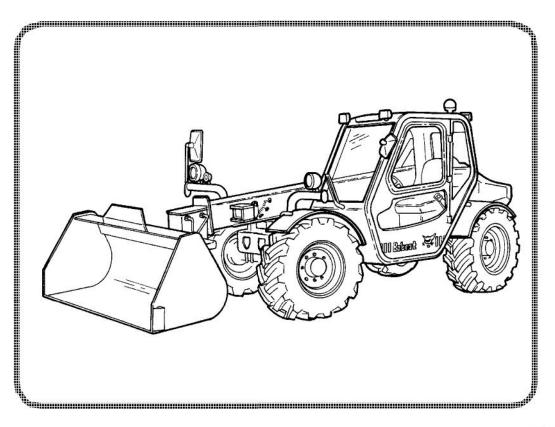


# Service Manual V723 VersaHANDLER®

## S/N A8HL11001 & Above (with Cab) S/N A8HP11001 & Above (with Cab and Frame Leveling) S/N A8HK11001 & Above (with Canopy and Frame Leveling)



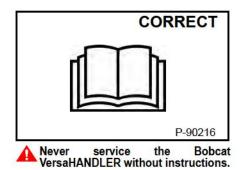


© Bobcat Company 2010

# **MAINTENANCE SAFETY**

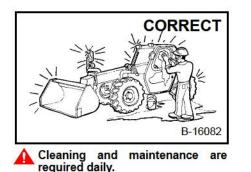


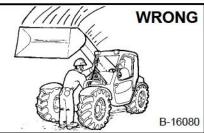
Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manual, Operator's Handbook and signs (decals) on machine. Follow warnings and instructions in the manuals when making repairs, adjustments or servicing. Check for correct function after adjustments, repairs or service. Untrained operators and failure to follow instructions can cause injury or death. W-2003-0807



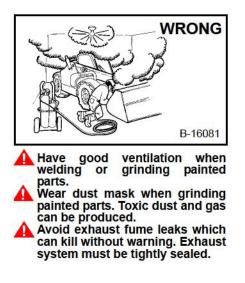
A

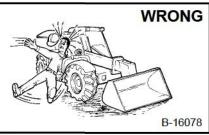
Safety Alert Symbol: This symbol with a warning statement, means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.





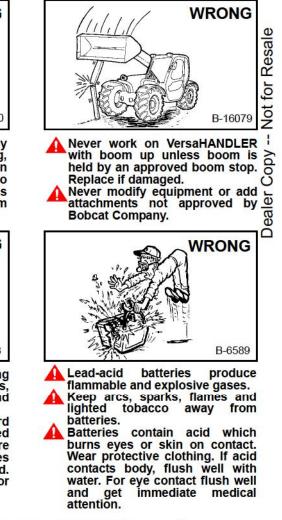
Disconnecting or loosening any hydraulic tubeline, hose, fitting, component or a part failure can cause boom to drop. Do not go under boom when raised unless supported by an approved boom stop. Replace if damaged.





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.



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.

MSW12-0409

### CONTENTS

SAFETY AND MAINTENANCE
HYDRAULIC SYSTEM
HYDROSTATIC SYSTEM
DRIVE SYSTEM
MAIN FRAME
ELECTRICAL SYSTEM & ANALYSIS 60-01
ENGINE SERVICE
HEATING, VENTILATION AND AIR CONDITIONING (HVAC)
SPECIFICATIONS SPEC-01
ALPHABETICAL INDEXINDEX-01

### FOREWORD

FOREWORD
SAFETY INSTRUCTIONS
FIRE PREVENTION1-10Maintenance1-10Operation1-10Electrical1-10Hydraulic System1-11Fueling1-11Starting1-11Spark Arrestor Exhaust System1-11Welding And Grinding1-11Fire Extinguishers1-11
SERIAL NUMBER LOCATION
DELIVERY REPORT
BOBCAT VERSAHANDLER IDENTIFICATION

# FOREWORD

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

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



0

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



- Check boom stop, replace if damaged.
- Machine signs (decals) must be legible and in the correct location.



- 6. Joystick control lever and foot pedals must return to neutral.
  - 2 5
- Check for correct function of the work lights.



8. The parking brake must function correctly.

open and close freely.

9. Enclosure door latches must



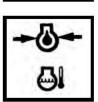
10. Attachment locking pins must function correctly and be in good condition. Bob-Tach wedges and linkages (if equipped) must function correctly and be in good condition.



11. Safety treads must be in good condition.

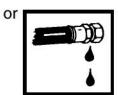


12. Check for correct function of indicator lamps and gauges.



- 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 the VersaHANDLER.



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.



- Check tires for wear and pressure. Use only approved tires.
- 20. Inspect for loose or broken parts or connections.



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.

- 20. Check for any field modification not completed.
- 20. Operate the machine and check all functions.
- 21. Check for correct function of the Lateral Operator Restraint System (LORS) if equipped.
- 22. Check function or condition of all equipped options and accessories (examples: backup alarm, fire extinguisher, rotating beacon, front stabilizers, etc.).



HODIFICATION

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



FW VH-0308 SM

#### SAFETY INSTRUCTIONS (CONT'D)

#### FIRE PREVENTION



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.



#### 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 VH EMEA-0409 SM

#### 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 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.

#### Spark Arrestor Exhaust System

The spark arrestor 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 arrestor exhaust system regularly to make sure it is maintained and working properly. Use the procedure in the Operation & Maintenance Manual for cleaning the spark arrestor 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 nonmetallic 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 a located and how to use them. Inspect the fire extinguisher and service the fire extinguisher regularly. Obey the recommendations on the instructions plate.

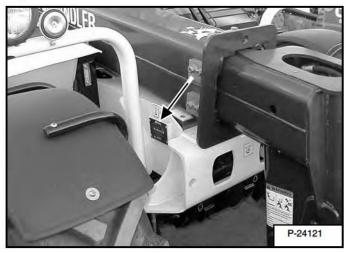
SI VH EMEA-0409 SM

#### SERIAL NUMBER LOCATION

Always use the serial number of the VersaHANDLER when requesting service information or when ordering parts.

#### VersaHANDLER Serial Number

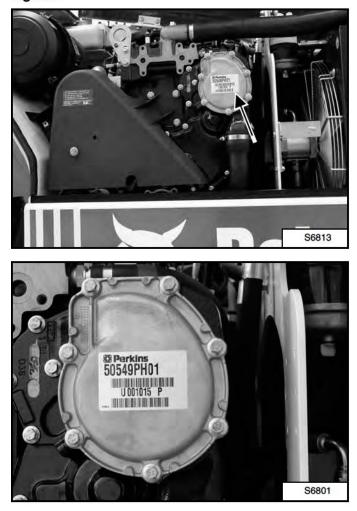
#### Figure 1



The front, on the right side of the chassis [Figure 1].

#### **Engine Serial Number**

#### Figure 2

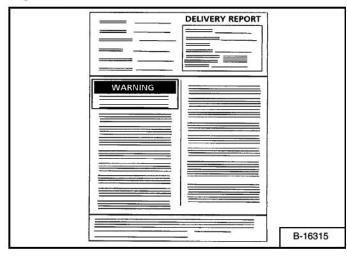


The engine serial number can be found on the water pump [Figure 2] in front of you when opening the engine cover. Always use the full number when ordering replacement parts.

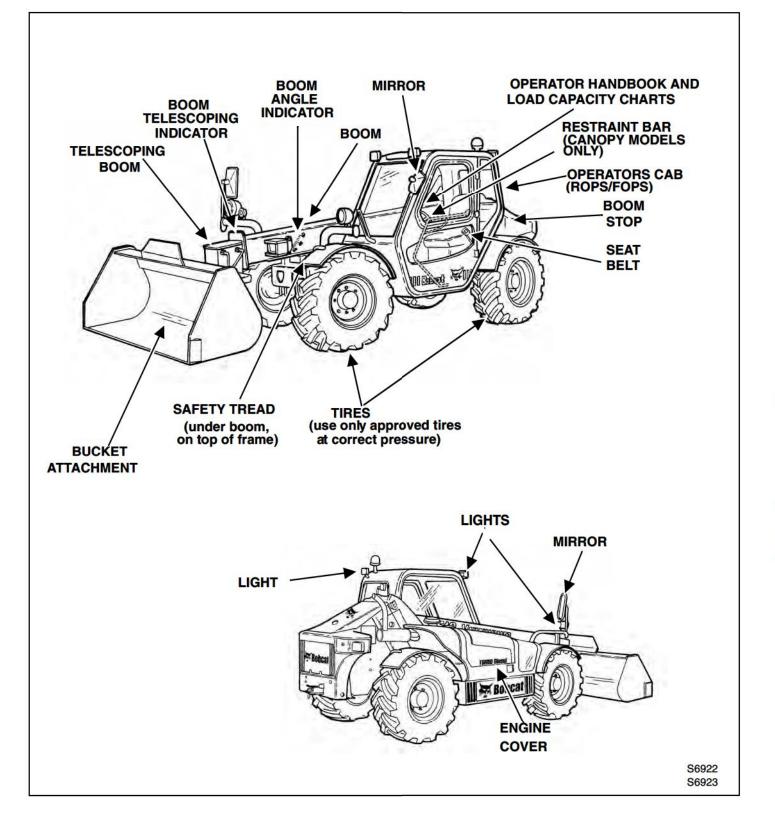
#### **Other Serial Numbers**

Some components may also have serial numbers. Always use these serial numbers when requesting parts.

#### Figure 3



The Delivery Report must be filled out by the dealer and signed by the owner or operator when the VersaHANDLER is delivered. An explanation of the form must be given to the owner. Make sure it is filled out completely [Figure 3].



### SAFETY AND MAINTENANCE

LIFTING AND BLOCKING THE VERSAHANDLER Procedure	
OPERATOR CAB / CANOPY Cab Door Cab Door Window	10-20-1
TRANSPORTING THE VERSAHANDLER ON A TRAILER	10-30-1
TOWING THE VERSAHANDLER Procedure	
SERVICE SCHEDULE	
AIR CLEANER SERVICE	
ENGINE COOLING SYSTEM Cleaning The Cooling System Checking The Coolant Level Replacing The Coolant	10-70-1 10-70-1
FUEL SYSTEM Fuel Specifications Filling The Fuel Tank Fuel Filter	10-80-1 10-80-1
ENGINE LUBRICATION SYSTEM	10-90-1 10-90-1
HYDRAULIC / HYDROSTATIC SYSTEM Checking And Adding Fluid Replacing Hydraulic / Hydrostatic Filter Replacing Hydraulic Fluid	10-100-1 10-100-1
AXLES (FRONT AND REAR) Checking Oil Level (Differential) Draining Oil (Differential) Checking Oil Level (Front Axle Drop Box) Draining Oil (Front Axle Drop Box) Checking Oil Level (Planetary Carrier) Draining Oil (Planetary Carrier)	10-110-1 10-110-1 10-110-1 10-110-1 10-110-2

LUBRICATION Procedure	
TIRE MAINTENANCE Wheel Nuts Mounting Rotating	10-130-1 10-130-1
SPARK ARRESTOR MUFFLER	
APPROVED BOOM STOP Installing The Approved Boom Stop Removing The Approved Boom Stop	10-150-1
ENGINE COVER	
LATERAL OPERATOR RESTRAINT SYSTEM (LORS)	10-170-1
VERSAHANDLER STORAGE AND RETURN TO SERVICE	10-180-1
STOPPING THE ENGINE AND LEAVING THE VERSAHANDLER Procedure	
EMERGENCY EXIT	

Thank you so much for reading. Please click the "Buy Now!" button below to download the complete manual.



After you pay.

You can download the most perfect and complete manual in the world immediately.

Our support email:

ebooklibonline@outlook.com