

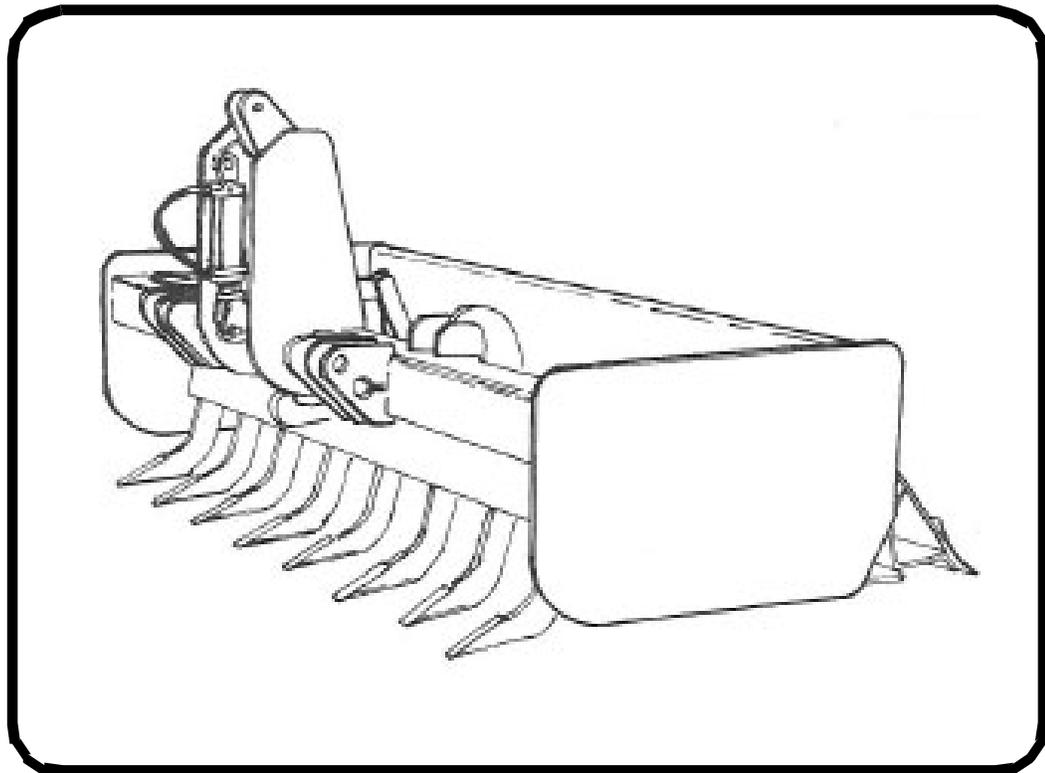


Bobcat®

Service Manual

Heavy Duty Box Blade

(BLADE 3HDBB72) - S/N AF4N00101 & Above
(BLADE 3HDBB84) - S/N AF4P00101 & Above



Product: Bobcat Heavy Duty Box Blade Service Repair Workshop Manual
Full Download: <https://www.arepairmanual.com/downloads/bobcat-heavy-duty-box-blade-service-repair-workshop-manual/>

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MAINTENANCE SAFETY



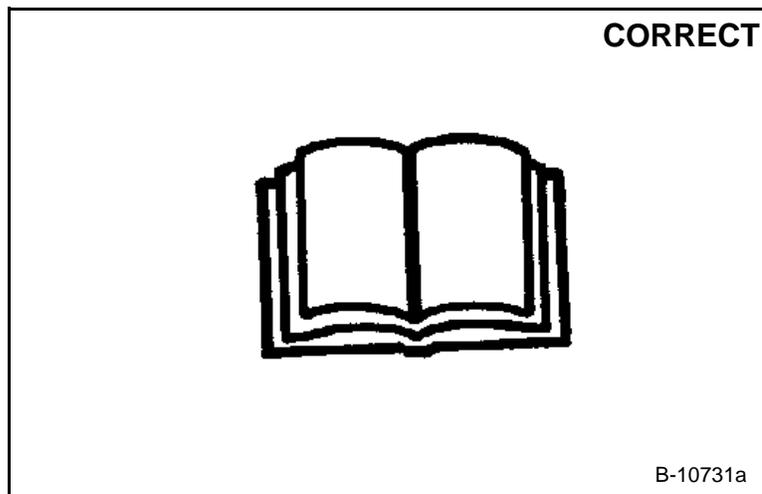
WARNING

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-2003-0903



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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**PREVENTIVE
MAINTENANCE**

**HYDRAULIC
SYSTEM**

**MAIN
FRAME**

**SPECIFICATIONS
AND
SCHEMATICS**

REFERENCE INFORMATION

Write the correct information for YOUR heavy duty box blade in the spaces below. Always use these numbers when referring to your heavy duty box blade.

Heavy Duty Box Blade Serial Number _____

NOTES:

YOUR BOBCAT® DEALER:

ADDRESS:

PHONE:

Bobcat Company
P.O. Box 128
Gwinner, ND 58040-0128

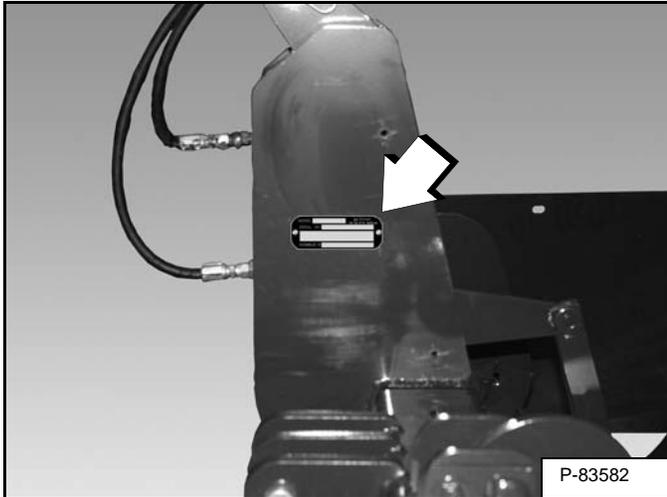
Bobcat Company Europe
Drève Richelle 167
B-1410 WATERLOO
Belgium



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SERIAL NUMBER LOCATION

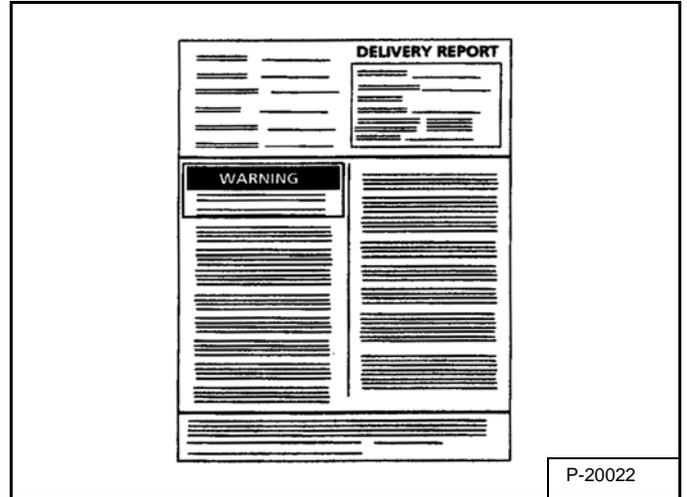
Figure 1



Always use the serial number of the heavy duty 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]**.

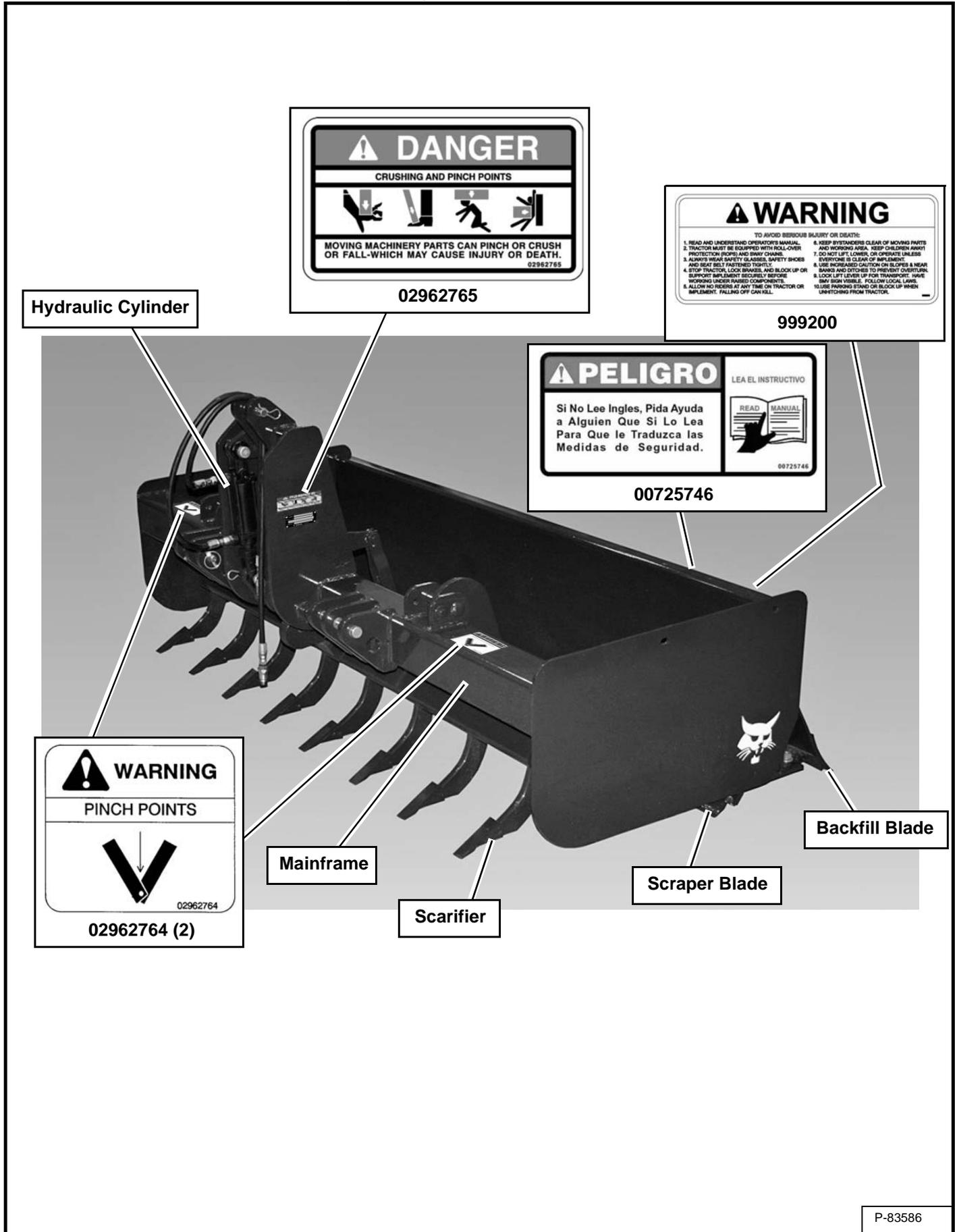
DELIVERY REPORT

Figure 2



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

IDENTIFICATION AND MACHINE SIGNS (DECALS)



Hydraulic Cylinder

⚠ DANGER
 CRUSHING AND PINCH POINTS

 MOVING MACHINERY PARTS CAN PINCH OR CRUSH OR FALL-WHICH MAY CAUSE INJURY OR DEATH.
 02962765

⚠ WARNING
 TO AVOID REPEATED INJURY OR DEATH:
 1. READ AND UNDERSTAND OPERATOR'S MANUAL. 2. TRACTOR MUST BE EQUIPPED WITH ROLL-OVER PROTECTION (ROPS) AND SEAT BELT. 3. ALWAYS WEAR SAFETY GLASSES, SAFETY SHOES AND SEAT BELT FASTENED PROPERLY. 4. STOP TRACTOR, LOCK BRAKES, AND BLOCK UP OR SUPPORT IMPLEMENT SECURELY BEFORE WORKING UNDER RAISED COMPONENTS. 5. ALLOW NO RIDERS AT ANY TIME ON TRACTOR OR IMPLEMENT. 6. KEEP BYSTANDERS CLEAR OF MOVING PARTS AND WORKING AREA. KEEP CHILDREN AWAY! 7. DO NOT LIFT, LOWER, OR OPERATE UNLESS EVERYONE IS CLEAR OF IMPLEMENTS. 8. USE INCREASED CAUTION ON SLOPES & NEAR BANKS AND DITCHES TO PREVENT OVERTURN. 9. LOCK UP LEVEL UP FOR TRANSPORT. HAVE SAYS BEEN VISIBLE. FOLLOW LOCAL LAWS. 10. USE PARKING STANDS OR BLOCK UP WHEN UNATTENDING FROM TRACTOR.

999200

⚠ PELIGRO LEA EL INSTRUCTIVO
 Si No Lee Ingles, Pida Ayuda a Alguien Que Si Lo Lea Para Que le Traduzca las Medidas de Seguridad.

 00725746

⚠ WARNING
 PINCH POINTS

 02962764
 02962764 (2)

Mainframe

Scarifier

Scraper Blade

Backfill Blade

PREVENTIVE MAINTENANCE

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TROUBLESHOOTING

Chart

HEAVY DUTY BOX BLADE TROUBLESHOOTING GUIDE		
PROBLEM	CAUSE	CORRECTION
Bent moldboard	Damaged by hitting hidden objects	Slow speed down if soil conditions are unknown
Cutting blade does not penetrate soil	Cutting edge is dull	Replace cutting edge
	Blade angle is too straight	Adjust top link
	Soil is too hard	Use scarifier shanks to relax soil
A-Frame is bent	Impacting objects during backfill	Slow speed down if soil conditions are unknown
Moldboard is digging too deep	Blade angle too steep	Adjust top link
Unable to level ground adequately	Tractor Draft Control set incorrectly	Adjust Tractor Draft Control
Hydraulic cylinder does not function	Auxiliary hydraulic couplers not completely connected	Connect auxiliary couplers
Auxiliary hydraulic hose fitting leak	Connections are not tight	Tighten connections
	Connections are cracked from over-tightening	Replace cracked connections
	Mismatched connection threads or types	Determine that auxiliary connectors are correct



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SERVICE SCHEDULE

Description

Maintenance work must be done at regular intervals. Failure to do so will result in excessive wear and early failures. The service schedule is a guide for correct maintenance of the Bobcat product.



Instructions are necessary before operating or servicing machine. Read and understand the Operation & Maintenance Manual, 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-2003-0199

SERVICE SCHEDULE		FREQUENCY
ITEM	SERVICE REQUIRED	DAILY
Lubrication	Lubricate grease points.	X

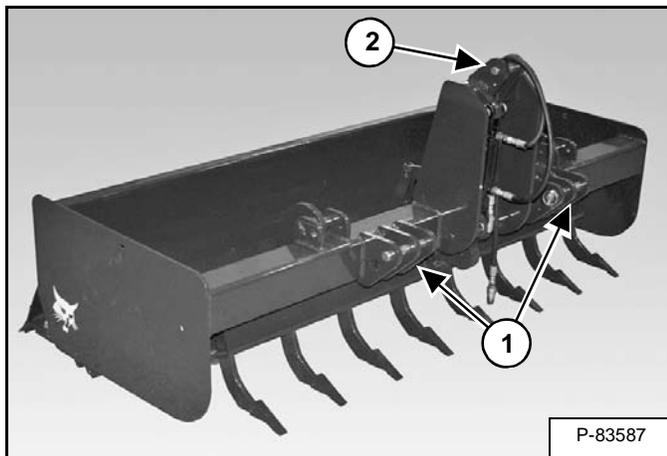


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DAILY INSPECTION

Implement Mounting Frame

Figure 10-30-1



Inspect the lower three-point mounts and lower mounting pins (Item 1) and upper three-point mount and pin (Item 2) [Figure 10-30-1], along with all welds for wear and damage each time the three-point heavy duty box blade is removed from the compact tractor.

Check the following items at the start of a work day:

- Check for damaged or missing decals. Replace if necessary.
- Replace any worn or damaged parts immediately.

Three-Point Hitch

! WARNING

AVOID INJURY OR DEATH

Before you leave the operator's seat:

- Fully lower the loader arms, put the attachment flat on the ground (if equipped).
- Fully lower the implement(s) to the ground (if equipped).
- Lock brake pedals together and engage the parking brake.
- Place all controls in neutral.
- Stop the engine, unfasten the seat belt and remove the key.

W-2569-0907

! WARNING

AVOID INJURY OR DEATH

The parking brake must be engaged before leaving the operator's seat. Rollaway can occur because the transmission may not prevent machine movement. Lock the brake pedals together before activating the parking brake.

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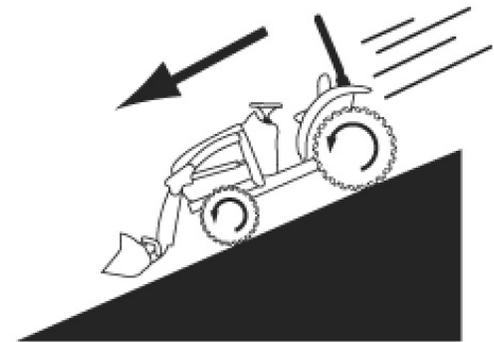
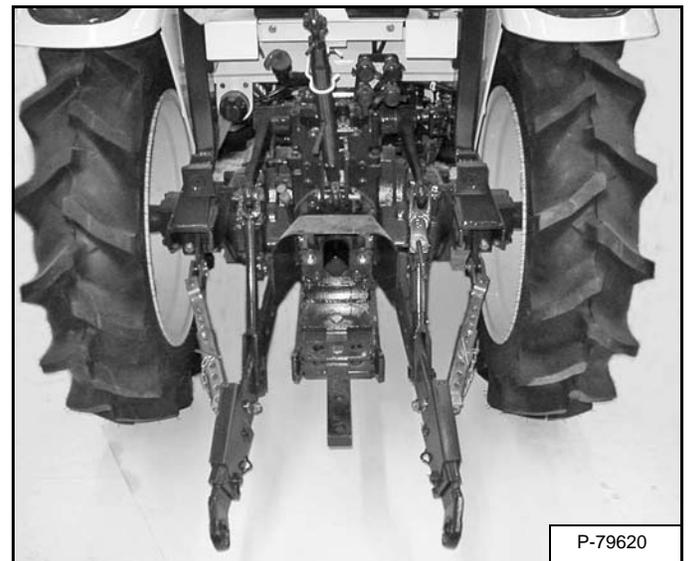


Figure 10-30-2



Inspect the three-point hitch linkage, PTO shaft splines, guards, and shields. Replace if damaged or missing [Figure 10-30-2]. Repair broken or loose parts.

See the Compact Tractor Operation & Maintenance Manual for detailed information on inspecting the compact tractor.



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LUBRICATING THE IMPLEMENT

Lubrication Locations

Always use a good quality lithium base multi purpose grease when lubricating the implement. Apply lubricant until extra grease shows.

! WARNING

AVOID INJURY OR DEATH

Wear safety glasses to prevent eye injury when any of the following conditions exist:

- When fluids are under pressure.
- Flying debris or loose material is present.
- Engine is running.
- Tools are being used.

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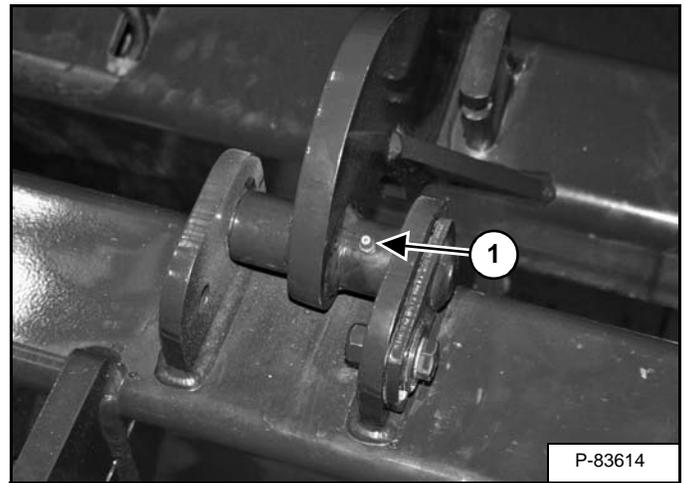
IMPORTANT

Fluid such as engine oil, hydraulic fluid, coolants, grease, etc. must be disposed of in an environmentally safe manner. Some regulations require that certain spills and leaks on the ground must be cleaned in a specific manner. See local, state and federal regulations for the correct disposal.

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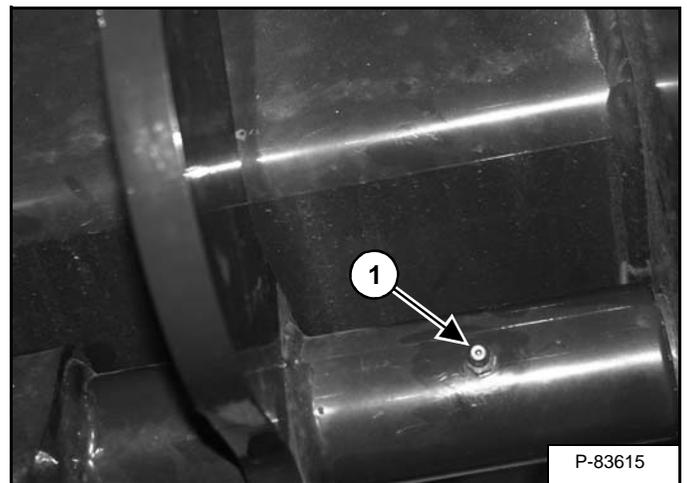
Lubricate the following three locations on the heavy duty box blade **every 8 hours**:

Figure 10-40-1



One grease point (Item 1) [Figure 10-40-1] is located on each shank holder pivot.

Figure 10-40-2



One grease point (Item 1) [Figure 10-40-2] is located on the cylinder pivot weldment.



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REGULAR MAINTENANCE ITEMS

WARNING

AVOID INJURY OR DEATH

Securely block up the implement before working underneath.

W-2565-0207

WARNING

AVOID INJURY OR DEATH

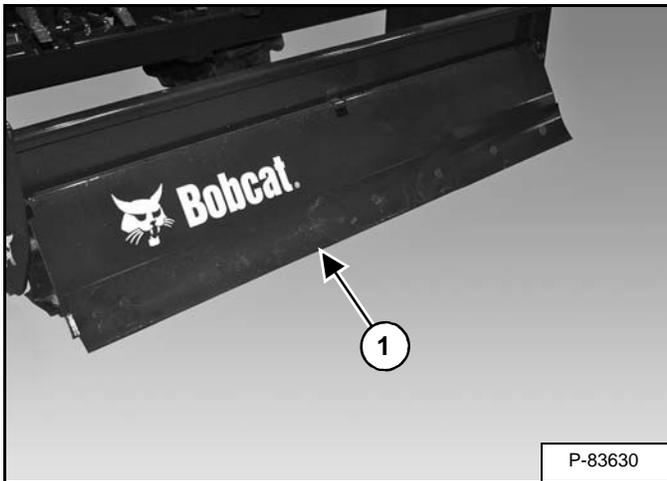
Wear safety glasses to prevent eye injury when any of the following conditions exist:

- When fluids are under pressure.
- Flying debris or loose material is present.
- Engine is running.
- Tools are being used.

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Cutting Edge

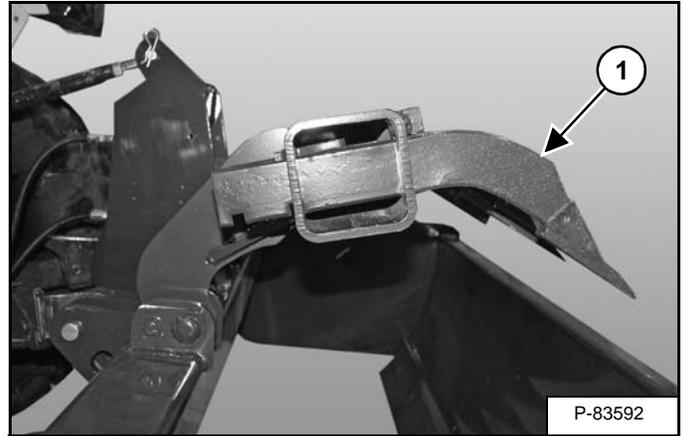
Figure 10-50-1



Inspect the inner and outer cutting edges (Item 1) [Figure 10-50-1] for cracks, damage and/or excessive wear. Replace the cutting edges as needed. (See Cutting Edge on Page 10-60-1.)

Scarifier Teeth

Figure 10-50-2



Inspect the scarifier teeth (Item 1) [Figure 10-50-2] for cracks, damage and/or excessive wear. Replace the scarifier teeth as needed. (See Scarifier Teeth on Page 10-60-2.)



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REMOVAL AND INSTALLATION

Cutting Edge

Removal And Installation

Service the cutting edges only when attached to the compact tractor.

Stop the machine and implement on a flat level surface.

Raise the tractor's three-point hitch links high enough to allow jack stands to be placed under the side plates. (See the Compact Tractor Operation and Maintenance Manual for detailed information on operating the compact tractor.)

Exit the compact tractor. (See the Compact Tractor Operation and Maintenance Manual for detailed information on operating the compact tractor.)

Install blocks in front of and behind the rear tires of the compact tractor.

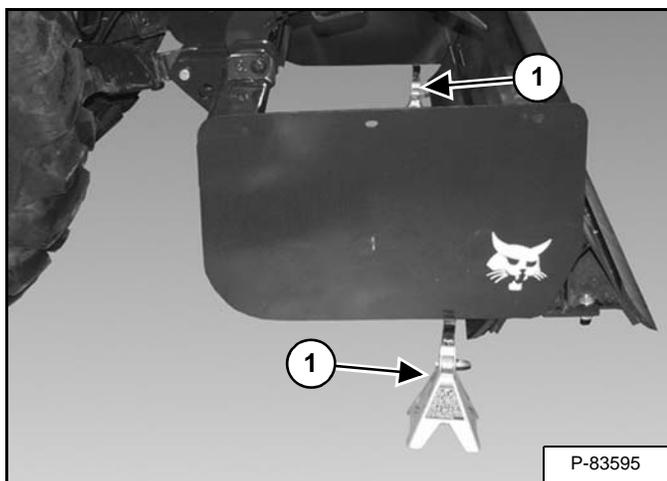
! WARNING

AVOID INJURY OR DEATH

Securely block up the implement before working underneath.

W-2565-0207

Figure 10-60-1



Place jack stands (Item 1) [Figure 10-60-1] underneath the side plates.

Enter the compact tractor. (See the Compact Tractor Operation and Maintenance Manual for detailed information on operating the compact tractor.)

Lower the three-point hitch setting the heavy duty box blade securely on top of the jack stands.

! WARNING

AVOID INJURY OR DEATH

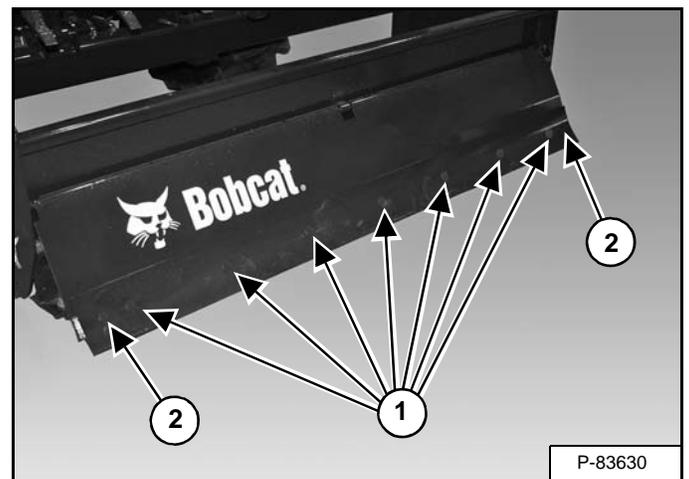
Wear safety glasses to prevent eye injury when any of the following conditions exist:

- **When fluids are under pressure.**
- **Flying debris or loose material is present.**
- **Engine is running.**
- **Tools are being used.**

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The same procedure will be used to remove the inner and outer cutting edge. Removal of the outer cutting edge is shown for clarity.

Figure 10-60-2



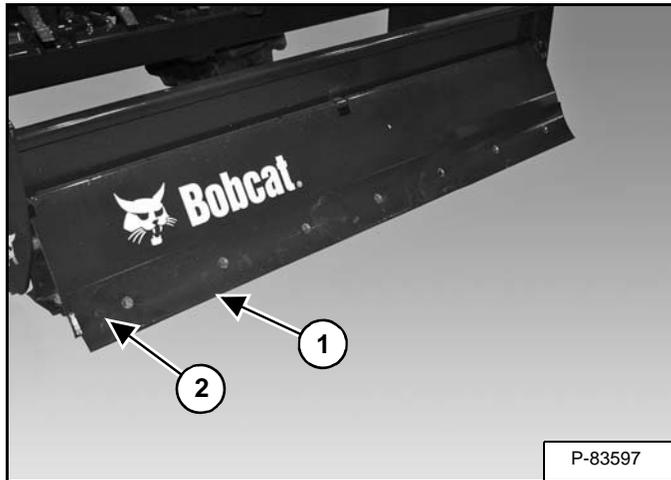
Remove the bolts (Item 1), leaving in the end bolts (Item 2) [Figure 10-60-2].

REMOVAL AND INSTALLATION (CONT'D)

Cutting Edge (Cont'd)

Removal And Installation (Cont'd)

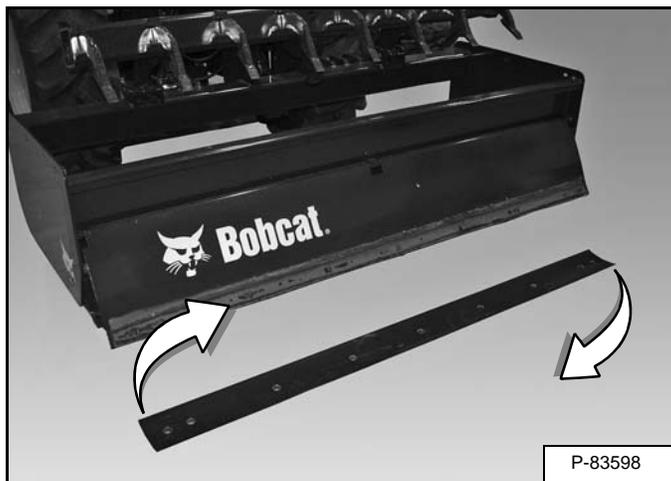
Figure 10-60-3



Support one end of the cutting edge (Item 1) and remove the bolt (Item 2) [Figure 10-60-3], set the end on the ground. Repeat for the other end of the cutting blade.

Installation: Lift one end of cutting edge aligning hole and install bolt. Repeat for the other end of cutting edge. Install the remaining bolts and tighten to 125-140 ft.-lb. (170-190 N•m) torque.

Figure 10-60-4



The cutting edge can be rotated 180° and reinstalled [Figure 10-60-4].



AVOID INJURY OR DEATH

Wear safety glasses to prevent eye injury when any of the following conditions exist:

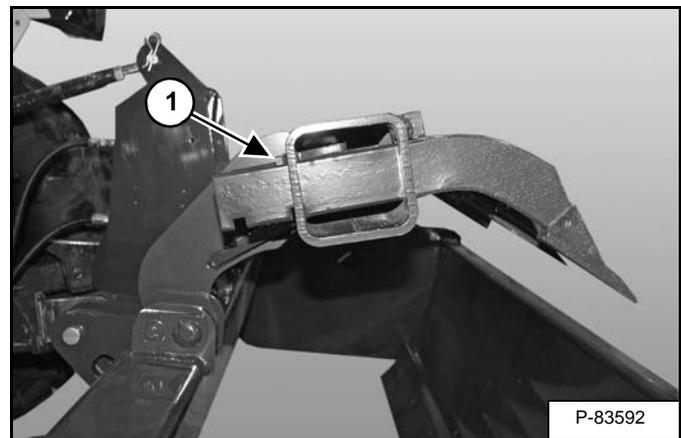
- When fluids are under pressure.
- Flying debris or loose material is present.
- Engine is running.
- Tools are being used.

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Scarifier Teeth

Removal And Installation

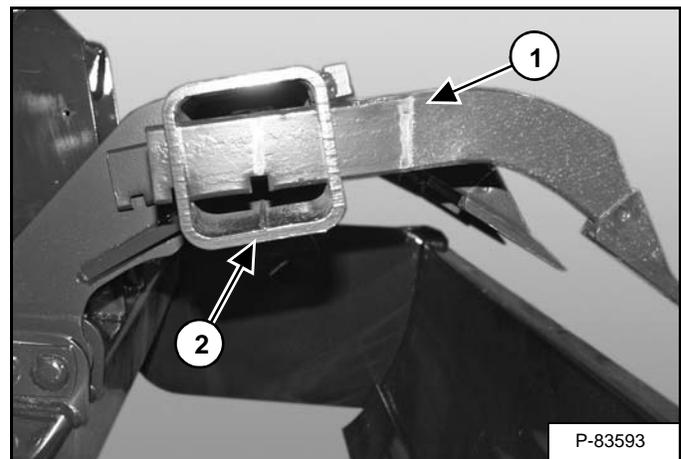
Figure 10-60-5



Remove the shank keeper (Item 1) [Figure 10-60-5].

Installation: Insert the shank keeper.

Figure 10-60-6



Adjust or remove the shank (Item 1) from the shank holder (Item 2) [Figure 10-60-6].

Installation: Position the shank into the shank holder in the desired position.

IMPLEMENT STORAGE AND RETURN TO SERVICE

Storage

Sometimes it may be necessary to store your Bobcat implement for an extended period of time. Below is a list of items to perform before storage.

- Thoroughly clean and wash the implement.
- Check for damaged or missing decals. Replace if necessary.
- Check for loose hardware, missing or damaged parts.
- Replace worn or damaged parts.
- Lubricate the implement.
- Place the implement on flat ground in a dry protected shelter.

NOTE: In muddy conditions or to prevent the implement from freezing to the ground, put the implement on planks or blocks before removing the implement from the machine.

Return to Service

After the Bobcat implement has been in storage, it is necessary to follow a list of items to return the implement to service.

- Check for damaged or missing decals. Replace if necessary.
- Check for loose hardware, missing or damaged parts.
- Replace worn or damaged parts.
- Lubricate the implement.

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