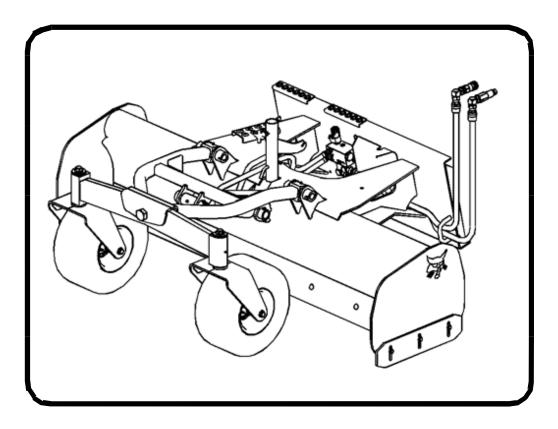


Service Manual Box Blade

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





© Bobcat Company 2010

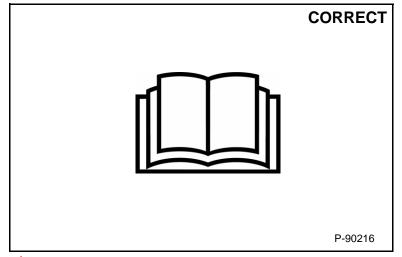
MAINTENANCE SAFETY



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.

MSW30-0409



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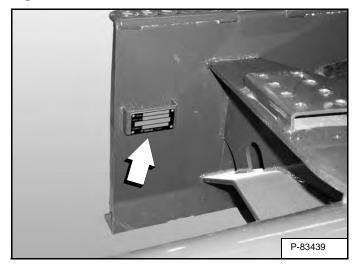
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SERIAL NUMBER LOCATION

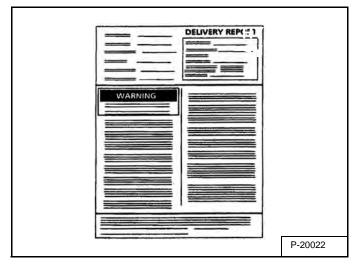
Figure 1-1



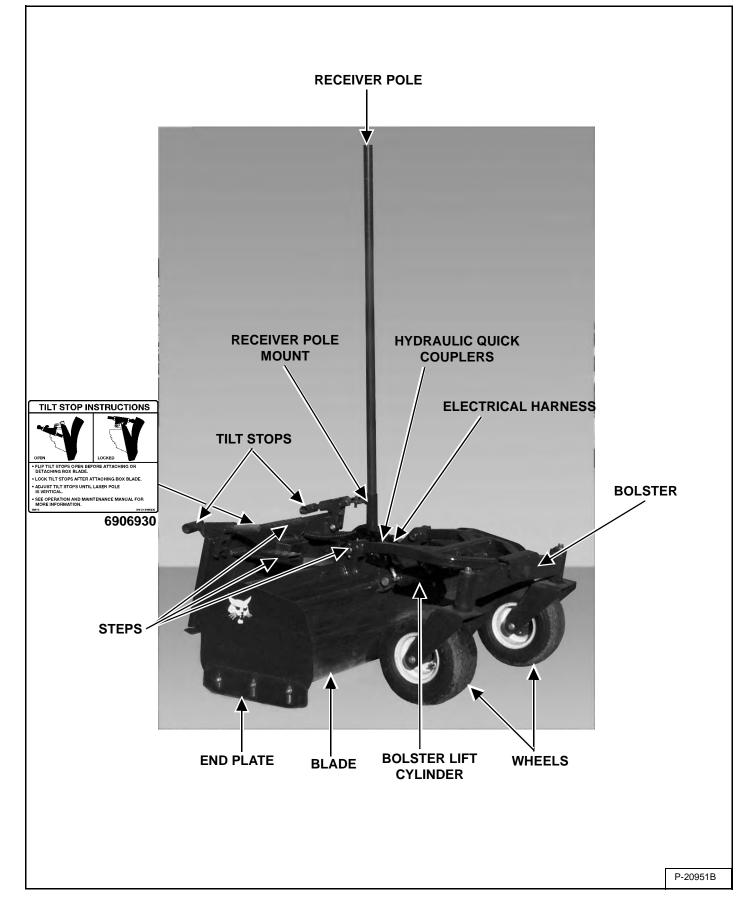
Always use the serial number of the box blade when requesting service information or when ordering parts. Early or later models (identification made by serial number) may use different parts, or it may be necessary to use a different procedure in doing a specific service operation [Figure 1-1].

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]**.



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 pins are not fully retracted | Retract Bob-Tach pins before | |
| Bob-Tach. | prior to installation. | installation. | |
| | Mud, dirt or stones are lodged between | Dislodge object from between Bob- | |
| | the Bob-Tach and the box blade. | 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 | Drive slower or increase correction | |
| | for ground speed. | 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. | | |
| 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 | | |

TROUBLESHOOTING (CONT'D)

BLR2 Receiver Chart

| TROUBLESHOOTING THE BLR2 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 (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 | Receiver is seeing laser beacon but | Check 9xxx (purple) wires for correct | |
| alternately. | there's no CAN communication with | routing. | |
| | ACD. | Check 9xxx (purple) wires for pushed | |
| | | back terminals. | |
| | | Receiver is damaged, replace receiver. | |
| All lights flash once and then go from | Ambient light sensor on receiver is | Replace receiver. | |
| bright to dim. | damaged. | | |
| Auto light does not respond to trigger | No CAN communication between | Check 9xxx (purple) wires for correct | |
| when used with 7 pin connector. | receiver and ACD. | routing. | |
| | | Check 9xxx (purple) wires for pushed | |
| | | back terminals. | |
| | | Receiver is damaged, replace receiver. | |
| Arrows do not respond to laser beacon | Receiver is not detecting laser | Adjust laser beacon or receiver height to | |
| and single LED does a double flash once | beacon. | bring receiver within range. | |
| every two seconds. | | Make sure laser beacon is at least 3 m | |
| | | (10 ft) away from receiver. | |
| Erratic display of arrows. | Receivers are not properly | Shut off carrier and restart. | |
| | initialized. | | |
| | ACD harness damaged. | Replace the harness. | |
| | Receiver harness damaged or not | Check connections or replace harness | |
| | properly installed. | as required. | |
| | Valve harness has left and right | Swap valve harness receiver connection | |
| | receiver connection points | points. (Black tie strap / 'RIGHT' | |
| | swapped. | 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. | | | |
| | 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 | | | |

TROUBLESHOOTING (CONT'D)

Laser Beacon Chart

| TROUBLESHOOTING THE LASER BEACON | | |
|---|------------------------------|---|
| PROBLEM | CAUSE | CORRECTION |
| Laser Beacon will not operate. | No power. | Press power button. |
| | Batteries are bad. | Check or replace batteries. |
| | Laser needs servicing. | Return laser to service center for |
| | | inspection. |
| Laser Beacon out-of-level indicator does | Laser not mounted securely. | Make sure the laser is mounted to stable |
| not shut off. | | surface. |
| | Laser in wrong mode. | Press the mode button so that the laser |
| | | is in automatic self-leveling or grade |
| | | mode. |
| | Leveling screws not turning. | Make sure the leveling screws are free to |
| | | turn. |
| | Laser not level. | Allow the laser to re-level. |
| | Laser needs servicing. | Return laser to service center for |
| | | inspection. |
| SafeGuard LED is on. | Calibration is off. | Check and adjust laser plane calibration |
| | | as necessary. |
| | Laser needs servicing. | Return laser to service center for |
| | | inspection. |
| Laser Beacon plane not accurate. | Calibration is off. | Check and adjust laser plane calibration |
| | | as needed. |
| | Laser needs servicing. | Return laser to service center for |
| | | inspection. |
| NOTE: For other problems related to the laser products, see Trimble Operation Manual or contact your Bobcat Dealer. | | |
| 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 | | |



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