



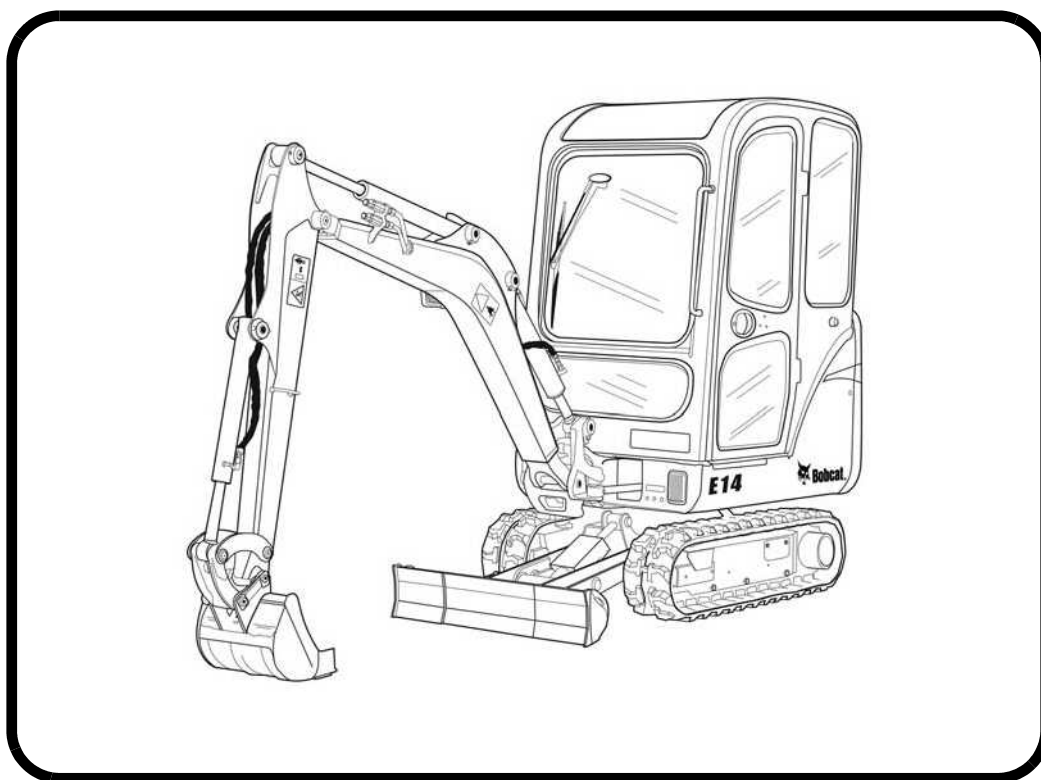
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# Operation & Maintenance Manual

## E14 Compact Excavator

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**S/N AHNM11001 & Above**





# OPERATOR SAFETY WARNING



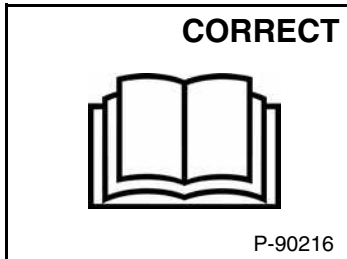
## WARNING

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

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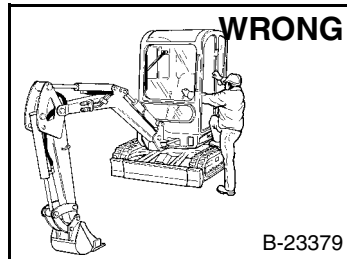


**Safety Alert Symbol:** This symbol with a warning statement, means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.



⚠ Never operate without instructions.

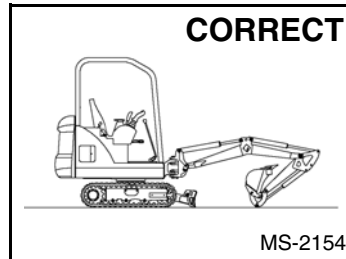
⚠ Read machine signs, Operation & Maintenance Manual, and Operator's Handbook.



⚠ Do not grasp control handles when entering canopy or cab.

⚠ Be sure controls are in neutral before starting.

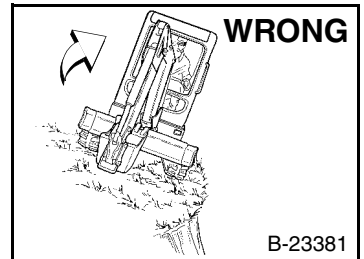
⚠ Sound horn and check behind machine before starting.



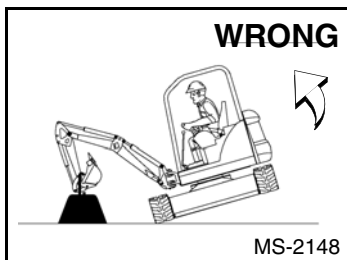
⚠ Never operate without approved canopy or cab.

⚠ Never modify equipment.

⚠ Never use attachments not approved by Bobcat Company.

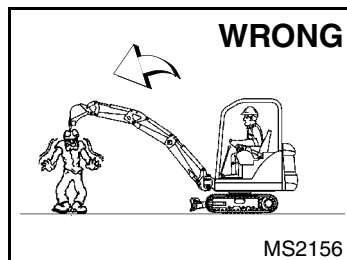


⚠ Avoid steep areas or banks that could break away.



⚠ Use caution to avoid tipping - do not swing heavy load over side of track.

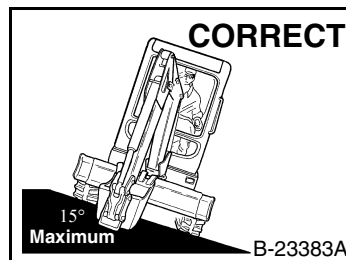
⚠ Operate on flat, level ground.



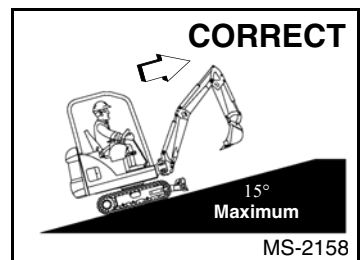
⚠ Keep bystanders out of maximum reach area.

⚠ Do not travel or turn with bucket extended.

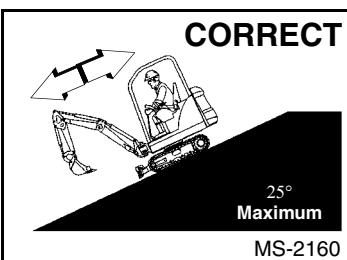
⚠ Never carry riders.



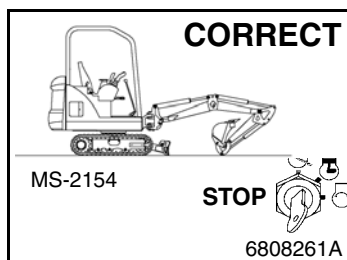
⚠ Never exceed a 15° slope to the side.



⚠ Never travel up a slope that exceeds 15°.

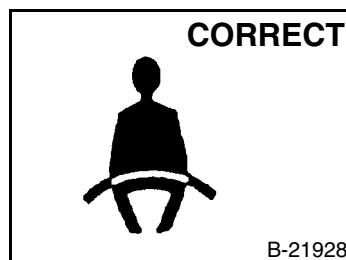


⚠ Never exceed 25° when going down or backing up a slope.



⚠ 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. Slew Lock
3. ROPS/TOPS Canopy or Cab
4. Machine Safety Signs (Decals)
5. Safety Tread
6. Grab Handles

OSW26-0609



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### REFERENCE INFORMATION

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

Excavator Serial  
Number

Engine Serial Number

NOTES:

YOUR BOBCAT DEALER:

ADDRESS:

PHONE:

Bobcat Company Europe  
Drève Richelle 167  
B-1410 WATERLOO  
Belgium





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## 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 dealer. This manual may illustrate options and accessories not installed on your excavator.

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## DECLARATION OF CONFORMITY

### Contents of EC Declaration of Conformity

This information is provided in the operators manual to comply with clause 1.7.4.2(c) of Annex I of Machinery Directive 2006/42/EC.

The official EC Declaration of Conformity is supplied in a separate document.

|   |   |
|---|---|
| <b>Manufacturer</b><br> <b>Bobcat</b> <sup>®</sup><br><br>Bobcat Company<br>World Headquarters<br>250 East Beaton Drive<br>West Fargo, ND 58078-6000<br>UNITED STATES OF AMERICA   | <b>Directive 2000/14/EC: Noise Emission in the Environment by Equipment For Use Outdoors</b><br><br><b>Notified Body</b><br>Technical and Test Institute for Construction<br>Prague, Czech Republic<br>Notified Body Number: 1020<br><br><b>EC Certificate No.</b><br>1020-090-022395<br><br><b>Conformity Assessment Procedure(s)</b><br>2000/14/EC, Annex VIII, Full Quality Assurance<br><br><b>Sound Power Levels [Lw(A)]</b><br>Measured Sound Power <b>90 dBA</b><br>Guaranteed Sound Power <b>91 dBA</b> |
| <b>Technical Documentation</b><br>Doosan Benelux SA<br>Drève Richelle 167<br>B-1410 Waterloo<br>BELGIUM<br><br><b>Description of Equipment</b><br>Type of Equipment: Excavator<br>Model Name: E14*A*EM<br>Model Code: AHNM<br><br>Engine Manufacturer: Kubota<br>Engine Model: D722-E2B-BCZ-5<br>Engine Power: 10.2 kW @ 2500 RPM | <b>Equipment conforms to CE Directive(s) Listed Below</b><br>2006/42/EC: Machinery Directive<br>2004/108/EC: Electromagnetic Compatibility Directive  |
| <b>Declaration of Conformance</b><br>This equipment conforms to the requirements specified in all the EC Directives listed in this declaration.   |   |
| <b>Effective From:</b><br><br>29 December 2009  |   |



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## BOBCAT COMPANY IS ISO 9001:2000 CERTIFIED





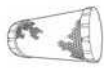




**ISO 9001:2000** is an international standard that controls the processes and procedures which we use to design, develop, manufacture and distribute Bobcat products.

British Standards Institute (**BSI**) is the Certified Registrar Bobcat Company chose to assess the Company's compliance with the ISO 9001:2000 standard. The BSI registration certifies that Bobcat's manufacturing facilities in Gwinner and Bismarck, North Dakota (North America), Pontchateau (France), Dobris (Czech Republic) 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.

### REGULAR MAINTENANCE ITEMS

|   |                                       |   |  |
|---|---------------------------------------|---|--|
|    | ENGINE OIL FILTER (6 Pack)<br>6671057 |    | PRIMARY HYDRAULIC FILTER<br>6653336      |
|   | FUEL FILTER<br>6667352                |   | BATTERY<br>6670251                       |
|  | AIR FILTER, Outer<br>6673752          |  | HYDRAULIC FILL / BREATHER CAP<br>6692836 |
|  | AIR FILTER, Inner<br>6673753          |   |  |

## LUBRICANTS AND FLUIDS

The lubricants and fuels described below are standard for operating conditions in European temperate climate areas. Please consult your Bobcat dealer for requirements under other weather conditions

|                    |         | All Bobcat Equipment  |   |   |   | Only for TLS, Wheeled EXC and AL  |   |   |                             |                                |                            |   |   |  |                                    |
|--------------------|---------|---|---|---|---|---|---|---|-----------------------------|--------------------------------|----------------------------|---|---|--|------------------------------------|
|                    |         | ENGINE / LOADER TRANSMISSION<br>   |   |   |   | HYDRAULIC/ HYDROSTATIC<br>  |   | ANTIFREEZE COOLANT<br> |                             |                                |                            | AXLE / TRANSMISSION<br>  |   | BRAKE FLUID<br> |                                    |
| Packaging          | Lineart | Bobcat Engine Power SAE 0W/30<br>  | Bobcat Engine Power SAE 10W/30<br> | Bobcat Engine Power SAE 15W/40<br> | Bobcat Engine Power SAE 20W/50<br> | Bobcat Superior SH Hydraulic/Hydrostatic<br>   | Bobcat Bio Hydraulic Hydraulic/Hydrostatic<br> | Bobcat PG Coolant Concentrated  | Bobcat PG Coolant 4 Seasons | Bobcat EG Coolant Concentrated | Bobcat EG Coolant Premixed | Bobcat Axle / Transmission Oil SAE 85W/90<br>  | Bobcat Axle / Transmission Oil ISO 100<br> | Bobcat Brake Fluid LHM   | Bobcat Brake Fluid (Roto TLS only) |
|                    |         | 6987500A  | 6904840A  | 6904841A  | 6987501A  | 6904842A  | 6904843A  | 6987646A  | 6904844A                    | 6987596A                       | 6987597A                   | 6987602A  | 6904845A  | 6904846A   | 6987667A                           |
|                    |         | 6987500B  | 6904840B  | 6904841B  | 6987501B  | 6904842B  | 6904843B  | 6987646B  | 6904844B                    | 6987596B                       | 6987597B                   | 6987602B  | 6904845B  | 6987667B   |                                    |
|                    |         | 6987500C  | 6904840C  | 6904841C  | 6987501C  | 6904842C  | 6904843C  | 6987646C  | 6904844C                    | 6987596C                       | 6987597C                   | 6987602C  | 6904845C  | 6987667C   |                                    |
|                    |         | 6987500D  | 6904840D  | 6904841D  | 6987501D  | 6904842D  | 6904843D  | 6987646D  | 6904844D                    | 6987596D                       | 6987597D                   | 6987602D  | 6904845D  | 6987667D   |                                    |
|                    |         | Bobcat Multi-Purpose Grease   |   |   |   | 6903122   |   |   |                             |                                |                            |   |   |  |                                    |
| 400 gr Grease      |         | Bobcat Supreme HD Grease  |   |   |   | 6687884   |   |   |                             |                                |                            |   |   |  |                                    |
|                    |         | Bobcat Extreme HP Grease  |   |   |   | 6687885   |   |   |                             |                                |                            |   |   |  |                                    |
| 4700300-EN (01-10) |         |   |   |   |   |   |   |   |                             |                                |                            |   |   |  |                                    |

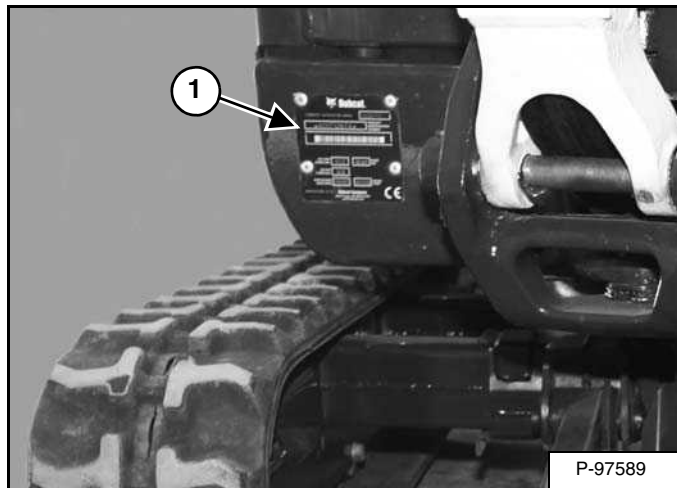
**NOTE:** Always verify Part Numbers with your Bobcat dealer.

## 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.

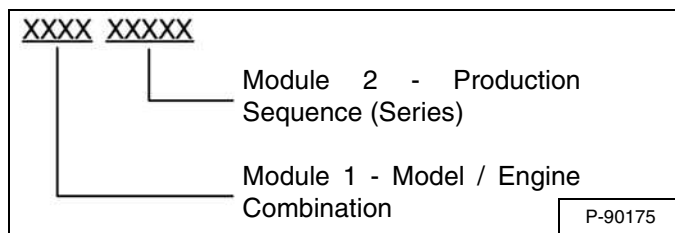
### Excavator Serial Number

Figure 1



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

Figure 2

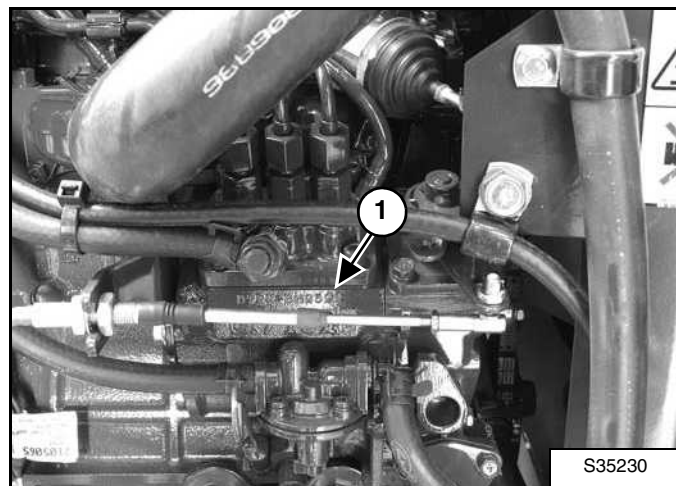


Explanation of excavator Serial Number [Figure 2]:

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 excavator is produced.

### Engine Serial Number

Figure 3



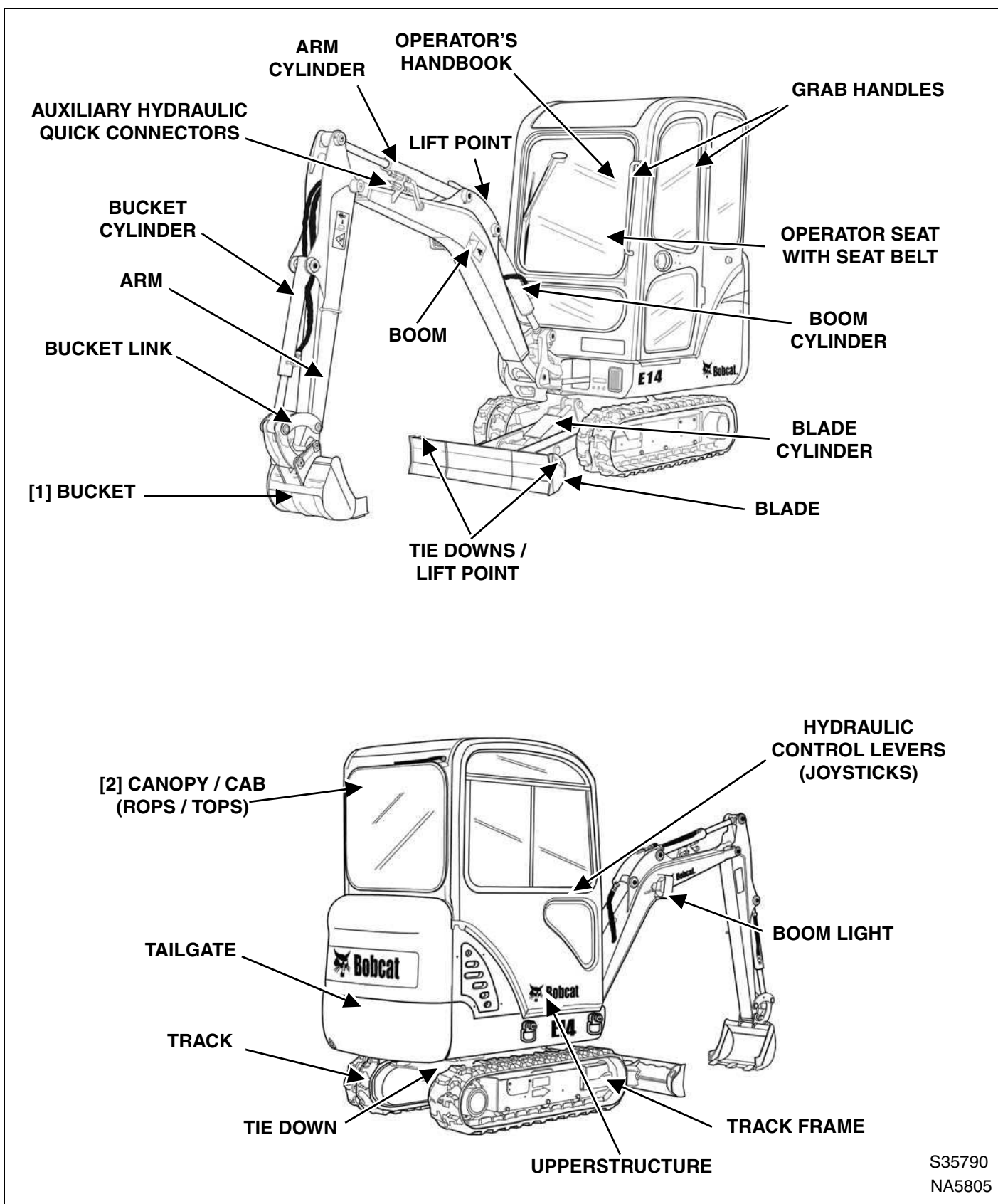
The engine serial number (Item 1) [Figure 3] is located on the side of the engine.

### DELIVERY REPORT

Figure 4

The delivery report [Figure 4] 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.

## EXCAVATOR IDENTIFICATION



S35790  
NA5805

- [1] BUCKET - Several different buckets and other attachments are available from the Bobcat excavator.
- [2] ROPS, TOPS - (Roll Over Protective Structure / Tip Over Protective Structure) as standard equipment. The ROPS / TOPS meets ISO 12117-2 and ISO 12117.

## FEATURES, ACCESSORIES AND ATTACHMENTS

### Standard Items

Model E14 Bobcat excavators are equipped with the following standard items:

- Hydraulic Retractable Undercarriage from 1360 mm to 980 mm
- 980 mm Dozer Blades
- 200 mm Rubber Track
- Double Acting Auxiliary Hydraulics with Quick Couplers
- Control Console Locks
- Horn
- Hydraulic Joystick Controls
- Retractable Seat Belt
- Spark Arrester Muffler
- Seat
- TOPS / ROPS Canopy
- Work Lights

### 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.

- TOPS / ROPS Cab with Cab Heater
- Two Speed Travel
- Keyless Start
- Travel Motion Alarm
- Cab / Canopy Light Kit
- Cab Enclosure, Vinyl
- Catalytic Exhaust Purifier Kit
- Top Guard Kit (FOGS)
- Special Application Kit
- 3 Inch Seat Belt Kit
- Suspension Seat Kit
- Blade Extension Kit
- Radio Kit
- Tie Down Kit
- Air Bleed Kit
- Boom Light Guard Kit
- Blade Pad Kit
- Auxiliary Couplers on Arm Kit

***Specifications subject to change without notice and standard items may vary.***

## Attachments

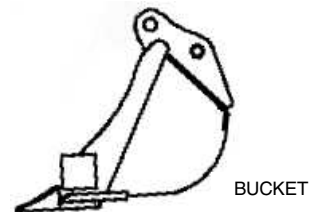
These and other attachments are approved for use on this model Bobcat excavator. Do not use unapproved attachments. Attachments not manufactured by Bobcat may not be approved.

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

See your Bobcat dealer for information about approved attachments and attachment Operation & Maintenance Manuals.

- Auger
- Grading Bucket
- Hydraulic Breaker
- Hydraulic Clamp
- Trenching Bucket

### Buckets Available



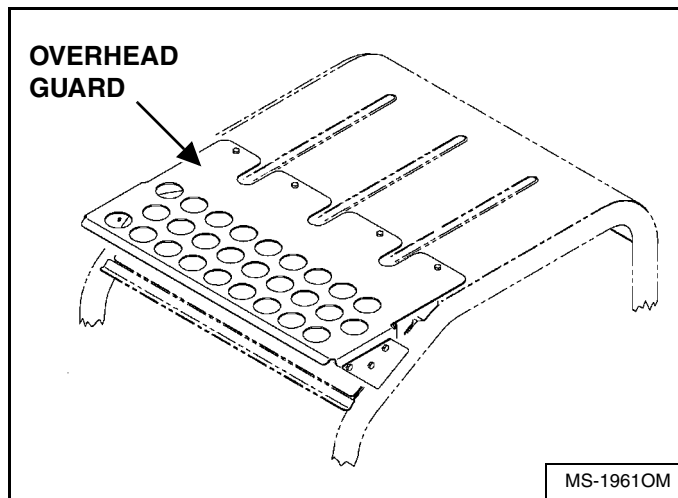
Increase the versatility of your Bobcat excavator with a variety of bucket sizes.

- 50 mm
- 230 mm
- 300 mm
- 400 mm
- 450 mm
- 500 mm
- 600 mm
- 800 mm
- 1000 mm

## FEATURES, ACCESSORIES AND ATTACHMENTS (CONT'D)

### Falling Object Guards (FOGS)

Figure 5



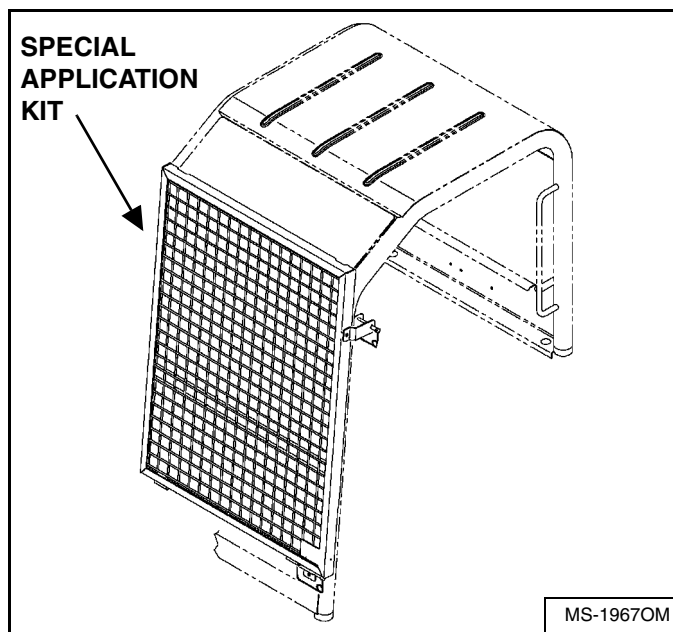
Available for special applications that require protection from smaller objects that can fall on the canopy / cab or restrict material from entering canopy / cab openings **[Figure 5]** and **[Figure 6]**.

The excavator must have the overhead guard **[Figure 5]** installed to meet the top guard requirements in ISO 10262.

See your Bobcat dealer for more information.

### Special Applications Kit

Figure 6



The excavator must have the special applications kit **[Figure 6]** installed to meet the front guard requirements in ISO 10262 - level 1.

Kit includes a one piece screen guard.

See your Bobcat Dealer for more information.

### Special Applications Kit Inspection And Maintenance

The Special Applications Kit must be regularly inspected and maintained. Inspect the screen for damage. Replace parts as necessary.



## **SAFETY & TRAINING RESOURCES**

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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 motorway, rough terrain applications, common with Bobcat excavator usage.

The Bobcat excavator has an internal combustion engine with resultant heat and exhaust. All exhaust gases 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. Its brief instructions are convenient to the operator. See your Bobcat dealer for more information on translated versions.

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.

SI EXC EMEA-1009

## SAFETY INSTRUCTIONS (CONT'D)

### Safe Operation Is The Operator's Responsibility



#### Safety Alert Symbol

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



## WARNING

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

W-2001-0502

## IMPORTANT

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

I-2019-0284

The signal word **DANGER** on the machine and in the manuals indicates a hazardous situation which, if not avoided, will result in death or serious injury.

D-1002-1107



## WARNING

The signal word **WARNING** on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

W-2044-1107

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 and machine signs (decals).
- Check the rules and regulations at your location. The rules may include an employer's work safety requirements. For driving on public roads, the machine must be equipped as stipulated by the local regulations authorising operation on public roads in your specific country. 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.

### 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.
- Wear tight fitting clothing. Always wear safety glasses when doing maintenance or service. Safety glasses, respiratory equipment, hearing protection or Special Applications Kits are required for some work. See your Bobcat dealer about Bobcat Safety Equipment for your model.

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