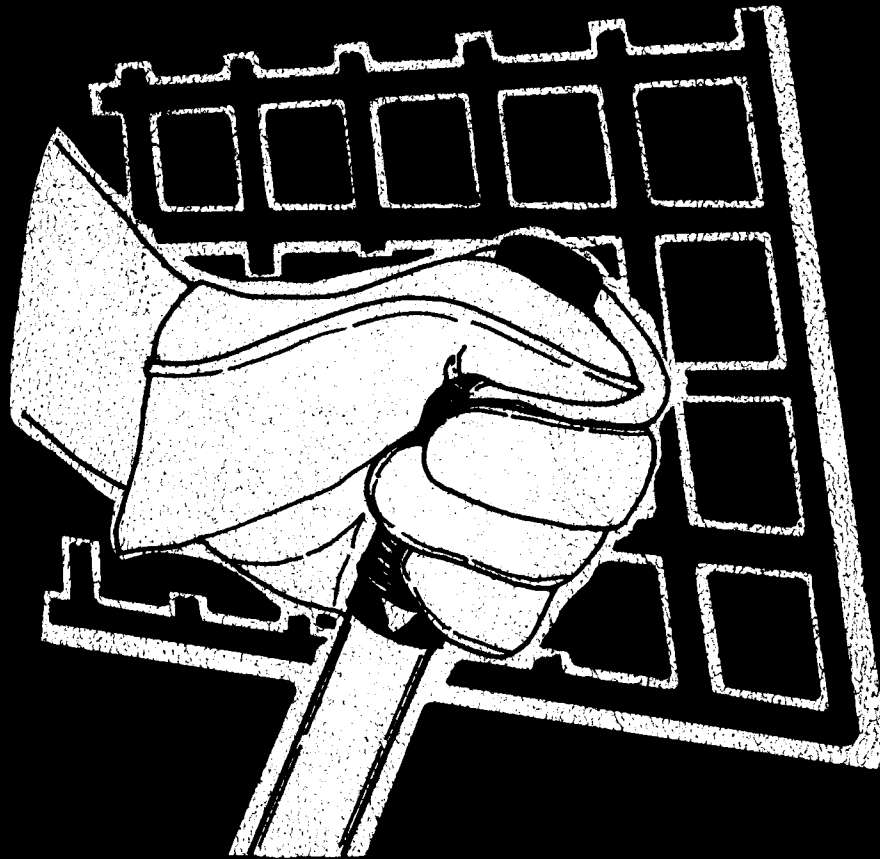




bobcat

743

OPERATOR'S MANUAL



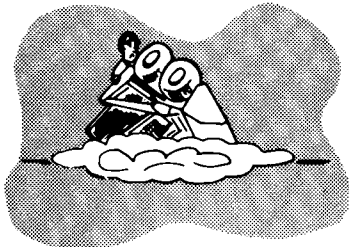
CLARK Melroe
Division

CORRECT



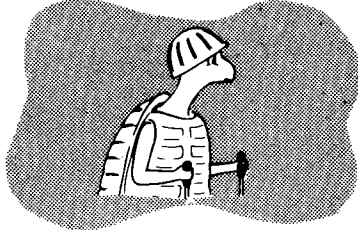
- ⚠ Always fasten your seat belt.

CORRECT



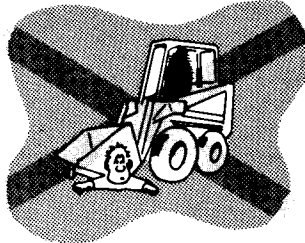
- ⚠ Leave protective guards on the machine

CORRECT



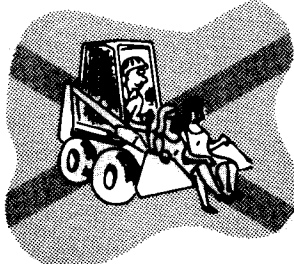
- ⚠ When learning to operate, be careful. Go slow.

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!

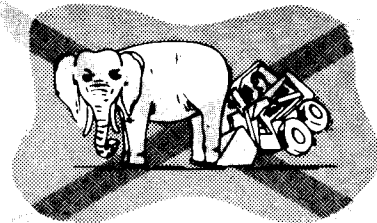
SAFETY EQUIPMENT

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.

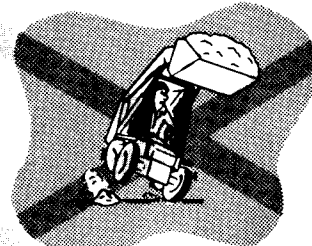
- ⚠ Safety Alert Symbol

WRONG



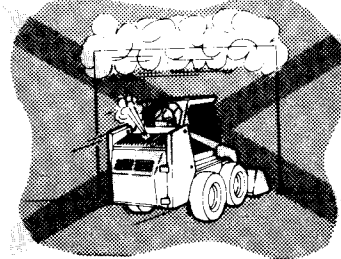
- ⚠ Do not exceed rated load capacity.

WRONG



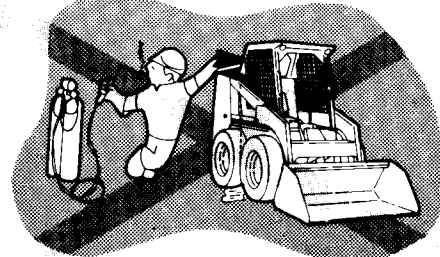
- ⚠ Always carry the bucket low.

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.

This book is written to give the owner/operator necessary operating, servicing and preventive maintenance instructions for the Model 743 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.

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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**

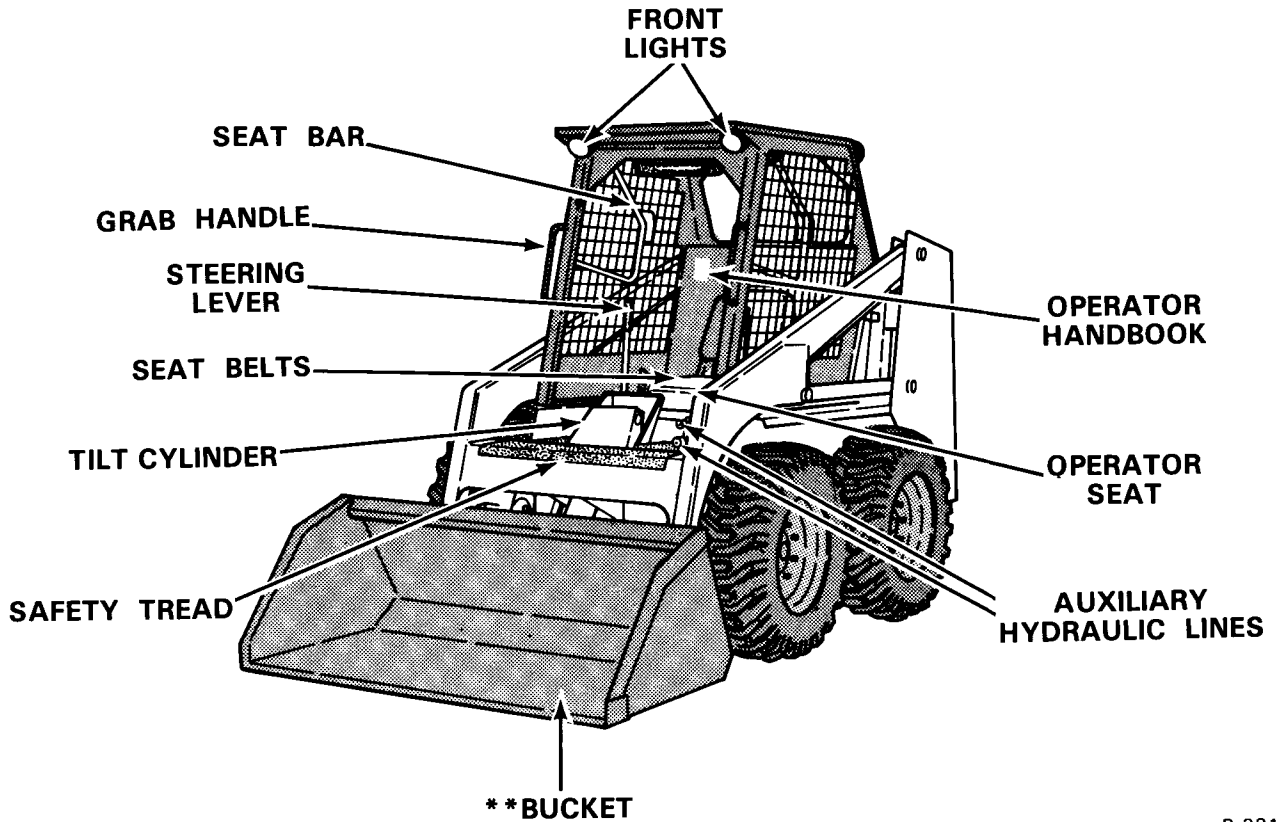
**TROUBLE—
SHOOTING**

**MAJOR
PARTS**

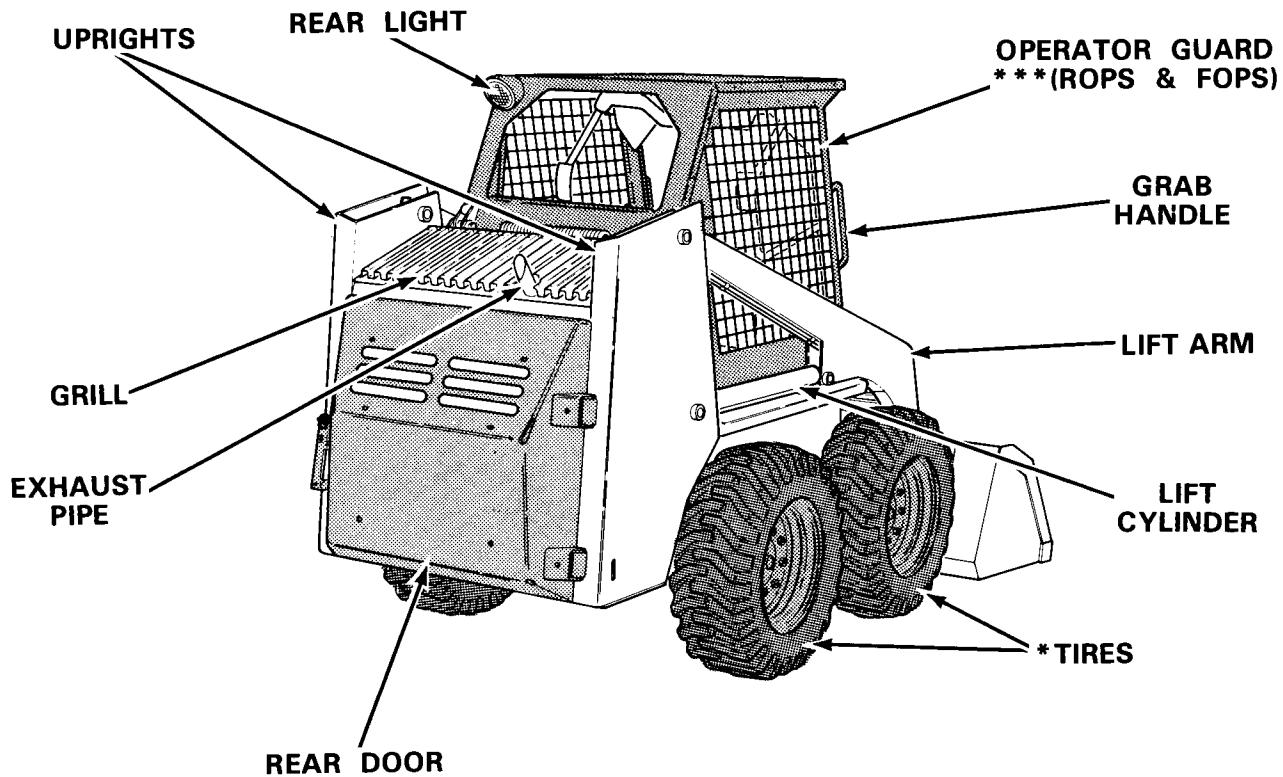
DECALS

**GENERAL
INFORMATION**

743 BOBCAT LOADER IDENTIFICATION



B-3817



C-2597

- * TIRES — Floation (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.

BEFORE YOU START THE ENGINE	7
BOBCAT LOADER OPERATION	10
CONTROLS	2
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LIFTING THE OPERATOR GUARD	17
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STOPPING THE BOBCAT LOADER	15
STOPPING THE ENGINE	4
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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).

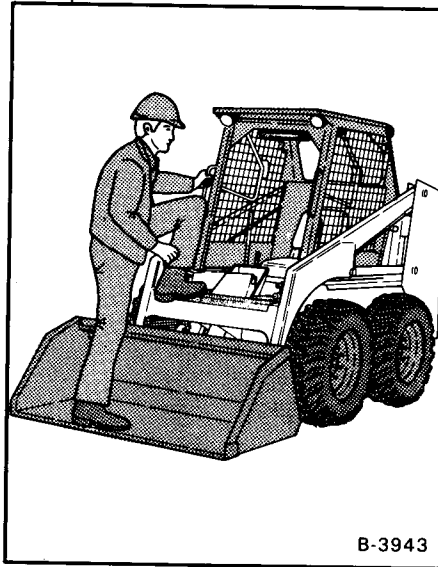


Fig. 1 Using Safety Treads & Grab Handles

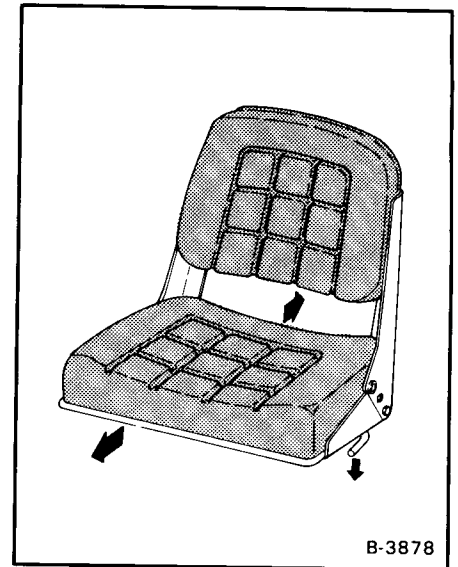


Fig. 2 Seat Adjustment

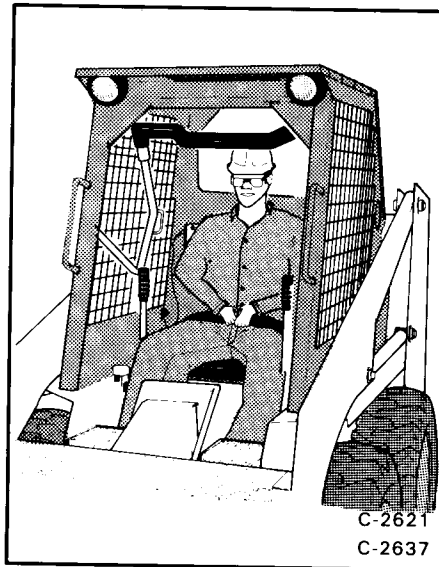


Fig. 3 Fasten Seat Belt

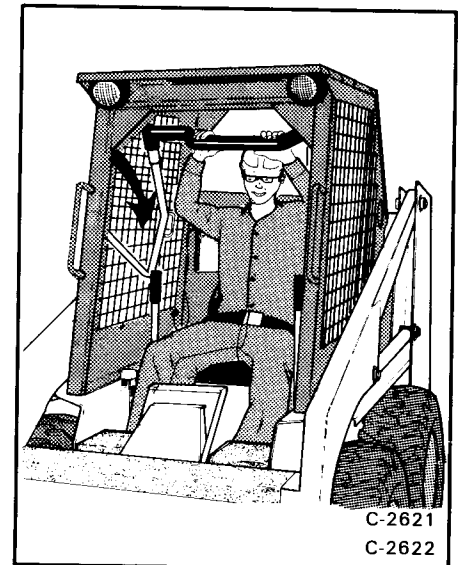


Fig. 4 Lower Seat Bar

⚠ 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.

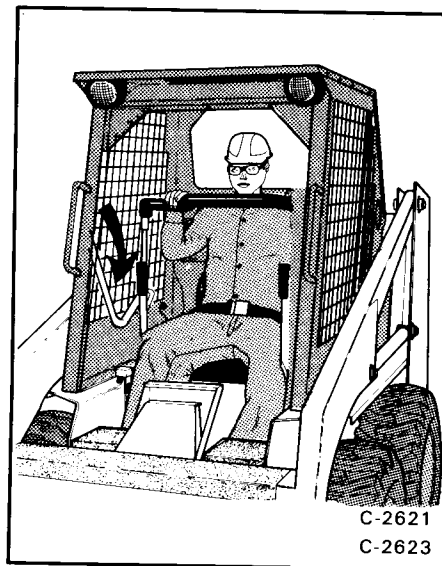


Fig. 5 Lower Seat Bar

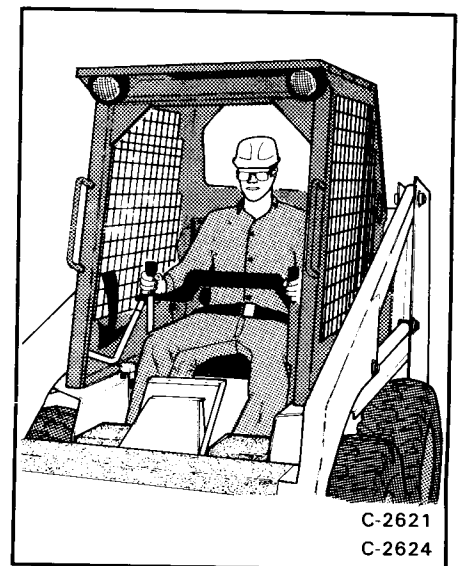


Fig. 6 Seat Bar Lowered

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).

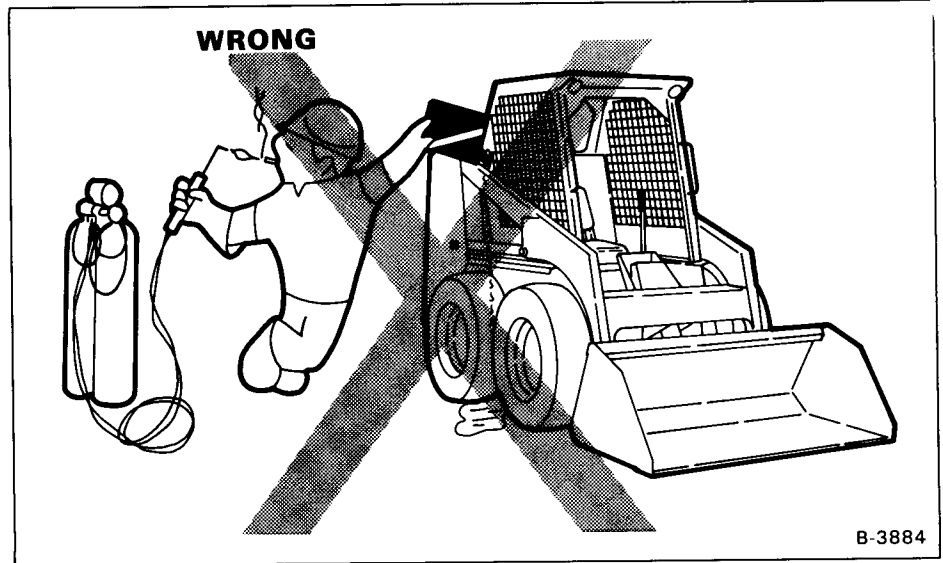


Fig. 7 Fuel Fill

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.

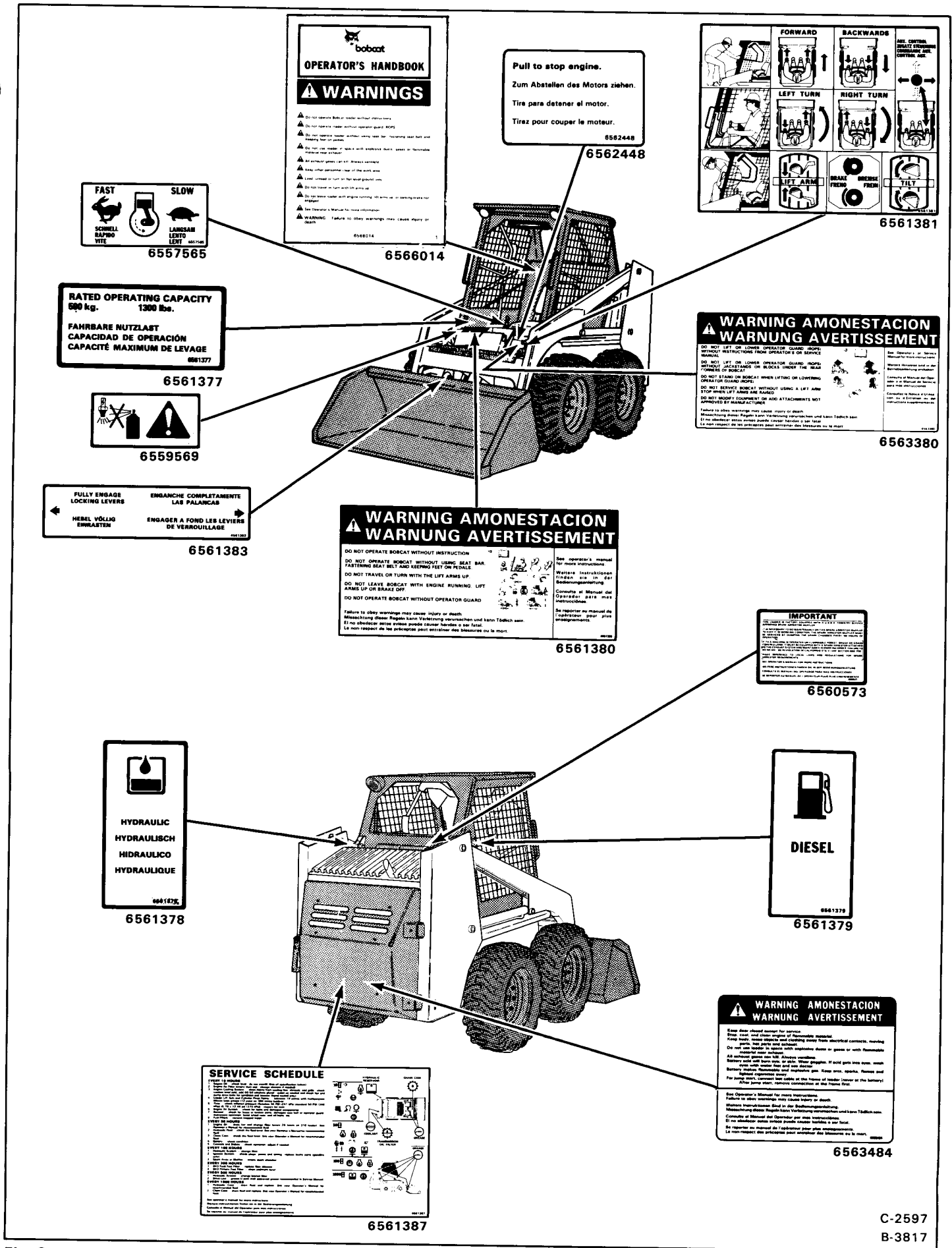


Fig. 8 Decal Locations

DASH PANEL

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

1. KEY SWITCH — For starting the engine.
2. FUSES — To protect the electrical system from electrical overload.
3. VOLTMETER — Shows the condition of the battery and the rate of charge.
4. 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.
5. TRANSMISSION WARNING LIGHT — Low transmission charge pressure or high oil temperature. Stop the engine if this light comes on and check for the cause.
6. FUEL GAUGE — Shows the amount of fuel in the fuel tank.
7. HOURMETER — Records the total operating hours of the loader.
8. LIGHT SWITCH — Controls the work and travel lights.

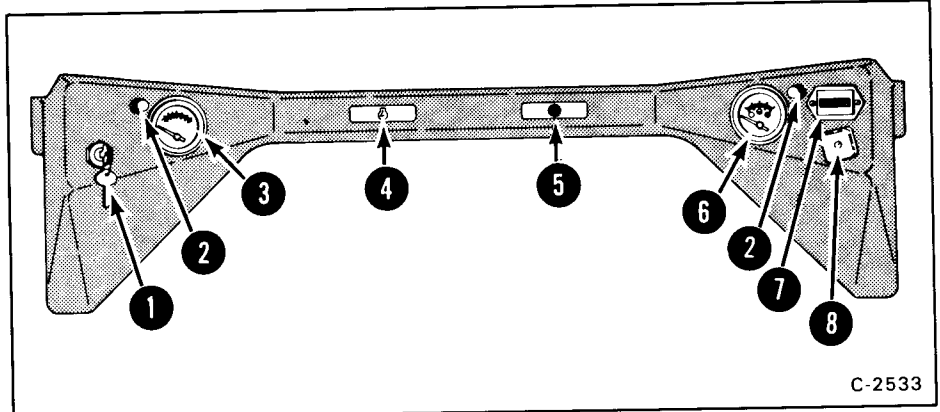


Fig. 9 Dash Panel

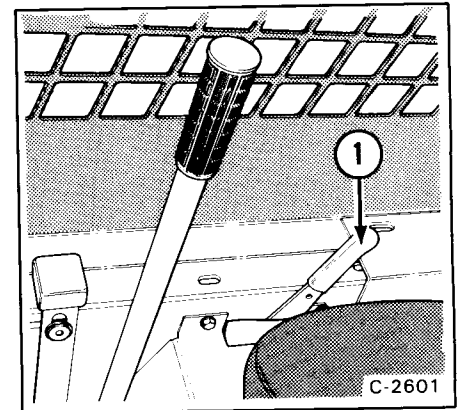


Fig. 10 Throttle Control

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.

STOPPING THE ENGINE

Pull the throttle fully backward to decrease the engine RPM. Pull the fuel shut off control near the left steering lever (Fig. 11, Item 1) out to stop the engine. Turn the key to the "OFF" position and push the fuel shut off control in after the engine has stopped.

PARKING BRAKE (Fig. 12)

The parking brake 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.

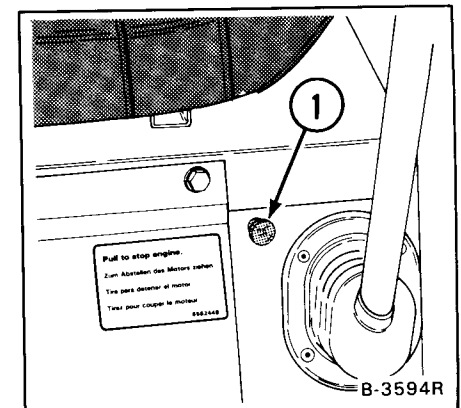


Fig. 11 Fuel Shut Off Control

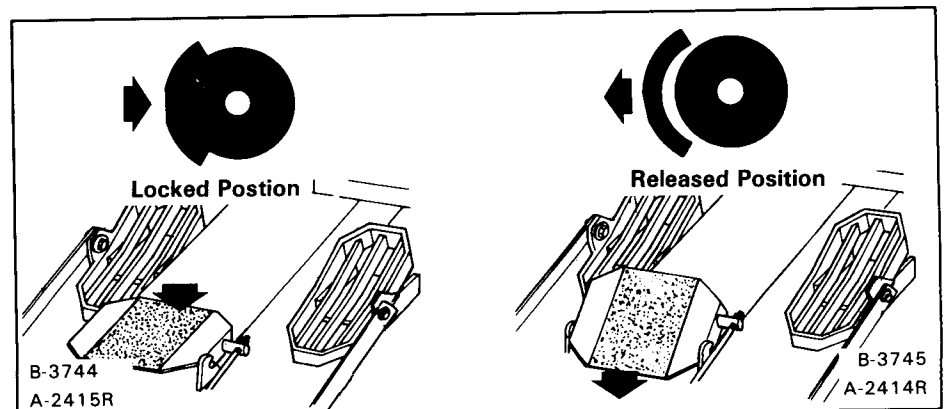
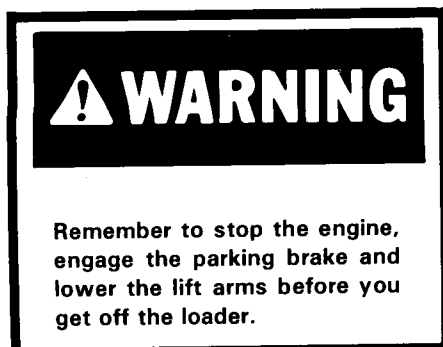


Fig. 12 Parking Brake

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.

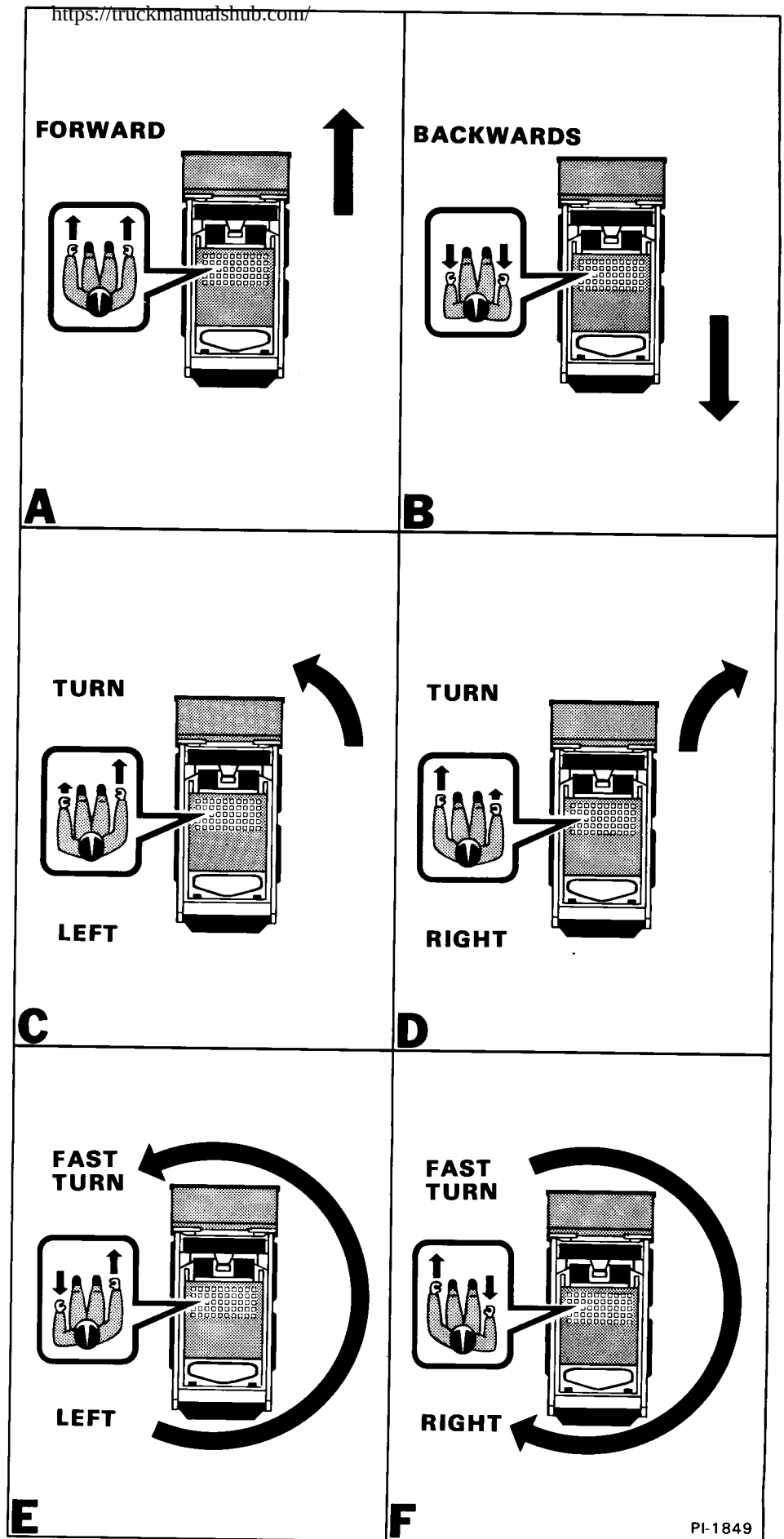


Fig. 13 Operator's Steering Procedures

PI-1849



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).

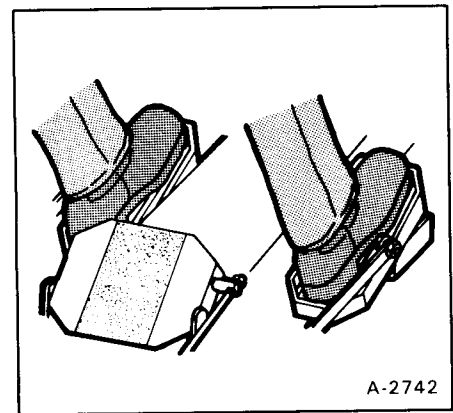


Fig. 14 Feet on Pedals

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).

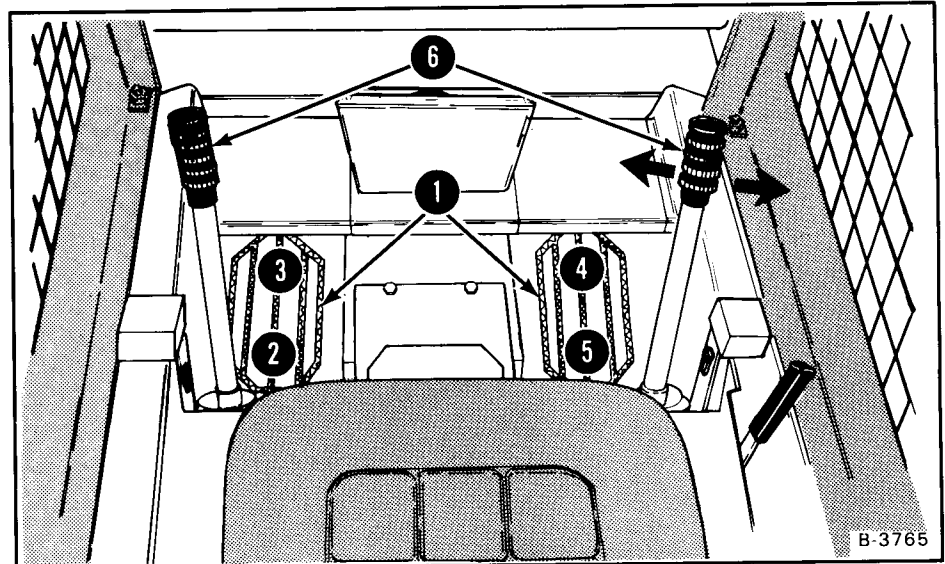


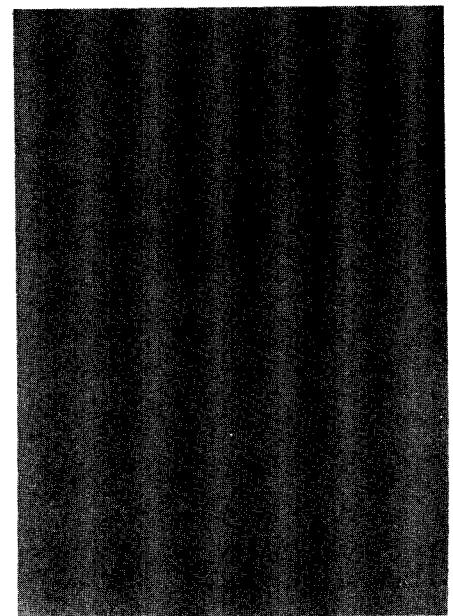
Fig. 15 Drive & Hydraulic Controls

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. 81).

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.

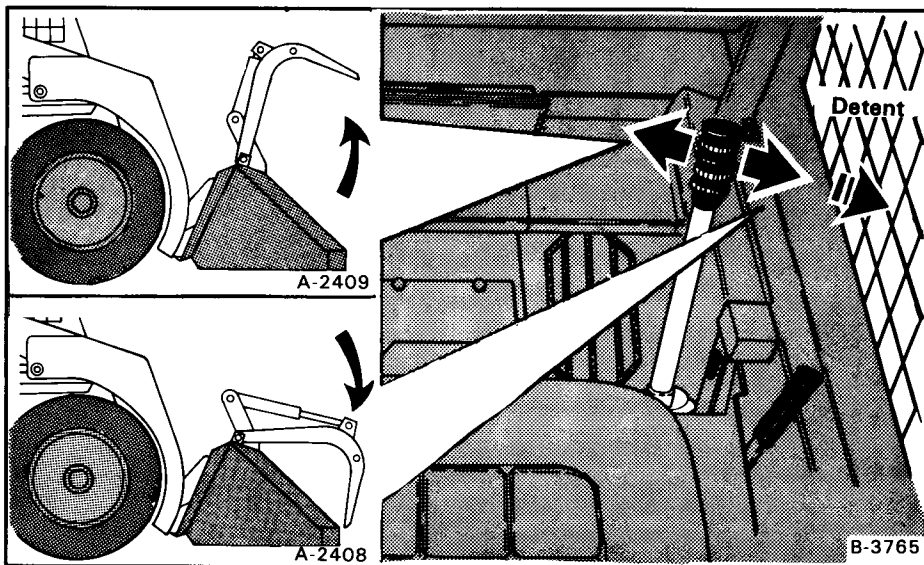


Fig. 16 Auxiliary Control (Detent)

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 and check fan and pump drive belts for condition and tension (liquid cooled only).
4. Loader Lift Arm and Cylinder Pivot Points — lubricate 10 points with multipurpose lithium base grease (12 point on 300 series loaders).
5. Tires — check inflation pressure (floatation 35 PSI (241 kPa) standard 50 PSI [340 kPa]) (5.70 x 12 40 psi [275 kPa])—inspect for cuts.
6. Engine Air System — check for leaks and damaged components.
7. General — check for loose or broken parts, damaged seat belt or operator guard, instrument operation, loose wheel nuts, and oil leaks, etc.
8. Fuel Filters — remove trapped water.

EVERY 50 HOURS

1. Engine Oil — drain hot and change filter (every 25 hours on 310 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 200 HOURS

1. 843 Final Fuel Filter — replace filter element.
2. 843 Primary Fuel Filter — clean sediment bowl.

EVERY 500 HOURS

1. Hydraulic System — change bronze filter.
2. Drive Line — grease U-joint with approved grease recommended in Service Manual.

EVERY 1000 HOURS

1. Hydraulic Case — 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.

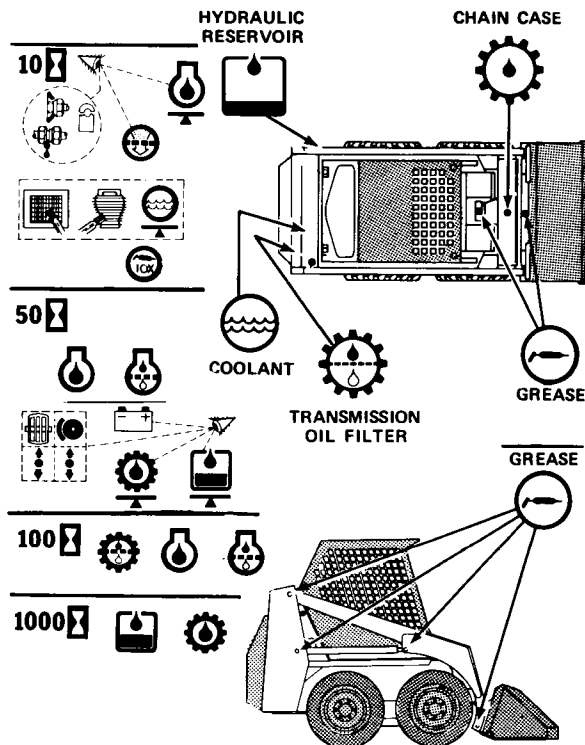


Fig. 17 Service Schedule

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IMPORTANT

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

STARTING THE ENGINE

⚠ WARNING

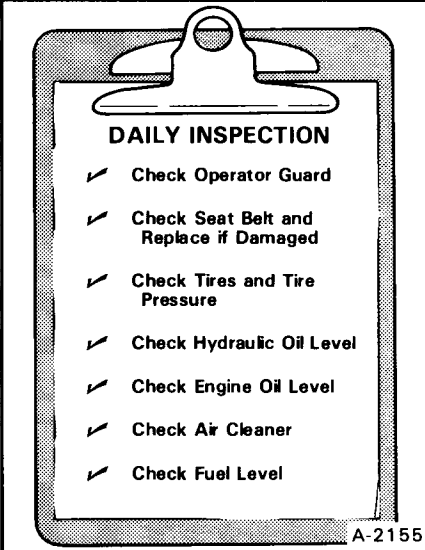
DO NOT start the engine unless you are in the seat and have the seat belt fastened around you.

⚠ WARNING

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

⚠ 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 (Fig. 20). Keep flammable material away from the engine parts.



DAILY INSPECTION

- ✓ Check Operator Guard
- ✓ Check Seat Belt and Replace if Damaged
- ✓ Check Tires and Tire Pressure
- ✓ Check Hydraulic Oil Level
- ✓ Check Engine Oil Level
- ✓ Check Air Cleaner
- ✓ Check Fuel Level

A-2155

Fig. 18 Inspection Checklist

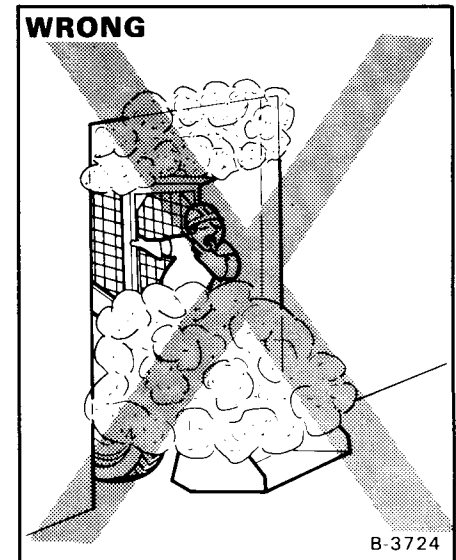


Fig. 19 Exhaust Conditions

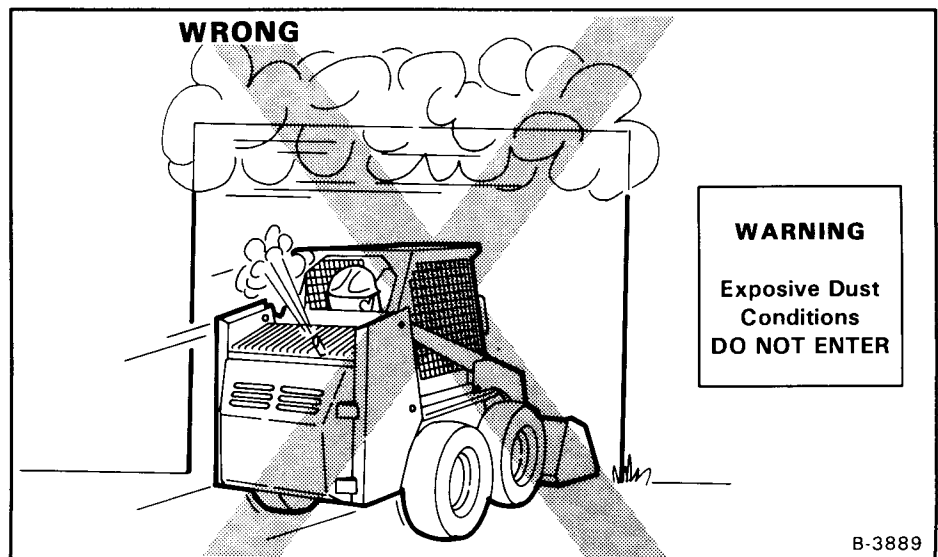


Fig. 20 Explosive Dust Conditions

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).

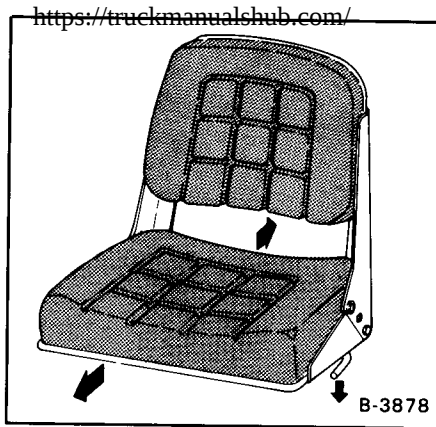


Fig. 21 Adjusting the Seat

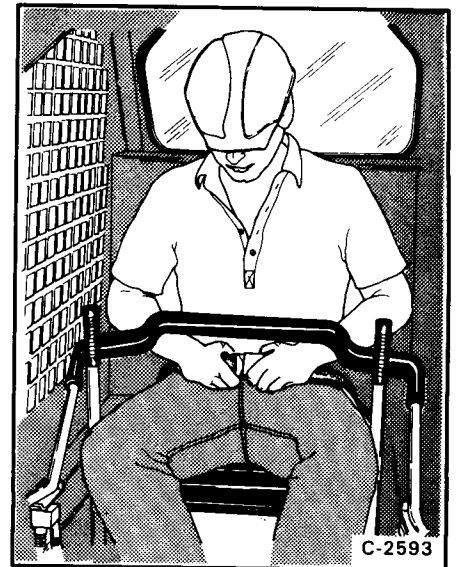


Fig. 22 Fastening Seat Belt

3. Put the throttle at 1/2 throttle position (Fig. 23, Item B) and push the fuel shut off knob in.
4. Turn the key switch to the "ON" position. Check that the engine and the transmission warning lights are illuminated (Fig. 23, Item C).

NOTE: It may be necessary to use the preheat for 30 seconds (Fig. 23, Item F).

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. If the engine does not start, preheat again. 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).

For Easier Starting in Cold Temperature

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 23).
2. Make sure the battery is at full charge.

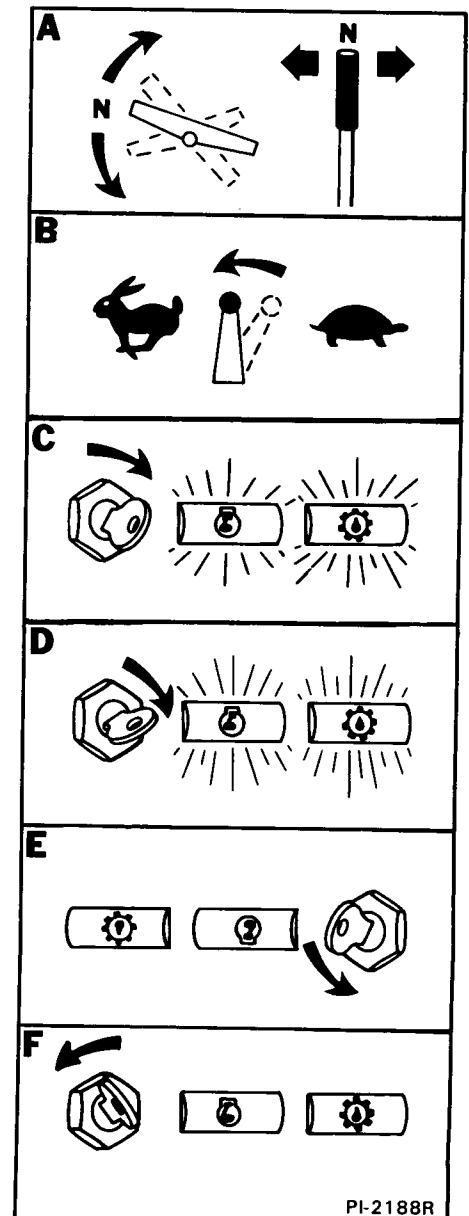


Fig. 23 Starting Procedure

WARNING

Do not use ether with glow plug system.

Cold Temperature Starting

1. Follow steps 1 through 4 in "Normal Starting Conditions".
2. Turn the key to the left to "PRE-HEAT" position and hold for one minute (Fig. 23, Item F).
3. Turn the key to "START" and engage the starter (Fig. 23, Item D). The engine must start within fifteen seconds. If the engine does not start, repeat Step 2. DO NOT run the starter more than fifteen seconds. Let the starter cool for one minute before engaging the starter again.
4. When the engine is running, move the throttle lever forward to increase engine RPM. Check that the warning indicator lamps are NOT ILLUMINATED.
5. 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.

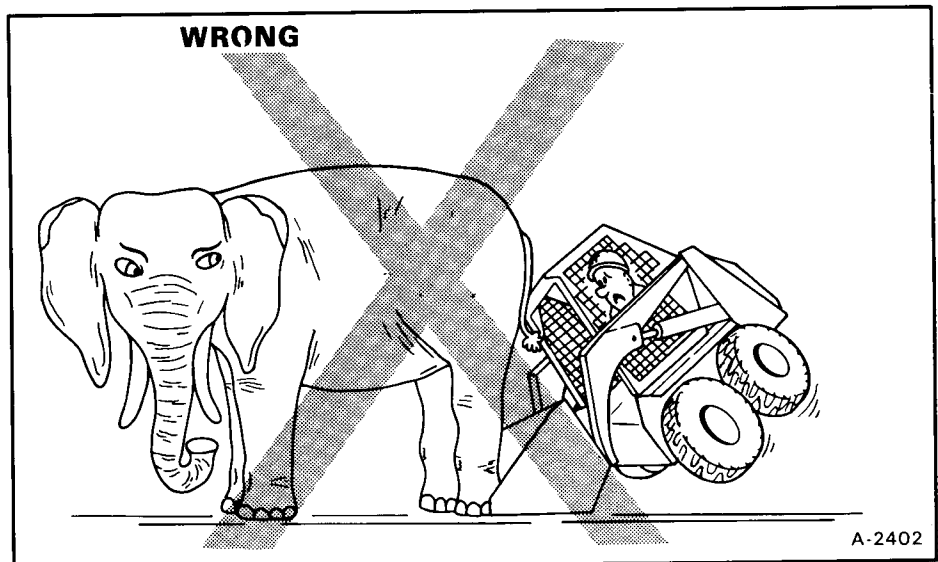


Fig. 24 Excessive Load Capacity

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.

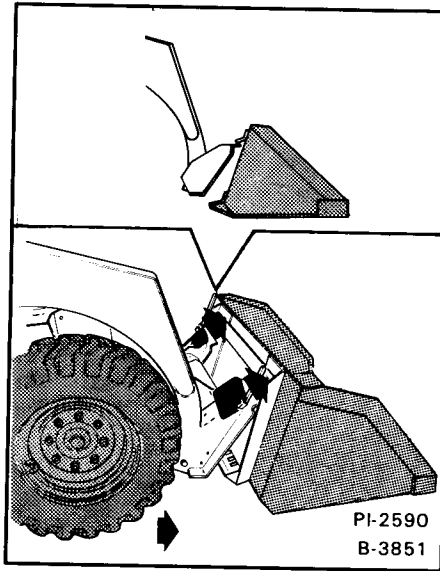


Fig. 25 Installing the Bucket

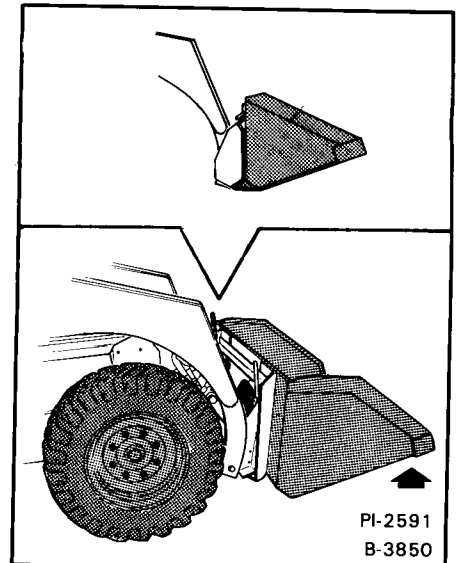


Fig. 26 Lifting Bucket

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.

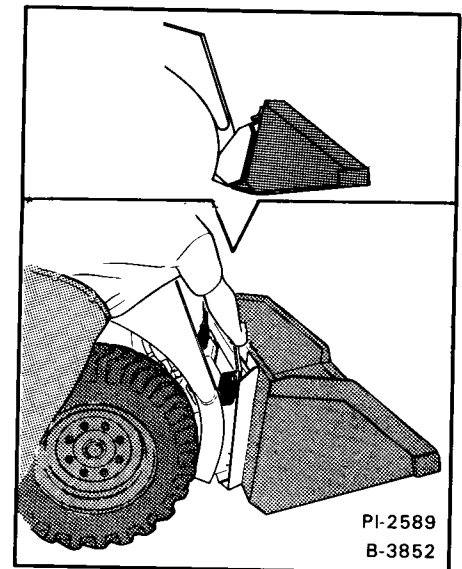


Fig. 27 Locking Bob-Tach Levers

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.

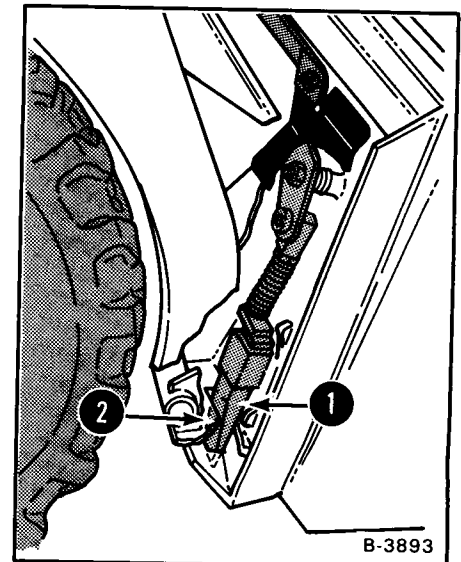


Fig. 28 Locking Wedges

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).

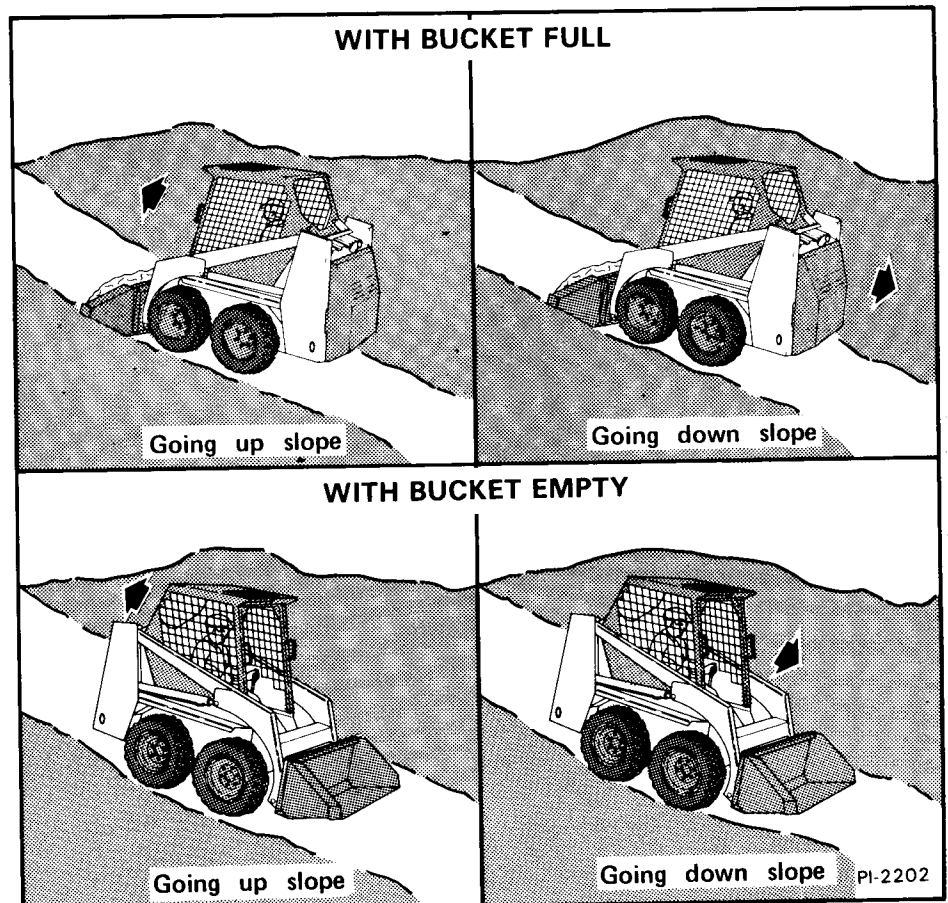


Fig. 29 Slope Conditions

Filling the Bucket (Fig. 27)

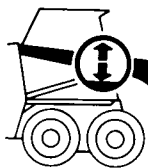
1. Push down on the top (toe) of the lift pedal until the lift arms of the Bobcat loader are all the way down. Push the top (toe) of the tilt pedal to put the cutting edge of the bucket on the ground (A).

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).

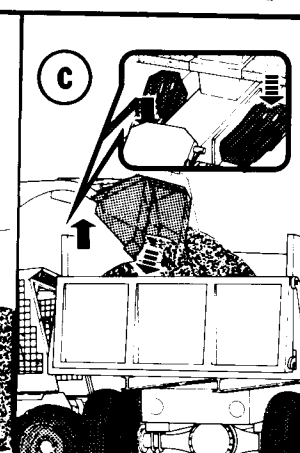
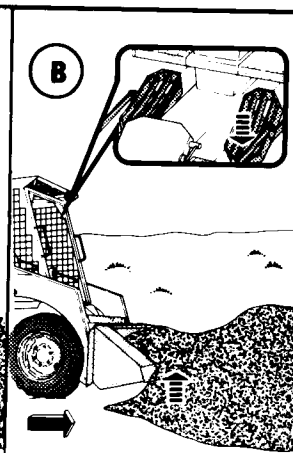
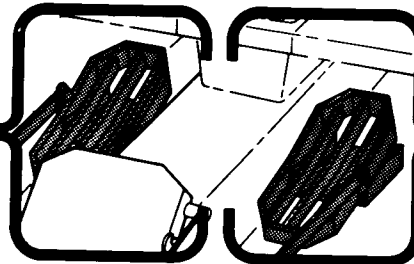
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LOADER PEDAL CONTROLS

**LIFT ARMS
RAISE-LOWER**

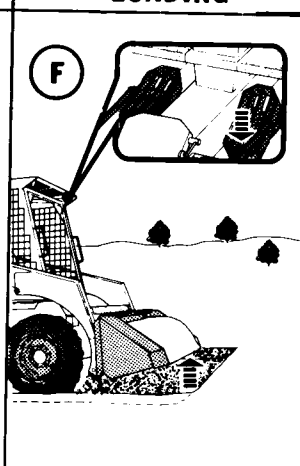
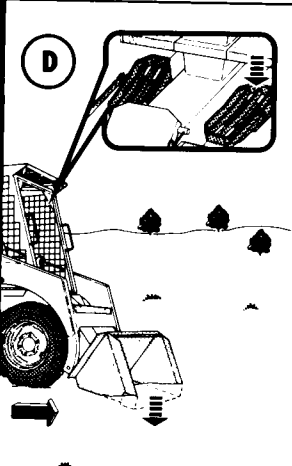


**BUCKET
TILTING**



FILLING BUCKET

LOADING

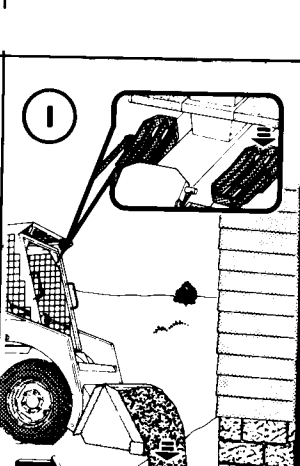
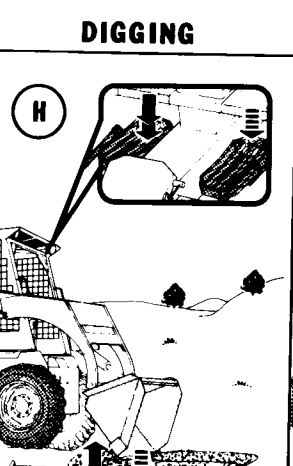
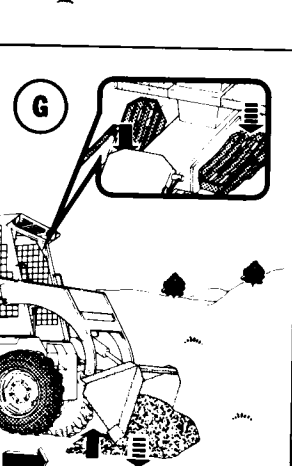


DIGGING

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).



PI-2565

LEVELING

BACKFILLING

PI-2565

Fig. 30 Hydraulic Controls

Digging into the Ground (Fig. 30)

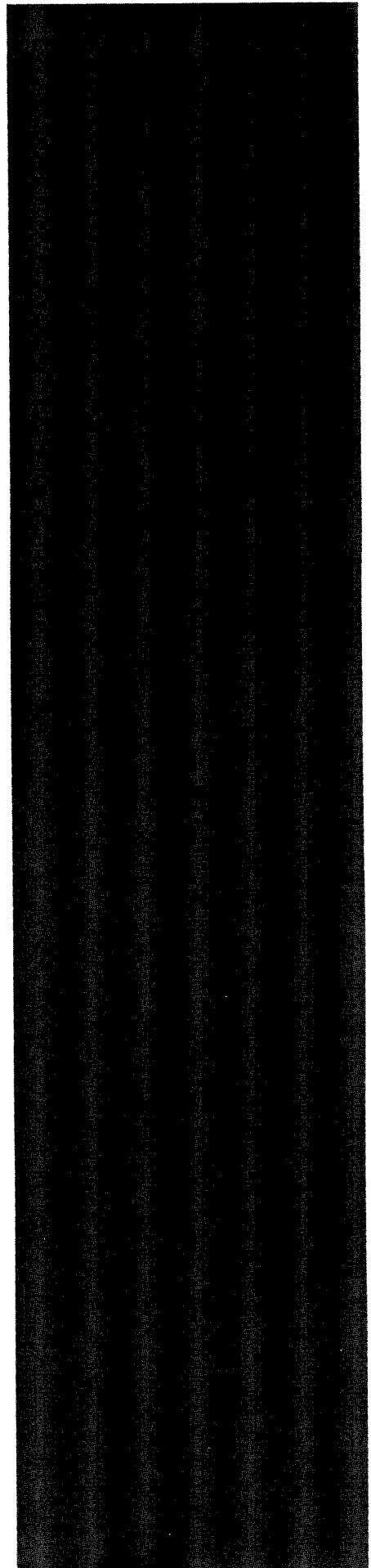
1. Put the lift arms all the way down. Push the top (toe) of the tilt pedal until the cutting edge of the bucket will contact the ground (D).
2. Drive the Bobcat loader forward at a slow rate and continue to tilt the bucket down until it enters the ground (D).
3. Push the bottom (heel) of the tilt pedal 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. Turn the key switch to the "OFF" position. Pull the fuel shut off button out.
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).

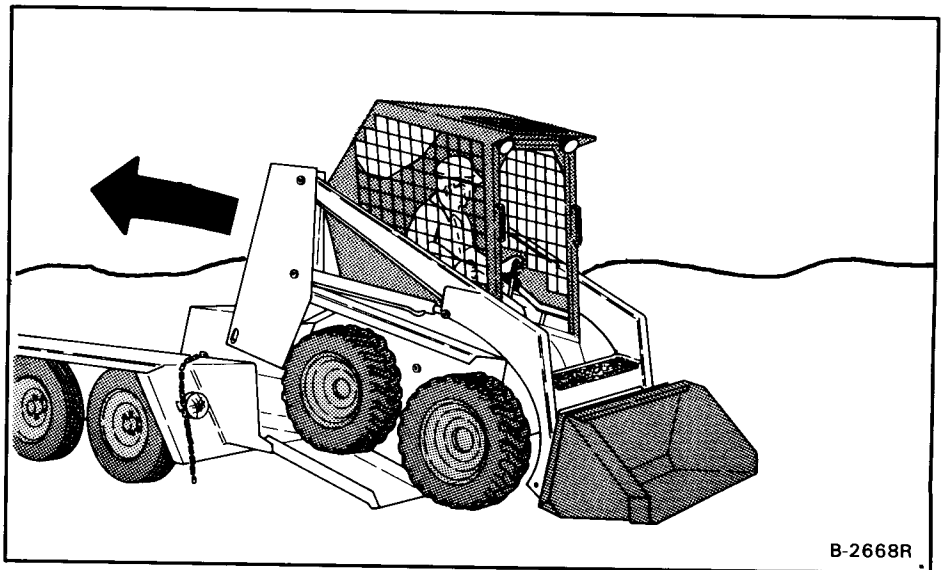


Fig. 31 Loading the Bobcat

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).

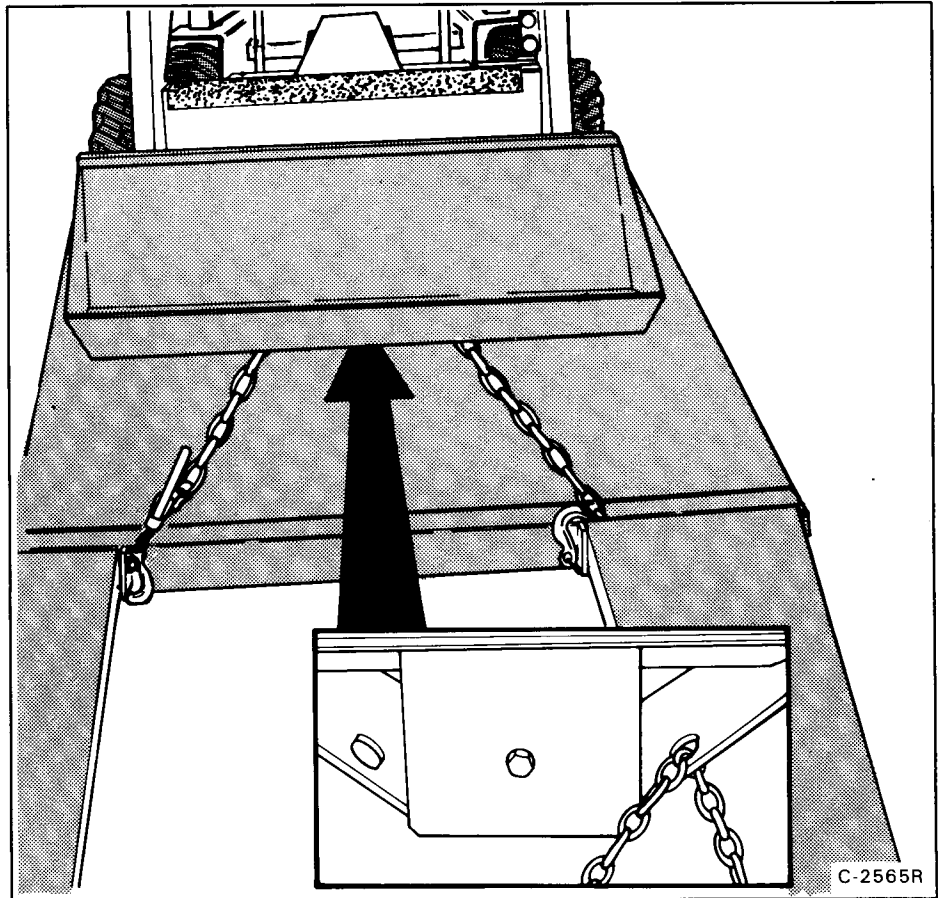


Fig. 32 Fastening the Loader

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.

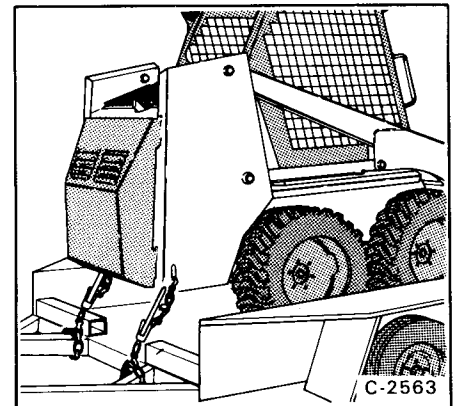


Fig. 33 Fastening Loader

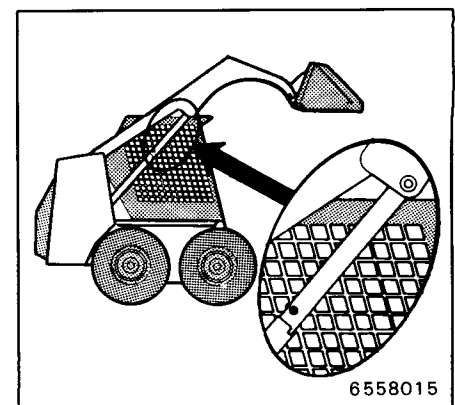


Fig. 34 Lift Arm Stop

LIFTING THE OPERATOR GUARD

WARNING

Do not work on the loader with the lift arms in a raised position with 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.

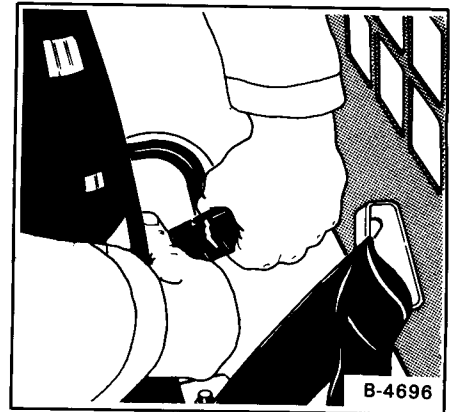


Fig. 35 Electrical Connection

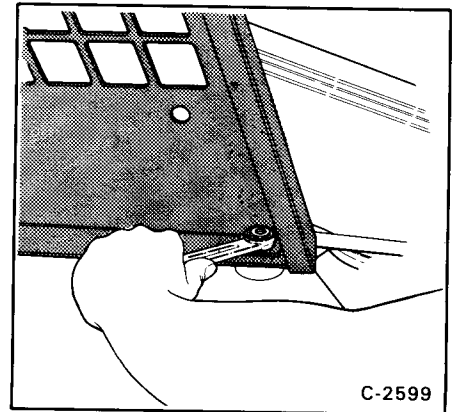


Fig. 36 Operator Guard Bolts

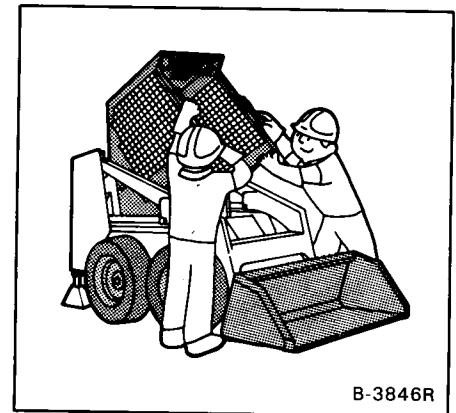


Fig. 37 Raising Operator Guard (Correct)

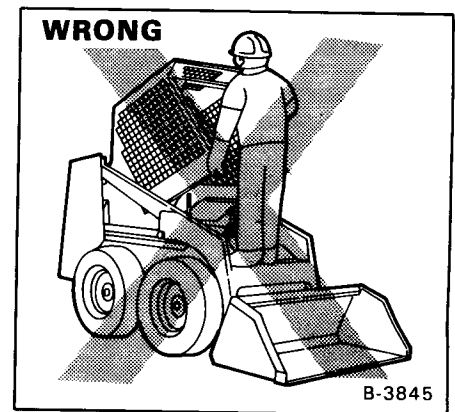


Fig. 38 Raising Operator Guard (Wrong)

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).

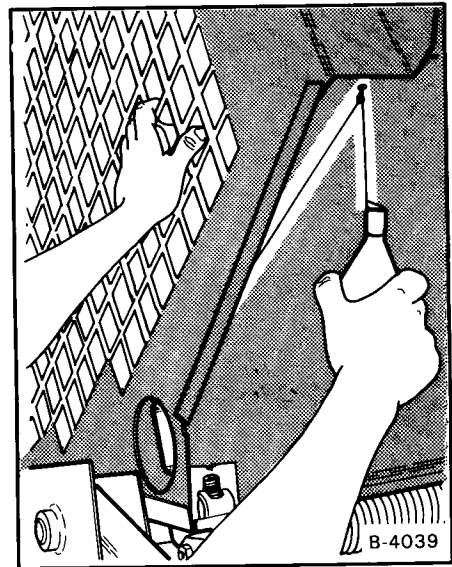
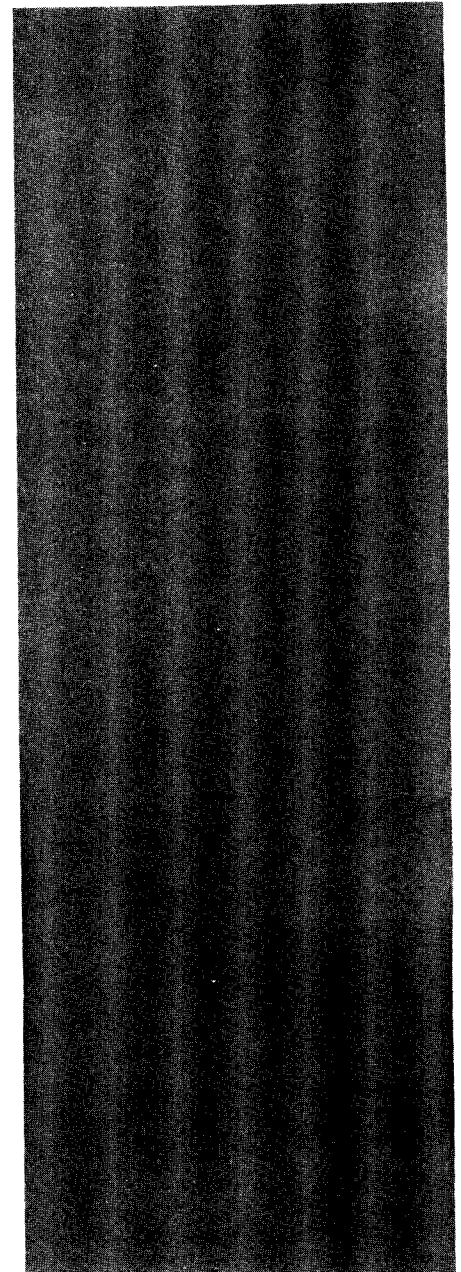


Fig. 39 Operator Guard Cable



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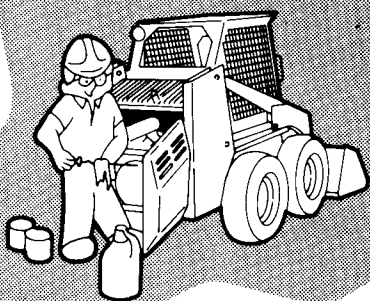
**PREVENTIVE
MAINTENANCE**

CORRECT



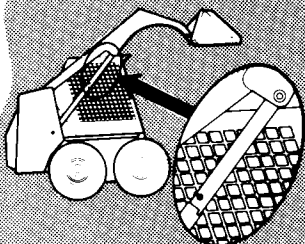
- ⚠ Read the Operator's Manual.

CORRECT



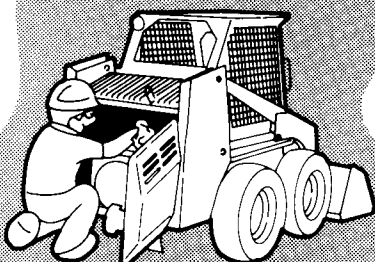
- ⚠ Check oil daily. Use recommended fluids.

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.

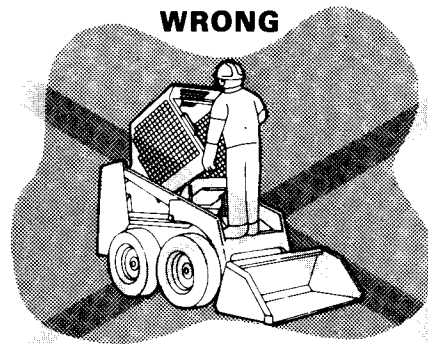
- ⚠ Battery acid causes severe burns. If acid contacts eyes, skin or clothing flush well with water. For contact with eyes get immediate medical attention.

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

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

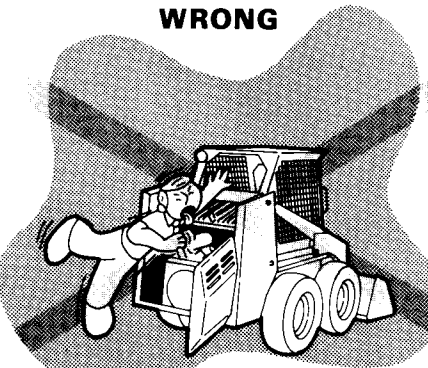
⚠ Safety Alert Symbol

WRONG



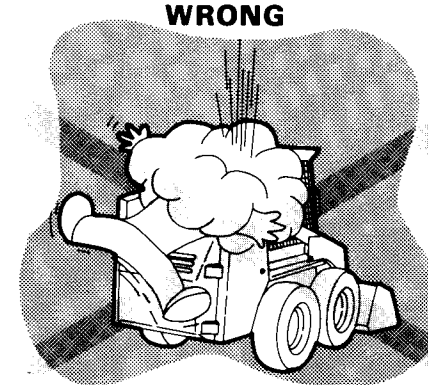
- ⚠ Two people standing on the ground are needed to raise the operator guard.

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

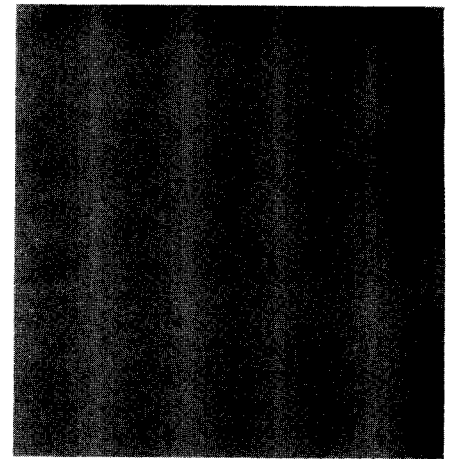
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Maintenance work must be done at regular intervals. Failure to do so will result in damage to the Bobcat loader or the engine. The service schedule is a guide for correct maintenance of the Bobcat loader. DO NOT change this service schedule unless 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	250	500	1000
Engine Oil	Check the oil level and add oil as needed.						
Engine Air Cleaner	Empty the dust cap and replace the filter element when the red ring shows in the indicator window.						
Engine Cooling	Check coolant level in recovery tank.						
Tires	Check the air pressure and for any damage to the tires.						
Wheel Nuts	Tighten wheel nuts to 115 ft.-lbs. (155 Nm) torque.						
Seat Belt, ROPS and Seat Bar	Check the condition of the seat belt. Check the ROPS fastening bolts to make sure they are tight. Check seat bar for correct operation.						
Safety Signs (Decals)	Check for damaged signs (Decals). Replace any signs (Decals) that are not in the correct location.						
All Loader Pivot Areas	Add grease to the fittings until extra grease shows.						
Hydraulic Oil	Check the oil level in the reservoir and add as needed.						
Engine Oil and Filter	Change the oil and the engine oil filter.						
Battery	Check the water level. Check battery cables for corrosion. Check that the battery cables are tight. Check covers.						
Hydraulic Tubelines and Hoses	Check for damage and leaks and replace as necessary.						
V-Belts	Check the tension and make the adjustment.						
Engine Fuel Filter	Remove water from filter.						
Brakes	The brakes must hold the Bobcat when the pedals is in locked position. Adjust as needed.						
Hydraulic Filter	Replace the filter element.						
Spark Arrestor	Remove the plug and clean the spark chamber.						
Steering Levers	Lubricate grease fittings (2).						
* U-Joint	Grease 3 fittings.						
* 40 Mircon Filter	Change bronze filter.						
Engine Fuel Filter	Replace the filter element.						
* Chaincase	Replace the hydraulic oil.						
Hydraulic Oil Reservoir	Replace the hydraulic oil.						

* Indicates item which requires dealer 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.

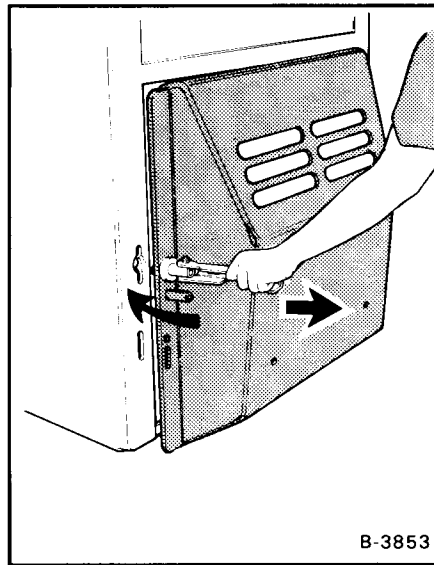


Fig. 40 Releasing Rear Door

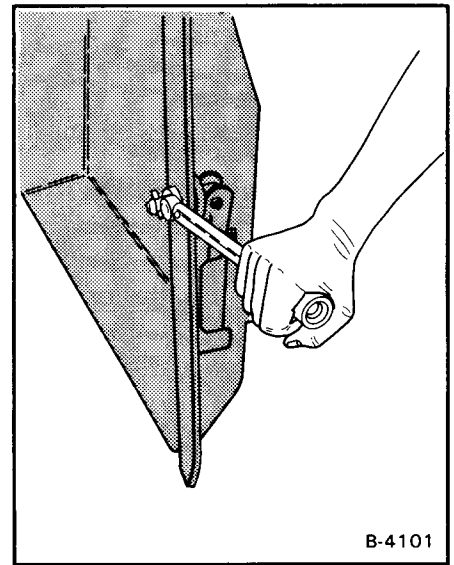


Fig. 41 Adjusting Latch

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

Loosen the set screw. Turn 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. When the latch is adjusted correctly tighten the set screw. The set screw must be aligned with the flat surface of the bolt.

⚠ 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.

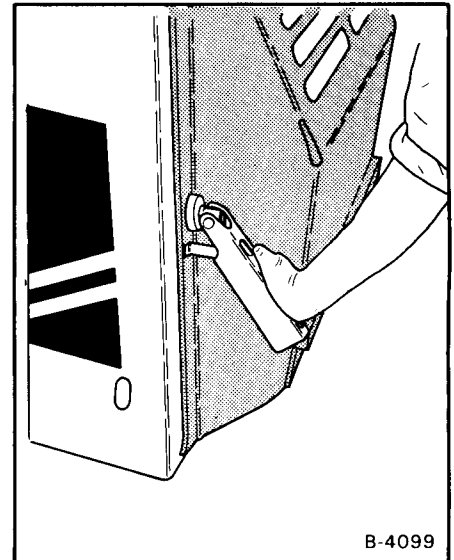


Fig. 42 Closing Door

AIR CLEANER SERVICE

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

The large air cleaner element (outer) must be replaced when the red ring shows in the window of the condition indicator (Fig. 43, Item 1). DO NOT remove the inner filter. Service as follows:

1. Loosen the clamp on the dust cup (Fig. 44, Item 1). Remove the dust cup and the element. Remove the rubber boot (Fig. 44, Item 2) and empty the dust cup.
2. Clean the inside of the filter housing so that the element has a smooth surface to contact at the seal (Fig. 44, Item 3) from corrosion, especially if the Bobcat loader is used in a fertilizer application.
3. Install the outer filter element. Replace the inner filter element (Fig. 44, Item 4) every third time of servicing or if the red ring still shows, in the indicator window after replacing the outer element.
4. Install the dust cup and tighten the clamp.

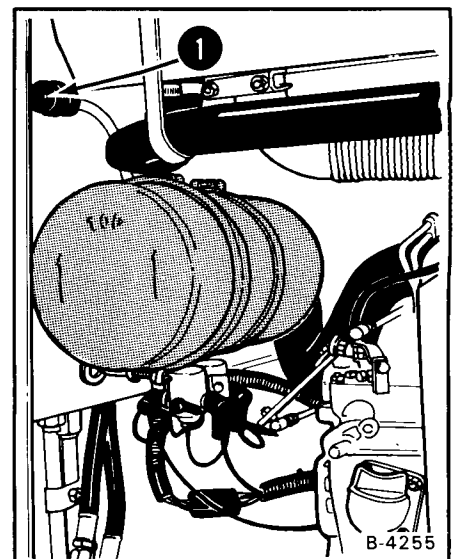


Fig. 43 Condition Indicator

5. Push the button, at the condition indicator (Fig. 43, Item 1), to remove the red ring.
6. Check that the hoses and the clamps are tight.

FUEL SYSTEM

Use number 2 diesel fuel in the engine. During very cold temperature conditions, number 1 is recommended.

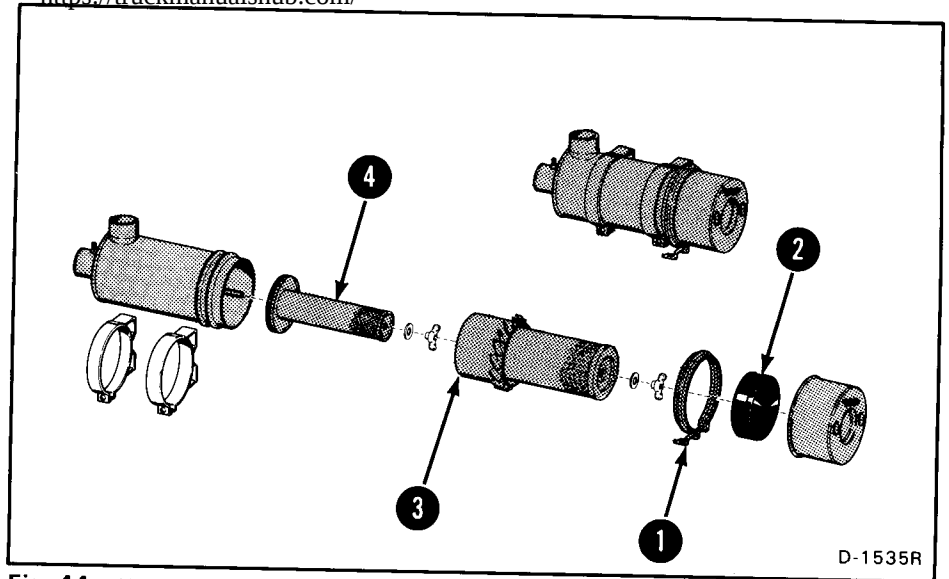


Fig. 44 Air Cleaner Filter

WARNING

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

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).

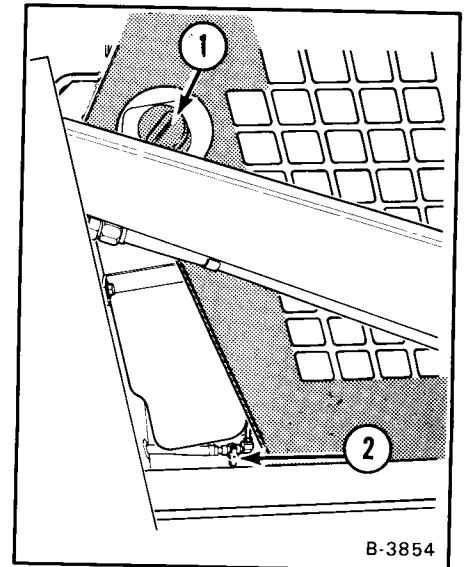


Fig. 45 Fuel Filling Location

FUEL FILTER

The fuel filter is installed on the right upright in the engine compartment. To replace the element:

1. Close the fuel line shut off valve (Fig. 45, Item 2).

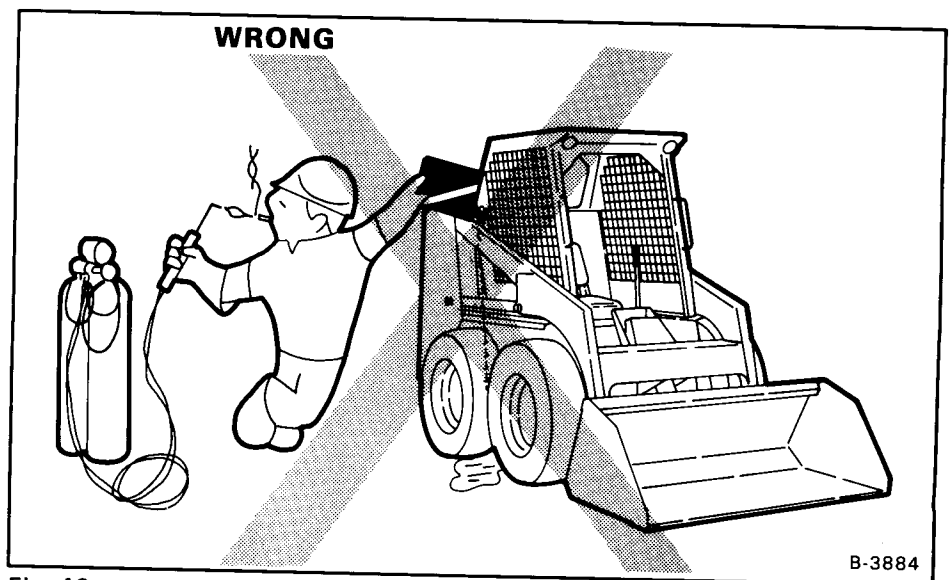


Fig. 46 Fuel Filling Procedure

2. Remove the filter by removing the bolt (Fig. 47, Item 1).

3. Check the seal for damage and where the seal makes contact. Repair as needed. Put lubricant on the rubber gasket of the new element.

4. After installing the new element open the fuel shut-off valve. Loosen the plug on the top of the filter head (Fig. 47, Item 2). Do Not tighten the plug until the fuel flows from the ground plug. Then tighten the plug.

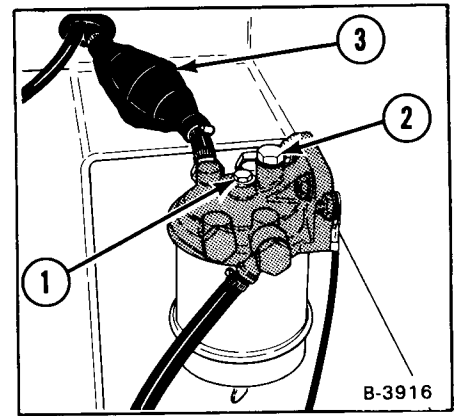


Fig. 47 Fuel Filter Service

5. Check for leaks.

REMOVING AIR FROM THE FUEL SYSTEM

After replacement of the fuel filter element or when the fuel tank has run out of fuel, air must be removed from the fuel system before starting the engine.

To remove air:

1. Position the throttle at minimum RPM. Loosen the valve (Fig. 48, Item 1) on the top of the injector pump and squeeze bulb several times (Fig. 47, Item 3). Turn the engine over with the starter. When the engine starts and runs smoothly, close the valve.

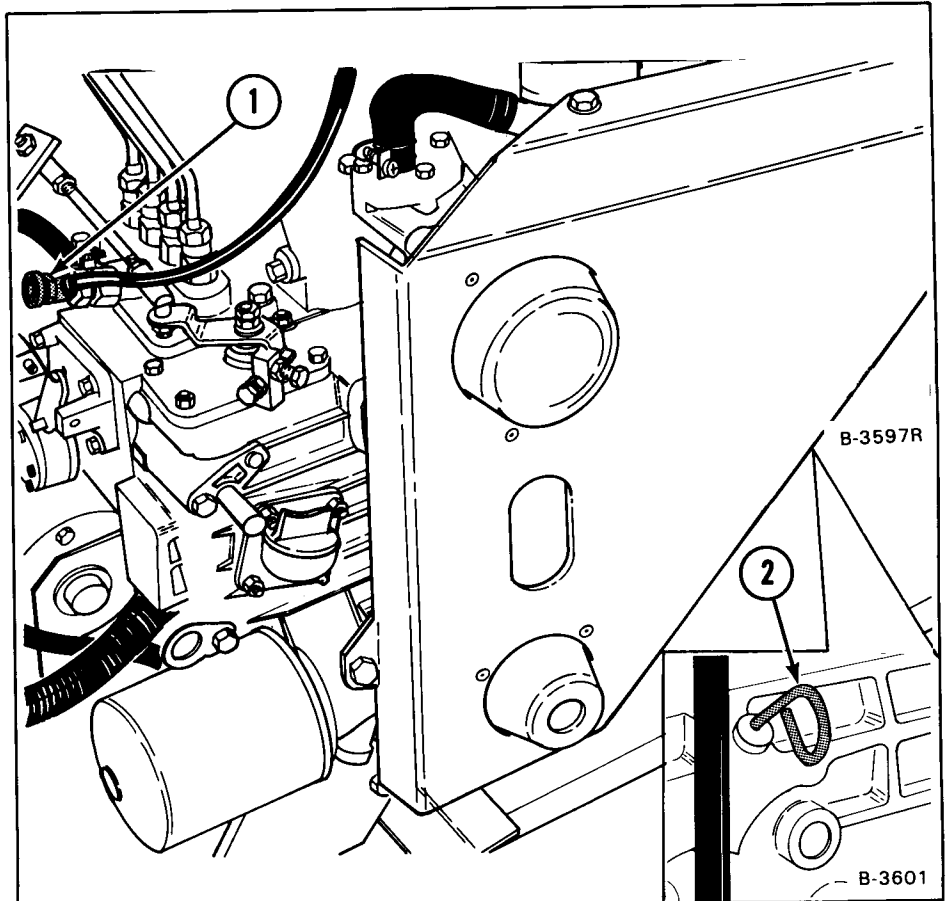


Fig. 48 Engine Dipstick Location

ENGINE LUBRICATION SYSTEM

Check the oil level each day.

To check the oil level, stop the engine and remove the dipstick at the right side of the engine (Fig. 48, Item 2).

The oil level must be kept between the ADD and the FULL marks on the dipstick (Fig. 49). Use a good quality motor oil that has the correct API Service Classification (See Chart).

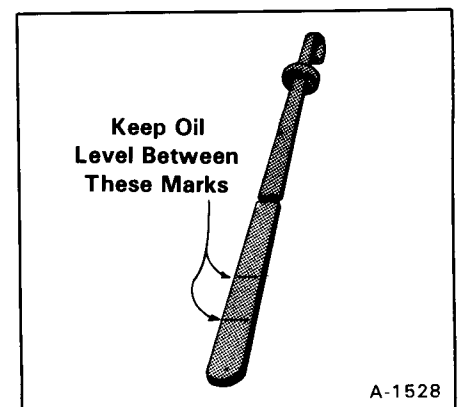


Fig. 49 Dipstick

REPLACEMENT OF ENGINE OIL AND FILTER

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

RECOMMENDED SAE VISCOSITY NUMBER (LUBRICATION OILS FOR ENGINE CRANKCASE)

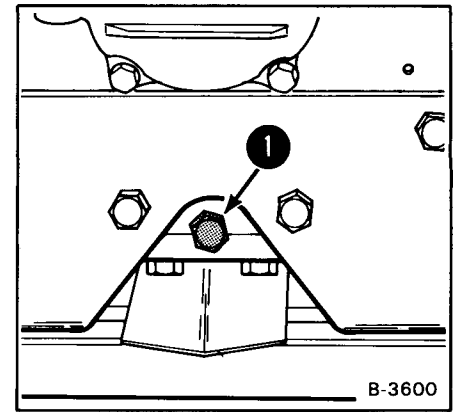
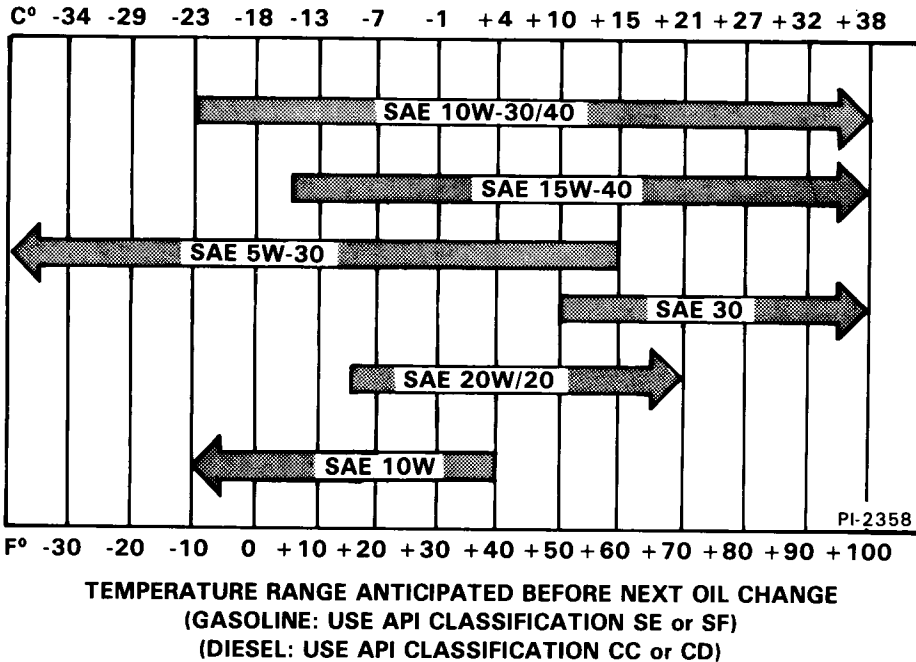


Fig. 50 Oil Plug

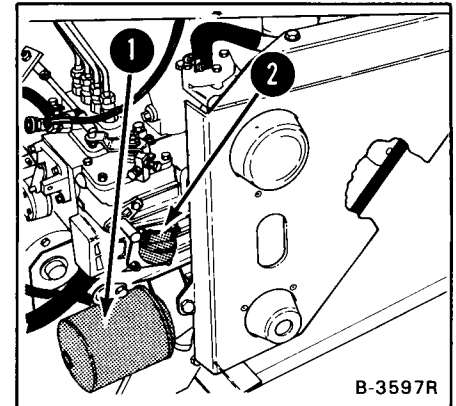


Fig. 51 Remove Oil Filler Cup

To replace engine oil and filter:

1. Operate the engine for about 15 minutes. Stop the engine.
2. Remove the oil plug (Fig. 50, Item 2). Remove all the oil from the engine.
3. Remove the oil filter (Fig. 51, Item 1).
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. 51, Item 2). Put 9 quarts (8,5 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. 52, Item 1). 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.

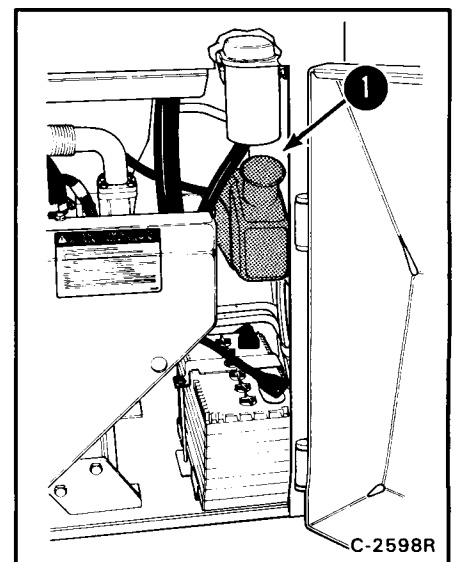


Fig. 52 Coolant Recovery Tank

REMOVING COOLANT FROM THE COOLING SYSTEM

⚠ WARNING

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

The valve to remove the coolant is on the left side of the engine block (Fig. 53). To remove the coolant:

1. Connect a hose to the valve or use a funnel to keep coolant from getting into the engine compartment.
2. Remove the grill (Fig. 54, Item 1).
3. Remove the radiator cap (Fig. 54, Item 2). The grill must be removed to do this.
4. Turn the valve so that the lever is toward the outlet of the valve.

To Fill The Coolant System

1. Close the drain valve (Fig. 53).
2. Mix 50% water and 50% anti-freeze (See Specifications Page 59) for capacity.
3. Fill the radiator and install the radiator cap.
4. Install the grill.
5. Fill the coolant recovery tank 1/3 full.

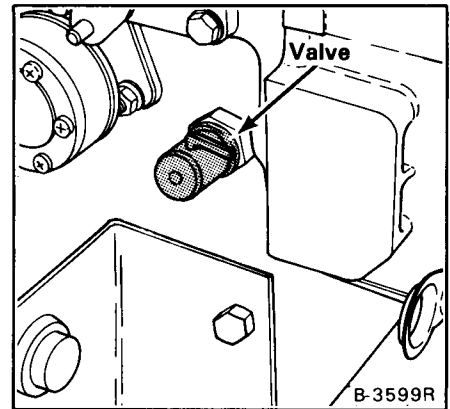


Fig. 53 Removing Coolant

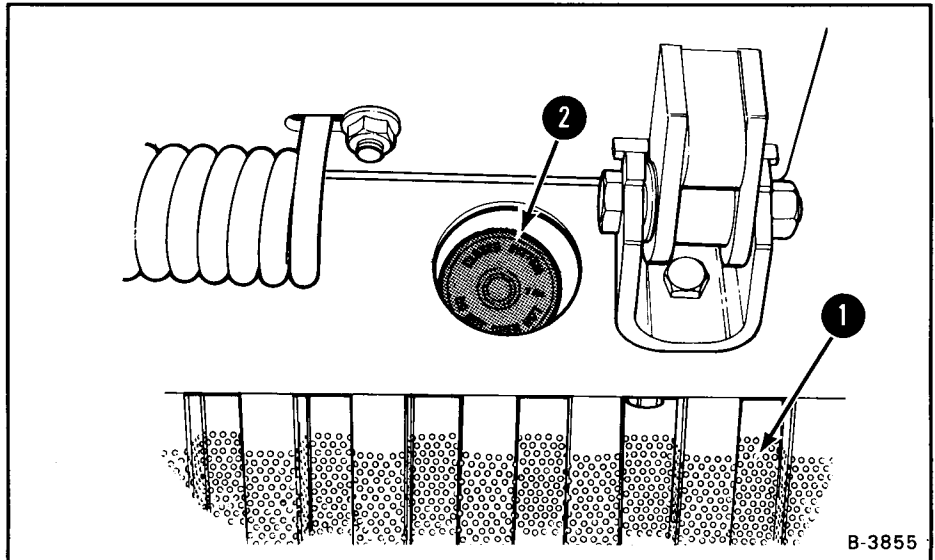


Fig. 54 Radiator Cap

ALTERNATOR BELT

To adjust the belt tension (Fig. 55):

1. Stop the engine.
2. Loosen the adjustment bolt and move the alternator to set tension at 1/4" (6,35 mm). Then tighten the adjustment bolt.

ELECTRICAL SYSTEM (Fig. 56 & 57)

The Bobcat has a 12 volt, negative ground alternator charge system.

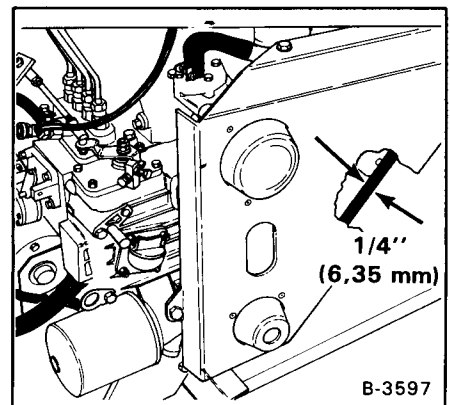
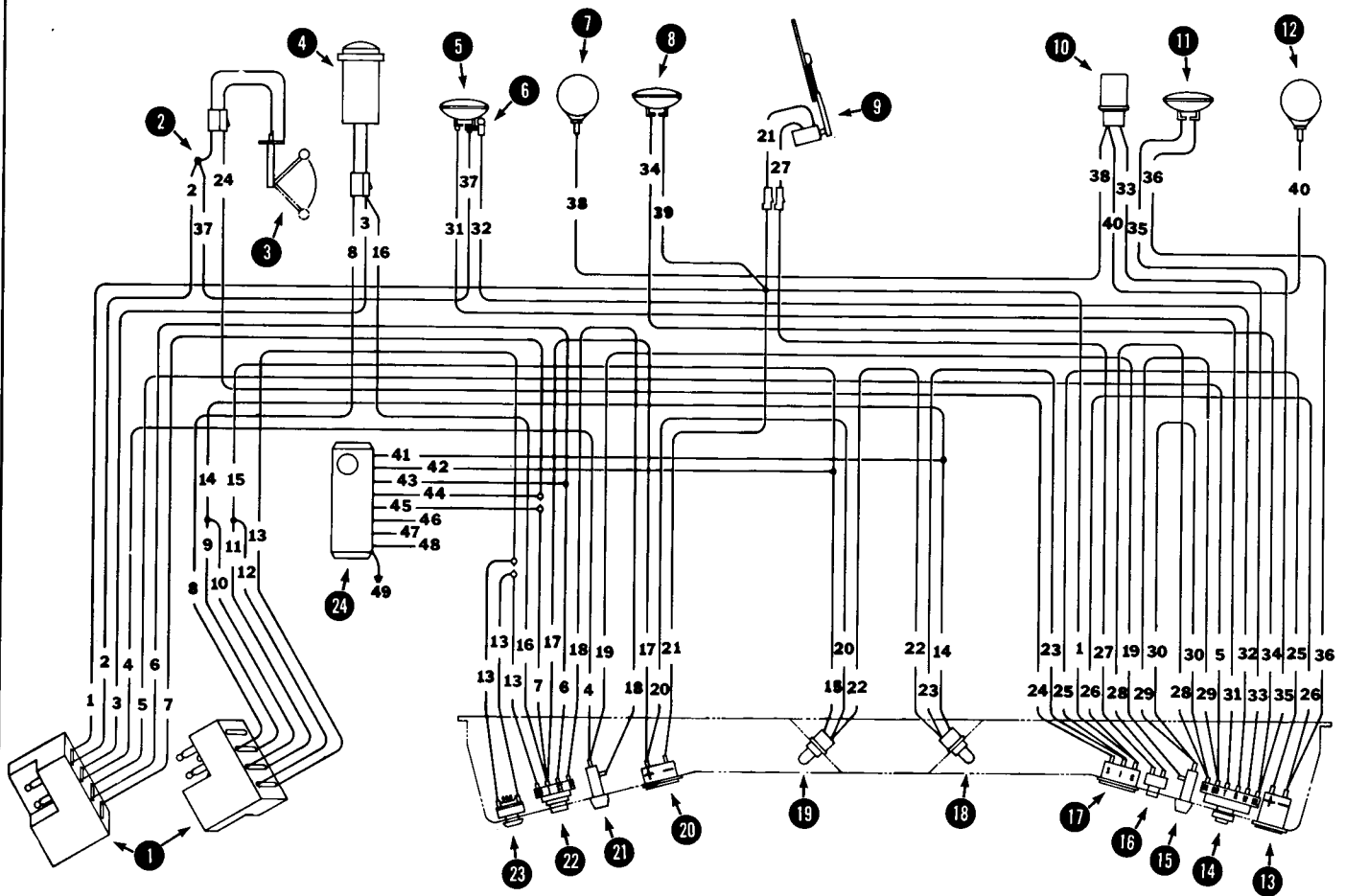


Fig. 55 Belt Adjustment

OPERATOR'S GUARD WIRING DIAGRAM



WIRE LEGEND

#'s	COLOR	GAUGE
1	Black	16
2	Black	16
3	Orange	16
4	Orange	12
5	Orange and Yellow	16
6	White	16
7	Light Blue	16
8	Orange and Green	16
9	Yellow and Black	18
10	Yellow	18
11	White and Purple	18
12	Purple	18
13	Light Blue and Black	16
14	Yellow	18
15	Purple	18
16	Orange	16
17	Orange	16
18	White and Orange	16
19	Orange and Dark Blue	16
20	Orange	18
21	Black	16
22	Orange	18
23	Orange	18
24	Dark Green and Yellow	16
25	Orange	18
26	Black	16
27	Orange and Black	16
28	Orange and Black	16
29	Orange and Dark Blue	16
30	Orange and Dark Blue	16
31	White and Dark Blue	16
32	Pink	16
33	Brown	16
34	Dark Blue	16
35	Black	16
36	Black	16
37	Black	16
38	Brown	16
39	Black	16
40	Brown	16
41	Yellow	16

42 Purple 16
 43 White 16
 44 Light Blue 16
 45 Red 16
 46 Orange (Not Used) 16
 47 Grey (Not Used) 16
 48 Brown (Not Used) 16
 49 Black 16

SYMBOLS
 ○ Butt splice wire is cut between splices
 ● Tee splice

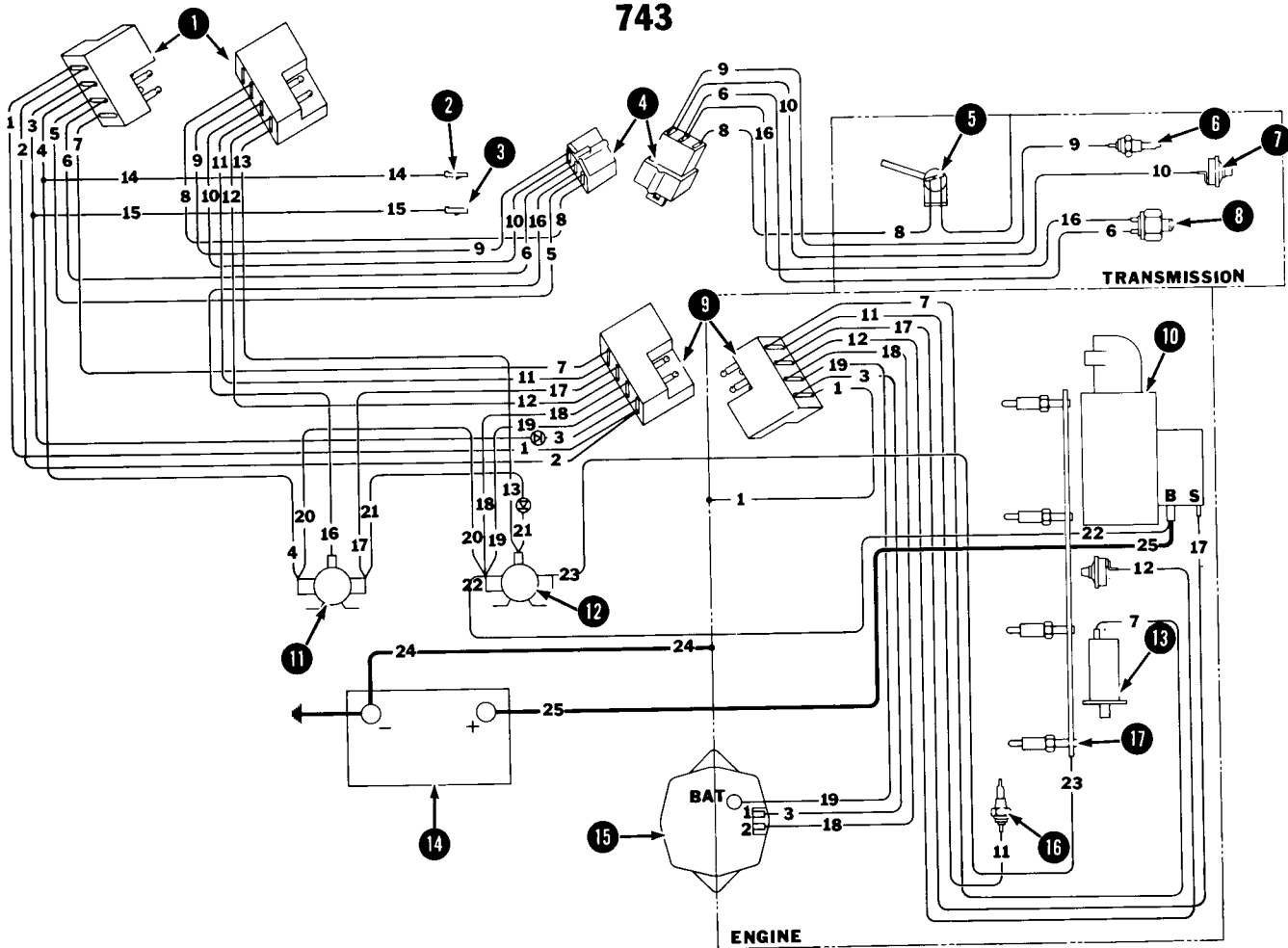
PARTS LEGEND

- 1 Operator Guard Harness Connector
- 2 Operator Guard Ground
- 3 Fuel Sender
- 4 Back-up Alarm (Optional)
- 5 Rear Lamp
- 6 Tail Lamp
- 7 Left Flasher Lamp (Optional)
- 8 Left Front Lamp
- 9 Wiper Motor (Optional)
- 10 Flasher (Optional)
- 11 Right Front Lamp
- 12 Right Flasher Lamp (Optional)
- 13 Hourmeter
- 14 Light Switch
- 15 Accessory Fuse
- 16 Wiper Switch (Optional)
- 17 Fuel Gauge
- 18 Transmission Warning Lamp
- 19 Engine Warning Lamp
- 20 Voltmeter
- 21 Ignition Fuse
- 22 Ignition Switch
- 23 Glow Plug Indicator (543 Only)
- 24 Shut-down Module (Optional)

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Fig. 56 Wiring Diagram

ENGINE WIRING DIAGRAM 743



WIRE LEGEND

#'s	COLOR	GAUGE
1	Black	16
2	Black	16
3	White and Green	16
4	Orange	12
5	Orange and Yellow	16
6	White	16
7	White and Black	16
8	Orange and Green	16
9	Yellow and Black	16
10	Yellow	16
11	White and Purple	16
12	Purple	16
13	Light Blue and Black	16
14	Orange	12
15	White and Orange	16
16	White and Orange	16
17	White	16
18	Light Green	16
19	Orange	12
20	Orange	12
21	White and Green	16
22	Red	8
23	Light Blue and Orange	10
24	Black	Cable
25	Red	Cable

PARTS LEGEND

- ① Operator Guard Harness Connector
- ② Unfuse and Live Accessory
- ③ Fused and Switched Accessory
- ④ Chassis Connector
- ⑤ Back-up Alarm Switch (Optional)
- ⑥ Transmission Oil Temperature Sender
- ⑦ Transmission Charge Pressure Sender
- ⑧ Brake Start Switch (Future)
- ⑨ Engine Connector
- ⑩ Starter
- ⑪ Start Relay
- ⑫ Pre-heat Relay
- ⑬ Fuel Shut-off Solenoid (Optional)
- ⑭ Battery
- ⑮ Alternator
- ⑯ Engine Coolant Temperature
- ⑰ Engine Glow Plugs

Fig. 57 Engine Schematic

To service the electrical system:

1. Check to see that the battery cables are clean and tight. Remove any acid of 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. Install the covers on the terminals.
2. Two 25 ampere fuses are installed in the dash panel. If the fuses become damaged, replace them with same type and size fuses.

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.

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.

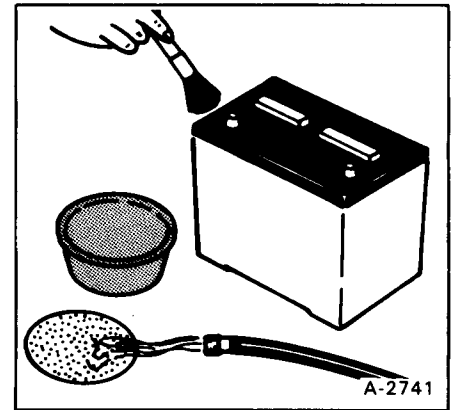


Fig. 58 Cleaning Battery

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. Connect the cable directly to the negative terminal (–) of the loader battery can cause a spark and destroy the battery and cause personal injury.

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.

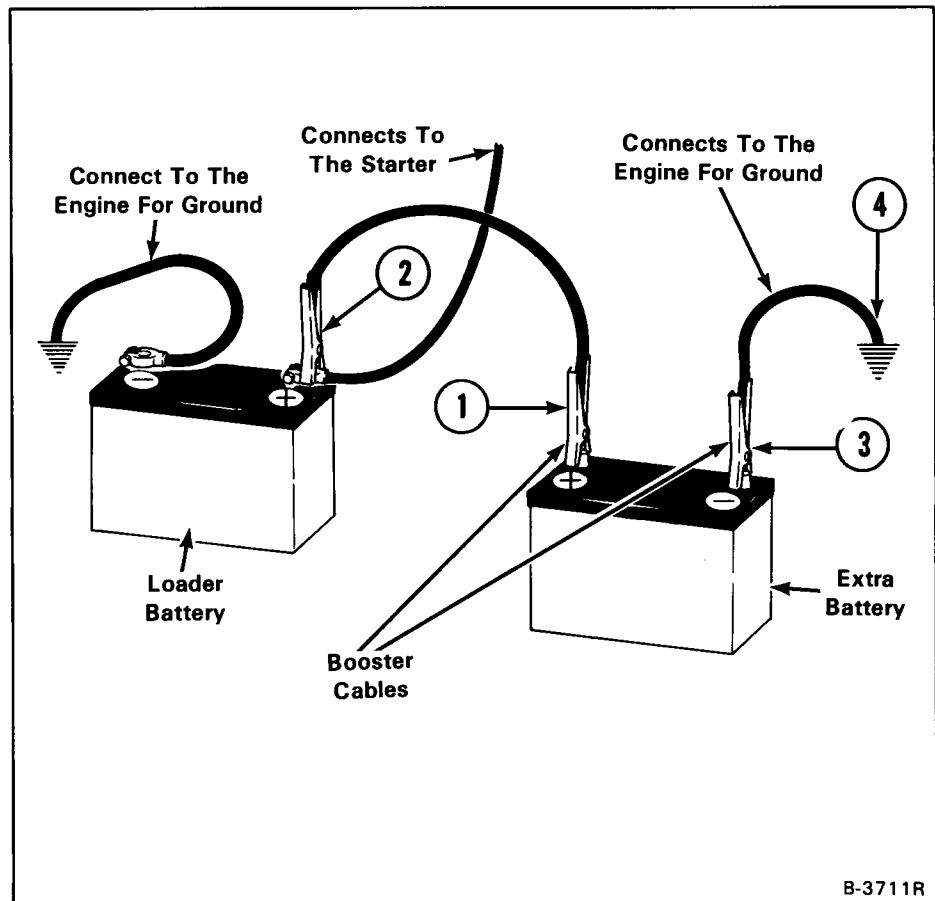


Fig. 59 Connecting Booster Cables

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 (+).

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.

TO INSTALL 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.
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

Spark arrestor muffler must be cleaned every 100 hours. Wear safety goggles.

WARNING

Engine must be cool before cleaning spark arrestor muffler, wear safety goggles.

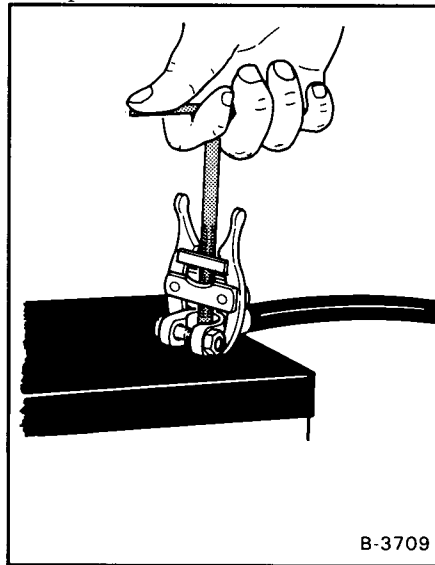


Fig. 60 Removing Cables

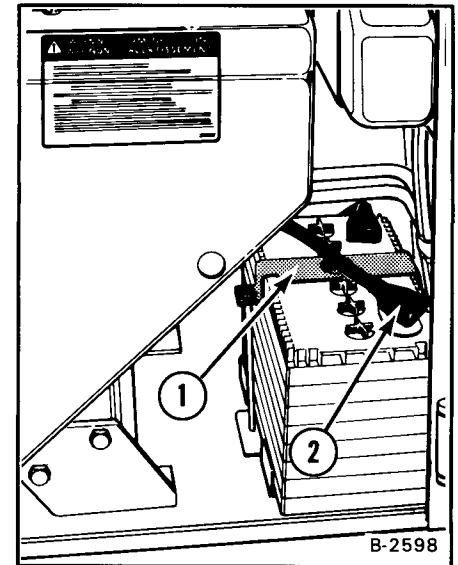


Fig. 61 Battery Holddown Clamp

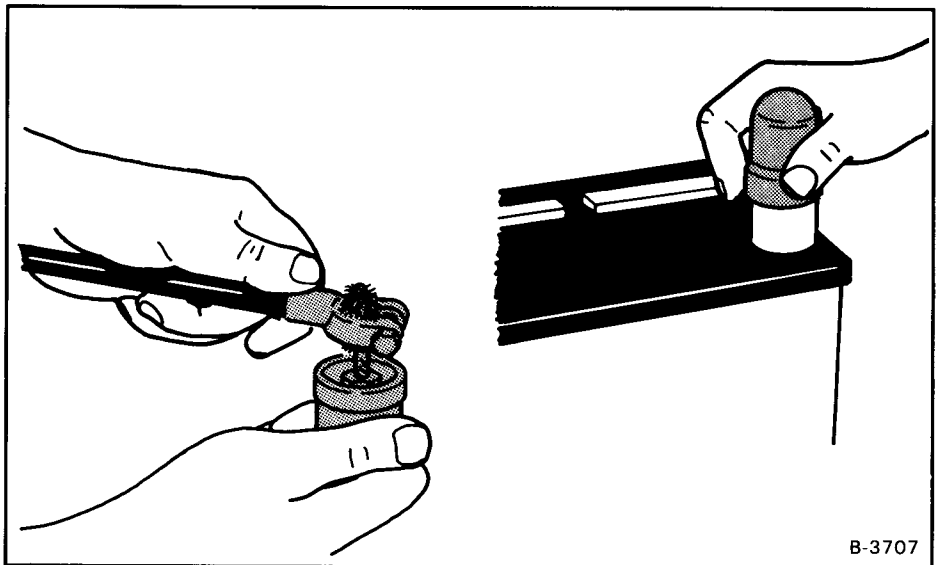


Fig. 62 Cleaning Battery Terminals

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

WARNING

DO NOT run the engine in an area that has materials that can cause combustion. Wear safety goggles.

4. Hold a block of wood over the outlet of the muffler.
5. Start the engine and run it for about 10 seconds.
6. Stop the engine and install the plug.
7. Close the rear door.

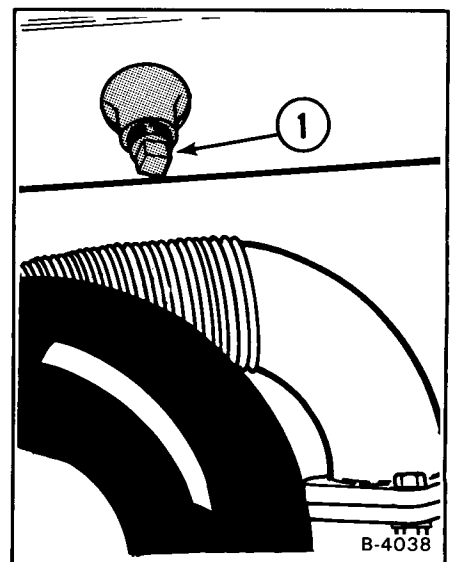
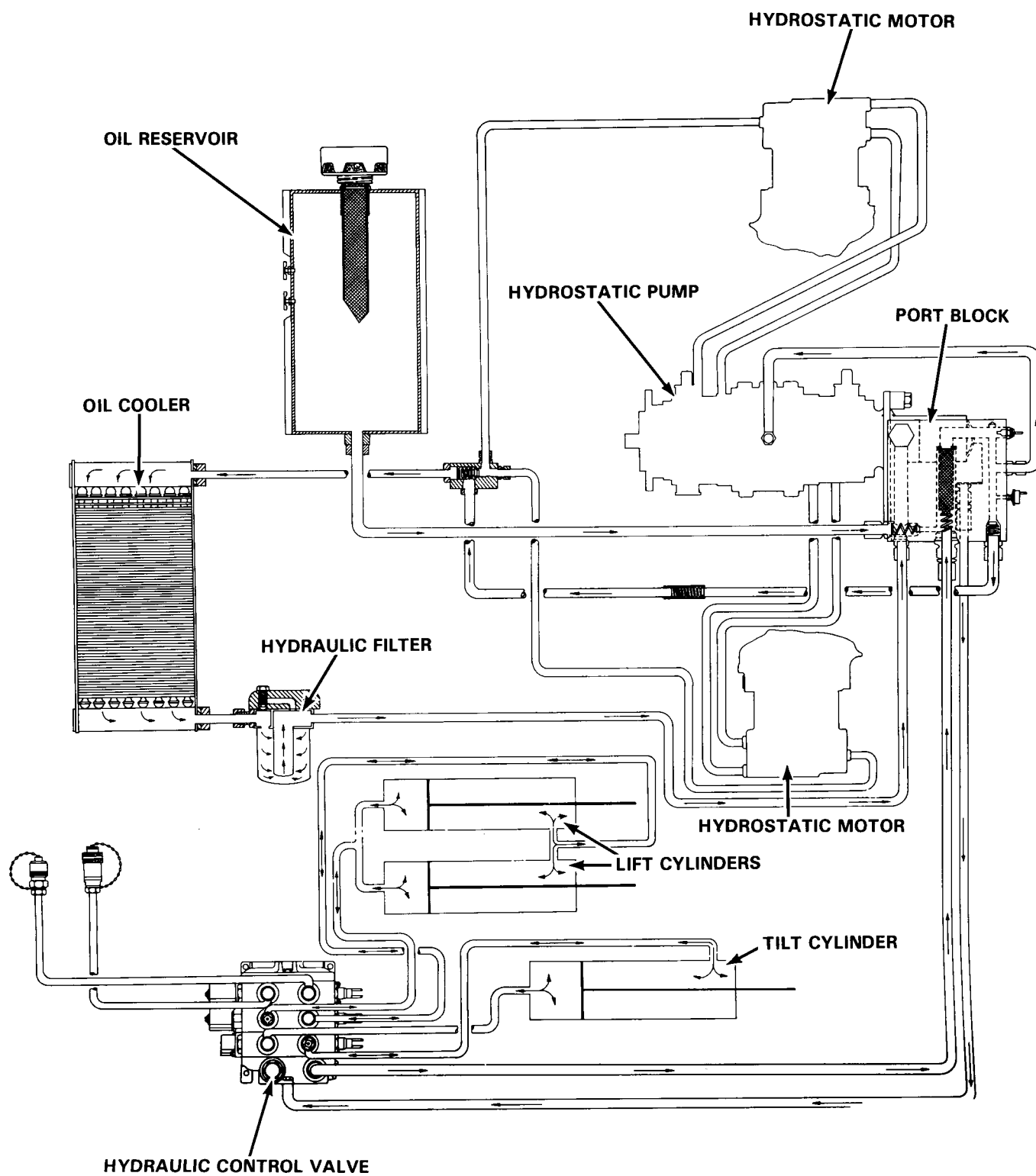


Fig. 63 Spark Arrestor Muffler Plug

743 HYDRAULIC CIRCUITRY



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Fig. 64 Hydraulic System

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.

A 40 micron filter is located in the port block. It must be changed every 500 hours by the dealers serviceman.

The location of the oil cooler is ahead of 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 62).

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.

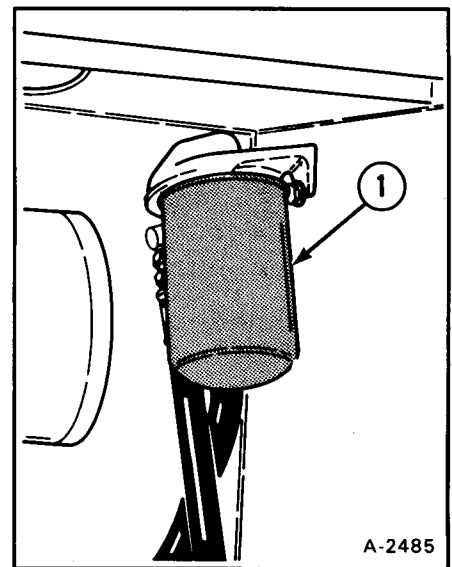


Fig. 65 10 Micron Filter

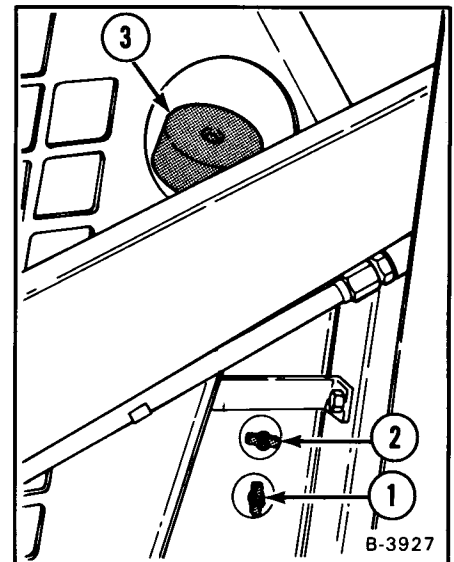
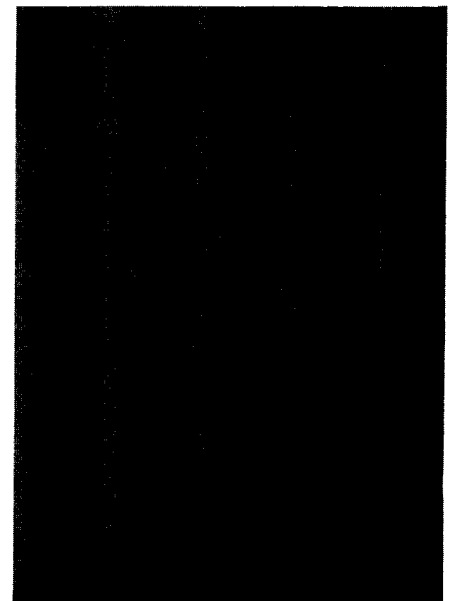


Fig. 66 Hydraulic Level Check



Removing Hydraulic Oil

Remove the oil from the hydraulic reservoir and replace it with new oil every 1,000 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 62 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 oil level again (See Checking and Adding Oil).

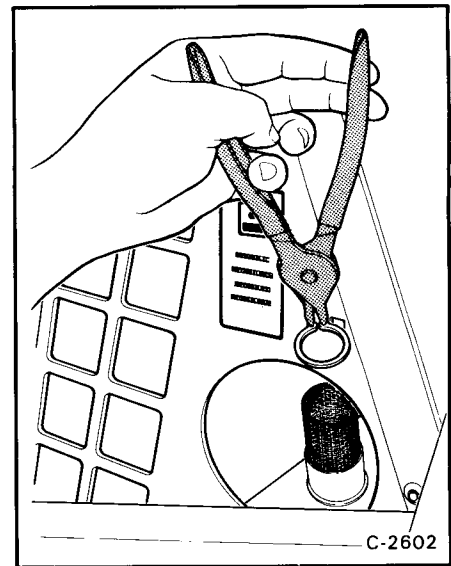


Fig. 67 Snap Ring

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.

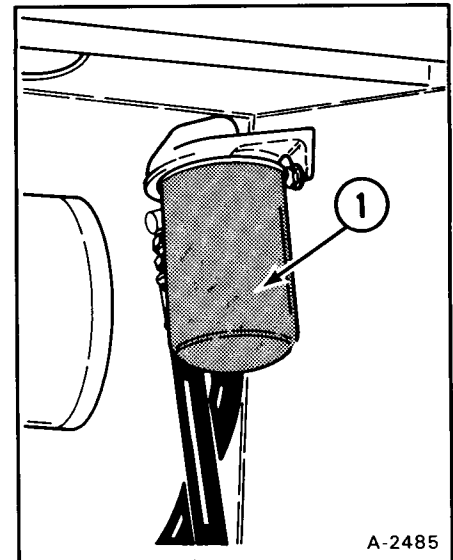


Fig. 68 Filter Element

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).

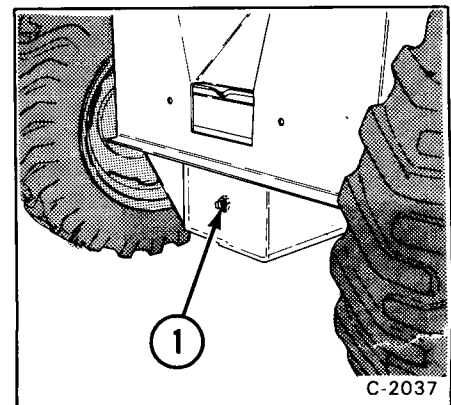


Fig. 69 Chaincase Plug

3. Add oil through the check plug hole until the oil flows from the check plug hole. Install the plug.

TO DRAIN CHAINCASE OIL

NOTE: This procedure is recommended for dealer service.

1. Remove the transmission cover.
2. Remove chaincase oil using a suction pump (Fig. 70).
3. Clean the bottom of the chaincase using cleaning rags (Fig. 71).

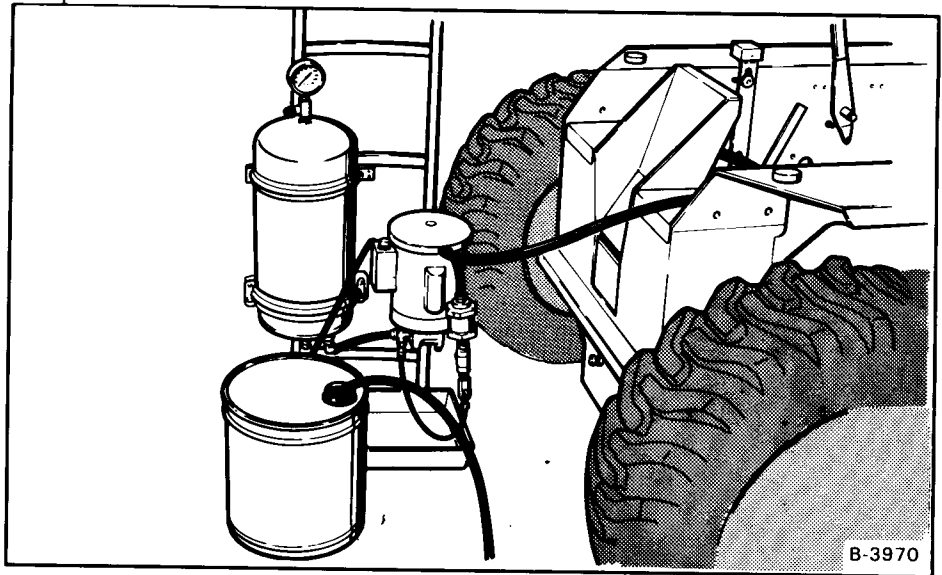


Fig. 70 Removing Oil

TIRE MAINTENANCE

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

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. 72).

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

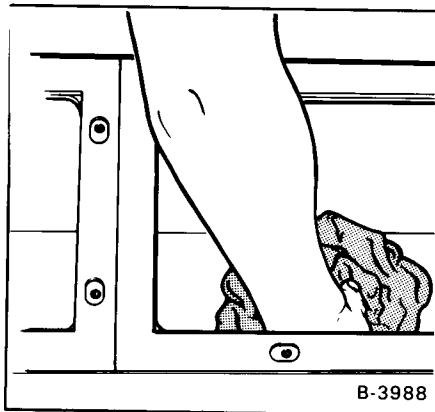


Fig. 71 Cleaning Chaincase

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.

IMPORTANT

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

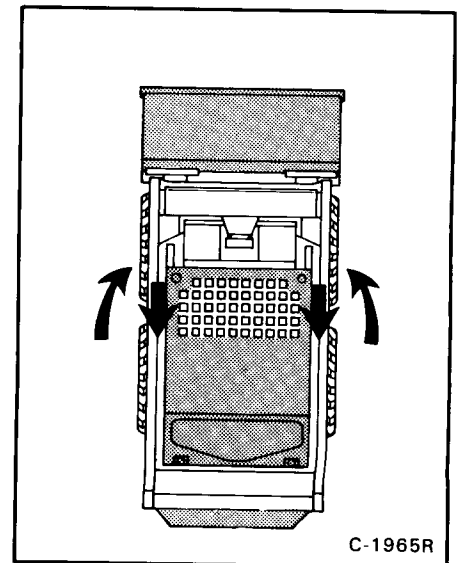
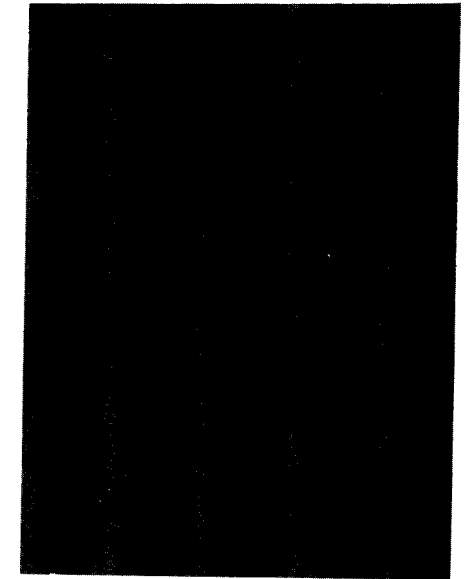


Fig. 72 Tire Rotation

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 73 for the location of grease fittings.

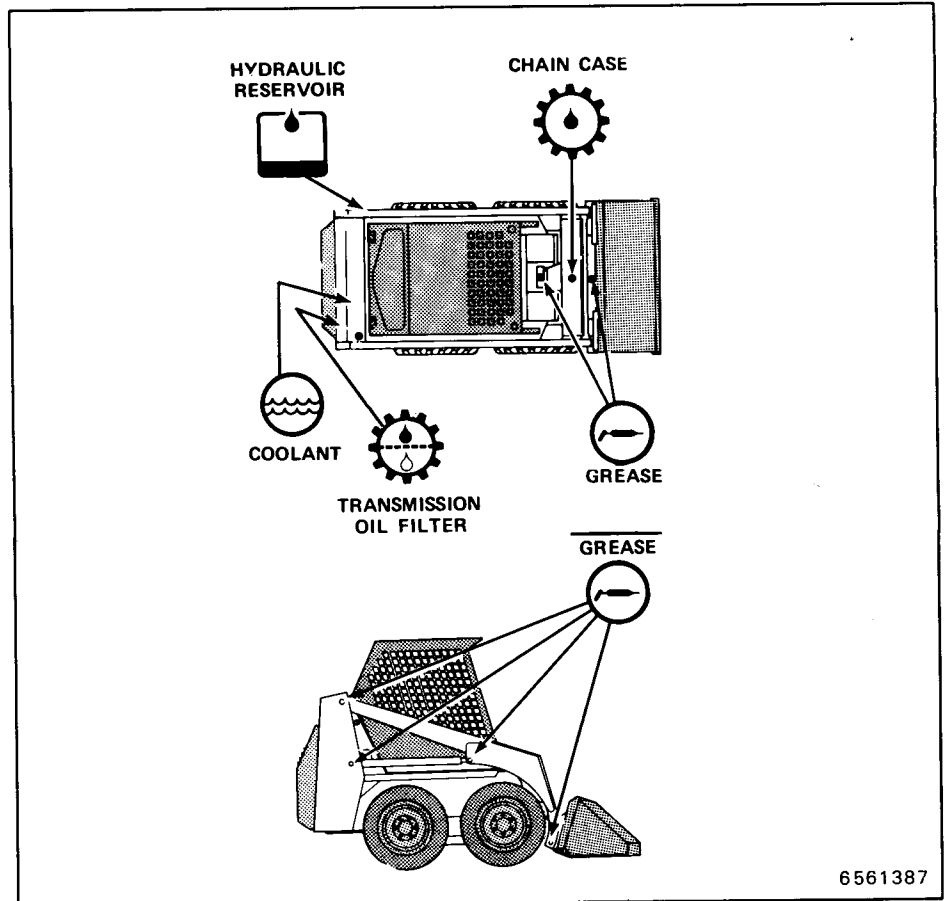


Fig. 73 Lubrication Points

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

Grease the universal joints and spline (Fig. 74, Item 1) every 400 to 500 hours.

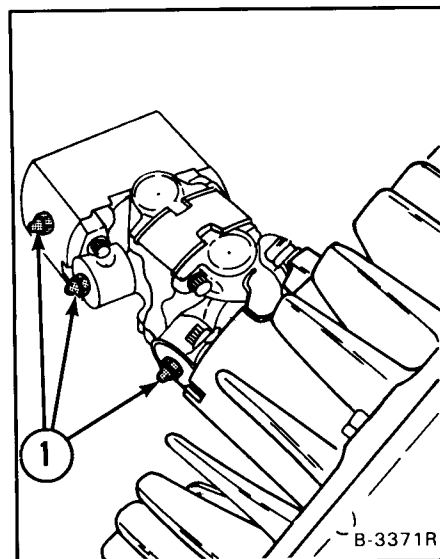


Fig. 74 U-Joint Fittings

Lubricate the seat rails for easy movement when you adjust the seat (Fig. 75, Item 1).

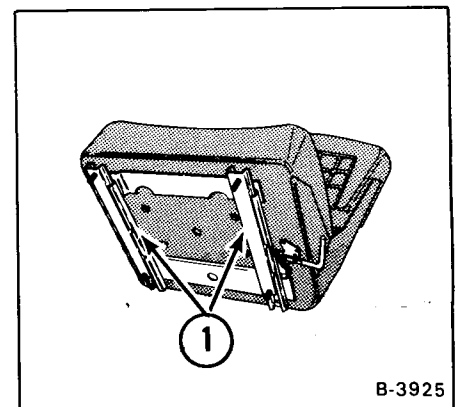


Fig. 75 Lubricating Seat

Add grease as needed to the steering control shaft (Fig. 76, Item 1).

OPERATOR GUARD

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

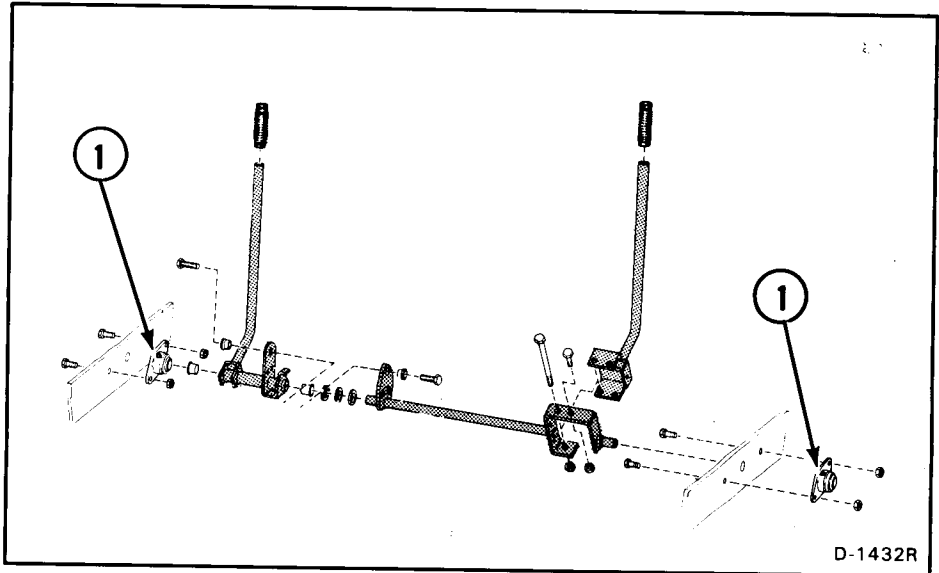


Fig. 76 Steering Control Lubrication

! 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. 77).

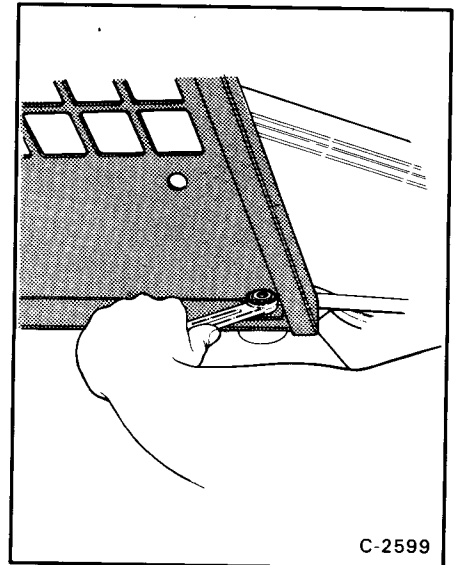


Fig. 77 Tightening Operator Guard Bolts

BOB-TACH

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

When the Bob-Tach levers (Fig. 78, Item 1) are pushed down into the locked position, the wedges must extend far enough to engage into the holes of the attachment (Fig. 79).

Replace wedges that are bent or broken.

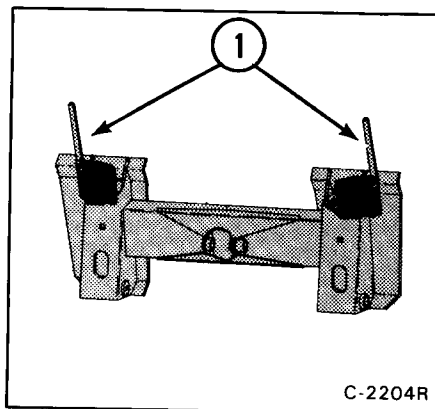


Fig. 78 Bob-Tach

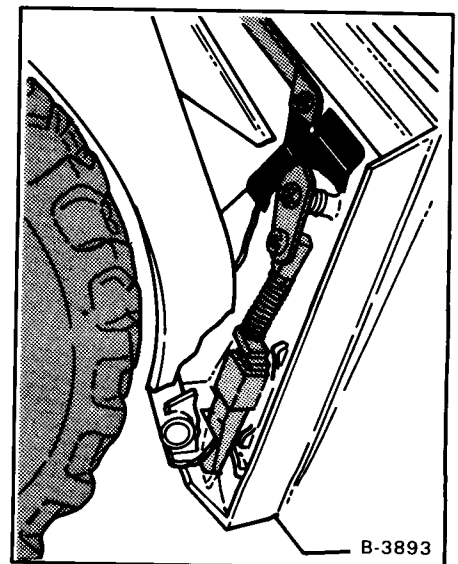


Fig. 79 Locking Wedges

PIVOT PINS

All pivot points, lift arms, Bob-Tach and cylinders have large pins that are held in position with lockbolts (Fig. 80, Item 1). Check that the lockbolts are tightened to 8 - 10 ft.-lbs. (11 - 13 Nm) torque. Do Not overtighten.

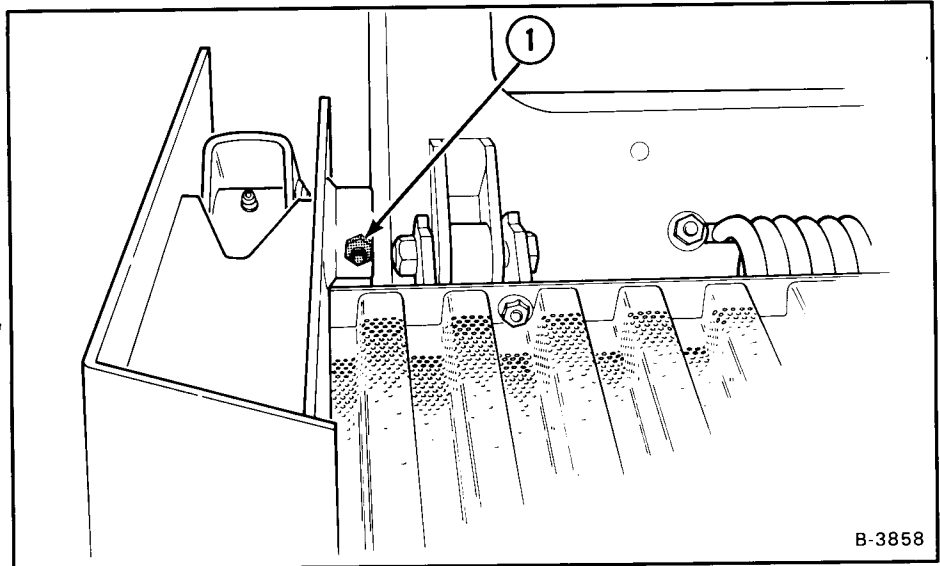


Fig. 80 Pivot Pin Lockbolts

AUXILIARY CONTROL LOCKBOLT

The auxiliary control has a lockbolt (Fig. 81, Item 1) that must be removed before you can use the auxiliary hydraulics (Fig. 82). The operator guard must be lifted before removing the lockbolt (See Page 17).

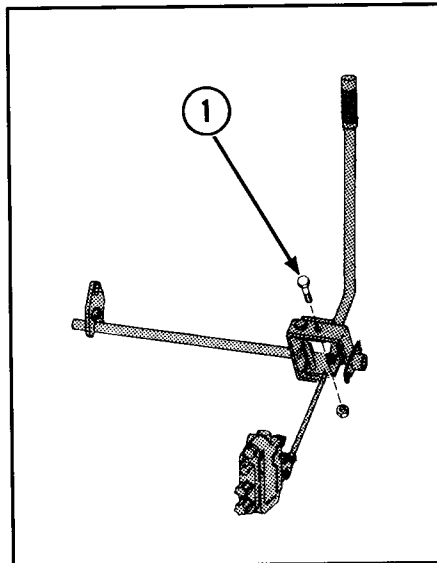


Fig. 81 Auxiliary Lockbolt

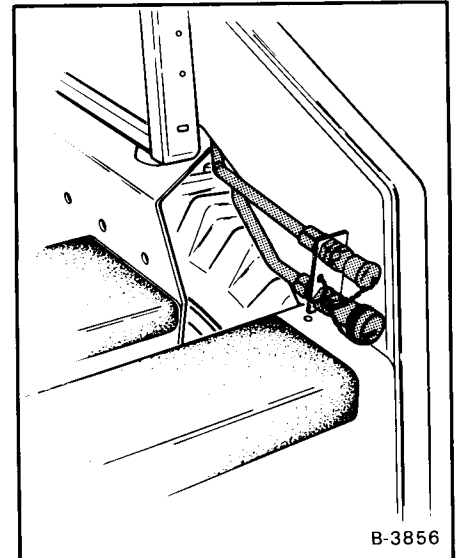


Fig. 82 Auxiliary Hydraulics

BRAKE PEDAL ADJUSTMENT

The brake pedal is adjusted by turning the nut on the end of the brake linkage rod (Fig. 83, Item 1). There must be 1/4" freeplay in the brake.

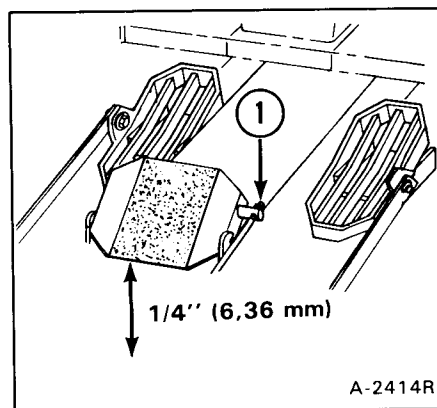
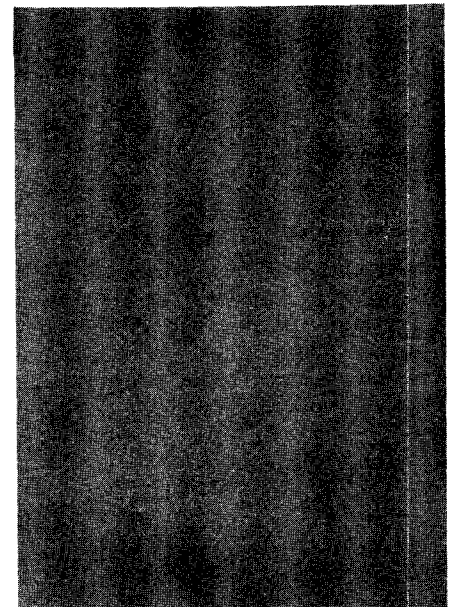


Fig. 83 Pedal Adjustment



DELIVERY REPORT (Fig. 84)

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. Be sure it is filled out completely.

THIRTY HOUR INSPECTION (Fig. 85)

Return the Bobcat loader to the dealer after the first 30 hours of Bobcat loader operation for a complete inspection. There is no charge to the owner for this inspection. There may be charge for parts and labor needed.

The Bobcat dealer will explain the 30 Hour Inspection procedure when the Bobcat loader is delivered to you.

The 30 Hour Inspection does the following:

1. Inspection, adjustment and service of the Bobcat loader after the first 30 hours of operation.
2. Improvement of maintenance or operation procedures that are not correct can be found.
3. Correct maintenance or operation procedure can be demonstrated.

The owner must contact the dealer to schedule a 30 Hour Inspection.

When the inspection is complete the form must be filled out by the serviceman and signed by the serviceman and the owner or operator.

Fig. 84 Delivery Report

Fig. 85 30 Hour Inspection

TROUBLESHOOTING

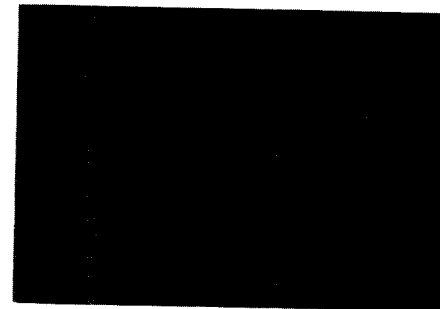
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TROUBLESHOOTING THE HYDRAULIC SYSTEM	41

**TROUBLE—
SHOOTING**

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 loss or damage.	—
	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.	Use correct starting procedure.	9
	Fuel shut off button pulled out.	Push button in.	
	Auxiliary control lever or hydraulic pedals are in "detent".	Take out of "detent". Install lockbolts when not using auxiliary control.	7
	No fuel in tank.	Add fuel.	21
	Vent in fuel filler cap is plugged.	Clean the vent.	—
	Dirt or water in fuel system.	Make repairs as needed.	D/S
	Fuel filter is dirty.	Install a new filter.	21
	Hole in fuel line.	Make repairs as needed.	—
	Weak battery.	Charge or replace battery.	—
	Wrong oil in the engine.	See Oil Specifications.	23
	Engine has lost compression.	Recondition the engine.	D/S
	Engine has overheated.	Check cooling system.	—
	Poor fuel quality.	Use fresh, good quality fuel.	21
Engine has little power or runs rough.	Damaged injectors.	Make repairs as needed.	D/S
	Dirt or water in fuel system.	Clean and make repairs as needed.	D/S

PROBLEM	CAUSE	CORRECTION	PAGE
Engine has little power or runs rough (Cont'd).	Engine is hot.	See "Engine Overheats"	—
	Restricted exhaust.	Clean exhaust system.	—
	Dirty air cleaner.	Install new element.	20
	Engine has low compression.	Recondition the engine.	D/S
Engine overheats.	Restriction in cooling air flow.	Check for debris on radiator grill or on engine cooling fins.	D/S
	Blower shrouding damaged or missing.	Check shrouding and repair or replace.	23
	Engine is overloaded.	Run at full throttle.	—

TROUBLESHOOTING THE HYDRAULIC SYSTEM

No drive on both sides.	Hydraulic oil is low.	Check oil level, add as necessary.	30
	40 Micron filter is plugged (Note: "Trans" light will be on).	Install new 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 and make repair as needed.	D/S
Machine pulls to one side.	Wrong tire pressure.	Check all tires for correct pressure.	60
	Steering linkage interference.	Check steering linkage and adjust as necessary.	D/S
	Damaged hydrostatic system.	Check system and make repair.	D/S
Machine moves when 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 and add as necessary.	30
	Cooling system is dirty. Air 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 system and make repair.	D/S
	40 Micron filter dirty.	Replace filter element.	D/S
Parking brake will not hold.	Out of adjustment.	Make adjustments as needed.	35

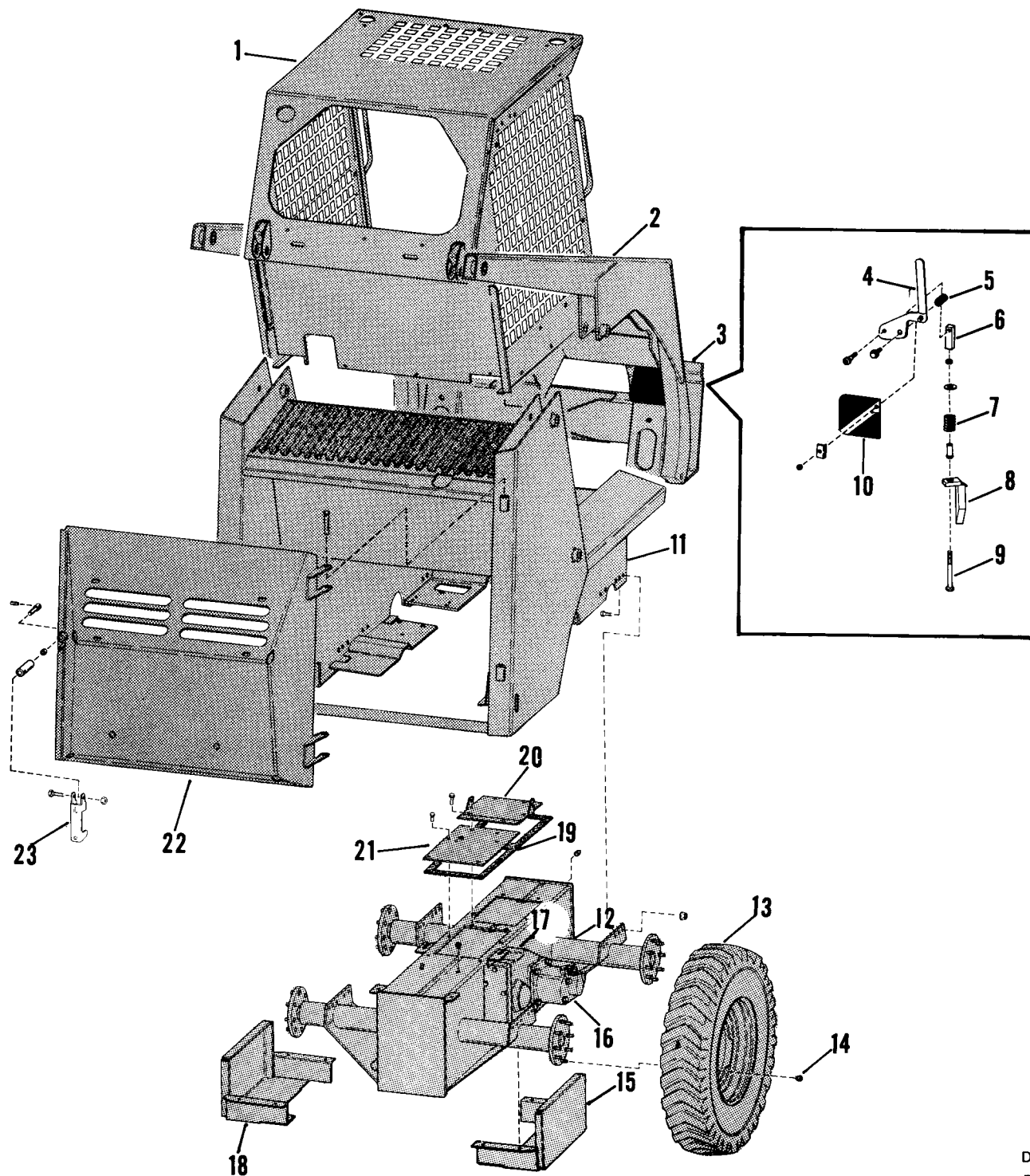
TROUBLESHOOTING THE HYDRAULIC SYSTEM

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.	Replace the relief valve.	D/S
	Hydraulic pump is damaged.	Check 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 and make repair.	D/S
	Hydraulic pump is damaged.	Check pump and replace as necessary.	D/S
	Control valve is damaged.	Check valve and make repair as needed.	D/S
	Hydraulic oil is too thick.	Let machine warm up.	—
Hydraulic cylinders leak oil.	Damage to cylinder rods or seals.	Make repair of cylinders.	D/S

MAJOR PARTS

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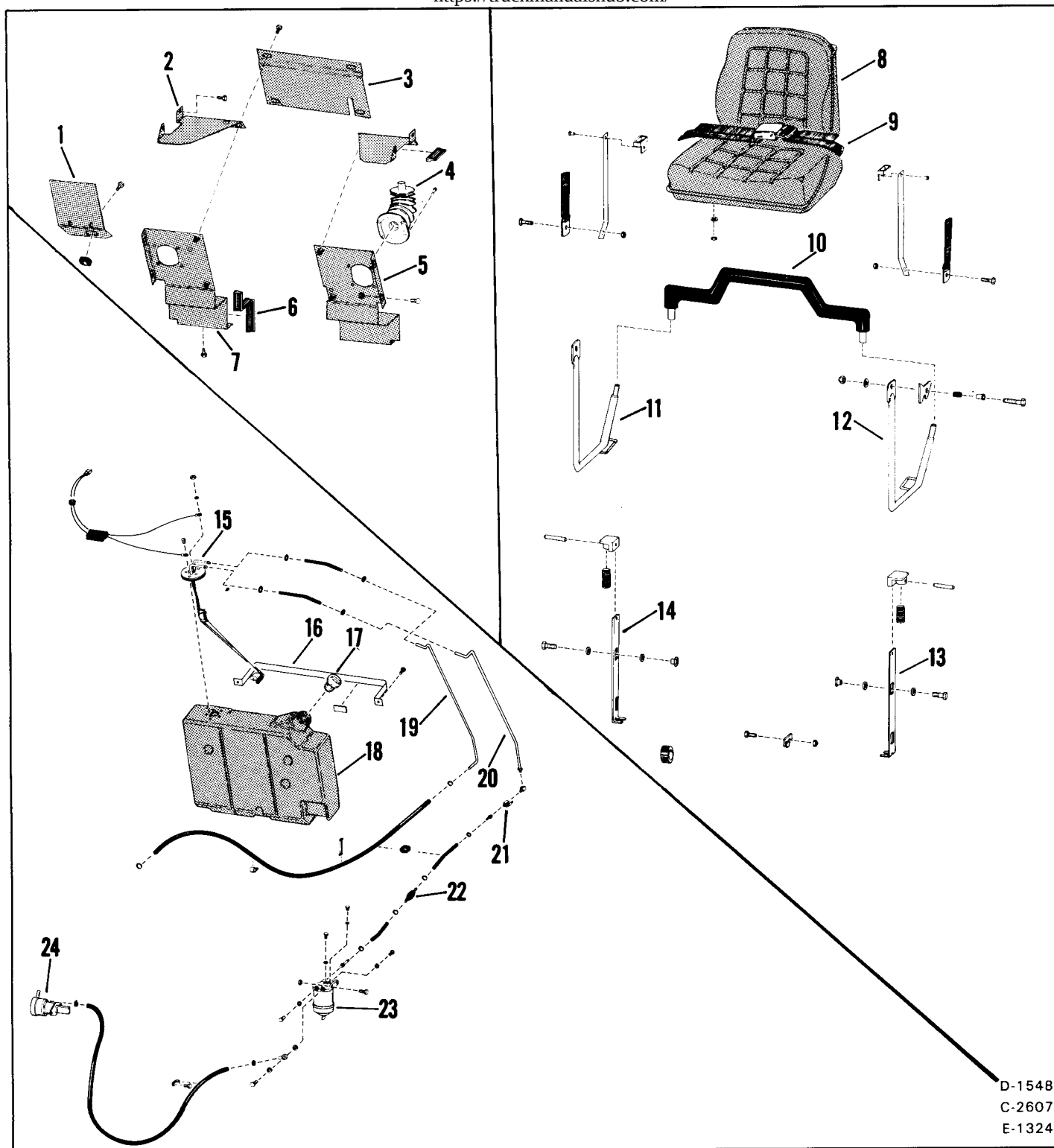
MAJOR PARTS



D-1547
E-1326

MAIN FRAME

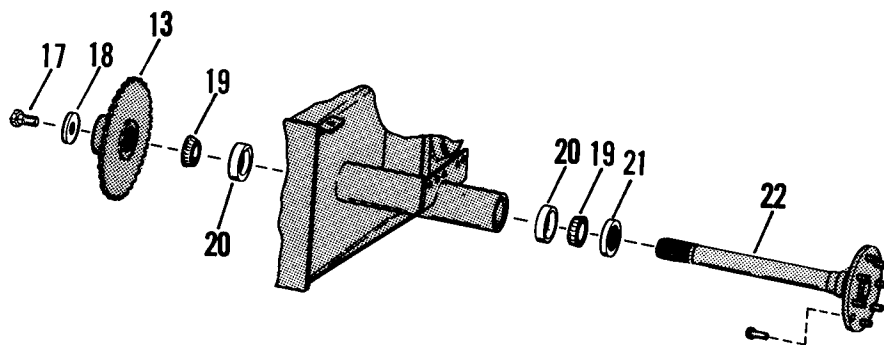
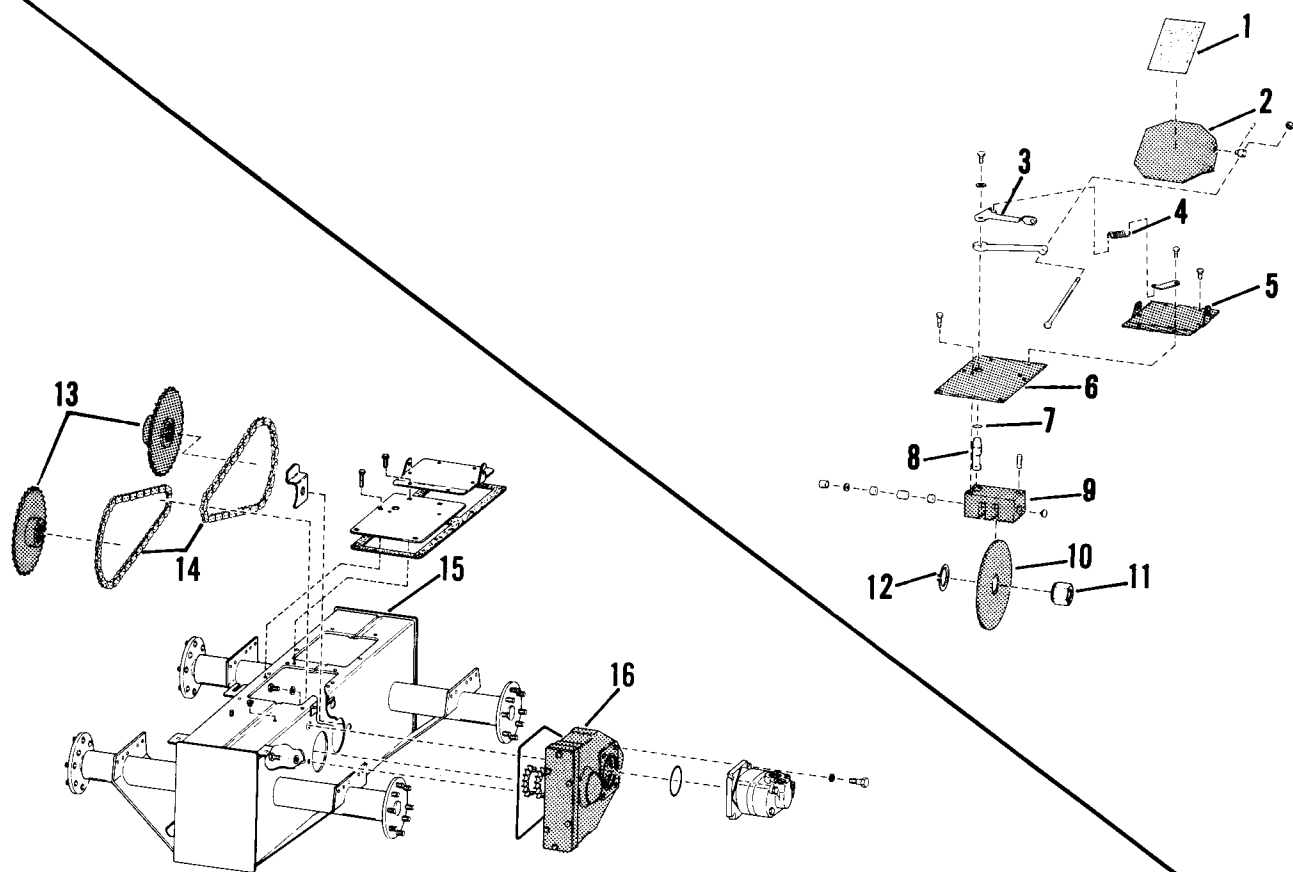
Ref.	Description	Ref.	Description	Ref.	Description
1.	Operator Guard	9.	Bolt, hex	17.	Gearcase
2.	Lift Arms	10.	Cover	18.	Cover
3.	Bob-Tach	11.	Main Frame	19.	Gasket
4.	Bob-Tach Levers	12.	Chaincase	20.	Plate
5.	Spring	13.	Tire	21.	Plate
6.	Block	14.	Nut, wheel	22.	Door, rear
7.	Spring	15.	Cover	23.	Latch, door
8.	Wedge	16.	Motor		



D-1548
C-2607
E-1324

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.	Plate	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.	Bulb, primer
7.	Panel (L.H.)	15.	Sender	23.	Filter
8.	Seat	16.	Strap	24.	Pump



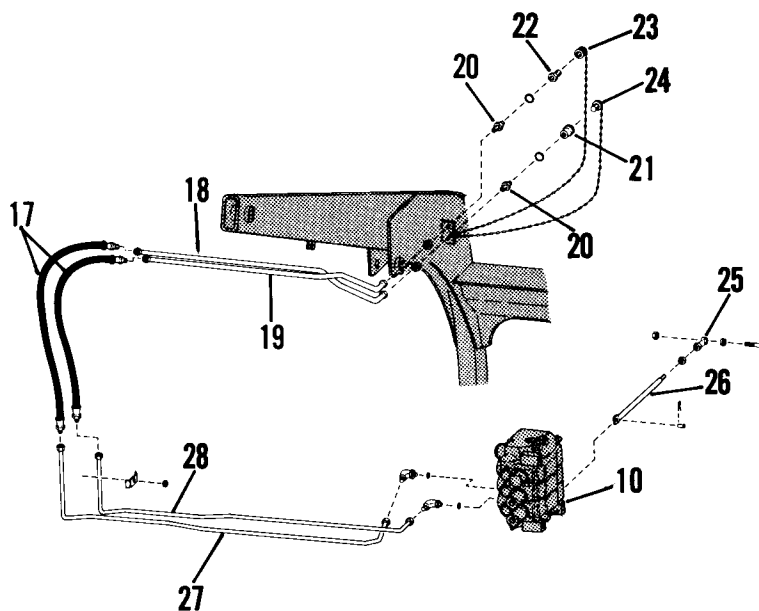
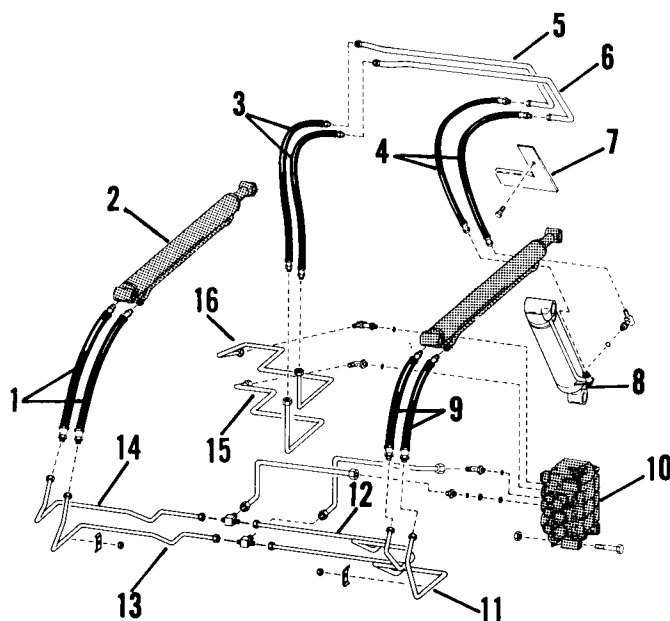
D-1549
D-1435R
C-2611

DRIVE SYSTEM

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

Ref.	Description
9.	Block
10.	Disc
11.	Nut
12.	Snap Ring
13.	Sprocket
14.	Chain, drive
15.	Chaincase
16.	Gearcase

Ref.	Description
17.	Bolt, hex
18.	Washer
19.	Bearing, cone
20.	Bearing, cup
21.	Seal
22.	Axle



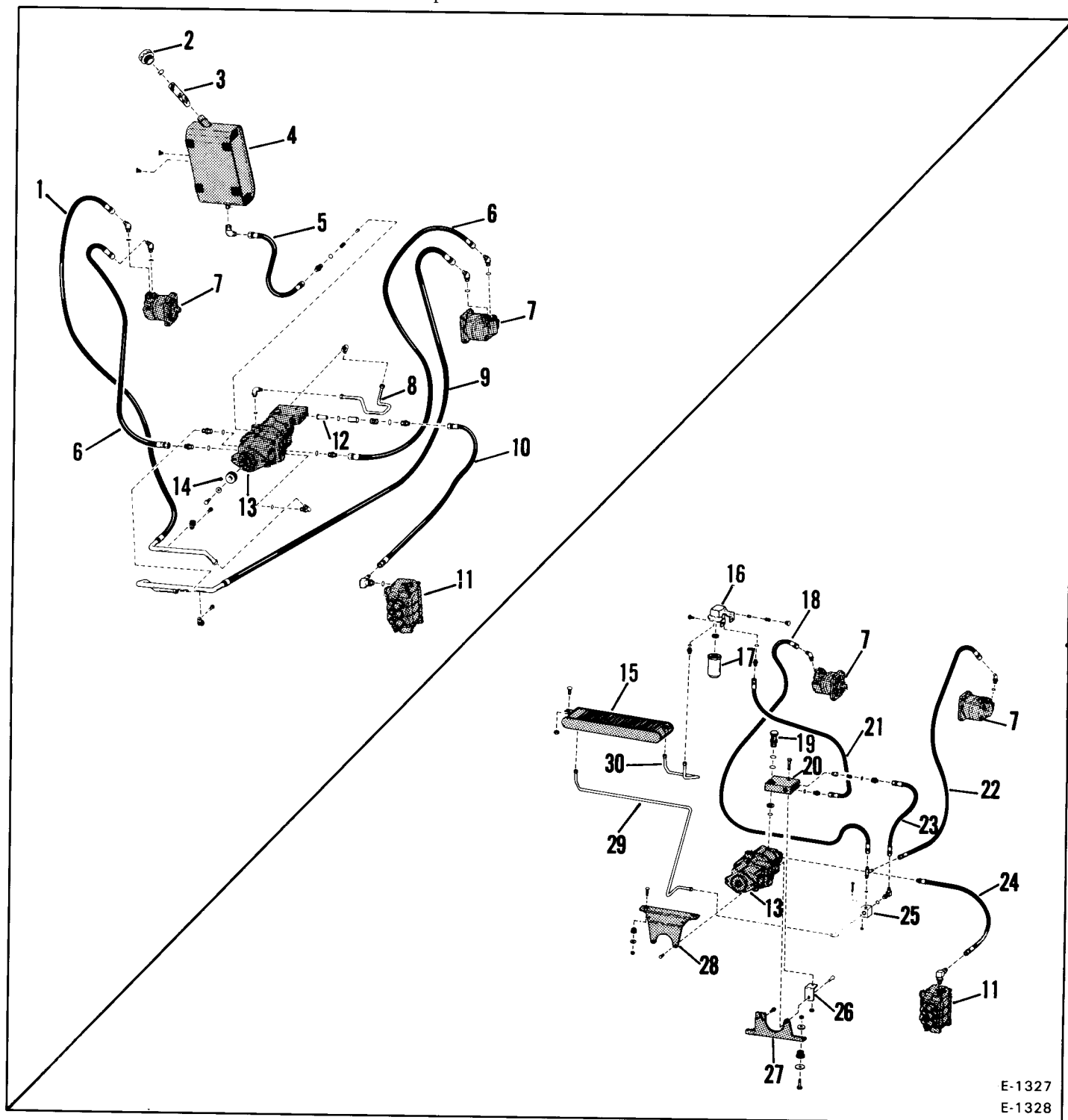
D-1555
D-1447

HYDRAULIC SYSTEM

Ref.	Description
1.	Hose
2.	Cylinder, lift
3.	Hose
4.	Hose
5.	Tube
6.	Tube
7.	Cover
8.	Cylinder, tilt
9.	Hose
10.	Valve

Ref.	Description
11.	Tube
12.	Tube
13.	Tube
14.	Tube
15.	Tube
16.	Tube
17.	Hose
18.	Tube
19.	Tube
20.	Adapter

Ref.	Description
21.	Coupler (Female)
22.	Coupler (Male)
23.	Cap
24.	Plug
25.	Swivel
26.	Clevis
27.	Tube
28.	Tube



E-1327

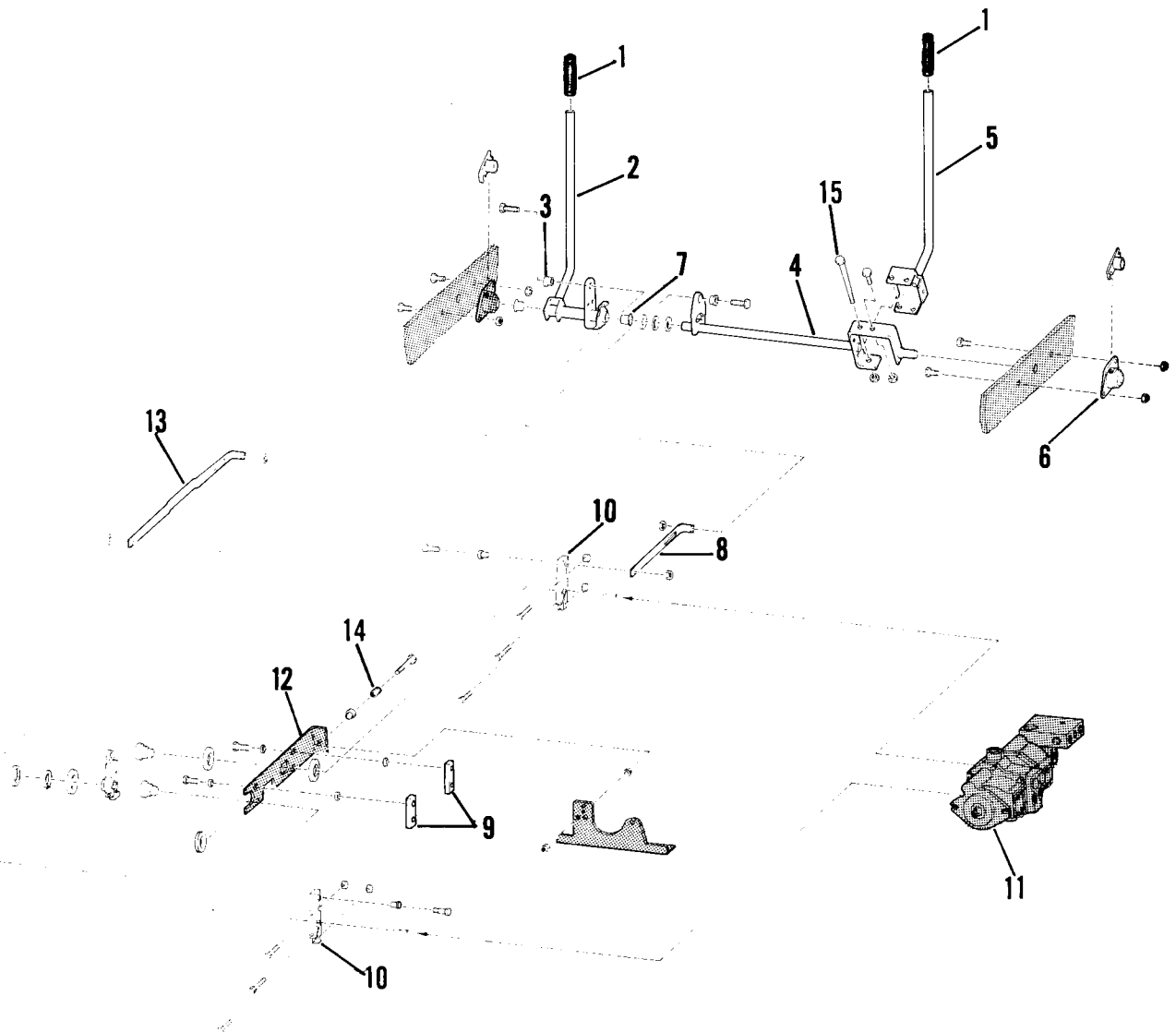
E-1328

HYDROSTATIC SYSTEM

Ref.	Description
1.	Hose
2.	Cap
3.	Screen
4.	Reservoir
5.	Hose
6.	Hose
7.	Motor
8.	Tube
9.	Hose
10.	Hose

Ref.	Description
11.	Valve
12.	Filter
13.	Pump
14.	Gear
15.	Cooler, oil
16.	Head, filter
17.	Filter, element
18.	Hose
19.	Screw, hollow
20.	Block

Ref.	Description
21.	Hose
22.	Hose
23.	Hose
24.	Hose
25.	Block
26.	Bracket
27.	Bracket
28.	Mount
29.	Tube
30.	Tube



E-1294

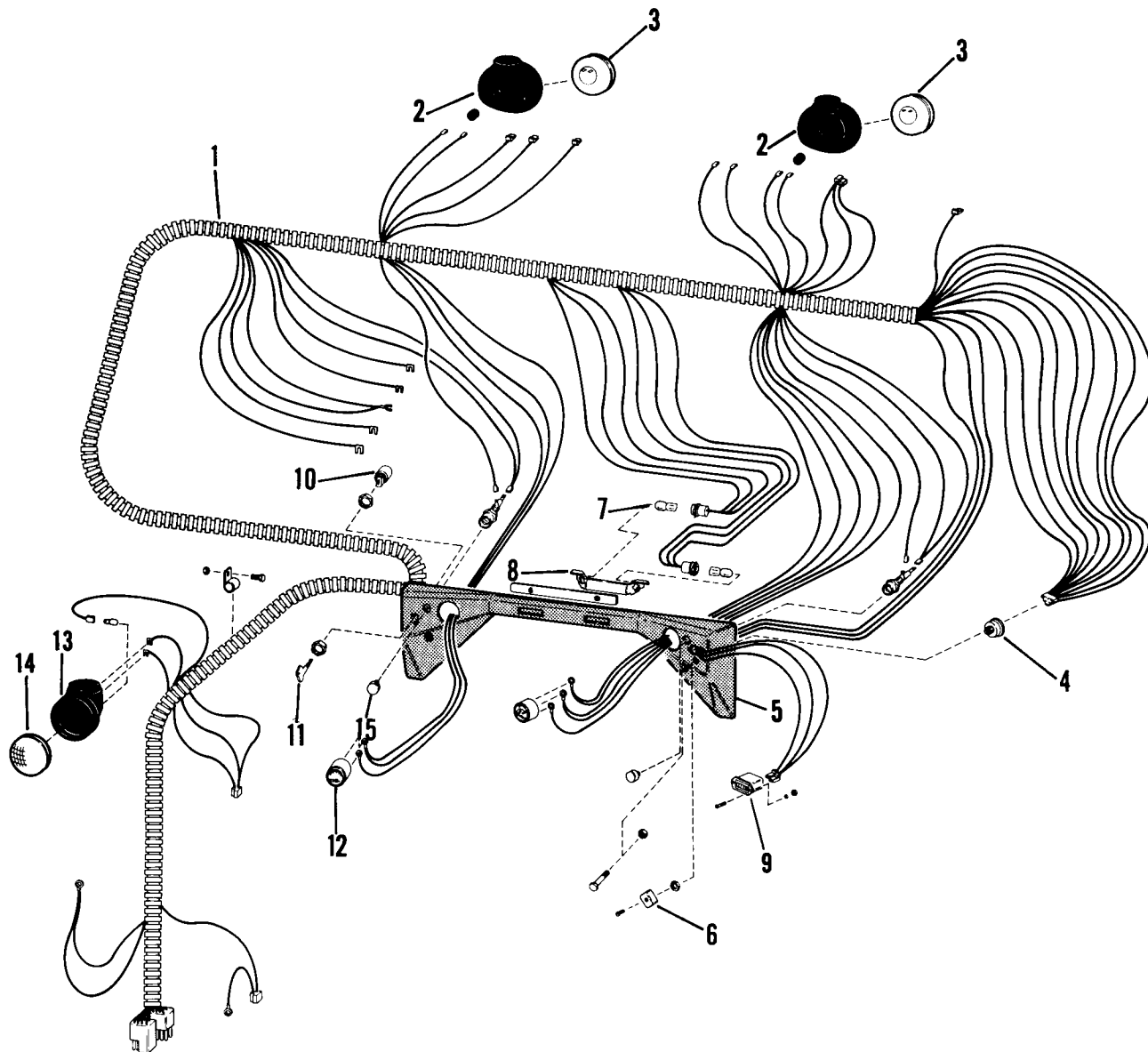
HAND CONTROLS

Ref.	Description
------	-------------

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

Ref.	Description
------	-------------

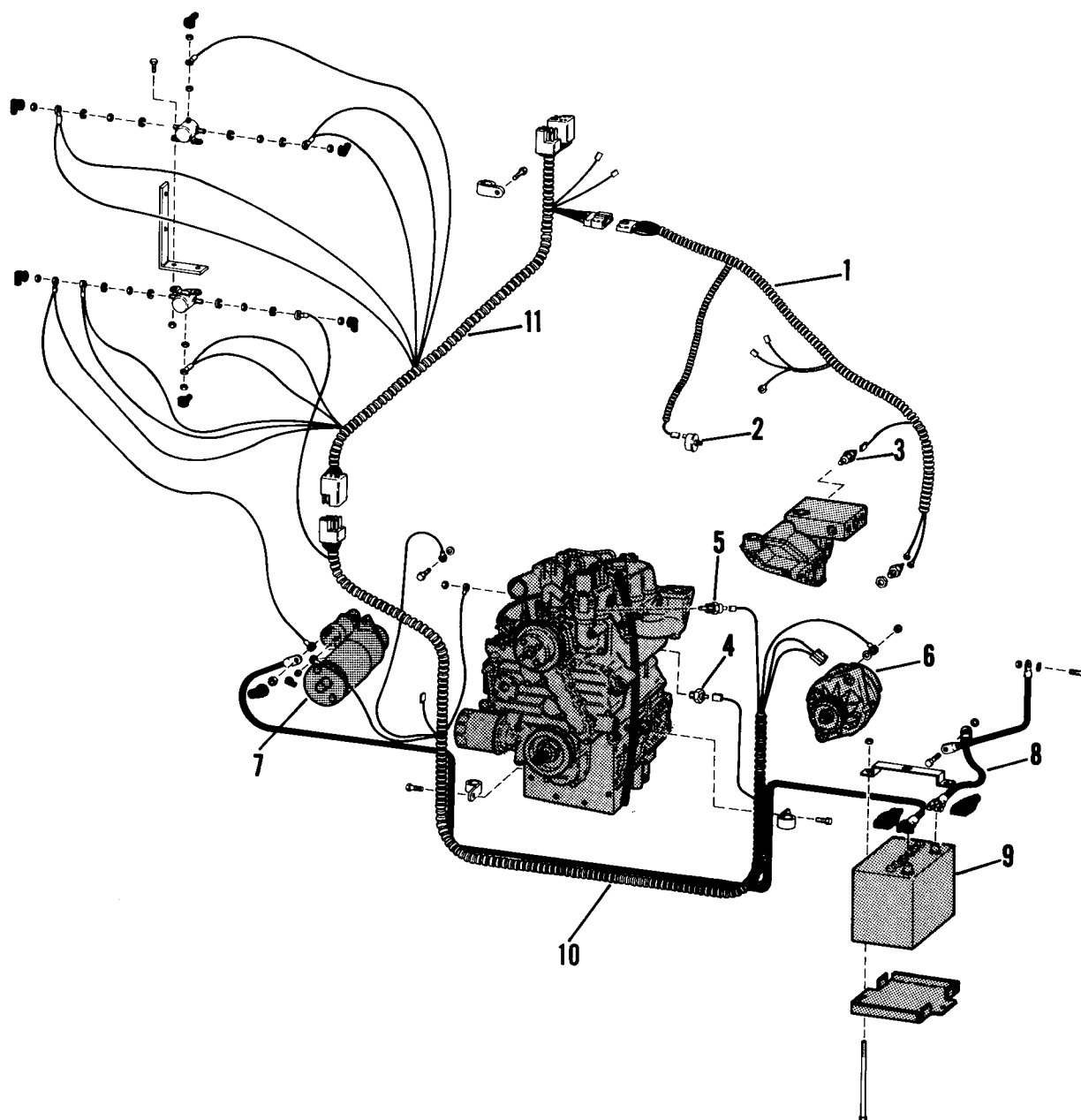
- | | |
|-----|-------------------|
| 9. | Bar, adjustment |
| 10. | Lever |
| 11. | Pump, hydrostatic |
| 12. | Bracket |
| 13. | Bar, left |
| 14. | Spring |
| 15. | Bolt, shoulder |



E-1329

OPERATOR GUARD ELECTRICAL SYSTEM

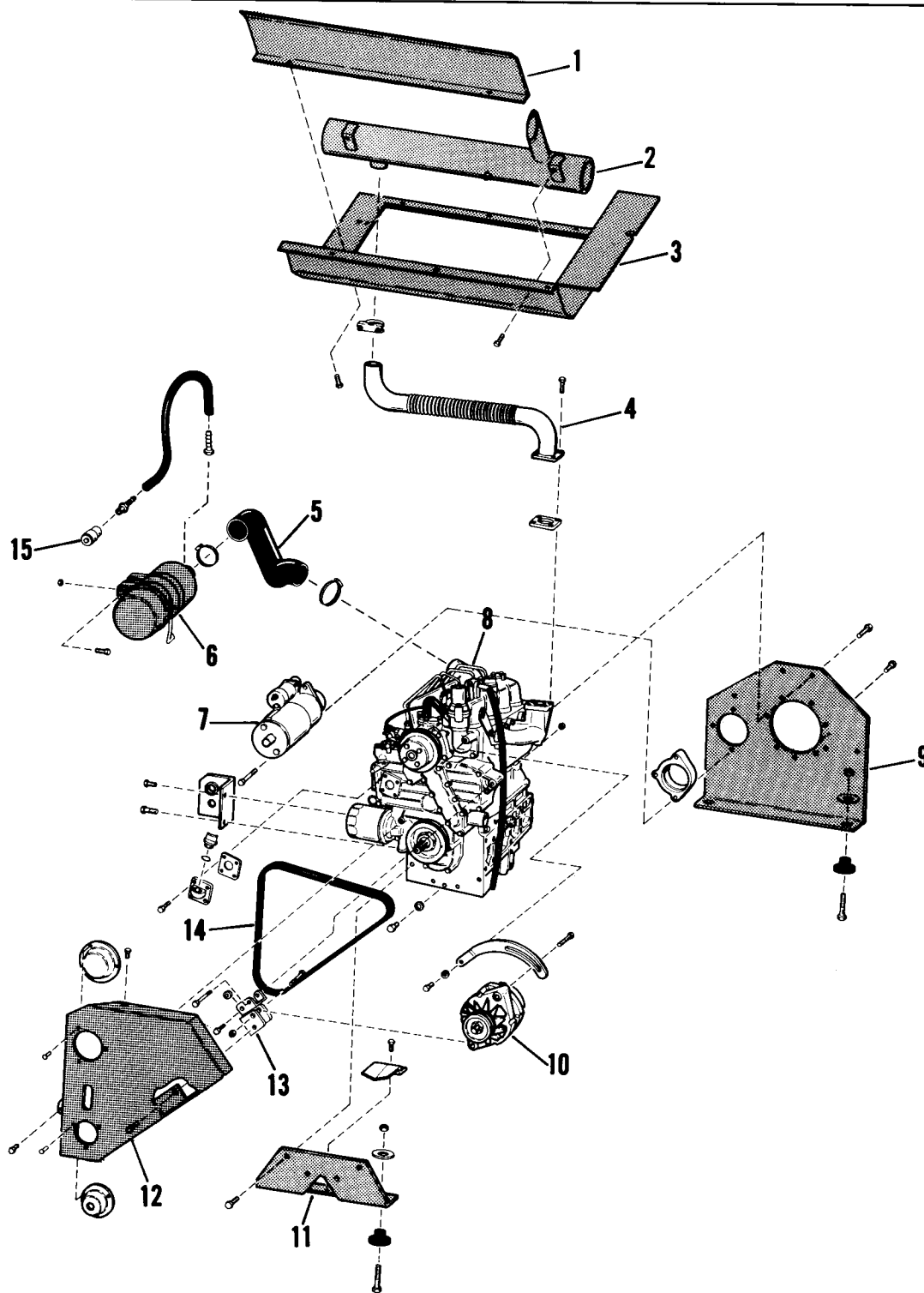
Ref.	Description	Ref.	Description
1.	Harness, operator guard	9.	Hourmeter
2.	Housing, light	10.	Switch, ignition
3.	Light	11.	Key Set
4.	Switch, light	12.	Gauge, voltmeter
5.	Panel, instrument	13.	Light, rear
6.	Knob	14.	Bulb, light
7.	Bulb, light	15.	Cap
8.	Bracket, fuse		



E-1309

ENGINE ELECTRICAL SYSTEM

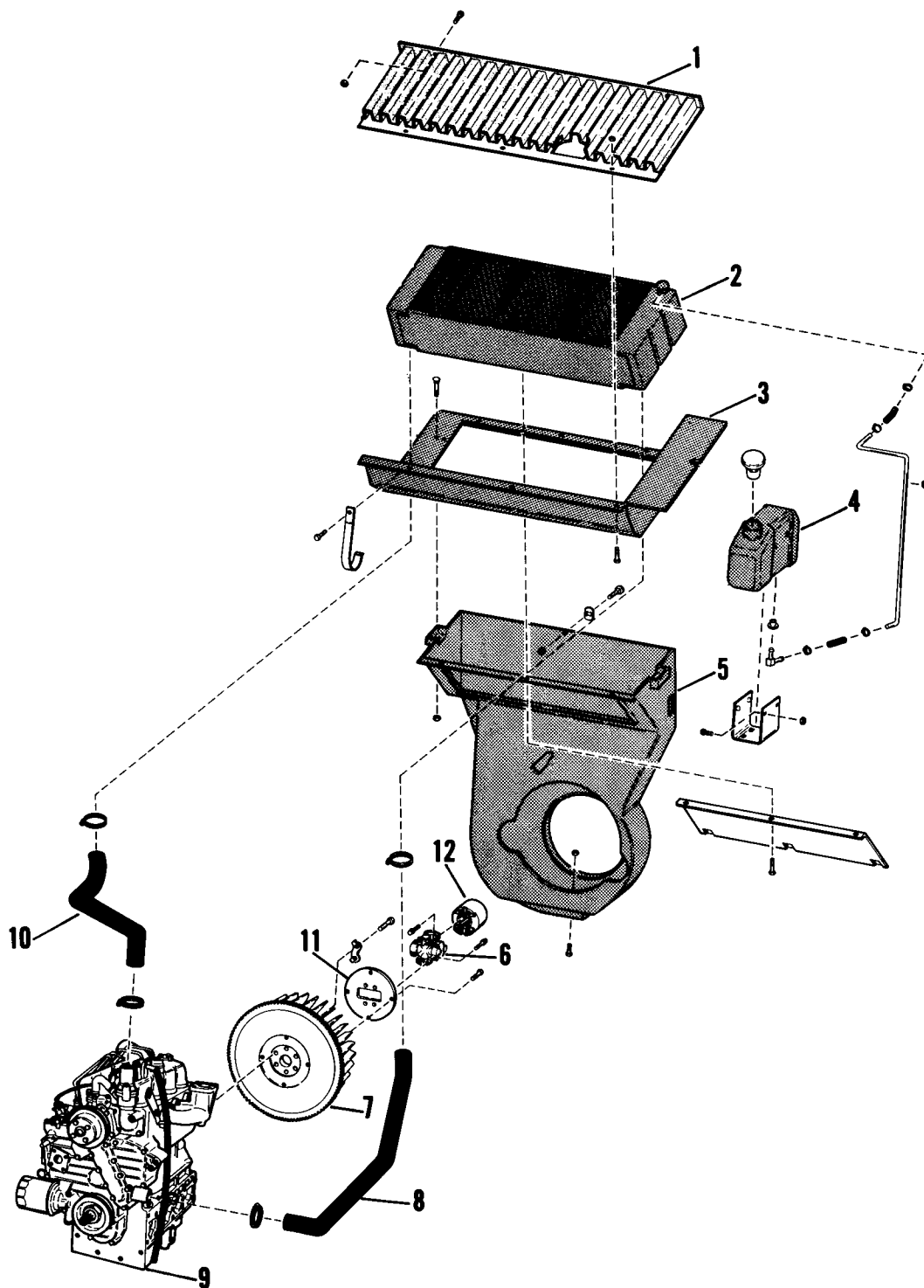
Ref.	Description	Ref.	Description
1.	Harness, wiring	7.	Starter
2.	Switch, hydrostatic pressure	8.	Cable, positive
3.	Switch, hydrostatic temperature	9.	Battery
4.	Switch, eng. oil pressure	10.	Harness
5.	Switch, engine temperature	11.	Harness
6.	Alternator		



E-1333

ENGINE & ATTACHING PARTS

Ref.	Description	Ref.	Description	Ref.	Description
1.	Shield	6.	Air Cleaner	11.	Mount
2.	Muffler	7.	Starter	12.	Shield
3.	Mount	8.	Engine	13.	Bracket
4.	Pipe	9.	Mount	14.	Belt
5.	Hose	10.	Alternator	15.	Indicator

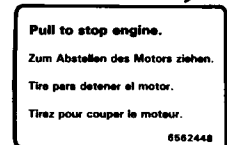
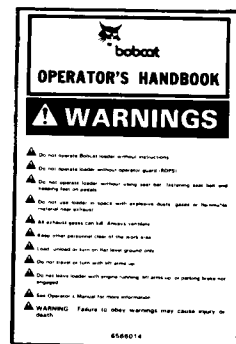
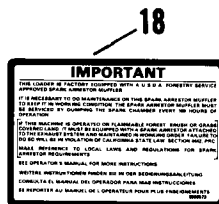
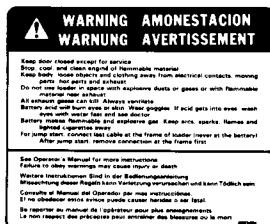
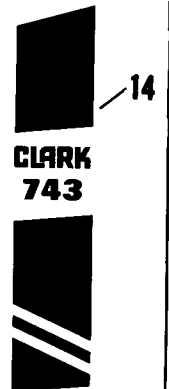
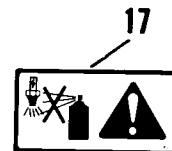
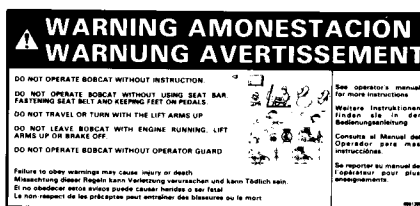
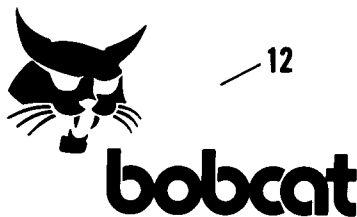
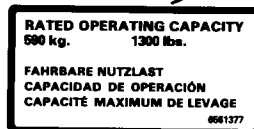
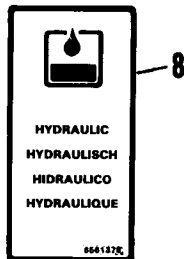
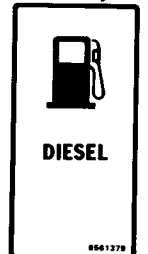
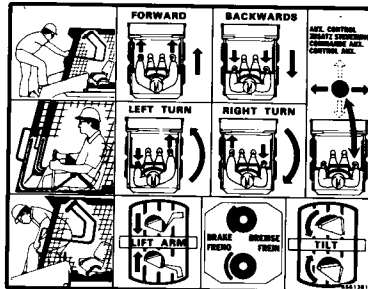
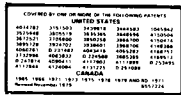
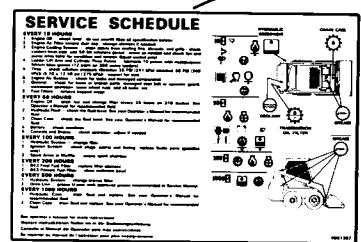
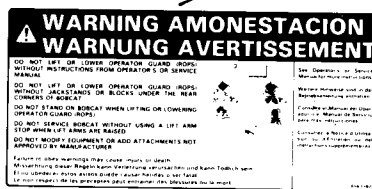
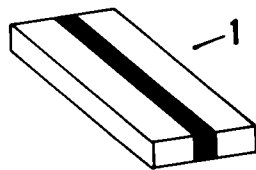


D-1332

ENGINE & ATTACHING PARTS

Ref.	Description
1.	Grill
2.	Radiator
3.	Mount
4.	Tank
5.	Shroud
6.	U-Joint

Ref.	Description
7.	Fan
8.	Hose
9.	Engine
10.	Hose
11.	Adapter
12.	Yoke



DECALS

Ref.	Description	Ref.	Description	Ref.	Description
1.	Kit, decal	8.	Decal, hydraulic	15.	Decal, warning
2.	Decal, warning	9.	Decal, throttle	16.	Tread, safety
3.	Decal, service	10.	Decal, capacity	17.	Decal, ether
4.	Decal, patent	11.	Decal	18.	Decal, spark arrestor muffler
5.	Decal, operations	12.	Decal	19.	Handbook, operator's
6.	Decal, bob-tach	13.	Decal, warning	20.	Decal, engine stop
7.	Decal, diesel	14.	Decal, model		

DECALS

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WARNING 6563484	55
WARNING 6561380	59
WARNING 6563380	58

DECALS

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.

Batteriegas 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 AMONESTACION 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 frame of loader (never at the battery).

After jump start, remove connection at the frame 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 au 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 and check fan and pump drive belts for condition and tension (liquid cooled only).
4. Loader Lift Arm and Cylinder Pivot Points — lubricate 10 points with multipurpose lithium base grease (12 point on 300 series loaders).
5. Tires — check inflation pressure (floatation 35 PSI (241 kPa) standard 50 PSI [340 kPa] (5.70 x 12 40 psi [275 kPa]) — inspect for cuts.
6. Engine Air System — check for leaks and damaged components.
7. General — check for loose or broken parts, damaged seat belt or operator guard, instrument operation, loose wheel nuts, and oil leaks, etc.
8. Fuel Filters — remove trapped water.

EVERY 50 HOURS

1. Engine Oil — drain hot and change filter (every 25 hours on 310 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 200 HOURS

1. 843 Final Fuel Filter — replace filter element.
2. 843 Primary Fuel Filter — clean sediment bowl.

EVERY 500 HOURS

1. Hydraulic System — change bronze filter.
2. Drive Line — grease U-joint with approved grease recommended in Service Manual.

EVERY 1000 HOURS

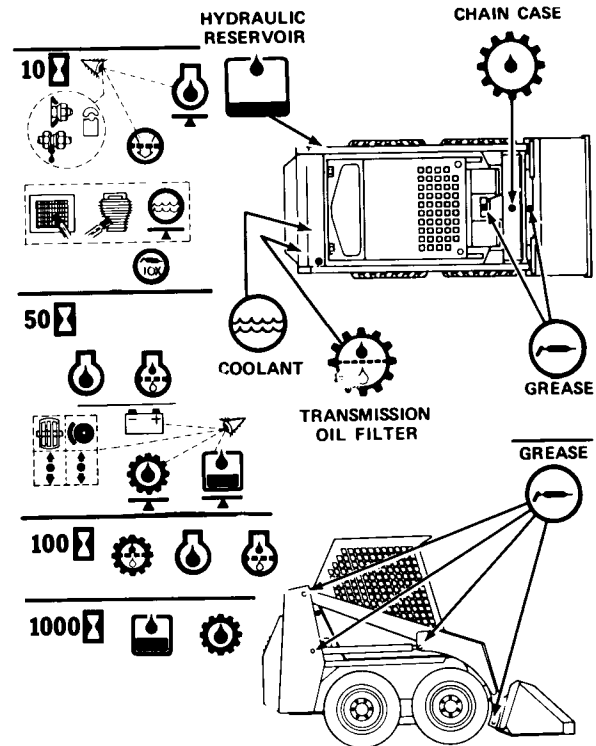
1. Hydraulic Case — drain fluid and replace. See your Operator's Manual for recommended fluid.
2. Chain Case — drain fluid and replace. See your Operator's Manual for recommended fluid.

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.



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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 Aethyl-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

TOUTES LES 10 HEURES

(FRENCH)

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 LIFT OR LOWER OPERATOR GUARD (ROPS) WITHOUT INSTRUCTIONS FROM OPERATOR'S OR SERVICE MANUAL.

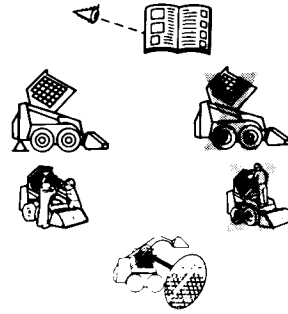
DO NOT LIFT OR LOWER OPERATOR GUARD (ROPS) WITHOUT JACKSTANDS OR BLOCKS UNDER THE REAR CORNERS OF BOBCAT.

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 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 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)

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

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

Beim Anheben oder Ablassen der Fahrschutzkabine (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.

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.

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.



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.

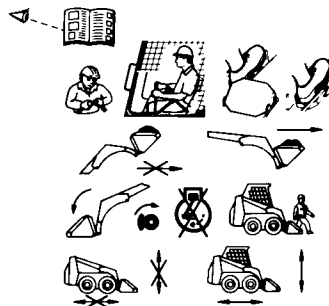
DO NOT OPERATE BOBCAT WITHOUT OPERATOR GUARD.

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).

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'ECHAPPEMENT A PARE-ETINCELLES 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'ECHAPPEMENT AFIN DE LE GARDER EN BON ETAT DE MARCHE. L'ENTRETIEN CONSISTE A VIDER LA CHAMBRE A ETINCELLES TOUTES LES 100 HEURES DE MARCHE.

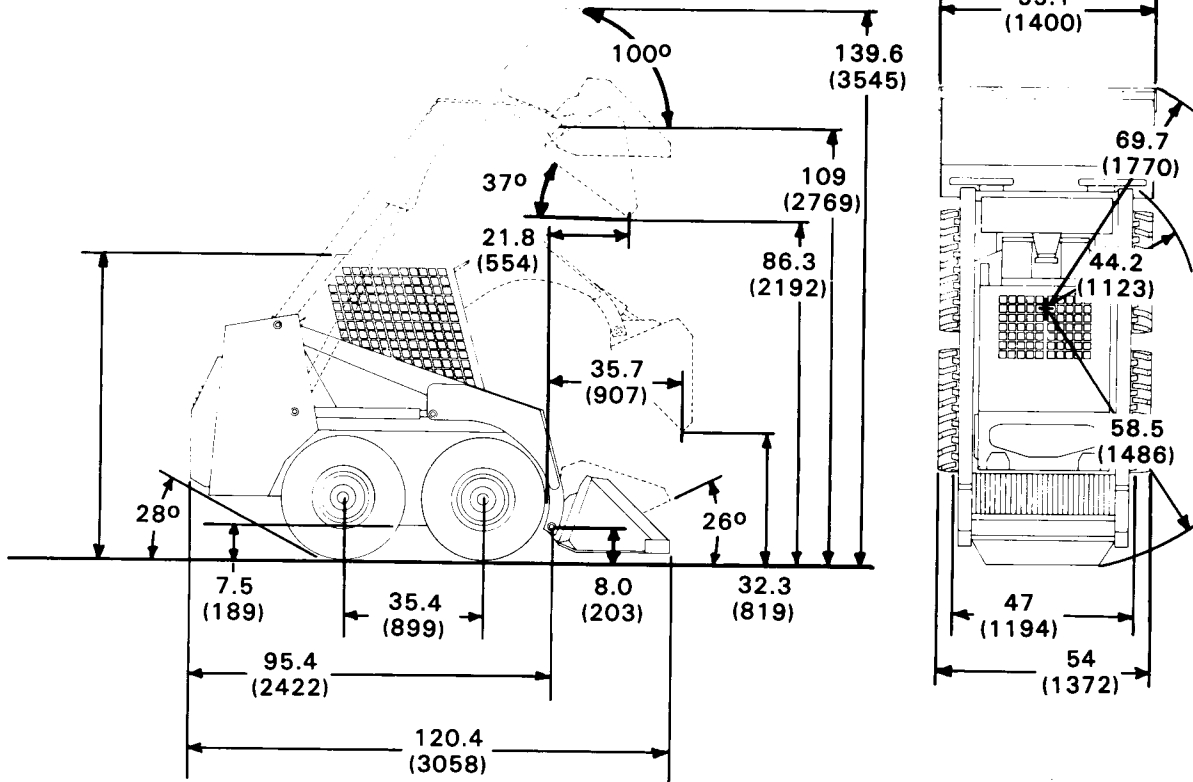
SI CET ENGIN EST UTILISE SUR TERRAIN COUVERT D'ARBRES, DE BROUSSAILLES, OU D'HERBAGES INFLAMMABLES, IL DOIT ABSOLUMENT ETRE EQUIPE D'UN PARE-ETINCELLES MONTE SUR LE SYSTEME D'ECHAPPEMENT ET GARDE EN BON ETAT DE MARCHE. TOUT MANQUE A CE REGLEMENT CONSTITUERA UNE INFRACTION A LA LOI DE L'ETAT DE CALIFORNIE,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

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

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GENERAL INFORMATION



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

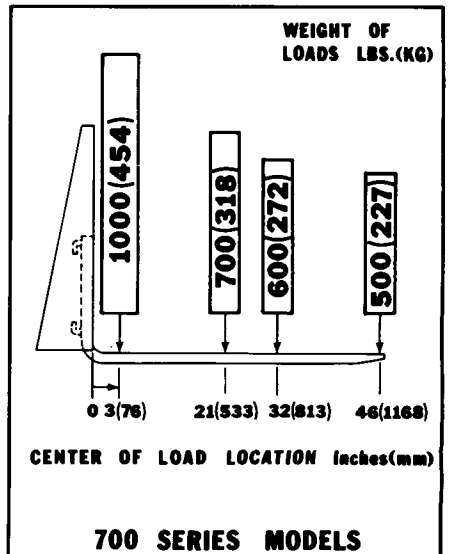
Operating Weight	4810 lbs. (2182 kg)
Bucket Capacity (SAE)	9.5 cu. ft. (0,27 m³)
Rated Operating Capacity	1300 lbs. (590 kg)
Travel Speed	6.0 MPH (9,7 Km/hr.)

ENGINE

Cylinders	4
Cooling System	Liquid
Displacement	105.67 cu. in. (1732)
Horsepower	36 HP (26,8 Kw)
Torque	80 ft.-lbs. (108 Nm)
Fuel Type	Diesel
Engine Lubrication	Gear Pump Pressure
Crankcase Ventilation	Open Breathing
Air Cleaner	Replaceable Dry Cartridge with Safety Element
Maximum Governed RPM (Full Load)	2800 RPM

HYDRAULIC SYSTEM

Pump Type Vane
Pump Capacity 11 gal./min. (42 L/min.) @ 2850 RPM
Control Valve Open center with lift, tilt & auxiliary sections
System Relief Pressure 2100 PSI (14480 kPa)
Filtration 10 Micron, replaceable cartridge and 40 Micron sintered filter
Hydraulic Fluid Type Clark Bobcat Fluid (6563328) or 10W-30 or 10W-40
 Class SE motor oil (5W-30 at temp. below 10°F [23°C])



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 cm³)
Motor Type Geroler
Motor Displacement 10 in. cu. (163,8 cm³)
Final Drive Oil Bath Gear Reduction and Roller Chain to Each Axle

ELECTRICAL

Alternator 37 amp. Ventilated
Battery 12 volt, cold cranking 600 amps.
Starter 12 volt, gear drive 4.15 HP (3.1 Kw)

TIRES

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

FLUID CAPACITIES

Fuel Tank 13 gal. (49 L)
Engine Lube Oil (W/Filter) 9 qts. (8,5 L)
Transmission (Chaincase) 36 qts. (34 L)
Hydraulic and Hydrostatic Reservoir 3.5 gal. (13,2 L)
Engine Cooling System (W/Overflow Reservoir) 13 qts. (12 L)