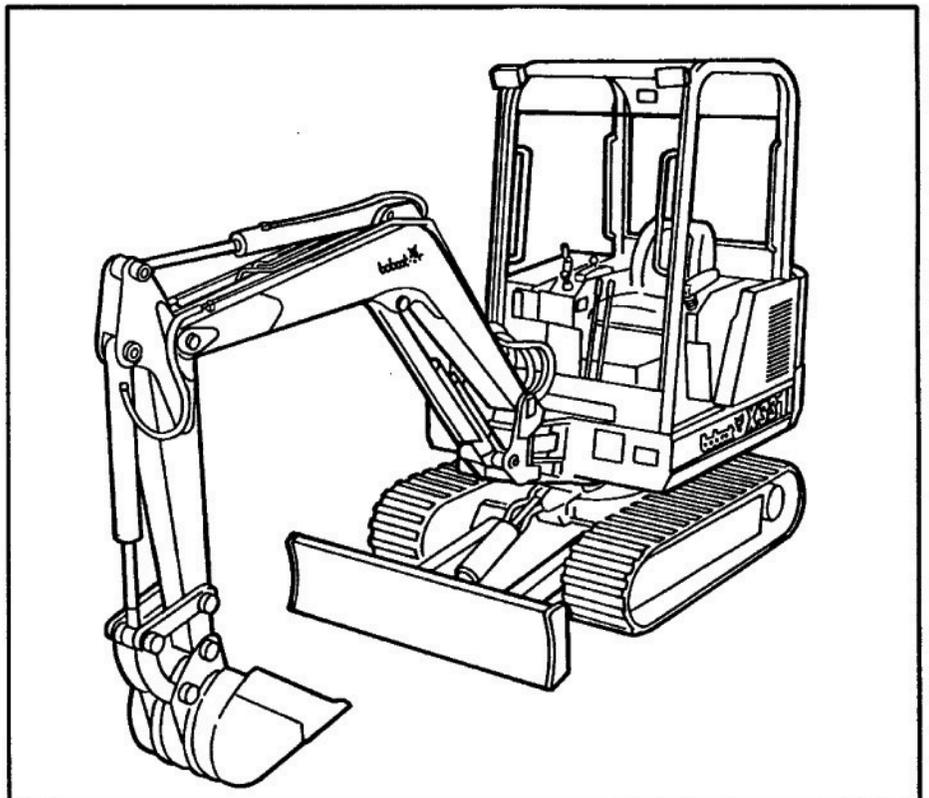


# X 331

## Excavator

# Operation & Maintenance Manual

(S/N 512911001 & Above)



*Doosan purchased Bobcat Company from Ingersoll-Rand Company in 2007. Any reference to Ingersoll-Rand Company or use of trademarks, service marks, logos, or other proprietary identifying marks belonging to Ingersoll-Rand Company in this manual is historical or nominative in nature, and is not meant to suggest a current affiliation between Ingersoll-Rand Company and Bobcat Company or the products of either.*

**MELROE**  
**INGERSOLL-RAND**

6722999 (6-96) Revised (5-12)

Printed in U.S.A.



© Melroe Company 1996



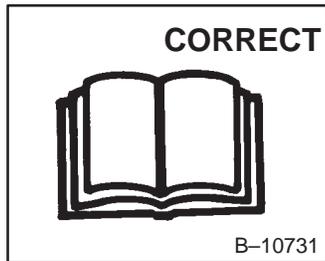
# OPERATOR SAFETY WARNINGS

## **WARNING**

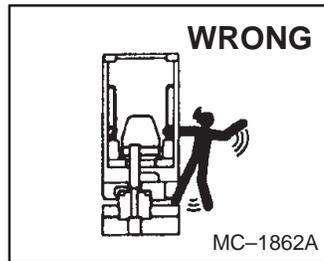
Operator must have instructions before running the machine. Untrained operators can cause injury or death.

W-2003-1089

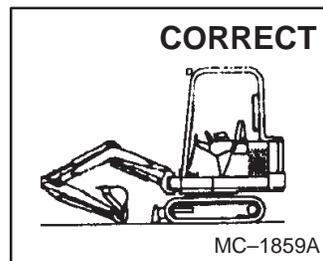
 **Safety Alert Symbol:** This symbol is used for important safety messages. When you see this symbol, follow the safety message to avoid personal injury or death.



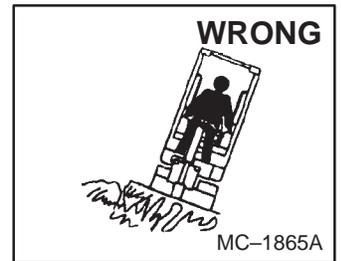
 Never operate without instructions. Read machine signs and Operation & Maintenance Manual.



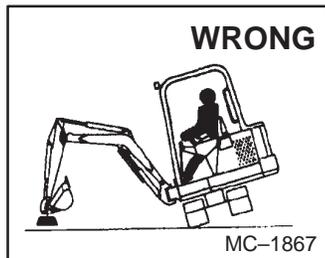
 Do not grasp control handles when entering canopy or cab.  
 Be sure controls are in neutral before starting.  
 Sound horn and check behind machine before starting.



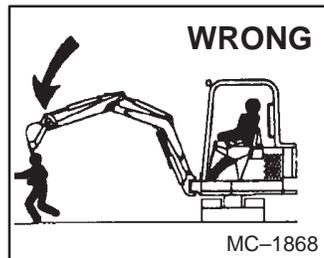
 Never operate without approved canopy or cab.  
 Never modify equipment.  
 Never use attachments not approved by Melroe Company.



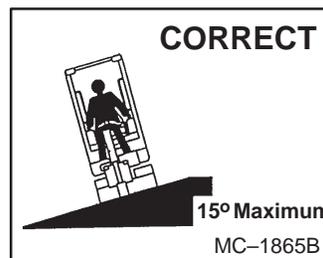
 Avoid steep areas or banks that could break away.



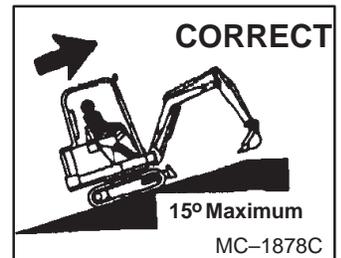
 Use caution to avoid tipping—do not swing heavy load over side of track.  
 Operate on flat, level ground.  
 Do not swing load on slopes.



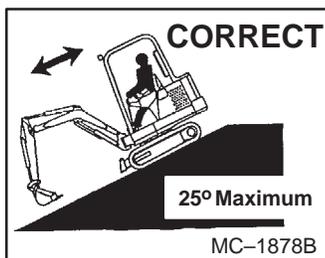
 Keep bystanders out of maximum reach area.  
 Do not travel or turn with bucket extended.  
 Never carry riders.



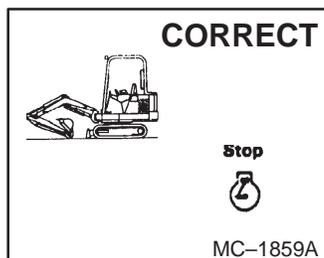
 Never exceed a 15° slope to the side.



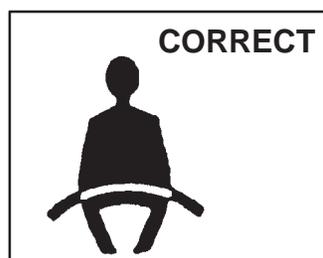
 Never travel up a slope that exceeds 15°.



 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. Swing Lock
3. ROPS Canopy or Cab
4. Machine Warning Signs
5. Safety Tread
6. Grab Handles



**bobcat**<sup>®</sup>

# CONTENTS

FOREWORD .....	iii
SAFETY INSTRUCTIONS .....	vii
OPERATING INSTRUCTIONS .....	1
PREVENTIVE MAINTENANCE .....	25
MACHINE SIGN TRANSLATIONS .....	49
SPECIFICATIONS .....	57

**FOREWORD**

**SAFETY**

## REFERENCE INFORMATION

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

Bobcat Hydraulic Excavator  
Serial Number ..... \_\_\_\_\_  
Engine Serial Number ..... \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**OPERATING  
INSTRUCTIONS**

**PREVENTIVE  
MAINTENANCE**

**MACHINE SIGN  
TRANSLATIONS**

**NOTES:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**SPECIFICATIONS**

**YOUR BOBCAT EXCAVATOR DEALER:** \_\_\_\_\_  
**ADDRESS:** \_\_\_\_\_  
**PHONE:** \_\_\_\_\_

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

Melroe Europe  
J. Huysmanslaan 59  
B-1651 LOT  
BELGIUM



## Melroe Company is ISO 9001 certified

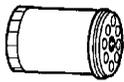
ISO 9001 is a set of international standards that control the processes and procedures which we use to design, develop, manufacture, distribute, and service Melroe Company products.

British Standards Institute (BSI) is the Certifier Registrar Melroe chose to assess the Company's compliance with the ISO 9001 set of standards. The BSI registration certifies that the two Melroe manufacturing plants and the Melroe corporate offices (Gwinner, Bismarck & 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 Melroe Company produces your Bobcat loader, Excavator, Spra-Coupe and attachments with strict attention to details, using the latest technology and proven techniques.

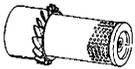
### REGULAR MAINTENANCE ITEMS



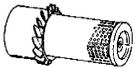
3974896 ENGINE OIL FILTER



6647773 FUEL FILTER



6598492 AIR CLEANER FILTER (Primary)



6598362 AIR CLEANER FILTER (Secondary)

3974310 RADIATOR CAP



6653336 HYDRAULIC FILTER



6655093 BATTERY



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

6724354 PROPLYLENE GLYCOL ANTI-FREEZE, Concentrate

6563328 BLACK GOLD Hydraulic/Hydrostatic Fluid – 5 Gallons

6657299 MOTOR OIL 15W40 CE/SG – 1 Qt.

6657300 MOTOR OIL 15W40 CE/SG – 5 Qt.

6657301 MOTOR OIL 10W30 CE/SG – 1 Qt.

6657302 MOTOR OIL 10W30 CE/SG – 5 Qt.

6657303 MOTOR OIL 30 CE/SG – 1 Qt.

6657304 MOTOR OIL 30 CE/SG – 5 Qt.

# FOREWORD

This manual gives the owner/operator necessary operating, and preventive maintenance instructions for the Bobcat Hydraulic Excavator.

Read this manual completely and know the Bobcat Hydraulic Excavator before operating and servicing it. All references to *left* or *right* on the excavator are given in relation to the operator's left or right hand while in the operator's seat.

For further information, see your Bobcat Hydraulic Excavator dealer. Parts Manuals, Service Manuals and extra Operation & Maintenance Manuals are also available.

SERIAL NUMBER LOCATIONS ..... v  
DELIVERY REPORT ..... v  
BOBCAT HYDRAULIC EXCAVATOR IDENTIFICATION ..... vi

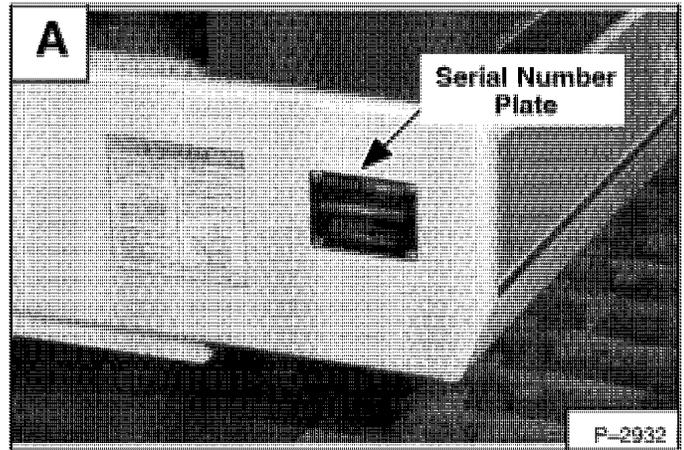


## SERIAL NUMBER LOCATIONS

Always use the FULL serial number (including the first four digits) 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.

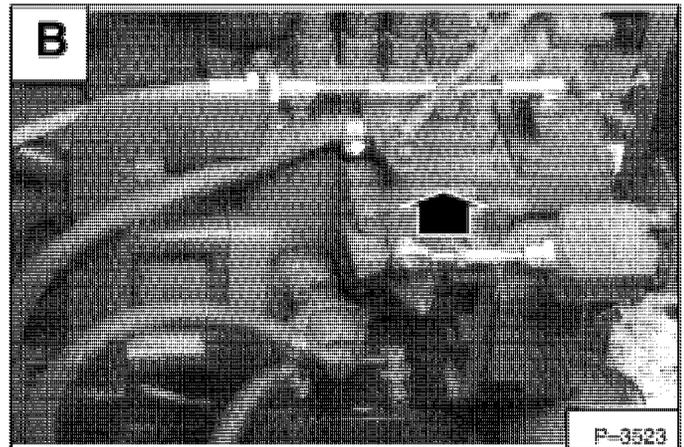
### HYDRAULIC EXCAVATOR SERIAL NUMBER

The excavator serial number is on the front of the machine frame, to the left of the boom [A].



### ENGINE SERIAL NUMBER

The engine serial number is located by the fuel injection pump on the engine block [B].



## DELIVERY REPORT

The Delivery Report items must be explained to the owner/operator by the dealer. The dealer is to fill out the form and the owner/operator signs the form to indicate his understanding [C].

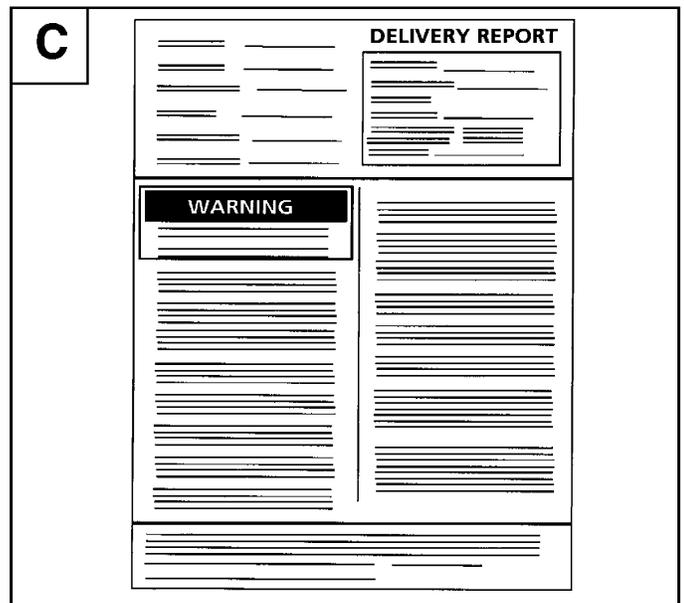


Image C shows a form titled 'DELIVERY REPORT'. The form is divided into several sections. At the top right, there is a section labeled 'DELIVERY REPORT' with several lines of text. Below this, there is a section labeled 'WARNING' with a black header and several lines of text. At the bottom of the form, there are several lines of text for a signature or date. The letter 'C' is in a white box in the top left corner.



This as a preview PDF file from [best-manuals.com](http://best-manuals.com)



Download full PDF manual at [best-manuals.com](http://best-manuals.com)