

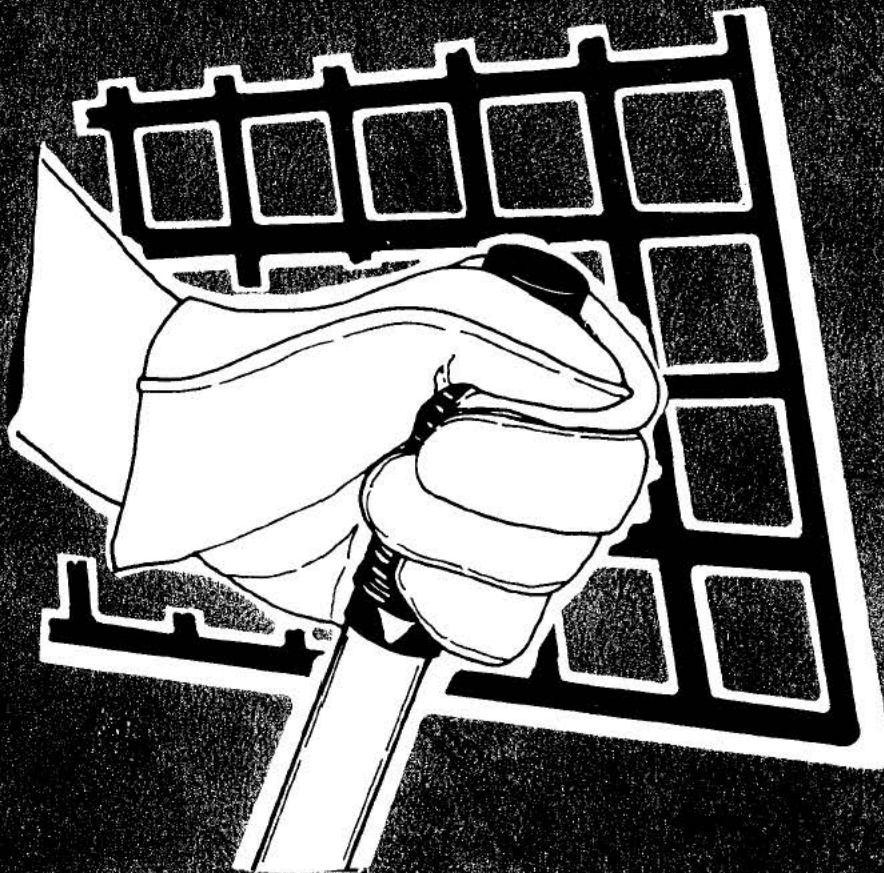


**bobcat**

**642**

**S/N 13001 - 13999**

# **OPERATOR'S MANUAL**



**CLARK** Melroe  
Division

**BC-O-642**

**CORRECT**



⚠ Always fasten your seat belt.

**CORRECT**



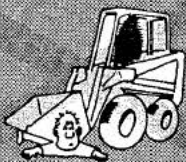
⚠ Leave protective guards on the machine.

**CORRECT**



⚠ When learning to operate, be careful. Go slow.

**WRONG**



⚠ Always lower the bucket and shut off engine before leaving the seat.

**WRONG**



⚠ Do not offer rides to others.

**! WARNING**

Operators must have instructions and be qualified before operating this loader.

**DO NOT OPERATE BOBCAT WITHOUT INSTRUCTIONS!**

- ⚠ Always fasten your seat belt!
- ⚠ Do not operate the loader without using seat bar and seat belt and operator guard!
- ⚠ Look out for trenches, holes and hillsides!
- ⚠ Watch out for other people! Keep them out of the way!
- ⚠ Keep load low when traveling, turning or changing speed!
- ⚠ Do not get off the Bobcat when lift arms are up!
- ⚠ Stop engine and lock brake before removing seat belt and getting off the Bobcat!
- ⚠ Load, unload or turn around on flat, level ground only!

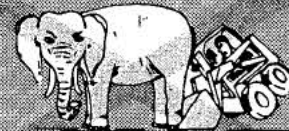
### SAFETY EQUIPMENT

Your Bobcat Loader must be equipped with these safety items for your protection. Take care of them, and inspect their condition often.

1. **Seat Belts:** Check seat belts for frayed or cut webbing, damaged buckles or loose mounting brackets.
2. **Operator Guard:** Check operator guard for damage. Be sure fasteners are in place correctly.
3. **Operating Lights (Optional):** Inspect working condition of all lighting.
4. **Parking Brake:** Check operation of parking brake.
5. **Safety Treads:** Keep safety treads clean. Replace them if they become worn or come off.
6. **Fire Extinguisher (Optional):** Check fire extinguisher for full contents and seal.

⚠ Safety Alert Symbol

**WRONG**



⚠ Do not exceed rated load capacity.

**WRONG**



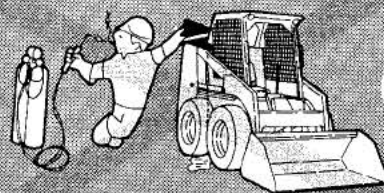
⚠ Always carry the bucket low.

**WRONG**



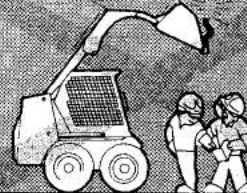
⚠ Do not use loader in atmosphere with explosive dusts or gases.

**WRONG**



⚠ Do not fill the fuel tank with the engine running, while smoking or when near an open flame.

**WRONG**



⚠ Always use lift arm stops, blocks or other supports.

## SAFETY INSTRUCTIONS

### SAFETY IS YOUR RESPONSIBILITY

We care about your safety.

The Bobcat loader is designed to give maximum operator safety; but no machine design can prevent operator error or carelessness.

### BEFORE YOU OPERATE THE BOBCAT LOADER



B-3926

This Operator's Manual was written to give the owner/operator instructions on the safe operation and maintenance of the Bobcat loader. READ AND UNDERSTAND THIS OPERATOR'S MANUAL BEFORE YOU OPERATE YOUR BOBCAT. If you have any questions, see your local Bobcat dealer.

Make sure your Bobcat loader is in good operating condition.

Check all of the items on the Service Schedule under the 8 - 10 hour column.



For your safety, warnings are on the loader and in the manual. Failure to follow these warnings can cause injury or death.



This notice shows important procedures which must be followed to prevent damage to the loader.

[illegible]



# FOREWORD

This book is written to give the owner/operator necessary operating, servicing and preventive maintenance instructions for the Model 642 Bobcat loader.

Read this manual completely and know the loader before operating and servicing it. To find a section, put thumb on the tab and turn pages until correct section is reached.

For any extra information needed, see your Bobcat dealer.

Do not do any service procedures that are not in the OPERATOR'S MANUAL! Only service personnel that have had training in service of the Bobcat loader can do these service procedures.

If extra Parts Books, Service Manuals or Operator's Manuals are needed, they are available through the Bobcat dealer in your area for an added cost.

## CONTENTS

DECALS . . . . .	55
GENERAL INFORMATION . . . . .	61
MAJOR PARTS . . . . .	43
OPERATING INSTRUCTIONS . . . . .	1
PREVENTIVE MAINTENANCE . . . . .	19
TROUBLESHOOTING . . . . .	39

## REFERENCE INFORMATION

Write the correct information for YOUR Bobcat in the spaces below. Always use these numbers when referring to your Bobcat loader.

Bobcat Model . . . . .	_____
Bobcat Serial Number . . . . .	_____
Engine Serial Number . . . . .	_____
	_____
	_____
	_____

NOTES: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

YOUR BOBCAT DEALER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

**OPERATING  
INSTRUCTIONS**

**PREVENTIVE  
MAINTENANCE**

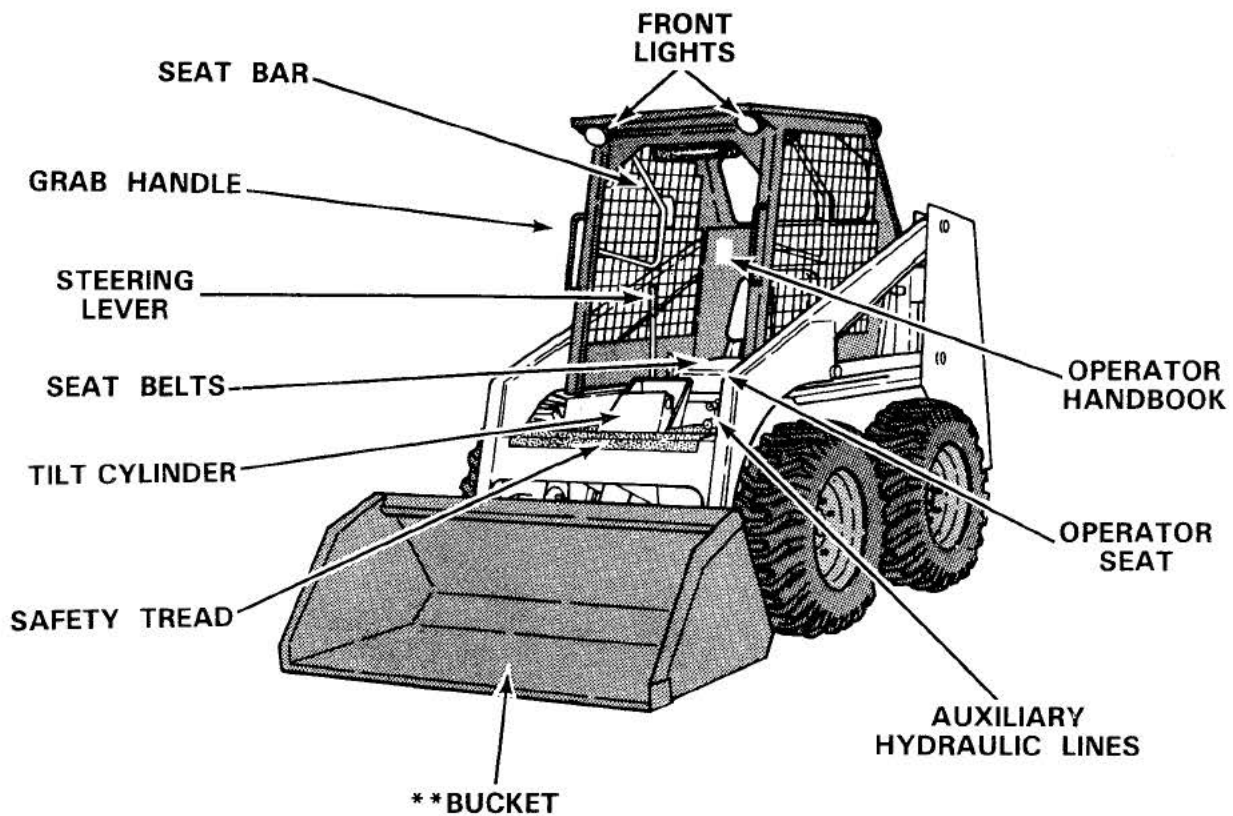
**TROUBLE—  
SHOOTING**

**MAJOR  
PARTS**

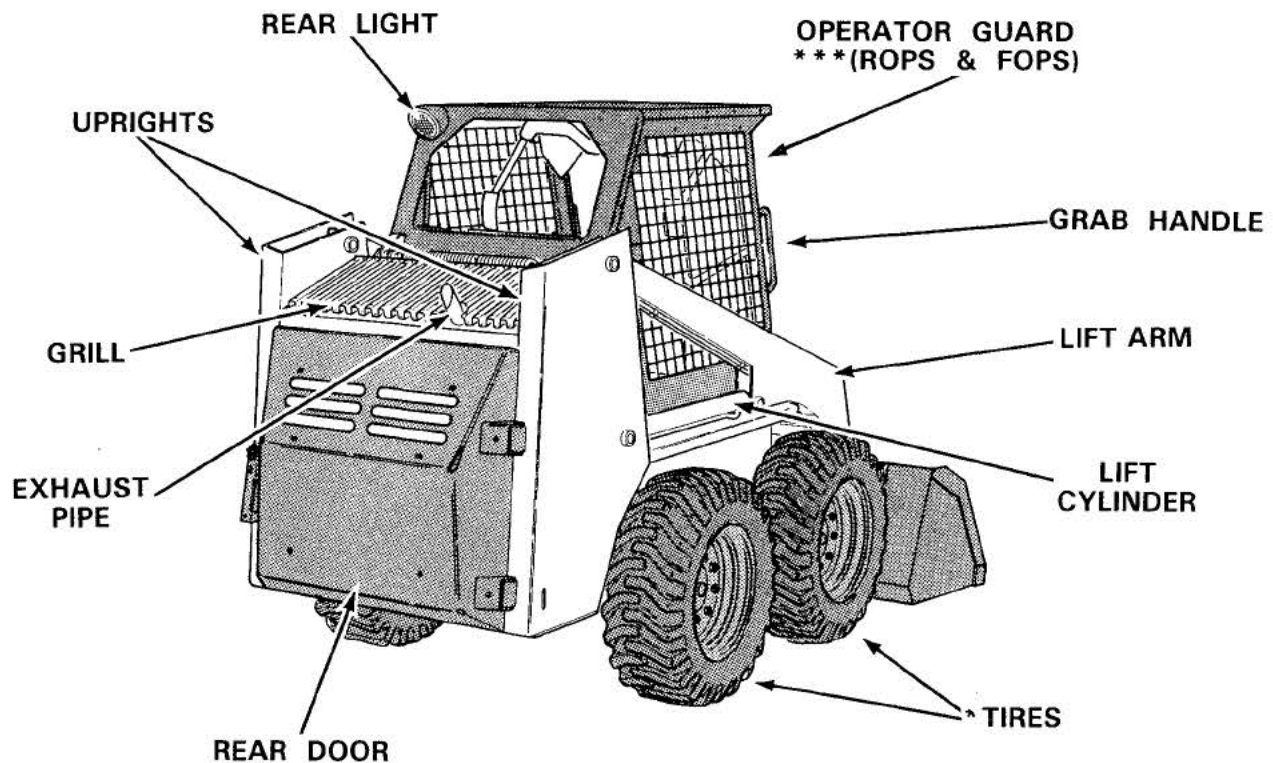
**DECALS**

**GENERAL  
INFORMATION**

## 642 BOBCAT LOADER IDENTIFICATION



B-3817



C-2597

- \* TIRES — Flotation (Optional) tires are shown. Bobcats are base-equipped with standard tires.
- \*\* BUCKET — Several different buckets and other attachments are available for the Bobcat loader.
- \*\*\* ROPS, FOPS — Roll-Over Protective Structure, Falling Object Protective Structure.

## OPERATING INSTRUCTIONS

## OPERATING INSTRUCTIONS

BEFORE YOU START THE ENGINE .....	7
BOBCAT LOADER OPERATION .....	10
CHOKE CONTROL .....	4
CONTROLS .....	2
DASH PANEL .....	4
HYDRAULIC CONTROLS .....	6
LIFT ARM STOP .....	16
LIFTING THE OPERATOR GUARD .....	17
LOWERING THE OPERATOR GUARD .....	17
OPERATING INSTRUCTIONS .....	1
OPERATING PROCEDURE .....	12
PARKING BRAKE .....	4
STARTING THE ENGINE .....	8
STEERING LEVERS .....	5
STOPPING THE BOBCAT LOADER .....	15
STOPPING THE ENGINE .....	4
TRANSPORTING THE BOBCAT LOADER .....	15
THROTTLE CONTROL .....	4

[illegible]



## OPERATING INSTRUCTIONS

DO NOT operate the Bobcat loader until you have read this operator's manual completely.

Instructions for operating the Bobcat loader with safety and efficiency are given on the following pages.

Carefully follow these instructions to take advantage of the Bobcat loader's design.

You must remember operator safety at all times while you operate the loader.

Read the safety instructions inside the front cover of the operator's manual.

It is important that you use the following procedures when you operate the loader.

1. Use the safety treads and grab handles when you get on or off the loader (Fig. 1).

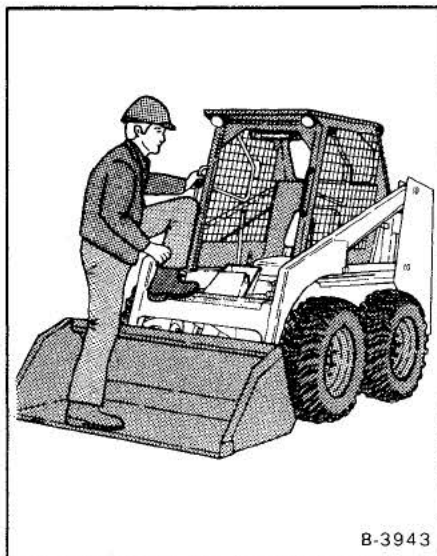


Fig. 1 Safety Treads & Using Grab Handles

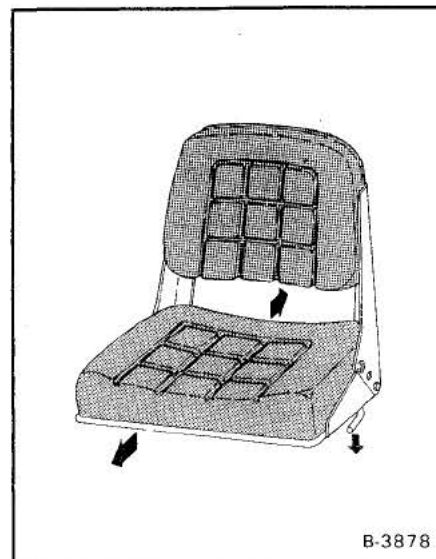


Fig. 2 Seat Adjustment

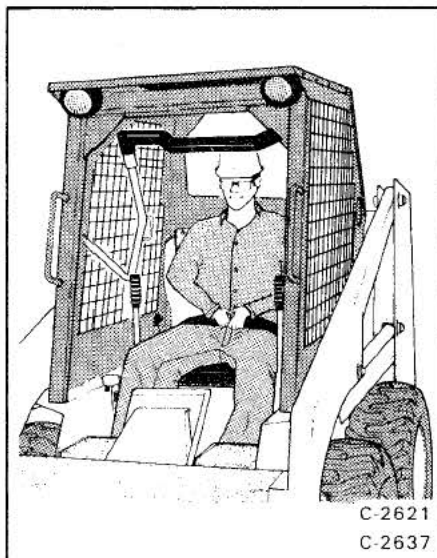


Fig. 3 Fasten Seat Belt

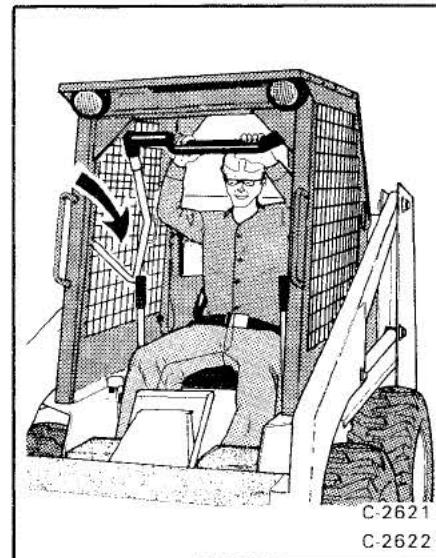


Fig. 4 Lower Seat Bar

## WARNING

Remember to stop the engine, engage the parking brake and lower the lift arms before you get off the loader.

2. Adjust the seat position for easy operation of the loader (Fig. 2). Adjust and fasten the seat belt (Fig. 3) and lower the seat bar (Figs. 4, 5 and 6). Check that the parking brake is engaged before you start the engine.

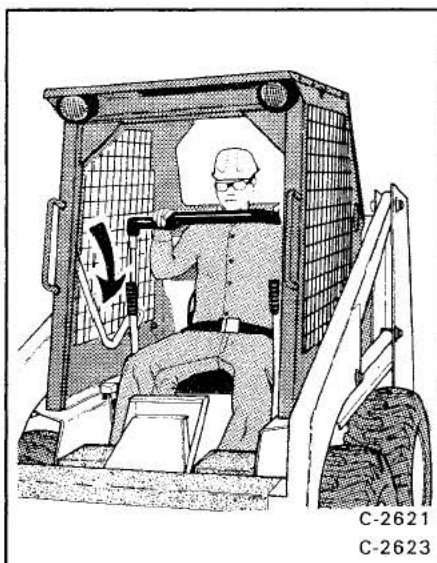


Fig. 5 Lower Seat Bar

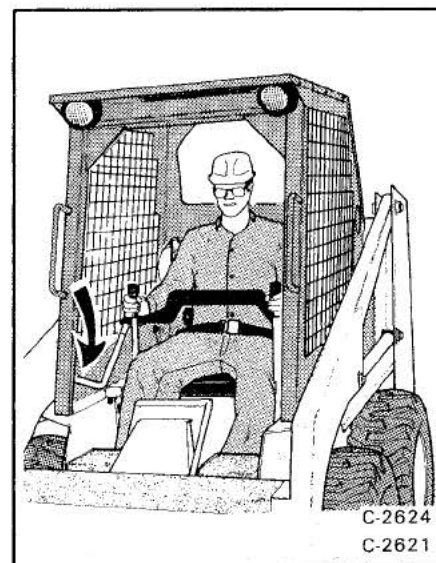


Fig. 6 Seat Bar Lowered

3. All controls must be in the neutral position before you start the engine (Seat bar lowered and parking brake engaged).
4. Keep personnel away from the work area while you are operating the loader.
5. Fully lower the lift arms and bucket, stop the engine and engage the parking brake before you leave the seat.
6. DO NOT fill the fuel tank until after the engine is stopped and is cool. The area must have good ventilation and be free of sparks or open fire (Fig. 7).

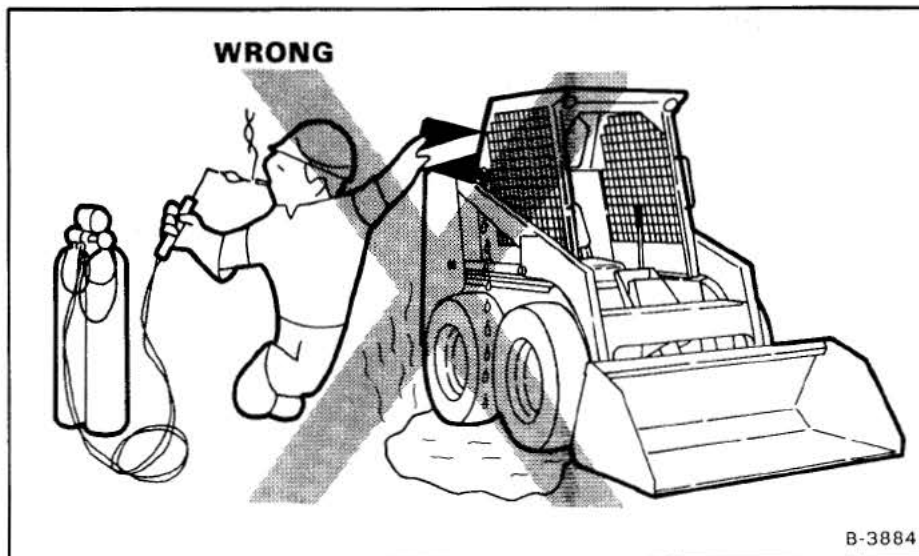


Fig. 7 Fuel Fill

7. Follow the instructions on all the safety signs (Decals) that are on the Bobcat loader in the locations shown in figure 8. You must replace any damaged safety signs (Decals) that are not in the correct locations. Safety signs (Decals) are available from your Bobcat dealer.
8. Before operating the Bobcat loader you must do the following:
  - a. Make sure that the OPERATOR HANDBOOK (Fig. 8) P/N 6566014 is on the Bobcat loader and is read by the operator.
  - b. Read the Operator's Manual.

## CONTROLS

All of the controls for operation the Bobcat loader are in easy reach of the operator.

Learn the location and the action of all the instruments on the dash panel.

Learn the action of the steering controls.

The Bobcat has a seat belt and a seat bar. When the seat bar is raised the hydraulic pedals are in a locked position.

**! WARNING**

Do not operate the Bobcat without lowering the seat bar, fastening the seat belt and keeping feet on the control pedals.

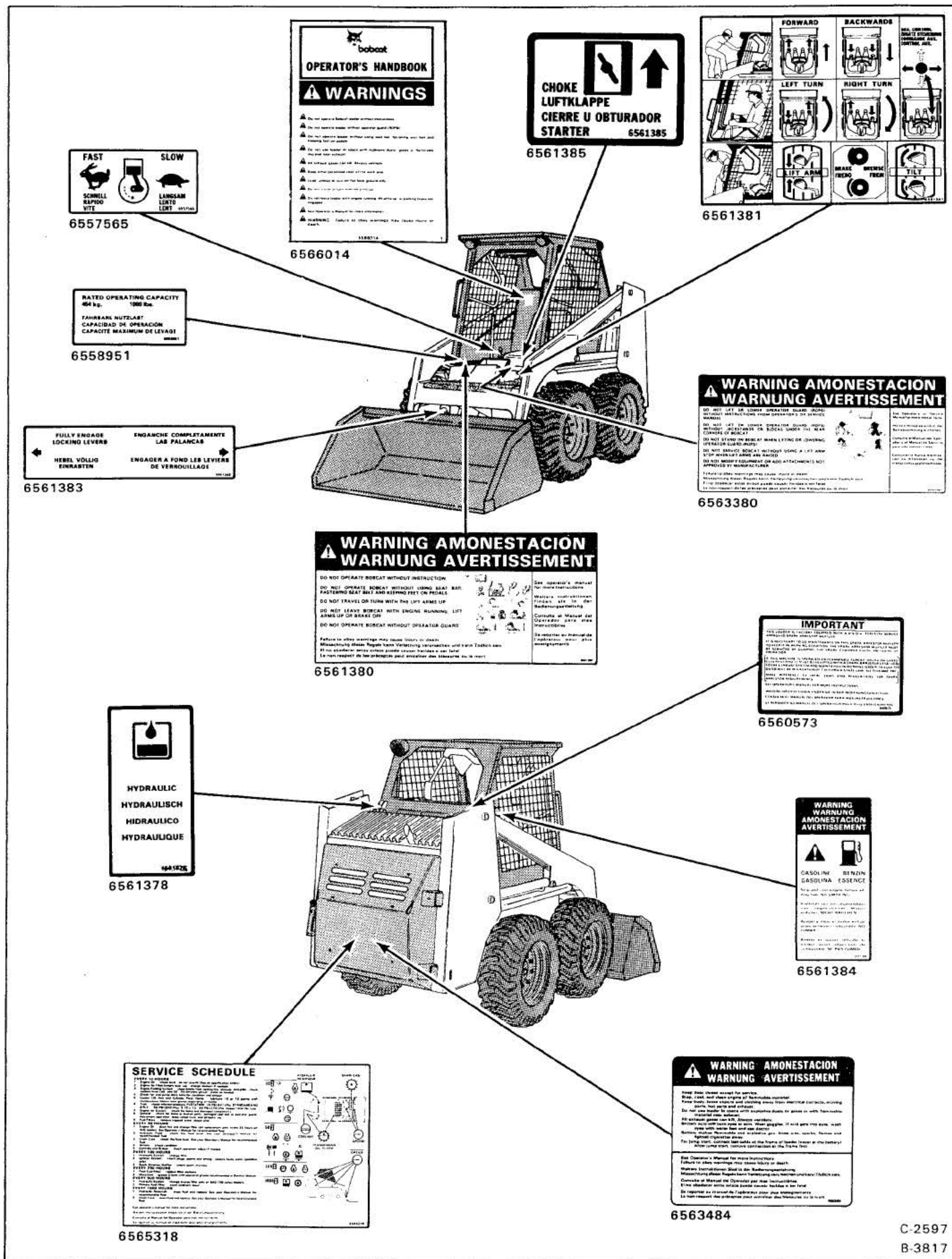


Fig. 8 Decal Locations

## DASH PANEL

The dash panel has the following instruments (Fig. 9):

1. HOURMETER — Records the total operating hours of the loader.
2. KEY SWITCH — For starting and stopping the engine.
3. VOLTMETER — Shows the condition of the battery and the rate of charge.
4. FUSES — To protect the electrical system from electrical overload.
5. FUSES (IGNITION) — To protect the electrical system from electrical overload.
6. ENGINE WARNING LIGHT — Engine coolant is hot or oil pressure is low. Stop the engine if this light comes on and check for the cause of the problem.
7. TRANSMISSION WARNING LIGHT — Low transmission charge pressure or high oil temperature. Stop the engine if this light comes on and check for the cause.
8. WIPER SWITCH (OPT.) — To switch the wipers "ON" and "OFF".
9. LIGHT SWITCH — Controls the work and travel lights.
10. FUEL GAUGE — Shows the amount of fuel in the fuel tank.
11. ENGINE TEMPERATURE GAUGE — Shows the engine coolant temperature.

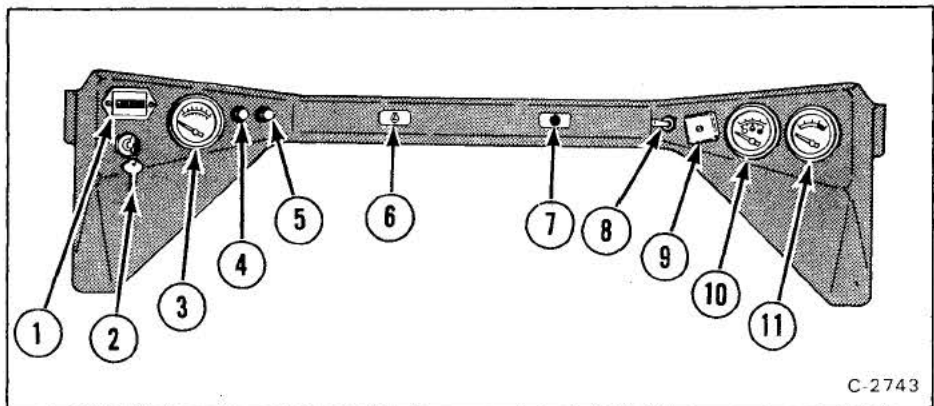


Fig. 9 Dash Panel

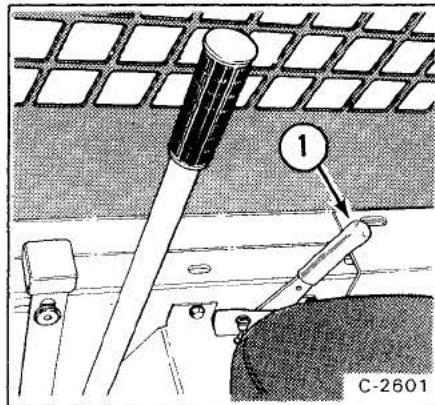


Fig. 10 Throttle Control

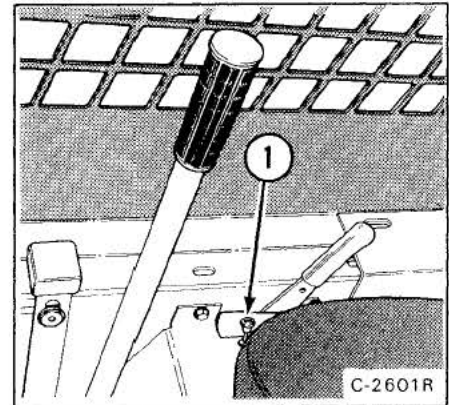


Fig. 11 Choke Location

## THROTTLE CONTROL

The throttle control is at the right side of the operator's seat (Fig. 10, Item 1). Engine RPM is controlled by moving the throttle forward to increase the engine RPM and backwards to decrease the engine RPM.

## CHOKE CONTROL

The choke control is on the left hand side on the transmission panel (Fig. 11, Item 1). Pull up on the lever to engage and push down to release the choke.

## STOPPING THE ENGINE

Pull the throttle fully backwards and idle the engine for several seconds. Turn the key to off position.

## PARKING BRAKE

The parking brake (Fig. 12) is engaged by pushing down on the top (toe) of the pedal into locked position. To release the parking brake push down on the bottom (heel) of the pedal (Fig. 12).

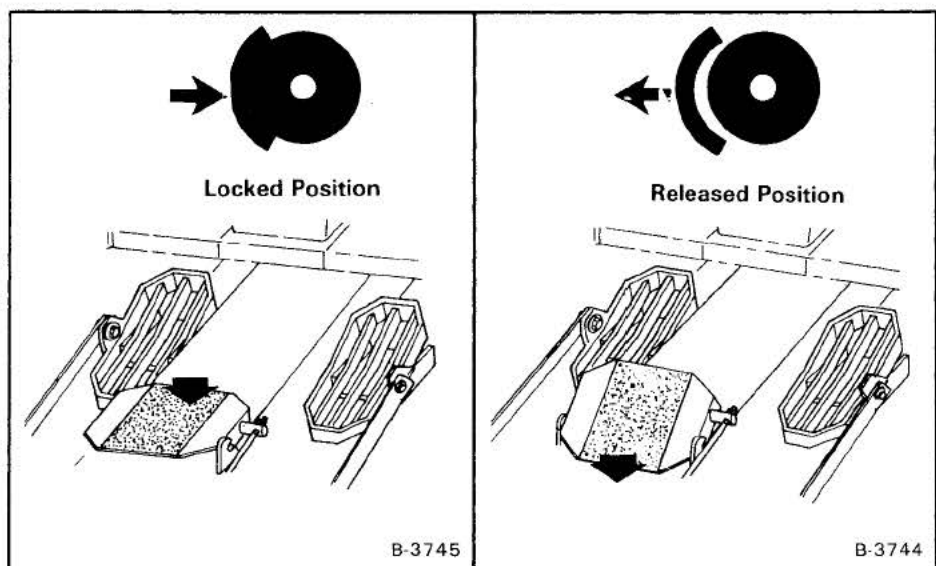


Fig. 12 Parking Brake



# **WARNING**

Remember to stop the engine, engage the parking brake and lower the lift arms before you get off the loader.

## **STEERING LEVERS (Fig. 13)**

The location of the steering levers is on the right and left side in front of the seat (Fig. 15, Item 6).

When you engage the levers do it slow because only a small movement of the levers is necessary to move the loader.

The steering levers control forward and reverse travel and turning of the loader (Fig. 13).

### **Forward Travel**

Push both levers forward (A).

### **Reverse Travel**

Pull both levers backwards (B).

### **Normal Turning**

Move one lever farther forward than the other (C & D).

### **Fast Turning (Pivot Spin)**

Push one lever forward and pull the other lever backward (E & F).

For maximum power and slow travel speed, push the levers forward only a small amount.

To increase the travel speed, push the levers farther forward.

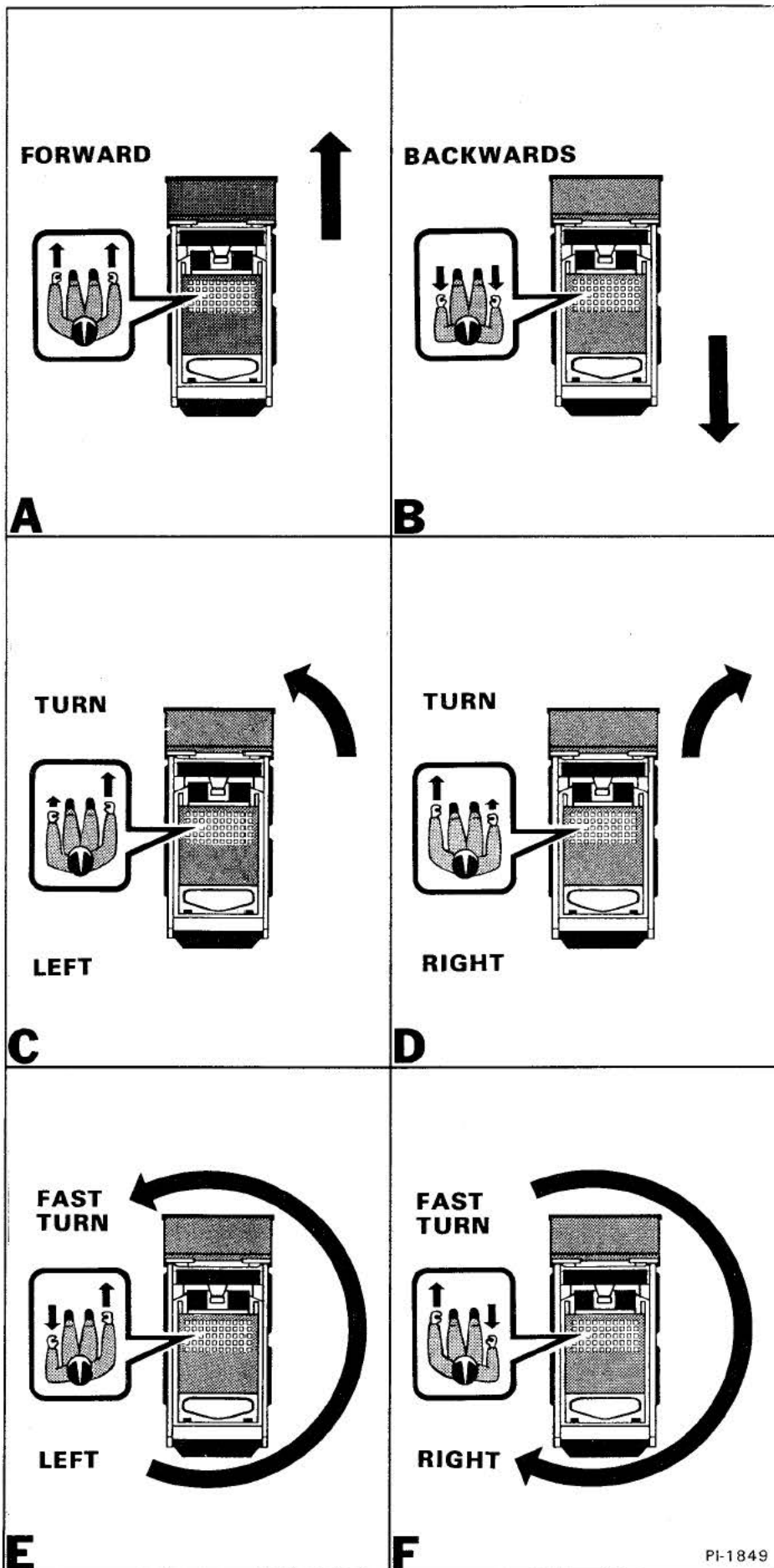


Fig. 13 Operator's Steering Procedures

# ! WARNING

Always keep feet on the foot pedal controls while operating the Bobcat loader.

## HYDRAULIC CONTROLS

### Foot Pedals (Hydraulic)

Put your feet on the pedals and **KEEP THEM THERE** any time you operate the loader (Fig. 14).

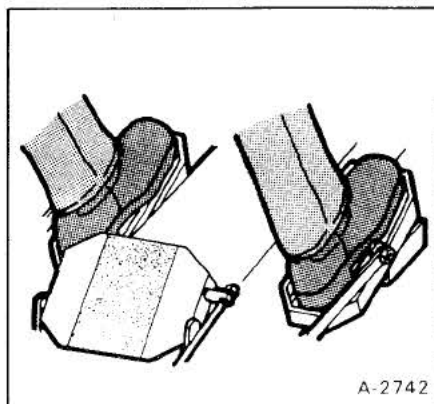


Fig. 14 Feet on Pedals

Two foot pedals control the hydraulic cylinders for the tilt function and the lift arms (Fig. 15, Item 1).

### Lift Arm Operation

The left pedal controls the lift arms. Pushing on the bottom (heel) of the pedal raises the lift arms (Fig. 15, Item 2). Pushing on the top (toe) of pedal lowers the lift arms (Fig. 15, Item 3).

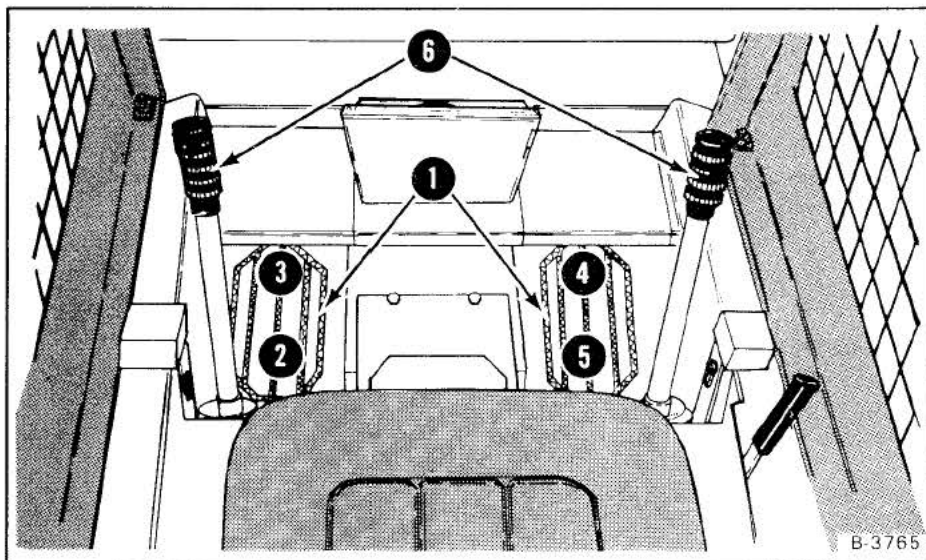


Fig. 15 Drive & Hydraulic Controls

### Float Position

Pushing the top (toe) of the lift pedal (Fig. 15, Item 3) all the way forward until the pedal is in locked position puts the lift arms in a "float" position. The bucket will follow the ground as the loader moves backward.

### Tilt (Bucket) Operation

The right pedal controls the tilting action of the Bob-Tach (Example: When using attachments such as buckets and forks). Push the top (toe) of the pedal to tilt the Bob-Tach forward (Fig. 15, Item 4). Push the bottom (heel) of the pedal to tilt the Bob-Tach backward (Fig. 15, Item 5).

**NOTE:** Remove the bolt used to lock the auxiliary lever during shipment before you use the auxiliary (See Page 36, Fig. 79).

### Auxiliary Lever

The right steering lever is also the control lever for the auxiliary hydraulic system (Fig. 16). Move the lever to the left or to the right to activate auxiliary and to operate an attachment (Example: To open the grapple teeth). Move the lever in the opposite direction to reverse the action of the attachment. Move the lever farther to the right to put the valve into "detent" position. This will give a constant flow of oil to the attachment such as a backhoe.

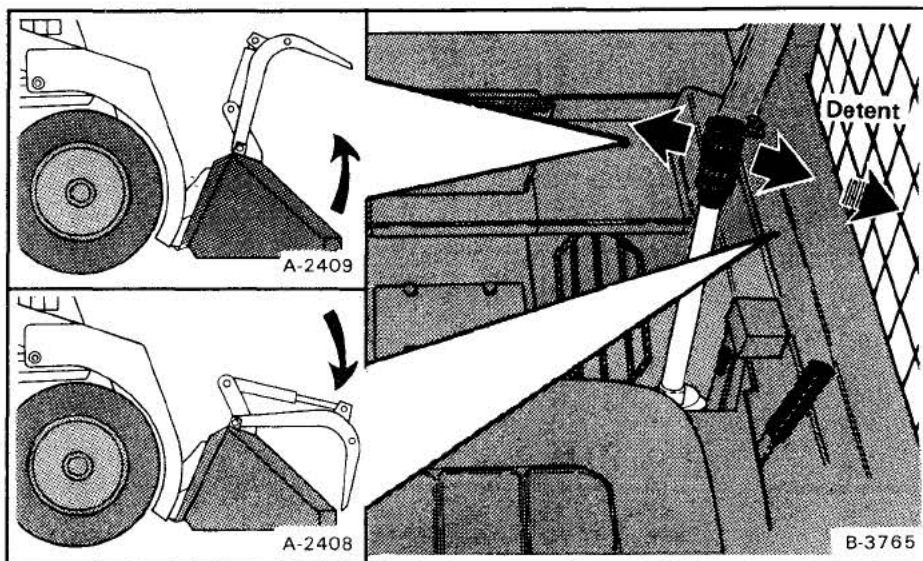


Fig. 16 Auxiliary Control (Detent)

### BEFORE YOU START THE ENGINE

Check all items shown under "EVERY 10 HOURS" on the Service Schedule Decal (Fig. 17) and checklist (Fig. 18).

## SERVICE SCHEDULE

### EVERY 10 HOURS

1. Engine Oil — check level—do not overfill (See oil specification below).
2. Engine Air Filter (empty dust cap—change element if needed).
3. Engine Cooling System — clean debris from cooling fins, shrouds, and grills—check coolant level cold, add 50–50 ethylene glycol—water as needed.
4. Check fan and pump drive belts for condition and tension.
5. Loader Lift Arm and Cylinder Pivot Points — lubricate 10 or 12 points with multipurpose lithium base grease depending on loader.
6. Tires — check inflation pressure, FLOTATION - 35 PSI (241 kPa), STANDARD AND 8 PLY - 50 PSI (340 kPa), 5.70 x 12 - 40 PSI (275 kPa), inspect tires for cuts.
7. Engine Air System — check for leaks and damaged components.
8. General — check for loose or broken parts, damaged seat belt or operator guard, instrument operation, loose wheel nuts, and oil leaks, etc.
9. Fuel Filters — remove trapped water (diesel only).

### EVERY 50 HOURS

1. Engine Oil — drain hot and change filter (oil replacement only, every 25 hours on 440 loader). See Operator's Manual for recommended fluid.
2. Hydraulic Fluid — check the fluid level. See your Operator's Manual for recommended fluid.
3. Chain Case — check the fluid level. See your Operator's Manual for recommended fluid.
4. Battery — check condition.
5. Controls and Brakes — check operation, adjust if needed.

### EVERY 100 HOURS

1. Hydraulic System — change filter.
2. Ignition System — check plugs, points and timing—replace faulty parts (gasoline only).
3. Spark Arrestor Muffler — empty spark chamber.

### EVERY 250 HOURS

1. Final Fuel Filter — replace filter element.
2. Drive Line — grease U-joint with approved grease recommended in Service Manual.

### EVERY 500 HOURS

1. Hydraulic System — change bronze filter only on 640-740 series loaders.
2. Primary Fuel Filter — clean sediment bowl.

### EVERY 1000 HOURS

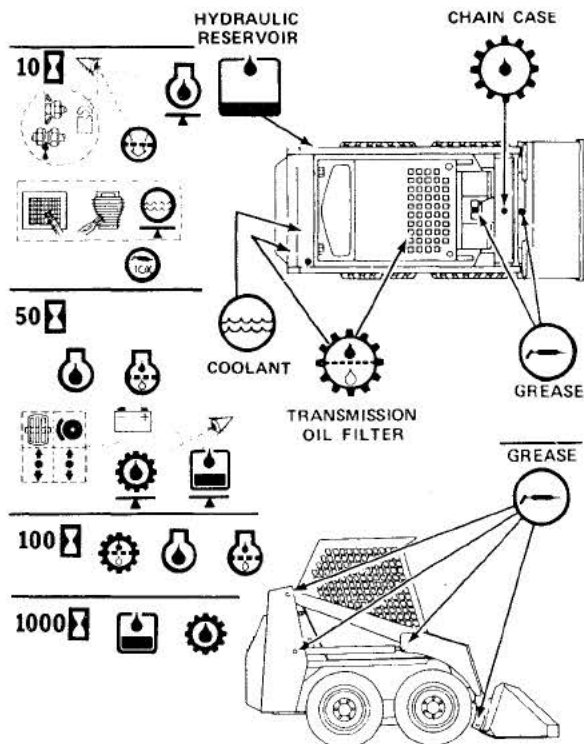
1. Hydraulic Reservoir — drain fluid and replace. See your Operator's Manual for recommended fluid.
2. Chain Case — drain fluid and replace. See your Operator's Manual for recommended fluid.

See operator's manual for more instructions.

Weitere instruktionen finden sie in der Bedienungsanleitung.

Consulta el Manual del Operador para mas instrucciones.

Se reporter au manuel de l'opérateur pour plus enseignements.



6565318

Fig. 17 Service Schedule

# IMPORTANT

Always let the engine warm completely before you begin operation for each day.

## STARTING THE ENGINE

# ! WARNING

**DO NOT** start the engine unless you are in the seat and have the seat belt fastened around you.

# ! WARNING

When starting your loader in a closed area make sure there is enough ventilation. **EXHAUST FUMES CAN KILL.** If booster cables must be used to start the engine avoid sparks. Battery gas is very explosive (Fig. 19).

# ! WARNING

Loaders with diesel, gasoline or LPG as fuels have hot engine parts and hot exhaust gas with sparks or flames. Electrical systems may have arcs or sparks, at electrical contacts. **DO NOT** use these loaders in atmospheres with explosive dusts or gases or where exhaust can contact flammable materials, unless the Bobcat loader has the correct equipment for these kinds of conditions. Keep flammable material away from the engine parts (Fig. 20).

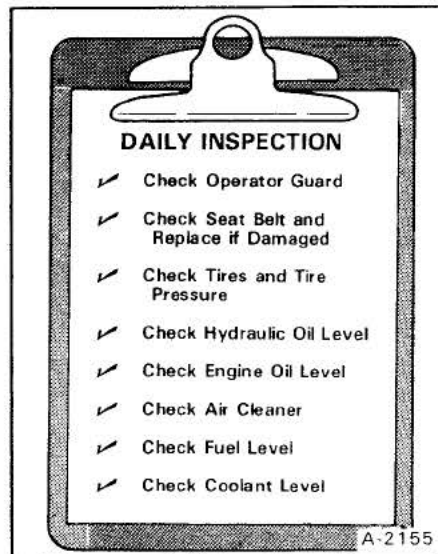


Fig. 18 Inspection Checklist



Fig. 19 Exhaust Conditions

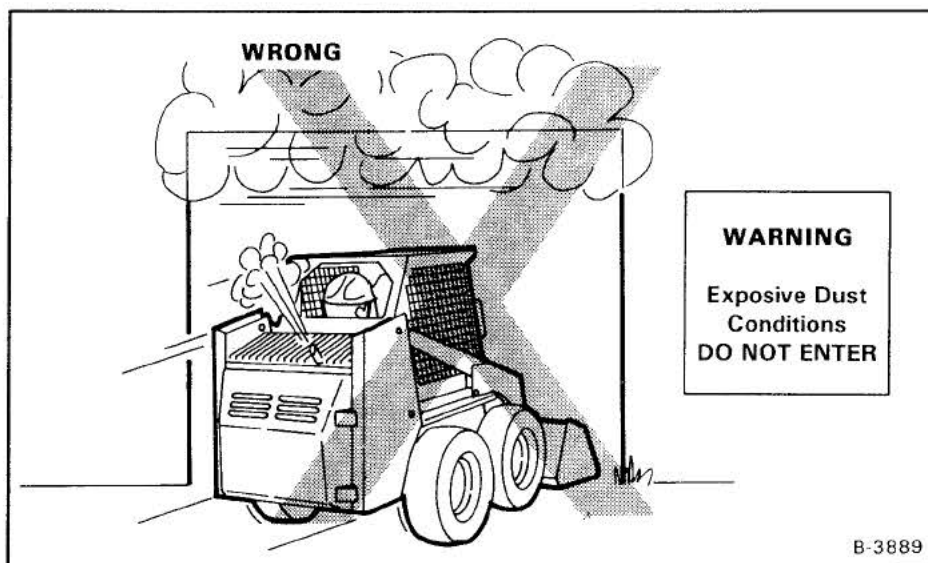


Fig. 20 Explosive Dust Conditions



## Normal Starting Condition

1. Adjust the seat position so that you can reach the controls of the Bobcat loader (Fig. 21). Fasten and adjust the seat belt. Lower the seat bar (Fig. 22). Engage the parking brake.
2. Make sure that the controls are in the neutral "CENTER" position (Fig. 23, Item A).

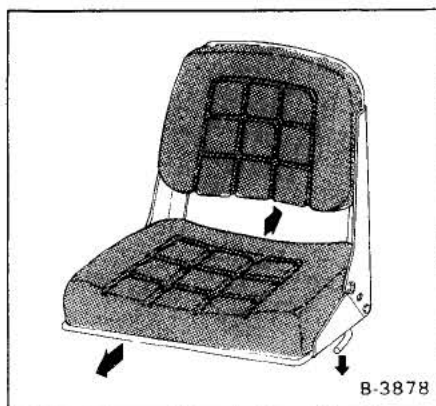


Fig. 21 Adjusting the Seat



Fig. 22 Fastening Seat Belt

3. Put the throttle at 1/2 throttle position (Fig. 23, Item B).
4. Turn the key switch to the "ON" position. Check that the engine and the transmission warning lights are illuminated (Fig. 23, Item C).
5. Turn the key switch to "START" and hold it until the engine starts (Fig. 23, Item D). The engine must start within fifteen seconds. DO NOT run the starter more than fifteen seconds. Let the starter cool for one minute before engaging the starter again.

When the engine has started, the warning light must go off (Fig. 23, Item E). Stop the engine if the warning lights do not go off. Check for the cause of the problem (See the "Troubleshooting" section of this manual).

## Cold Temperature Starting Condition

If the starting temperatures are below 32°F. (0°C.), use the following procedures to make the starting easier:

1. Replace the engine oil with the correct type and viscosity for the anticipated starting temperature (See "Oil Specifications", page 22).
2. Make sure the battery is at full charge.

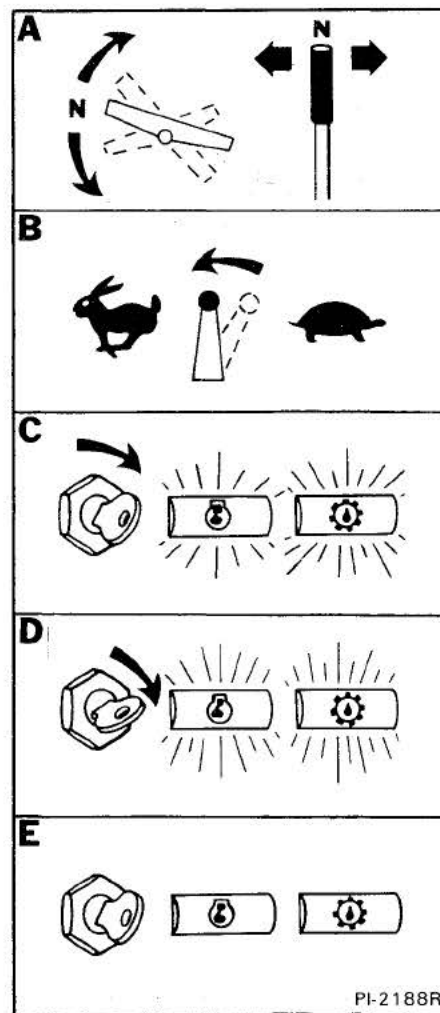


Fig. 23 Starting Procedure

PI-2188R

3. Follow steps 1 through 4 in "Normal Starting Conditions".
4. Engage the choke.
5. Turn the key to "START" and engage the starter (Fig. 23, Item D). The engine must start within fifteen seconds. DO NOT run the start more than fifteen seconds. Let the starter cool for one minute before engaging the starter again.
6. When the engine is running, move the throttle lever forward to increase engine RPM. Check that the warning indicator lamps are NOT ILLUMINATED.
7. Let the engine run for a minimum of five minutes to warm up. This is very important for the hydrostatic transmission. During very cold temperature conditions (0°F. [-23°C.] and below) increase the warm up time. If the transmission warning light becomes illuminated when trying to operate the loader, more warm up time is needed. To warm the oil faster, tilt the Bob-Tach backward and continue holding the bottom (heel) of the tilt pedal down to let oil go over relief pressure.

#### BOBCAT LOADER OPERATION

### **WARNING**

Do not exceed rated operating capacity of the Bobcat loader (Fig. 24).

#### Bucket Size

Use the correct bucket size for the type of material you are working with to get the most efficiency from the Bobcat loader. Many types of buckets are available to fit different applications.

You can cause these problems when you use a bucket of the wrong size:

1. Steering the loader may be difficult.
2. Increased wear of the tires.
3. There will be a loss of stability.
4. Life of the Bobcat loader may be shortened.

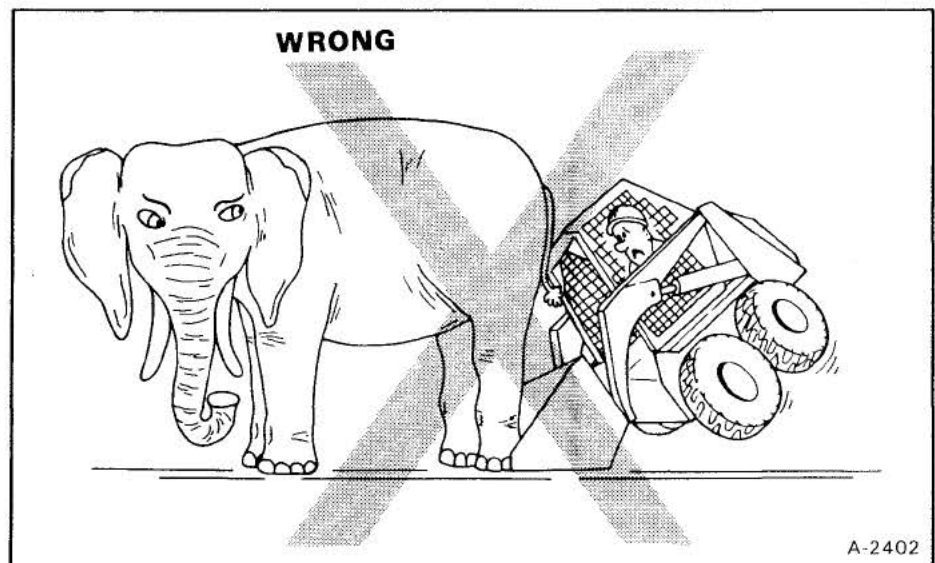


Fig. 24 Excessive Load Capacity

A-2402

## Installation of Attachments

The Bobcat is equipped with a Bob-Tach system. The Bob-Tach is used for fast changing of buckets and attachments.

To install an attachment such as a bucket:

1. Pull up on the two Bob-Tach locking levers.

### **WARNING**

The levers have spring tension! Hold the Bob-Tach levers tightly and release the levers at a slow rate.

2. Tilt the Bob-Tach forward. Drive forward to the bucket until the top edge of the Bob-Tach is under the flange of the bucket and centered (Fig. 25). DO NOT damage the Bob-Tach levers.
3. Tilt the Bob-Tach backward until the bucket is lifted off the ground (Fig. 26). Stop the engine.
4. Push down on the Bob-Tach levers (Fig. 27) until the levers are in the locked position.
5. Check that the wedges (Fig. 28, Item 1) extend through the holes (Fig. 28, Item 2) in the attachment.

## Removal of Attachments

1. Fully lower the lift arms and tilt the Bob-Tach forward so that the front of the bucket is just above the ground. Stop the engine.
2. Pull up on the Bob-Tach levers until they stop.
3. Start the engine and tilt the Bob-Tach forward. Drive the Bobcat loader backwards away from the attachment.

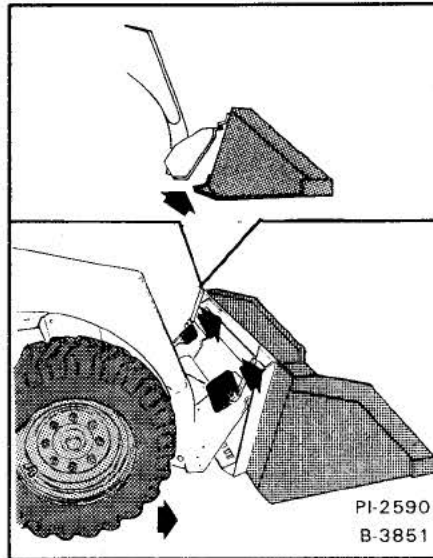


Fig. 25 Installing the Bucket

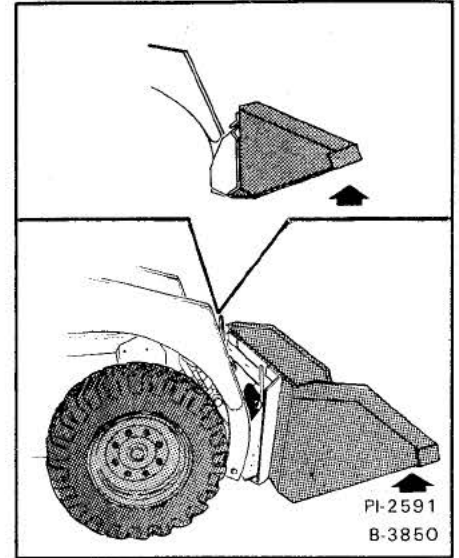


Fig. 26 Lifting Bucket

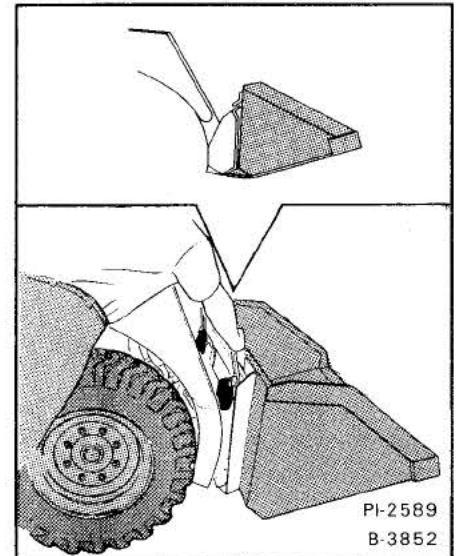


Fig. 27 Locking Bob-Tach Levers

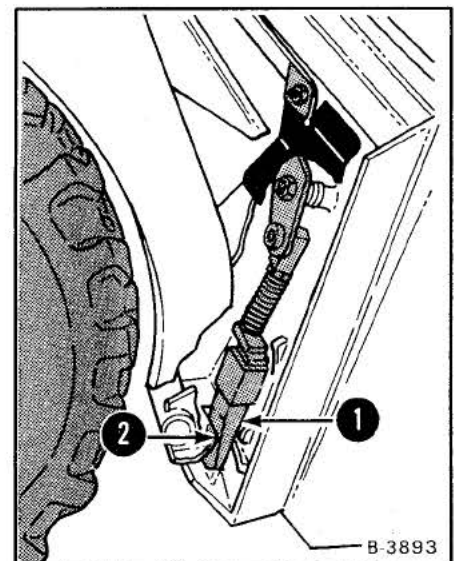


Fig. 28 Locking Wedges

## OPERATING PROCEDURE

1. When you are learning to use the Bobcat, operate the loader at a slow rate.
2. Take advantage of the efficient operation of the compact Bobcat loader. Keep the travel distance as short as possible. Keep the work area small so that the cycle time is short.
3. Keep the work area as level as possible.
4. Fill the bucket to the rated load capacity. You can turn the Bobcat loader better with a rated capacity load than with less than a rated capacity load.
5. Decrease the cycle time by the use of a Fast Turn (See Page 5) rather than a "go backward - go forward" turn.
6. Tilt the bucket as you raise the lift arms or drive up a slope. This will keep the material from falling off the back of the bucket.

### **WARNING**

Always carry the bucket low while driving the Bobcat loader from location to location.

7. Go up and down a slope with the heavy end of the loader toward the top of the slope. Go directly up and down a slope, not across a slope (Fig. 29).

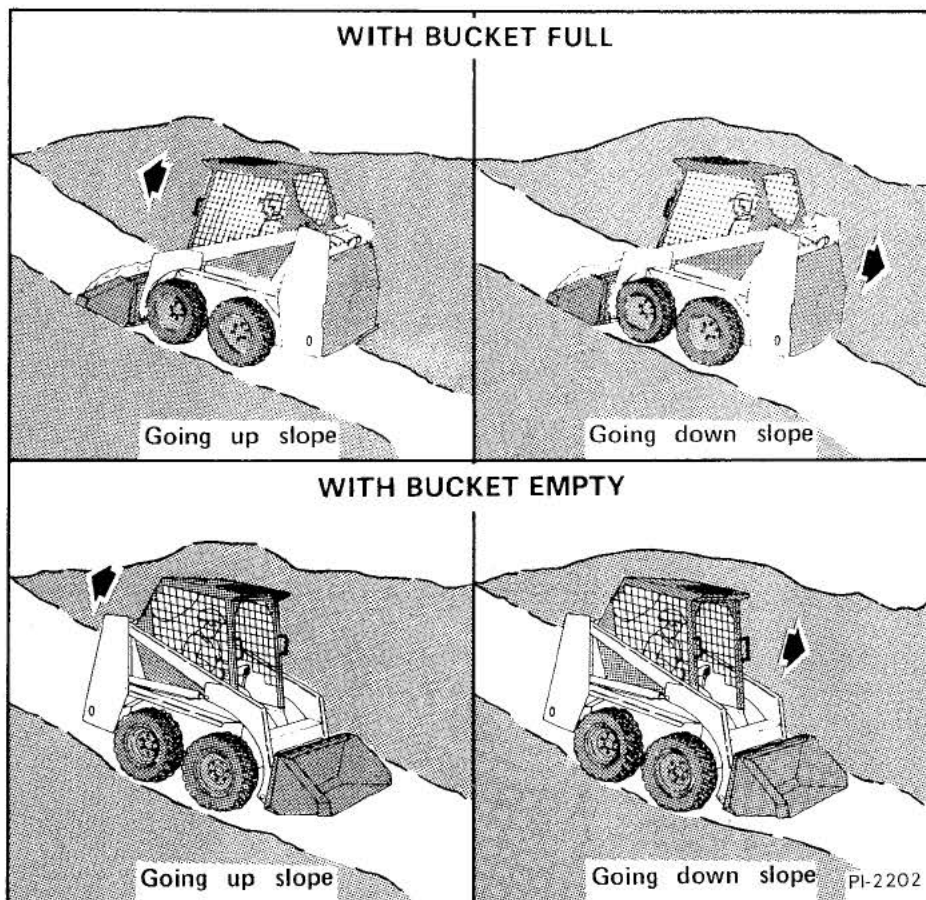


Fig. 29 Slope Conditions



### Filling the Bucket (Fig. 27)

1. Push down on the top of the lift pedal until the lift arms of the Bobcat loader are all the way down. Push the top (toe) of the tilt pedal to put the cutting edge of the bucket on the ground (A).

2. Drive the loader forward at a slow rate into the material and push the bottom (heel) of the tilt pedal to raise the front of the bucket. Drive the Bobcat loader backward away from the material (B).

### To Empty the Bucket (Fig. 30)

1. Push down on the bottom (heel) of the lift pedal to raise the bucket over the truck box or bin (C). Push down on the top (toe) of the tilt pedal small amounts while you raise the lift arms to keep the material from falling off the back of the bucket.

2. Drive the loader forward at a slow rate until the bucket is over the truck box or bin. Push the top (toe) of the tilt pedal until the bucket is empty. If all the material is near the side of the truck box or bin it can be pushed to the other side with the bucket (C).

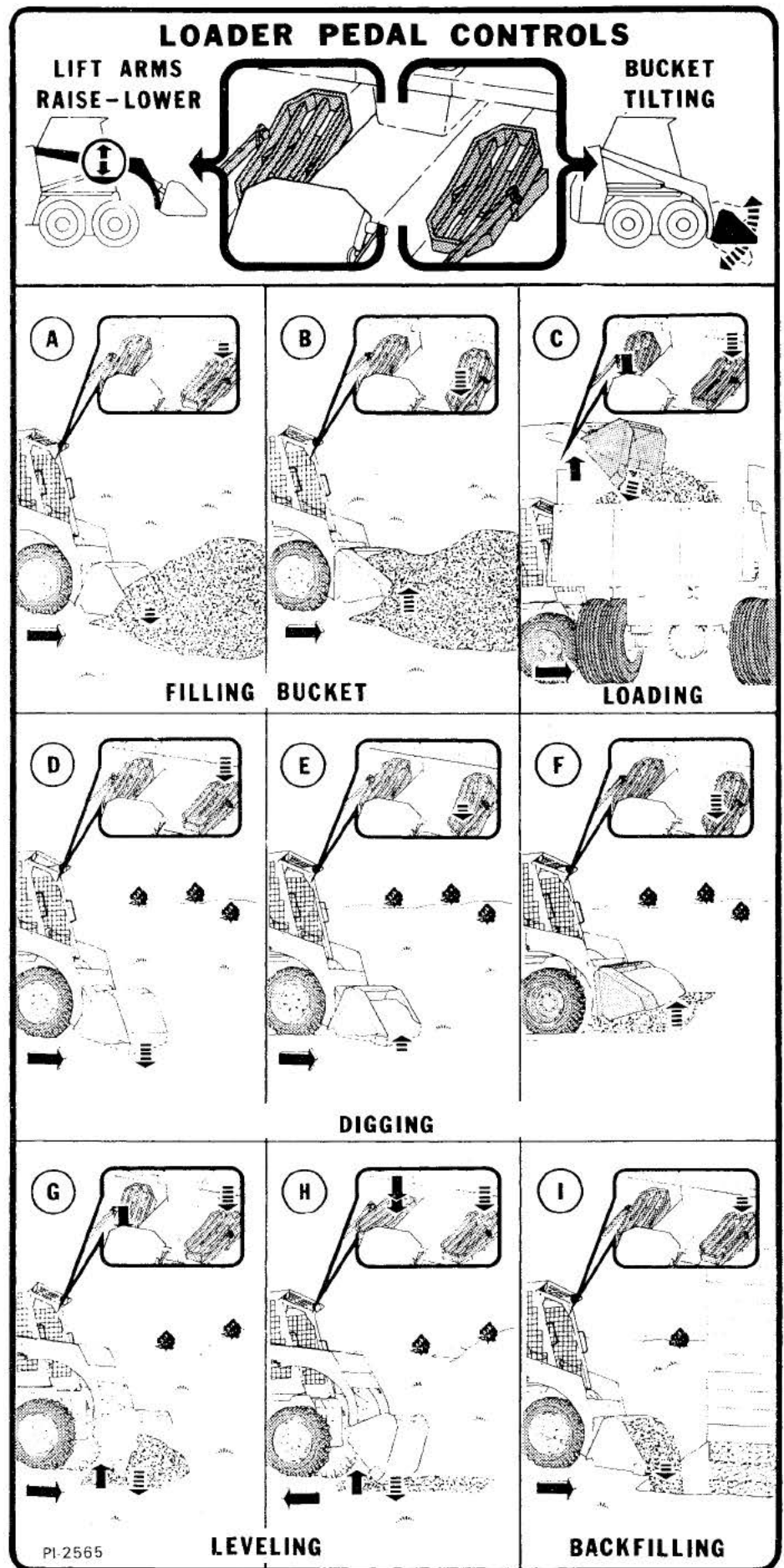


Fig. 30 Hydraulic Controls

### Digging into the Ground (Fig. 30)

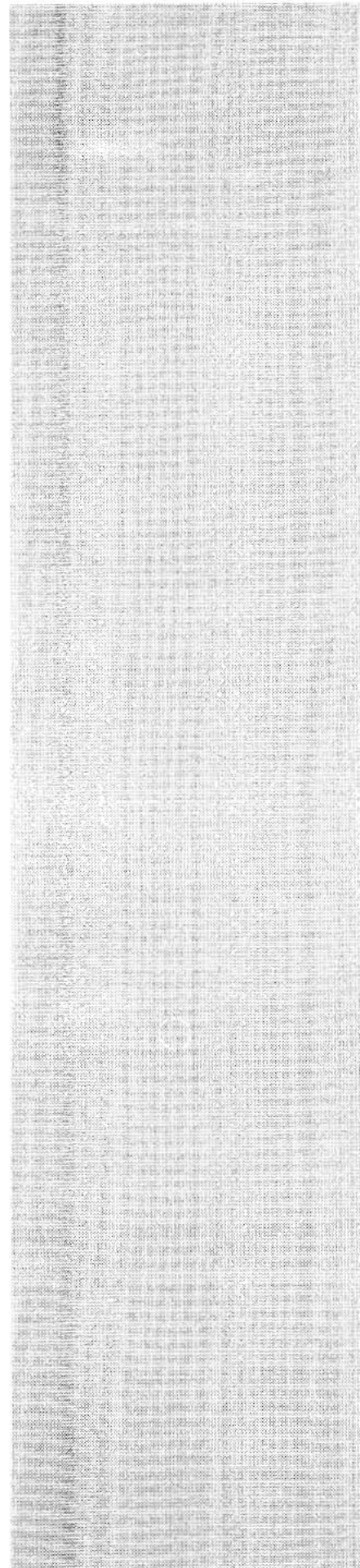
1. Put the lift arms all the way down. Push the top (toe) of the tilt pedal until the cutting edge of the bucket will contact the ground (D).
2. Drive the Bobcat loader forward at a slow rate and continue to tilt the bucket down until it enters the ground (D).
3. Push the bottom (heel) of the tilt pedal a small amount to increase traction and keep an even digging depth (E).
4. Continue to drive the Bobcat loader forward until the bucket is full. When the ground is hard, it is easier to fill the bucket if you raise and lower the cutting edge of the bucket with the tilt pedal while you drive forward at a slow rate.
5. Push the bottom (heel) of the tilt pedal to tilt the bucket backward as far as it will go when the bucket is full (F).

### Making the Ground Level Using Float Position (Fig. 30) (See Page 6 Float Position)

1. To move the material to fill ground that is not level, raise the lift arms and tilt the bucket while you are driving the Bobcat loader forward (G).
2. To make the ground level raise the lift arms and tilt the bucket forward over the ground. Push the top (toe) of the lift pedal until the pedal is in locked position. This will put the lift arms in a "float" position, and the weight of the lift arms and bucket will hold the bucket on the ground. Drive backward to move the material (H).

### Filling a Hole (Fig. 30)

1. When you fill a hole, drive the Bobcat loader up to the hole with the bucket low.
2. Tilt the bucket forward as soon as it is past the edge of the hole (I).
3. When necessary, raise the lift arms to empty the bucket.



## STOPPING THE BOBCAT LOADER

When you are stopping and leaving the Bobcat loader, use the following procedure:

1. Stop the Bobcat loader on level ground.
2. Lower the lift arms all the way and put the edge of the bucket on the ground.
3. Pull the throttle all the way backward and let engine idle several seconds. Turn the key switch to the "OFF" position.
4. Engage the parking brake.
5. Lift the seat bar and disconnect the seat belt.
6. Make sure the hydraulic controls are in locked position when the seat bar is raised.
7. Remove the key from the switch to prevent operation of the Bobcat loader by personnel other than the approved operator.

## TRANSPORTING THE BOBCAT LOADER

Steel ramps are available to be used to load the Bobcat loader onto a transport vehicle. (See your local Bobcat dealer).

### **WARNING**

Use steel loading ramps when loading the Bobcat loader onto a transport vehicle. **DO NOT** use wooden planks.

A loader with an empty bucket or no attachment must be loaded backwards onto the transport vehicle (Fig. 31) (See Page 12).

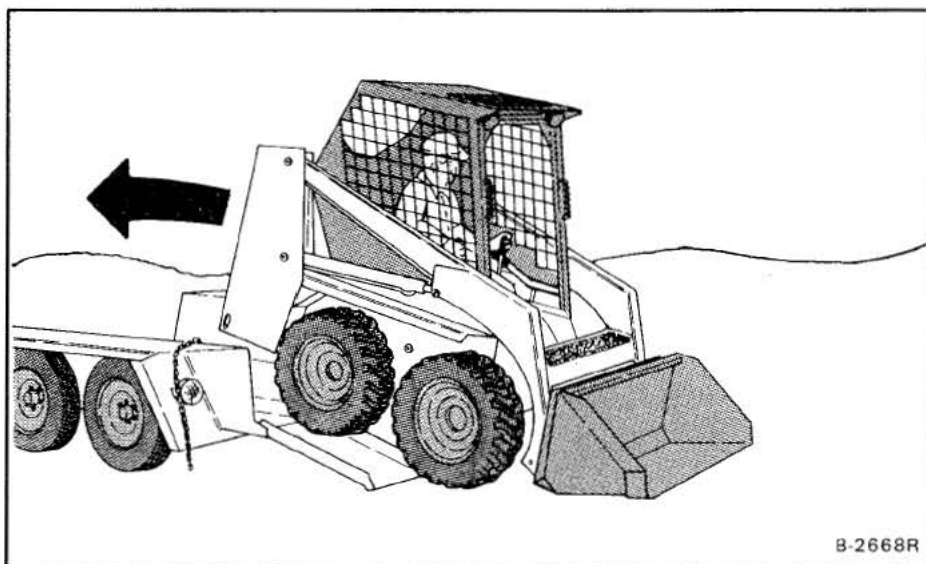
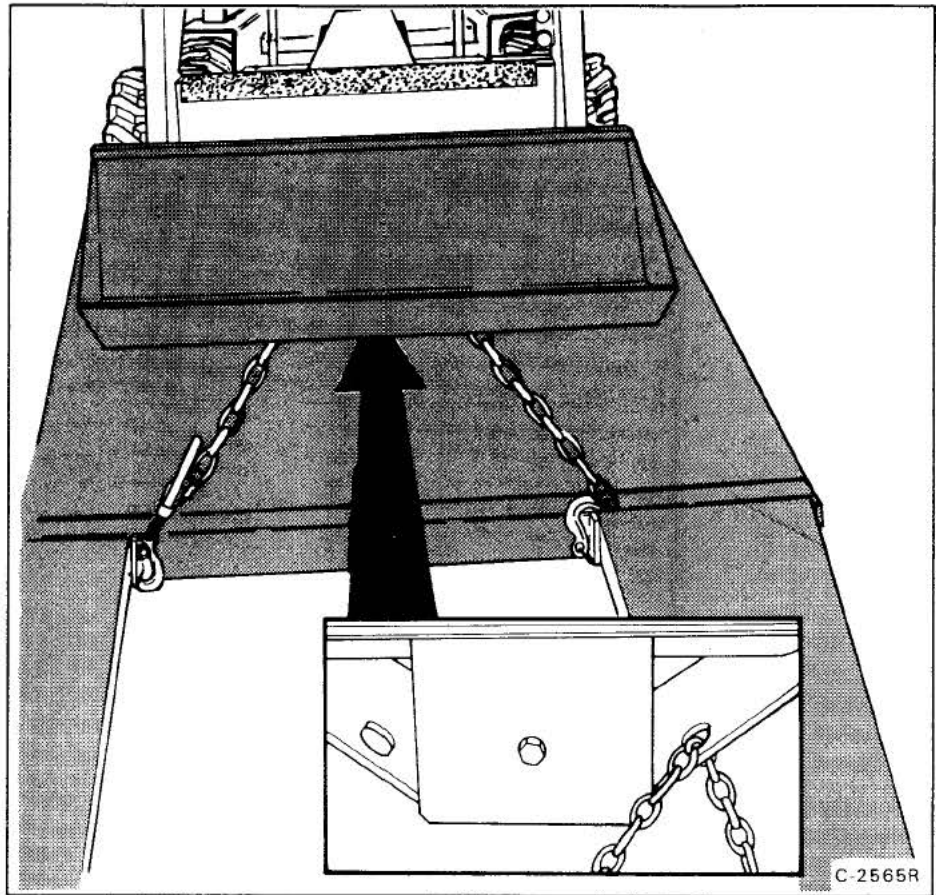


Fig. 31 Loading the Bobcat

After the loader is on the transport vehicle, follow this procedure:

1. Lower the bucket or attachment to the floor and stop the engine.
2. Engage the parking brake.
3. Install chains to hold the Bobcat loader in position to prevent it from moving during sudden stops or when going up and down slopes.
4. Put a chain through the axle gusset and fasten to the Bobcat loader and to the trailer (Fig. 32).
5. Fasten chains, one in each upright cutout, to the loader and to the trailer (Fig. 33).



**Fig. 32** Fastening the Loader

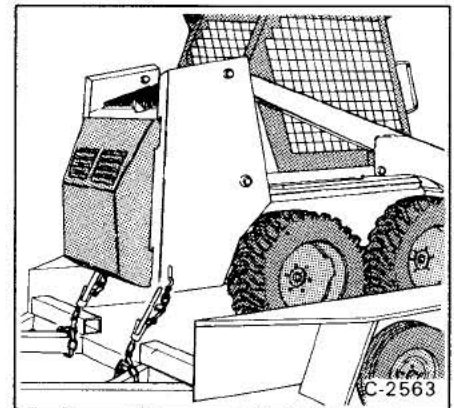
#### LIFT ARM STOP (Fig. 34)

**NOTE:** Lift arm stops are available at your local Bobcat dealer.

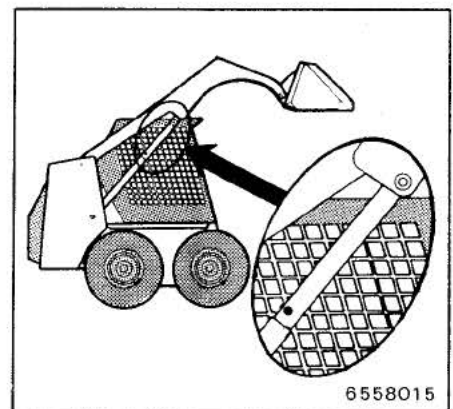
1. Two (2) persons are needed to install the lift arm stop. One person must be in the operator's seat, with the seat belt fastened, until the lift arm stop is installed.
2. Start the engine and raise the lift arms all the way up.
3. Have the second person install the lift arm stop over the rod of one lift cylinder.

**NOTE:** Make sure the lift arm stop is tight against the cylinder rod.

4. Lower the lift arms until the stop is held between the lift arms and the lift cylinder.
5. Stop the engine.



**Fig. 33** Fastening Loader



**Fig. 34** Lift Arm Stop



## LIFTING THE OPERATOR GUARD

### **WARNING**

Do not work on the loader with the lift arms in a raised position without support. Use lift arm stops or other methods.

1. Stop the loader on a level surface.
2. Put the lift arms all the way down.
3. Stop the engine, engage the brake, and disconnect the wiring harness behind the seat (Fig. 35).
4. Put jackstands or blocks under the rear corners of the loader to keep the loader from tipping backwards.
5. Remove the two (2) bolt assemblies (including washers) at the front corners of the operator guard (Fig. 36).
6. Two (2) persons are needed to lift the operator guard. Avoid slippery surfaces when lifting the operator guard.
7. Stand on the ground (one person on each side) and lift the operator guard using the grab handles and the bottom of the guard (Fig. 37 & 38).
8. Lift slowly until the operator guard is all the way up. The operator guard will lock in this position.

## LOWERING THE OPERATOR GUARD

1. Two (2) persons are needed to lower the operator guard. Avoid slippery surfaces when lowering the operator guard.
2. Stand on the ground (one person on each side) and pull down on the operator guard until it contacts the lock mechanism.

### **WARNING**

If the lift arms are raised, reach the ring on the cable from under the lift cylinder. Do not reach between the lift arms and the lift cylinder.

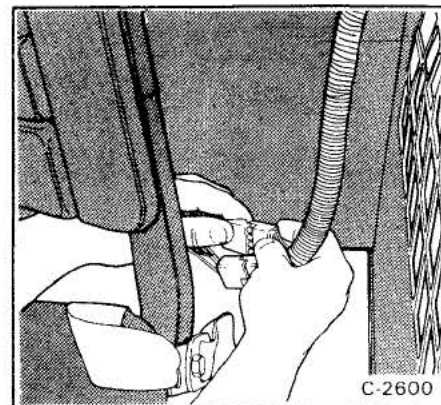


Fig. 35 Electrical Connection

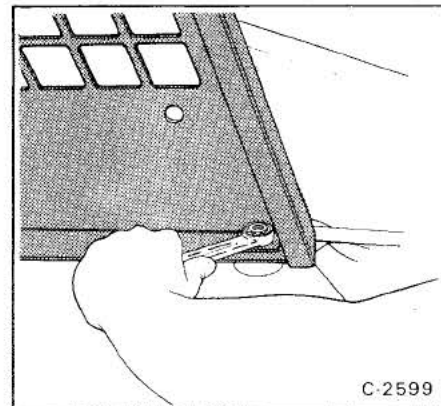


Fig. 36 Operator Guard Bolts

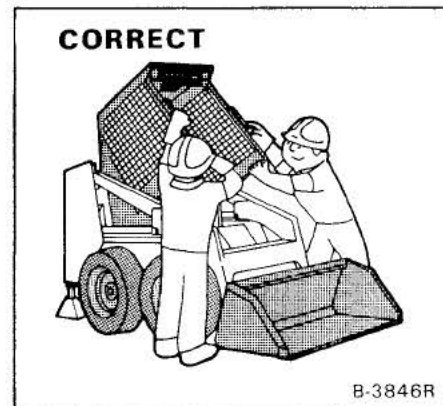


Fig. 37 Raising Operator Guard (Correct)

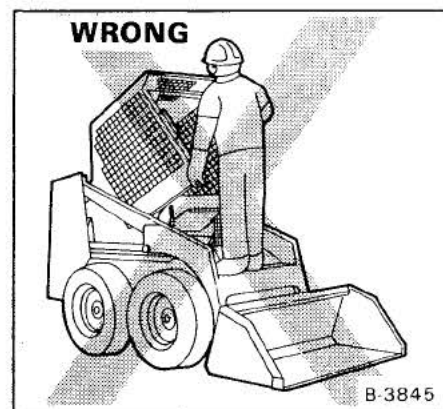
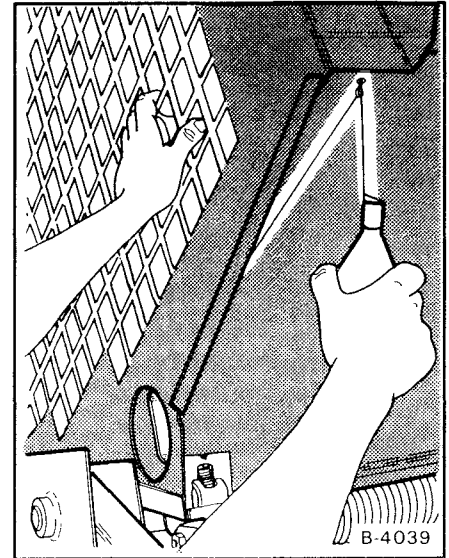


Fig. 38 Raising Operator Guard (Wrong)

3. Pull the cable (Fig. 39) while the second person lifts the operator guard a small amount until the lock mechanism is released.
4. Both persons must slowly lower the operator guard by holding the bottom of the operator guard and the grab handles (Fig. 37).
5. Install the two (2) bolt assemblies (including washers). Tighten the nuts to 40 -50 ft-lbs. (54 - 69 Nm) torque (Fig. 36).
6. Connect the wiring harness behind the seat (Fig. 35).



**Fig. 39** Operator Guard Cable

## PREVENTIVE MAINTENANCE

ADJUSTING DOOR LATCH.....	20
AIR CLEANER SERVICE .....	20
AUXILIARY CONTROL LOCKBOLT.....	36
BOB-TACH.....	36
BRAKE PEDAL ADJUSTMENT.....	36
COOLANT LEVEL .....	23
DELIVERY REPORT.....	37
DRIVE BELTS.....	24
ELECTRICAL SYSTEM .....	25
ENGINE LUBRICATION SYSTEM .....	22
ENGINE SERVICE .....	20
FINAL DRIVE TRANSMISSION (CHAINCASE).....	33
FUEL FILTER .....	22
FUEL SYSTEM.....	21
FUEL SYSTEM SERVICE.....	21
HYDRAULIC/HYDROSTATIC OIL RESERVOIR .....	30
HYDRAULIC SYSTEM.....	30
LUBRICATION OF THE BOBCAT LOADER.....	34
OPERATOR GUARD .....	35
PIVOT PINS.....	36
REMOVING COOLANT FROM COOLING SYSTEM .....	24
REPLACEMENT OF ENGINE OIL & FILTER .....	22
REPLACEMENT OF THE HYDRAULIC FILTER .....	33
SERVICE SCHEDULE .....	19
SPARK ARRESTOR MUFFLER .....	30
THIRTY HOUR INSPECTION .....	37
TIRE MAINTENANCE .....	34
TO INSTALL A NEW BATTERY .....	29
USING AN EXTRA BATTERY (JUMP STARTING) .....	28

**PREVENTIVE  
MAINTENANCE**



## CORRECT



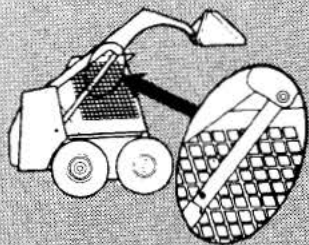
- ⚠ Read the Operator's Manual.

## CORRECT



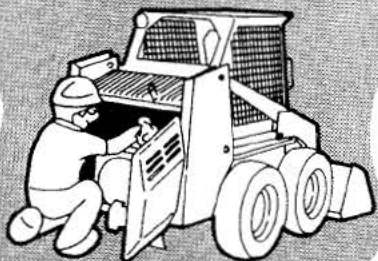
- ⚠ Check oil daily. Use recommended fluids.

## CORRECT



- ⚠ Use lift arm stops before working under raised lift arms.

## CORRECT



- ⚠ Cleaning and maintenance are required daily.

# ⚠ WARNING

DO NOT service the Bobcat loader without instructions or taking the necessary safety precautions.

- ⚠ Stop and cool engine before adding fuel. NO SMOKING.

- ⚠ Do not service loader without using a lift arm stop when lift arms are raised.

- ⚠ Do not lift or lower operator guard without instructions from Operator's Manual or Service Manual.

- ⚠ Do not lift or lower operator guard without jackstands or blocks under rear corners of loader.

- ⚠ Do not stand on loader when lifting or lowering operator guard.

- ⚠ Keep rear door closed except for service.

- ⚠ Stop, cool, and clean engine of flammable material.

- ⚠ Keep body, loose objects, and clothing away from electrical contacts, moving parts, hot parts, and exhaust.

- ⚠ When connecting extra battery for "jump" start always make the last connection (negative cable) to the engine never at the battery. When removing the "jump" start cables, always remove the negative (-) cable from the engine first.

- ⚠ Lead acid batteries produce flammable and explosive gases. Keep arcs, sparks, flames, and lighted tobacco away from the battery.

- ⚠ Battery acid causes severe burns. If acid contacts eyes, skin or clothing flush well with water. For contact with eyes get immediate medical attention.

- ⚠ Do not modify equipment or add attachments not approved by manufacturer.

- ⚠ WARNING: Failure to obey warnings may cause injury or death.

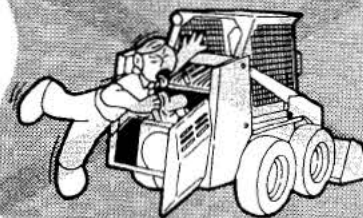
⚠ Safety Alert Symbol

## WRONG



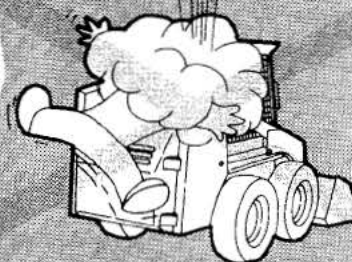
- ⚠ Two people standing on the ground are needed to raise the operator guard.

## WRONG



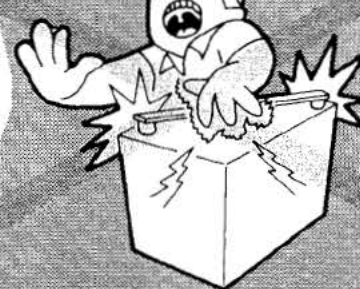
- ⚠ Do not wear loose clothing around the loader.

## WRONG



- ⚠ Machine must be stopped and cool before checking fluids.

## WRONG



- ⚠ Do not arc battery.

## SERVICE SCHEDULE

Maintenance work must be done at regular intervals. Failure to do so will result in damage to the Bobcat loader or the engine. The service schedule is a guide for correct maintenance of the Bobcat loader. DO NOT change this service schedule unless you increase the frequency of service when the Bobcat loader is operated in very hot, cold, dusty or corrosive conditions.

### **WARNING**

**DO NOT** work on the loader with the lift arms in a raised position without support. Use lift arm stops or other methods.

SERVICE SCHEDULE		HOURS					
ITEM	SERVICE REQUIRED	8-10	50	100	200	500	1000
Engine Air Cleaner	Check dust cup. Check condition of system.						
Engine Oil	Check and add oil as necessary.						
Engine Coolant System	Check coolant level in coolant recovery tank. Add coolant when low. Remove any debris from radiator grill area.						
Tires	Check tires for damage and correct air pressure.						
All Pivot Pins	Add lubricant to all fittings.						
Indicators, etc.	Check for correct operation of all indicators, switches, lights.						
Operator Guard	Check condition and holding bolts.						
Seat Belt and Seat Bar	Check condition of straps, buckle and linkages. Replace if damaged.						
Safety Signs (Decals)	Check for missing or damaged safety signs (decals). Replace as necessary.						
Hydraulic Oil	Check the fluid level and add recommended oil as needed.						
Fuel	Check level and fill tank if level is low.						
Wheel Nuts	Check for loose nuts every 8 hours for the first 24 hours. Tighten to 65-70 ft.-lbs. (88-94 Nm) torque if necessary.						
	Check for loose nuts. Tighten to 65-70 ft.-lbs. (88-94 Nm) torque if necessary.						
Engine Oil & Filter	Replace oil and filter.						
Battery	Check the cables.						
Control Pedals & Steering	Check operation. Make repairs and adjustments as needed.						
V-Belts	Check tension and make adjustment as needed.						
Bob-Tach	Check the locking levers and wedges for condition and correct operation.						
Brakes	Check the brake for correct operation. Make adjustment as necessary.						
Governor Oil Level	Check level. If low, add oil.						
Chaincase Oil	Check level. Add oil if needed.						
Hydraulic Filter	Replace the element.						
Engine Air Filter System	Check the system for leaks. Replace element if needed.						
Spark Arrestor Muffler	Remove the plug and clean the spark chamber.						
Engine Ignition System	Check ignition points and timing. Replace spark plugs.						
Engine Fuel Filter	Replace element.						
* U-Joint	Lubricate three fittings.						
40 Micron Filter	Replace the bronze element.						
Steering Levers	Lubricate at grease fittings (2).						
Engine Cylinder Compression	If all cylinders are within 75% of each other, compression is acceptable.						
* Chaincase	Replace hydraulic oil.						
Hydraulic System	Replace oil and filter. Clean inlet screen and vent.						

\*Indicates item which requires dealer performed service.

## ENGINE SERVICE

### **WARNING**

Stop, cool and clean the engine of flammable material. Never service or adjust machine with engine running unless instructed to do so.

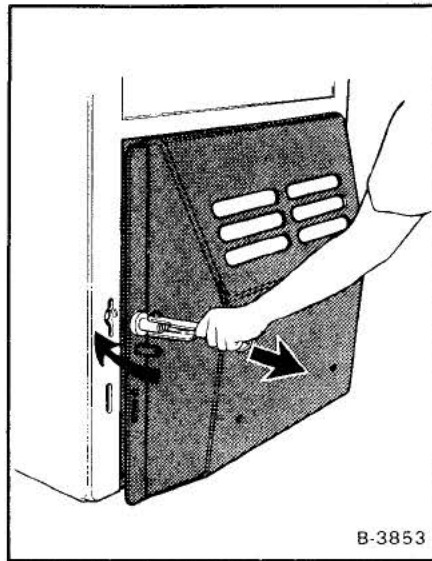


Fig. 40 Releasing Rear Door

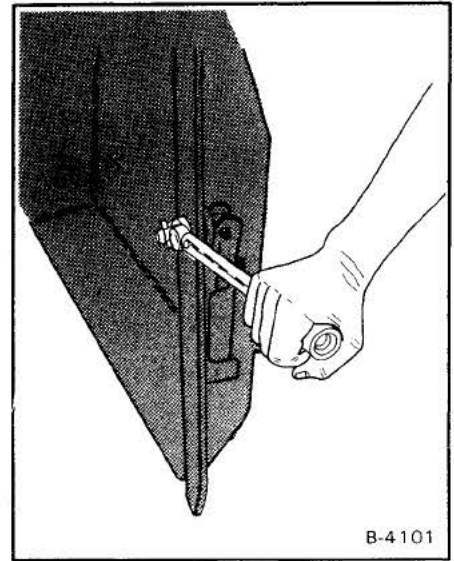


Fig. 41 Adjusting Latch

Open the rear door to service the engine. Pull the door latch up and to the left to release the door latch (Fig. 40). The door can then be fully opened to get to the engine.

### ADJUSTING DOOR LATCH

The door latch is adjusted by turning the nut on the end of the latch pin (Fig. 41). The door must contact the machine at the bottom (Fig. 42, Item 1) and the top with the lever in the position shown in (Fig. 42). It will take approximately 50 lbs. of force to push the latch down.

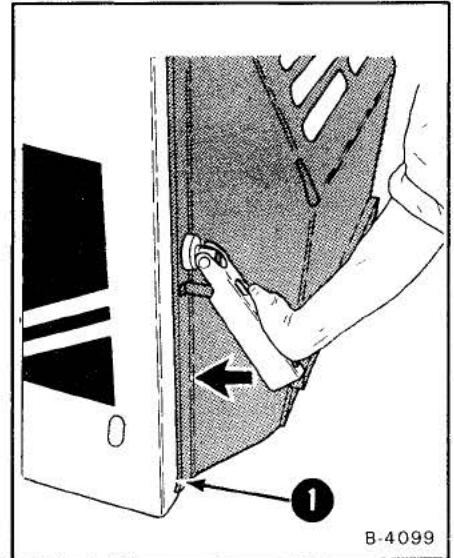


Fig. 42 Closing Door

### **WARNING**

Keep the rear door closed except for service. Make sure you close the door and fasten the latch tightly before operating the Bobcat loader.

## AIR CLEANER SERVICE

It is important to service the air cleaner system at regular intervals for good engine performance and long service life.

Do not replace the filter element unless engine performance shows a need for service. Dirt can enter the system whenever it is opened for service. Clean the dust cap daily to get long service life from the element. Check the condition indicator for red ring. If red ring shows replace the filter element.

Replace the air filter element as follows:

1. Loosen the clamp on the dust cup (Fig. 43, Item 1). Remove the dust cup and the element.

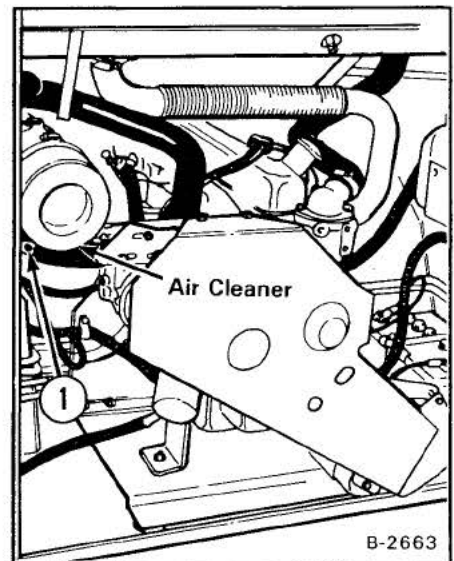


Fig. 43 Air Cleaner Location



2. Clean the inside of the filter housing so that the element has a smooth surface to contact at the seal (Fig. 44, Item 1).
3. Check the air cleaner housing for holes from corrosion especially if the loader is used in fertilizer applications.
4. Install the new filter element.

## IMPORTANT

Do not use the old filter element over again. A new filter element must be installed if the old element has been removed.

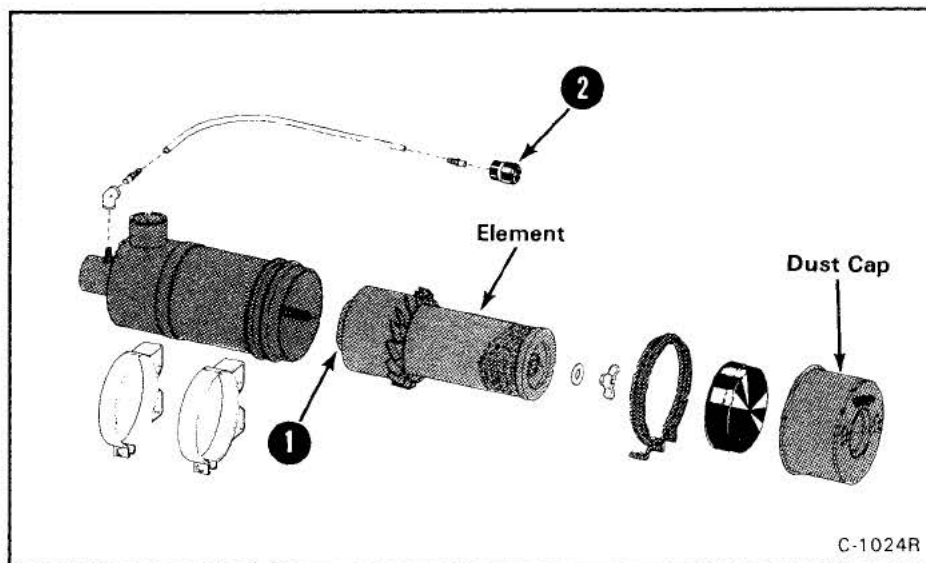


Fig. 44 Air Cleaner

5. Install the dust cup so the arrow on the bottom of the cup is up (Fig. 44). Tighten the clamp.
6. Push the button at the condition indicator (Fig. 44, Item 2), to remove the red ring.
7. Check that the hoses and the clamps are tight.

## FUEL SYSTEM

Use only 90-94 octane regular leaded gasoline in the engine.

## ! WARNING

Never add fuel to the Bobcat loader when the engine is running or is hot. NO SMOKING!

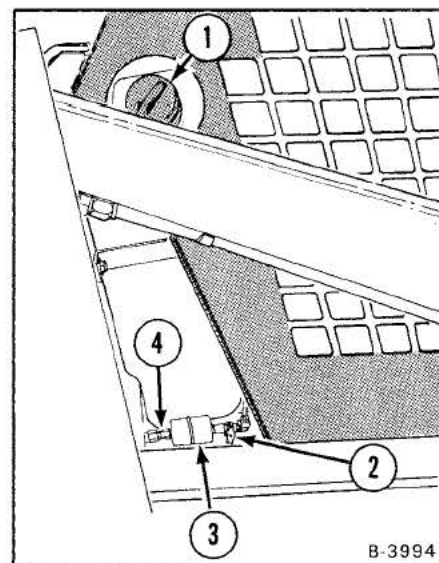


Fig. 45 Fuel Filling Location

## FUEL SYSTEM SERVICE

Remove the filler cap to service the fuel tank as follows (Fig. 45, Item 1):

1. Use a clean, approved safety container to add fuel.
2. The key switch must be in the "OFF" position and the engine cool.
3. Add fuel only in an area that has a free movement of air and no open flames or sparks. NO SMOKING (Fig. 46).
4. Use only clean fuel of the correct specifications.
5. Tighten the cap on the fuel tank (Fig. 45, Item 1).

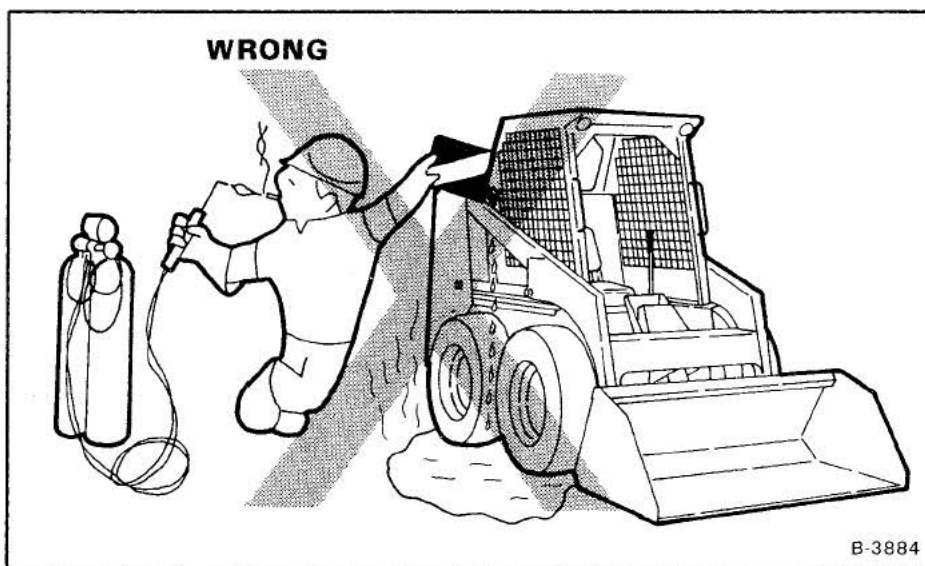


Fig. 46 Fuel Filling Procedure

## FUEL FILTER

There is a fuel filter in the fuel line by the valve fuel shut-off valve (Fig. 47, Item 3).

Check or replace the fuel filter as follows:

1. Close the valve on the fuel line (Fig. 45, Item 2).
2. Loosen the nut and remove the tubeline (Fig. 45, Item 4).
3. Remove the filter element from the valve (turn the element clockwise).
4. Blow through the element in the direction of the arrow to check it.
5. Make sure the arrow is pointing in the direction of the carburetor when you install the element.
6. Install the element. Connect the tubeline and tighten the nut. Open the valve and check for leaks.

## ENGINE LUBRICATION SYSTEM

Check the oil level each day.

To check the oil level, stop the engine and remove the dipstick from the left side of the engine (Fig. 47, Item 1).

The oil level must be kept between the ADD and the FULL marks on the dipstick (Fig. 48). Use a good quality motor oil that has the correct API Service Classification (See Chart below).

To add oil remove the fill cap (Fig. 47, Item 2) and add the needed amount of oil.

## REPLACEMENT OF ENGINE OIL AND FILTER

Replace the engine oil and filter after every 50 hours of loader operation.

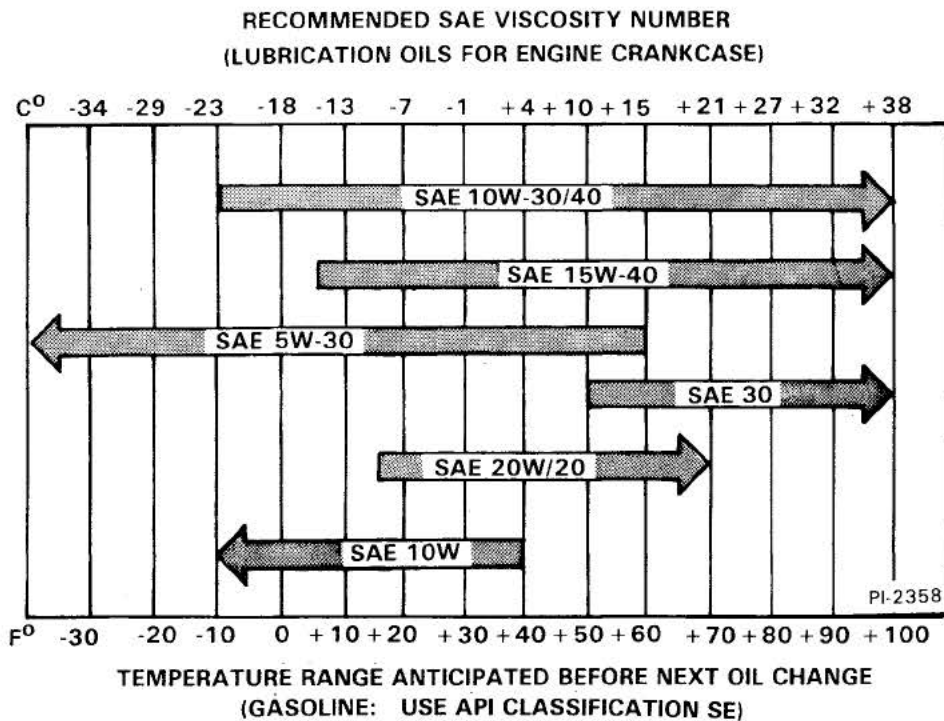


Fig. 47 Engine Service

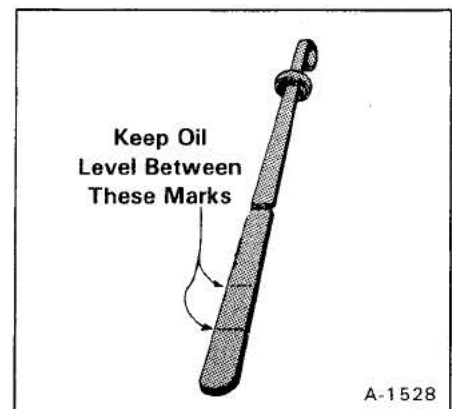
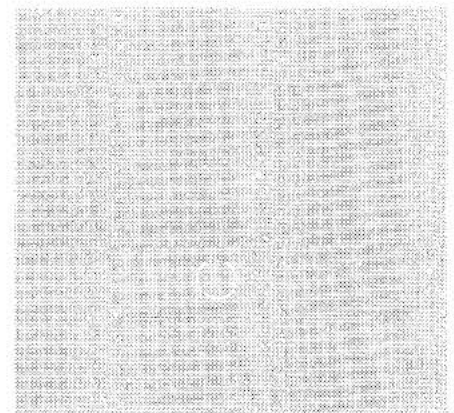


Fig. 48 Dipstick



To replace engine oil and filter:

1. Operate the engine for about 15 minutes. Stop the engine.
2. Remove the oil drain cap (Fig. 49, Item 1). Remove all the oil from the engine.
3. Remove the oil filter (Fig. 49, Item 2).

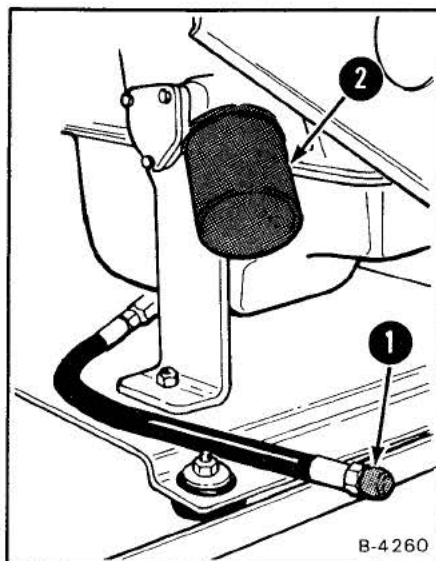


Fig. 49 Drain Cap

4. Clean the filter housing surface. Put clean oil on the gasket of the new filter. Install the filter and tighten the filter hand tight.
5. Install the oil plug. Remove the oil filler cap (Fig. 47, Item 2). Put 4 quarts (3,8 L) of oil in the engine (See the Oil Chart).

Start the engine and let it run for about 5 minutes. Check for leaks at the filter. Check the oil and add oil until the oil level is at the FULL mark on the dipstick.

**NOTE: DO NOT overfill the crankcase.**

## COOLANT LEVEL

The cooling system has a coolant recovery tank. The location of the tank is on the right upright in the engine compartment (Fig. 50, Item 1). Remove the cap from the coolant recover tank to check the coolant level. When the engine is cool, the coolant recovery tank must be 1/3 full. Add coolant to the coolant recovery tank when the coolant level is low.

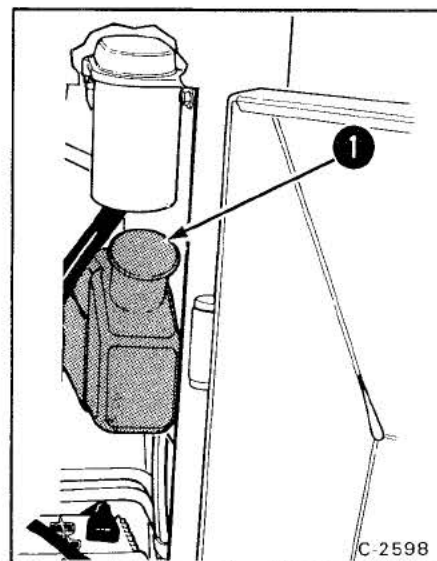


Fig. 50 Coolant Recover Tank

## REMOVING COOLANT FROM THE COOLING SYSTEM

### **WARNING**

Do not remove the radiator cap when the engine is hot.

1. Put a funnel under coolant sender switch (Fig. 51, Item 1) to keep coolant from getting into the engine compartment.
2. Remove the grill (Fig. 52, Item 1).
3. Remove the radiator cap (Fig. 52, Item 2). The grill must be removed to do this.
4. Remove the wire (Fig. 51, Item 1) connected to the sender switch. Remove the sender switch (Fig. 51, Item 2).

To fill the cooling system:

1. Install the sender switch.
2. Connect the wire removed from the sender switch.
3. Mix 50 % water and 50% antifreeze (See Specifications page 60 for capacity).
4. Fill the radiator with a mixed coolant (step 3) and install the radiator cap.
5. Install the grill.
6. Fill the coolant recovery tank to full mark.

## DRIVE BELTS

To adjust the belt tension:

1. Stop the engine.
2. Remove the belt shield (Fig. 53).

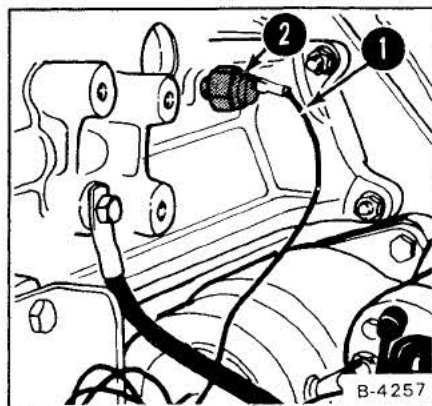


Fig. 51 Temperature Sending Switch

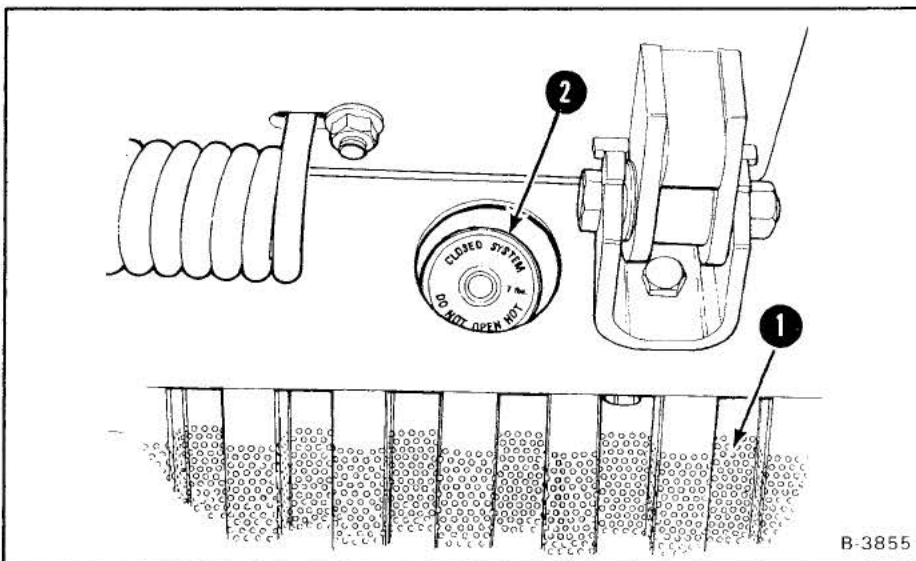


Fig. 52 Radiator Cap

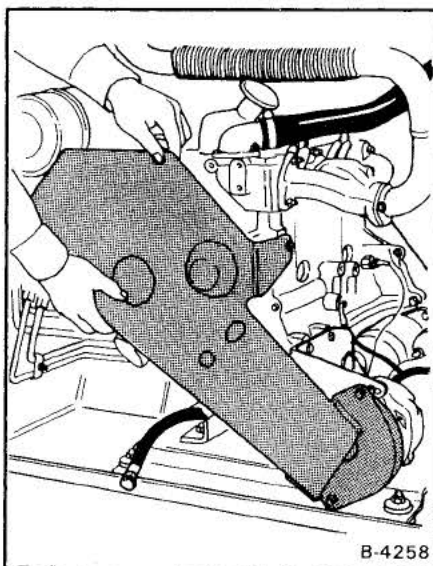
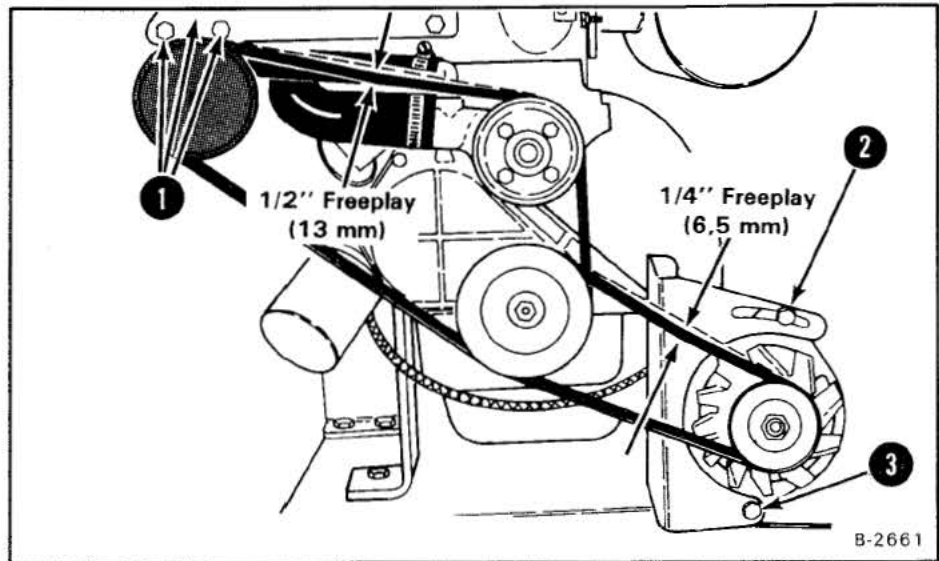


Fig. 53 Removing Belt Shield

3. Loosen the bolts for adjustment of the governor (Fig. 54, Item 1). Use a bar and set belt tension to 1/2" movement at the middle of the belt with 20 lbs. (9,07 kg) pressure (Fig. 54). Tighten the bolts.

4. Loosen the bolts for adjustment of the generator (Fig. 48, Items 2 and 3). Move the generator until the belt has 1/4" of movement at the middle of the belt with 20 lbs. (9,07 kg) pressure. Tighten the bolts.

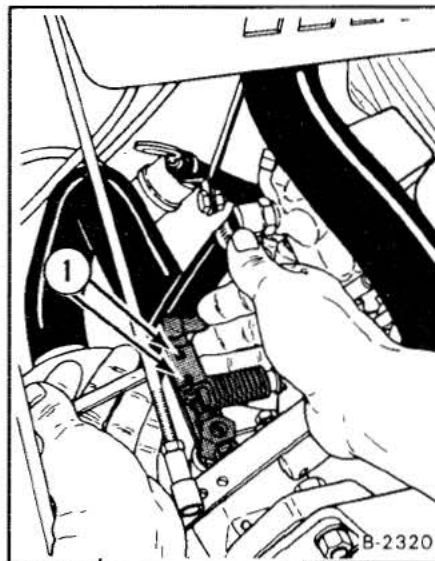
**NOTE:** When the governor has been moved, the rod to the throttle must be adjusted.



**Fig. 54** Adjusting Belt Tension

To adjust the rod from the governor to the throttle:

1. Stop the engine.
2. Loosen the 2 screws on the governor arm (Fig. 55, Item 1).
3. Hold the governor arm in the closed position "to the left". Tighten the screws.



**Fig. 55** Governor Adjustment

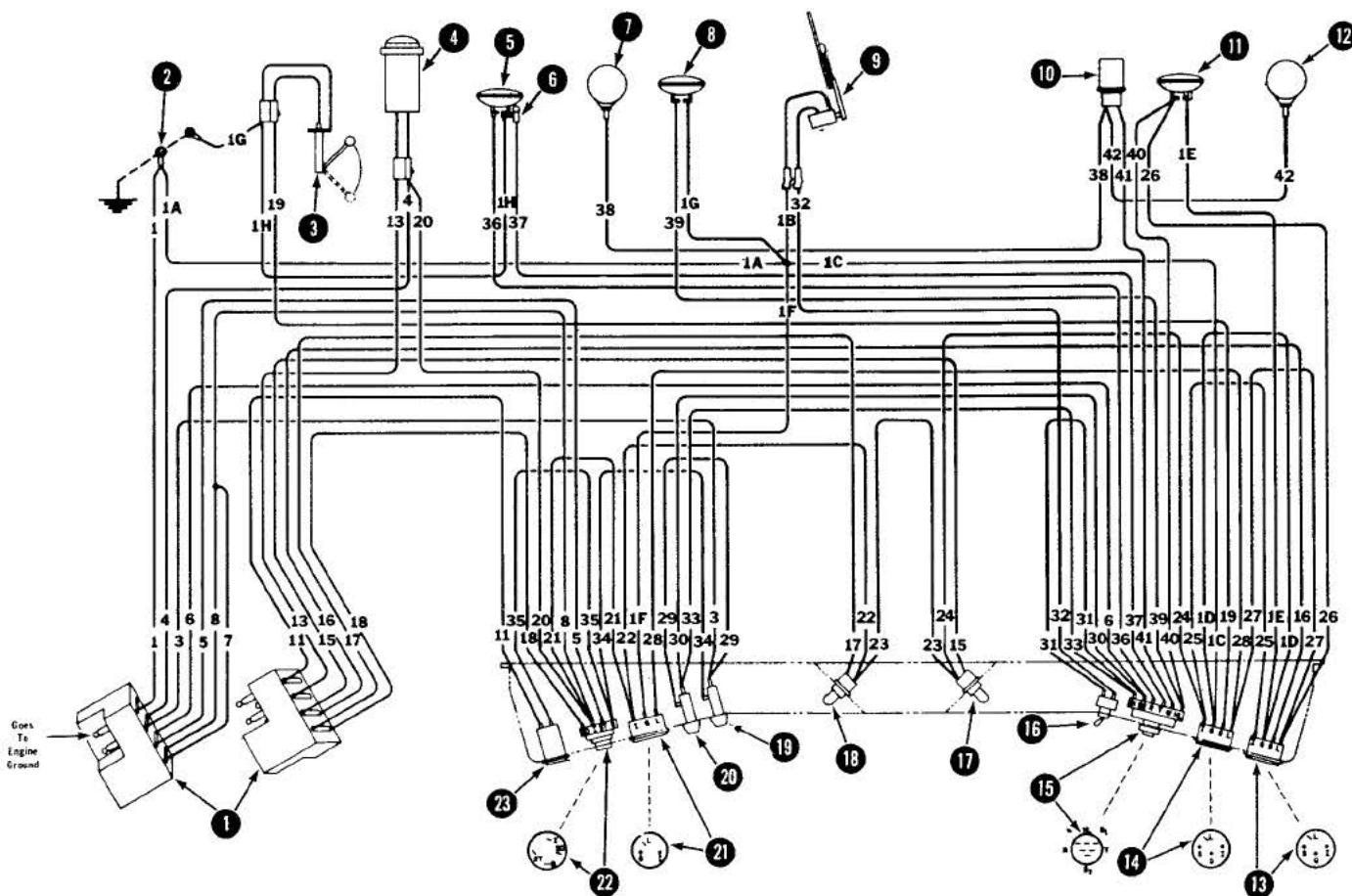
4. Install the belt shield before starting the engine.

### ELECTRICAL SYSTEM (Fig. 56 & 57)

The Bobcat has a 12 volt, negative ground alternator charge system (Fig. 56)

To service the electrical system:

1. Two 25 ampere fuses are installed in the dash panel. If the fuses become damaged, replace them with the same type and size fuses.



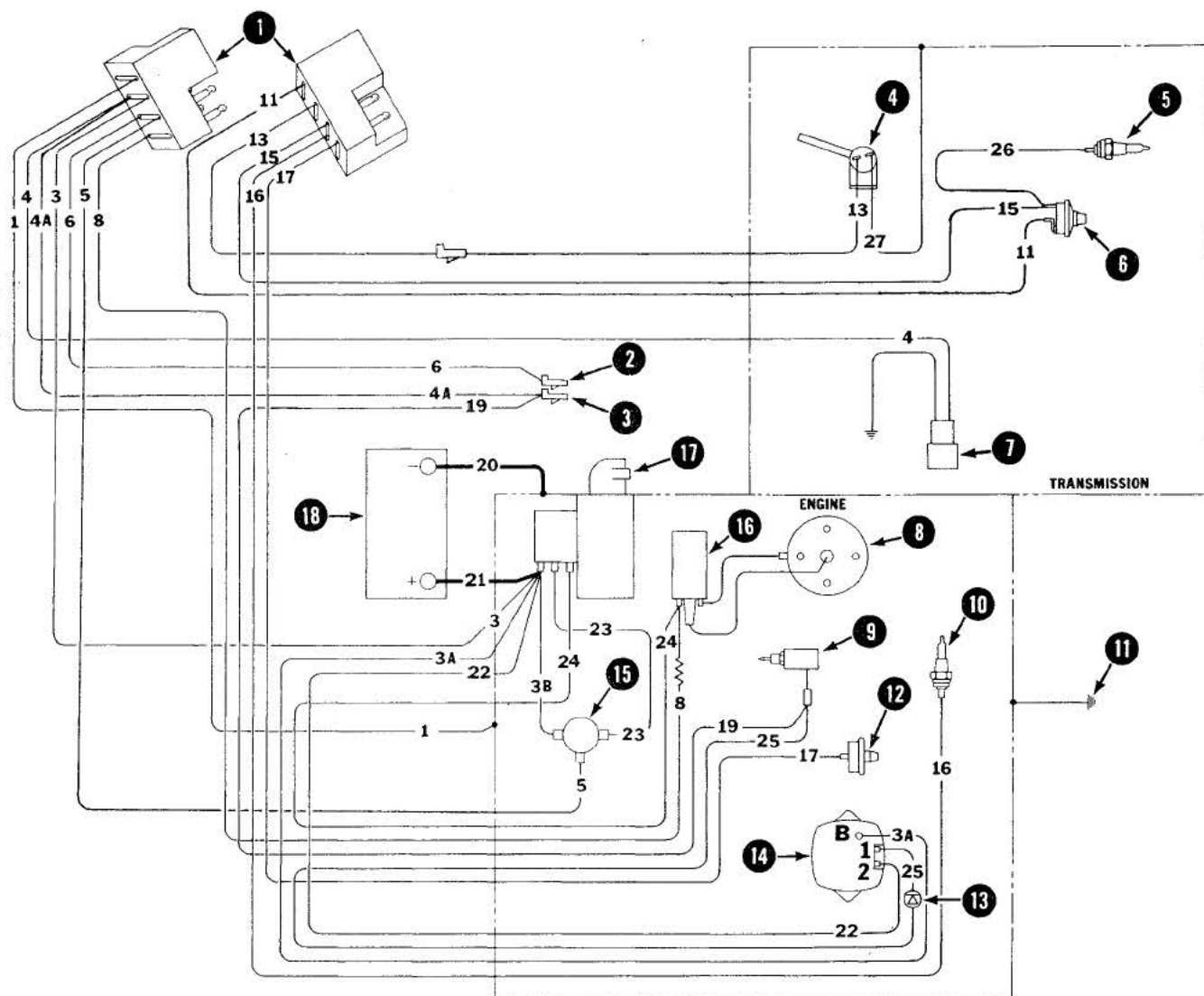
#### WIRE LEGEND

#'s	COLOR	GAUGE
1	Black	12
1A	Black	12
1B	Black	16
1C	Black	16
1D	Black	16
1E	Black	16
1F	Black	16
1G	Black	16
1H	Black	16
2	NOT USED	
3	Red	12
4	Orange	16
5	White	16
6	Red/White	16
7	White/Black	16
8	Lt. Blue	16
9	NOT USED	
10	NOT USED	
11	Yellow/Brown	18
12	NOT USED	
13	Orange/Green	16
14	NOT USED	
15	Yellow	18
16	Purple/White	18
17	Yellow/Green	18
18	Lt. Blue/Black	16
19	Purple	16
20	Orange	16
21	Orange	16
22	Orange	18
23	Orange	18
24	Orange	18
25	Orange	18
26	Gray	16
27	Gray	16
28	Gray	16
29	Red	16
30	Red/White	16
31	Red/White	16
32	Orange/Black	16
33	Red/White	16
34	Red/White	16
35	Red/White	18
36	Dk. Blue/White	16
37	Pink	16
38	Brown	16
39	Dk. Blue	16
40	Dk. Blue	16
41	Brown	16
42	Brown	16

#### PARTS LEGEND

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>1 Harness Connectors</li> <li>2 Operator Guard Ground</li> <li>3 Fuel Sender</li> <li>4 Back-up Alarm (Opt.)</li> <li>5 Rear Lamp</li> <li>6 Tail Lamp</li> <li>7 Left Flasher Lamp (Opt.)</li> <li>8 Left Front Lamp</li> <li>9 Wiper (Opt.)</li> <li>10 Flasher (Opt.)</li> <li>11 Right Front Lamp</li> <li>12 Right Flasher Lamp (Opt.)</li> <li>13 Engine Temperature Gauge</li> <li>14 Fuel Gauge</li> <li>15 Light Switch</li> <li>16 Wiper Switch (Opt.)</li> <li>17 "Trans" Warning Light</li> <li>18 "Eng" Warning Light</li> <li>19 Fuse-Ignition</li> <li>20 Fuse-Accessory</li> <li>21 Voltmeter</li> </ul> | <ul style="list-style-type: none"> <li>22 Ignition Switch</li> <li>23 Hourmeter</li> <li>● Tee Splice</li> <li>○ Butt Splice</li> </ul> |
|---|---|

Fig. 56 Operator Guard Electrical Diagram



#### WIRE LEGEND

#'s	COLOR	GAUGE
1	Black	16
2	Not Used	
3	Red	12
3A	Red	12
3B	Red	16
4	White/Red	16
4A	Orange	16
5	White	12
6	Red/White	16
7	Not Used	
8	Resistance Wire, Color Optional	
9	Not Used	
10	Not Used	
11	Yellow/Brown	16
12	Not Used	
13	Orange/Green	16
14	Not Used	
15	Yellow	16
16	Purple/White	16
17	Yellow/Lt. Green	16
18	Not Used	
19	White/Black	16
20	Black	Cable
21	Red	Cable
22	Lt. Green	16
23	White/Green	12
24	Lt. Blue/Green	16
25	Lt. Green/White	16
26	Yellow/Black	16
27	Black	16

#### PARTS LEGEND

- 1 Operator Cab Harness Connector
- 2 Fused and Chassis Accessory
- 3 Fused and Switch Feed
- 4 Back-Up Alarm Switch (Optional)
- 5 Transmission Oil Temperature
- 6 Transmission Charge Pressure
- 7 Fuel Tank Solenoid
- 8 Distributor
- 9 Carburetor Fuel Solenoid
- 10 Engine Water Temperature
- 11 Engine to Frame Ground
- 12 Engine Oil Pressure
- 13 Diode (Keeps engine from running after ignition is turned off)
- 14 Alternator
- 15 Power Relay
- 16 Coil
- 17 Starter
- 18 Battery

Fig. 57 Engine Electrical Diagram



2. Check to see that the battery cables are clean and tight. Remove any acid or corrosion from the battery and cables with a baking soda and water solution (Fig. 58). Cover the terminals with Clark Battery Saver to prevent corrosion.

#### USING AN EXTRA BATTERY (JUMP STARTING)

### **WARNING**

Lead-acid batteries produce flammable and explosive gases. Keep arcs, sparks, flames and lighted tobacco away from the battery. Make a "jump" start connection as recommended by the manufacturer. When connecting extra battery for "jump" start always make the last connection (negative cable) to the engine (never at the battery). When removing the "jump" start cables, always remove the negative cable from the engine first.

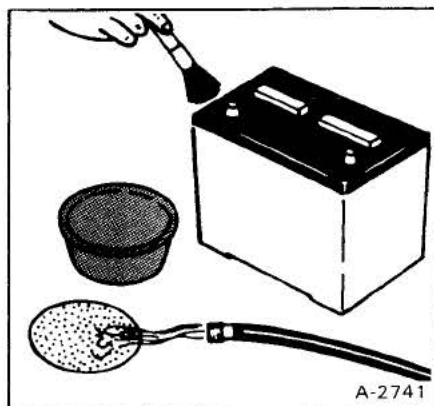


Fig. 58 Cleaning Battery

If it is necessary to use an extra battery to start the engine, BE CAREFUL! This is a two-person operation. There must be one person in the operator's seat and one person to connect and disconnect the battery cables.

### **WARNING**

Lead-acid batteries contain sulfuric acid which will damage the eyes or skin on contact. Always wear goggles to avoid acid in the eyes. If acid contacts the eyes, wash immediately with much clean water and get medical attention. Wear rubber gloves and protective clothing to keep acid off the skin. If acid contacts the skin, wash off immediately with clean water.

1. The ignition must be in the off position.
2. The battery to be used must be of the same voltage.
3. Battery terminals have identification marks. The positive terminal is marked (+) and negative terminal is marked (-).
4. The negative terminal (-) of the battery must be connected to the engine.

### **WARNING**

DO NOT charge a frozen battery because it can explode and cause personal injury. Let the battery warm to 60° F. (15.5° C.) before putting on a charger.

5. Connect the end of the first cable to the positive terminal (+) of the booster battery. Connect the other end of the same cable to the positive terminal (+) of the loader battery (Fig. 59).

6. Connect the end of the second cable to the negative terminal (–) of the booster battery. Connect the other end of the second cable to the engine. **DO NOT** connect the cable directly to the negative terminal (–) of the loader battery. Connecting the cable directly to the negative terminal (–) of the loader battery can cause a spark and destroy the battery and cause personal injury.

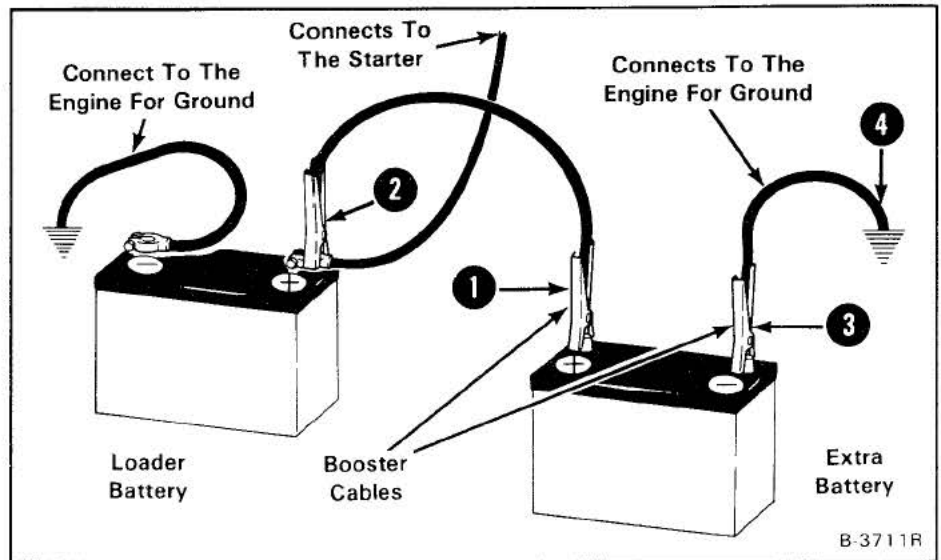


Fig. 59 Connecting Booster Cables

7. Keep the cables away from the fans and belts.

**NOTE:** The operator must be in the operator's seat and have the seat belt fastened.

8. Start the engine.

9. After the engine has started, remove the cable connected to the engine.

10. Then remove the cable from the loader battery post positive terminal (+).

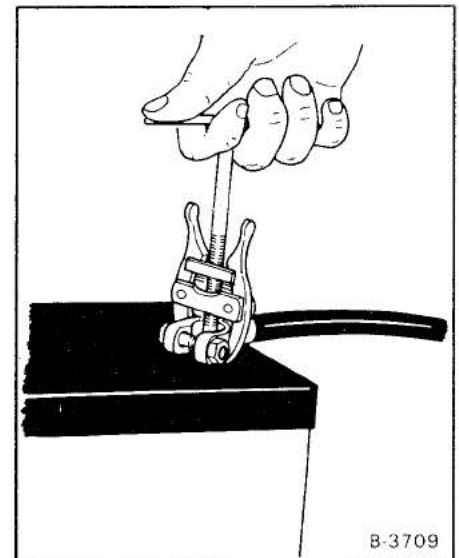


Fig. 60 Removing Battery Clamp

## IMPORTANT

Damage to the alternator will occur if:

1. The engine is operated with battery cables disconnected.
2. The cables are connected when using a fast charger or when welding on the Bobcat loader (Remove both cables from the battery).
3. The extra battery cables are connected wrong.

### INSTALLING A NEW BATTERY

1. Remove the battery cables (Fig. 60). Remember the position of the positive terminal and the negative terminal so you can connect the cables correctly after the new battery is installed.
2. Remove the battery holddown clamp (Fig. 61, Item 1). Remove the battery from the engine compartment.

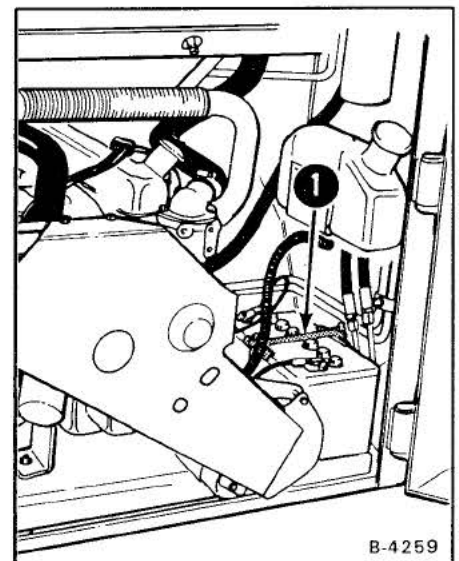


Fig. 61 Battery Holddown Clamp

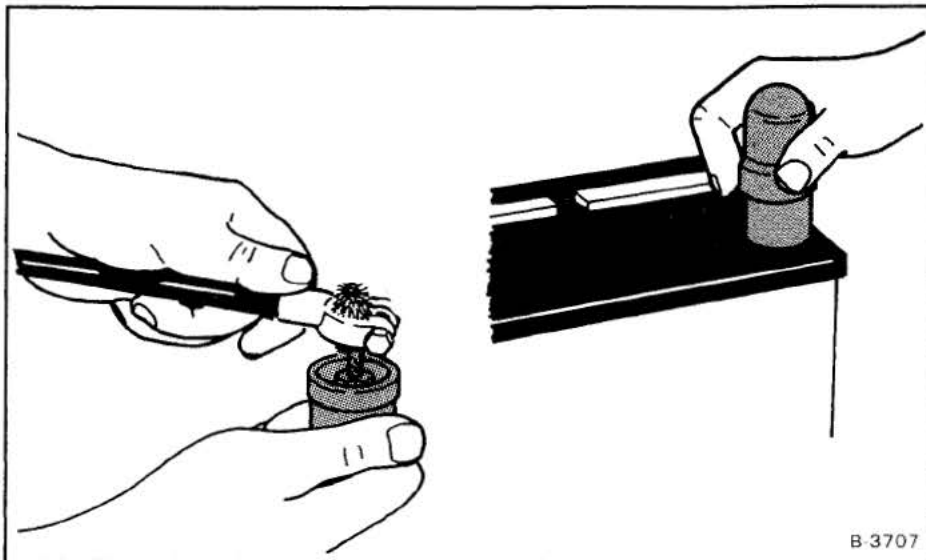
3. Clean the terminal posts (Fig. 62) of the new battery in the engine compartment. Install the holddown clamp.

**NOTE:** DO NOT touch any metal with the battery terminals.

4. Install and tighten the battery cables. Connect the ground (negative) cable last to prevent sparks.

#### SPARK ARRESTOR MUFFLER

The spark arrestor muffler must be cleaned every 100 hours.

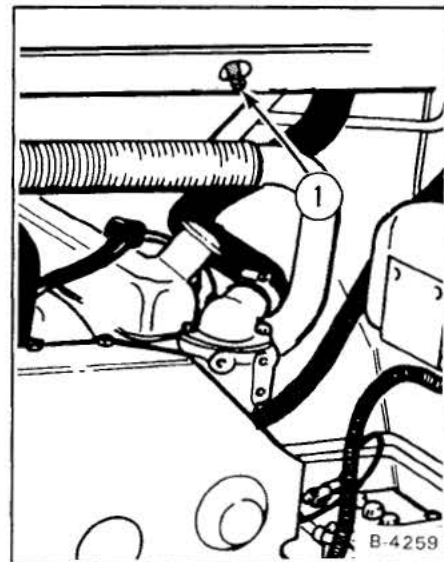


**Fig. 62** Cleaning Battery Terminals

1. Open the rear door.
2. Remove the plug at the bottom of the muffler (Fig. 63, Item 1).

 <b>WARNING</b>	<p>DO NOT run the engine in an area that has materials that can cause combustion. Wear safety goggles.</p>
--	--

3. Start the engine and run it for about 10 seconds.
4. Stop the engine and install the plug.
5. Close the rear door.



**Fig. 63** Spark Arrestor Muffler

#### HYDRAULIC SYSTEM (Fig. 64)

The hydraulic and hydrostatic systems use the same hydraulic oil reservoir.

The system has an engine driven vane pump that supplies hydraulic oil to the control valve and the lift and tilt cylinders (Fig. 64).

Oil also goes from the control valve to the hydrostatic transmission pumps to provide charge pressure and cooling.

A 10 micron filter is installed on the right side of the engine compartment (Fig. 65, Item 1). This filter is used to clean the oil for the hydrostatic transmission.

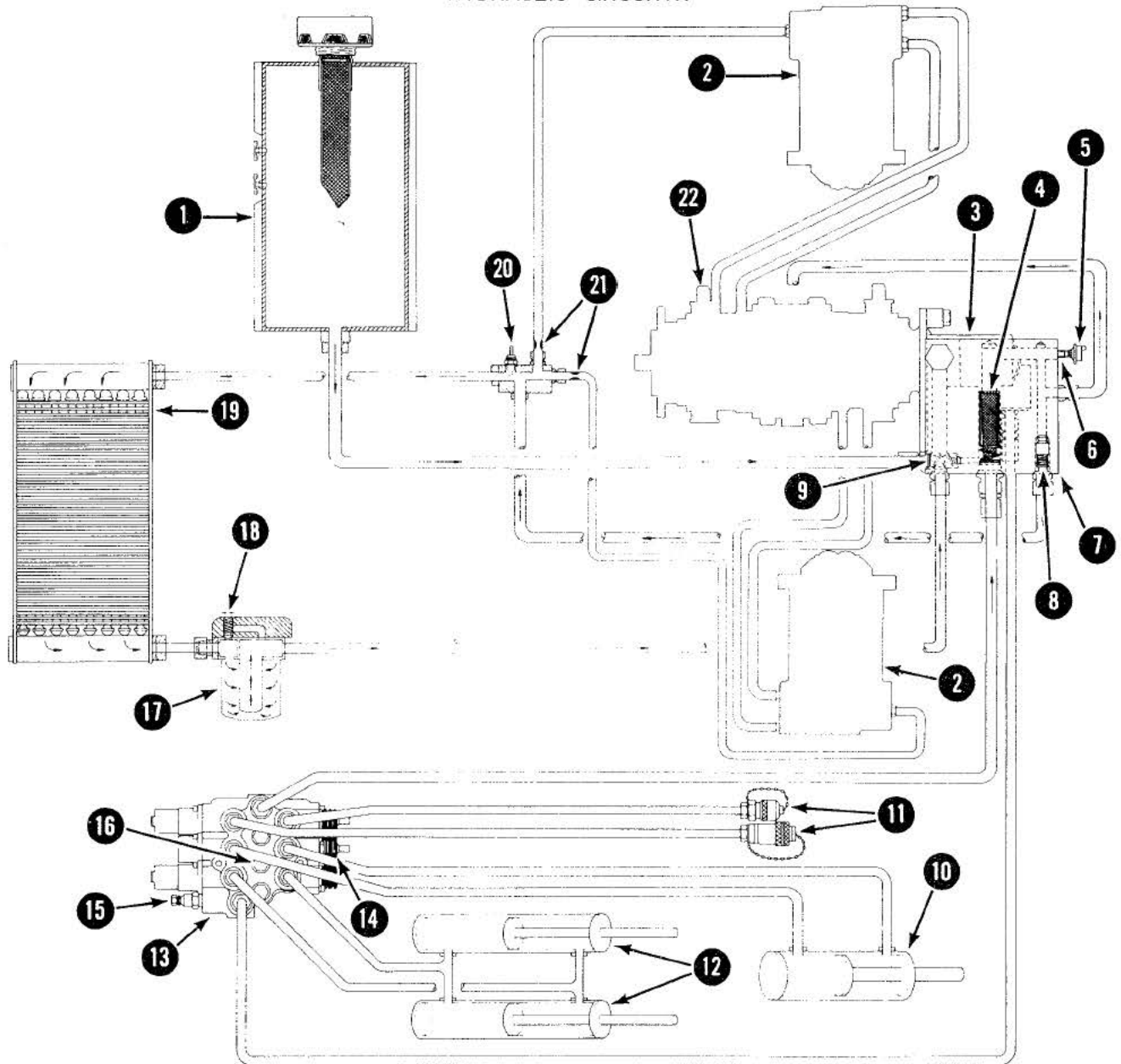
The location of the oil cooler is above the engine. The oil cooler is used for cooling the hydraulic oil before it returns to the vane pump.

#### HYDRAULIC/HYDROSTATIC OIL RESERVOIR

Use only recommended oil in the hydraulic system (See "Specifications", page 61).



# HYDRAULIC CIRCUITRY



- 1 FLUID RESERVOIR, System Cap.: 6 Gal. (22,7 L):  
Reservoir Cap.: 3.5 Gal. (13,2 L)
- 2 HYDROSTATIC MOTOR
- 3 HYDRAULIC PUMP (Vane), 9.5 GPM (36 L/min.) at 2500 RPM
- 4 FILTER, 40 Micron
- 5 PRESSURE SWITCH, 17-20 PSI (118-144 kPa)
- 6 PRESSURE RESTRICTOR
- 7 PORT BLOCK
- 8 CHARGE BY-PASS VALVE, 43-57 PSI (296-393 kPa)
- 9 COLD WEATHER BY-PASS VALVE, 200-224 PSI (1379-1544 kPa)
- 10 TILT CYLINDER
- 11 AUXILIARY QUICK COUPLERS

- 12 LIFT CYLINDERS
- 13 HYDRAULIC CONTROL VALVE
- 14 ANTI-CAV. VALVE
- 15 MAIN RELIEF VALVE, 1900-2000 PSI (13100-13790 kPa) Measured at the Auxiliary Quick Couplers
- 16 LOAD CHECK VALVES (3)
- 17 FILTER, 10 Micron
- 18 FILTER BY-PASS, 72 PSI (496 kPa)
- 19 OIL COOLER
- 20 TEMPERATURE SWITCH, 225-232°F (107-111°C)
- 21 ORIFICE, .156" (3,962 mm) Dia.
- 22 HYDROSTATIC PUMPS

E-1351

Fig. 64 Hydraulic System

## Checking and Adding Oil

To check the oil level in the hydraulic reservoir:

1. Put the Bobcat loader on a level surface. Lower the lift arms and tilt the Bob-Tach fully backwards.
2. Open the bottom check valve on the side of the reservoir (Fig. 66, Item 1). The oil level is good if the oil level is between the top and the bottom check valve. If no oil flows, close the valve and proceed with step 3.
3. Open the top check valve (Fig. 66, Item 2). Remove the fill cap from the reservoir (Fig. 66, Item 3). Add oil to the reservoir until it flows at the top check valve. Close the valve and replace the fill cap.

## Removing Hydraulic Oil

Remove the oil from the hydraulic reservoir and replace it with new oil every 1000 hours of operation. Also replace the oil after it has become dirty and after any major repairs.

1. Remove the hydraulic filter element. Remove the hose from the filter housing. Let the oil flow into a container.
2. Connect the hose to the filter housing when the reservoir is empty. Install a new filter element.
3. Remove the snap ring and remove the screen from the fill pipe (Fig. 67). Wash the screen in clean solvent and install it in the fill pipe.
4. Open the top check valve (Fig. 66, Item 2). Remove the fill cap from the reservoir (Fig. 66, Item 3). Add oil to the reservoir until the oil flows at the top check valve (approximately 3.5 gallons [13L]). Refer to "Specifications", page 59 for type of oil to use. Close the check valve and replace the fill cap. DO NOT fill above the top check plug level. Operate the loader hydraulic controls through all the hydraulic functions. Check the oil level again (See "Checking and Adding Oil").

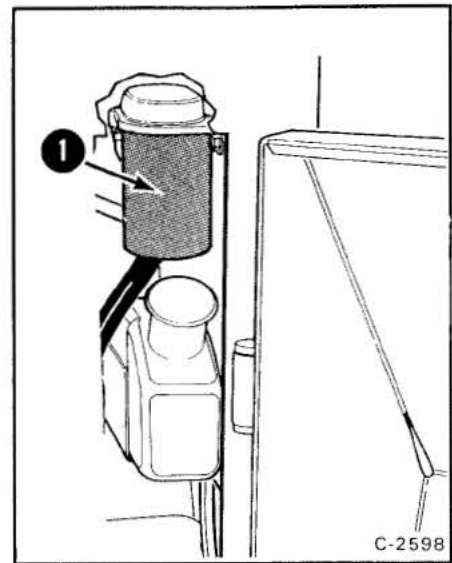


Fig. 65 10 Micron Filter

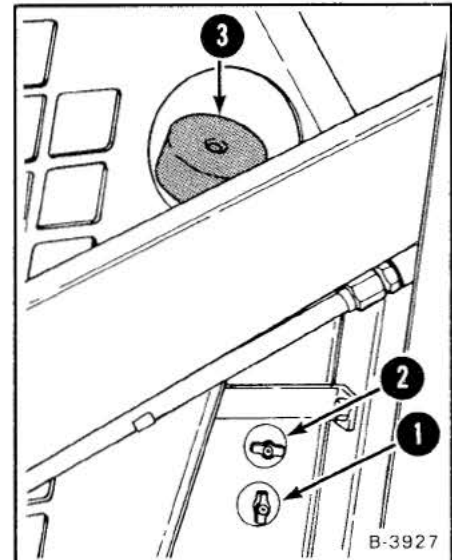


Fig. 66 Hydraulic Level Check

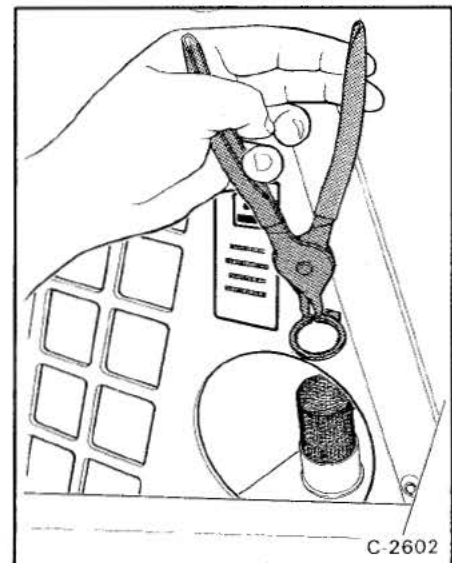


Fig. 67 Snap Ring



## REPLACEMENT OF THE HYDRAULIC FILTER

Replace the hydraulic filter every 100 hours of operation.

To replace the hydraulic filter element:

1. Remove the filter element (Fig. 68, Item 1). Let the oil flow into a container.
2. Clean the surface of the filter head where the filter element makes contact with the filter head.
3. Lubricate the rubber gasket on the filter element with oil.
4. Install the filter element. Tighten the filter by hand only.
5. Check for leaks after you operate the Bobcat loader.

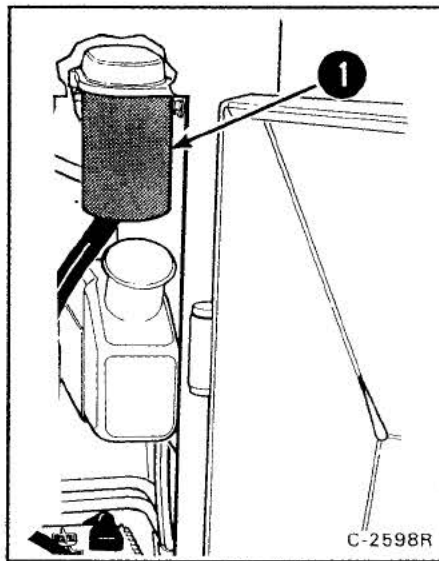


Fig. 68 Filter Element

## FINAL DRIVE TRANSMISSION (CHAINCASE)

The chaincase contains the final drive sprocket and the chains. The chaincase is filled with the same type of oil as the hydraulic/hydrostatic system for chain lubrication. Refer to "Specifications" on page 62.

To check the chaincase oil level:

1. Put the Bobcat loader on a level surface.
2. Remove the plug at the front of the transmission housing (Fig. 69, Item 1).
3. Add oil through the check plug hole until the oil flows from the check plug hole. Install the plug.

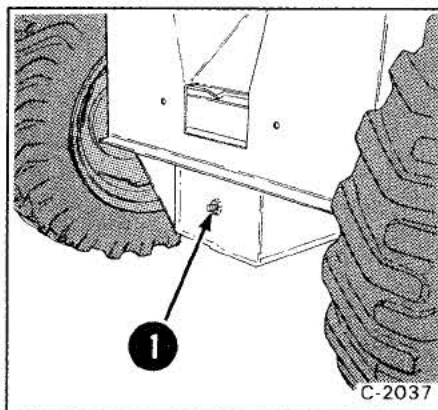


Fig. 69 Chaincase Plug

## TIRE MAINTENANCE

Check the tires regularly for wear, damage and correct pressure. See "Specifications" on page 62.

Check for loose wheel nuts. Tighten nuts to 65-70 ft.-lbs. (88-92 Nm) torque.

## Tire Rotation

When two tires become worn more than the other two tires put the two worn tires on the same side. The front tires must be moved to the rear and rear tires to the front to keep the tire wear even (Fig. 70).

When new tires are installed, always keep the tires of the same size on the same side of the Bobcat loader.

**NOTE:** Both wheels, on each side of the Bobcat loader are connected together and are driven at the same speed, so the tires must be the same size.

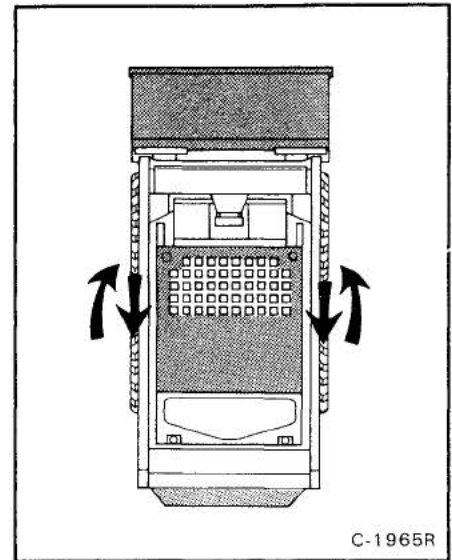


Fig. 70 Tire Rotation

**IMPORTANT**

DO NOT put fluid in the tires on this Bobcat loader.

## LUBRICATION OF THE BOBCAT LOADER

Lubricate the Bobcat loader as specified in the Service Schedule on page 19 for best performance of the Bobcat loader.

See figure 71 for the location of grease fittings.

Always use a good quality lithium based multi-purpose grease when you lubricate the Bobcat loader. Apply lubricant until the extra grease shows.

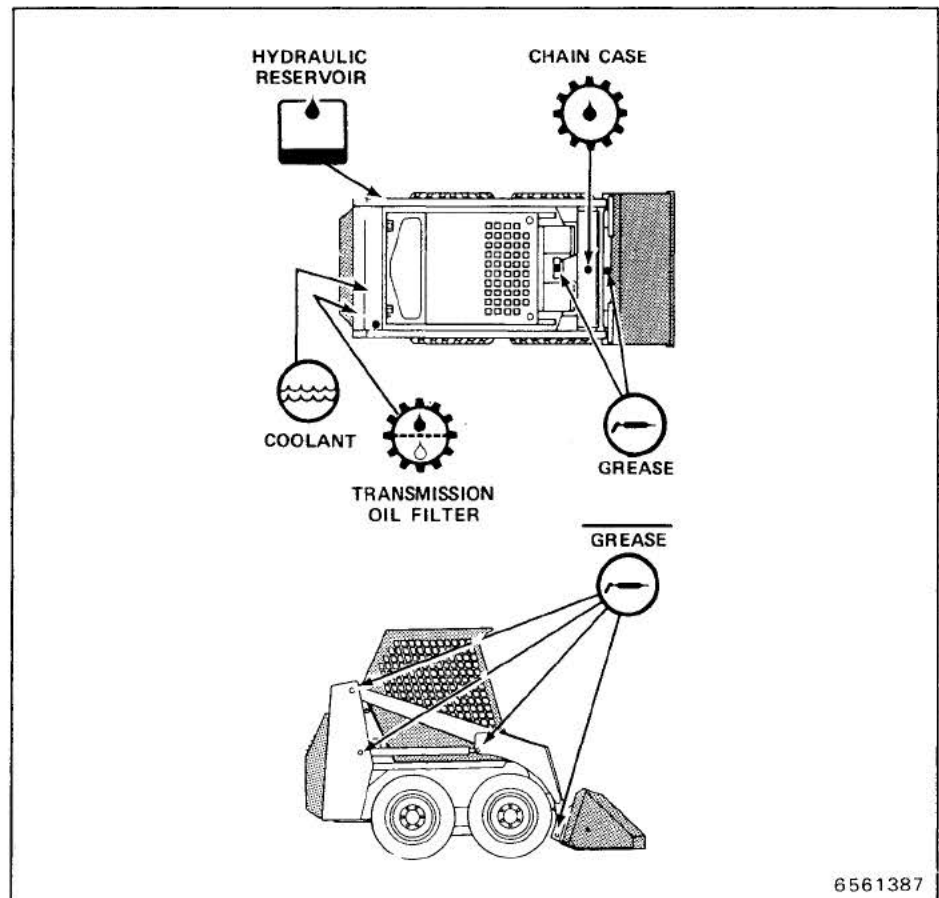


Fig. 71 Lubrication Points

Grease the universal joints and spline (Fig. 72, Item 1) every 250 hours.

Lubricate the seat rails for easy movement when you adjust the seat (Fig. 73, Item 1).

Add grease as needed to the steering control shaft (Fig. 74, Item 1).

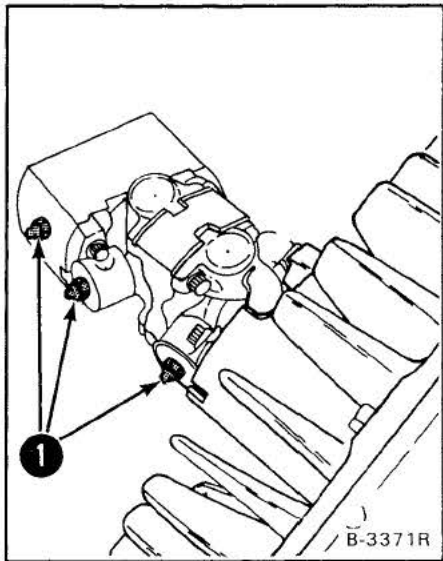


Fig. 72 Lubricating U-Joint

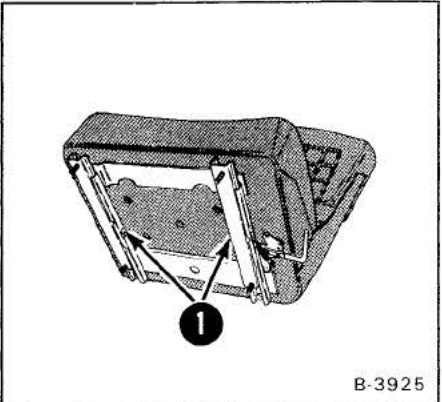


Fig. 73 Lubricating the Seat

B-3925

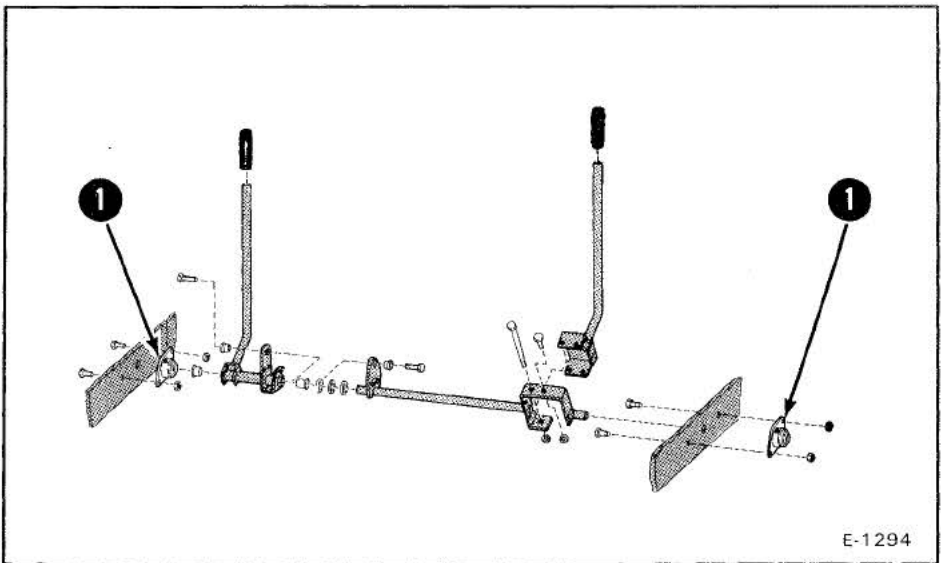


Fig. 74 Steering Control Lubrication

E-1294

**OPERATOR GUARD (ROPS & FOPS)**

The Bobcat loader has a operator guard (ROPS and FOPS) as standard equipment. The ROPS and FOPS protect the operator from rollover and falling objects.

**WARNING**

Never change the operator guard by welding, grinding, drilling holes or adding attachments that are not approved. This can weaken the operator guard and cause personal injury or death.

Check with your authorized dealer if the operator guard has been damaged.

Make sure the operator guard fastening bolts and nuts are tight (Fig. 75).

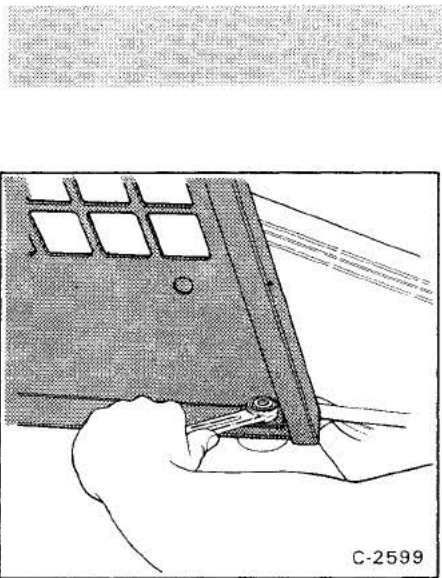


Fig. 75 Tightening Operator Guard Bolts

C-2599

## BOB-TACH

Check for free movement of wedges and Bob-Tach levers.

When the Bob-Tach levers (Fig. 76, Item 1) are pushed down into the locked position, the wedges must extend far enough to engage into the holes of the attachment (Fig. 77).

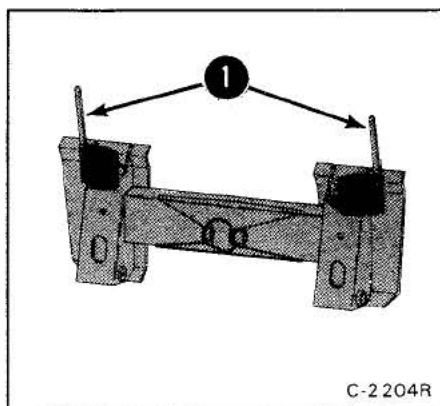


Fig. 76 Bob-Tach

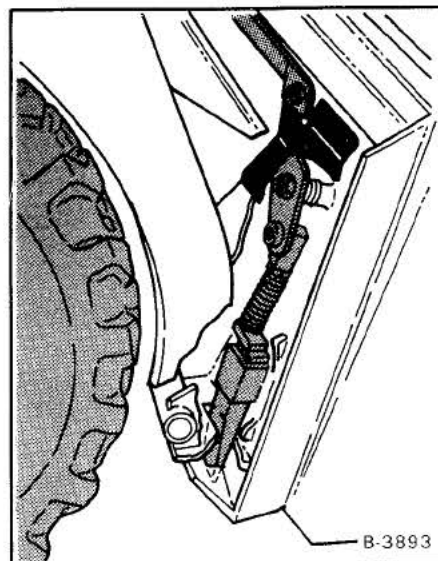


Fig. 77 Wedges

Replace wedges that are bent or broken.

## PIVOT PINS

All pivot points, lift arms, Bob-Tach and cylinders have large pins that are held in position with lockbolts (Fig. 78, Item 1). Check that the lockbolts are tightened to 8 - 10 ft.-lbs. (11 - 13 Nm) torque. DO NOT overtighten.

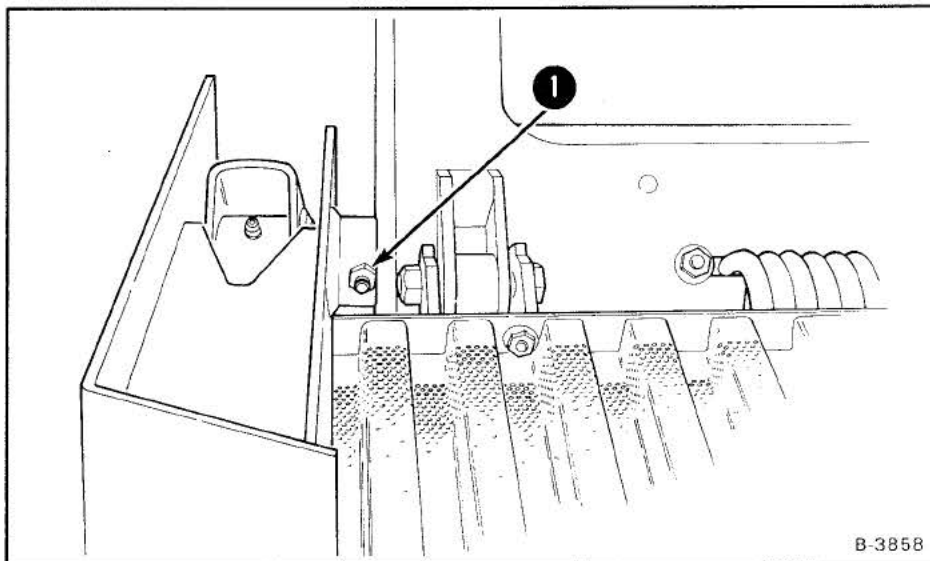


Fig. 78 Pivot Pin Lockbolts

## AUXILIARY CONTROL LOCKBOLT

The auxiliary control has a lockbolt (Fig. 79, Item 1) that must be removed before you can use the auxiliary hydraulics (Fig. 80). The operator guard must be lifted before removing the lockbolt (See Page 17).

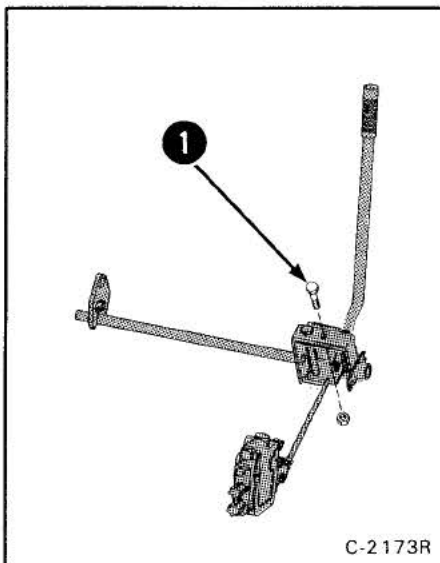


Fig. 79 Auxiliary Lockbolt

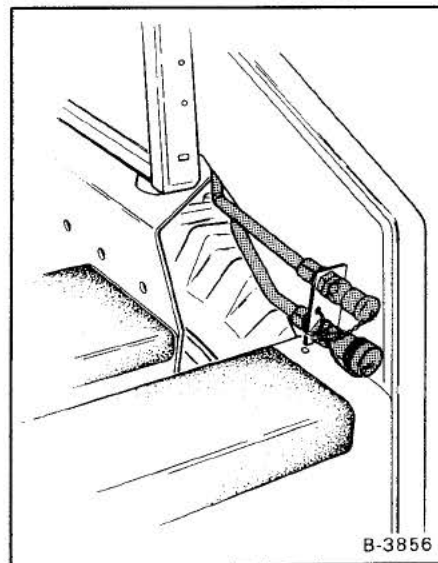


Fig. 80 Auxiliary Hydraulics

## BRAKE PEDAL ADJUSTMENT

The brake pedal is adjusted by turning the nut on the end of the brake linkage rod (Fig. 81, Item 1). There must be 1/4" freeplay in the brake.

## DELIVERY REPORT (Fig. 82)

The Delivery Report is to be filled out by the dealer and signed by the owner or operator when the Bobcat loader is delivered. An explanation of the form must be given to the owner. Make sure the form is filled out completely.

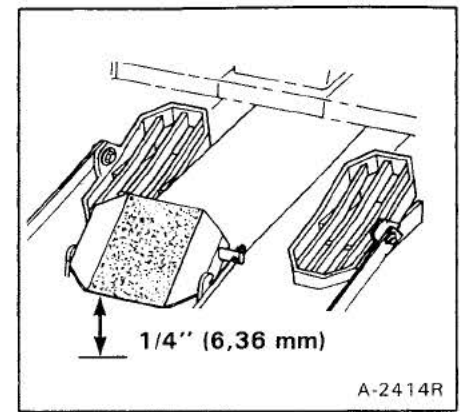


Fig. 81 Pedal Adjustment

Fig. 82 Delivery Report



[illegible]

## TROUBLESHOOTING

TROUBLESHOOTING THE DRIVE SYSTEM .....	40
TROUBLESHOOTING THE ENGINE .....	39
TROUBLESHOOTING THE HYDRAULIC SYSTEM .....	41

**TROUBLE—  
SHOOTING**

[illegible]

## TROUBLESHOOTING

The troubleshooting section is used in finding and correcting loader problems which can most often occur. Service personnel from an authorized Bobcat dealer must do most of the service procedures. They must not be done by the owner/operator. The service procedures marked D/S are to be done only by your authorized Bobcat dealer.

The pages which are referenced are used to find the correct service procedures in this manual.

TROUBLESHOOTING THE ENGINE			
PROBLEM	CAUSE	CORRECTION	PAGE
Engine will not turn over with starter.	Battery has low charge.	Charge battery and find cause of low charge battery.	—
	Cables are loose or dirty.	Clean and tighten the battery cables.	28
	Defective starter, solenoid or wiring.	Check the starting circuit. Make repairs as needed.	D/S
Engine turns with starter, but is difficult to start.	Wrong starting procedure.	Refer to correct starting procedure.	9
	Auxiliary control lever is in "detent".	Take control lever out of "detent".	7
	No fuel in tank.	Add fuel as needed.	21
	Vent in fuel filler cap is plugged.	Clean as needed.	—
	Dirt or water in fuel system.	Make repairs as needed.	D/S
	Plugged fuel filter.	Install a new filter.	21
	Hole in fuel line.	Make repairs as needed.	—
	Defect in the ignition system.	Check and make repairs as needed.	—
	Wrong oil in the engine.	See Oil Specifications.	23
	Engine has lost compression.	Recondition the engine.	D/S
	Engine has overheated.	See "Engine Overheats".	—
	Poor fuel quality.	Use fresh, good quality fuel.	21
Engine has little power or does not run smooth.	Dirt or water in fuel system.	Clean and make repairs as needed.	D/S
	Engine is hot.	See "Engine Overheats".	D/S

PROBLEM	CAUSE	CORRECTION	PAGE
Engine has little power or does not run smooth (Cont'd).	Dirty air cleaner.	See "Engine Overheats".	—
	Engine has lost compression.	Recondition the engine.	—
Engine overheats.	Cooling system is dirty. Air flow is restricted.	Clean cooling system. Check for debris on radiator grill.	D/S
	Radiator is low on coolant.	Refill as necessary.	—
	Blower housing damaged or obstructed.	Check blower system.	23
	Engine is overloaded.	Run at full throttle.	—

TROUBLESHOOTING THE DRIVE SYSTEM			
No drive on both sides.	Hydraulic oil is low.	Check oil level and viscosity.	30
	40 Micron filter is plugged (Note: "Trans" light will be on).	Clean filter.	D/S
	Damaged vane pump.	Check condition of pump and replace if bad.	D/S
	Hydrostatic system is damaged.	Check hydrostatic system.	D/S
No drive on one side.	Control linkage is disconnected.	Repair linkage.	D/S
	Hydrostatic system is damaged.	Check hydrostatic system.	D/S
Machine pulls to one side.	Tire pressure is not correct.	Check all the tires.	60
	Steering linkage interference.	Check steering linkage.	D/S
	Damaged hydrostatic system.	Check system.	D/S
Machine moves when control levers are in neutral.	Steering linkage out of adjustment.	Adjust steering linkage.	D/S
System is overheating.	Hydraulic oil level is low.	Check oil level.	30
	Cooling system is dirty. Air is restricted.	Clean cooling system. Check for debris on radiator grill.	D/S
	Low charge pressure (transmission light on).	Check by-pass valve.	D/S
	Auxiliary control in detent.	Take out of detent.	7
	Bobcat is overloaded.	Use correct size attachment.	—
	Hydrostatic transmission defect.	Check hydrostatic system.	D/S
Parking brake will not hold.	Out of adjustment.	Make adjustments as needed.	35



## TROUBLESHOOTING THE HYDRAULIC SYSTEM

PROBLEM	CAUSE	CORRECTION	PAGE
No hydraulic action.	No hydraulic oil.	Check oil level, and add as needed.	30
	Pedals are disconnected.	Check linkage, and repair as needed.	—
	Relief valve is damaged.	Check relief pressure.	D/S
	Vane pump is damaged.	Check vane pump and replace if damaged.	D/S
	Hydraulic oil is too thick.	Let machine warm up.	—
Hydraulic action is rough.	Hydraulic oil level is low.	Check oil level, and add as needed.	30
Hydraulic action is slow.	Pedal is hitting floor or dirt under pedal.	Check adjustment. Remove dirt.	35
	Cylinders leak internally.	Check condition of cylinders.	D/S
	Vane pump is damaged.	Check vane pump.	D/S
	Control valve is damaged.	Check valve.	D/S
	Hydraulic oil is too thick.	Let machine warm up.	—
Hydraulic cylinders leak oil.	Damage to cylinder rods or seals.	Check cylinders for damage.	D/S

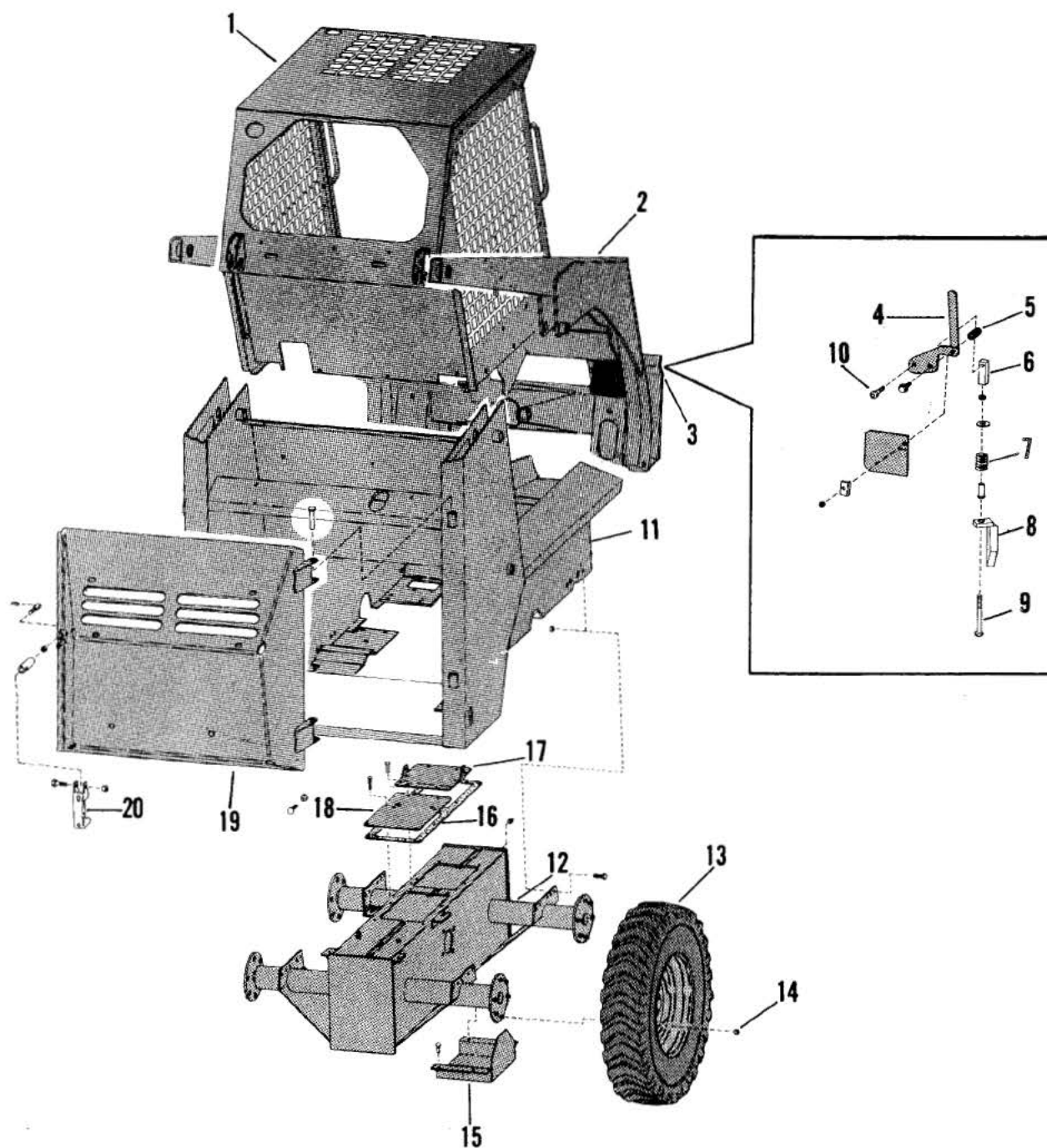
[illegible]

## MAJOR PARTS

DECALS .....	53
DRIVE SYSTEM .....	45
ENGINE & ATTACHING PARTS .....	51, 52
ENGINE ELECTRICAL SYSTEM .....	50
HAND CONTROLS .....	48
HYDRAULIC SYSTEM .....	46
HYDROSTATIC SYSTEM .....	47
MAIN FRAME .....	43
OPERATOR GUARD ELECTRICAL SYSTEM .....	49
PANELS, SEAT, SEAT BAR, & FUEL SYSTEM .....	44

**MAJOR  
PARTS**

[illegible]

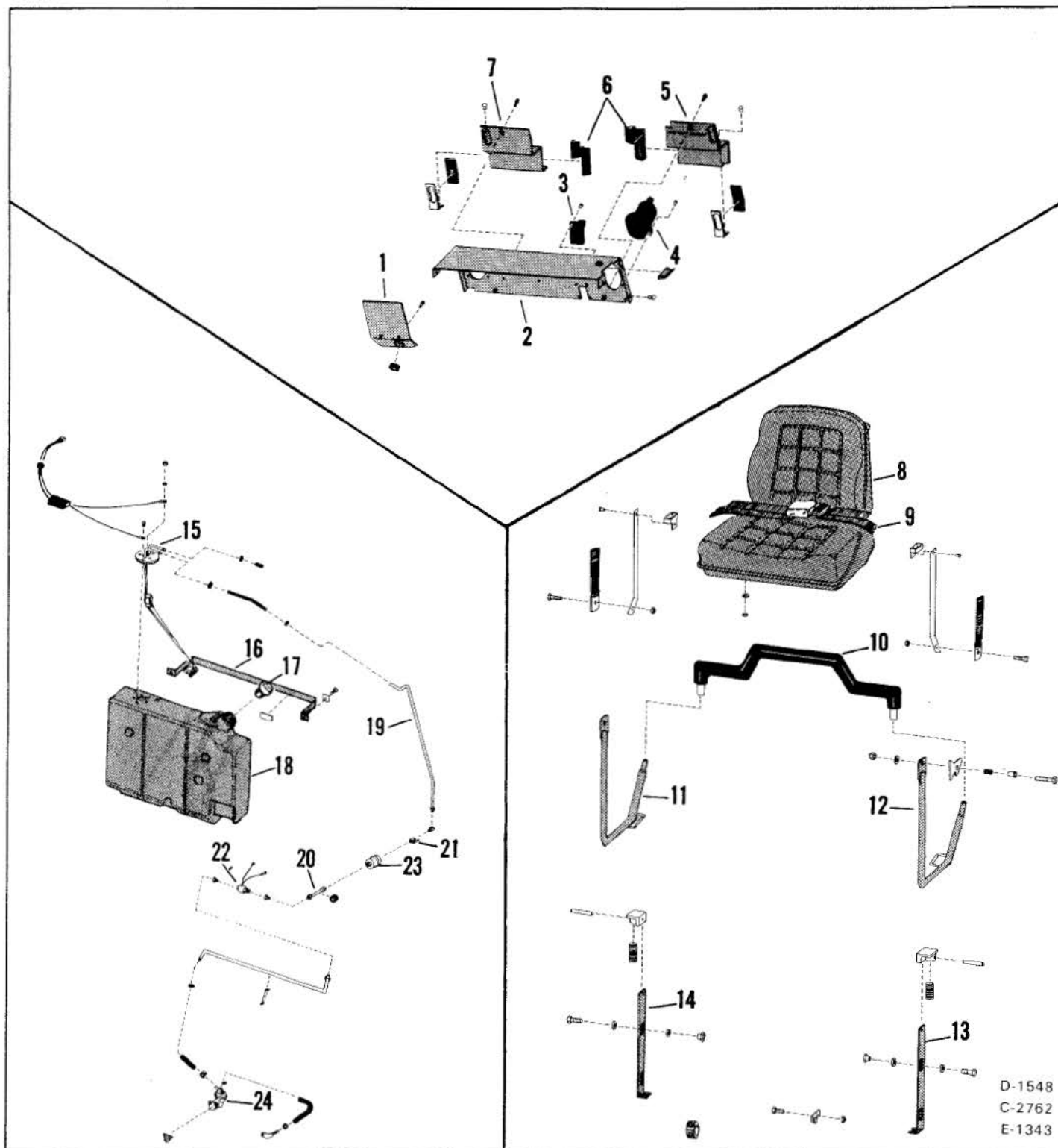


E-1366

### MAIN FRAME

Ref.	Description	Ref.	Description	Ref.	Description
1.	Operator Guard	8.	Wedge	15.	Cover
2.	Lift Arms	9.	Bolt, hex	16.	Gasket
3.	Bob-Tach	10.	Bolt, shoulder	17.	Plate
4.	Levers	11.	Main Frame	18.	Plate
5.	Spring	12.	Chaincase	19.	Door, rear
6.	Block	13.	Tire	20.	Latch, rear
7.	Spring	14.	Nut, wheel		

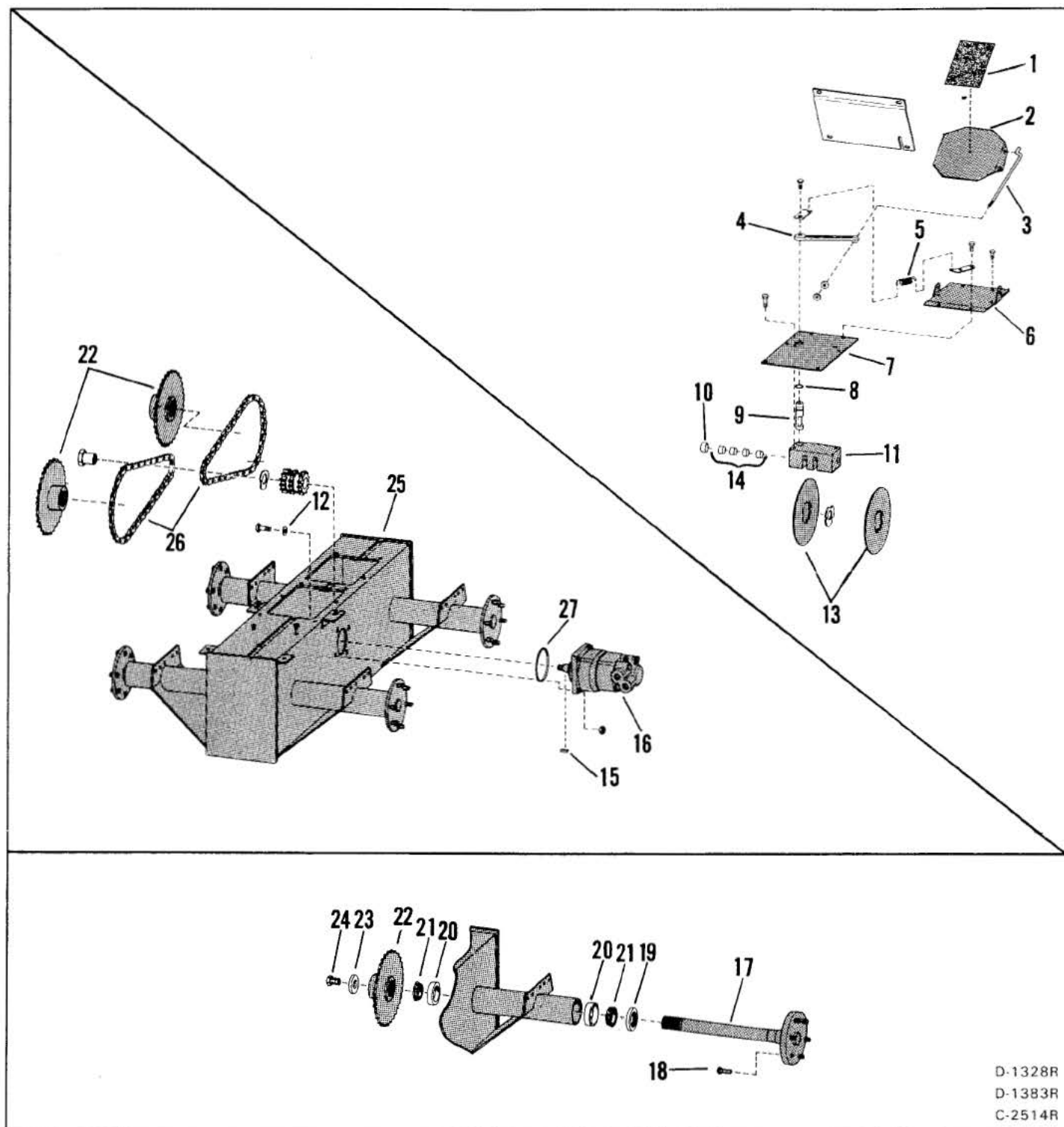




D-1548  
C-2762  
E-1343

### PANELS, SEAT, SEAT BAR & FUEL SYSTEM

Ref.	Description	Ref.	Description	Ref.	Description
1.	Shield	9.	Belt	17.	Cap
2.	Panel	10.	Bar	18.	Tank, fuel
3.	Boot	11.	Arm (R.H.)	19.	Tube
4.	Boot	12.	Arm (L.H.)	20.	Tube
5.	Panel (R.H.)	13.	Bar, lock (L.H.)	21.	Valve
6.	Beading	14.	Bar, lock (R.H.)	22.	Solenoid
7.	Panel (L.H.)	15.	Sender	23.	Filter
8.	Seat	16.	Strap	24.	Pump



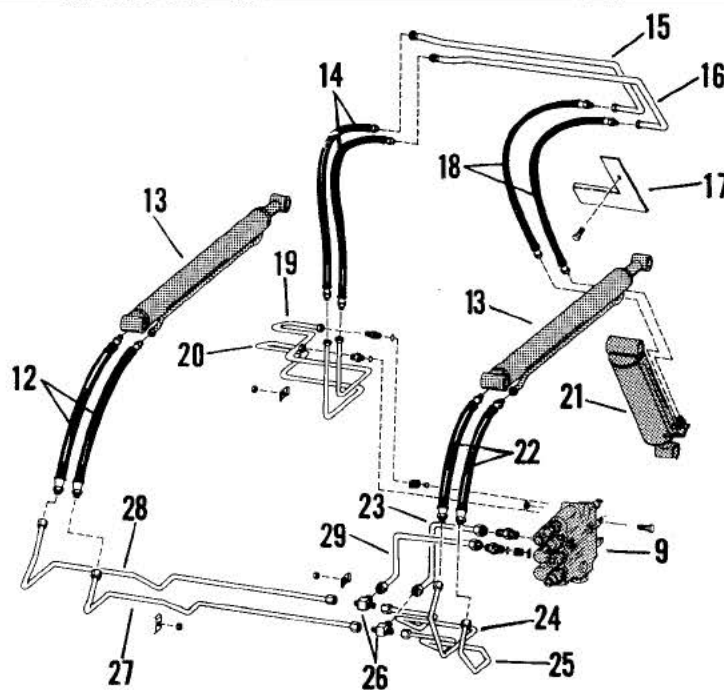
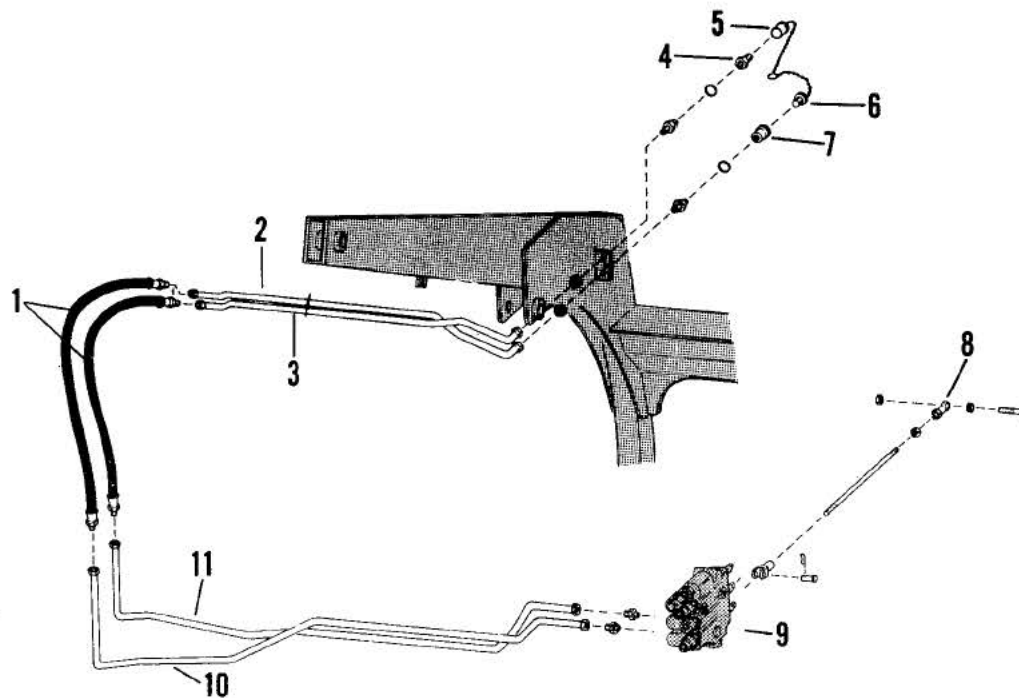
D-1328R  
D-1383R  
C-2514R

### DRIVE SYSTEM

Ref.	Description
1.	Tread, safety
2.	Pedal
3.	Rod
4.	Lever
5.	Spring
6.	Plate
7.	Plate
8.	O-ring
9.	Pin

Ref.	Description
10.	Spacer
11.	Block
12.	Washer
13.	Disc
14.	Puck, brake
15.	Key
16.	Motor
17.	Axle
18.	Bolt, wheel

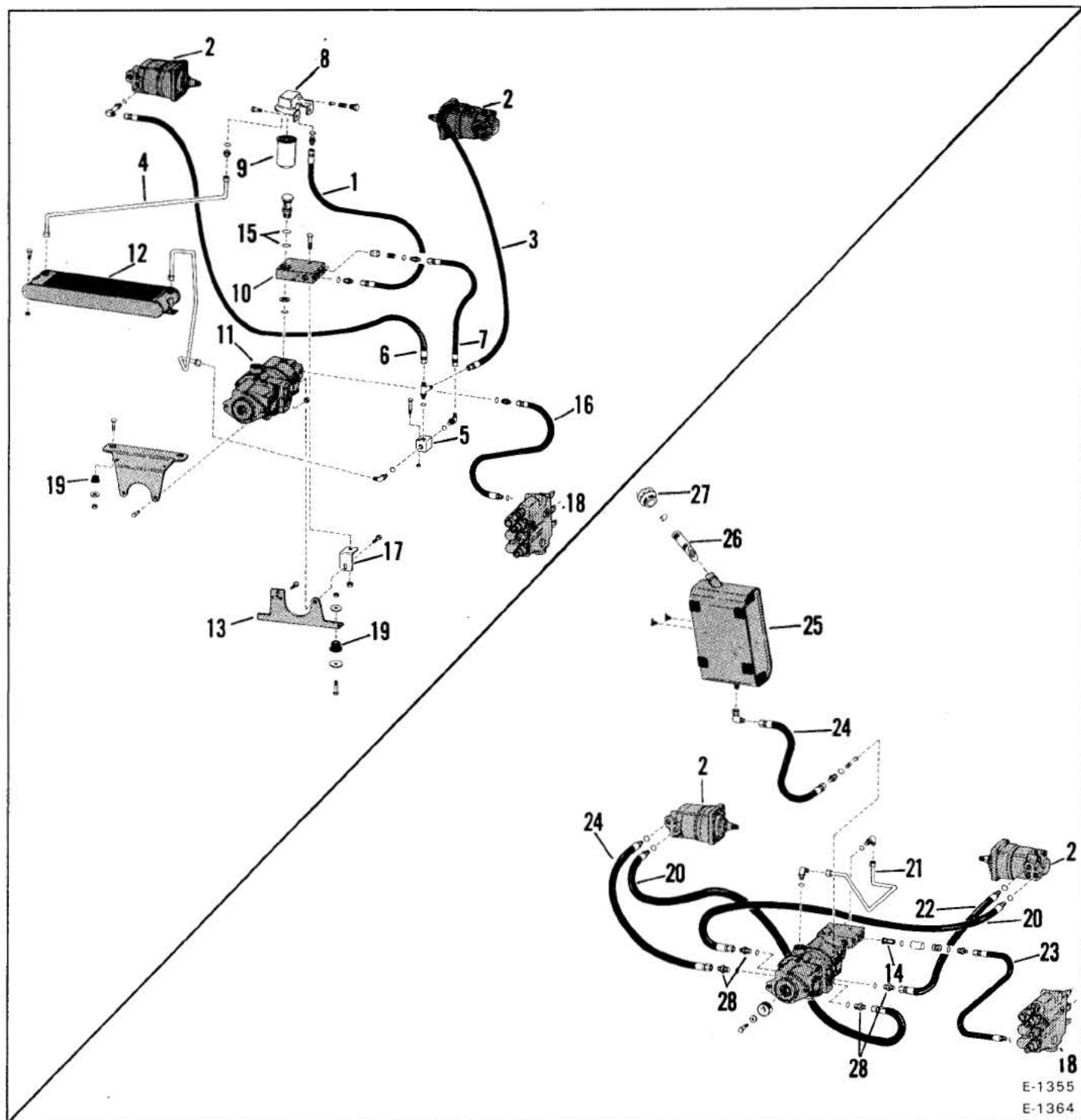
Ref.	Description
19.	Seal
20.	Bearing, cup
21.	Bearing, cone
22.	Sprocket
23.	Washer
24.	Bolt, hex
25.	Chaincase
26.	Chain, drive
27.	O-ring



D-1566  
D-1430

## HYDRAULIC SYSTEM

Ref.	Description	Ref.	Description	Ref.	Description
1.	Hose	11.	Tube	21.	Cylinder, tilt
2.	Tube	12.	Hose	22.	Hose
3.	Tube	13.	Cylinder, lift	23.	Tube
4.	Coupler (Male)	14.	Hose	24.	Tube
5.	Cap	15.	Tube	25.	Tube
6.	Plug	16.	Tube	26.	Tee
7.	Coupler (Female)	17.	Cover	27.	Tube
8.	Swivel	18.	Hose	28.	Tube
9.	Valve	19.	Tube	29.	Tube
10.	Tube	20.	Tube		



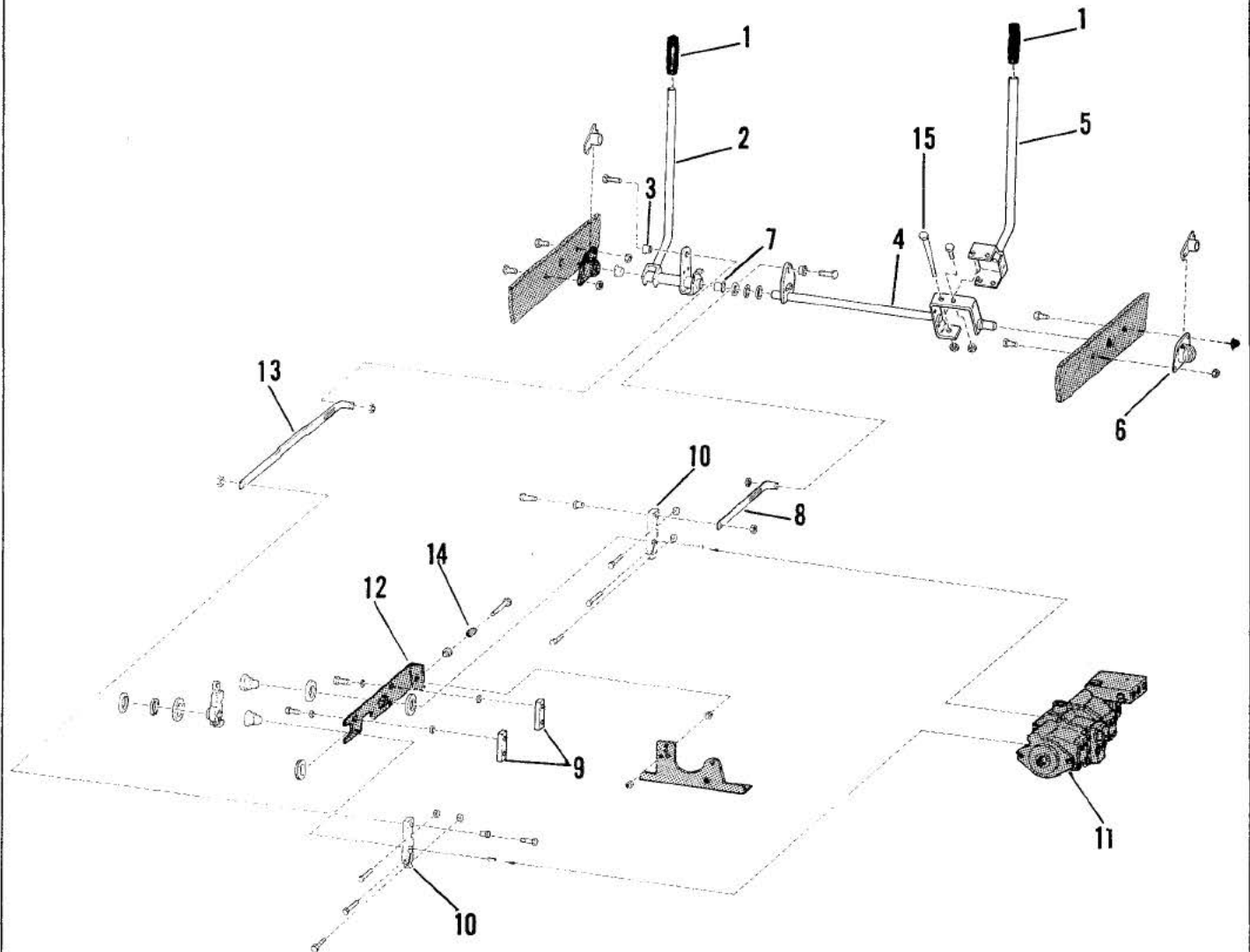
E-1355  
E-1364

### HYDROSTATIC SYSTEM

Ref.	Description
1.	Hose
2.	Motor
3.	Hose
4.	Hose
5.	Block
6.	Hose
7.	Hose
8.	Head
9.	Filter
10.	Block

Ref.	Description
11.	Pump
12.	Oil Cooler
13.	Mounts
14.	Filter
15.	O-rings
16.	Hose
17.	Bracket
18.	Valve
19.	Mount
20.	Hose

Ref.	Description
21.	Tube
22.	Hose
23.	Hose
24.	Hose
25.	Tank
26.	Screen
27.	Cap
28.	Adapter



E-1294

## HAND CONTROLS

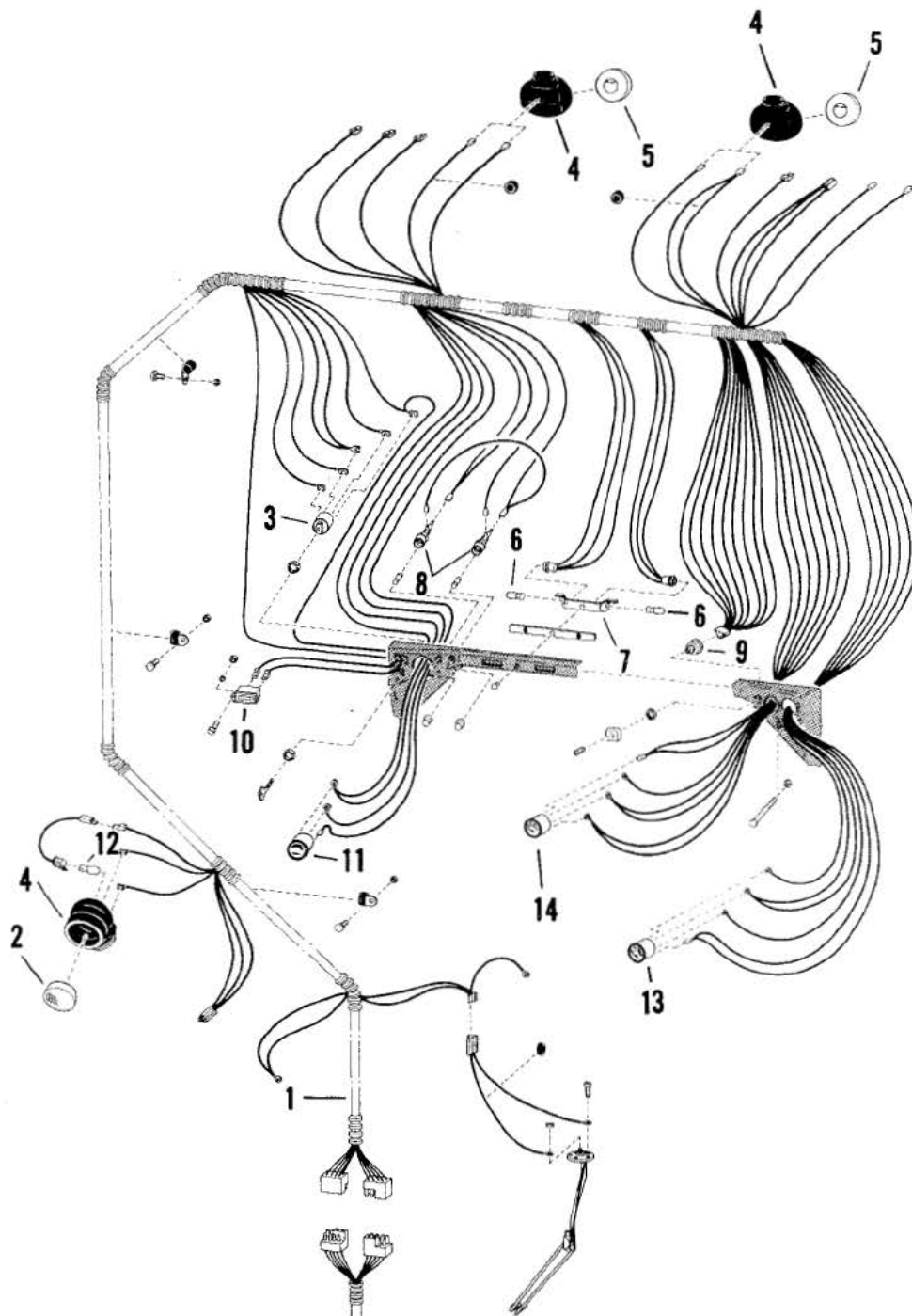
Ref. Description

- 1. Grip
- 2. Handle, left
- 3. Bushing
- 4. Shaft
- 5. Handle, right
- 6. Pivot
- 7. Bushing
- 8. Bar, right

Ref. Description

- 9. Bar, adjustment
- 10. Lever
- 11. Pump, hydrostatic
- 12. Bracket
- 13. Bar, left
- 14. Spring
- 15. Bolt, shoulder

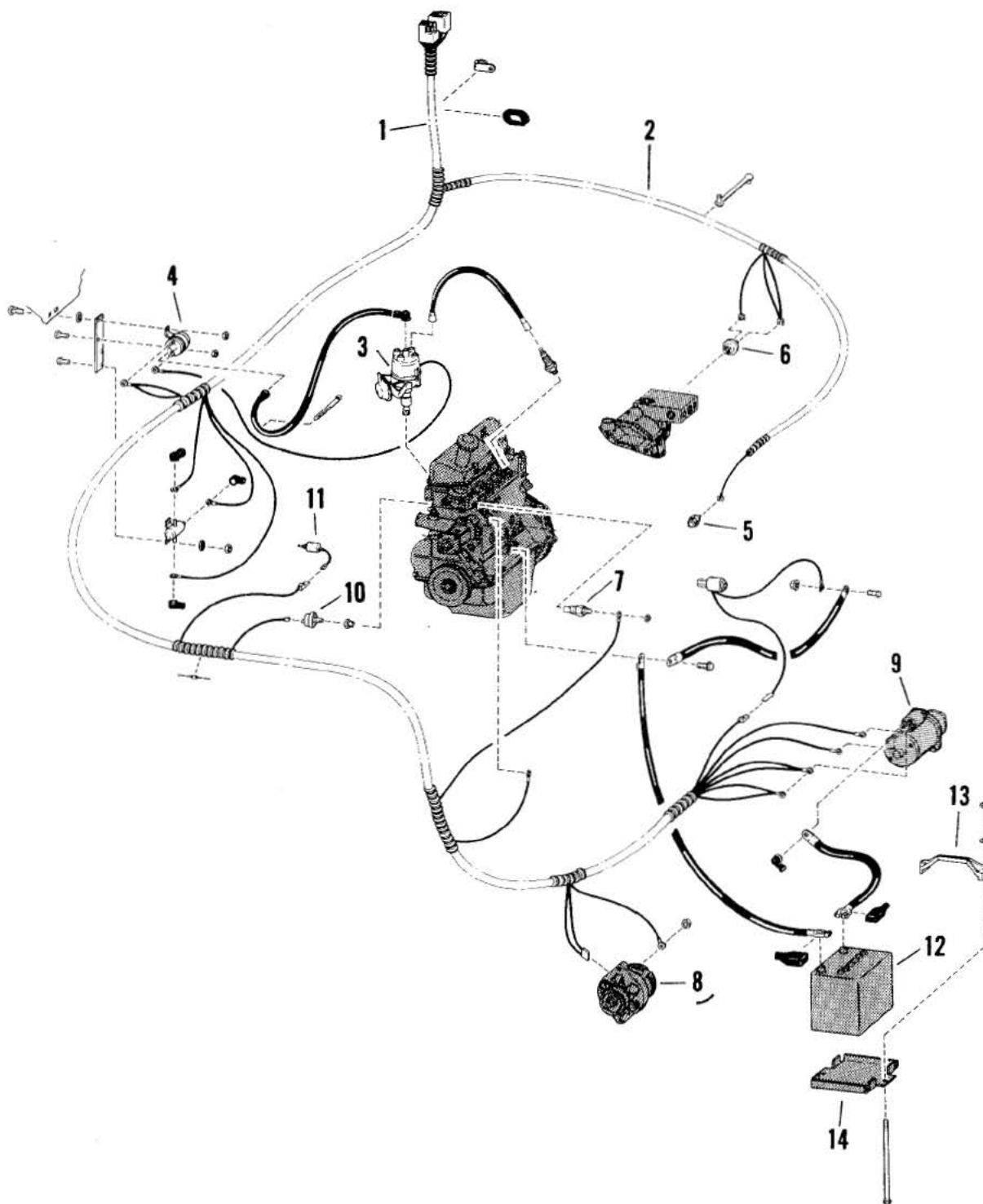




E-1108

### OPERATOR GUARD ELECTRICAL SYSTEM

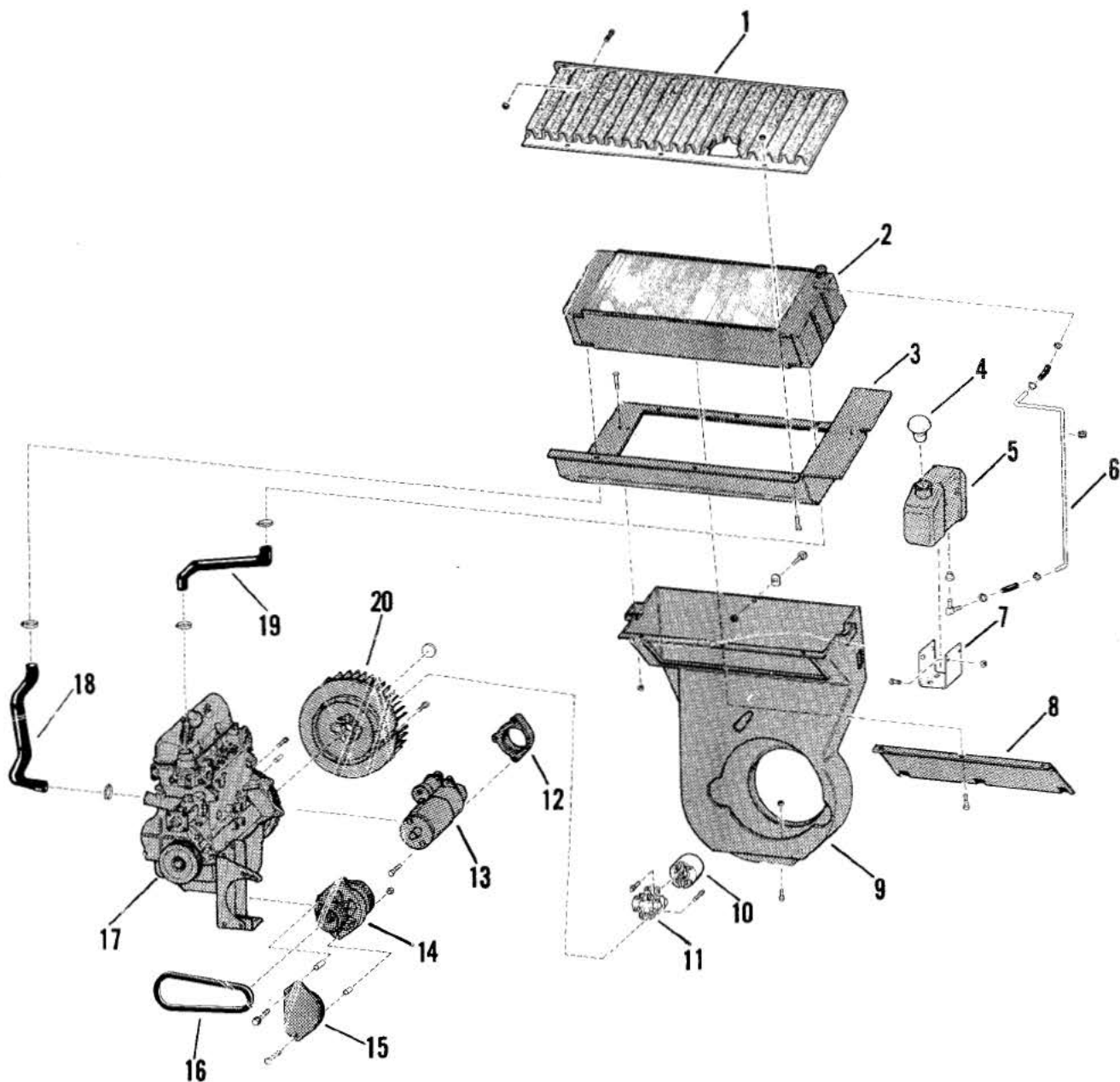
Ref.	Description	Ref.	Description
1.	Harness	8.	Fuse Holder
2.	Rear Light	9.	Light Switch
3.	Ignition Switch	10.	Hour Meter
4.	Light, housing	11.	Voltmeter
5.	Headlights	12.	Tail Light
6.	Warning Lights	13.	Gauge, Engine Coolant Temperature
7.	Bracket	14.	Gauge, Fuel



E-1470

### ENGINE ELECTRICAL SYSTEM

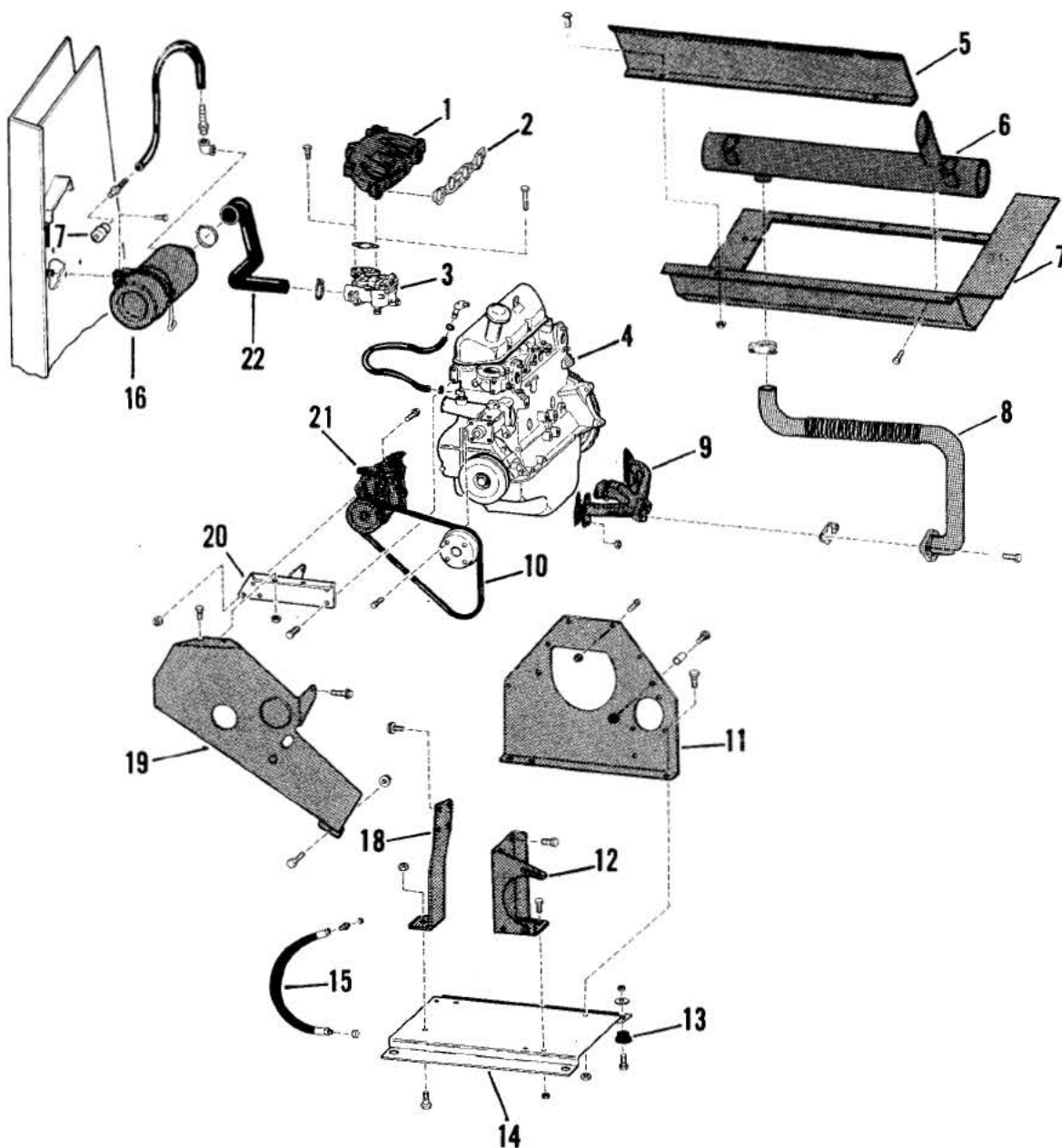
Ref.	Description	Ref.	Description
1.	Harness, engine	8.	Alternator
2.	Harness	9.	Starter
3.	Distributor	10.	Switch, engine press.
4.	Coil	11.	Solenoid
5.	Switch, press.	12.	Battery
6.	Switch, temp.	13.	Clamp
7.	Switch, engine temp.	14.	Mount



E-1347

### ENGINE & ATTACHING PARTS

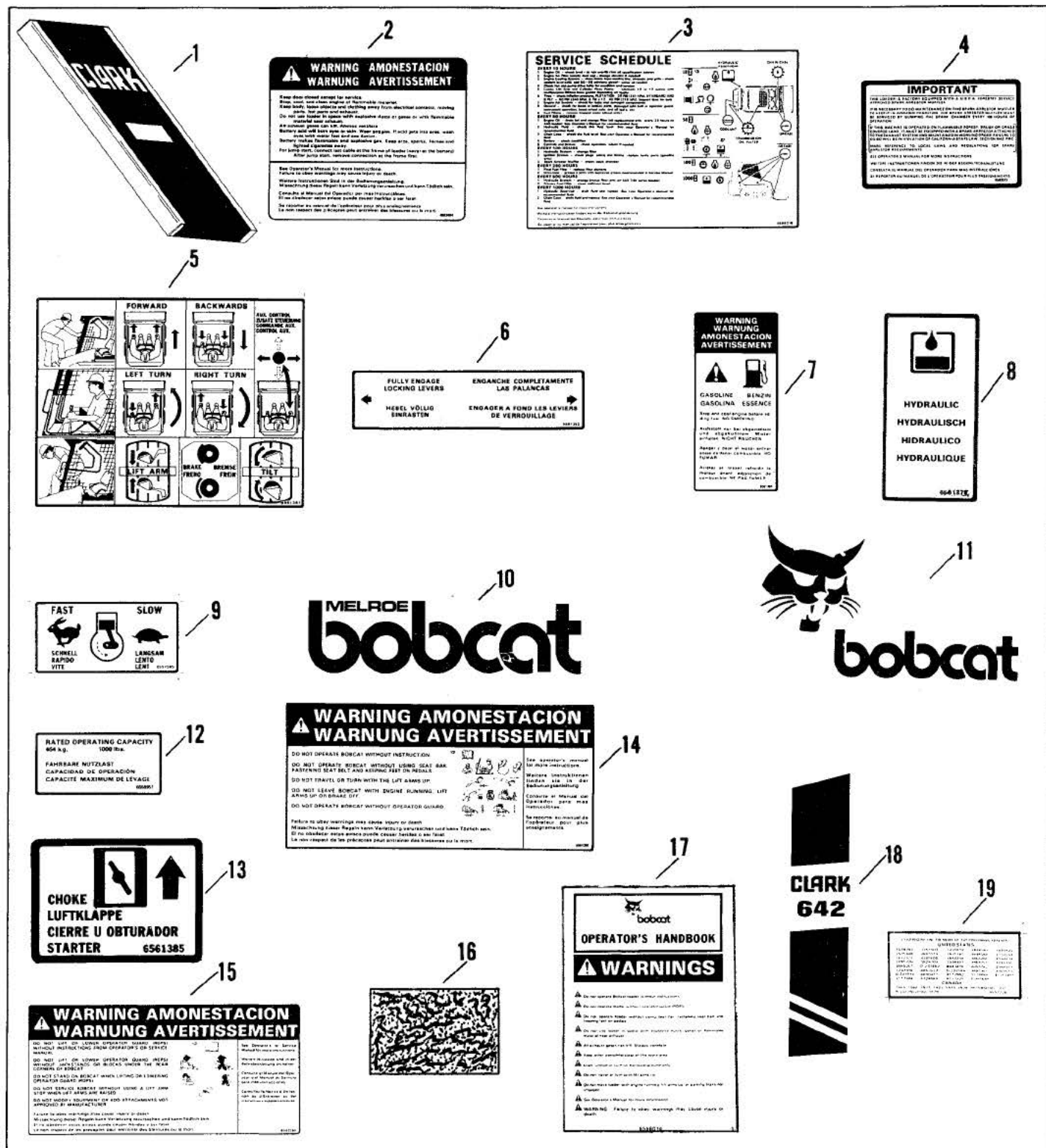
Ref.	Description	Ref.	Description	Ref.	Description	Ref.	Description
1.	Mount	6.	Tube	11.	Universal Joint	16.	Belt
2.	Radiator	7.	Mount	12.	Block	17.	Engine
3.	Mount	8.	Cover	13.	Starter	18.	Hose
4.	Cap	9.	Housing	14.	Alternator	19.	Hose
5.	Tank	10.	Yoke	15.	Shield	20.	Fan



E-1346

### ENGINE & ATTACHING PARTS

Ref.	Description	Ref.	Description	Ref.	Description	Ref.	Description
1.	Manifold, intake	7.	Mount	13.	Mount	19.	Cover
2.	Gasket	8.	Pipe	14.	Plate	20.	Bracket
3.	Carburetor	9.	Manifold, exhaust	15.	Hose	21.	Governor
4.	Engine	10.	Belt	16.	Air Cleaner	22.	Hose
5.	Shield	11.	Mount	17.	Indicator		
6.	Muffler	12.	Bracket	18.	Bracket		



## DECALS

Ref.	Description	Ref.	Description	Ref.	Description
1.	Kit	8.	Decal, hydraulic	15.	Decal, warning
2.	Decal, warning	9.	Decal, throttle	16.	Tread, safety
3.	Decal, service	10.	Decal	17.	Handbook, operator's
4.	Decal, spark arrestor	11.	Decal	18.	Decal, model
5.	Decal, operating	12.	Decal, load capacity	19.	Decal, patent
6.	Decal	13.	Decal, choke		
7.	Decal, diesel fuel	14.	Decal, warning		

[illegible]



## DECALS

IMPORTANT .....	60
SERVICE SCHEDULE .....	56
WARNING 6563484 .....	55
WARNING 6561380 .....	59
WARNING 6563380 .....	58

**DECALS**

[illegible]

## WARNING DECAL

This warning decal is located on the rear door, on the engine, or at a place near the engine.

Failure to obey warnings, may cause injury or death.

## WARNUNGS-AUFKLEBER (GERMAN)

Dieser Warnungs-Aufkleber ist an der hinteren Wartungsklappe, am Motor oder in Motornähe angebracht.

Motorhaube nur zur Wartung öffnen.

Motor abstellen, abkühlen lassen und von allen leichtentzündlichen Fremdstoffen säubern.

Berühren von elektrischen Kontakten vermeiden. Lose Kleidung und lose Gegenstände (Schmuck, etc.) von beweglichen oder heißen Teilen und vom Auspuff fernhalten.

Lader nicht in der Nähe von explosivem Staub, Gasen oder sonstigen leichtentzündlichen Materialien einsetzen.

Batteriesäure kann Ätzverletzungen verursachen. Schutzbrille tragen. Wenn Säure in die Augen gelangt, Augen schnell mit Wasser auswaschen und sofort ärztliche Hilfe aufsuchen.

Batteriegase sind leichtentzündlich. In Batterienähe Funken und offenes Licht vermeiden und nicht rauchen.

Beim Starten mit Überbrückungskabeln den letzten Anschluss am Laderrahmen vornehmen (niemals an der Batterie). Nach dem Anlassen Kabelanschluss am Laderrahmen zuerst lösen.

Abgase können tödlich sein. Stets für genügende Entlüftung sorgen.

Nichtbeachtung von Warnungshinweisen kann zu schweren oder tödlichen Verletzungen führen.

## CALCOMANIA DE ADVERTENCIA (SPANISH)

Esta calcomanía de advertencia está colocada en la puerta trasera del motor o en un lugar cercano al motor.

Abra la puerta de acceso al motor solamente para darle servicio.

Pare el motor, déjelo enfriar y límpielo de cualquier material inflamable.

No toque con el cuerpo, con objetos sueltos o con la ropa, los circuitos eléctricos, las piezas móviles o el tubo de escape.

No utilice el cargador en lugares con polvo explosivo o gas o materiales inflamables cerca del tubo de escape.

El ácido de la batería puede producir lesiones en los ojos o en la piel. Lleve anteojos de seguridad. Si el ácido entra en los ojos, lávelos con agua rápidamente y vea a un médico.

La batería forma gases inflamables y explosivos. Mantenga la batería separada de las chispas, llama y cigarrillos encendidos.

Para el arranque con cables auxiliares, conecte último el cable en el bastidor del cargador. (Nunca en la batería). Después del arranque auxiliar, saque primero la conexión del bastidor.



## WARNING AMONESTACIÓN WARNUNG AVERTISSEMENT

Keep door closed except for service.

Stop, cool, and clean engine of flammable material.

Keep body, loose objects and clothing away from electrical contacts, moving parts, hot parts and exhaust.

Do not use loader in space with explosive dusts or gases or with flammable material near exhaust.

All exhaust gases can kill. Always ventilate.

Battery acid will burn eyes or skin. Wear goggles. If acid gets into eyes, wash eyes with water fast and see doctor.

Battery makes flammable and explosive gas. Keep arcs, sparks, flames and lighted cigarettes away.

For jump start, connect last cable at the engine of loader (never at the battery).

After jump start, remove connection at the engine first.

See Operator's Manual for more instructions.

Failure to obey warnings may cause injury or death.

Weitere Instruktionen sind in der Bedienungsanleitung.

Missachtung dieser Regeln kann Verletzung verursachen und kann tödlich sein.

Consulte el Manual del Operador por más instrucciones.

El no obedecer estos avisos puede causar heridas o ser fatal.

Se reporter au manuel de l'opérateur pour plus d'enseignements.

Le non-respect des préceptes peut entraîner des blessures ou la mort.

6563484

Todos los gases del escape son mortalmente venenosos. Mantenga siempre una buena ventilación.

El no obedecer estos avisos puede causar heridas o ser fatal.

## DECALCOMANIE D'ATTENTION (FRENCH)

Cette décalcomanie d'attention est située sur la porte d'arrière du moteur ou dans un endroit proche du moteur.

Ouvrez la porte d'accès au moteur seulement pour l'entretien.

Coupez le moteur, laissez-le refroidir et nettoyez-le des matériaux inflammables.

Ne touchez pas avec votre corps, avec des objets détachés ou les vêtements, les circuits électriques, les pièces mobiles ou chaudes ou le tuyau d'échappement.

N'utilisez pas le chargeur dans des endroits avec poussière explosive ou gaz ou avec des matériaux inflammables près de tuyau d'échappement.

L'acide de batterie peut attaquer les yeux ou la peau. Toujours porter des lunettes de protection. Si de l'acide venait à atteindre les yeux, rincer immédiatement à grande eau et consulter d'urgence un médecin.

La batterie dégage des gaz inflammables et explosifs. Garder toutes les sources possibles d'arcs, s'étincelles, et de flammes, ainsi que les cigarettes allumées à distance de la batterie.

Pour les démarrages assistés, effectuer la dernière jonction (câble d'appoint négatif) au châssis de la chargeuse, jamais à la batterie. Après avoir effectué le démarrage, débrancher d'abord le câble négatif du côté châssis.

Tous le gaz d'échappement peuvent tuer. Aérer toujours.

Le non-respect des consignes peut provoquer des blessures et même la mort.

# SERVICE SCHEDULE

## EVERY 10 HOURS

1. Engine Oil — check level—do not overfill (See oil specification below).
2. Engine Air Filter (empty dust cap—change element if needed).
3. Engine Cooling System — clean debris from cooling fins, shrouds, and grills—check coolant level cold, add 50—50 ethylene glycol—water as needed.
4. Check fan and pump drive belts for condition and tension.
5. Loader Lift Arm and Cylinder Pivot Points — lubricate 10 or 12 points with multipurpose lithium base grease depending on loader.
6. Tires — check inflation pressure, FLotation - 35 PSI (241 kPa), STANDARD AND 8 PLY — 50 PSI (340 kPa), 5.70 x 12 - 40 PSI (275 kPa), inspect tires for cuts.
7. Engine Air System — check for leaks and damaged components.
8. General — check for loose or broken parts, damaged seat belt or operator guard, instrument operation, loose wheel nuts, and oil leaks, etc.
9. Fuel Filters — remove trapped water (diesel only).

## EVERY 50 HOURS

1. Engine Oil — drain hot and change filter (oil replacement only, every 25 hours on 440 loader). See Operator's Manual for recommended fluid.
2. Hydraulic Fluid — check the fluid level. See your Operator's Manual for recommended fluid.
3. Chain Case — check the fluid level. See your Operator's Manual for recommended fluid.
4. Battery — check condition.
5. Controls and Brakes — check operation, adjust if needed.

## EVERY 100 HOURS

1. Hydraulic System — change filter.
2. Ignition System — check plugs, points and timing—replace faulty parts (gasoline only).
3. Spark Arrestor Muffler — empty spark chamber.

## EVERY 250 HOURS

1. Final Fuel Filter — replace filter element.
2. Drive Line — grease U-joint with approved grease recommended in Service Manual.

## EVERY 500 HOURS

1. Hydraulic System — change bronze filter only on 640-740 series loaders.
2. Primary Fuel Filter — clean sediment bowl.

## EVERY 1000 HOURS

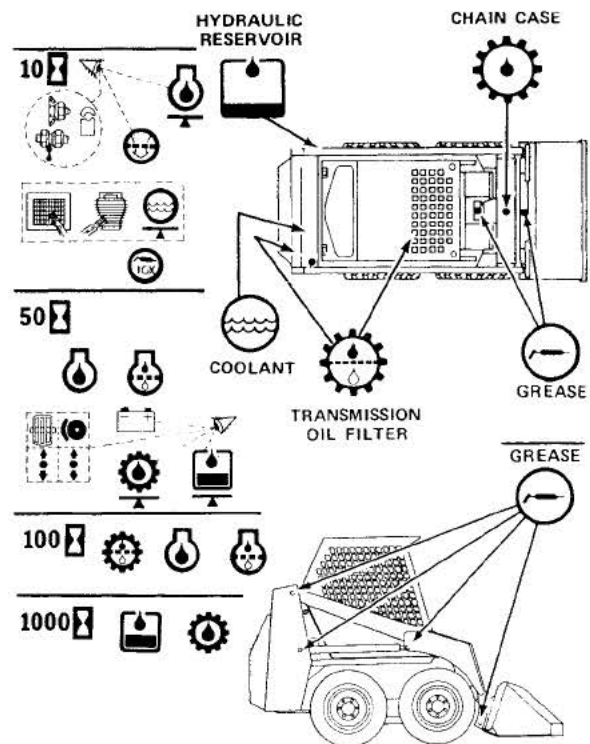
1. Hydraulic Reservoir — drain fluid and replace. See your Operator's Manual for recommended fluid.
2. Chain Case — drain fluid and replace. See your Operator's Manual for recommended fluid.

See operator's manual for more instructions.

Weitere Instruktionen finden Sie in der Bedienungsanleitung.

Consulta el Manual del Operador para más instrucciones.

Se reporter au manuel de l'opérateur pour plus d'enseignements.



## WARTUNGSTABELLE (GERMAN)

### ALLE 10 BETRIEBSSTUNDEN

1. Motoröl — Ölstand prüfen — nicht überfüllen (siehe Ölspezifikationen unten).
2. Motor-Luftfilter (Staubdeckel ausleeren — Filterelement wechseln, falls nötig).
3. Motor-Kühlsystem — Kühlrippen, Verkleidungen und Grill von Abfall reinigen — Kühlmittelstand kalt prüfen, Kühlmittel aus je 50% Wasser und Äthyl-Glykol zufüllen, falls nötig, Lüfter- und Pumpenantriebsriemen auf richtige Spannung und einwandfreien Zustand prüfen (nur wassergekühlte Maschinen).
4. Hubarme und Zylinderschwenkzapfen — 10 Schmierpunkte mit Mehrzweckschmierfett auf Lithiumbasis schmieren (12 Schmierpunkte an Ladern der Serie 300).
5. Reifen — Reifendruck messen (Breitreifen 240 kPa (35 psi), Standardreifen 340 kPa (50 psi), 5.70 x 12 275 kPa (40 psi)). Reifen auf Risse oder Schnittstellen prüfen.
6. Motor-Luftansaugung — auf Leckstellen und Beschädigungen prüfen.
7. Allgemein — Auf lose oder beschädigte Teile achten, auf Schäden an den Sicherheitsgurten oder am Fahrerschutzdach prüfen, auf schadhafte Instrumente achten, auf lose Radmutter, Öllecks usw. achten.
8. Kraftstoff-Filter — angesammeltes Wasser entleeren.

### ALLE 50 BETRIEBSSTUNDEN

1. Motoröl — warm ablassen und Filter wechseln (an Ladern 310 alle 25 Betriebsstunden). Nur API-Klassifizierung SE Motoröl 10W-30 oder 10W-40 (für Dieselmotoren API-Klassifizierung CC) verwenden.

2. Hydrauliköl — Ölstand prüfen. Zugelassene Hydrauliköle sind in der Betriebsanleitung aufgeführt.
3. Kettengehäuse — Ölstand prüfen. Zugelassene Öle sind in der Betriebsanleitung aufgeführt.
4. Batterie — Batteriezustand prüfen.
5. Bedienungen und Bremsen — Betriebsfähigkeit prüfen, falls nötig, nachstellen.

### ALLE 100 BETRIEBSSTUNDEN

1. Hydraulikanlage — Filter Wechseln
2. Zündung — Zündkerzen, Kontakte und Zündeneinstellung prüfen — fehlerhafte Teile auswechseln (nur Benzinmotoren)
3. Auspuff mit Funkenfänger — Funkenfängertopf ausleeren
4. Motoröl an Ladern 843 — warm ablassen, Filter wechseln, mit neuem Öl füllen zulässige Öle sind in der Betriebsanleitung aufgeführt.

### ALLE 200 BETRIEBSSTUNDEN

1. Lader 843 Kraftstoff-Hauptfilter — Filterelement ersetzen
2. Lader 843 Kraftstoff-Vorfilter — Absetzschale reinigen

### ALLE 500 BETRIEBSSTUNDEN

1. Hydraulikanlage — Bronze-Filter Sieb wechseln
2. Antriebswelle — Kreuzgelenke mit zulässigem Schmierfett, wie in der Wartungsanleitung aufgeführt, abschmieren.

### ALLE 1000 BETRIEBSSTUNDEN

1. Hydrauliktank — Tank ablassen und neu füllen. Zugelassene Hydrauliköle sind in der Betriebsanleitung aufgeführt.
2. Kettengehäuse — Gehäuse ablassen und neu füllen. Zugelassene Öle sind in der Betriebsanleitung aufgeführt.

# PROGRAMACION DE SERVICIO

## (SPANISH)

### CADA 10 HORAS

1. Aceite del motor, verifique el nivel, no llene demasiado (vea más abajo las especificaciones del aceite)
2. Filtro de aire del motor (Vacíe la tapa de polvo y cambie el elemento si es necesario)
3. Sistema de enfriamiento del motor. Limpie la basura de las aletas de enfriamiento, protectores y parrilla. Verifique en frío el nivel del refrigerante, agregue agua y glicol en la cantidad necesaria para una proporción del 50 y 50 y verifique las correas impulsoras de la bomba y el ventilador para comprobar la tensión y sus condiciones (únicamente enfriado con líquido).
4. Brazos de levantamiento y puntos de pivote del cilindro. Lubrique 10 puntos con grasa de uso múltiple de base de litio (12 puntos en los Cargadores de las series 600).
5. Neumáticos. Verifique la presión de inflado (Flotación 35 PSI ó 241 kPa, Standard 50 PSI ó 340 kPa) (5,70 x 12 40 PSI ó 275 kPa). Observe si tienen cortes.
6. Sistema de aire del motor. Verifique si hay fugas o componentes dañados.
7. General. Verifique por piezas rotas o sueltas, cinturones del asiento, guarda protectora del operador y otros accesorios dañados, funcionamiento de los instrumentos, tuercas de la rueda sueltas, fugas de aceite, etc.
8. Filtros de combustible. Saque el agua atrapada.

### CADA 50 HORAS

1. Aceite del motor. Vacíelo caliente y cambie el filtro (cada 25 horas en los Cargadores 310). Use únicamente Aceites de motor 10W-30 ó 10W-40 Clasificación de Servicio API, SE (Clasificación de Servicio API, grado CC para los motores Diesel).
2. Fluido hidráulico. Verifique el nivel del fluido. Consulte en el Manual del Operador por el fluido recomendado.
3. Caja de la cadena. Verifique el nivel del fluido. Consulte en el Manual del Operador por el fluido recomendado.
4. Batería. Verifique sus condiciones.
5. Controles y frenos. Verifique su funcionamiento y ajuste si es necesario.

### CADA 100 HORAS

1. Sistema hidráulico. Cambie el filtro.
2. Sistema de encendido. Verifique las bujías, platinos y regulación. Cambie las piezas con fallas (gasolina solamente).
3. Silenciador represor de chispas. Vacíe la cámara de chispas.
4. Aceite del motor en el 843. Vacíelo caliente, cambie el filtro, llénelo con el aceite recomendado en el Manual del Operador.

### CADA 200 HORAS

1. Filtro de combustible final 843. Cambie el elemento de filtro.
2. Filtro de combustible primario 843. Limpie el tazón de sedimentos.

### CADA 500 HORAS

1. Sistema hidráulico. Cambie el filtro de bronce.
2. Línea impulsora. Engrase la junta universal con la grasa aprobada que se recomienda en el Manual de Servicio.

### CADA 1000 HORAS

1. Caja hidráulica. Drene el fluido y reemplácelo. Vea en el Manual del Operador el fluido recomendado.
2. Caja de la cadena. Drene el fluido y reemplácelo. Vea en el Manual del Operador el fluido recomendado.

# PROGRAMME D'ENTRETIEN

## (FRENCH)

### TOUTES LES 10 HEURES

1. Huile du Moteur: vérifier le niveau; ne pas trop remplir (Voir ci-après les spécifications se rapportant à l'huile).
2. Filtre à Air du Moteur: vider le capuchon à poussière; au besoin, changer l'élément filtrant.
3. Circuit de Refroidissement du Moteur: enlever tous débris des ailettes, enveloppes, et grilles de refroidissement; vérifier à froid le niveau du fluide de refroidissement, ajouter du mélange 50% éthylène glycol - 50% eau suivant les besoins; vérifier l'état et la tension des courroies d'entraînement de la pompe (seulement pour moteurs refroidis par un liquide).
4. Pivots des Bras de Levage et des Vérins: graisser en 10 points avec une graisse polyvalente à base de lithium (12 points sur les chargeuses de la gamme 300).
5. Pneus: vérifier la pression - Flottation à 35 PSI (241 kPa), standard à 50 PSI (345 kPa), 5.70 x 12 à 40 PSI (275 kPa); inspecter les coupures éventuelles.
6. Circuit d'Air du Moteur: vérifier l'absence de fuites et de composants endommagés.
7. En Général: vérifier le bon fonctionnement des indicateurs, le bon état de la ceinture de sécurité et de la structure de protection de l'opérateur, l'absence de pièces cassées ou détachées, d'écrous détachés des roues, de fuites d'huile, etc.
8. Filtres à Carburant: vider l'eau de condensation.

### TOUTES LES 50 HEURES

1. Huile du Moteur: vidanger à chaud et changer le filtre (toutes les 25 heures sur la chargeuse 310). Utiliser exclusivement une huile de grade 10W-30 ou 10W-40, API service SE, ou grade API service CC pour moteurs diesels.
2. Liquide Hydraulique: vérifier le niveau du liquide. Consulter la Notice d'Utilisation au sujet du liquide recommandé.
3. Carter de Chaîne: vérifier le niveau du liquide. Consulter la Notice d'Utilisation au sujet du liquide recommandé.
4. Batterie: vérifier son bon état.
5. Commandes et Freins: vérifier leur fonctionnement; ajuster au besoin.

### TOUTES LES 100 HEURES

1. Circuit Hydraulique: changer le filtre.
2. Système d'Allumage: vérifier les bougies, les vis platinées et le calage; remplacer les pièces défectueuses (moteurs à essence seulement).
3. Pot d'Echappement à Pare-Etincelles: vider la chambre à étincelles.
4. Huile du Moteur du 843: vidanger l'huile à chaud, changer le filtre, remplir avec l'huile recommandée dans la Notice d'Utilisation.

### TOUTES LES 200 HEURES

1. Filtre à Carburant Final du 843: remplacer l'élément filtrant.
2. Filtre à Carburant Primaire du 843: enlever le sédiment de la cuvette.

### TOUTES LES 500 HEURES

1. Circuit Hydraulique: changer le filtre en bronze.
2. Chaîne Cinématique: graisser le joint universel avec la graisse approuvée qui est recommandée dans la Notice d'Entretien.

### TOUTES LES 1000 HEURES

1. Carter Hydraulique: vidanger le liquide et le remplacer. Consulter la Notice d'Utilisation au sujet du liquide recommandé.
2. Carter de Chaîne: vidanger le fluide et le remplacer. Consulter la Notice d'Utilisation au sujet du fluide recommandé.



# WARNING AMONESTACIÓN WARNUNG AVERTISSEMENT

DO NOT OPERATE BOBCAT WITHOUT INSTRUCTION.

DO NOT OPERATE BOBCAT WITHOUT USING SEAT BAR, FASTENING SEAT BELT AND KEEPING FEET ON PEDALS.

DO NOT TRAVEL OR TURN WITH THE LIFT ARMS UP.

DO NOT LEAVE BOBCAT WITH ENGINE RUNNING, LIFT ARMS UP OR BRAKE OFF.

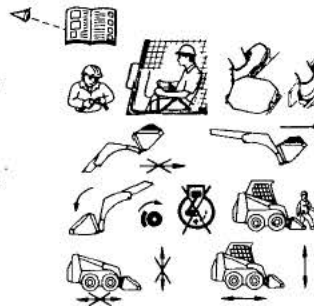
DO NOT OPERATE BOBCAT WITHOUT OPERATOR GUARD.

Failure to obey warnings may cause injury or death.

Missachtung dieser Regeln kann Verletzung verursachen und kann Tödlich sein.

El no obedecer estos avisos puede causar heridas o ser fatal.

Le non-respect de les préceptes peut entraîner des blessures ou la mort.



See operator's manual for more instructions.

Weitere Instruktionen finden sie in der Bedienungsanleitung.

Consulta el Manual del Operador para mas instrucciones.

Se reporter au manuel de l'opérateur pour plus enseignements.

6561380

## WARNUNG (GERMAN)

Bobcat-Lader nicht ohne Betriebsanleitung bedienen.

Bobcat-Lader nur bedienen, wenn die Sitzstange eingelegt und der Sitzgurt angeschnallt ist und beide Füße auf den Pedalen sind.

Nicht mit angehobenen Hubarmen fahren oder drehen.

Lader nicht verlassen, wenn der Motor läuft, die Hubarme angehoben sind, oder die Feststellbremse nicht eingelegt ist.

Lader nicht ohne Fahrerschutzkabine (ROPS) bedienen.

## AMONESTACIÓN (SPANISH)

No haga funcionar el cargador Bobcat sin instrucciones.

No haga funcionar el cargador sin utilizar la barra del asiento, sujetar el cinturón del asiento y mantener los pies en los pedales.

No mueva la máquina o gire con los brazos de elevación levantados.

No abandone el cargador con el motor funcionando, los brazos de elevación levantados o el freno de estacionamiento desconectado.

No haga funcionar el cargador sin la guarda protectora del operador (ROPS).

## AVERTISSEMENT (FRENCH)

Ne pas utiliser le Bobcat sans formation préalable.

Ne pas utiliser la chargeuse sans mettre la barre de sécurité, sans boucler la ceinture de sécurité, et sans garder les pieds sur les pédales.

Ne pas rouler ou tourner avec les bras de levage relevés.

Ne pas laisser la chargeuse avec le moteur en marche, les bras de levage relevés, ou le frein de stationnement desserré.

Ne pas utiliser la chargeuse sans la structure de protection (ROPS).





# WARNING AMONESTACION WARNUNG AVERTISSEMENT

DO NOT LIFT OR LOWER OPERATOR GUARD (ROPS) WITHOUT INSTRUCTIONS FROM OPERATOR'S OR SERVICE MANUAL.

DO NOT LIFT OR LOWER OPERATOR GUARD (ROPS) WITHOUT JACKSTANDS OR BLOCKS UNDER THE REAR CORNERS OF BOBCAT.

DO NOT STAND ON BOBCAT WHEN LIFTING OR LOWERING OPERATOR GUARD (ROPS).

DO NOT SERVICE BOBCAT WITHOUT USING A LIFT ARM STOP WHEN LIFT ARMS ARE RAISED.

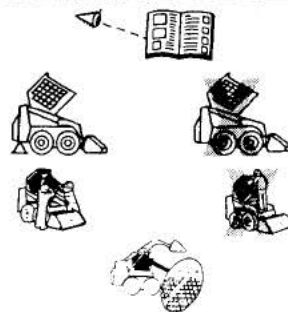
DO NOT MODIFY EQUIPMENT OR ADD ATTACHMENTS NOT APPROVED BY MANUFACTURER.

Failure to obey warnings may cause injury or death.

Missachtung dieser Regeln kann Verletzung verursachen und kann Tödllich sein.

El no obedecer estos avisos puede causar heridas o ser fatal.

Le non-respect de les préceptes peut entraîner des blessures ou la mort.



See Operator's or Service Manual for more instructions.

Weitere Hinweise sind in der Betriebsanleitung enthalten.

Consulte el Manual del Operador o el Manual de Servicio para más instrucciones.

Consultez la Notice d'Utilisation ou d'Entretien ou del instructions supplémentaires.

6563380

## WARNUNG (GERMAN)

Fahrerschutzkabine (ROPS) nicht ohne Anleitungen aus der Betriebsanleitung oder aus dem Wartungshandbuch anheben oder ablassen.

Vor dem Anheben oder Ablassen der Fahrerschutzkabine (ROPS) die hinteren Ecken des Lades abstützen oder unterbauen.

Beim Anheben oder Ablassen der Fahrerschutzkabine (ROPS) nicht auf dem Lader stehen.

Vor Wartungsarbeiten mit angehobenen Hubarmen muss die Hubarmsperre eingelegt sein.

Keine Änderungen am Gerät vornehmen oder Anbaugeräte verwenden, die nicht vom Hersteller genehmigt sind.

## ADVERTENCIAS (SPANISH)

No levante o baje la guarda protectora del operador (ROPS) sin instrucciones del Manual de Operador o el Manual de Servicio.

No levante o baje la guarda protectora del operador (ROPS) sin soportes o bloques debajo de las esquinas traseras del cargador.

No permanezca en el cargador cuando levanta o baja la guarda protectora del operador (ROPS).

No dé servicio al cargador sin utilizar el tope del brazo de elevación cuando los brazos de elevación están levantados.

No modifique el equipo ni agregue accesorios que no estén aprobados por el fabricante.

## AVERTISSEMENT (FRENCH)

Ne pas relever ou abaisser la structure de protection (ROPS) sans avoir consulté au préalable les instructions contenues dans les Notices d'Utilisation et de Maintenance.

Ne pas relever ou abaisser la structure de protection (ROPS) sans avoir placé des supports ajustables ou des blocs sous les coins arrière de la chargeuse.

Ne pas monter sur la chargeuse pour relever ou abaisser la structure de protection (ROPS).

Ne pas travailler sur la chargeuse sans avoir bloqué les bras de levage en position avec une butée, quand les bras sont relevés.

Ne pas modifier le matériel ou ajouter des accessoires non-approuvés par le constructeur.

## WICHTIG (GERMAN)

DIESER LADER IST FABRIKMÄSSIG MIT EINEM FUNKENFÄNGER-AUSPUFF AUSGERÜSTET, DER DEN U.S.D.A.-FORSTEINSATZBESTIMMUNGEN ENTSPRICHT.

DIESER FUNKENFÄNGER-AUSPUFF MUSS GEWARTET WERDEN, UM SEINE FUNKTIONSFÄHIGKEIT ZU BEHALTEN. ZUR WARTUNG DES FUNKENFÄNGER-AUSPUFFS MUSS DER FUNKENFÄNGERTOPF ALLE 100 BETRIEBSSTUNDEN AUSGELEERT WERDEN.

WENN DIESE MASCHINE AUF LEICHTENTZÜNDLICHEM FORST-, GESTRÜPP- ODER GRASLAND EINGESETZT WIRD, MUSS SIE MIT EINER FUNKENFANG-ANLAGE AM AUSPUFF AUSGERÜSTET SEIN UND DIESE ANLAGE MUSS REGELMÄSSIG GEWARTET WERDEN. ZUWIDERHANDLUNG VERSTÖSST GEGEN DAS STAATSGESETZ VON KALIFORNIEN, ABSATZ 4442, PAR. C.

ÖRTLICHE GESETZE UND BESTIMMUNGEN ÜBER FUNKENFÄNGER-AUSRÜSTUNG GENAU BEACHTEN.

## IMPORTANTE (SPANISH)

ESTE CARGADOR VIENE EQUIPADO DE FÁBRICA CON UN SILENCIADOR REPRESOR DE CHISPAS APROBADO POR EL SERVICIO FORESTAL DEL DEPARTAMENTO DE AGRICULTURA DE LOS E.U.

ES NECESARIO DAR SERVICIO AL REPRESOR DE CHISPAS PARA QUE ESTÉ EN CONDICIONES DE BUEN FUNCIONAMIENTO. PARA DAR SERVICIO AL REPRESOR DE CHISPAS HAY QUE VACIAR LA CÁMARA DE CHISPAS CADA 100 HORAS DE OPERACIÓN.

SI ESTÁ MÁQUINA TRABAJA EN UN BOSQUE INFLAMABLE O EN UN LLANO CON MALEZA O HIERBA SECA, DEBE ESTAR EQUIPADA CON UN REPRESOR DE CHISPAS COLOCADO EN EL SISTEMA DE ESCAPE Y SE DEBE MANTENER EL IMPLEMENTO EN BUENAS CONDICIONES DE TRABAJO. SI NO SE CUMPLE CON ESTA INDICACIÓN, SE ESTARÁ EN CONTRAVENCIÓN DE LA LEY DEL ESTADO DE CALIFORNIA, SECCIÓN 4442, PRC.

CONSULTE LAS LEYES Y REGLAMENTACIONES LOCALES PARA CONOCER LOS REQUERIMIENTOS SOBRE REPRESOR DE CHISPAS.

## IMPORTANT

THIS LOADER IS FACTORY EQUIPPED WITH A U.S.D.A. FORESTRY SERVICE APPROVED SPARK ARRESTOR MUFFLER.

IT IS NECESSARY TO DO MAINTENANCE ON THIS SPARK ARRESTOR MUFFLER TO KEEP IT IN WORKING CONDITION. THE SPARK ARRESTOR MUFFLER MUST BE SERVICED BY DUMPING THE SPARK CHAMBER EVERY 100 HOURS OF OPERATION.

IF THIS MACHINE IS OPERATED ON FLAMMABLE FOREST, BRUSH OR GRASS COVERED LAND, IT MUST BE EQUIPPED WITH A SPARK ARRESTOR ATTACHED TO THE EXHAUST SYSTEM AND MAINTAINED IN WORKING ORDER. FAILURE TO DO SO WILL BE IN VIOLATION OF CALIFORNIA STATE LAW, SECTION 4442, PRC.

MAKE REFERENCE TO LOCAL LAWS AND REGULATIONS FOR SPARK ARRESTOR REQUIREMENTS.

SEE OPERATOR'S MANUAL FOR MORE INSTRUCTIONS.

WEITERE INSTRUKTIONEN FINDEN SIE IN DER BEDIENUNGSANLEITUNG.

CONSULTA EL MANUAL DEL OPERADOR PARA MAS INSTRUCCIONES.

SE REPORTER AU MANUEL DE L'OPERATEUR POUR PLUS ENSEIGNEMENTS.

6560573

## IMPORTANT (FRENCH)

CETTE CHARGEUSE EST EQUIPEE SORTIE USINE D'UN POT D'ÉCHAPPEMENT A PARE-ÉTINCELLES APPROUVE PAR LE SERVICE DES EAUX ET FORETS DES ETATS-UNIS (U.S.D.A. FORESTRY SERVICE).

IL EST INDISPENSABLE D'EFFECTUER UN ENTRETIEN REGULIER DE CE POT D'ÉCHAPPEMENT AFIN DE LE GARDER EN BON ETAT DE MARCHE. L'ENTRETIEN CONSISTE A VIDER LA CHAMBRE A ETINCELLES TOUTES LES 100 HEURES DE MARCHE.

SI CET ENGIN EST UTILISE SUR TERRAIN COUVERT D'ARBRES, DE BROUSSAILLES, OU D'HERBAGES INFLAMMABLES, IL DOIT ABSOLUMENT ETRE EQUIPE D'UN PARE-ÉTINCELLES MONTE SUR LE SYSTEME D'ÉCHAPPEMENT ET GARDE EN BON ETAT DE MARCHE. TOUT MANQUE A CE REGLEMENT CONSTITUERA UNE INFRACTION A LA LOI DE L'ETAT DE CALIFORNIE, SECTION 4442, PRC.

CONSULTER LES LOIS ET REGLEMENTS LOCAUX QUI SE RAPPORTENT AUX PARE-ÉTINCELLES.

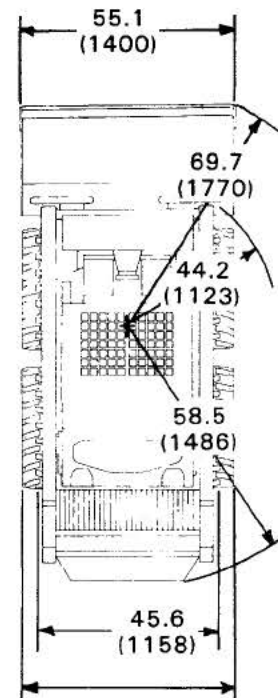
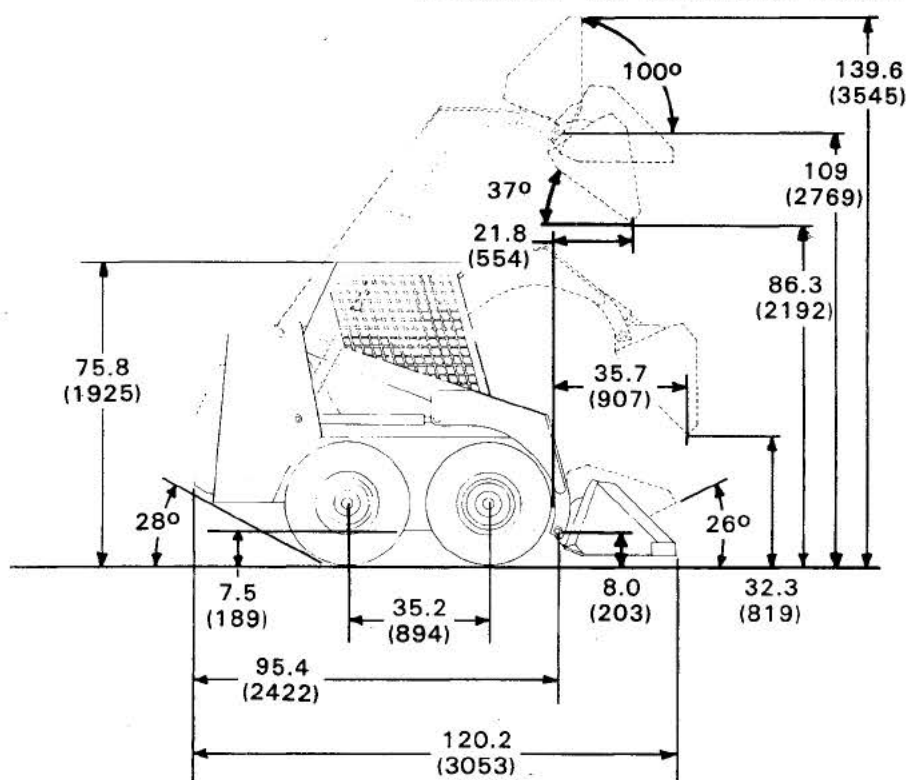
## GENERAL INFORMATION

ELECTRICAL .....	62
ENGINE SPECIFICATIONS .....	61
FLUID CAPACITIES .....	62
HYDRAULIC CYLINDERS .....	62
HYDRAULIC SYSTEM .....	61
HYDROSTATIC TRANSMISSION & FINAL DRIVE .....	62
OPERATION & PERFORMANCE .....	61
TIRES .....	62

**GENERAL  
INFORMATION**

[illegible]

## LOADER SPECIFICATIONS



Dimensions are given for loader equipped with standard tires and dirt bucket and may vary with other bucket types. All dimensions are shown in inches. Respective metric dimensions are given in millimeters enclosed by parentheses.

Where applicable specifications conform to SAE standard and are subject to change without notice.

## OPERATION & PERFORMANCE

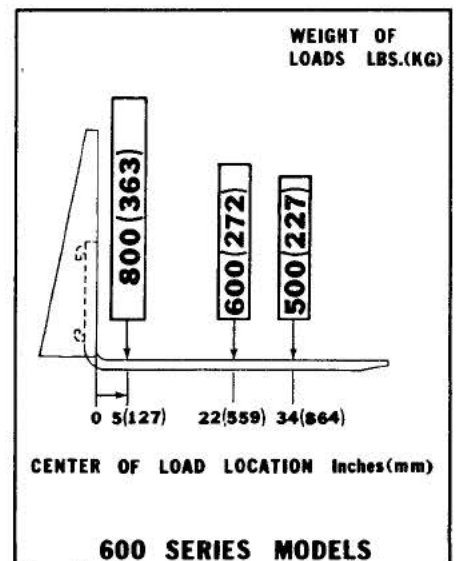
Operating Weight	4000 lbs. (1860 kg)
Bucket Capacity (SAE) (54" Dirt)	98.4 cu. ft. (2,7 m³)
Rated Operating Capacity	1000 lbs. (454 kg)
Travel Speed	6.6 MPH (10,6 Km/hr.)

## ENGINE

Cylinders	4
Cooling Medium	Liquid
Displacement	98 cu. in. (1,6 L)
Horsepower	32 (23,9 Kw)
Torque	72.8 ft.-lbs. (99 Nm)
Fuel Type	Gasoline
Engine Lubrication	Full Pressure with Full Flow Filter
Crankcase Ventilation	Open Breathing
Air Cleaner	Replaceable dry cartridge
Maximum Governed RPM (Full Load)	2500 RPM

## HYDRAULIC SYSTEM

Pump Type	Vane
Pump Capacity	9.5 gal./min. (36 L/min.) @ 2500 RPM
Control Valve	Open center with lift, tilt & auxiliary sections
System Relief Pressure	1900 PSI (13100 kPa)
Filtration	10 Micron, replaceable cartridge and 40 Micron sintered filter
Hydraulic Fluid Type	Clark Bobcat Fluid (P/N 6563328 [5 gal. package]).
If fluid is not available, use 10W-30 or 10W-40 Class SF Motor Oil.	



## HYDRAULIC CYLINDERS . . . . . Doubleacting

Function	Lift (2)	Tilt (1)
Bore Diameter	2.00 in. (50,8 mm)	3.25 in. (82,55 mm)
Rod Diameter	1.25 in. (31,75 mm)	1.50 in. (38,1 mm)
Stroke	25.00 in. (635 mm)	12.30 in. (312,42 mm)

## HYDROSTATIC TRANSMISSION & FINAL DRIVE

Pump Type . . . . . Inline, axial piston  
Pump Displacement . . . . . 2.5 cu. in (40,96 cm<sup>3</sup>)  
Final Drive . . . . . Oil Bath Gear Reduction and Roller Chain to Each Axle  
Hydraulic Fluid Type . . . . . Clark Bobcat Fluid (P/N 6563328 [5 gal. package]).  
If fluid is not available , use 10W-30 or 10W-40 Class SE Motor Oil.

## ELECTRICAL

Alternator . . . . . 37 amp. ventilated  
Battery . . . . . 12 volt, 435 cold cranking amps.  
Starter . . . . . 12 volt, gear drive

## TIRES

Flotation . . . . . 10 x 16.5, 4 ply rating 35 PSI (240 kPa)  
Standard . . . . . 7.00 x 15, 6 ply rating, 55 PSI (379 kPa)

## FLUID CAPACITIES

Fuel Tank . . . . . 13 gal. (49 L)  
Engine Lube Oil (W/Filter) . . . . . 4 qts. (3,8 L)  
Transmission (Chaincase) . . . . . 20 qts. (19 L)  
Hydraulic and Hydrostatic Reservoir . . . . . 3.5 gal. (13,2 L)  
Engine Cooling System (W/Overflow Reservoir) . . . . . 13 qts. (12 L)



**CLARK** Melroe  
Division

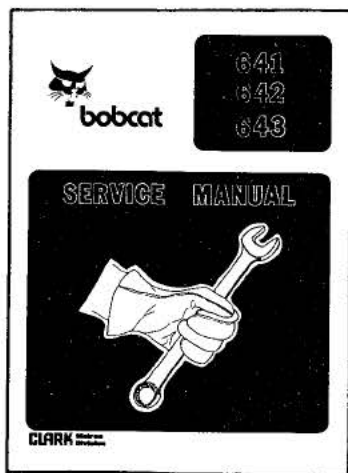
## ADDITIONAL PUBLICATIONS



The following publications are also available for your Bobcat loader. You can order them from your Bobcat dealer.

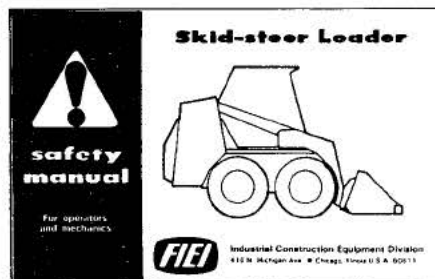


—complete instruction on the correct operation and the routine maintenance of the BOBCAT loader.



—gives complete maintenance and overhaul instructions for your BOBCAT loader.

**SAFETY  
MANUAL  
6556500**



—provides basic safety procedures and warnings for your BOBCAT loader.

**OPERATOR'S  
MANUAL  
6566562**

**OPERATOR'S  
HANDBOOK  
6566014**



—gives basic operation instruction and safety warnings.

Up-to-date PARTS information is also available. See your BOBCAT dealer.

Prices subject to change without notice



[illegible]