



Bobcat®



OPERATOR'S HANDBOOK **For Bobcat Compact Wheel Loaders**

Models: L75 and L85



WARNING

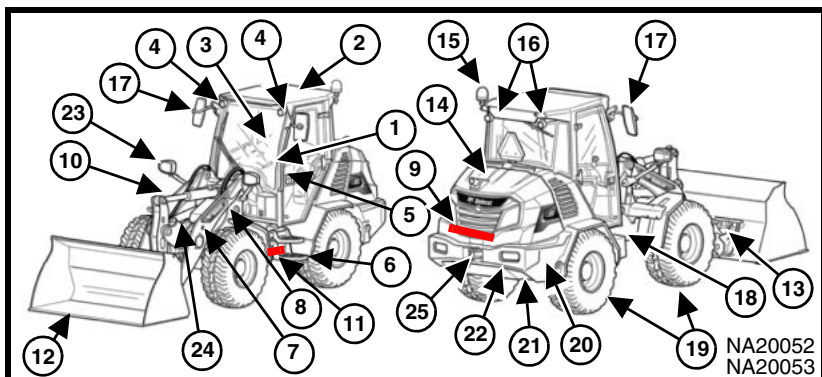
AVOID INJURY OR DEATH

- **Never use the machine without instructions. Read machine signs (decals), Operation & Maintenance Manual, and this Handbook.**
- **Always fasten seat belt before operating the machine.**
- **Never use machine without operator cab which has ROPS and FOPS approval.**
- **Always carry bucket or attachment as low as possible.**
- **Do not travel or turn with lift arms up. Look in the direction of travel.**
- **Load, unload, and turn on flat, level ground.**
- **Do not exceed Rated Operating Capacity.**
- **Before leaving the operator seat:**
 - Lower lift arms.**
 - Place attachment flat on ground.**
 - Move all controls to NEUTRAL.**
 - Make sure the parking brake is engaged.**
 - Stop the engine. Remove the key.**
 - Unfasten the seat belt.**
- **Never modify the machine or add attachments not approved by Bobcat® Company.**
- **Never carry riders. Keep bystanders away from the work area.**

COMPACT WHEEL LOADER IDENTIFICATION

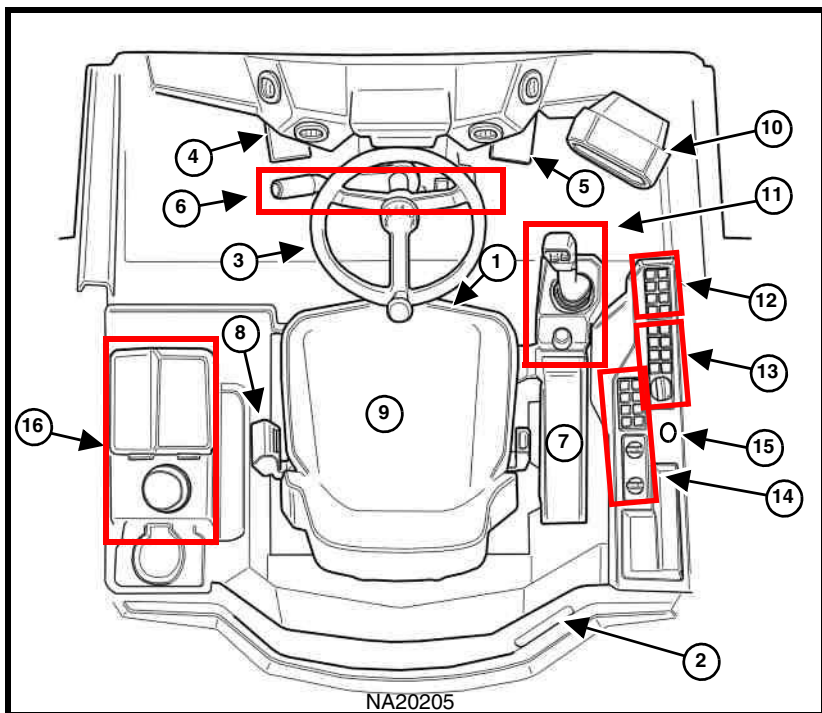
Learn about the machine from this Handbook, Operation & Maintenance Manual, and signs (decals). See Operation & Maintenance Manual for full detailed illustrations for each model. Illustrations below are general for several models. Replace damaged or missing signs (decals) as shown in the Operation & Maintenance Manual.

Ask the dealer about equipment for each application. Refer to the Operation & Maintenance Manual and dealer regarding buckets and attachments for Rated Operating Capacity of the machine. For special jobs, ask your dealer about necessary approved equipment; such as, enclosures, warning devices, or special lights.



REF.	DESCRIPTION	REF.	DESCRIPTION
1	Operation & Maintenance Manual and Operator's Handbook	13	Power Quick-Tach (Attachment Mounting)
2	Operator Cab (ROPS and FOPS)	14	Engine Cover
3	Operator's Seat with Seat Belt	15	Beacon / Strobe
4	Front Work Lights	16	Rear Work Lights
5	Grab Handles	17	Mirrors
6	Steps	18	Steering Cylinder
7	Lift Arms	19	Tires
8	Lift Cylinder (Both Sides)	20	Counterweight
9	Lift Arm Support (Under rear cover)	21	Back-up Alarm
10	Tilt Cylinder	22	Tail Lights
11	Articulation Lock Bar (Located behind the left front fender)	23	Front Lights
12	Bucket	24	Wheel Wedge (If Equipped)
		25	Retrieval Pin

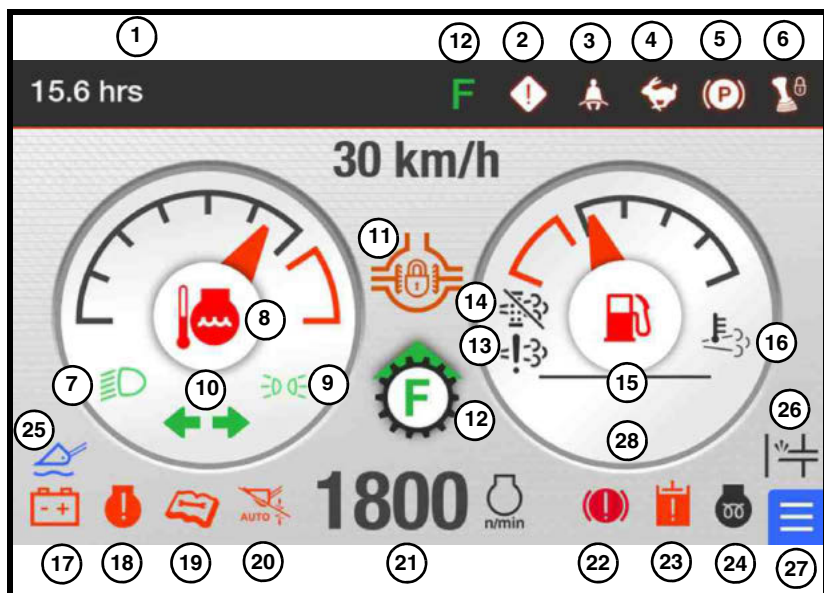
CONTROL IDENTIFICATION



REF	DESCRIPTION	REF	DESCRIPTION
1	Operation & Maintenance Manual (Under Seat)	10	Standard Display Panel (See Page 4)
2	Operator's Handbook	11	Joystick / Jog Shuttle (See Page 9, and 15)
3	Steering Wheel	12	Attachment Control Panel (If Equipped) (See Page 9)
4	Brake Pedal / Inching Control	13	Main Control Panel (See Page 5 and 6)
5	Drive Pedal	14	Cab Control Panel / USB Port / Power Port (See Page 6)
6	Center Console Panel (See Page 7)	15	Keyed Ignition
7	Arm Rest	16	Cup Holder / Storage Box
8	Seat Belt (See Page 11)		
9	Operator's Seat		

See *Operation & Maintenance Manual* for more information.

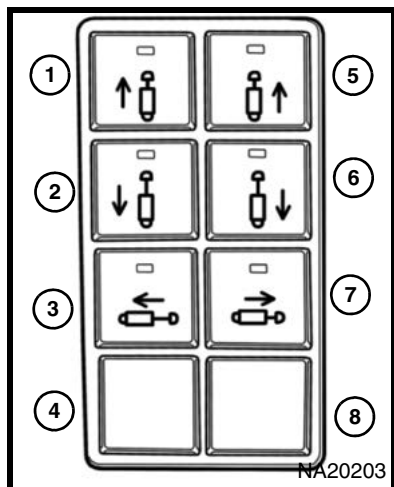
STANDARD DISPLAY PANEL



REF	DESCRIPTION	REF	DESCRIPTION	REF	DESCRIPTION
1	Hourmeter	10	Turn Indicator / Hazard Lights	20	Auto Ride Control
2	General Warning	11	Differential Locked	21	Engine RPM
3	Seat Belt Reminder	12	Travel Direction Indicator	22	Brake System Warning
4	Work Mode / Travel Mode / Attachment Mode	13	DPF Emissions Error	23	Hydraulic System Warning
		14	DPF Regeneration	24	Glow Plugs
5	Parking Brake Engaged	15	Fuel Level	25	Lift Arm Float
6	Hydraulic Work Group Lockout	16	High Exhaust System Temperature	26	Fuel Priming In Process
7	Low Beam / High Beam		17	Battery Voltage Low	27
8	Engine Coolant Temperature	18	Engine Warning	27	
9	Work Lights	19	Service Indicator	28	DPF progress

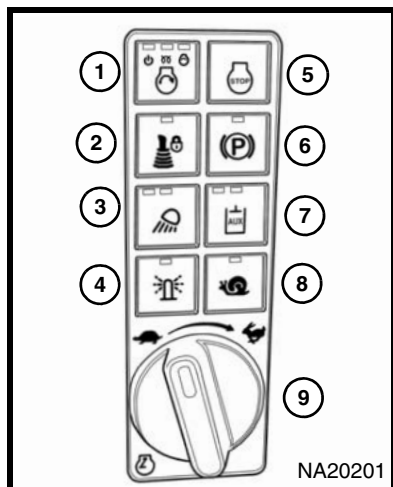
See *Operation & Maintenance Manual* for more information.

RIGHT CONSOLE PANELS



Attachment control panel (OPTIONAL)

REF.	DESCRIPTION
1	Left Cylinder Extend
2	Left Cylinder Retract
3	Side Shift Cylinder Retract
4	Not Used
5	Right Cylinder Extend
6	Right Cylinder Retract
7	Side Shift Cylinder Extend
8	Not Used

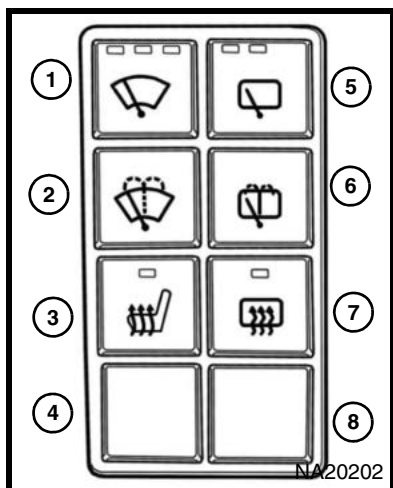


Main control panel

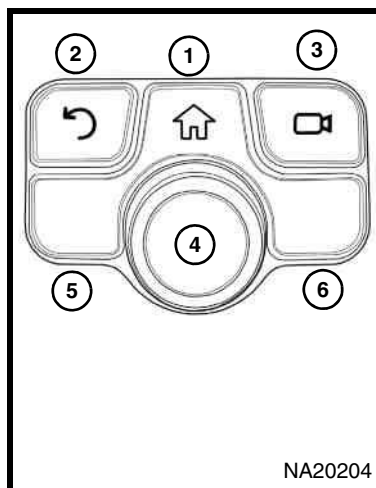
REF.	DESCRIPTION
1	Start / Run
2	Hydraulic Workgroup Lockout
3	Lights
4	Beacon / Strobe
5	Stop
6	Parking Brake
7	Auxiliary Hydraulics Continuous Flow (High Flow - If Equipped)
8	Advanced Attachment Control (See page 18)
9	Engine Speed Control (only available when Advanced Attachment Control (Item 8) is activated)

See *Operation & Maintenance Manual* for more information.

RIGHT CONSOLE PANELS (CONT'D)



JOG SHUTTLE



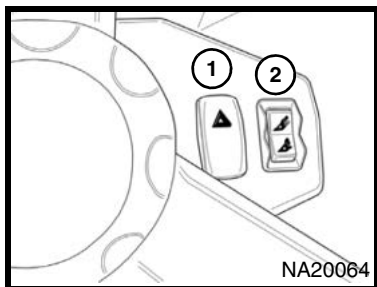
Cab control panel

REF.	DESCRIPTION
1	Front Wiper (Multiple Speed)
2	Front Washer
3	Heated Seat (Option)
4	Not Used
5	Rear Wiper
6	Rear Washer
7	Rear Window Heater
8	Not Used

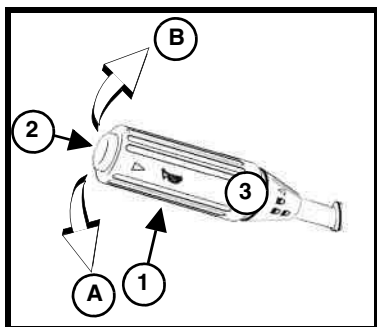
REF.	DESCRIPTION
1	Home Screen (Gauges)
2	Back
3	Rear View Camera
4	Rotary Knob / Activate Button
5	Not Used
6	Not Used

See *Operation & Maintenance Manual* for more information.

CENTER CONSOLE PANEL



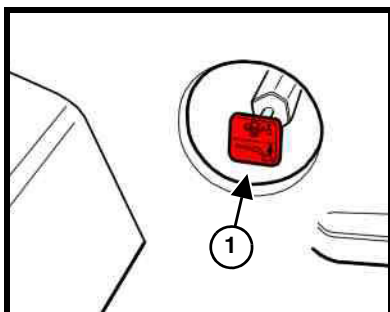
REF.	DESCRIPTION
1	Four-Way Flasher Switch
2	Quick-Tach Coupler Switch



REF.	DESCRIPTION
1	DIRECTION SIGNAL - Down for left turn, up for right turn
2	HORN - press button
3	HEADLIGHTS rotate for - (OFF - Park - Head light) Pull lever towards operator for low beam / high beam.

LIFT ARM BYPASS CONTROL

The Lift Arm Bypass Control, (Item 1) located on the left side of the machine, to the back of left front tire, is used to lower the lift arms if the lift arms cannot be lowered during normal operation.



1. Turn the knob (Item 1) 90° clockwise.
2. Pull out and hold the knob until the lift arms are fully lowered.

⚠ WARNING

AVOID INJURY OR DEATH

Before leaving the operator seat; lower lift arms, engage parking brake, move all controls to neutral, and stop the engine.

See *Operation & Maintenance Manual* for more information.

DIESEL PARTICULATE FILTER (DPF) SYSTEM

Description

The engine exhaust system is equipped with a diesel particulate filter (DPF). The DPF is an emissions reduction device that removes diesel particulate matter (soot) from the exhaust gases. The DPF will trap and collect the soot until it is burned off.

The process of burning off the collected soot is called regeneration. There are four regeneration modes.

An inhibit mode is also available to the operator, but should only be used when necessary. Prolonged use may cause severe damage to the DPF.

Automatic Regeneration

Automatic regeneration mode is selected by default every time the machine is started.

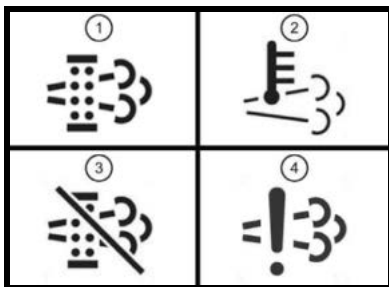
The engine control unit will monitor soot load and perform a regeneration automatically.

The regeneration process can last for 30 minutes or longer.

It is recommended to continue operating the machine under load at high idle until the regeneration has completed.

DPF Icons

The below icons located on the display communicate regeneration status:



1. DPF - Appears during active regeneration.

When flashing, machine is requesting that operator activate forced regeneration.

2. Hot Exhaust System Temperature (HEST) - Appears during active regeneration to indicate that exhaust and exhaust gases can be hot.

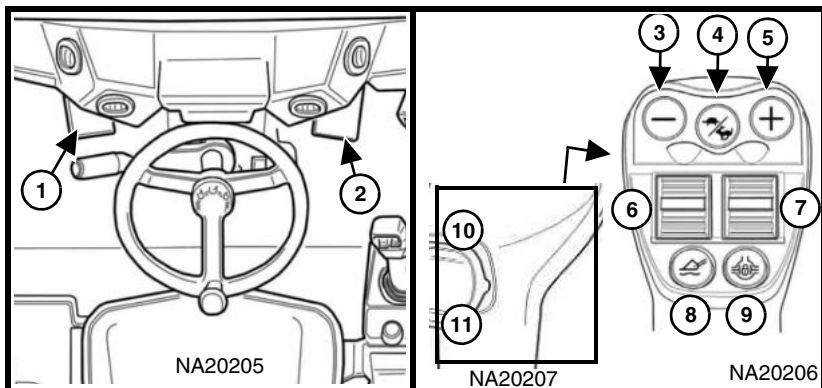
3. Inhibit - Appears when the operator has selected inhibit mode.

When flashing, machine is indicating it would like to do a regeneration.

4. Emissions Error - Appears to indicate a problem with the DPF system.

See *Operation & Maintenance Manual* for more information.

CONTROL IDENTIFICATION



REF.	DESCRIPTION	REF.	DESCRIPTION
1	Brake Pedal / Inching Pedal	7	Front Auxiliary Hydraulics (With Detent)
2	Drive Pedal		
3	Decrease travel speed when in Advanced Attachment Control (AAC) is activated	8	Boom Float
4	Travel Speed (Work Mode / Travel Mode)	9	Differential Lock
5	Increase travel speed when in Advanced Attachment Control (AAC) is activated	10	Travel Direction Switch (F-N-R)
6	Not Used	11	Not Used

See *Operation & Maintenance Manual* for more information.

DAILY INSPECTION

WARNING

Use the Operator's Cab which is a Roll-Over and Falling-Object Protective Structure (ROPS and FOPS) designed for each machine. Cab modifications not approved by Bobcat can cause loss of operator protection and result in injury or death. Always fasten seat belt when operating.

- Check seat belt and replace if damaged.
- Check Operator's Cab (ROPS and FOPS) and its fasteners.
- Check front horn, back-up alarm, and rear view camera for proper function (if equipped).
- Clean pedals. Replace floor mat if damaged or missing.
- Repair broken and loose parts.
- Clean engine of flammable material.
- Check steering cylinder.
- Check engine oil level.
- Check fuel filter - remove trapped water.
- Check hydraulic fluid level.
- Check engine air filter system for damage or leaks.
- Check engine cooling system for damage or leaks; clean hydraulic fluid cooler / radiator assembly and rear grilles; check engine coolant level.
- Grease pivot pins.
- Replace safety signs (decals) as necessary.
- Check lift arm support for damage.
- Check articulation lock bar for damage.
- Check tires and tire pressure.
- Monitor the instrument panel for fuel level, coolant temperature, and air cleaner condition.

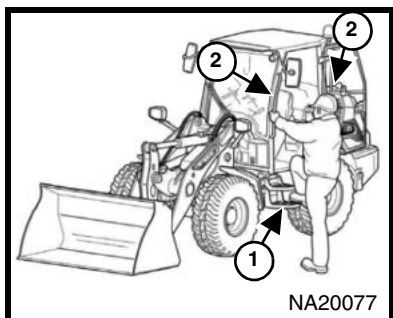
Read the Service Checklist And Schedule decal in the engine compartment for additional servicing instructions.

See *Operation & Maintenance Manual* for maintenance procedures.

BEFORE OPERATING THE COMPACT WHEEL LOADER

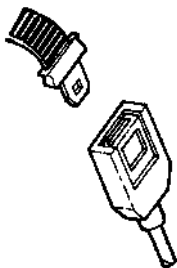
! WARNING

Never use machine in atmosphere with explosive dust or gases, or where exhaust can contact flammable material. Failure to obey warnings can cause injury or death.

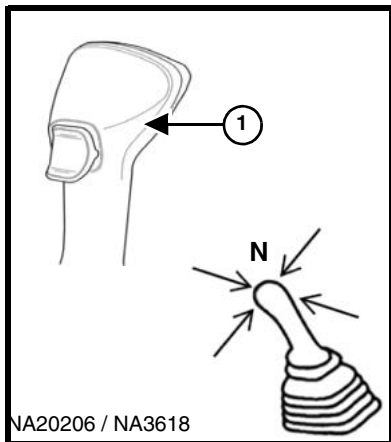


1. Use steps (Item 1), and grab handles (Item 2) when entering.
2. Adjust the seat so controls are easy to reach.

RETRACTABLE SEAT BELT



3. Connect the seat belt. Adjust the seat belt so that the belt fits snug around the lower part of your hips.

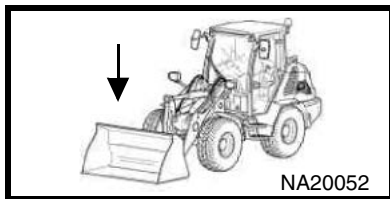


4. Put the travel direction switch (F-N-R) in neutral (N) (Item 1) and put the joystick in the NEUTRAL (N) position.

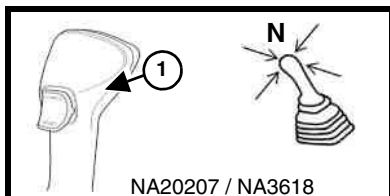
LEAVING THE COMPACT WHEEL LOADER

Before getting out of the operators seat:

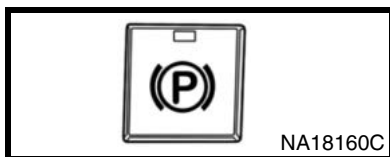
1. Lower the lift arms and put the attachment flat on the ground.
2. Press the travel direction switch (Item 1) to neutral (N) and put the joystick in the NEUTRAL (N) position.



2. Press the travel direction switch (Item 1) to neutral (N) and put the joystick in the NEUTRAL (N) position.

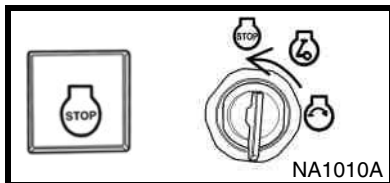


3. Make sure the parking brake is engaged (LED light will be ON when the parking brake is engaged).

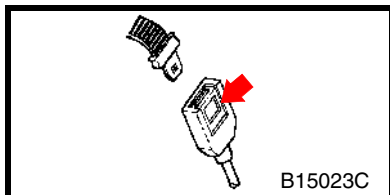


4. Stop the engine and remove the key or press the stop button on the main console.

NOTE: Pressing the Stop button will stop the engine and momentarily turn the electrical system OFF before the electrical system turns back ON. The key switch must be turned to the OFF position.

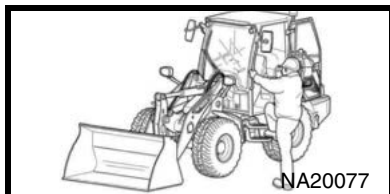


5. Push the red button on the seat belt buckle to disconnect.



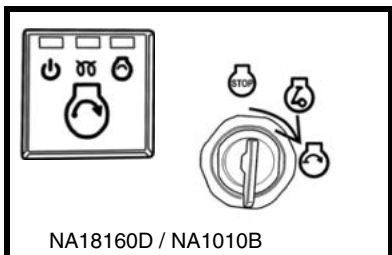
6. Use the grab handles, and steps when getting off the compact wheel loader.

DO NOT JUMP.



See Operation & Maintenance Manual for more information.

STARTING THE COMPACT WHEEL LOADER



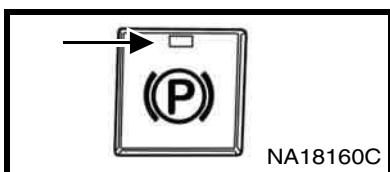
1. Turn the key switch to the RUN position or press the RUN / START button. The display panel will illuminate and the Neutral (N) needs to be showing in the panel.



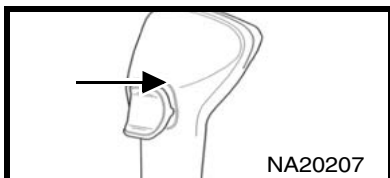
2. Preheat need and time is automatically controlled. Wait for glow plug icon on display and / or the middle LED on RUN / START button to turn OFF.

3. Turn the key switch to START (release key when the engine starts) or press the RUN / START button again for engine to start.
4. In cold weather, let the engine warm up for 5 minutes; then release the parking brake before operating the compact wheel loader.

NOTE: Make sure the Advanced Attachment Control Mode button is OFF or the drive pedal will be deactivated.



5. Make sure the park brake is disengaged (LED light in the center of the button will be OFF).



6. Move the travel direction switch to the desired direction of travel.

NOTE: The display panel will inform operator if the Travel Control switch is not in Neutral for starting.

See *Operation & Maintenance Manual* for more information.

DRIVING THE COMPACT WHEEL LOADER

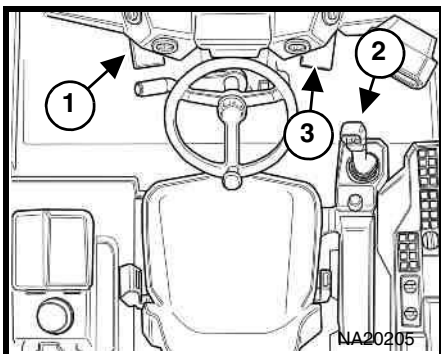
Press the brake pedal (Item 1). Move the travel control switch (Item 2) (on front of joystick) to the desired direction of travel.

NOTE: The parking brake will automatically disengage when the drive pedal is pressed or by pressing the park brake button.

Release the brake pedal (Item 1) and slowly press the drive pedal (Item 3) to increase travel speed. Look in the direction of travel.

Remove foot from the drive pedal (Item 3) and the pedal will return to neutral and slow the machine to a stop. Use the brake pedal (Item 1) to assist in slowing the machine.

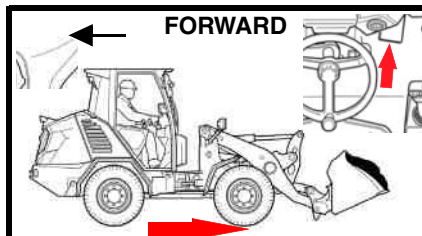
NOTE: Machine must be brought to a complete stop before changing travel directions (F - N - R).



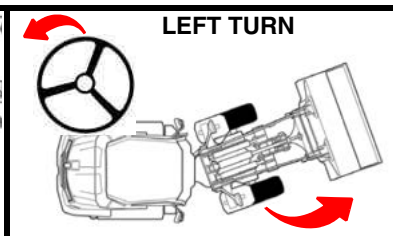
WARNING

AVOID INJURY OR DEATH

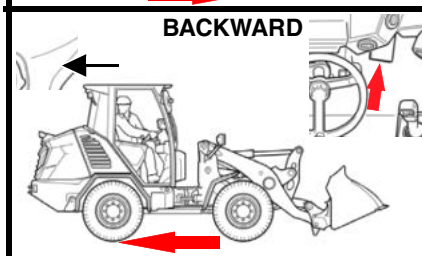
Do not use the machine in an atmosphere with explosive dust or gases or where exhaust can contact flammable material. Explosion or fire can result.



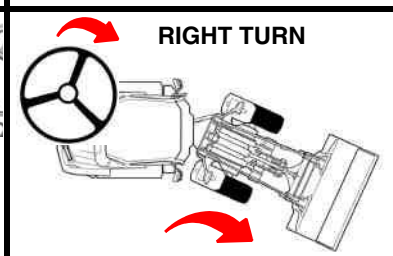
FORWARD



LEFT TURN



BACKWARD



RIGHT TURN



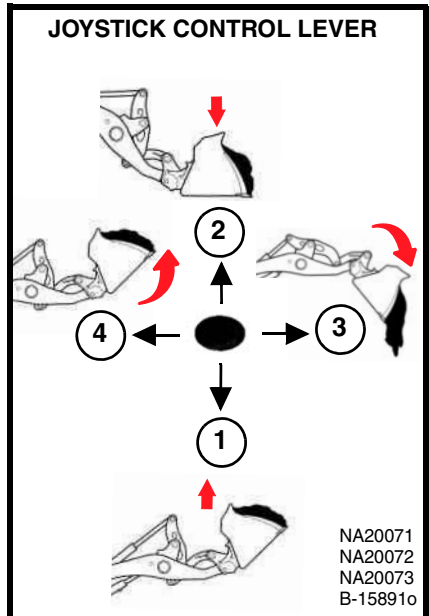
WARNING

AVOID INJURY OR DEATH

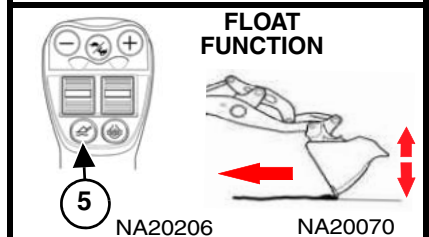
- Keep loader arms as low as possible.
- Do not travel or turn with loader arms up.

OPERATING THE JOYSTICK CONTROL LEVER FOR LIFT & TILT FUNCTIONS

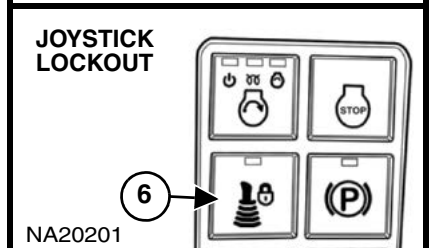
1. Raise Loader Arms
2. Lower Loader Arms
3. Tilt Attachment Forward
4. Tilt Attachment Backward



5. Float Position
 - Press the float button (Item 5) to activate float function.
 - Tilt the bucket (or attachment) forward (Item 3).
 - Attachment will follow the ground as machine moves backward.
 - Press the float button (Item 5) a second time to disengage float function.



6. Joystick Lockout Button
 - Press the joystick lockout button (Item 6) to lockout the joystick for road travel. Light in switch will be ON when activated).
 - Press the switch (Item 6) a second time for joystick to be active, light in switch will be OFF.



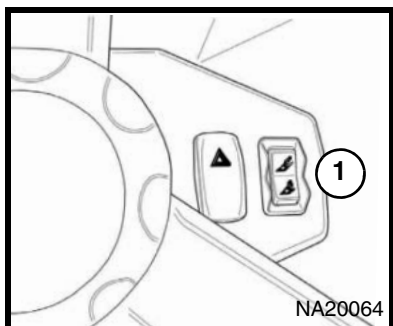
See *Operation & Maintenance Manual* for more information.

INSTALLING THE ATTACHMENT

! WARNING

Quick coupler pins, must extend through the holes in attachment mounting frame. Failure to secure quick coupler pins can allow the attachment to come off and cause injury or death.

Quick Coupler System



Press bottom of the Quick Coupler Pin switch, in the center control panel, until the pins are fully engaged in the locked position.

Check to be sure pins are fully extended through the holes in the attachment mounting frame.

RELIEVE AUXILIARY HYDRAULIC PRESSURE

Pressure in the auxiliary hydraulic system can make it difficult to connect or disconnect quick couplers.

Compact Wheel Loader

Auxiliary Quick Coupler Connecting: Push the couplers tightly together and hold for five seconds. The pressure is automatically relieved.

Auxiliary Quick Coupler Disconnecting: Push the couplers tightly together and hold for five seconds. Retract the sleeve until the couplers disconnect.

Attachment

Follow procedure to relieve hydraulic pressure in compact wheel loader.

Connect male coupler from the attachment to the female coupler of the compact wheel loader, then repeat procedure above. This will relieve hydraulic pressure in the attachment.

See *Operation & Maintenance Manual* for more information.

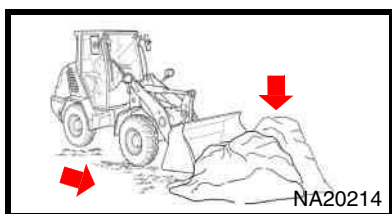
OPERATION

⚠ WARNING

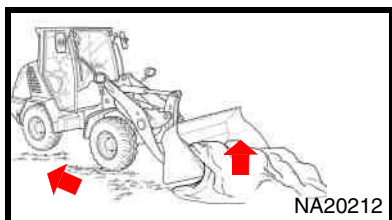
AVOID INJURY OR DEATH

- Keep the seat belt fastened snugly.
- Do not exceed machine Rated Operating Capacity.
- Do not use attachments not approved by Bobcat Company.
- Load, unload, and turn on flat level ground only.
- Carry load low.

Filling The Bucket

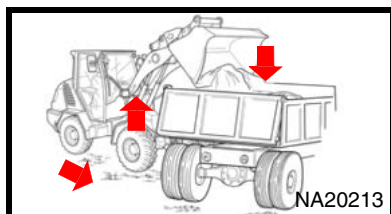


1. Fully lower the lift arms and tilt the bucket forward until it makes contact with the ground.
2. Drive forward into the material.



3. Tilt the bucket backward while driving into the material until the bucket is full.
4. Drive backward away from the material.

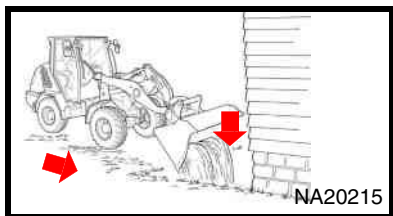
Emptying The Bucket



1. Keep bucket low when driving to area where you want to empty the bucket.
2. Tilt bucket backward to raise the cutting edge.
3. Drive the compact wheel loader slowly to dump area.
4. Raise lift arms and move forward into the dumping location.
5. Tilt bucket all the way forward to empty.

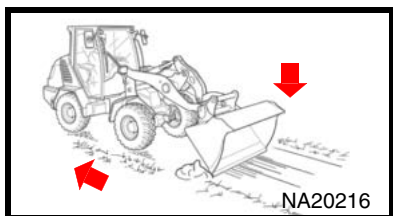
OPERATION (CONT'D)

Filling A Hole



1. Drive forward to the hole with the bucket as low as possible.
2. Raise the lift arms and tilt the bucket forward.

Using The Bucket For Leveling



1. Engage the lift arm float.
2. The bucket will follow the ground as the machine moves backward to level the ground.

ADVANCE ATTACHMENT CONTROL

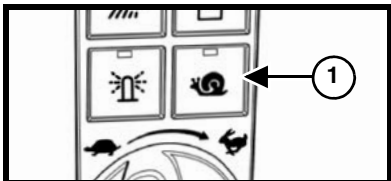
Advanced Attachment Control allows the engine speed and travel speed to be controlled independently in low speed.

This feature can be helpful when operating attachment, loading and unloading, and or other applications.

This mode is best used with attachments that require continuous auxiliary hydraulic flow but lower travel speeds. Example: The attachment can use maximum hydraulic flow while traveling at a slow speed.

NOTE: Auxiliary hydraulics must be reactivated after advance attachment control is engaged.

Engaging Advance Attachment Control Mode



Stop the machine and put the travel direction control in Neutral.

Press the button (Item 1) on the main control panel once to engage. (Press a second time to disengage.)



The snail icon (Item 2) will be shown on the dash panel when engaged.

The icon (Item 1) will be visible when advance attachment control is engaged and the percentage of the travel speed can be adjusted.

See *Operation & Maintenance Manual* for more information.

DRIVING UP AND DOWN SLOPES

! WARNING

AVOID INJURY OR DEATH

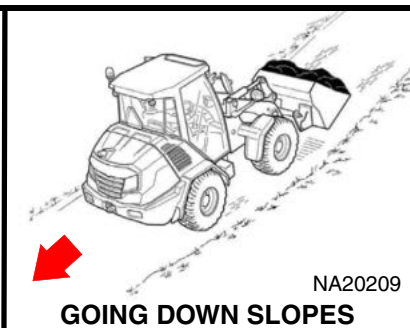
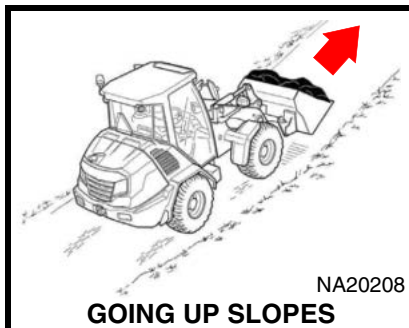
- Keep heavy end of machine uphill.
- Go directly up or down a slope or incline.
- Do not drive across slopes.
- Check for adequate traction.

! WARNING

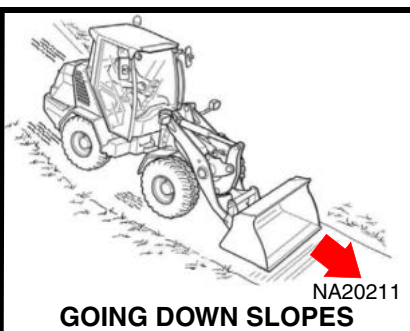
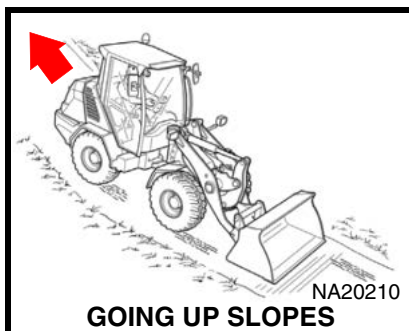
AVOID INJURY OR DEATH

- Keep lift arms as low as possible.
- Do not travel or turn with lift arms up. Look in the direction of travel.
- Do not leave machine with engine running, lift arms up, or parking brake not engaged.

With Bucket Full



With Bucket Empty





DANGER

ELECTROCUTION HAZARD

- Check for overhead or underground power lines before operating.
- Keep arm, attachment and load a minimum of 3 m (10 feet) away from electrical power lines.

RAISING AND POSITIONING A LOAD

Perform the Before Operating The Compact Wheel Loader procedure.

Read and understand the Rated Operating Capacity decal (Item 1) (located on the right side window) before operating to learn the rated operating capacity of the compact wheel loader.

1. Move the machine into the load to be moved.
2. Be sure the load is centred on the attachment. Fasten the load to attachment if the load can shift.
3. Tilt the attachment back and raise the arms slowly to lift the load.
4. Drive the machine with the load as low as possible.
5. Stop the machine on flat, solid ground before raising arms.
6. Slowly raise arms to put the load in the desired position.
7. Slowly drive forward and position the load in the correct location.
8. Slowly back away.
9. Lower the arms.

RATED OPERATING CAPACITY (ROC)	
L85	
Quick-Tach™	
Bob-Tach™	
1901 kg (4190 lbs)	1670 kg (3675 lbs)
1802 kg (3970 lbs)	1470 kg (3240 lbs)
2200 kg (4850 lbs)	1967 kg (4334 lbs)
2171 kg (4785 lbs)	1804 kg (3975 lbs)
1740 kg (3835 lbs)	1471 kg (3240 lbs)
1600 kg (3525 lbs)	1303 kg (2870 lbs)

500mm

7420994



WARNING

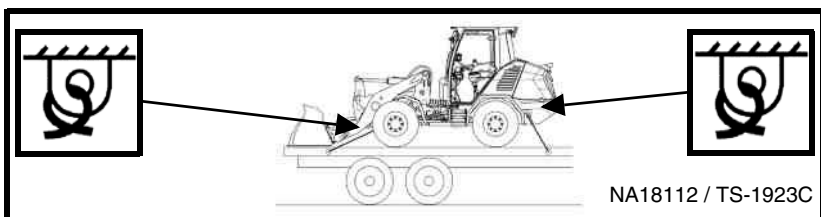
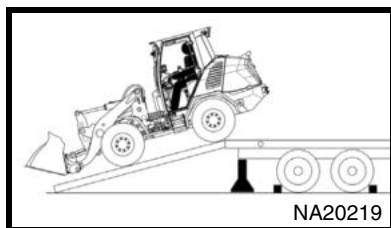
AVOID INJURY OR DEATH

- Do not exceed Rated Operating Capacity.
- Do not use attachments not approved by Bobcat Company.
- Load, unload and turn on flat level ground only.
- Carry load low.

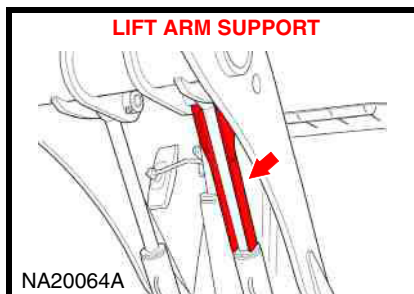
TRANSPORTING THE COMPACT WHEEL LOADER

A compact wheel loader with an empty bucket or no attachment must be loaded backward onto the transport vehicle.

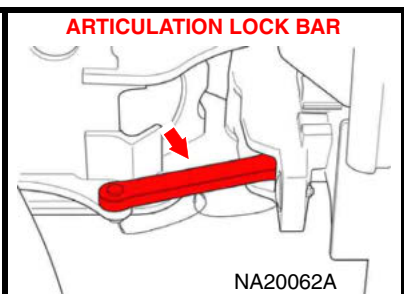
Lower bucket or attachment to floor. Engage parking brake. Stop engine. Install the articulation lock bar. Install chains at front and rear of compact wheel loader to transport vehicle. Be sure transport and towing vehicles are of adequate size and capacity.



SERVICE INSTRUCTIONS



An approved lift arm support and / or articulation lock bar must be used when lift arms are up for service and / or when servicing the articulation area.



See instructions on compact wheel loader decals or read Operation & Maintenance Manual to install and remove lift arm support and the articulation lock bar. Replace if damaged.

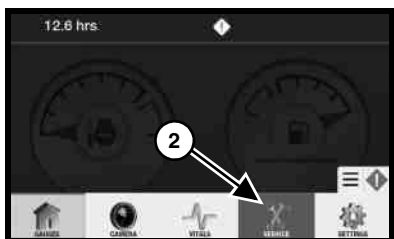
DIAGNOSTIC SERVICE CODES

Standard Display



1. Select the navigation handle icon.

NOTE: When there is an active code, the navigation handle will change to the warning symbol (Item 1). Double click the warning icon to go to the warning screen.



2. Select the SERVICE icon.



3. Select the View Service Codes icon.

These codes help analyze monitored functions of your Bobcat compact wheel loader. Some service procedures must be performed **ONLY BY QUALIFIED BOBCAT SERVICE PERSONNEL**.

NOTE: Multiple service codes and / or abnormal symptoms can be caused by a corroded or loose earth. Check earth and battery connections.

See *Operation & Maintenance Manual* for more information.





WARNING

AVOID INJURY OR DEATH

- Stop and cool the engine before adding fuel. **NO SMOKING!**
- Disconnecting or loosening any hydraulic tubeline, hose, fitting, component, or a part failure can cause lift arms to drop. Do not go under lift arms when raised unless supported by an approved lift arm support. Replace if damaged.
- Never go under or reach under lift arms or lift cylinder without an approved lift arm support installed. Replace if damaged.
- Never go into or reach into articulation / steering cylinder area without an approved articulation lock bar installed. Replace if damaged.
- Never use ether or starting fluid on diesel engine with glow plugs or an air intake heater. Use only starting aids as approved by engine manufacturer.
- Keep the engine cover closed except for service.
- Keep the engine area clean of flammable material.
- Do not wear loose clothing, long uncovered hair, or jewelry near machine.
- Wear eye protection when servicing, and hard hat or other protective equipment as needed.
- When connecting the booster battery for *jump start*, always connect the negative cable last to the engine, never at the battery. When removing the *jump start* cables, always remove the negative cable (-) from engine first. Never charge or *jump start* a frozen battery.
- Lead-acid batteries produce flammable and explosive gases. Keep arcs, sparks, flames, and lighted tobacco away from battery.
- Battery acid causes severe burns. In case of acid contact, wash immediately with water for several minutes and get medical attention in case of eye contact.
- Use a piece of cardboard to check for leaks. Leaking fluids under pressure can enter the skin and cause serious injury. If fluid enters skin or eyes, get immediate medical attention from a physician familiar with this injury.

This Handbook is available in an English edition or one of many other languages. See your Bobcat dealer for more information on translated versions.