



# Bobcat®

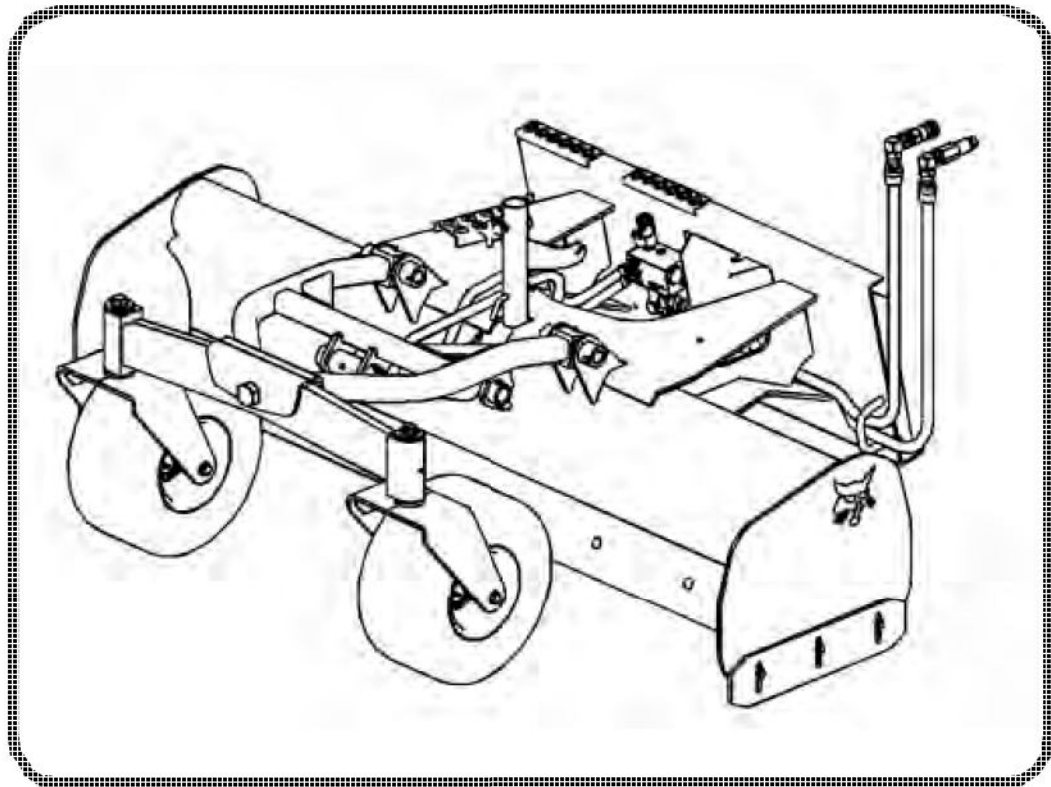
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## Service Manual

### Box Blade

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**Box Blade S/N 657400101 & Above**  
**Box Blade Laser S/N 657500101 & Above**



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# MAINTENANCE SAFETY



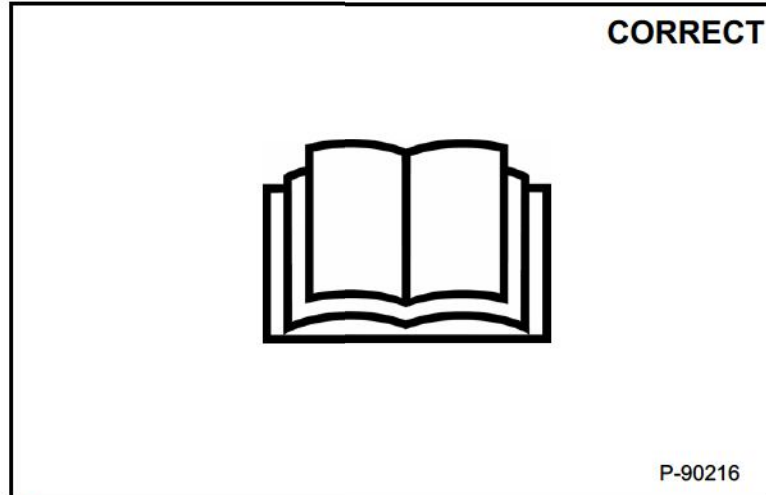
## WARNING









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.



-  Never service attachments / implements without instructions. See Operation & Maintenance Manual and Attachment / Implement Service Manual.
-  Cleaning and maintenance are required daily.
-  Never service or adjust attachment / implement with the engine running unless instructed to do so in manual.
-  Always lower the attachment / implement to the ground before lubricating or servicing.
-  Avoid contact with leaking hydraulic fluid or diesel fuel under pressure. It can penetrate skin or eyes.
-  Stop, cool and clean engine of flammable materials before checking fluids.
-  Keep body, loose objects and clothing away from moving parts, electrical contacts, hot parts and exhaust.
-  Safety glasses are needed for eye protection from electrical arcs, battery acid, compressed springs, fluids under pressure and flying debris or when tools are used. Use eye protection approved for type of welding.

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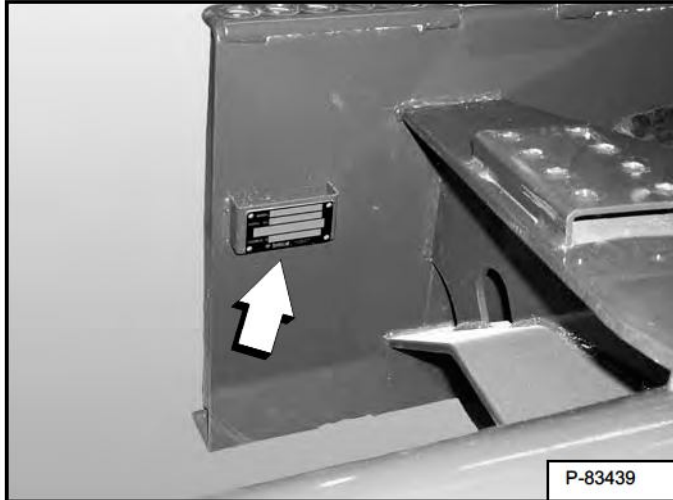
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## SERIAL NUMBER LOCATION

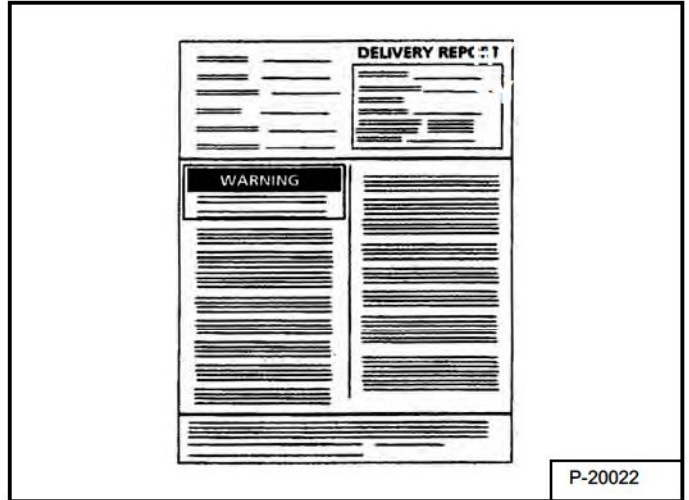
Figure 1-1



Always use the serial number of the box blade 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 1-1].

## DELIVERY REPORT

Figure 1-2

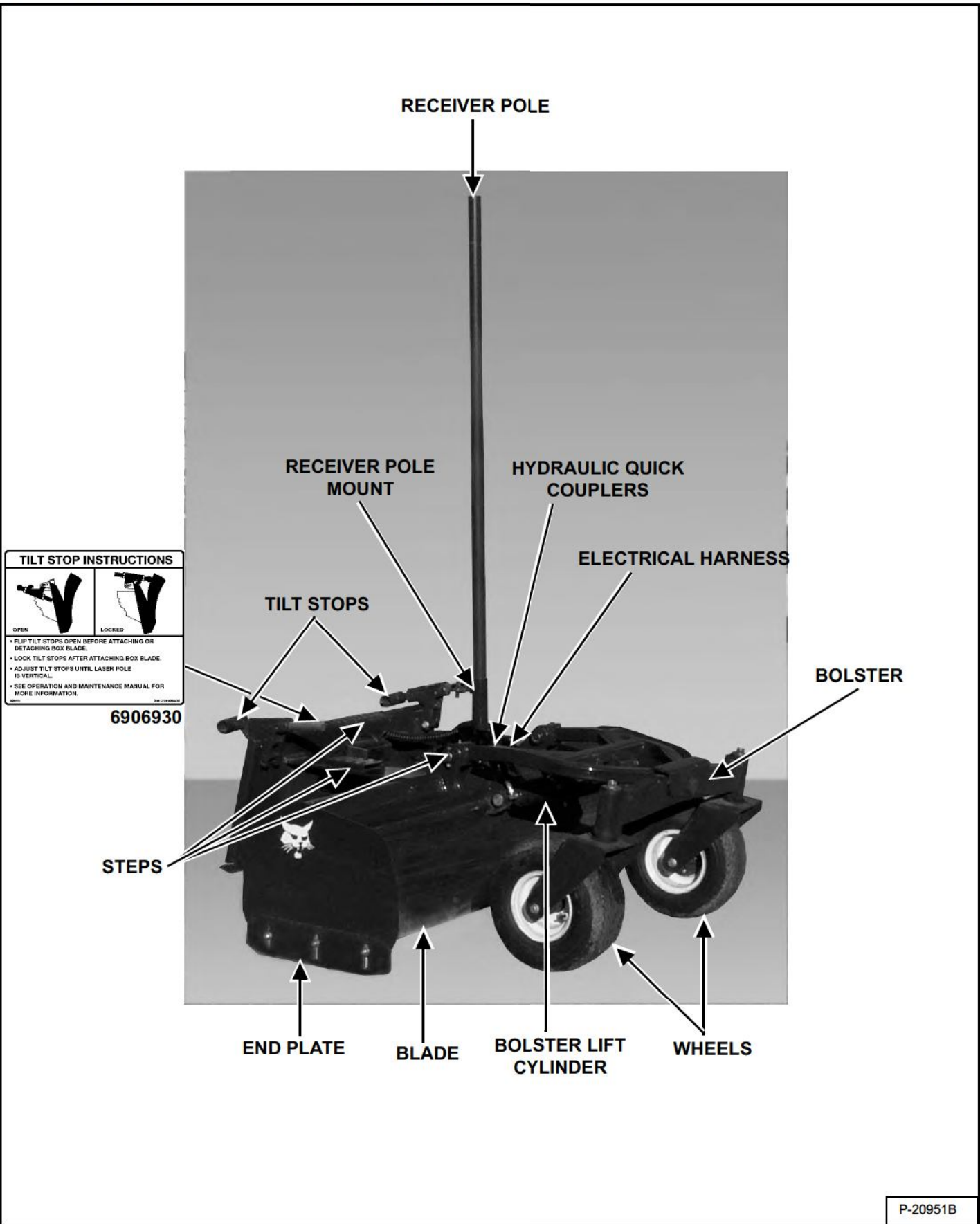


The delivery report must be filled out by the dealer and signed by the owner or operator when the box blade is delivered. An explanation of the form must be given to the owner. Make sure it is filled out completely [Figure 1-2].

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# IDENTIFICATION AND MACHINE SIGNS (DECALS)



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## SAFETY & MAINTENANCE

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## TROUBLESHOOTING

### Box Blade Chart

TROUBLESHOOTING THE BOX BLADE		
PROBLEM	CAUSE	CORRECTION
Box Blade does not seat properly on the Bob-Tach.	Bob-Tach pins are not fully retracted prior to installation.	Retract Bob-Tach pins before installation.
	Mud, dirt or stones are lodged between the Bob-Tach and the box blade.	Dislodge object from between Bob-Tach and box blade.
Bolster cylinder does not raise or lower.	No hydraulic flow.	Activate loader front auxiliary hydraulics.
		Check quick couplers connection. Check for damaged hose ends and fittings.
Laser graded surface is uneven.	Excessive ground speed.	Drive slower.
	Tilt stops not set.	Set tilt stops.
	Laser pole not vertical.	Adjust laser pole and set tilt stops.
	Receiver correction speed set too slow for ground speed.	Drive slower or increase correction speed.
Trimble Support Machine Control - Construction Instructions Americas: 1 - 800 - 538 - 7800 (Option 3 For Support) Outside Of Americas: 1 - 303 - 323 - 4111 E-Mail: Trimble_Support@Trimble.com		

### GCR Receiver Chart

TROUBLESHOOTING THE GCR RECEIVER		
PROBLEM	CAUSE	CORRECTION
Unit will not turn on.	No power to the unit.	Make sure the system's Power Cable is connected to the machine's battery.
	Not enough power to the unit.	Make sure the machine has enough power (9 to 30 V DC required).
	Receiver cable loose.	Make sure the Grade Control Receiver cable is secure at both ends.
	Bad fuse.	Check the fuse.
	Receiver cable is bad.	If you have a spare, try a different Grade Control Receiver cable.
NOTE: For other problems related to the laser products, see Trimble Operation Manual or contact your Bobcat Dealer.		
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**TROUBLESHOOTING (CONT'D)**

**BLR2 Receiver Chart**

<b>TROUBLESHOOTING THE BLR2 RECEIVER</b>		
<b>PROBLEM</b>	<b>CAUSE</b>	<b>CORRECTION</b>
Unit will not turn on.	No power to the unit.	Make sure the system's Power Cable is connected to the machine's battery.
	Not enough power to the unit.	Make sure the machine has enough power (9v to 16v DC required).
	Receiver cable loose.	Make sure the receiver cable is secure at both ends.
	Bad fuse.	Check the fuse.
	Receiver cable is bad.	If you have a spare, try a different receiver cable.
Single green LED is lit and arrows flash alternately.	Receiver is seeing laser beacon but there's no CAN communication with ACD.	Check 9xxx (purple) wires for correct routing.
		Check 9xxx (purple) wires for pushed back terminals.
		Receiver is damaged, replace receiver.
All lights flash once and then go from bright to dim.	Ambient light sensor on receiver is damaged.	Replace receiver.
Auto light does not respond to trigger when used with 7 pin connector.	No CAN communication between receiver and ACD.	Check 9xxx (purple) wires for correct routing.
		Check 9xxx (purple) wires for pushed back terminals.
		Receiver is damaged, replace receiver.
Arrows do not respond to laser beacon and single LED does a double flash once every two seconds.	Receiver is not detecting laser beacon.	Adjust laser beacon or receiver height to bring receiver within range.
		Make sure laser beacon is at least 3 m (10 ft) away from receiver.
Erratic display of arrows.	Receivers are not properly initialized.	Shut off carrier and restart.
	ACD harness damaged.	Replace the harness.
	Receiver harness damaged or not properly installed.	Check connections or replace harness as required.
	Valve harness has left and right receiver connection points swapped.	Swap valve harness receiver connection points. (Black tie strap / 'RIGHT' identification tag should be on the right side of frame as viewed from the operators position.)
NOTE: For other problems related to the laser products, see Trimble Operation Manual or contact your Bobcat Dealer.		
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