



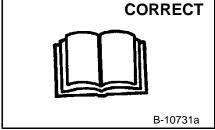
### **MAINTENANCE SAFETY**



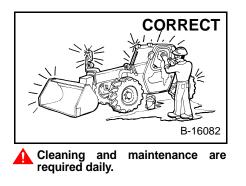
Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manual, Operator's Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after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

message that follows.



Never service the Bobcat Telescopic Handler without instructions.



Have

parts.

welding

good

can be produced.

or

Wear dust mask when grinding

painted parts. Toxic dust and gas

Avoid exhaust fume leaks which

system must be tightly sealed.

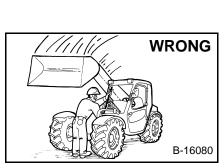
can kill without warning. Exhaust

WRONG

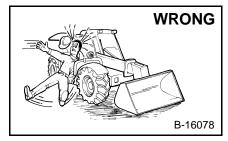
B-16081

ventilation when

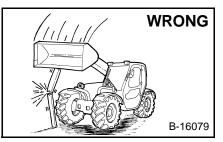
grinding painted



Disconnecting or loosening any hydraulic tubeline, hose, fitting, component or a part failure can cause boom to drop. Do not go under boom when raised unless supported by an approved boom stop. Replace if damaged.



- 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.



means: "Warning, be alert! Your safety is involved!" Carefully read the

> Never work on Telescopic Handler with boom up unless boom is held by an approved boom stop. Replace if damaged. Never modify equipment or add attachments not approved by Bobcat Company.



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.

MSW12-0805

#### ALPHABETICAL INDEX

AIR CLEANER	
AIR CLEANER SERVICE	
AIR CONDITIONING SERVICE	80-90-1
AIR CONDITIONING SYSTEM FLOW	
ALTERNATOR	60-30-1
APPROVED BOOM STOP	10-150-1
AXLE AND DIFFERENTIAL (FRONT)	
AXLE AND DIFFERENTIAL (REAR)	
AXLE TOE-IN	40-40-1
AXLES (FRONT AND REAR)	10-110-1

GEAR PUMP	20-130-1
GENERAL AIR CONDITIONING SERVICE GUIDELINES	S80-60-1

HEATER ASSEMBLY
HYDRAULIC CONNECTION SPECIFICATIONS SPEC-50-1
HYDRAULIC CONTROL VALVE
HYDRAULIC/HYDROSTATIC FLUID SPECIFICATIONS SPEC-60-1
HYDRAULIC / HYDROSTATIC SYSTEM 10-100-1
HYDRAULIC RESERVOIR
HYDRAULIC SYSTEM INFORMATION 20-10-1
HYDROSTATIC DRIVE MOTOR 30-30-1
HYDROSTATIC PUMP
HYDROSTATIC SYSTEM INFORMATION

BASIC TROUBLESHOOTING	80-50-1
BATTERY	60-20-1
BOOM ASSEMBLY	
BRAKE VALVE	
BUCKET POSITIONING CYLINDER.	

INCHING SWITCH	60-150-1
INNER BOOM	
INSTRUMENT PANEL	60-80-1

CAMSHAFT AND TIMING GEARS	
COMPONENTS	80-20-1
COMPRESSOR	
CONDENSER	
CONVERSIONS	SPEC-70-1
CRANKSHAFT AND PISTONS	
CYLINDER HEAD	

### 

ELECTRICAL SYSTEM INFORMATION	60-10-1
ENGINE AND ENGINE MOUNTS	70-11-1
ENGINE AND HYDROSTAT ASSEMBLY	70-12-1
ENGINE COOLING SYSTEM	10-70-1
ENGINE COOLING SYSTEM	70-50-1
ENGINE COVER	10-160-1
ENGINE COVER	50-70-1
ENGINE LUBRICATION SYSTEM	10-90-1
ENGINE SPECIFICATIONS	SPEC-01
ENGINE SPEED CONTROL	70-20-1
EVAPORATOR/BLOWER UNIT	80-150-1
EXPANSION VALVE	80-160-1
EXTENSION CYLINDER	20-40-1

FENDER	50-110-1
FUEL SYSTEM	
FRONT AUXILIARY HYDRAULIC PRESSURE R	
FRONT AXLE	40-30-1
FRONT WIPER MOTOR	60-110-1
FUEL SYSTEM	10-80-1
FUEL TANK	50-80-1

JOYSTICK	. 20-180-1
JOYSTICK PANEL	. 50-120-1

LIFT CYLINDER	20-20-1
LIFTING AND BLOCKING THE TELESCOPIC HA	NDLER . 10-10-1
LIGHTS	60-60-1
LUBRICATION	10-120-1
LUBRICATION SYSTEM	

### ALPHABETICAL INDEX (CONT'D)

MACHINE TORQUE SPECIFICATIONS	SPEC-30-1
MAIN RELIEF VALVE	
MANIFOLD	20-240-1
MUFFLER	70-30-1

WEAR PADS (FRONT)	50-50-1
WEAR PADS (REAR)	50-60-1

OIL COOLER	30-20-1
OPERATOR CAB	10-20-1
OPERATOR CAB	50-10-1
OPERATOR SEAT	50-20-1

PARKING BRAKE	
PARKING BRAKE	
PEDAL ASSEMBLY	60-140-1
PORT RELIEF VALVES	
WORKGROUP LOCKOUT VALVE	
PRESSURE SWITCH	

BOB-TACH	. 50-90-1
BOB-TACH CYLINDER	.20-90-1

REAR AXLE	
REAR WEIGHTS	50-100-1
REAR WIPER MOTOR	60-130-1
RECEIVER / DRIER	
REGULAR MAINTENANCE	
REMOTE START	10-180-1

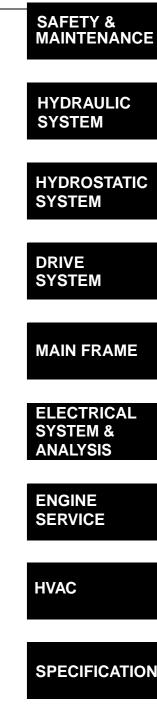
SAFETY	80-30-1
SERVICE BRAKE	40-80-1
SERVICE SCHEDULE	10-50-1
SERVICE SOFTWARE	60-160-1
STARTER	60-40-1
STEERING ANGLE ADJUSTMENT	40-60-1
STEERING CYLINDER (FRONT)	20-60-1
STEERING CYLINDER (REAR)	20-61-1
STEERING MODE VALVE BLOCK	20-110-1
STEERING VALVE	20-160-1
SYSTEM CHARGING AND RECLAMATION.	80-100-1
SYSTEM TROUBLESHOOTING CHART	80-70-1

TEMPERATURE AND PRESSURE	80-80-1
TIRE MAINTENANCE	10-130-1
TILT CYLINDER	
TOP WIPER MOTOR	60-120-1
TORQUE SPECIFICATIONS FOR BOLTS	SPEC-40-1
TOW VALVE	20-220-1
TOWING THE TELESCOPIC HANDLER	10-40-1
TRANSPORTING THE TELESCOPIC HAN	DLER10-30-1
TRAVEL LEVER	60-70-1
TROUBLESHOOTING	40-10-1

TELESCOPIC HANDLER TELESCOPIC TOOL CARRIER (TTC) SPECIFICATIONS ...... SPEC-10-1

### CONTENTS

DELIVERY REPORTIX
FOREWORD III
SAFETY INSTRUCTIONS V
SERIAL NUMBER LOCATION
BOBCAT TELESCOPIC HANDLER IDENTIFICATION X
SAFETY AND MAINTENANCE
HYDRAULIC SYSTEM 20-01
HYDROSTATIC SYSTEM 30-01
DRIVE SYSTEM 40-01
MAIN FRAME
ELECTRICAL SYSTEM AND ANALYSIS
ENGINE SERVICE
HEATING, VENTILATION, AIR CONDITIONING 80-01
SPECIFICATIONS SPEC-01



### FOREWORD

This manual is for the Bobcat Telescopic Handler mechanic. It provides necessary servicing and adjustment procedures for the Bobcat Telescopic Handler 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 Telescopic Handler has had service or repair:

 Check that ROPS/FOPS (including right side window) is in good condition and is not modified.



- Check that ROPS mounting hardware is tightened and is Bobcat approved.
- 3. The seat belt must be correctly installed, functional and in good condition.



 Check boom stop, replace if damaged.



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



6. Joystick control lever and foot pedals must return to neutral.



Check for correct function of the work lights.



8. The parking brake must function correctly.



9. Enclosure door latches must open and close freely.



10. Attachment locking pins must function correctly and be in good condition. Bob-Tach wedges and linkages (if equipped) must function correctly and be in good condition.



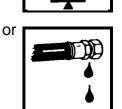
11. Safety treads must be in good condition.



12. Check for correct function of indicator lamps and gauges.



- 13. Check hydraulic fluid level, engine oil level and fuel supply.
- 14. Inspect for fuel, oil hydraulic fluid leaks.



FW VH-0308 SM

15. Lubricate Telescopic the Handler.



16. Check the condition of the battery and cables.



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



18. Check the electrical charging system.



19. Check tires for wear and pressure. Use only approved tires.



- 20. Inspect for loose or broken parts or connections.
- 21. Check for any field modification not completed.
- 22. Operate the machine and check all functions.

all equipped options and

up alarm, fire extinguisher,

beacon,

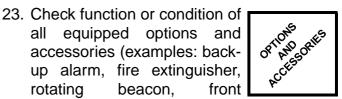
rotating

stabilizers, etc.).

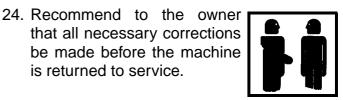
is returned to service.







front



**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.

FW VH-0308 SM

### 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.

## A 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

- 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.
- The Service Manual and Parts Manual are available from your dealer for use by mechanics to do shop-type service and repair work.

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.

## IMPORTANT

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

I-2019-0284



Cutting or drilling concrete containing sand or rock containing quartz may result in exposure to silica dust.

SI VH-0308 SM

## 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

# 

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.



#### 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.

### 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 gasoline or diesel fuel for cleaning parts. Use commercial nonflammable 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.

### 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.

SI VH-0308 SM



# Our support email: ebooklibonline@outlook.com