

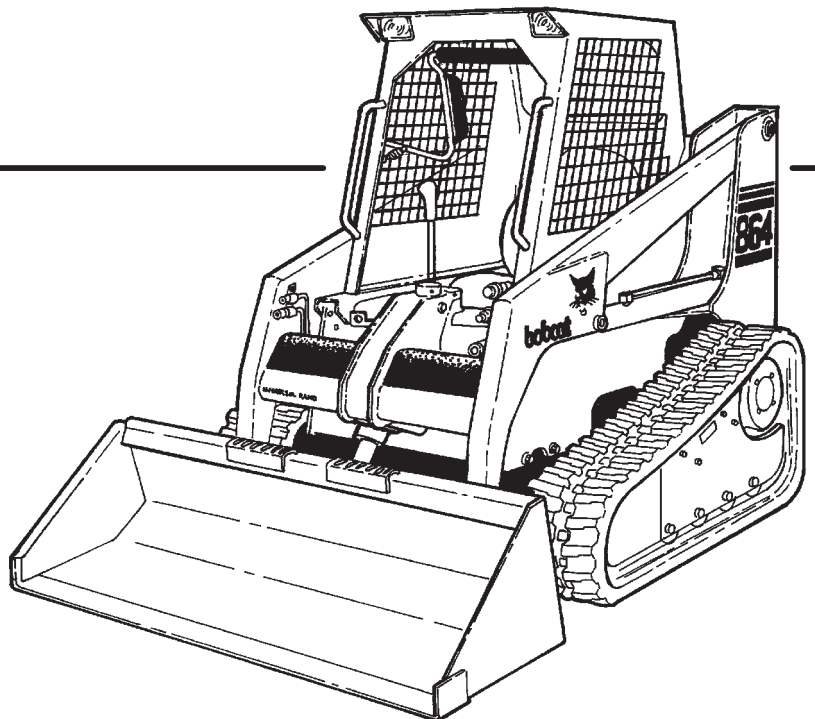
864
864
HIGH FLOW



Bobcat®

Operation & Maintenance Manual

S/N 516911001 & Above



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**EQUIPPED WITH
BOBCAT INTERLOCK
CONTROL SYSTEM (BICS™)**

6900626 (9-00) Revised (6-12)

IR Bobcat®
Printed in U.S.A.

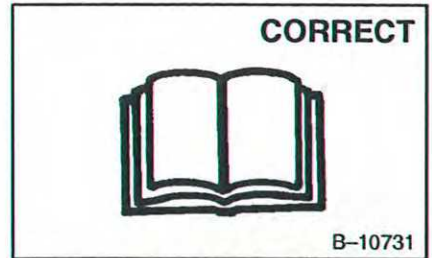
© Bobcat Company 2000


OPERATOR SAFETY WARNINGS

WARNING



Operator must have instructions before running the machine. Untrained operators can cause injury or death. W-2001-0596

 **Safety Alert Symbol:** This symbol with a warning statement, means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.




 Never use the loader without instructions. See machine signs (decals), Operation & Maintenance Manual and Handbook.



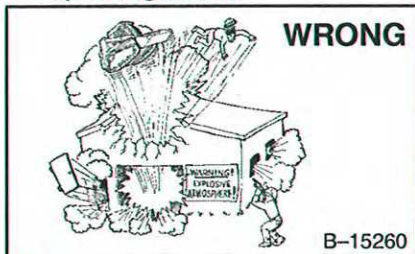
 Always use the seat bar and fasten seat belt snugly.
 Always keep feet on the foot pedals or footrests when operating loader.




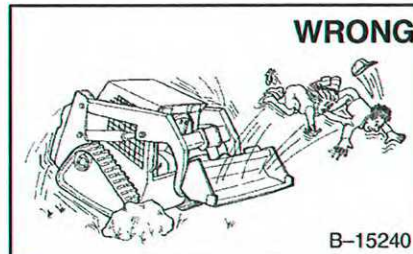
 Never use loader without operator cab with ROPS and FOPS approval. Fasten your seat belt.





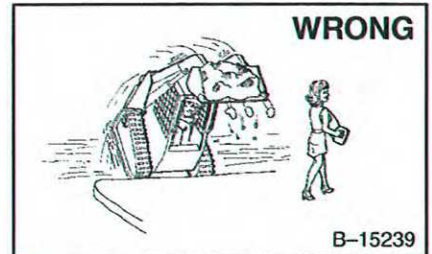
 Never use loader as man lift or elevating device for personnel.






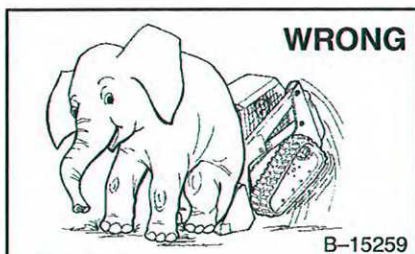
 Do not use loader in atmosphere with explosive dust or gas or where exhaust can contact flammable material.




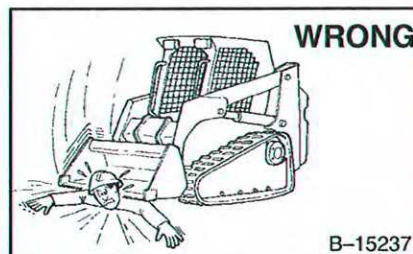
 Never carry riders.
 Keep bystanders away from work area.




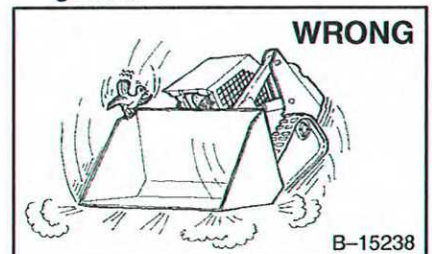
 Always carry bucket or attachments as low as possible.
 Do not travel or turn with lift arms up.
 Load, unload and turn on flat level ground.





 Never exceed rated operating capacity.



 Never leave loader with engine running or with lift arms up.
 To park, engage parking brake and put attachment flat on the ground.



 Never modify equipment.
 Use only attachments approved by Bobcat Company for this model loader.

SAFETY EQUIPMENT

The Bobcat loader must be equipped with safety items necessary for each job. Ask your dealer for information on the safe use of attachments and accessories.

1. SEAT BELT: Check belt fasteners and check for damaged webbing or buckle.
2. SEAT BAR: When up, it must lock the loader controls.
3. OPERATOR CAB (ROPS and FOPS): It must be on the loader with all fasteners tight.
4. HANDBOOK: Must be in the cab.
5. SAFETY SIGNS (DECALS): Replace if damaged.
6. SAFETY TREADS: Replace if damaged.
7. GRAB HANDLES: Replace if damaged.
8. LIFT ARM SUPPORT DEVICE: Replace if damaged
9. PARKING BRAKE
10. BOBCAT INTERLOCK CONTROL SYSTEM (BICS™)



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CONTENTS

| | |
|---------------------------------|-----|
| FOREWORD | iii |
| SAFETY | xi |
| OPERATING INSTRUCTIONS | 1 |
| PREVENTIVE MAINTENANCE | 39 |
| SYSTEM ANALYSIS | 77 |
| MACHINE SIGN TRANSLATIONS | 83 |
| SPECIFICATIONS | 93 |

FOREWORD

SAFETY

**OPERATING
INSTRUCTIONS**

**PREVENTIVE
MAINTENANCE**

**SYSTEM
ANALYSIS**

**MACHINE SIGN
TRANSLATIONS**

SPECIFICATIONS

**CALIFORNIA
PROPOSITION 65 WARNING**
Diesel engine exhaust and some of its
constituents are known to the State of California
to cause cancer, birth defects and other
reproductive harm.

REFERENCE INFORMATION

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

Loader Serial Number _____
Engine Serial Number _____

NOTES: _____

YOUR BOBCAT DEALER: _____
ADDRESS: _____
PHONE: _____

Bobcat Company
P.O. Box 128
Gwinner, ND 58040-0128

Bobcat Company Europe
J. Huysmanslaan 59
B-1651 LOT
BELGIUM



Bobcat Company is ISO 9001 certified

ISO 9001 is a set of international standards that control the processes and procedures which we use to design, develop, manufacture, distribute, and service Bobcat products.

British Standards Institute (**BSI**) is the Certified Registrar Bobcat Company chose to assess the Company's compliance with the ISO 9001 set of standards. The BSI registration certifies that the two Bobcat Company manufacturing plants and the Bobcat Company corporate offices (Gwinner, Bismarck & West Fargo) in North Dakota are in compliance with ISO 9001. Only certified assessors, like BSI, can grant registrations. Since registration requires this *third-party auditing*, it is irrefutable evidence of conformance. Continued certification is subject to periodic audits.

ISO 9001 means that as a company we say what we do and do what we say. In other words, we have established procedures and policies, and we provide evidence that the procedures and policies are followed.

What does ISO 9001 mean to Bobcat Customers? It means that Bobcat Company produces your Bobcat loader, excavator, and attachments with strict attention to details, using the latest technology and proven techniques.

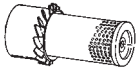
REGULAR MAINTENANCE ITEMS



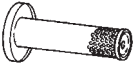
6665603 ENGINE OIL FILTER (6 Pack)



6667352 FUEL FILTER



6666375 AIR CLEANER, OUTER



6666376 AIR CLEANER, INNER



6661248 HYDROSTATIC FILTER



6665427 BATTERY



6724094 PROPYLENE GLYCOL ANTI-FREEZE, Premixed – [-34°F (-37°C)]

6724354 PROPYLENE GLYCOL ANTI-FREEZE, Concentrate

6563328 BLACK GOLD Hydraulic/Hydrostatic Fluid – 5 Gallons

6657299 MOTOR OIL 15W40 CD, CF4, CG4 – 1 Quart

6657301 MOTOR OIL 10W30 CD, CF4, CG4 – 1 Quart

6657303 MOTOR OIL 30 CD, CF4, CG4 – 1 Quart

FOREWORD

FOREWORD

This Operation & Maintenance Manual was written to give the owner/operator instructions on the safe operation and maintenance of the Bobcat loader. **READ AND UNDERSTAND THIS OPERATION & MAINTENANCE MANUAL BEFORE OPERATING YOUR LOADER.** If you have any questions, see your Bobcat loader dealer.

SERIAL NUMBER LOCATIONS v. .

DELIVERY REPORT v. . .

BOBCAT LOADER IDENTIFICATION vi .

OPTIONS AND ACCESSORIESvii.



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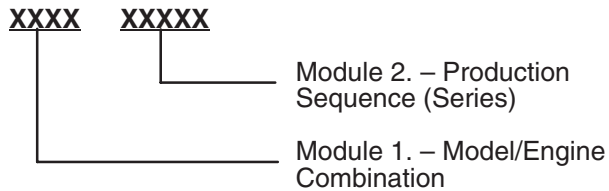
SERIAL NUMBER LOCATIONS

Always use the serial number of the loader when requesting service information or when ordering parts. Early or later models (identification made by serial number) may use different parts, or it may be necessary to use a different procedure in doing a specific service operation.

LOADER SERIAL NUMBER

The loader serial number plate is located on the outside of the loader frame [A].

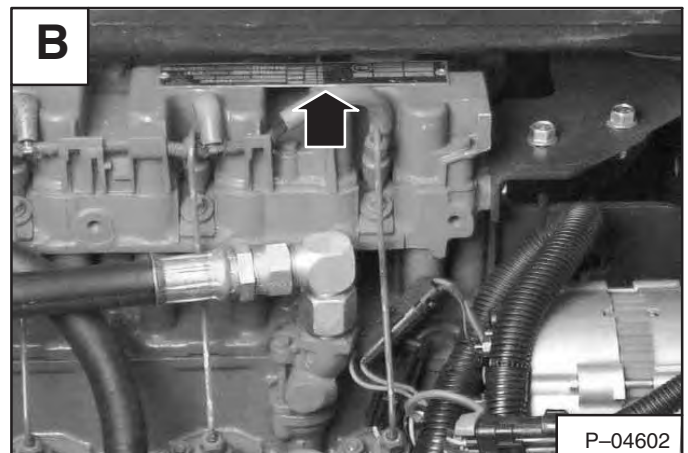
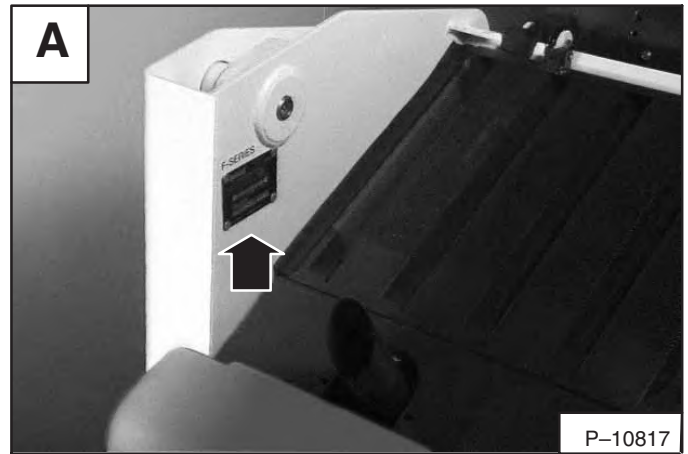
Explanation of loader Serial Number:



1. The four digit Model/Engine Combination Module number identifies the model number and engine combination.
2. The five digit Production Sequence Number identifies the order which the loader is produced.

ENGINE SERIAL NUMBER

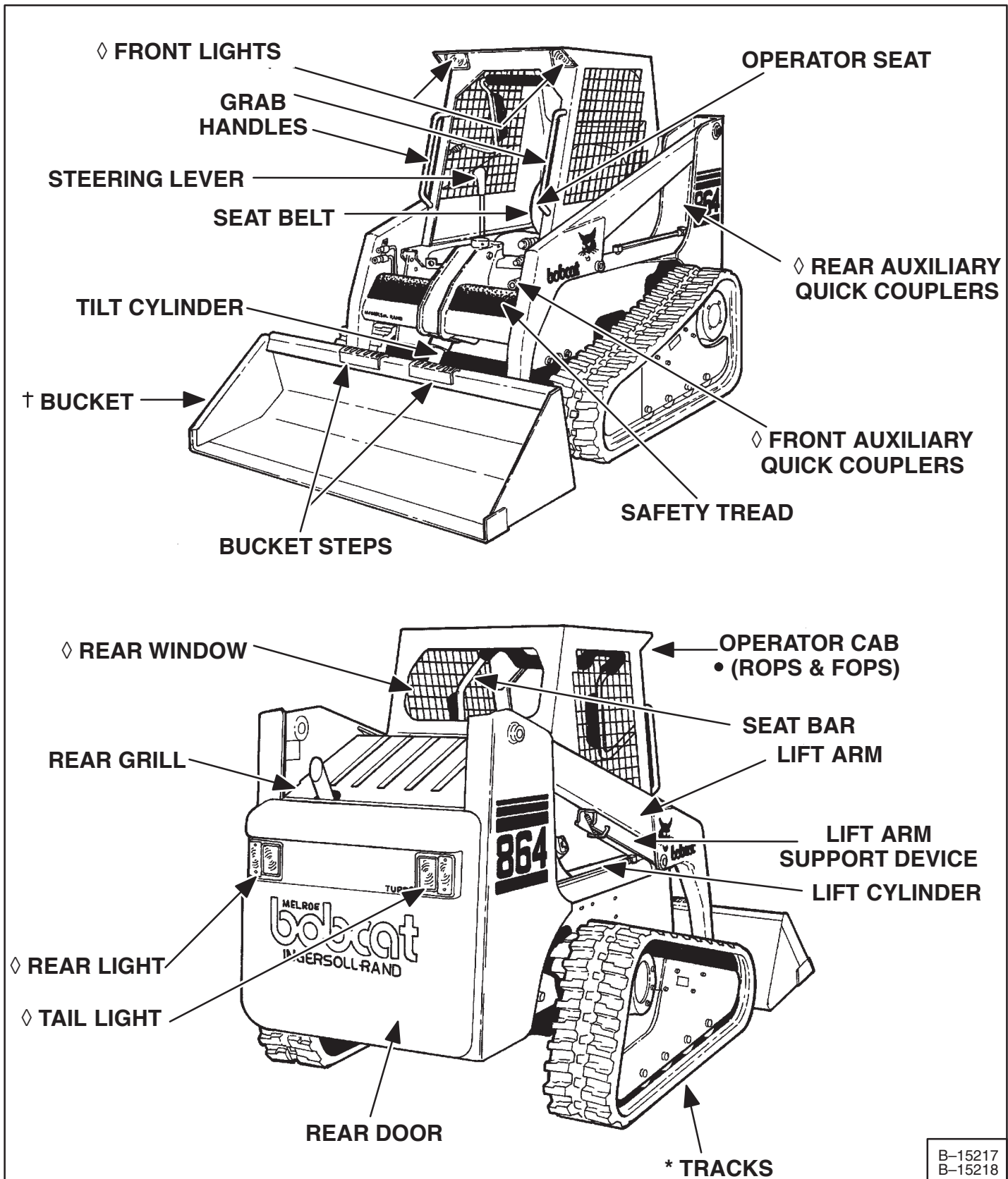
The engine serial number is located on the valve cover at the right side of the engine [B].



DELIVERY REPORT

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

BOBCAT LOADER IDENTIFICATION



B-15217
B-15218

◇ OPTIONAL OR FIELD ACCESSORY (Not Standard Equipment)

† BUCKET – Several different buckets and other attachments are available for the Bobcat loader.

• ROPS, FOPS – Roll Over Protective Structure, Falling Object Protective Structure, per SAE J1040 and ISO 3471, and Falling Object Protective Structure per SAE J1043 and ISO 3449, Level I. Level II is available. The Bobcat loader is base-equipped with a standard operator cab as shown. Extra insulated cab is available as an option (Reduced noise level).

OPTIONS AND ACCESSORIES

Bobcat loader Model 864 is equipped with the following Standard items:

- Bob-Tach
- Spark Arrestor Exhaust System (Turbo Charger)
- Lift Arm Support Device
- Operator Cab (with ROPS & FOPS Approval)
- Bobcat Interlock Control System (BICS™)
- Seat Belt
- Seat Bar
- Parking Brake
- Gauges/Warning Lights
- Glow Plug Preheat system
- Operating Lights (Front & Rear)
- Suspension Seat
- Front Auxiliary Hydraulics

Below is a list of some equipment available as a Factory Installed Option or as a Field Installed Accessory from your Bobcat Loader dealer. See your Bobcat dealer for other available accessories and attachments.

Operator Cab

| | |
|---------------------------------------------------|-----------|
| Sound Cab (Reduces Noise at Operator's Ear) | Opt. |
| Deluxe Cab | Opt. & FA |
| Horn | FA |
| Back-up Alarm | Opt. & FA |
| Top Window | FA |
| Rear Window | FA |
| Cab Enclosure and Heater | Opt. & FA |
| Vinyl Cab Enclosure | FA |
| Hand Control | Opt. |
| Cover Kit (Pedals Area) | FA |
| Cover Kit (Hydraulic Reservoir Area) | FA |
| Fire Extinguisher | FA |
| Flasher Lights | FA |
| Strobe or Rotating Beacon Light | FA |
| 3" Seat Belt | FA |
| Special Applications Kit* | FA |
| Rear Window Wiper | FA |
| Large Operator Seat Bar Kit | FA |

Opt. = Factory Installed Option

FA = Field Accessory

N/A = Not Available

* Includes 1/2 inch Lexan Front Door; 1/4 inch Lexan Top & Rear Windows

Instrumentation

| | |
|-----------------------------------------------|------|
| Bobcat Operation Sensing System (BOSS®) | Opt. |
| Keyless Start System | FA |

Hydraulics

| | |
|----------------------------------------------------------------|-----------|
| Rear Auxiliary Hydraulics | Opt. & FA |
| Hydraulic Bucket Positioning (Includes On/Off Selection) | Opt. & FA |
| Hi Flow Hydraulics | Opt. & FA |

Other

| | |
|--------------------------------------------|-----------|
| Catalytic Exhaust Purifier | Opt. & FA |
| Engine Heater (Oil Pan) | Opt. & FA |
| Single Point Lift or Four Point Lift | FA |
| Locking Fuel Cap | FA |
| Radiator Screen Kit | FA |
| Rear Door Bumpers | FA |
| Tailgate Lock | FA |
| Tool Box | FA |

Specifications subject to change without notice



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SAFETY

| | |
|------------------------------|----------|
| SAFETY INSTRUCTIONS | .xi, xii |
| FIRE PREVENTION | .xiii.. |
| MACHINE SIGNS (DECALS) | .xiv, xv |

SAFETY



Bobcat®

SAFETY INSTRUCTIONS FOR BOBCAT SKID-STEER LOADERS AND ATTACHMENTS

SAFETY IS THE OPERATOR'S RESPONSIBILITY

All Bobcat loaders and attachments are designed to give maximum safety, but no machine design can prevent operator error or carelessness.

The Bobcat skid-steer loader is highly maneuverable and compact. It is rugged and useful under a wide variety of conditions. This presents an operator with hazards associated with off highway, rough terrain applications, common with Bobcat loader usage.

The Bobcat loader has an internal combustion engine with resultant heat and exhaust. All exhaust gases can kill or cause illness so use the loader with adequate ventilation. The loader has a spark arrestor exhaust system or muffler which is required for operation in certain areas.

The dealer explains the capabilities and restrictions of the Bobcat loader and attachments for each application. The dealer demonstrates the safe operation according to Bobcat instructional materials, which are also available to operators. The dealer can also identify unsafe modifications or use of unapproved attachments. The attachments and buckets are designed for a Rated Operating Capacity (some have restricted lift heights) and secure fastening to the Bobcat loader. The user must check with the dealer, or Bobcat literature, to determine safe loads of materials of specified densities for the loader-attachment combination.

The following publications and training materials provide information on the safe use and maintenance of the Bobcat loader and attachments:

- The Delivery Report is used to assure that complete instructions have been given to the new owner and that the Bobcat loader and attachment is in safe operating condition.
- The Operation & Maintenance Manual delivered with the Bobcat loader or attachment gives operating information as well as routine maintenance and service procedures. It is a part of the machine and can be stored in a container provided inside the cab of the loader. Replacement Operation & Maintenance Manuals can be ordered from your Bobcat dealer.
- Machine signs (decals) instruct on the safe operation and care of your Bobcat loader or attachment. The signs and their locations are shown in the Operation & Maintenance Manual. Replacement signs are available from your Bobcat dealer.
- An Operator's Handbook is fastened to the operator cab of the loader. Its brief instructions are convenient to the operator. The Handbook is available from your dealer in an English edition or one of many other languages. See your Bobcat dealer for more information on translated versions.
- The Safety Manual delivered with the Bobcat loader gives general safety information.
- Operator Training Courses are available from your local Bobcat dealer. They provide information for safe and efficient operation of the Bobcat loader and some attachments. The courses are available in English and Spanish versions.
- Service Safety Training Courses are available from your Bobcat dealer. They provide information for safe and correct service procedures.
- See the *ADDITIONAL PUBLICATIONS* Page in this manual or your Bobcat dealer for Service and Parts Manuals, printed materials, videos, or training courses available. Also check the Bobcat web site www.bobcat.com

The dealer and owner/operator review the recommended uses of the product when delivered. If the owner/operator will be using the machine for a different application(s) he must ask the dealer for recommendations on the new use.



Call Before You Dig 1-888-258-0808

When you call, you will be directed to a location in your state/city for information about buried lines (telephone, cable TV, water, sewer, gas, etc.)

BEFORE OPERATING THE BOBCAT LOADER



Safety Alert Symbol

This symbol with a warning statement means: “Warning, be alert! Your safety is involved!” Carefully read the message that follows.

The Bobcat loader and attachment must be in good operating condition before use.

Check all of the items on the Bobcat Service Schedule Decal under the 8–10 hour column or as shown in this Manual.

SAFE OPERATION NEEDS A QUALIFIED OPERATOR *

A QUALIFIED OPERATOR MUST DO THE FOLLOWING:

• UNDERSTAND THE WRITTEN INSTRUCTIONS, RULES AND REGULATIONS

- The written instructions from Bobcat Company include the Delivery Report, Operation & Maintenance Manual, Operator’s Handbook, Safety Manual and machine signs (decals).
- Check the rules and regulations at your location. The rules may include an employer’s work safety requirements. Regulations may apply to local driving requirements or use of a Slow Moving Vehicle (SMV) emblem. Regulations may identify a hazard such as a utility line.

• HAVE TRAINING WITH ACTUAL OPERATION

- Operator training must consist of a demonstration and verbal instruction. This training is given by your Bobcat dealer before the product is delivered.
- The new operator must start in an area without bystanders and use all the controls until he can operate the machine and attachment safely under all conditions of the work area. Always fasten seat belt before operating.
- Operator Training Courses are available from your Bobcat dealer in English and Spanish. They provide information for safe and efficient equipment operation. Safety videos are also available.
- Service Safety Training Courses are available from your Bobcat dealer. They provide information for safe and correct service procedures.

• KNOW THE WORK CONDITIONS

- Know the weight of the materials being handled. Avoid exceeding the Rated Operating Capacity of the machine. Material which is very dense will be heavier than the same volume of less dense material. Reduce the size of load if handling dense material.
- The operator must know any prohibited uses or work areas, for example, he needs to know about excessive slopes.
- Know the location of any underground lines. Call local utilities or the TOLL FREE phone number found in the *SAFETY INSTRUCTIONS* Section of this manual.
- Wear tight fitting clothing. Always wear safety glasses when doing maintenance or service. Safety glasses, hearing protection or special applications kit are required for some work. See your dealer about Bobcat Safety equipment.

* For an operator to be qualified, he must not use drugs or alcoholic drinks which impair his alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he can safely operate a machine.

WARNING

Operator must have instructions before running the machine. Untrained operators can cause injury or death.

W-2001-1285

IMPORTANT

This notice identifies procedures which must be followed to avoid damage to the machine.

I-2019-0284

WARNING

Warnings on the machine and in the manuals are for your safety. Failure to obey warnings can cause injury or death.

W-2044-1285

SI02-0400

FIRE PREVENTION

The machines and some attachments have components that are at high temperatures under normal operating conditions. The primary source of high temperatures is the engine and exhaust system. The electrical system, if damaged or incorrectly maintained, can be a source of arcs or sparks.

Flammable debris (leaves, straw, etc.) must be removed regularly. If flammable debris is allowed to accumulate, it can cause a fire hazard. Clean often to avoid this accumulation. Flammable debris in the engine compartment is a potential fire hazard.

The spark arrestor exhaust system (if equipped) is designed to control the emission of hot particles from the engine and exhaust system, but the muffler and the exhaust gases are still hot.

- Do not use the machine where exhaust, arcs, sparks or hot components can contact flammable material, explosive dust or gases.
- The operator cab, engine compartment and engine cooling system must be inspected every day and cleaned if necessary to prevent fire hazards and overheating.
- Check all electrical wiring and connections for damage. Keep the battery terminals clean and tight. Repair or replace any damaged part.
- Check fuel and hydraulic tubes, hoses and fittings for damage and leakage. Never use open flame or bare skin to check for leaks. Tighten or replace any parts that show leakage. Always clean fluid spills. Do not use gasoline or diesel fuel for cleaning parts. Use commercial nonflammable solvents.
- Do not use ether or starting fluids on any engine which has glow plugs. These starting aids can cause explosion and injure you or bystanders.
- Always clean the machine, disconnect the battery, and disconnect the wiring from the electronic controllers before welding. Cover rubber hoses, battery and all other flammable parts. Keep a fire extinguisher near the machine when welding. Have good ventilation when grinding or welding painted parts. Wear dust mask when grinding painted parts. Toxic dust or gas can be produced.
- Stop the engine and let it cool before adding fuel. No smoking!
- Use the procedure in the Operation & Maintenance Manual for connecting the battery and for jump starting.
- Use the procedure in the Operation & Maintenance Manual for cleaning the spark arrestor muffler (if equipped).
- Know where fire extinguishers and first aid kits are located and how to use them. Fire extinguishers are available from your Bobcat dealer.

MACHINE SIGNS (DECALS)

Follow the instructions on all the machine signs (decals) that are on the loader. Replace any damaged machine signs (decals) and be sure they are in the correct locations. Machine signs (decals) are available from your Bobcat dealer.

6703723 (Foot Pedal)
6703724 (Hand Control)
6727452 (Later Models w/Float button)

6715940 (Hand Control)

6705720

6715944 (Advanced Hand Control only)

6708021 (Foot Control)
6708158 (Hand Control)

6717640

67176399 (Advanced Hand Control Only)

6713715

657754 (3)

6710449

6557565

6703725 (Hand Control)

6711840

6579510 (Foot Control)

6561383

6717343 (2) Under Cab

6702301

6710358

6702302

6579528 *


* Decal located behind lift arm crossmember.

MACHINE SIGNS (DECALS) (Cont'd)

IMPORTANT
863/864
 THIS MODEL LOADER IS PRECISELY REGULATED WITH A U.S.D.A. FORESTRY SERVICE APPROVED SPARK ARRESTOR.
 THE TURBOCHARGER MUST OPERATE TO KEEP THE SPARK ARRESTOR EFFICIENT FOR PROPER PROTECTION.
 IF THIS MACHINE IS OPERATED ON FLAMMABLE & FOREVER FLUIDS OR OILS, OPERATIONAL PROCEDURES MUST BE FOLLOWED TO PREVENT FIRE. THE TURBOCHARGER MUST BE MAINTAINED AS SPECIFIED IN THE OPERATOR'S MANUAL TO PREVENT FIRE. FAILURE TO DO SO WILL BE IN VIOLATION OF CALIFORNIA STATE LAW SECTION 44249.1 PC.
 REFER TO LOCAL LAWS AND REGULATIONS FOR SPARK ARRESTOR REQUIREMENTS.
 SEE OPERATION AND MAINTENANCE MANUAL FOR INSTRUCTIONS.
 SW87 6708937

6708937

**BOBCAT
 HYDROSTATIC
 FLUID**

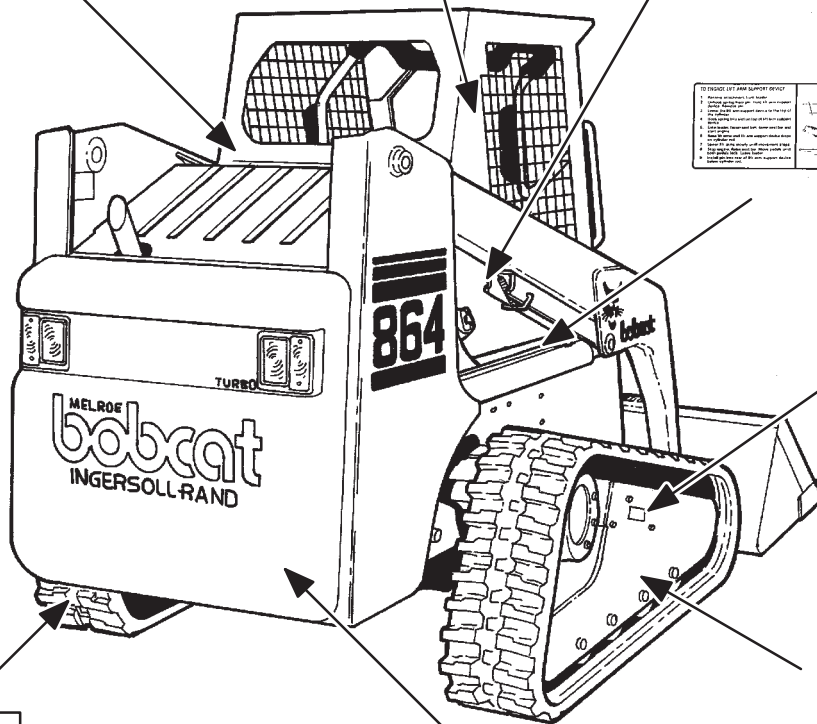


6747990

6565990

← PUSH TO RELEASE STOP
 6578361

6578368



TO DISOCCUPY LIFT ARM SUPPORT DEVICE

1. Lower the lift arm to the ground.
2. Turn the lift arm support device clockwise to the stop.
3. Push the lift arm support device down to the ground.
4. Turn the lift arm support device counter-clockwise to the stop.
5. Push the lift arm support device up to the ground.
6. Turn the lift arm support device clockwise to the stop.
7. Push the lift arm support device down to the ground.
8. Turn the lift arm support device counter-clockwise to the stop.
9. Push the lift arm support device up to the ground.
10. Turn the lift arm support device clockwise to the stop.

TO DISOCCUPY LIFT ARM SUPPORT DEVICE

1. Lower the lift arm to the ground.
2. Turn the lift arm support device clockwise to the stop.
3. Push the lift arm support device down to the ground.
4. Turn the lift arm support device counter-clockwise to the stop.
5. Push the lift arm support device up to the ground.
6. Turn the lift arm support device clockwise to the stop.
7. Push the lift arm support device down to the ground.
8. Turn the lift arm support device counter-clockwise to the stop.
9. Push the lift arm support device up to the ground.
10. Turn the lift arm support device clockwise to the stop.

6706558

WARNING
AVOID INJURY OR DEATH
 Do not loosen lubricator more than 1-1/2 turns.
 Do not loosen parts other than lubricator. Grease is under high pressure.
 6534739

6534739 (2)

WARNING
HIGH PRESSURE GREASE CAN CAUSE SERIOUS INJURY
 • Do not loosen grease fitting.
 • Do not loosen bleed fitting more than 1-1/2 turns.
 SW 98 080114

6804114 (2)



6707867

WARNING

SERVICE PARTS CHECK

MAINTENANCE RECORD

6715991

6718398

* Located inside the engine compartment.

B-15217



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