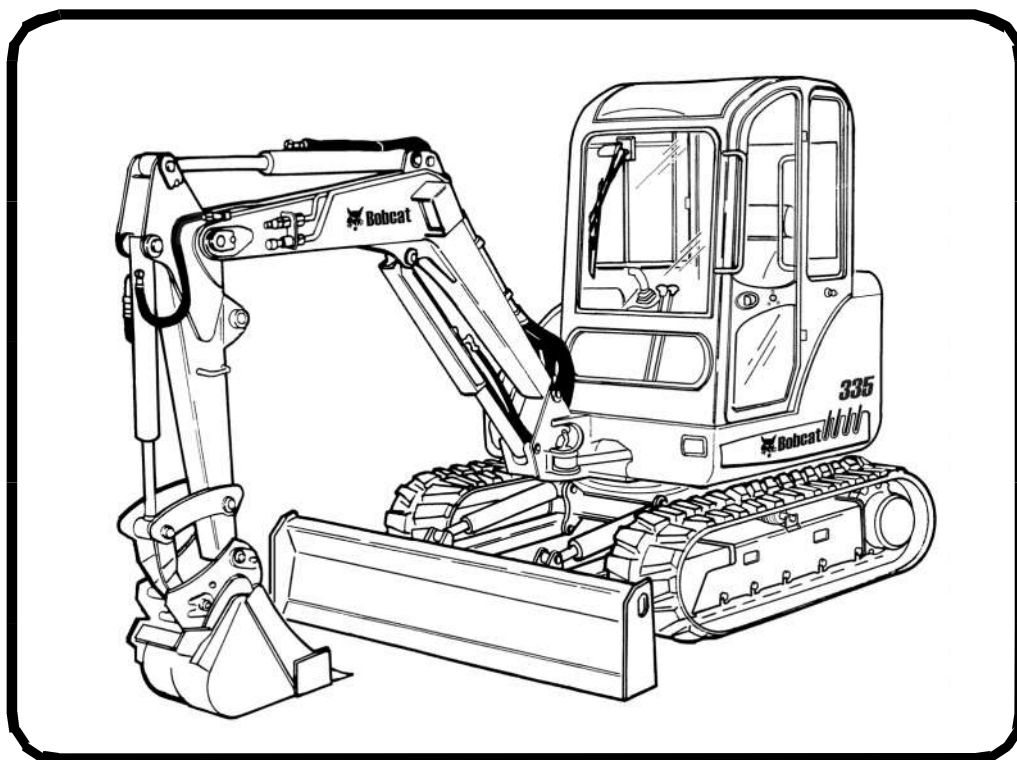




Service Manual

335 Compact Excavator

S/N AAD111001 & Above
S/N A9KA11001 & Above



MAINTENANCE SAFETY



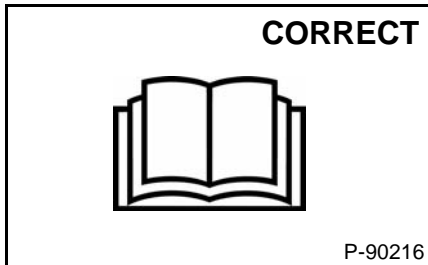
WARNING

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-2003-0807

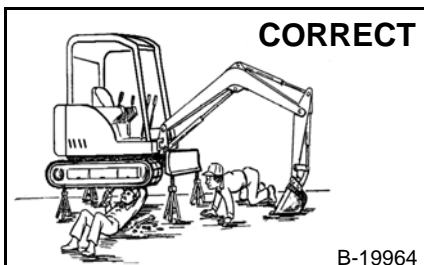


Safety Alert Symbol: This symbol with a warning statement, means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.



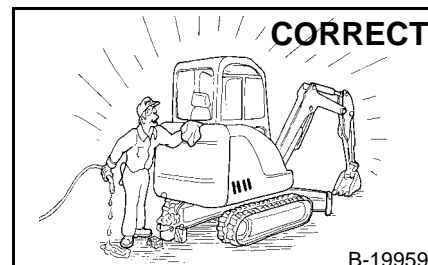
P-90216

- ⚠ Never service the Bobcat Excavator without instructions.



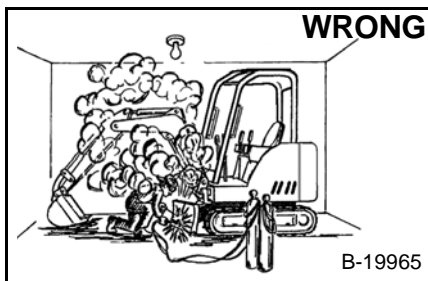
B-19964

- ⚠ Use the correct procedure to lift and support the excavator.



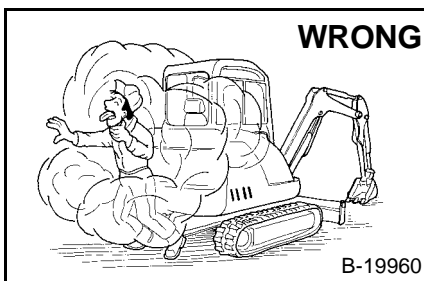
B-19959

- ⚠ Cleaning and maintenance are required daily.



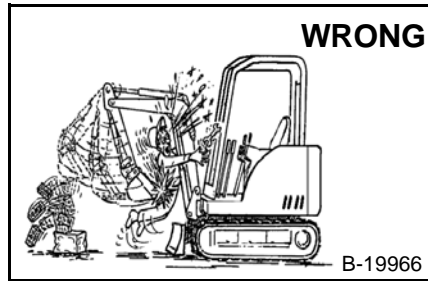
B-19965

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



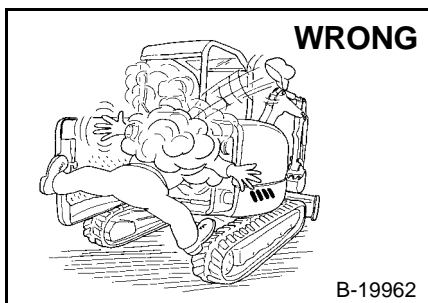
B-19960

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



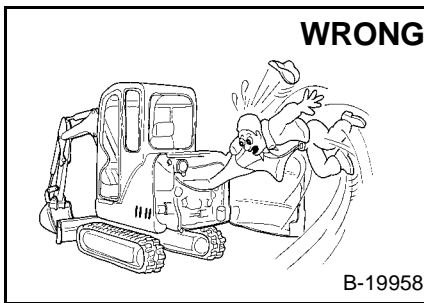
B-19966

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



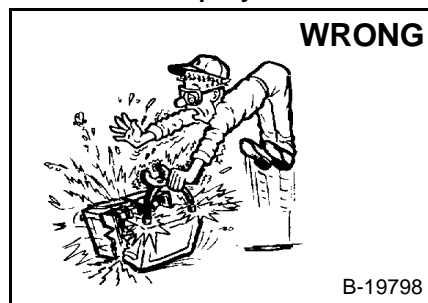
B-19962

- ⚠ 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.



B-19958

- ⚠ 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 protections approved for type of welding.
- ⚠ Keep tailgate closed except for service. Close and latch tailgate before operating the excavator.



B-19798

- ⚠ 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.

MSW28-0409



Bobcat®

ALPHABETICAL INDEX

ACCESSORY DRIVE BELT	10-01	EXCAVATOR STORAGE AND RETURN TO SERVICE	10-01
AIR CLEANER	60-01	EXPANSION VALVE	70-01
AIR CLEANER SERVICE	10-01	FAN	60-01
AIR CONDITIONING SYSTEM FLOW	70-01	FLOORMAT AND FLOOR PANEL	40-01
ALTERNATOR	50-01	FUEL LEVEL SENDER	50-01
ANGLE BLADE	30-01	FUEL SYSTEM.....	10-01, 60-01
ANGLE BLADE ASSEMBLY	30-01	FUEL TANK	40-01
ANGLE BLADE CUTTING EDGE	30-01	FLYWHEEL AND HOUSING	60-01
ANGLE BLADE CYLINDER	20-01		
ANGLE BLADE VALVE	20-01		
ARM	40-01	HEATER COIL	70-01
ARM CYLINDER	20-01	HEATER VALVE	70-01
		HORN	40-01
BATTERY	50-01	HYDRAULIC CONTROL VALVE	20-01
BLADE	30-01	HYDRAULIC CONNECTION SPECIFICATIONS	SPEC-01
BLADE CONTROL	40-01	HYDRAULIC FLUID SPECIFICATIONS.....	SPEC-01
BLADE CYLINDER	20-01	HYDRAULIC FILTER.....	20-01
BLOWER FAN	70-01	HYDRAULIC PUMP	20-01
BOOM	40-01	HYDRAULIC PUMP START-UP	20-01
BOOM CYLINDER.....	20-01	HYDRAULIC RESERVOIR.....	20-01
BOOM SWING CYLINDER.....	20-01	HYDRAULIC SYSTEM	10-01
BOOM SWING LOCK VALVE	20-01	HYDRAULIC SYSTEM INFORMATION	20-01
BOOM SWING PEDAL	20-01	HYDRAULIC X-CHANGE VALVE	20-01
BUCKET	40-01		
BUCKET CYLINDER	20-01		
		LEFT CONTROL LEVER (JOYSTICK)	20-01
CAB.....	40-01	LEFT CONSOLE	40-01
CAMSHAFT AND TIMING GEARS.....	60-01	LIFTING AND BLOCKING THE EXCAVATOR	10-01
CANOPY	40-01	LIFTING THE EXCAVATOR	10-01
CASE DRAIN FILTER	20-01	LIGHTS.....	50-01
COMPRESSOR	70-01	LUBRICATING THE EXCAVATOR	10-01
CONDENSOR	70-01	LUBRICATION SYSTEM	60-01
CONVERSIONS	SPEC-01		
CONTROL PATTERN SELECTOR VALVE	20-01	MAGNETIC LOCKOUT SENSOR	50-01
CRANKSHAFT AND PISTONS	60-01	MAIN RELIEF VALVE	20-01
CROSS PORT RELIEF VALVES	20-01	MANIFOLD ASSEMBLY/ACCUMULATOR	20-01
CYLINDER HEAD	60-01		
		OIL COOLER.....	20-01
DIAGNOSTICS SERVICE CODES.....	50-01	OPERATOR CAB (ROPS/TOPS)	10-01
DIRECT TO TANK VALVE	20-01		
		PIVOT PINS	10-01
ELECTRICAL SYSTEM INFORMATION	50-01	PORT RELIEF VALVES.....	20-01
ENGINE COOLING SYSTEM.....	10-01, 60-01	PRESSURE REDUCING VALVE.....	20-01
ENGINE INFORMATION	60-01		
ENGINE LUBRICATION SYSTEM.....	10-01	RECEIVER/DRIER	70-01
ENGINE SPEED CONTROL	60-01	REGULAR MAINTENANCE	70-01
EVAPORATOR COIL	70-01	RIGHT CONTROL LEVER (JOYSTICK)	20-01
EVAPORATOR/HEATER UNIT	70-01	RIGHT CONSOLE	40-01
EVAPORATOR SPECIFICATIONS	SPEC-01	RIGHT SIDE COVER	10-01, 40-01

Continued On Next Page

ALPHABETICAL INDEX (CONT'D)

SAFETY	70-01
SEAT AND SEAT MOUNT	40-01
SEAT BELT	10-01
SERVICE SCHEDULE	10-01
SLEW LOCK VALVE	20-01
SPARK ARRESTOR MUFFLER	10-01, 60-01
STARTER	50-01
STOPPING THE ENGINE AND LEAVING THE EXCAVATOR	10-01
SWING CIRCLE GEAR	30-01
SWING FRAME	40-01
SWING MOTOR	20-01
SWING MOTOR DRIVE CARRIER	20-01
SWIVEL JOINT	20-01
SYSTEM CHARGING AND RECLAMATION	70-01
TAILGATE	10-01, 40-01
THERMOSTAT	70-01
TORQUE SPECIFICATIONS FOR BOLTS	SPEC-01
TRACK FRAME COMPONENTS	30-01
TRANSPORTING THE EXCAVATOR ON A TRAILER	10-01
TRAVEL CONTROL VALVE	20-01
TRAVEL LEVER/PEDALS	40-01
TRAVEL MOTOR	10-01, 20-01
TROUBLESHOOTING	70-01
UPPERSTRUCTURE	40-01
UPPERSTRUCTURE SLEW LOCK	10-01, 40-01
X-CHANGE	40-01
X-CHANGE (HYDRAULIC)	40-01

CONTENTS

FOREWORD.....	II
SAFETY INSTRUCTIONS	IV
FIRE PREVENTION	VI
SERIAL NUMBER LOCATIONS	VIII
DELIVERY REPORT.....	IX
EXCAVATOR IDENTIFICATION	X
SAFETY AND MAINTENANCE.....	10-01
HYDRAULIC SYSTEM	20-01
UNDERCARRIAGE.....	30-01
UPPERSTRUCTURE & SWING SECTION	40-01
ELECTRICAL SYSTEM AND ANALYSIS	50-01
ENGINE SERVICE	60-01
HEATING, VENTILATION, AIR CONDITIONING	70-01
SPECIFICATIONS.....	SPEC-01

**SAFETY AND
MAINTENANCE**

**HYDRAULIC
SYSTEM**

UNDERCARRIAGE

**UPPERSTRUCTURE
& SWING
SECTION**

**ELECTRICAL
SYSTEM AND
ANALYSIS**

**ENGINE
SERVICE**

HVAC

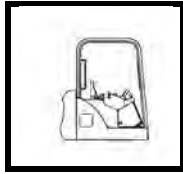
SPECIFICATIONS

FOREWORD

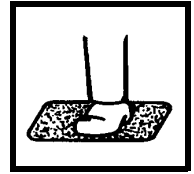
This manual is for the Bobcat excavator mechanic. It provides necessary servicing and adjustment procedures for the Bobcat excavator and its component parts and systems. Refer to the Operation & Maintenance Manual for operating instructions, starting procedure, daily checks, etc.

A general inspection of the following items must be made after the excavator has had service or repair:

1. Check that the ROPS/TOPS/FOPS is in good condition and is not modified.



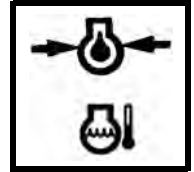
9. Safety treads must be in good condition.



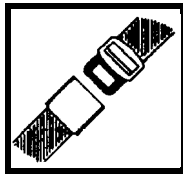
2. Check that ROPS/TOPS mounting hardware is tightened and is Bobcat approved.



10. Check for correct function of indicator lamps.



3. The seat belt must be correctly installed, functional and in good condition.



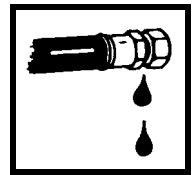
11. Check hydraulic fluid level, engine oil level and fuel supply.



4. Machine signs (decals) must be legible and in the correct location.



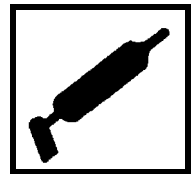
12. Inspect for fuel, oil or hydraulic fluid leaks.



5. Travel levers, control levers and foot pedals must return to neutral. Check that the pedal locks are in working order.



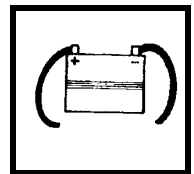
13. Lubricate the excavator.



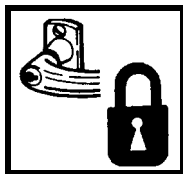
6. Check for correct function of the work lights.



14. Check the condition of the battery and cables.



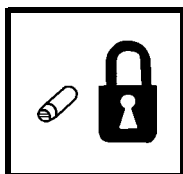
7. Enclosure door latches must open and close freely.



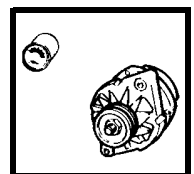
15. Inspect the air cleaner for damage or leaks. Check the condition of the element.



8. Attachment locking pins must function correctly and be in good condition.

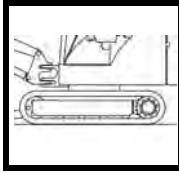


16. Check the electrical charging system.

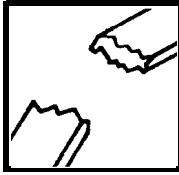


FW EXC-0509 SM

17. Check tracks for wear and tension. Use only approved tracks.



18. Inspect for loose or broken parts or connections.



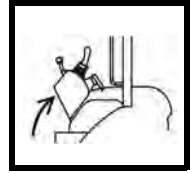
19. Check for any field modification not completed.



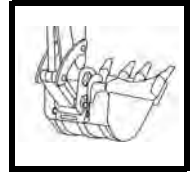
20. Operate the machine and check all functions.



21. Check the control console interlocks for correct function.



22. Inspect the X-Change™ for wear or damage. Repair or replace damaged parts.



23. Check function or condition of all equipped options and accessories (examples: special applications kit, motion alarm, etc.).



24. Recommend to the owner that all necessary corrections be made before the machine is returned to service.



**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.

SAFETY INSTRUCTIONS



Safety Alert Symbol

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



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

IMPORTANT

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

I-2019-0284



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 following publications 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 is in safe operating condition.
- The Operation & Maintenance Manual delivered with the machine or attachment contains 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 fastened to the operator cab. 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 Service Manual and Parts Manual are available from your dealer for use by mechanics to do shop-type service and repair work.
- The Compact Excavator Operator Training Course is available through your local dealer or at www.training.bobcat.com or www.bobcat.com. 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 or at www.training.bobcat.com or www.bobcat.com. They provide information for safe and correct service procedures.
- The Bobcat compact excavator Safety Video is available from your Bobcat dealer or at www.training.bobcat.com or www.bobcat.com.

SI EXC-0308 SM

SAFETY INSTRUCTIONS (CONT'D)

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.



Cutting or drilling concrete containing sand or rock containing quartz may result in exposure to silica dust. Do not exceed Permissible Exposure Limits (PEL) to silica dust as determined by OSHA or other job site Rules and Regulations. Use a respirator, water spray or other means to control dust. Silica dust can cause lung disease and is known to the state of California to cause cancer.

Call Before You Dig
Dial 811 (USA Only)
1-888-258-0808 (USA & Canada)

When you call, you will be directed to a location in your state / province, or city for information about buried lines (telephone, cable TV, water, sewer, gas, etc.).

Dear

**Thanks very much for your visiting and
patience.**

Want to get more information,

Please click here, Go back to the page.

**After your payment, you will have instant access to
your download.**

The Download Link will also be sent to your e-mail.

You will get the complete manual

Have any questions

please write to me

admin@servicemanualperfect.com