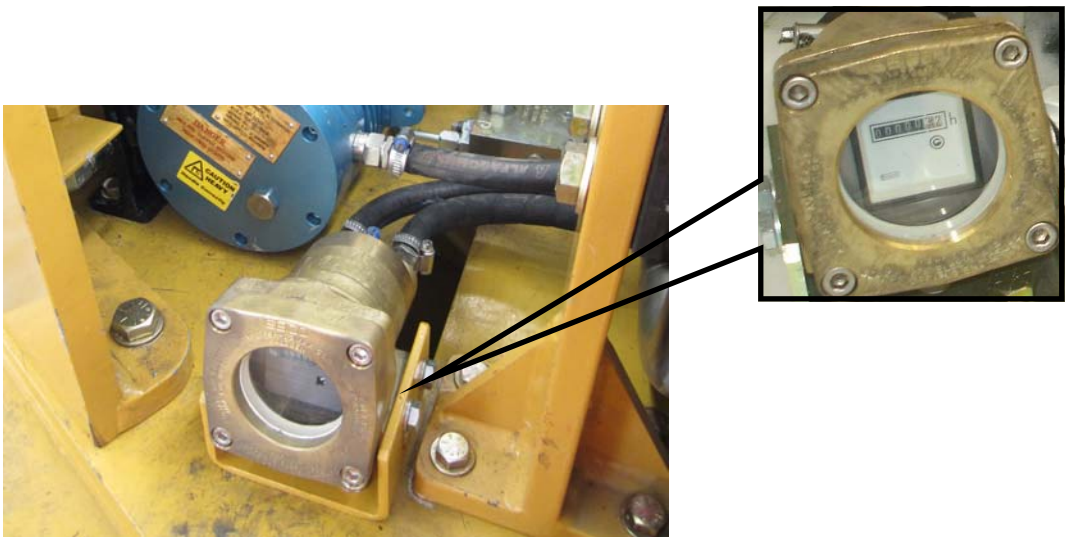
It is good operating procedure to sound the horn 2-3 seconds before an engine start or whenever approaching blind intersection.



RIGHT HAND SIDE OPERATOR'S PANEL

ENGINE SERVICE HOUR METER

This electric meter is mounted on the off driver's side at the rear of the machine. Use the hour meter to determine servicing intervals.



ENGINE HOUR METER

ELECTRICAL ISOLATION

1. Ensure the area is clear of any obstructions and area is fit for carrying out safe operation and maintenance.
2. Lower the lift arms or any attachment, shutdown the engine, connect the articulation lock and chock the wheels.
3. All electrical energy is isolated once the engine has stopped.



The electrical system installed on this machine is approved/certified as explosion protected for use in underground coal mines and may cause an atmospheric explosion if not maintained and used in its approved state. Such equipment is to be inspected and maintained in accordance with the relevant regulatory authorities rules and regulations and the conditions for which the apparatus has been approved.



If any fault or damage is detected to the electrical system it should be reported to the service personnel.

Do not bypass shutdown conditions or devices.



Isolating the main air isolation valve or completely draining the pneumatic system of air will render the machine unable to be started until it is re-energised.

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

CAUTION

Always use the specified lubricant for the application and the region's seasonal temperatures. (See Section 23).



COOLANT EXPANSION TANK



FUEL WATER TRAP

Check the air cleaner (see Section 4):

1. Filter condition indicator.
2. Replace filter element if indicator is in the *red* area.
3. Check intake pipes and hoses for loose or damaged connections.
4. Check joints are secured.





WARNING

Do not operate the machine with loose intake pipe connection, this will allow particles of dust into engine and cause serious damage.

Check the diesel control system operation:

1. Run the engine at high idle.
2. Press the shutdown test button and hold for ten seconds.
3. Machine should shutdown and the low oil pressure display should be on.
4. The engine should not restart until the on/off toggle switch is reset.

WARNING

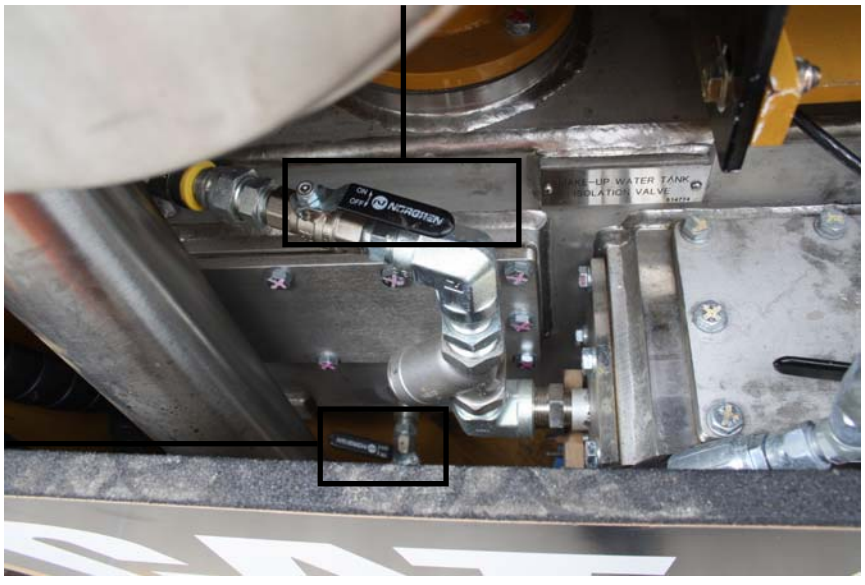
If the engine does not shutdown do not use the machine. Report it to the service personnel for repairs.

Perform low exhaust water shutdown test:

1. Start diesel engine system and ensure all shutdown systems are operational, allow engine to warm up and run for several minutes.



2. Shut make up tank ball valve and remove blanking plug from the low water shutdown test point and open ball valve.



Section 13
Parking on a Ramp



Do not park on a ramp unless absolutely necessary.

1. Use the concept of engine braking to help slow down the machine by letting up on the accelerator pedal.
2. Apply the brakes and bring the machine to a halt at the side of the road.
3. Turn the machine toward the rib.
4. If possible remove the load from the attachment.
5. Apply the park brake. Observe that the brake head pressure gauge and primary park brake valve gauge are on *zero*.
6. Always chock the wheels.
7. Inform mine management of the position of machine.



When on steep grades (more than 1:4). Do not rely on the park brake to hold the machine.



Always park with attachment into the rib and chock the wheels when on grades of more than 1:4.

Section **18**

Air Venting the Fuel System

If the engine misfires or fails to start due to air in the fuel line, the system must be bled as follows:

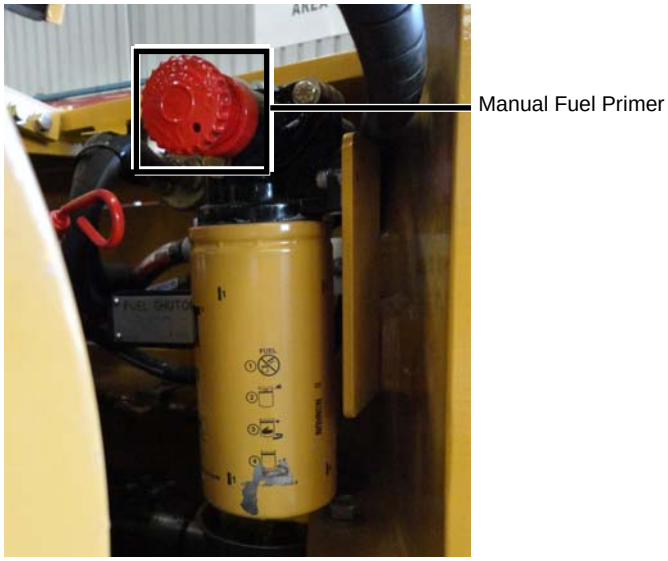
1. Ensure the governor control lever is in the shut off position.
2. Unscrew the knob on the priming pump sufficiently to release it, then pump in and out until positive pressure is observed.
3. Tighten and secure the priming pump.
4. Start the engine. If it misfires or smokes with the engine running repeat the above.



Check the fuel tank contents gauge before venting the system.



Check the fuel water separation bowl before venting the system.



FUEL PRIMING PUMP



If methane concentration is over 1.25%, it should be reported immediately!



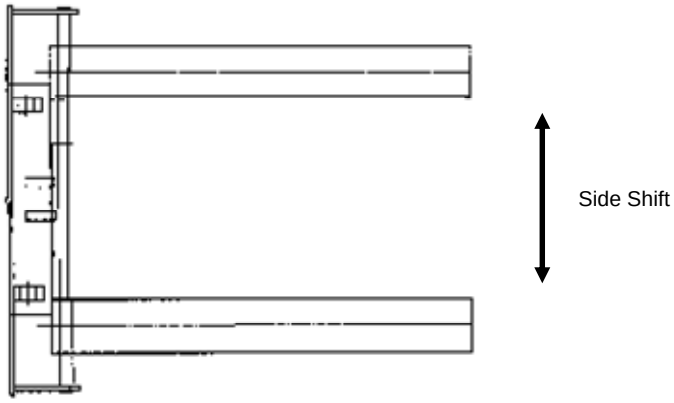
Bypassing of the electrical safety system is not allowed under any circumstance!

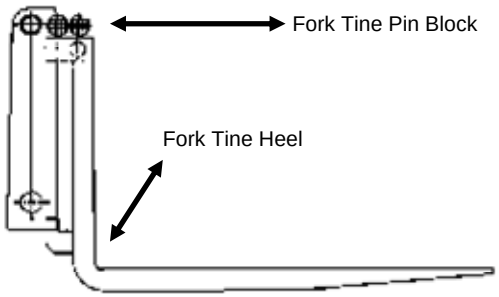


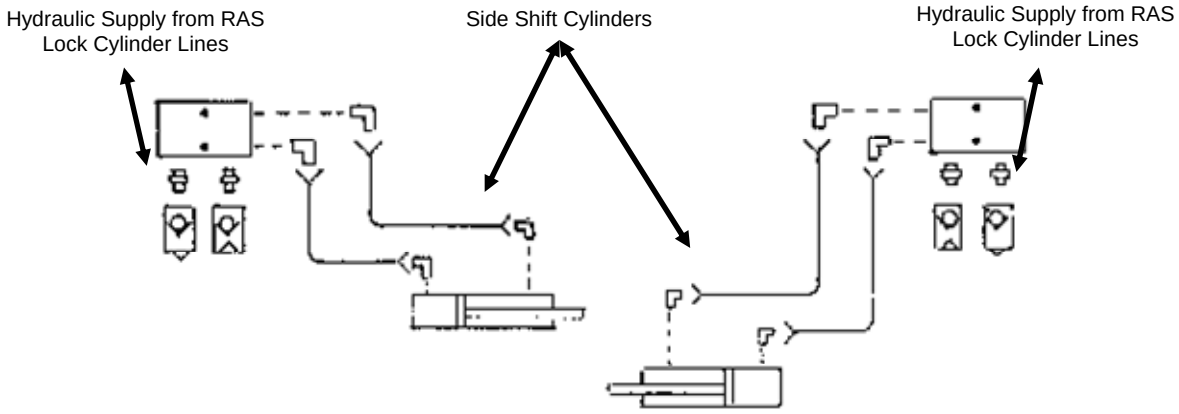
If the air pressure is below 240 kPa (35 psi), the power up pressure switch will not close, and the DCS will not activate



The start sequence is the same if the methane monitor is not fitted.







10000 KG SIDE SHIFT FORK ATTACHMENT

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