

X 331

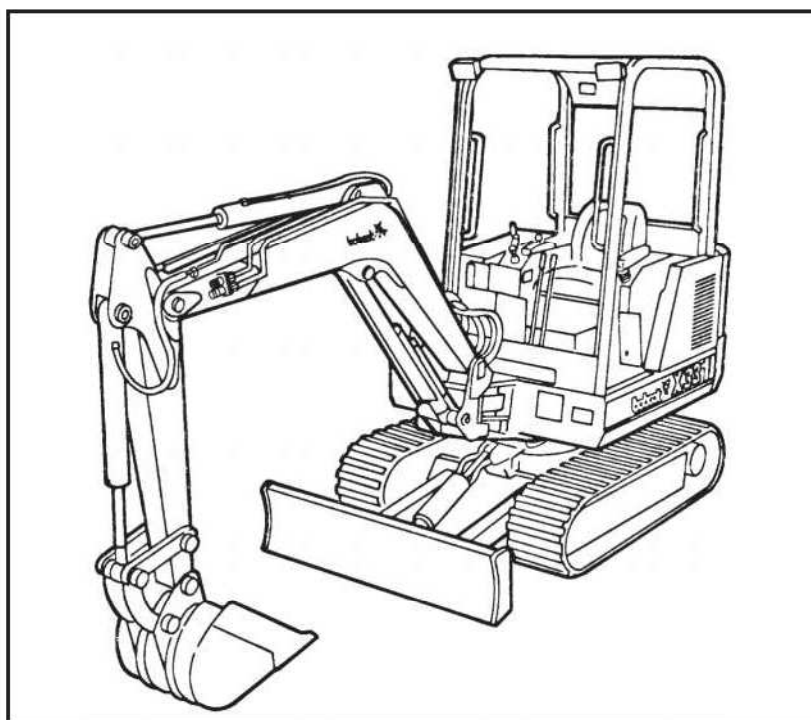
X 331E

X 334

Excavator

**Service
Manual**

**331 (S/N 512913001 & Above)
331E (S/N 517711001 & Above)
334 (S/N 516711001 & Above)**



**MELROE
INGERSOLL-RAND**

6900464(2-98)
1 of 525



© Melroe Company 1998
Printed in U.S.A.

MAINTENANCE SAFETY



WARNING

Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manual, Operator's Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death.

W-2003-0903



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

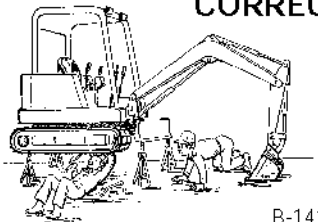
CORRECT



B-10731a

- Never service the Bobcat Hydraulic Excavator without instructions.

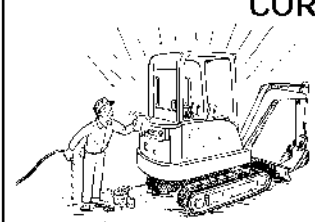
CORRECT



B-14148

- Use the correct procedure to lift and support the excavator.
- Always lift the blade fully before installing jackstands.

CORRECT



B-14142

- Cleaning and maintenance are required daily.

WRONG



B-14147

- Have good ventilation when welding or grinding painted parts.
- Wear dust mask when grinding painted parts. Toxic dust and gas can be produced.

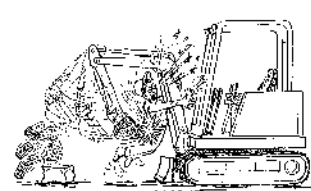
WRONG



B-14141

- Vent exhaust to outside when engine must be run for service.
- Exhaust system must be tightly sealed. Exhaust Fumes can kill without warning.

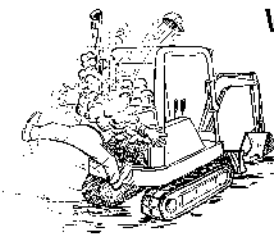
WRONG



B-14145

- Always lower the bucket and blade to the ground before doing any maintenance.
- Never modify equipment or add attachments not approved by Bobcat Company.

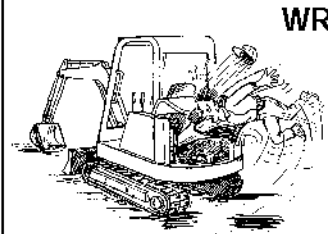
WRONG



B-14146

- Stop, cool and clean engine of flammable materials before checking fluids.
- Never service or adjust machine with the engine running unless instructed to do so in the manual.
- Avoid contact with leaking hydraulic fluid or diesel fuel under pressure. It can penetrate the skin or eyes.
- Never fill fuel tank with engine running, while smoking or when near open flame.

WRONG



B-14143

- Keep body, jewelry and clothing away from moving parts, electrical contact, hot parts and exhaust.
- Wear eye protection to guard from battery acid, compressed springs, fluids under pressure and flying debris when engines are running or tools are used. Use eye protection approved for type of welding.
- Keep rear door closed except for service. Close and latch door before operating the excavator.

WRONG



B-6589

- Lead-acid batteries produce flammable and explosive gases.
- Keep arcs, sparks, flames and lighted tobacco away from batteries.
- Batteries contain acid which burns eyes or skin on contact. Wear protective clothing. If acid contacts body, flush well with water. For eye contact flush well and get immediate medical attention.

Maintenance procedures which are given in the Operation & Maintenance Manual can be performed by the owner/operator without any specific technical training. Maintenance procedures which are **not** in the Operation & Maintenance Manual must be performed **ONLY BY QUALIFIED BOBCAT SERVICE PERSONNEL**. Always use **genuine Bobcat replacement parts**. The Service Safety Training Course is available from your Bobcat dealer.

MSW20-0805



Bobcat®

ALPHABETICAL INDEX

ACCUMULATOR	2-1	GAUGES	6-1
AIR CLEANER	1-1, 7-1	GLOW PLUGS	7-1
ALTERNATOR	6-1		
ALTERNATOR BELT	1-1	HORN	6-1
ANTI-FREEZE SOLUTION	8-1	HYDRAULIC CONTROL VALVE (5-Spool)	2-1
ARM	4-1	HYDRAULIC CYLINDER	2-1
ARM BUSHINGS	4-1	HYDRAULIC EXCAVATOR SPECIFICATIONS	8-1
ARM CYLINDER	2-1	HYDRAULIC FILTER ASSEMBLY	2-1
AUXILIARY SELECTOR VALVE	2-1	HYDRAULIC PUMP	2-1
		HYDRAULIC RESERVOIR AND	
BATTERY	6-1	FUEL RESERVOIR	2-1
BLADE	5-1	HYDRAULIC SERVICE INFORMATION	2-1
BLADE CYLINDER	2-1	HYDRAULIC SYSTEM	1-1
BOOM	4-1	HYDRAULIC SYSTEM TROUBLESHOOTING	2-1
BOOM BUSHING	4-1		
BOOM CYLINDER	2-1	IDLER GEAR AND CAMSHAFT	7-1
BOOM PIVOT BUSHING	4-1	INSTRUMENT PANEL	
BOOM SWING BRACKET	4-1	(331 S/N 512913001-512915199)	6-1
BOOM SWING CYLINDER	2-1		
BUCKET (PIN ON)	4-1	JOYSTICK	3-1
BUCKET CYLINDER	2-1	JOYSTICK CONTROL CHANGE	2-1
BUCKET TEETH	4-1		
BUILD UP VALVE	2-1	LEFT CONSOLE (331 S/N 512913001-512915199)	3-1
BUZZER	6-1	LEFT CONSOLE (331 S/N 512915200 & Above)	
		(331E 517711001 & Above)	
CAB	4-1	(334 S/N 516711001 & Above)	3-1
CAB/CANOPY REAR COVER	4-1	LEFT CONSOLE COVER (331 S/N 512915200 &	
CAB ELECTRICAL	6-1	Above) (331E 517711001 & Above)	
CENTER SWIVEL JOINT	4-1	(334 S/N 516711001 & Above)	3-1
COUNTERWEIGHTS	4-1	LEFT HAND CORNER POST	4-1
COOLING SYSTEM	1-1	LEFT HAND SIDE COVER	4-1
CRANKSHAFT AND BEARINGS	7-1	LIFTING AND BLOCKING THE EXCAVATOR	1-1
CRANKSHAFT GEAR	7-1	LUBRICATION OF THE EXCAVATOR	1-1
CROSS PORT RELIEF VALVE	2-1		
CYLINDER BORE	7-1	MAIN RELIEF VALVES (Adjustable)	2-1
CYLINDER HEAD	7-1	MUFFLER	7-1
DIODES (331 S/N 512915200 & Above)		OIL COOLER	2-1
(331E 517711001 & Above)		OIL PUMP	7-1
(334 S/N 516711001 & Above)	6-1		
DECIMAL & MILLIMETER EQUIVALENTS	8-1	PISTON AND CONNECTING ROD	7-1
		PORT BLOCK	2-1
ELECTRICAL SYSTEM	1-1, 6-1	PORT RELIEF VALVES AND	
ENGINE	7-1	MAIN RELIEF VALVES	2-1
ENGINE COMPRESSION	7-1		
ENGINE COVER	1-1, 4-1	RADIATOR	7-1
ENGINE FLYWHEEL	7-1	REAR FLOOR PLATE	4-1
ENGINE LUBRICATION SYSTEM	1-1	RIGHT CONSOLE (331 S/N 512913001-512915199)	3-1
ENGINE OIL SPECIFICATIONS	8-1	RIGHT CONSOLE (331 S/N 512915200 & Above)	
ENGINE SPECIFICATIONS	8-1	(331E 517711001 & Above)	
EXTENDIBLE ARM	4-1	(334 S/N 516711001 & Above)	3-1
EXTENDIBLE ARM CYLINDER	2-1	RIGHT CONSOLE COVER	
		(331 S/N 512913001-512915199)	3-1
FAN GUARD	7-1	RIGHT CONSOLE COVER (331 S/N 512915200 &	
FUEL CAMSHAFT	7-1	Above) (331E 517711001 & Above)	3-1
FUEL, COOLANT AND LUBRICANTS	8-1	(334 S/N 516711001 & Above)	3-1
FUEL INJECTOR NOZZLES	7-1	RIGHT HAND CORNER POST	4-1
FUEL INJECTION PUMP	7-1	RIGHT HAND SIDE COVER	4-1
FUEL LEVEL SENDER	6-1	ROCKER ARM AND SHAFT	7-1
FUEL SHUT-OFF SOLENOID	7-1	ROPS CANOPY	4-1
FUEL SYSTEM	1-1		
FLOORMAT AND FLOOR PLATE	4-1		
FRONT ENGINE COVER	4-1		

ALPHABETICAL INDEX (Cont'd)

SEAT AND SEAT MOUNT	4-1
SERVICE SCHEDULE	1-1
SPARK ARRESTOR MUFFLER	1-1
STARTER	6-1
STEERING LEVER AND PEDALS	3-1
SWING BRACKET BUSHING	4-1
SWING MOTOR	4-1
SWING MOTOR COVER	4-1
SWING MOTOR DRIVE CARRIER	4-1
TIMER (331 S/N 512915200 & Above)	
(331E 517711001 & Above)	
(334 S/N 516711001 & Above)	6-1
TIMING GEARCASE COVER	7-1
TIMING GEARS	7-1
TRACK	5-1
TRACK DAMAGE IDENTIFICATION	5-1
TRACK FRAME	5-1
TRACK IDLER	5-1
TRACK ROLLER	5-1
TRANSPORTING THE EXCAVATOR	1-1
TRAVEL MOTOR	1-1, 5-1
TROUBLESHOOTING	6-1, 7-1
TOOL BOX	4-1
UPPERSTRUCTURE AND SWING CIRCLE GEAR	
U.S. TO METRIC CONVERSION	8-1
VALVE CLEARANCE	7-1
VALVE, VALVE SEAT AND GUIDE	7-1
WATER PUMP	7-1
X-CHANGE	4-1

CONTENTS

SAFETY INSTRUCTIONS	v
FOREWORD	iii
SERIAL NUMBER LOCATIONS	vi
DELIVERY REPORT	vi
MACHINE SIGNS TRANSLATIONS (Decals)	ix
HYDRAULIC EXCAVATOR IDENTIFICATION	viii
PREVENTIVE MAINTENANCE	1-1
HYDRAULIC SYSTEM	2-1
DRIVE SYSTEM	3-1
UPPER WORKS & SWING SECTION	4-1
MAIN FRAME & TRACKS	5-1
ELECTRICAL SYSTEM	6-1
ENGINE SERVICE	7-1
SPECIFICATIONS	8-1

PREVENTIVE
MAINTENANCE

HYDRAULIC
SYSTEM

DRIVE
SECTION

UPPER WORKS
& SWING
SECTION

MAIN FRAME
& TRACKS

ELECTRICAL
SYSTEM

ENGINE
SERVICE

SPECIFICATIONS

Please Click Here To Download The Complete Manual
Download Other Manuals
If Having Any Questions Feel Free To Contact us

admin@servicemanualbit.com