

# LOADER OPERATION

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# LOADER OPERATION

Study the first section of this manual before operating your Bobcat.

## MOUNTING AND DISMOUNTING

When mounting or dismounting your Bobcat Loader, use the two safety steps provided. One step is on the crossmember between the boom arms. The other step is located above the control pedals.

When in the seat of your Bobcat Loader, make yourself comfortable; adjust the seat and fasten your seat belt.

## THROTTLE CONTROL (On all machines except electric)

The throttle control is the short lever located to the right of the operator's seat (Figure 1). Moving the throttle control forward will increase engine speed (RPM); moving it back will decrease engine RPM.

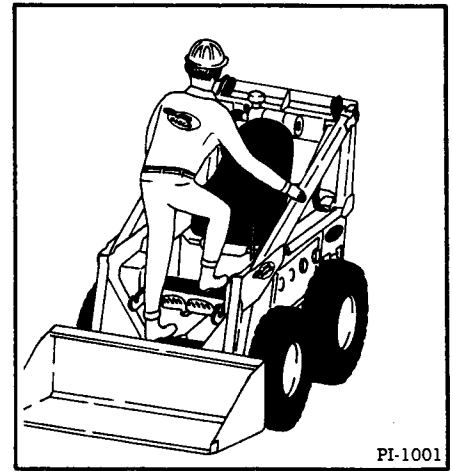
The throttle control for the M-444 Bobcat is on the right steering lever.

While operating your Melroe Bobcat, maintain a 3/4 to full throttle setting. Air cooled engines must be run at high RPM for effective cooling. Less than a 3/4 throttle setting for long periods may also cause excessive carbon deposits in the engine combustion chambers. Be sure that the engine RPM at full throttle is not less than manufacturer's specifications.

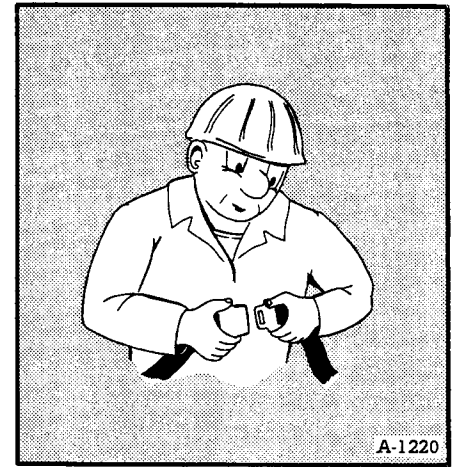
## VARIABLE SPEED DRIVE CONTROL

The drive speed control is the short lever located to the left of the operator's seat (Figure 1). Moving it forward will increase the ground speed of the Bobcat; moving it back will decrease the ground speed.

While you are learning to operate your Melroe Bobcat, leave the drive speed control in low speed position. This will keep ground speed down until you get the feel of the controls.



USE THE SAFETY STEPS



FASTEN YOUR SEAT BELT

## HYDRAULIC CONTROL PEDALS

The three foot pedals (Figure 1) control the hydraulic functions of the Bobcat Loader.

Press the heel of the LEFT pedal to raise the boom; press the toe of the pedal to lower the boom. Pressing hard on the toe of the left pedal when the boom is down will place the control valve in float position for following the contour of the ground.

Press the heel of the RIGHT pedal to tilt the bucket back; press the toe of the pedal to tilt the bucket forward or dump.

Press the toe of the CENTER pedal to activate attachment hydraulics; press the heel of the pedal to reverse the action. Pressing hard on the toe of the center pedal will place it in an overcenter or locked position. It will remain in this position until released by pressing the heel of the pedal.

**NOTE:** The angle of the pedals may be adjusted for your comfort and convenience (Figure 64).

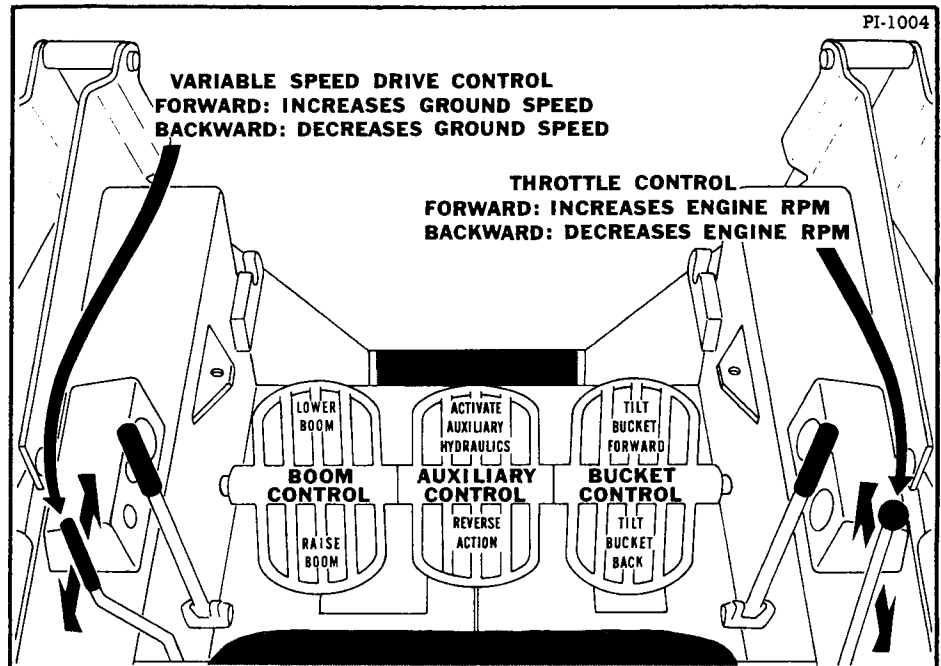


Fig. 1 Operator Controls & Functions

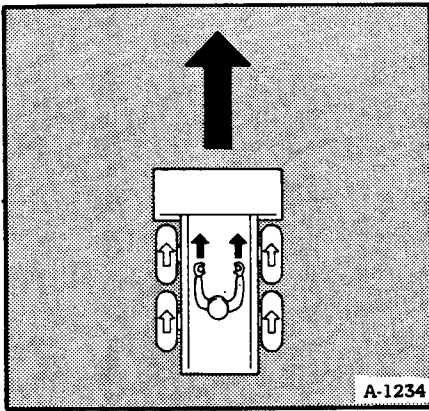


Fig. 2 Forward Travel

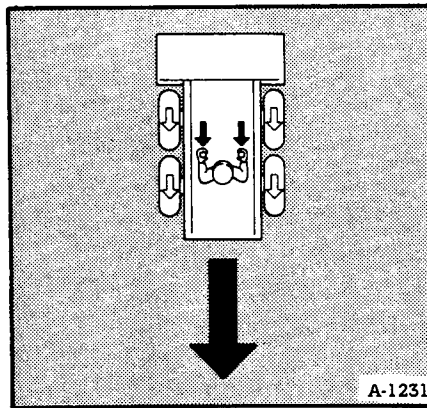


Fig. 3 Backward Travel

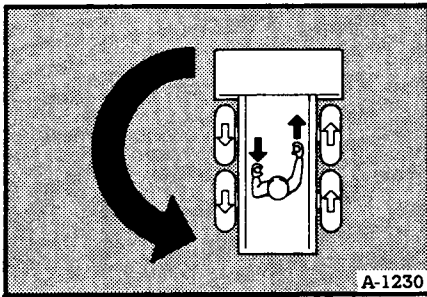


Fig. 4 Spin Left

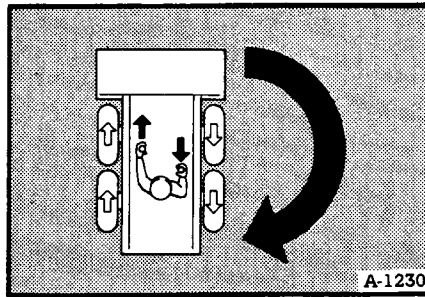


Fig. 5 Spin Right

## DIRECTIONAL CONTROL LEVERS

The forward and reverse direction of the four drive wheels is controlled by the long levers on each side of the operator (Figure 1). Push both levers forward to move the machine forward (Figure 2). Pull both levers back to make the machine move backward (Figure 3). To stop the machine place both levers in neutral.

To turn the machine, move the directional control levers in opposite directions. The wheels on one side of the machine will turn forward while the wheels on the other side of the machine turn backward. The Bobcat will turn in its tracks (Figure 4 & 5).

Move the levers slowly and steadily. Sudden, jerky movement may make the machine jump, causing you to lose control.

## WARNING

Applying more lever pressure than is necessary to engage and maintain drive can cause clutch bearing failure.

## GASOLINE & LP GAS

### STARTING PROCEDURE (Average Temperature Conditions)

After you are familiar with the controls, start the engine. Observe the following starting procedures:

1. Adjust the seat so all controls are within easy reach. This is important to prevent fatigue.
2. Fasten your seat belt. This is necessary for effective control of the machine as well as for your safety.
3. Make sure the two directional control levers are in neutral. Neutral position is halfway between the points at which the levers meet resistance when you move them back and forth.
4. The variable speed drive control lever must be pulled all the way back to low speed position.

**NOTE:** To make starting easier, the variable speed lever must be placed into "low speed" position before stopping the engine.

5. The hydraulic control pedals must be in neutral.
6. Set the throttle control at about 1/4 open for gasoline models and fully closed for LP models. Be sure the hand valve on the LP tank is open.
7. Turn the ignition switch (key) to start position and proceed to crank the engine (Figure 6).
8. If the oil indicator light (Figure 6) comes on, and stays on, stop the engine and troubleshoot.

## STARTING PROCEDURE (Cold Temperature Conditions)

1. Observe items 1 through 6 of starting procedure for average conditions.
2. Pull the choke control button out, choking the engine as required. The choke button is located below the right front of the operator's seat.
3. Turn the ignition switch to start position and proceed to crank the engine.
4. With the engine running, push the choke control button part-way in and advance the throttle slightly.
5. After a brief warm-up period (3 to 5 minutes) push the choke all the way in.
6. With the Bobcat running, allow the engine and hydraulic system to warm up (5 to 10 minutes) before operating.
7. If the oil indicator light (Figure 6) comes on, stop the engine immediately and troubleshoot.

When properly warmed up, exercise the hydraulics by lifting and lowering the boom, tilting and leveling the bucket, and by opening and closing the variable speed valve.

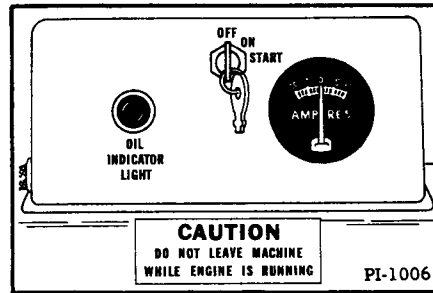


Fig. 6 Left Instrument Panel

## STARTING PROCEDURE

After you are familiar with the controls, start the motor. Observe the following starting procedure:

1. Adjust the seat so all controls are within easy reach. This is important to prevent fatigue.
2. Fasten your seat belt. This is necessary for effective control of the machine as well as for your safety.
3. Make sure the two directional control levers are in neutral. Neutral position is halfway between the points at which the levers meet resistance when you move them back and forth.
4. The variable speed drive control lever must be pulled all the way back to low speed position.
5. The hydraulic control pedals must be in neutral.

**NOTE:** To make starting easier, the variable speed lever must be placed into "low speed" position before stopping the motor.

6. Start the motor by pressing the green start button on the stop-start switch. This button will remain down and the motor remain running until the stop button is pressed down.

## WARNING

The motor should run smoothly with little noise. If the motor fails to start and produces a decided hum, the motor is not connected to the power supply properly and must be shut down immediately.

**NOTE:** The motor should run in a counter-clockwise direction (viewed from the variable speed end of the motor). If the motor runs clockwise, switch the connection of any two of the power supply wires (red, white or blue). Do Not switch the green ground wire.



All electrical wiring on the machine and at the power source must be done by a licensed electrician.

7. Stop the motor by pressing the red stop button on the stop-start switch.

**GASOLINE  
&  
LP GAS**

**ELECTRIC**

### STARTING PROCEDURE (Average Temperature Conditions)

After you are familiar with the controls, start the engine. Observe the following starting procedure:

1. Adjust the seat so all controls are within easy reach. This is important to prevent fatigue.
2. Fasten your seat belt. This is necessary for effective control of the machine as well as for your safety.
3. Make sure the two directional control levers are in neutral. The neutral position is half-way between the points at which the levers meet resistance when you move them back and forth.
4. The variable speed drive control lever must be pulled all the way back to low speed position.
5. All three hydraulic control pedals must be in neutral.

**NOTE: To make starting easier, the variable speed lever must be placed into "low speed" position before stopping the engine.**

6. Set the throttle control at about 1/2 open. Turn on the electric power switch (key) on the left instrument panel (Figure 7).
7. The engine pre-heater button is located on the left instrument panel. Press and hold it until the indicator light (located on the main frame to the left rear of the operator's seat) glows brightly. This usually takes 30 to 60 seconds.

If the indicator light fails to glow, refer to the troubleshooting section of this manual.

**NOTE: If the engine is warm there is no need to preheat.**

8. Turn the electric power switch (key) to start position and proceed to crank the engine. As soon as the engine starts to fire, release the key. The starting motor should not be kept running for more than 20 seconds at a time. Waiting about a minute before each starting attempt will help prolong the life of the battery.
9. If the oil indicator light (Figure 7) comes on, stop the engine and troubleshoot.
10. To stop the engine, turn off the electric power switch and pull the throttle control all the way back. Hold it there until the engine stops.

## **WARNING**

Do not stop the engine suddenly when running under full load. Let it idle for several minutes before stopping.



**ALWAYS LOWER THE BOOM and STOP THE ENGINE before dismounting.**

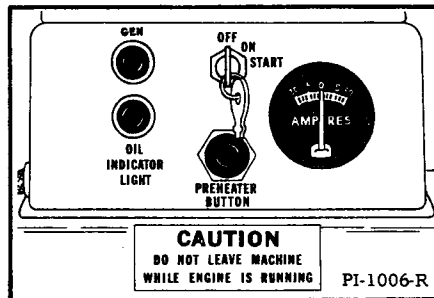
### STARTING PROCEDURE (Cold Temperature Conditions)

1. Observe items 1 through 5 of starting procedure for average temperature conditions.
2. Press the starting fuel allowance button once. It is located at the right side of the engine, on the injector pump.
3. Set the throttle control at about 1/4 open.
4. Press and hold the preheater button until the indicator light glows brightly. This should take about 1 to 2 minutes. The indicator light is located on the main frame to the left rear of the operator's seat.

5. Turn the key to start position and hold for 20 seconds. Wait 1 minute before repeating. If the engine fails to start, repeat steps 4 and 5.
6. When the engine starts, allow the engine and hydraulic system to warm up (5 to 10 minutes) before operating.
7. If the oil indicator light (Figure 7) comes on, and stays on, stop the engine and troubleshoot.

When properly warmed up, exercise the hydraulics by lifting and lowering the boom, tilting and leveling the bucket, and by opening and closing the variable speed drive sheave.

**NOTE:** Proper battery care, using an engine oil that meets viscosity standards for low temperatures and using a proper winter grade diesel fuel are essential for cold weather starting. Refer to your engine manual for oil and fuel specifications.



### GENERATOR INDICATOR LIGHT

Fig. 7 Left Instrument Panel

## WARNING

If the generator indicator light goes on, the blower belt may have broken. If this happens, the engine will overheat quickly. Stop the engine and check the belt.

### STARTING PROCEDURE (Average Temperature Conditions)

After you are familiar with the controls, start the engine. Observe the following starting procedure:

1. Adjust the seat so all controls are within easy reach. This is important to prevent fatigue.
2. Fasten your seat belt. This is necessary for effective control of the machine as well as for your safety.
3. Make sure the two directional control levers are in neutral. The neutral position is half-way between the points at which the levers meet resistance when you move them back and forth.
4. The variable speed drive control lever must be pulled all the way back to "low speed" position.

**NOTE:** To make starting easier, the variable speed lever must be placed into "low speed" position before stopping the engine.

5. The three hydraulic control pedals must be in neutral.
6. Set the throttle control at about 1/2 open.
7. Turn the electric power switch (key) on the left instrument panel to "start" position and proceed to crank the engine. Do not operate the starter for more than 20 seconds at a time. Waiting about a minute before each starting attempt will help prolong the life of the battery.
8. If the oil indicator light (Figure 8) comes on and stays on, stop the engine and troubleshoot.
9. To stop the engine, turn off the electric power switch (key) and pull the throttle control lever all the way back.

**DEUTZ  
DIESEL**

**PETTER  
DIESEL**

**PETTER  
DIESEL**

## WARNING

Do not stop the engine suddenly when running under full load. Let it idle for several minutes before stopping.



**ALWAYS LOWER THE BOOM and STOP THE ENGINE before dismounting.**

### STARTING PROCEDURE (Cold Temperature Conditions)

1. Observe items 1 through 5 of "Starting Procedure for Average Temperature Conditions".
2. Set the throttle control at about 1/4 open.
3. Turn the decompression levers (Figure 9, Item 1) first toward and then away from the flywheel. The decompressors will disengage automatically after about ten crankshaft revolutions, and the engine should fire.

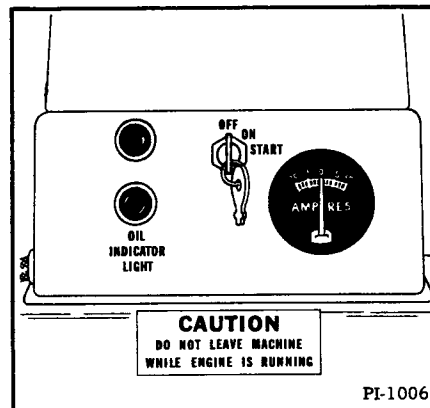


Fig. 8 Left Instrument Panel

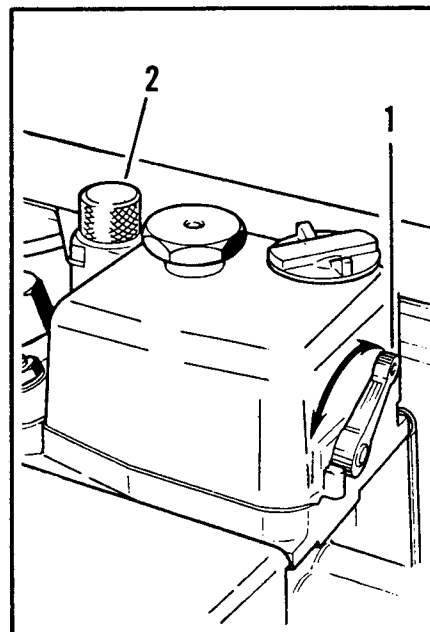


Fig. 9 Decompression Levers

4. Remove the priming plungers (Figure 9, Item 2). Fill the priming chambers with engine oil - NOT fuel. Replace the priming plungers and press down.
5. Turn the electric power switch (key) on the left instrument panel to "start" position and proceed to crank the engine. Do not operate the starter for more than 20 seconds at a time. Waiting about a minute before each attempt will help prolong the life of the battery.
6. When the engine starts, allow the engine and hydraulic system to warm up (5 to 10 minutes) before operating.
7. If the oil indicator light comes on and stays on, stop the engine and trouble-shoot.

When properly warmed up, exercise the hydraulics by lifting and lowering the boom, tilting and leveling the bucket, and by opening and closing the variable speed drive sheave.

**NOTE:** Proper battery care, using an engine oil that meets viscosity standards for low temperatures and using a proper winter grade diesel fuel are essential for cold weather starting. Refer to your engine manual for oil and specifications.