



# **Operation & Maintenance Manual**





**Compact Excavator** 

S/N B4R711001 & Above



# OPERATOR SAFETY WARNING



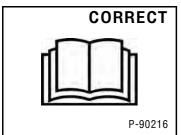
Operator must have instructions before operating the machine. Untrained operators can cause injury or death.

W-2001-0502



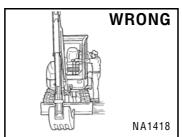
Safety Alert Symbol:

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



Never operate without instructions.

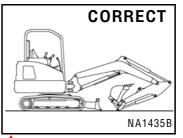
Read machine signs, and Operation & Maintenance Manual, and Operator's Handbook.



grasp Do not control handles when entering cab / canopy.

Be sure controls are in neutral before starting.

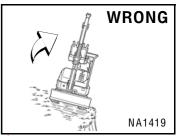
Sound horn and check behind machine before starting



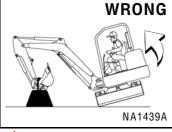
Never operate without approved cab / canopy.

Never modify equipment.

Never use attachments not approved by Bobcat Company.

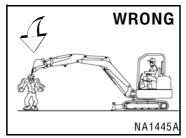


Avoid steep areas banks that could break awav.



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

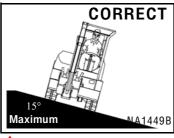
🛕 Operate on flat, level ground.



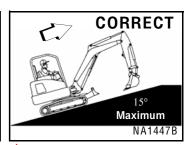
Keep bystanders out of maximum reach area.

Do not travel or turn with bucket extended.

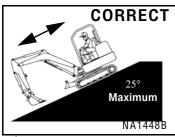
Never carry riders.



Never exceed a 15° slope to the side.



Never travel up a slope that exceeds 15°.

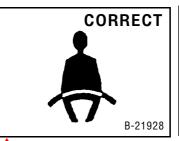


Never exceed 25° when going down or backing up a slope.



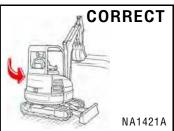
To leave excavator, lower the work equipment and the blade to the ground.

Stop the engine.



Fasten seat belt securely.

Operate controls only from operator's seat.



Look in the direction of rotation and make sure no bystanders are in the work area.

# **SAFETY EQUIPMENT**

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

1. SEAT BELT: Check belt fasteners and check for damaged webbing or buckle.

OPERATOR CAB / CANOPY (ROPS and TOPS): Check condition and mounting hardware. OPERATOR'S HANDBOOK: Must be in the cab / canopy.

LEFT HAND CONSOLE: When raised must deactivate the travel and hydraulic functions.

SAFETY SIGNS (DECALS): Replace if damaged.

GRAB HANDLES: Replace if damaged.

INTEGRATED SLEW LOCK BRAKE.

SAFETY TREAD.: Replace if damaged.

OSW66-FN-0117

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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 P.O. Box 128 Gwinner, ND 58040-0128 UNITED STATES OF AMERICA Doosan Bobcat EMEA s.r.o. U Kodetky 1810 263 12 Dobris CZECH REPUBLIC

# **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.

| BOBCAT COMPANY IS ISO 9001 CERTIFIED  | .3                    |
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## **BOBCAT COMPANY IS ISO 9001 CERTIFIED**







**ISO 9001** is an international standard that specifies requirements for a quality management system 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 at Bobcat's manufacturing facilities in Gwinner, North Dakota (U.S.A.), Pontchâteau (France), and the Bobcat corporate offices (Gwinner, Bismarck, and West Fargo) in North Dakota. **TÜV Rheinland** is the Certified Registrar Bobcat Company chose to assess the company's compliance with the ISO 9001 at Bobcat's manufacturing facility in Dobris (Czech Republic). Only certified assessors, like BSI and TÜV Rheinland, can grant registrations.

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.

## **REGULAR MAINTENANCE ITEMS**

|     | ENGINE OIL FILTER<br>6657635  |   | FRESH AIR FILTER 7176099 RECIRCULATION FILTER 7222791 |
|-----|---|---|---|
|     | FUEL FILTER<br>6667352  |   | BATTERY<br>7304126                                    |
| CI. | AIR FILTER, Outer<br>6673752  |   | HYDRAULIC FILL / BREATHER CAP<br>7024201              |
|     | AIR FILTER, Inner<br>6673753  |   |   |
|     | PRIMARY HYDRAULIC FILTER<br>6661248<br>CASE DRAIN HYDRAULIC FILTER<br>7009365 | 0 | RADIATOR CAP<br>7348260                               |

NOTE: Always verify Part Numbers with your Bobcat dealer.

# **LUBRICANTS AND FLUIDS**

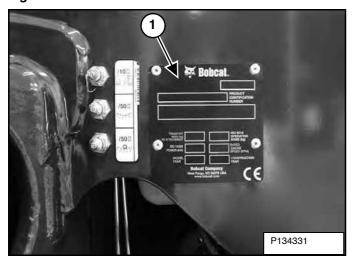
|                    |           |  |                                     |   |   |                                     | Bobcat Equipment                    | luipment                                       |  |                                      |                                   |                                      |                                  | Only for  | Only for Wheeled EXC and AL                  | C and AL                  |
|--------------------|-----------|--|-------------------------------------|---|---|-------------------------------------|-------------------------------------|--|--|--------------------------------------|-----------------------------------|--------------------------------------|----------------------------------|---|--|---------------------------|
|                    |           |  | ENG                                 | ENGINE / LOADER TRANSMISSION            | R TRANSMIS                              | NOIS                                |                                     | HYDRAULIC/<br>HYDROSTATIC                      | ULIC/<br>STATIC  |                                      | ANTIFREEZE<br>COOLANT             | REEZE<br>ANT                         |                                  | AXLE / TRANSMISSION                               | NOISSIMSN                                    | BRAKE<br>FLUID            |
|                    |           |  |                                     | ூ                                       | ů                                       |                                     |                                     | •  | •{}  |                                      | <b>(1)</b>                        | <b>(S</b> )                          |                                  | F   | • 0  | <u>@</u>                  |
| Packaging          | Lineart   | Bobcat<br>Engine Power<br>SAE 0W30     | Bobcat<br>Engine Power<br>SAE 10W30 | Bobcat<br>Engine Power<br>SAE 10W30 CJ4 | Bobcat<br>Engine Power<br>SAE 15W40 CJ4 | Bobcat<br>Engine Power<br>SAE 15W40 | Bobcat<br>Engine Power<br>SAE 20W50 | Bobcat<br>Superior SH<br>Hydraulic/Hydrostatic | Bobcat<br>Bio Hydraulic<br>Hydraulic/Hydrostatic   | Bobcat<br>PG Coolant<br>Concentrated | Bobcat<br>PG Coolant<br>snossec 4 | Bobcat<br>EG Coolant<br>Concentrated | Bobcat<br>EG Coolant<br>Premixed | Bobcat Axle \<br>Transmission oil<br>SAE 85W90 LS | Bobcat Axle /<br>Transmission Oil<br>ISO 100 | Bobcat Brake Fluid<br>LHM |
|                    |           | ************************************** | <b>※</b> ※                          |   | <b>※</b> ****                           |                                     | 15°C +50°C                          | *************************************          | The state of the s |                                      | Protection<br>-36℃                | ction<br>Street                      |                                  | -12°C +50°C                                       | <b>₩</b> ₩                                   |                           |
| 5 L<br>Can         |           | 6987796A                               | 6987789A                            | 6987818A                                | 6987819A                                | 6987790A                            | 6987797A                            | 6987791A                                       | 6987792A   |                                      | 6987793A                          | 6987803A                             | 6987804A                         | 6987805A  | 6987794A                                     | 6987795A                  |
| 25 L<br>Container  |           | 6987796B                               | 6987789B                            | 6987818B                                | 6987819B                                | 6987790B                            | 6987797B                            | 6987791B                                       | 6987792B   | 6987813B                             | 6987793B                          | 6987803B                             | 6987804B                         | 6987805B  | 6987794B                                     |                           |
| 209 L<br>Drum      |           | 6987796C                               | 6987789C                            | 6987818C                                | 6987819C                                | 6987790C                            | 6987797C                            | 6987791C                                       | 6987792C   | 6987813C                             | 6987793C                          | 6987803C                             | 6987804C                         | 6987805C  | 6987794C                                     |                           |
| 1000 L<br>Tank     |           | G987796D                               | 6987789D                            | 6987818D                                | 6987819D                                | 6987790D                            | 6987797D                            | 6987791D                                       | 6987792D   | 6987813D                             | 6987793D                          | 6987803D                             | 6987804D                         | 6987805D  |  |                           |
|                    |           |  | Bobcat                              | Bobcat Multi-Purpose Grease             | Grease                                  |                                     |                                     |  |  |                                      | 6987888                           | ,888                                 |                                  |   |  |                           |
| 400 gr<br>Grease   |           |  | Bobca                               | Bobcat Supreme HD Grease                | Grease                                  |                                     |                                     |  |  |                                      | 6987889                           | .889                                 |                                  |   |  |                           |
|                    |           |  | Bobca                               | Bobcat Extreme HP Grease                | Grease                                  |                                     |                                     |  |  |                                      | 6987890                           | 7890                                 |                                  |   |  |                           |
| 4700300-EN (06-13) | N (06-13) |  |                                     |   |   |                                     |                                     |  |  |                                      |                                   |                                      |                                  |   |  |                           |

## **SERIAL NUMBER LOCATION**

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**

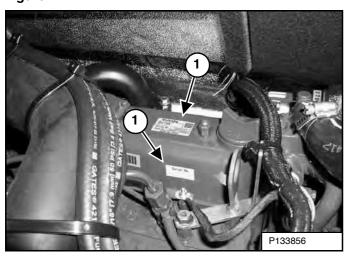
Figure 1



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

# **Engine Serial Number**

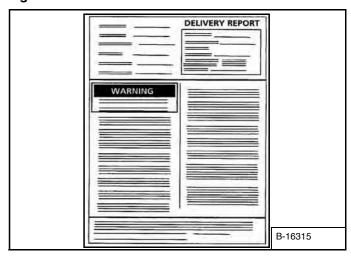
Figure 2



The engine serial number is located on the top cover (two locations) (Item 1) [Figure 2].

## **DELIVERY REPORT**

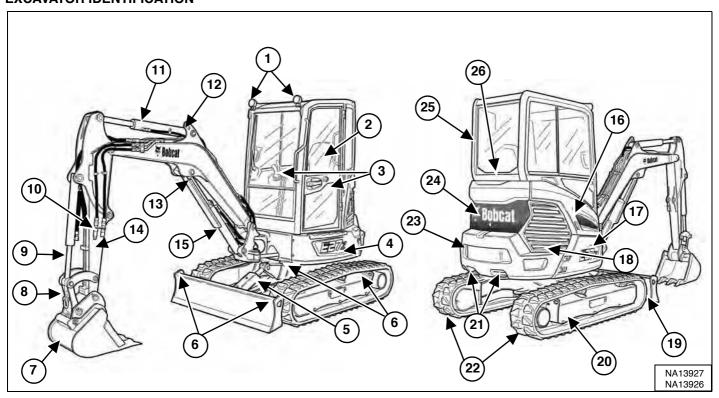
Figure 3



The delivery report [Figure 3] contains a list of items that must be explained or shown to the owner or operator by the dealer when the Bobcat excavator is delivered.

The delivery report must be reviewed and signed by the owner or operator and the dealer.

## **EXCAVATOR IDENTIFICATION**



| ITEM | DESCRIPTION                                   | ITEM | DESCRIPTION                           |
|------|---|------|---------------------------------------|
| 1    | LIGHTS (IF EQUIPPED)                          | 16   | RIGHT SIDE COVER                      |
| 2    | OPERATOR'S SEAT WITH SEAT BELT                | 17   | RIGHT SIDE PANEL                      |
| 3    | JOYSTICKS                                     | 18   | REAR SIDE COVER                       |
| 4    | UPPERSTRUCTURE                                | 19   | BLADE                                 |
| 5    | BLADE CYLINDER                                | 20   | TRACK FRAME                           |
| 6    | TIE DOWNS / LIFT POINTS                       | 21   | TIE DOWNS                             |
| 7    | BUCKET [1]                                    | 22   | TRACKS [3]                            |
| 8    | ATTACHMENT QUICK COUPLER (IF EQUIPPED) [2]    | 23   | COUNTERWEIGHT                         |
| 9    | BUCKET CYLINDER                               | 24   | TAILGATE                              |
| 10   | AUXILIARY HYDRAULIC COUPLERS<br>(IF EQUIPPED) | 25   | CANOPY / CAB (ROPS / TOPS / FOPS) [4] |
| 11   | ARM CYLINDER                                  | 26   | OPERATOR'S HANDBOOK                   |
| 12   | LIFT POINT                                    |      |                                       |
| 13   | BOOM  |      |                                       |
| 14   | ARM   |      |                                       |
| 15   | BOOM CYLINDER                                 |      |                                       |

- [1] BUCKET Several different buckets and other attachments are available from the Bobcat excavator.
- [2] ATTACHMENT COUPLER Optional attachment couplers are available.
- [3] TRACKS Optional tracks are available.
- [4] ROPS, TOPS (Roll-Over Protective Structure / Tip-Over Protective Structure) per ISO 12117-2 and ISO 12117. FOPS (Fall Object Protective Structure / Top Guard) per ISO 10262 level 1.

### FEATURES, ACCESSORIES AND ATTACHMENTS

#### **Standard Items**

Model E27z Bobcat excavators are equipped with the following standard items:

- 1550 mm (61.0 in) Dozer Blade
- Canopy with ROPS / TOPS / FOPS Approval
- 300 mm (11.8 in) Rubber Tracks
- Two-Speed Travel
- Auto Shift Drive Motors
- Engine Speed Control Lever
- Hydraulic and Travel Control Lockouts
- Boom and Frame Mounted Work Lights
- Engine and Hydraulic System Monitor with Shut Down
- Horn
- · Hydraulic Joystick Controls
- · Basic Seat
- Retractable Seat Belt
- Advanced Diagnostics
- Counterweight
- · Fuel Filter with Sediment Bowl

### **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.

- Enclosed Cab With Heater
- Engine Speed Control Dial With Auto Idle Feature
- Travel Motion Alarm
- Keyless Start
- Canopy / Cab Mounted Lights
- Auxiliary Hydraulics and Quick Couplers
- Direct to Tank Auxiliary Hydraulics
- Counterweight (Additional)
- · Second, Third, and Fourth Auxiliary Hydraulics
- Top Guard Kit (FOGS)
- Special Application Kit (upper and lower guards)
- Load Holding Valve Boom
- · Load Holding Valve Arm
- Lifting Device
- Travel Hose Protection
- Rotating Beacon Light
- Strobe Light
- Side Mirror
- Radio
- Fire Extinguisher
- Deluxe Electrical Control (7 Pin Harness)
- Pin-On X-Change
- Attachment Quick Coupler, Klac<sup>™</sup> System
- Attachment Quick Coupler, German Style Quick Coupler
- Attachment Quick Coupler, Bobcat Hydraulic Quick Coupler
- Bobcat Hydraulic Pin Grabber Coupler HPG2
- Auxiliary Hydraulic Lines Mounted On Arm\*
- Vinyl or Cloth Suspension Seat
- Steel Tracks
- Long Arm

Overload Warning Device

\*This option may influence the availability of other attachments. See your Bobcat Dealer for information about approved attachments for auxiliary hydraulic lines mounted on the arm.

#### **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 multiiob machine with a variety of attachments.

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

- Auger
- Breaker
- Hydraulic Clamp
- · Tilt Coupler
- Laser Receiver

### **Buckets Available**

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

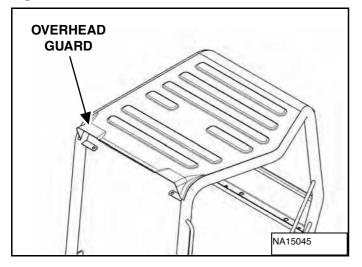
Many bucket styles, widths and different capacities are available for a variety of different applications. They include Trenching, Digging, Grading, Tilt, to name a few. See your Bobcat dealer for the correct bucket for your Bobcat excavator and application.

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

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

## Falling-Object Guards (FOGS) (Canopy Model)

Figure 4

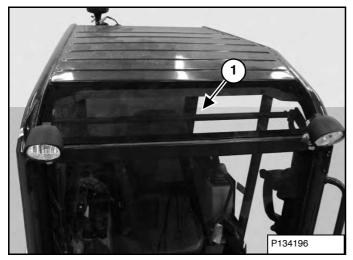


The overhead guard offers protection from smaller objects that can fall on the canopy or restricts material from entering canopy openings. It meets the top guard requirements in ISO 10262 [Figure 4].

See your Bobcat Dealer for more information.

# Falling-Object Protective Structure (FOPS) (Cab Model)

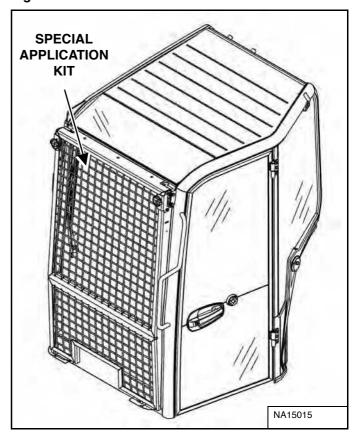
Figure 5



The top window (Item 1) [Figure 5] on cab models is a Falling Object Protective Structure (FOPS) that meets the top guard requirements in ISO 10262.

### **Special Applications Kit**

Figure 6



Available for special applications that require protection from objects entering the front of the excavator.

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

Kit includes an upper and lower 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 AND TRAINING RESOURCES**

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| Starting  |        |
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| Pictorial Only Safety Signs                     |        |

## **SAFETY INSTRUCTIONS**

## **Before Operation**

Carefully follow the operating and maintenance instructions in this manual.

The Bobcat excavator is highly manoeuvrable 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.

### **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

# **A** DANGER

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.

SI EXC EMEA-0913

### **SAFETY INSTRUCTIONS (CONT'D)**

#### **Avoid Silica Dust**



Cutting or drilling concrete containing sand or rock containing quartz may result in exposure to silica dust. Use a respirator, water spray or other means to control dust.

#### **FIRE PREVENTION**



#### Maintenance

The machine 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 operator's area, engine compartment and engine cooling system must be inspected every day and cleaned if necessary to prevent fire hazards and overheating.

All fuels, most lubricants and some coolants mixtures are flammable. Flammable fluids that are leaking or spilled onto hot surfaces or onto electrical components can cause a fire.

## Operation

Do not use the machine where exhaust, arcs, sparks or hot components can contact flammable material, explosive dust or gases.

#### **Electrical**



Check all electrical wiring and connections for damage. Keep the battery terminals clean and tight. Repair or replace any damaged part or wires that are loose or frayed.

Battery gas can explode and cause serious injury. Use the procedure in the Operation & Maintenance Manual for connecting the battery and for jump starting. Do not jump start or charge a frozen or damaged battery. Keep any open flames or sparks away from batteries. Do not smoke in battery charging area.

SI EXC EMEA-0913

#### FIRE PREVENTION (CONT'D)

### **Hydraulic System**

Check hydraulic tubes, hoses and fittings for damage and leakage. Never use open flame or bare skin to check for leaks. Hydraulic tubes and hoses must be properly routed and have adequate support and secure clamps. Tighten or replace any parts that show leakage.

Always clean fluid spills. Do not use petrol or diesel fuel for cleaning parts. Use commercial non-flammable solvents.

### **Fueling**



Stop the engine and let it cool before adding fuel. No smoking! Do not refuel a machine near open flames or sparks. Fill the fuel tank outdoors.

Ultra Low Sulfur Diesel (ULSD) poses a greater static ignition hazard than earlier diesel formulations with higher Sulfur content. Avoid death or serious injury from fire or explosion. Consult with your fuel or fuel system supplier to ensure the delivery system is in compliance with fueling standards for proper grounding and bonding practices.

### **Starting**

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.

Use the procedure in the Operation & Maintenance Manual for connecting the battery and for jump starting.

#### **Spark Arrester Exhaust System**

The spark arrester 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.

Check the spark arrester exhaust system regularly to make sure it is maintained and working properly. Use the procedure in the Operation & Maintenance Manual for cleaning the spark arrester muffler (if equipped).

#### **Welding And Grinding**

Always clean the machine and attachment, disconnect the battery, and disconnect the wiring from the Bobcat 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.

Dust generated from repairing non-metallic parts such as hoods, fenders or covers can be flammable or explosive. Repair such components in a well ventilated area away from open flames or sparks.

## **Fire Extinguishers**



Know where fire extinguishers and first aid kits are located and how to use them. Inspect the fire extinguisher and service the fire extinguisher regularly. Obey the recommendations on the instructions plate.

## **PUBLICATIONS AND TRAINING RESOURCES**

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

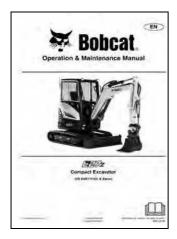
For the latest information on Bobcat products and the Bobcat Company, visit our Website at **Bobcat.com/** training or **Bobcat.com** 



OPERATOR'S HANDBOOK

7350243enGB

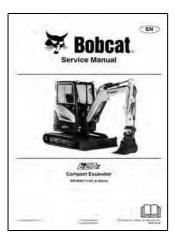
Gives basic operation instructions and safety warnings.



OPERATION & MAINTENANCE MANUAL

7354904enGB

- Complete instructions on the correct operation and the routine maintenance of the Bobcat excavator.



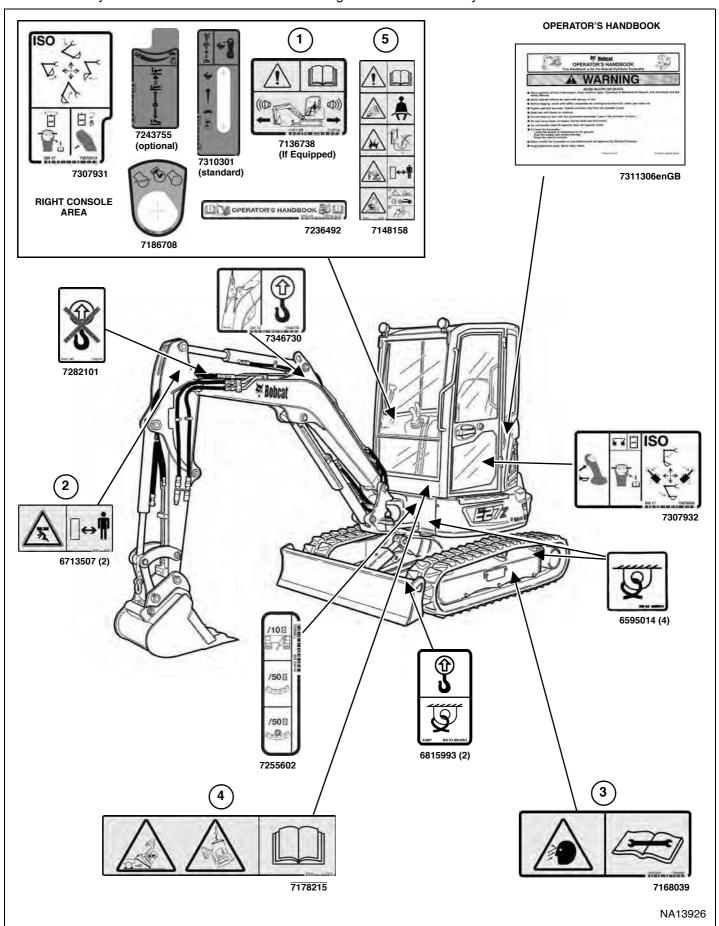
**SERVICE MANUAL** 

7354905enUS

- Complete maintenance instructions for the Bobcat excavator.

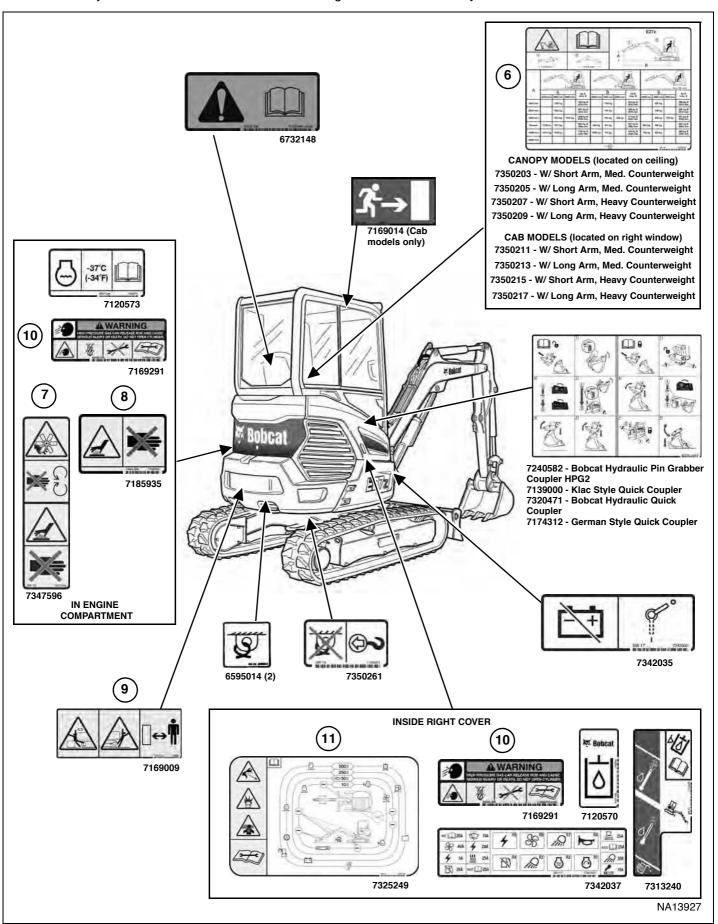
# **MACHINE SIGNS (DECALS)**

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



# **MACHINE SIGNS (DECALS) (CONT'D)**

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

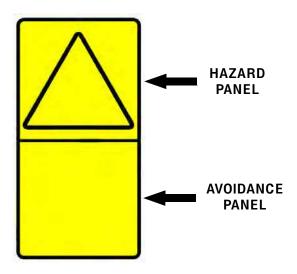


### MACHINE SIGNS (DECALS) (CONT'D)

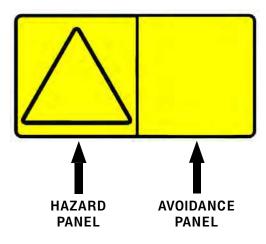
### **Pictorial Only Safety Signs**

Safety signs are used to alert the equipment operator or maintenance person to hazards that may be encountered in the use and maintenance of the equipment. The location and description of the safety signs are detailed in this section. Please become familiarized with all safety signs installed on the excavator.

Vertical Configuration



Horizontal Configuration



The format consists of the hazard panel(s) and the avoidance panel(s):

Hazard panels depict a potential hazard enclosed in a safety alert triangle.

Avoidance panels depict actions required to avoid the hazards.

A safety sign may contain more than one hazard panel and more than one avoidance panel.

NOTE: See the numbered MACHINE SIGNS (DECALS) on Page 15 and Machine Signs (Decals) (Cont'd) on Page 16 for the machine location of each corresponding numbered pictorial only decals as shown below.

## 1. Motion Alarm (7136738)

This safety sign is located on the ceiling of canopy models and on the right window of cab models.





This machine is equipped with a motion alarm.

ALARM MUST SOUND!

when operating forward or backward.

Failure to maintain a clear view in the direction of travel could result in serious injury or death.

The operator is responsible for the safe operation of this machine.

W-2786-0309

# MACHINE SIGNS (DECALS) (CONT'D)

## Pictorial Only Safety Signs (Cont'd)

# 2. Crush Hazard (6713507)

This safety sign is located on both sides of the boom.



# **WARNING**

Keep away from the operating machine to avoid serious injury or death.

W-2520-0106

# 3. Thrown Or Flying Objects (7168039)

This safety sign is located on the outside of both tracks.



# **WARNING**

High pressure grease can cause serious injury. Do not loosen grease fitting. Do not loosen bleed fitting more than 1 - 1/2 turns.

Read and understand the Operation & Maintenance Manual for more information.

W-2516-0110

# 4. Transporting And Lifting (7178215)

This safety sign is located on the front of the cab.



# **WARNING**

Improper loading, transporting and lifting procedures can cause serious injury or death. Read and understand the Operation & Maintenance Manual prior to transporting or lifting the machine.

W-2517-0110

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