

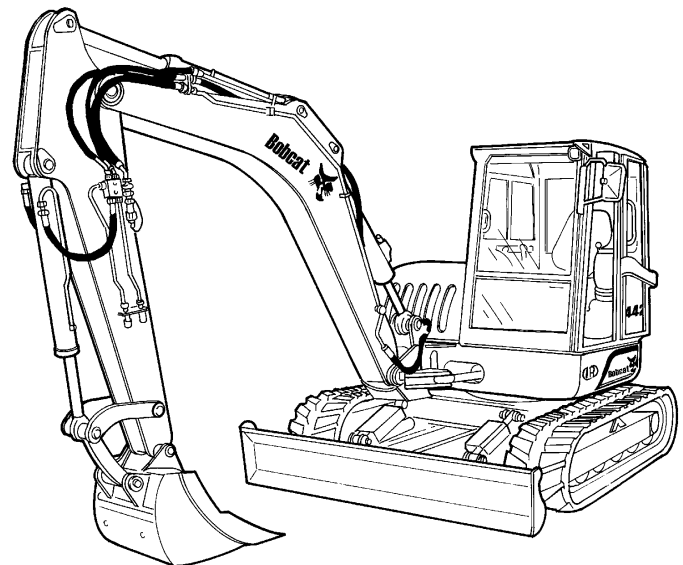
442



Bobcat®

Operation & Maintenance Manual

S/N 522311001 & Above
S/N 528611001 & Above
S/N 528911001 & Above



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OPERATOR SAFETY WARNINGS

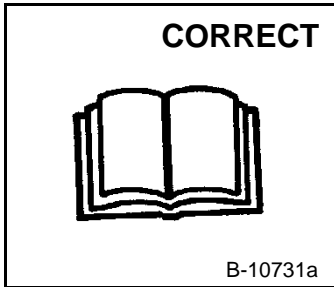


WARNING

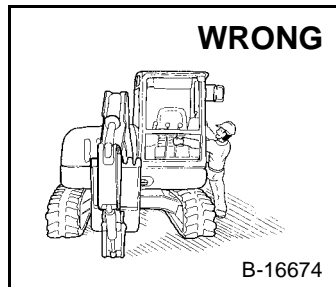
Operator must have instructions before running the machine. Untrained operators can cause injury or death.

W-2001-1285

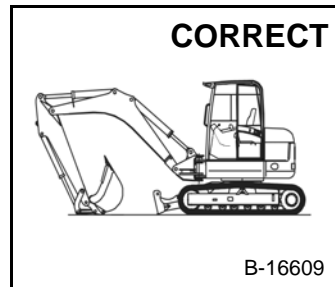
! Safety Alert Symbol: This symbol with a warning statement, means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.



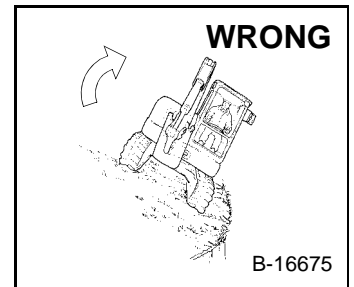
- !** Never operate without instructions.
- !** Read machine signs, Operation & Maintenance Manual, and Operator's Handbook.



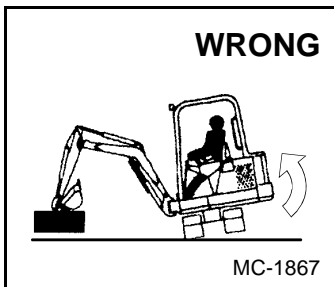
- !** Do not grasp control handles when entering canopy or cab.
- !** Be sure controls are in neutral before starting.
- !** Sound horn and check behind machine before starting.



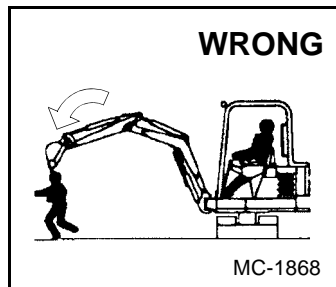
- !** Never operate without approved canopy or cab.
- !** Never modify equipment.
- !** Never use attachments not approved by Bobcat Company.



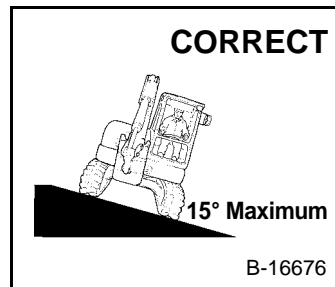
- !** Avoid steep areas or banks that could break away.



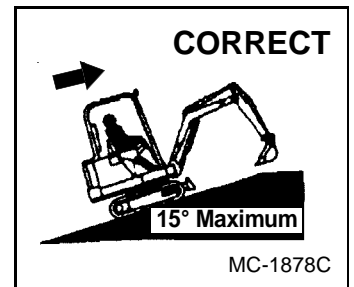
- !** Use caution to avoid tipping - do not swing heavy load over side of track.
- !** Operate on flat, level ground.



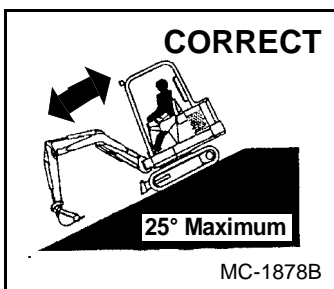
- !** Keep bystanders out of maximum reach area.
- !** Do not travel or turn with bucket extended.
- !** Never carry riders.



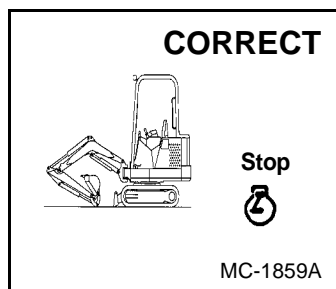
- !** Never exceed a 15° slope to the side.



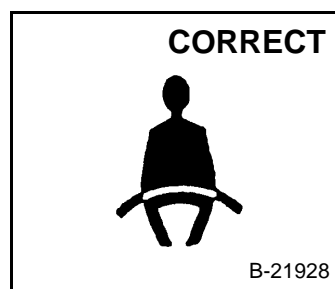
- !** Never travel up a slope that exceeds 15°.



- !** Never exceed 25° when going down or backing up a slope.



- !** To leave excavator, lower the attachment.
- !** Stop the engine.



- !** Fasten seat belt securely.
- !** Operate controls only from operator's seat.

SAFETY EQUIPMENT

1. Seat Belt
2. Machine Safety Signs
3. Grab Handles
4. Slew Lock
5. Safety Tread



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REFERENCE INFORMATION

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

Bobcat Excavator
Serial Number _____
Engine Serial Number _____

NOTES

YOUR BOBCAT® EXCAVATOR DEALER:

ADDRESS:

PHONE:

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

Bobcat Company Europe
Drève Richelle 167
B-1410 WATERLOO
Belgium

FOREWORD

SAFETY

OPERATING INSTRUCTIONS

PREVENTIVE MAINTENANCE

MACHINE SIGN TRANSLATIONS

SPECIFICATIONS



Bobcat®

FOREWORD

FOREWORD

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

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BOBCAT COMPANY IS ISO 9001:2000 CERTIFIED



ISO 9001:2000 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 chose to assess the Company’s compliance with the ISO 9001:2000 set of standards. The BSI registration certifies that the two Bobcat manufacturing plants and the Bobcat corporate offices (Gwinner, Bismarck & West Fargo) in North Dakota are in compliance with ISO 9001:2000. Only certified assessors, like BSI, can grant registrations.

ISO 9001:2000 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.

**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.

REGULAR MAINTENANCE ITEMS

	S/N 522311001 & Above	S/N 528611001 & Above and 528911001 & Above
ENGINE OIL FILTER	6675517	5411656547
FUEL FILTER	5411656567	5411656301
FUEL PRE-FILTER	5445100004	5411657863
PRIMARY AIR FILTER	5501660912	5501660912
SECONDARY AIR FILTER	5501660914	5501660914
HYDRAULIC OIL FILTER	5380658088	5368632568
CAB VENTILATION FILTER	5501661034	5501661034
FAN/FUEL PUMP BELT	5411656409	Not Used On This Model
ALTERNATOR BELT	5411656408	5411657150
AIR CONDITIONING BELT	1490953883	1490953974
HYDRAULIC TANK/ ENGINE OIL DRAIN HOSE	5366654556	5366654556
TRACK TENSIONER ADAPTER	1858000054	1858000054

MOTOR OIL

6903105 SAE 15W40 CE/SG (12 qt.)	6903106 SAE 15W40 CE/SG (1 Gal.)	6903113 SAE 15W40 CE/SG (2.5 Gal.)
6903107 SAE 10W30 CE/SG (12 qt.)	6903108 SAE 10W30 CE/SG (1 Gal.)	6903112 SAE 10W30 CE/SG (2.5 Gal.)
6903109 SAE 30W CE/SG (12 qt.)	6903110 SAE 30W CS/SG (1 Gal.)	6903111 SAE 30W CS/SG (2.5 Gal.)

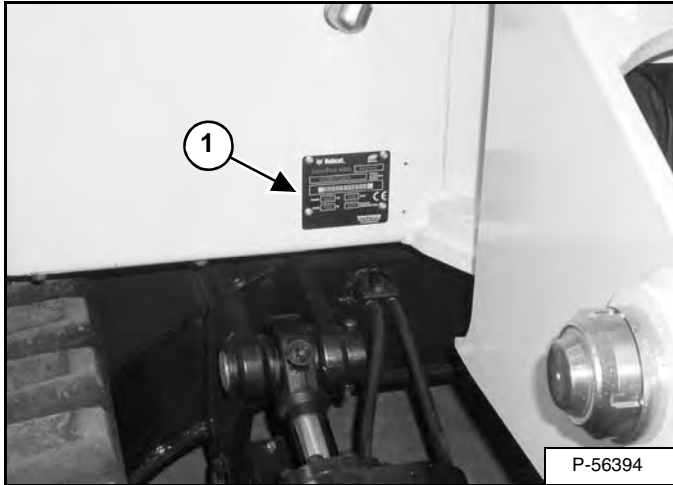


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SERIAL NUMBER LOCATIONS

Always use the serial number of the excavator 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.

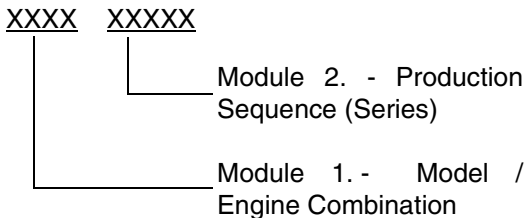
Figure 1



Excavator Serial Number

The excavator serial number plate (Item 1) is located on the frame of the machine in the location shown [Figure 1].

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

Figure 2

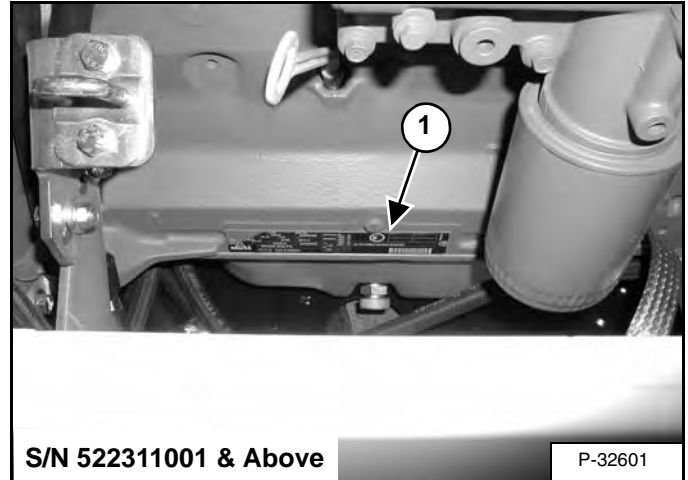
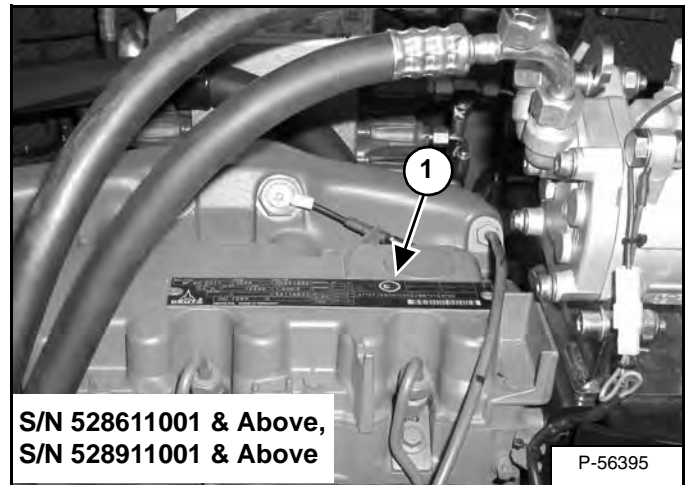


Figure 3



The engine serial number (Item 1) is located on the engine in the location shown [Figure 2] & [Figure 3].

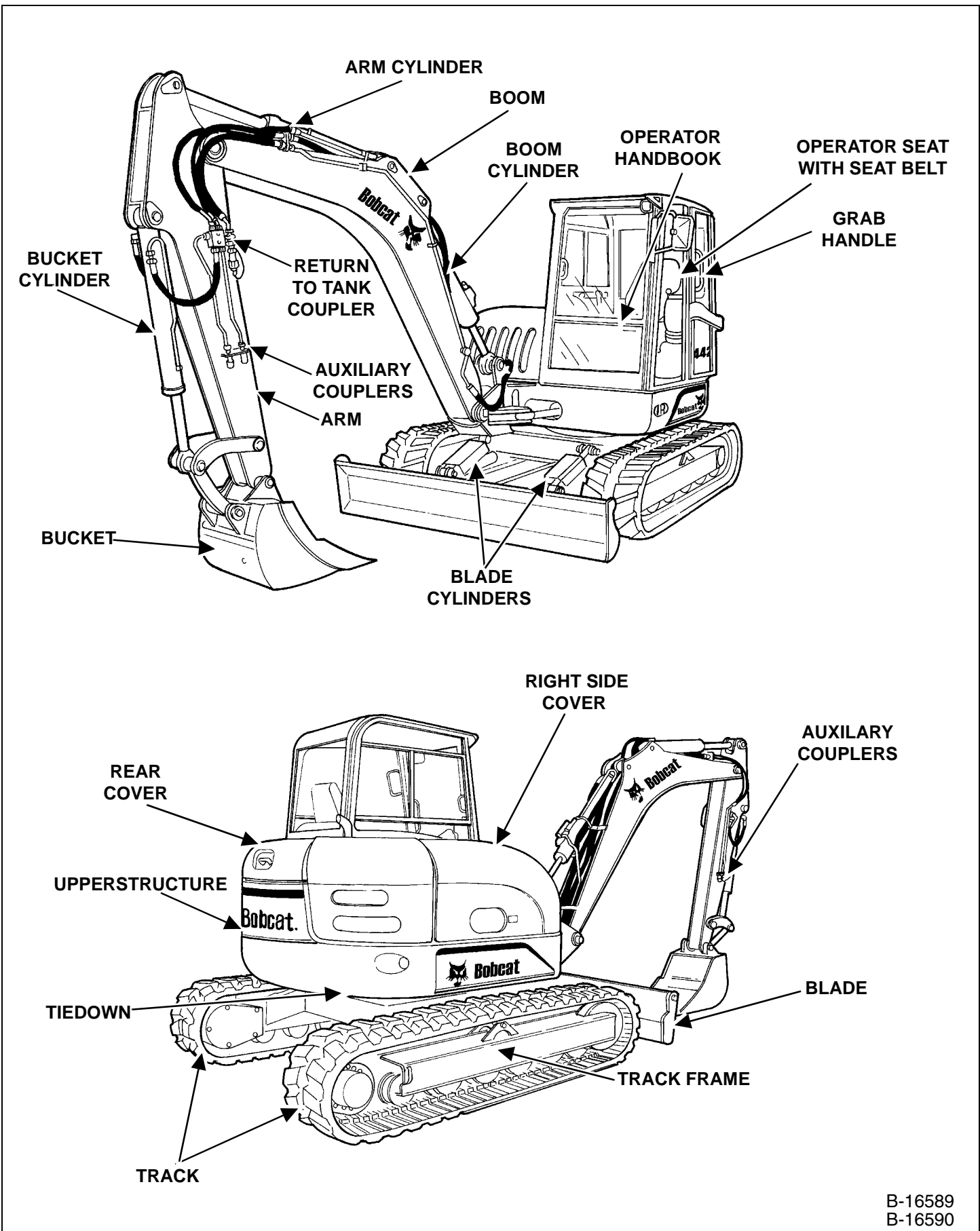
DELIVERY REPORT

Figure 4

The diagram shows a form titled "DELIVERY REPORT". The form is enclosed in a double-line border. At the top right, there is a header box with the text "DELIVERY REPORT". Below this header, the form is divided into two main columns. The left column contains a section with a dark header labeled "WARNING" and several lines of text below it. The right column contains a larger section with many horizontal lines, suggesting a space for detailed notes or a signature. At the bottom right of the form, there is a small box containing the text "B-16315".

The delivery report must be filled out by the dealer and signed by the owner or operator when the Bobcat Excavator is delivered. An explanation of the form must be given to the owner. Make sure it is filled out completely **[Figure 4]**.

BOBCAT EXCAVATOR IDENTIFICATION



B-16589
B-16590

FEATURES AND ACCESSORIES

Standard Items

Model 442 Bobcat Excavators are equipped with the following standard items:

- Enclosed Cab With Heater and Air Conditioning
- 92 inch (2330 mm) Dozer Blade
- 17.7 inch (450 mm) Rubber Tracks or Steel Tracks
- Two-Speed Travel
- Hydraulic and Travel Control Lockouts
- Horn
- Hydraulic Joystick Controls
- ISO/STD Control Pattern Selection Feature
- Suspension Seat
- Blade Float
- Auxiliary Hydraulics

Subject to change without notice.

Options and Accessories

Below is a list of some equipment available from your Bobcat Excavator dealer as Dealer and/or Factory Installed Accessories and Factory Installed Options. See your Bobcat Dealer for other available options, accessories and attachments.

- Steel Track
- Flood Lights
- AM/FM Radio
- AM/FM/Weather Band Radio
- Radio Installation Kit
- Service Kit
- Travel Motion Alarm
- Security Ignition

Other

- Excavator Operator Training
- Excavator Service Safety Training

BOBCAT APPROVED ATTACHMENTS & ACCESSORIES

These and other attachments are approved for use on this model Bobcat Excavator. Do not use unapproved attachments. Attachments not manufactured by Bobcat may not be approved.

The versatile Bobcat Excavator quickly turns into a multi-job machine with a variety of attachments.

See your Bobcat dealer for more details on these and other attachments and field accessories.

Increase the versatility of your Bobcat Excavator with a variety of bucket sizes.

BUCKETS AND ATTACHMENTS AVAILABLE

Many different bucket widths/capacities are available for a variety of applications. See your Bobcat dealer for the correct bucket for your application.

BUCKET SIZE	P/N	WEIGHT
17.7" (450 mm) bucket	6680137	342 lb. (155 kg)
17.7" (450 mm) Ejector Bucket	6680022	441 lb. (200 kg)
23.6" (600 mm) Bucket	6680023	414 lb. (188 kg)
31.5" (800 mm) Bucket	6680024	494 lb. (224 kg)
36.0" (914 mm) Trenching Bucket	6680399	617 lb. (280 kg)
59.0" (1500 mm) Ditching Bucket	6680025	405 lb. (184 kg)
59.0" (1500 mm) Swing Bucket	6680026	633 lb. (287 kg)
19.7" (500 mm) Clamshell	6680030	772 lb. (350 kg)
Ripper Tooth	6680027	231 lb. (105 kg)
B 1400 Breaker	6814768	960 lb. (435 kg)
39.0" (991 mm) Tilt bucket		725 lb. (329 kg)
Manual Spring Loaded Coupler		200 lb. (91 kg)

SAFETY

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SAFETY



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SAFETY INSTRUCTIONS

Before Operation

Carefully follow the operating and maintenance instructions in this manual.

The Bobcat Excavator 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 Excavator usage.

The Bobcat Excavator has an internal combustion engine with resultant heat and exhaust. All exhaust gasses can kill or cause illness so use the Excavator with adequate ventilation.

The dealer explains the capabilities and restrictions of the Bobcat Excavator and attachment 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 Lift Capacity. They are designed for secure fastening to the Bobcat Excavator. The user must check with the dealer, or Bobcat literature, to determine safe loads of materials of specified densities for the machine - attachment combination.

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

- The Delivery Report is used to assure that complete instructions have been given to the new owner and that the machine and attachment is in safe operating condition.
- The Operation & Maintenance Manual delivered with the machine 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 on the machine. Replacement Operation & Maintenance Manuals can be ordered from your Bobcat dealer.
- Machine signs (decals) instruct on the safe operation and care of your Bobcat machine 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 Excavator. It's 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 AEM Safety Manual delivered with the machine gives general safety information.
- The Compact Excavator Operating Training Course is available through your Bobcat dealer. This course is intended to provide rules and practices of correct operation of the Bobcat Excavator. The course is 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 PUBLICATIONS AND TRAINING RESOURCES Page in this manual or your Bobcat dealer for Service and Parts Manuals, printed materials, videos, or training courses available. Also check the Bobcat websites www.training.bobcat.com or 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 or she 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.)

SI EXC-0206

SAFETY INSTRUCTIONS (CONT'D)

Safe Operation Is The Operator's Responsibility



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

W-2001-1285



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

I-2019-0284



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

W-2044-1285

The Bobcat Excavator 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 the Operation & Maintenance Manual.

Safe Operation Needs A Qualified Operator

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

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 or she 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 Lift 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 or she 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 **Before Operation** Section of this manual.
- Wear tight fitting clothing. Always wear safety glasses when doing maintenance or service. Safety glasses, hearing protection or Special Applications Kits are required for some work. See your Bobcat dealer about Bobcat Safety Equipment for your model.

SI EXC-0206

SAFETY INSTRUCTIONS (CONT'D)

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.

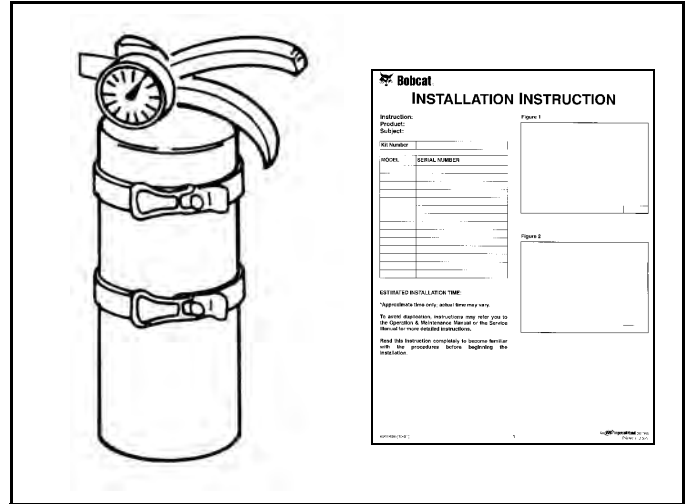
Flammable debris (leaves, straw, etc.) must be removed regularly. If flammable debris is allowed to accumulate, it can cause a fire hazard. Clean often to avoid this accumulation. Flammable debris in the engine compartment is a potential fire hazard.

The spark arrestor exhaust system 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 that 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 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).

Figure 1



- Know where fire extinguishers and first aid kits are located and how to use them. Fire extinguishers are available from your Bobcat dealer [Figure 1].

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