

V417



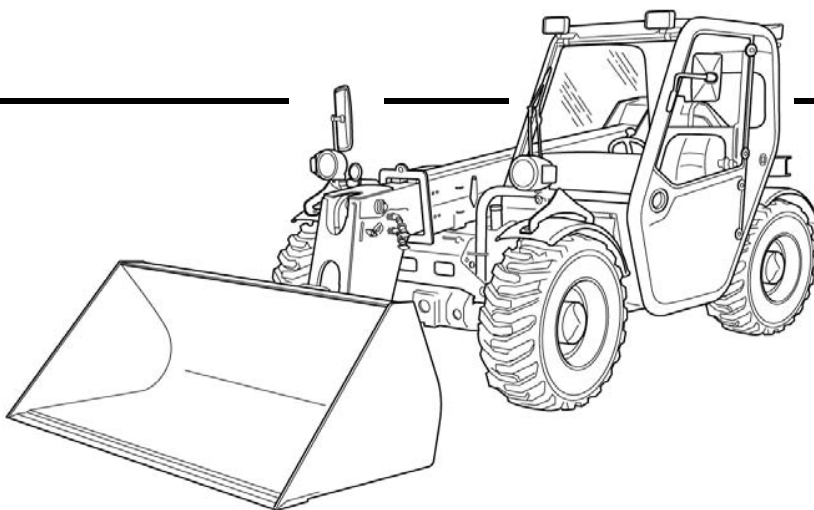
Bobcat®

VersaHANDLER

Service Manual

V417 - S/N A7MK11001 & Above (With Cab)

V417 - S/N A7ML11001 & Above (With Canopy)



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

CORRECT



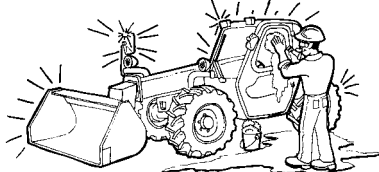
P-90216

- ⚠ Never service the Bobcat VersaHANDLER without instructions.



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

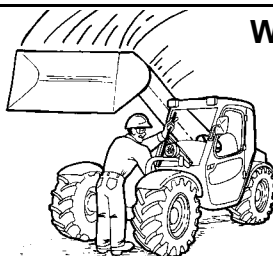
CORRECT



B-16082

- ⚠ Cleaning and maintenance are required daily.

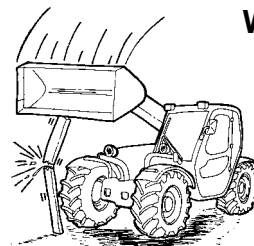
WRONG



B-16080

- ⚠ 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.

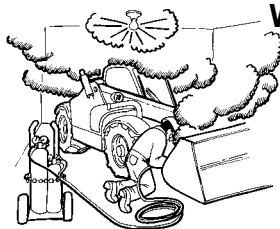
WRONG



B-16079

- ⚠ Never work on VersaHANDLER 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.

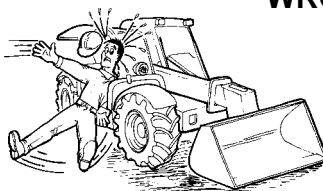
WRONG



B-16081

- ⚠ Have good ventilation when welding or grinding painted parts.
- ⚠ Wear dust mask when grinding painted parts. Toxic dust and gas can be produced.
- ⚠ Avoid exhaust fume leaks which can kill without warning. Exhaust system must be tightly sealed.

WRONG



B-16078

- ⚠ 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.

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**.

MSW12-0409



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ALPHABETICAL INDEX

AIR CLEANER	70-40-01	FUEL SYSTEM.....	70-70-1
AIR CLEANER SERVICE	10-60-01	FRONT AUXILIARY HYDRAULIC PRESSURE RELEASE VALVE	20-200-1
AIR CONDITIONING SERVICE.....	80-90-1	FRONT AXLE	40-30-1
AIR CONDITIONING SYSTEM FLOW	80-10-1	FRONT WIPER MOTOR	60-90-1
ALTERNATOR	60-30-1	FUEL SYSTEM.....	10-80-1
APPROVED BOOM STOP	10-150-1	FUEL TANK	50-80-1
AXLE AND DIFFERENTIAL (FRONT).....	40-20-1		
AXLE AND DIFFERENTIAL (REAR)	40-21-1	GEAR PUMP	20-120-1
AXLE PIVOT FRAME	40-01	GENERAL AIR CONDITIONING SERVICE GUIDELINES ..	80-60-1
AXLE TOE-IN.....	40-40-1		
AXLES (FRONT AND REAR)	10-110-1		
		HEATER ASSEMBLY	80-170-1
BASIC TROUBLESHOOTING	80-50-1	HYDRAULIC CONNECTION SPECIFICATIONS.....	SPEC-50-1
BATTERY.....	60-20-1	HYDRAULIC CONTROL VALVE	20-150-1
BOOM ASSEMBLY	50-30-1	HYDRAULIC/HYDROSTATIC FLUID SPECIFICATIONS. SPEC-	60-1
BRAKE VALVE.....	20-110-1	HYDRAULIC / HYDROSTATIC SYSTEM.....	10-100-1
BUCKET POSITIONING CYLINDER.....	20-30-1	HYDRAULIC RESERVOIR.....	20-130-1
		HYDRAULIC SYSTEM INFORMATION	20-10-1
CAMSHAFT AND TIMING GEARS.....	70-100-1	HYDROSTATIC DRIVE MOTOR	30-30-1
		HYDROSTATIC PUMP	30-40-1
		HYDROSTATIC SYSTEM INFORMATION.....	30-10-1
CANOPY	50-11-1		
COMPONENTS	80-20-1	INCHING SWITCH	60-130-1
COMPRESSOR	80-110-1	INNER BOOM	50-40-1
CONDENSER	80-120-1	INSTRUMENT PANEL.....	60-80-1
CONVERSIONS	SPEC-70-1		
CRANKSHAFT AND PISTONS	70-90-1	JOYSTICK	20-160-1
CYLINDER HEAD	70-80-1	JOYSTICK PANEL.....	50-120-1
DASH COVER/STEERING COLUMN COVER..	50-130-1	LATERAL OPERATOR RESTRAINT SYSTEM (LORS™). 10-	170-1
DIAGNOSTIC SERVICE CODES	60-140-1	LATERAL OPERATOR RESTRAINT SYSTEM (LORS™)...	60-50-1
DRIVE BOX	20-70-1	LIFT CYLINDER	20-20-1
		LIFTING AND BLOCKING THE VERSAHANDLER.....	10-10-1
ENGINE AND ENGINE MOUNTS	70-11-1	LIGHTS.....	60-60-1
ENGINE AND HYDROSTAT ASSEMBLY	70-12-1	LUBRICATION.....	10-120-1
ELECTRICAL SYSTEM INFORMATION	60-10-1	LUBRICATION SYSTEM	70-60-1
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.....	10-01		
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		

ALPHABETICAL INDEX (CONT'D)

MACHINE TORQUE SPECIFICATIONS	SPEC-30-1	WEAR PADS (FRONT)	50-50-1
MAIN RELIEF VALVE	20-80-1	WEAR PADS (REAR).....	50-60-1
MANIFOLD	20-210-1	WORKGROUP LOCKOUT VALVE.....	20-180-1
MUFFLER.....	70-30-1		
OIL COOLER.....	30-20-1		
OPERATOR CAB/CANOPY	10-20-1		
OPERATOR CAB.....	50-10-1		
OPERATOR SEAT	50-20-1		
PARKING BRAKE.....	20-170-1		
PARKING BRAKE.....	40-50-1		
PEDAL ASSEMBLY	60-120-1		
PORT RELIEF VALVES.....	20-90-1		
PRESSURE SWITCH.....	80-140-1		
BOB-TACH	50-90-1		
REAR AXLE.....	40-90-1		
REAR WEIGHTS	50-100-1		
REAR WIPER MOTOR.....	60-90-1		
RECEIVER / DRIER	80-130-1		
REGULAR MAINTENANCE	80-40-1		
SAFETY.....	80-30-1		
SERVICE BRAKE.....	40-80-1		
SERVICE SCHEDULE	10-50-1		
SPARK ARRESTOR MUFFLER	10-140-1		
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	20-100-1		
STEERING VALVE	20-150-1		
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	20-50-1		
TOP WIPER MOTOR	60-100-1		
TORQUE SPECIFICATIONS FOR BOLTS.....	SPEC-40-1		
TOW VALVE	20-190-1		
TOWING THE VersaHANDLER	10-40-1		
TRANSPORTING THE VERSAHANDLER.....	10-30-1		
TRAVEL LEVER	60-70-1		
TROUBLESHOOTING.....	40-10-1, 70-01		
VersaHANDLER TELESCOPIC TOOL CARRIER (TTC) SPECIFICATIONS	SPEC-10-1		

CONTENTS

**SAFETY &
MAINTENANCE**

**HYDRAULIC
SYSTEM**

**HYDROSTATIC
SYSTEM**

**DRIVE
SYSTEM**

MAIN FRAME

**ELECTRICAL
SYSTEM &
ANALYSIS**

**ENGINE
SERVICE**

HVAC

SPECIFICATIONS

DELIVERY REPORT.....	X
FOREWORD.....	III
SAFETY INSTRUCTIONS	V
SERIAL NUMBER LOCATION	IX
BOBCAT VERSAHANDLER IDENTIFICATION	XI
SAFETY AND MAINTENANCE.....	10-01
HYDRAULIC SYSTEM	20-01
HYDROSTATIC SYSTEM.....	30-01
DRIVE SYSTEM	40-01
MAIN FRAME	50-01
ELECTRICAL SYSTEM AND ANALYSIS	60-01
ENGINE SERVICE	70-01
HEATING, VENTILATION, AIR CONDITIONING	80-01
SPECIFICATIONS.....	SPEC-01



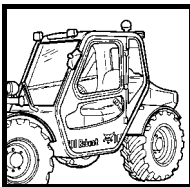
Bobcat®

FOREWORD

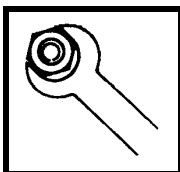
This manual is for the Bobcat VersaHANDLER mechanic. It provides necessary servicing and adjustment procedures for the Bobcat VersaHANDLER and its component parts and systems. Refer to the Operation & Maintenance Manual for operating instructions, starting procedure, daily checks, etc.

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

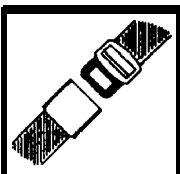
1. Check that ROPS/FOPS (including right side window) is in good condition and is not modified.



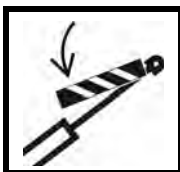
2. Check that ROPS mounting hardware is tightened and is Bobcat approved.



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



4. Check boom stop, replace if damaged.



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



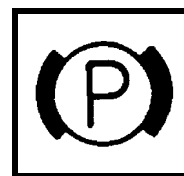
6. Joystick control lever and foot pedals must return to neutral.



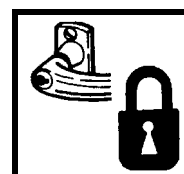
7. Check for correct function of the work lights.



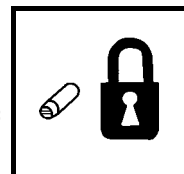
8. The parking brake must function correctly.



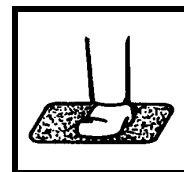
9. Enclosure door latches must open and close freely.



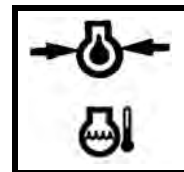
10. Attachment locking pins must function correctly and be in good condition. Bob-Tach wedges and linkages (if equipped) must function correctly and be in good condition.



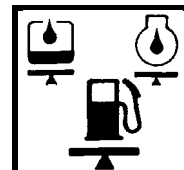
11. Safety treads must be in good condition.



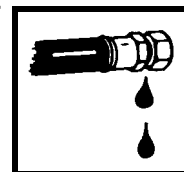
12. Check for correct function of indicator lamps and gauges.



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



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



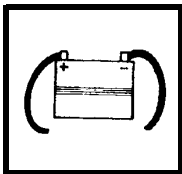
15. Lubricate the VersaHANDLER.



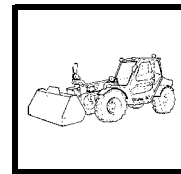
20. Check for any field modification not completed.



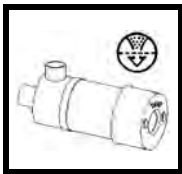
16. Check the condition of the battery and cables.



20. Operate the machine and check all functions.



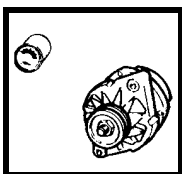
17. Inspect the air cleaner for damage or leaks. Check the condition of the element.



21. Check for correct function of the Lateral Operator Restraint System (LORS) if equipped.



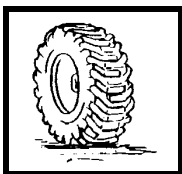
18. Check the electrical charging system.



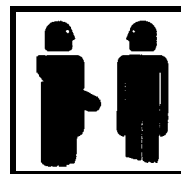
22. Check function or condition of all equipped options and accessories (examples: back-up alarm, fire extinguisher, rotating beacon, front stabilizers, etc.).



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



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



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.

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 VersaHANDLER 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 VersaHANDLER.
- The VersaHANDLER Safety Video is available from your Bobcat dealer or at www.training.bobcat.com or www.bobcat.com.

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.).

FIRE PREVENTION



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.

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).

FIRE PREVENTION (CONT'D)

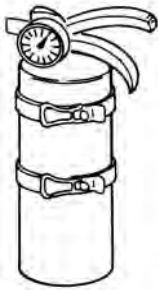
Welding And Grinding

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 located and how to use them. Inspect the fire extinguisher and service the fire extinguisher regularly. Obey the recommendations on the instructions plate.

SERIAL NUMBER LOCATION

Always use the serial number of the VersaHANDLER 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.

Figure 1

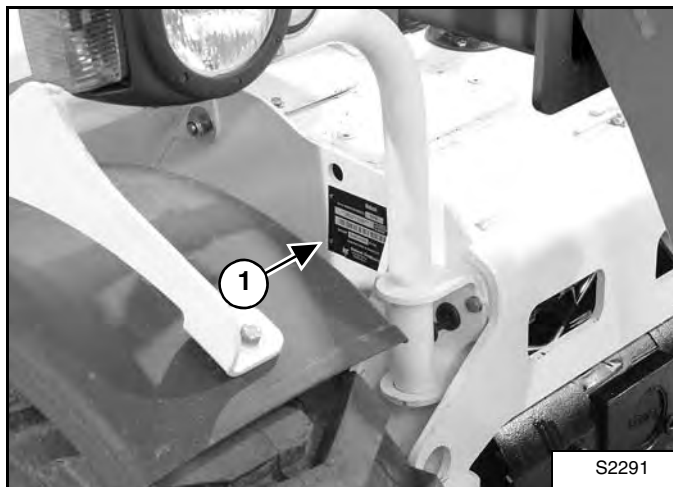
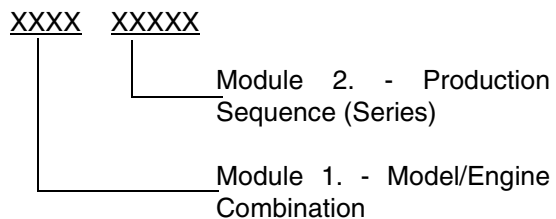


Figure 2



The VersaHANDLER serial number plate is located on the right front side of the chassis (Item 1) [Figure 1] & [Figure 2].

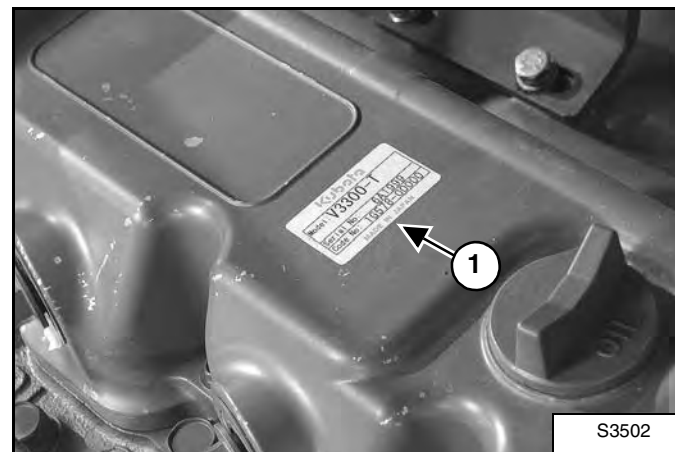
Explanation of VersaHANDLER Serial Number:



1. The four digit Model/Engine Combination Module number identifies the model number and engine combination.
2. The five digit Production Sequence Number identifies the order which the VersaHANDLER is produced.

Engine Serial Number

Figure 3



The engine serial number can be found on top of the cylinder block (Item 1) [Figure 3]. Always use the full number when ordering replacement parts.

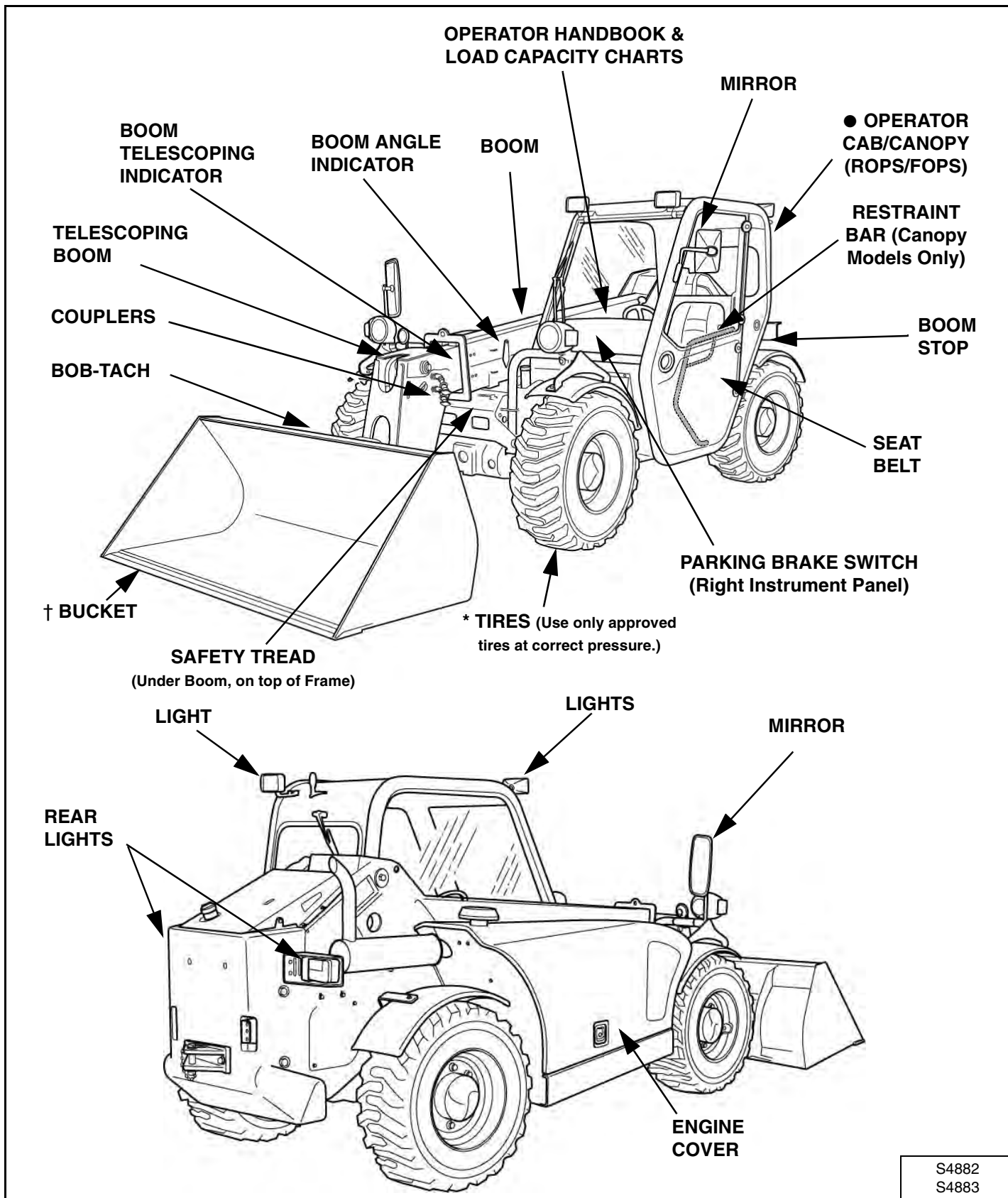
DELIVERY REPORT

Figure 4

The diagram shows a 'DELIVERY REPORT' form. It has a header section at the top with the title 'DELIVERY REPORT' and several lines for text. Below the header, the form is divided into two columns. The left column contains a 'WARNING' section with a black header and several lines of text. The right column contains several lines of text. At the bottom of the form, there is a section with lines for text and a small box on the right containing the number 'B-16315'.

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 4].

BOBCAT VERSAHANDLER IDENTIFICATION



S4882
S4883

- * TIRES - Tires shown may not be standard. The machine is factory equipped with standard tires. Other tires are available.
- ROPS, FOPS - Roll Over Protective Structure, per ISO 3471, and Falling Object Protective Structure, per ISO 3449, Level I. Level II is available.
- † Bucket - Many Buckets and other Attachments are available.



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

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Please click here, Go back to the page.

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your download.**

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

You will get the complete manual

Have any questions

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admin@servicemanualperfect.com