

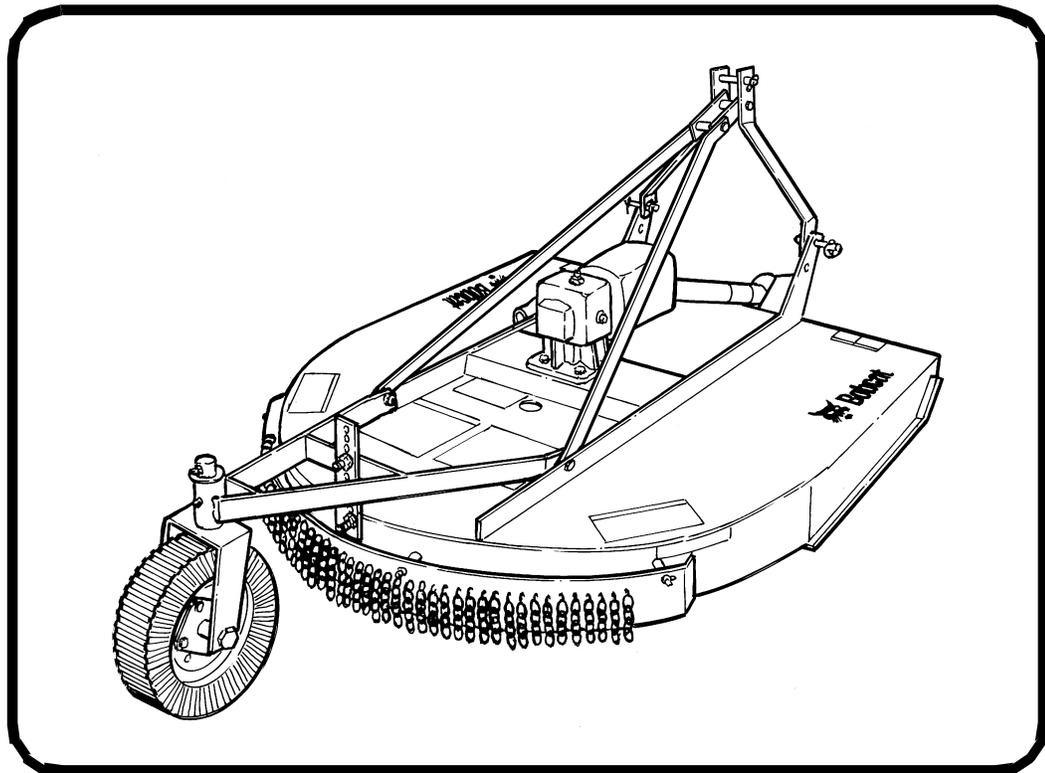


Bobcat®

Service Manual

Three-Point Rotary Cutter

(3RC60SB) S/N AL1M00101 & Above
(3RC60SC) S/N AL1K00101 & Above
(3RC72SB) S/N AL1N00101 & Above
(3RC72SC) S/N AL1L00101 & Above



Product: 2010 Bobcat Three-Point Rotary Cutter 3RC60SB,3RC60SC,3RC72SB,3RC72SC Service Repair Workshop Manual
Full Download: <https://www.arepairmanual.com/downloads/2010-bobcat-three-point-rotary-cutter-3rc60sb3rc60sc3rc72sb3rc72sc-service-repair-workshop-manual/>

Sample of manual. Download All 68 pages at:
<https://www.arepairmanual.com/downloads/2010-bobcat-three-point-rotary-cutter-3rc60sb3rc60sc3rc72sb3rc72sc-service-repair-workshop-manual/>

MAINTENANCE SAFETY



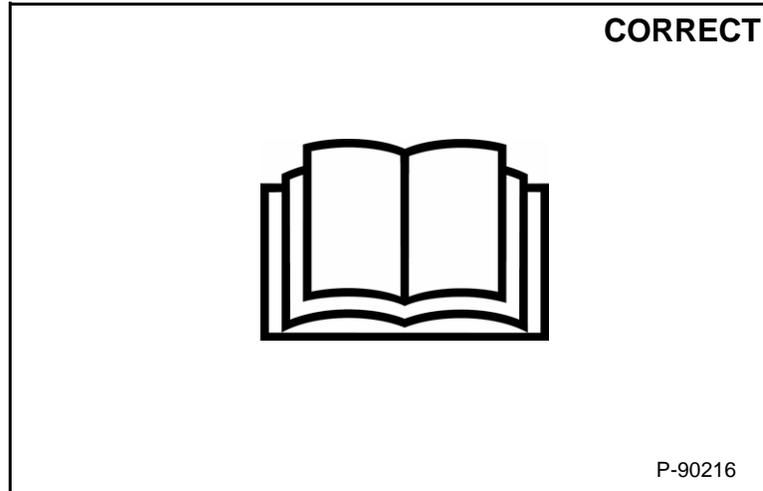
WARNING

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.



Bobcat®

CONTENTS

SAFETY & MAINTENANCE	10-01
MAINFRAME	20-01
SPECIFICATIONS	SPEC-01
ALPHABETICAL INDEX	INDEX-01



Bobcat®

FOREWORD

SERIAL NUMBER LOCATION	1-7
Implement Serial Number	1-7
MANUAL STORAGE LOCATION	1-7
DELIVERY REPORT	1-7
IMPLEMENT IDENTIFICATION	1-8
IMPLEMENT SIGNS (DECALS)	1-9

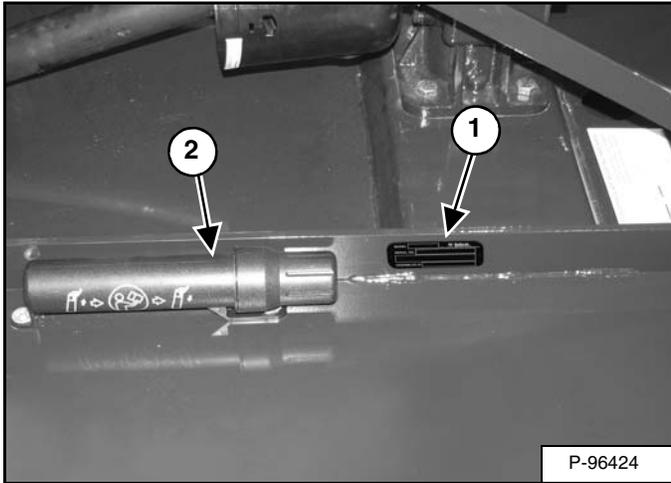


Bobcat®

SERIAL NUMBER LOCATION

Implement Serial Number

Figure 1



Always use the serial number (Item 1) [Figure 1] of the three-point rotary cutter 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.

MANUAL STORAGE LOCATION

Read and understand the Operation & Maintenance Manual before operating the three-point rotary cutter.

The Operation & Maintenance Manual and Safety Manual(s) are stored in a container (Item 2) [Figure 1] located on the three-point rotary cutter.

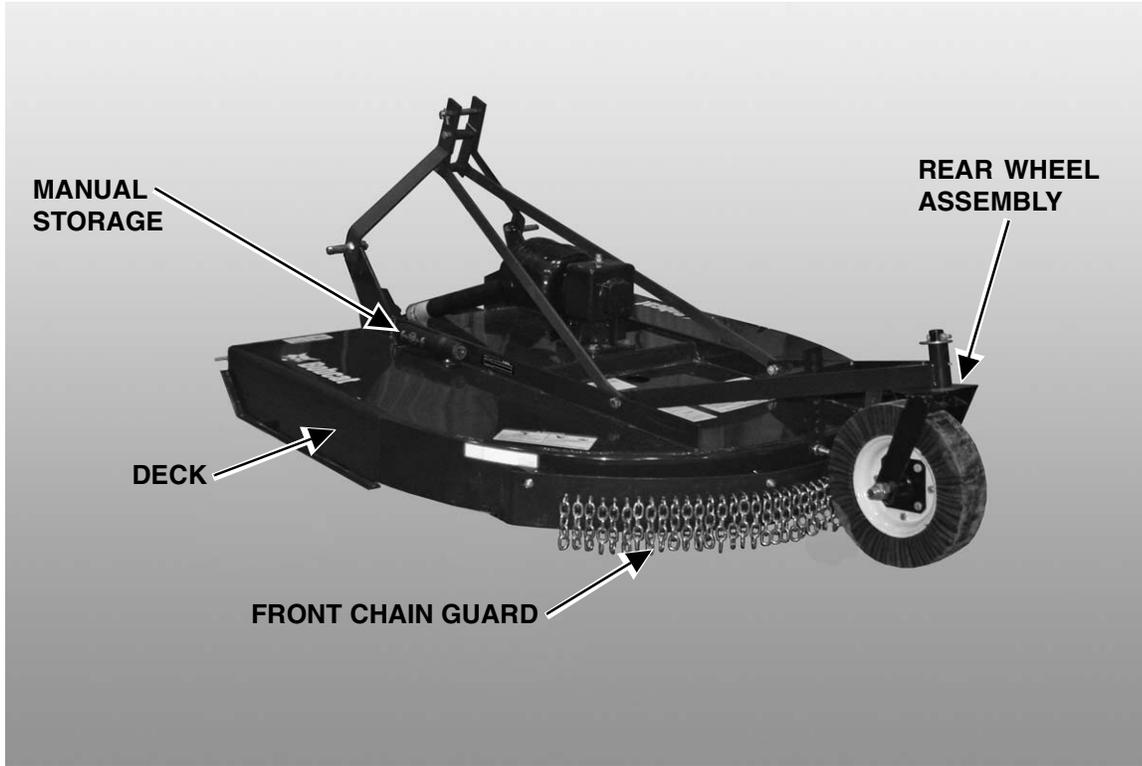
DELIVERY REPORT

Figure 2

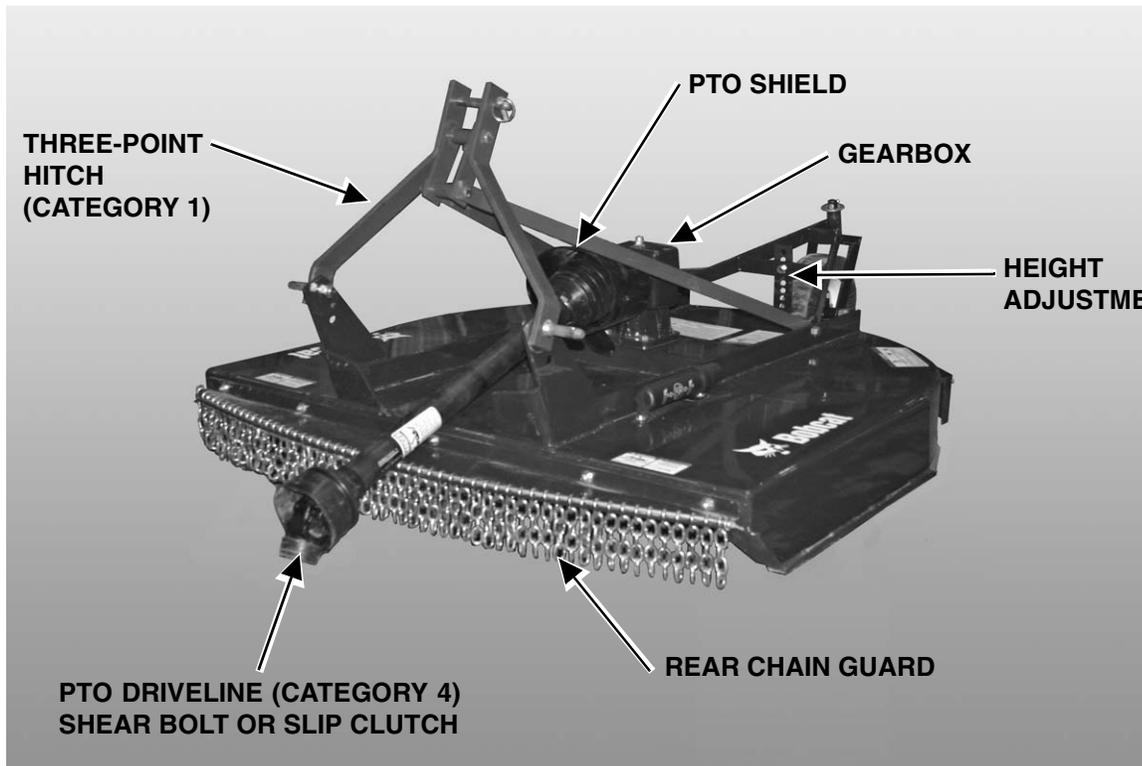
A schematic diagram of a 'DELIVERY REPORT' form. The form is divided into several sections. At the top right is the title 'DELIVERY REPORT'. Below it is a section with horizontal lines for text. To the left of this is a section with a black header containing the word 'WARNING' in white, followed by several lines of horizontal lines. At the bottom right of the form is a small white box containing the text 'B-16315'.

The delivery report [Figure 2] must be completed by the dealer and signed by the owner or operator when the Bobcat three-point rotary cutter is delivered. An explanation of the form must be given to the owner.

IMPLEMENT IDENTIFICATION



P-96425



P-96407

IMPLEMENT SIGNS (DECALS)

Follow the instructions on all the Implement Signs (Decals) that are on the implement. Replace any damaged implement signs and be sure they are in the correct locations. Implement signs are available from your Bobcat Implement dealer.

⚠ DANGER	⚠ WARNING
	OVERSPEEDING IMPLEMENT PTO CAN CAUSE SERIOUS INJURY OR DEATH
ROTATING SHAFT WILL CAUSE SERIOUS INJURY OR DEATH Keep shields and guards in place.	Do NOT exceed the PTO speed of 540 RPM.

7163177 (2)

⚠ WARNING		
AVOID SERIOUS INJURY OR DEATH		
Never use compact tractor or implement without instructions.	Keep PTO master shaft, equipment chain, and drive shaft guard in place.	Obey all traffic regulations when on public roads. Use slow moving vehicle (SMV) emblem and hazard flashers when required.
Read Operation & Maintenance Manual and Operator's Handbook (if equipped) for tractor and implement.	Keep away from moving parts.	Lock brake pedals together for road travel.
Securely block up the implement before working underneath.	Keep hydraulics away.	Disengage PTO lines for road travel.
Familiar seat belt securely when Full-Cover Protective Structure (FCPS) is up and locked.	Disengage implements ONLY WITH A PTO SPEED OF 540 RPM.	NO PEDESTALS on tractor or implement.
DO NOT use seat belt if FCPS is down.	USE ROPS AND FASTEN SEAT BELT.	TO LEAVE COMPACT TRACTOR:
	Slow down when turning and operating on rough ground or slopes.	1. Lower all implements to the ground.
		2. Place all controls in neutral.
		3. Lock brake pedals together and engage parking brake.
		4. Stop engine and remove key.

7139395

P-96407

⚠ DANGER	
THROWN OBJECTS	ROTATING BLADES
<ul style="list-style-type: none"> • Clear mowing area of debris. • Never operate mower in vicinity of other persons. • Objects can be thrown more than several hundred feet. • Keep all shields installed. Repair or replace if damaged or missing. • Check blades and mounting hardware. Replace if damaged. Never walk or mow. 	<ul style="list-style-type: none"> • Never put hands, feet or objects into or under mower when engine is running. • Keep bystanders away. • No idlers. • Stop engine before servicing.
THROWN OBJECTS OR ROTATING BLADES CAN CAUSE SERIOUS INJURY OR DEATH	

6734440 (2)

ROTARY CUTTER SERVICE SCHEDULE
EVERY 10 HOURS OF OPERATION: <ol style="list-style-type: none"> 1. Check blades and mounting plate for cracks or damage. Replace if necessary. 2. Check blade mounting hardware for proper torque 450 ft-lbs (610 Nm). Tap bolt head with hammer and retorquer. Check blade mounting plate hardware. 3. Check chains, deck, shields. Repair if damaged or replace if necessary. 4. Check for damaged or missing decals. Replace if necessary. 5. Check for damaged or leaking gearbox. 6. Clean debris, leaves, grass and flammable material from deck areas. 7. Lubricate all (5) grease points. 8. Check lubrication level in gearbox (SAE 90 gear lube).
SEE ATTACHMENT OPERATION AND MAINTENANCE MANUAL FOR MORE INSTRUCTIONS.

7139186

7140920 (2)
(Reflective Strip)

TO TIGHTEN BLADE MOUNTING HARDWARE:
Torque blade mounting hardware to 450 ft-lbs (610 Nm). Tap bolt head with hammer and retorquer.
TORQUE WRENCH SOCKET SIZE: 1 1/16 IN (23.00 MM) BLADE BOLT

7139187

P-96425



Bobcat®

SAFETY & MAINTENANCE

TROUBLESHOOTING	10-10-1
Chart	10-10-1
SERVICE SCHEDULE	10-20-1
Chart	10-20-1
Description	10-20-1
LUBRICATING THE IMPLEMENT	10-30-1
Lubrication Locations	10-30-1
REMOVAL AND INSTALLATION OF CHAIN GUARDS	10-40-1
Procedure	10-40-1
REMOVAL AND INSTALLATION OF SHEAR BOLT (GRADE 2)	10-50-1
Procedure	10-50-1
IMPLEMENT STORAGE AND RETURN TO SERVICE	10-60-1
Storage	10-60-1
Return to Service	10-60-1
REGULAR MAINTENANCE ITEMS	10-70-1
Gearbox Fluid	10-70-1
Cleaning The Three-Point Rotary Cutter	10-70-1



Bobcat®

TROUBLESHOOTING

Chart

 WARNING	<p>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.</p>
--	--

W-2003-0903

Use the following troubleshooting chart to locate and correct problems which most often occur with the implement.

(3RC60SB & 3RC72SB) Three-Point Rotary Cutter

PROBLEM	CAUSE	CORRECTION
Poor cutting.	Travel speed too fast.	Reduce travel speed.
	Debris on blade mounting plate.	Clean mounting plate.
	Blades worn or damaged.	Sharpen or replace blades.
Excessive vibration.	Build up of material.	Clean three-point rotary cutter.
	Broken or missing blade.	Replace blades.
Blades will not rotate.	Debris between blades and mounting plate.	Remove debris.
	Broken shear bolt.	Replace shear bolt.

(3RC60SC & 3RC72SC) Three-Point Rotary Cutter

PROBLEM	CAUSE	CORRECTION
Poor cutting.	Travel speed too fast.	Reduce travel speed.
	Debris on blade mounting plate.	Clean mounting plate.
	Blades worn or damaged.	Sharpen or replace blades.
Excessive vibration.	Build up of material.	Clean three-point rotary cutter.
	Broken or missing blade.	Replace blades.
Blades will not rotate.	Debris between blades and mounting plate.	Remove debris.
	PTO slip clutch worn excessively.	See your Bobcat dealer for service.



Bobcat®

SERVICE SCHEDULE

Chart

WARNING

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

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.

SERVICE SCHEDULE		FREQUENCY	
ITEM	SERVICE REQUIRED	10 HOURS	YEARLY
Gearbox	Check lubrication level in gearbox (SAE 90 gear lube).		
	Drain and replace lube (Approx. 0.25 Gal. (0,946 L) (SAE 90 gear lube).		
	Check for damaged or leaking gearbox.		
Grease Fittings	Lubricate all (5) grease points.		
General Items	Clean debris, leaves, grass and flammable material from deck area.		
	Check chains, deck, shields. Repair if damaged or replace if necessary.		
Decals	Check for damaged or missing decals. Replace if necessary.		
Blades	Check blades and mounting plate for cracks or damage. Replace if necessary.		
	Check blade mounting hardware for proper torque 450 ft.-lb (610 N•m). Tap bolt head with hammer and retorque.		
	Check blade mounting plate hardware.		

Description

ROTARY CUTTER SERVICE SCHEDULE

EVERY 10 HOURS OF OPERATION:

1. Check blades and mounting plate for damage. Replace if necessary.
2. Check blade mounting hardware for proper torque (450 ft.-lb (610 Nm)). Tap bolt head with hammer and retorque if necessary.
3. Check chains, deck, shields. Repair if damaged or replace if necessary.
4. Check for damaged or leaking gearbox.
5. Check for damage to gearbox.
6. Clean debris, leaves, grass and flammable material from deck area.
7. Lubricate all (5) grease points.
8. Check lubrication level in gearbox (SAE 90 gear lube).

SEE ATTACHED OPERATION AND MAINTENANCE MANUAL FOR MORE INSTRUCTIONS.

68916 SW
7139186 enUS

7139186



Bobcat®

LUBRICATING THE IMPLEMENT

Lubrication Locations

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.

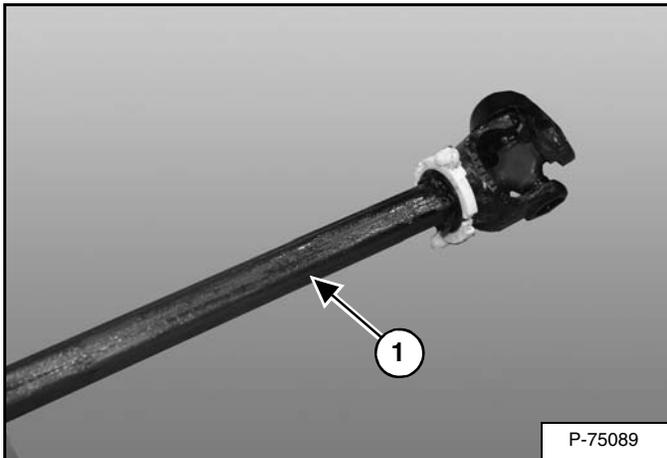
I-2067-0499

Lubricate as specified for the best performance of the three-point rotary cutter. (See SERVICE SCHEDULE on Page 10-10-1)

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

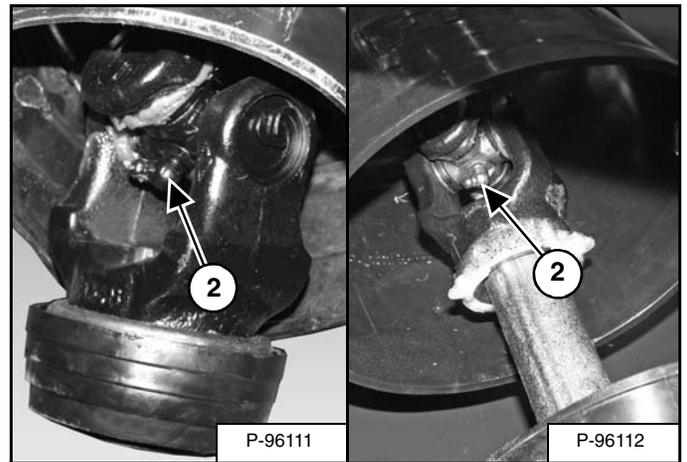
Lubricate the following:

Figure 10-30-1



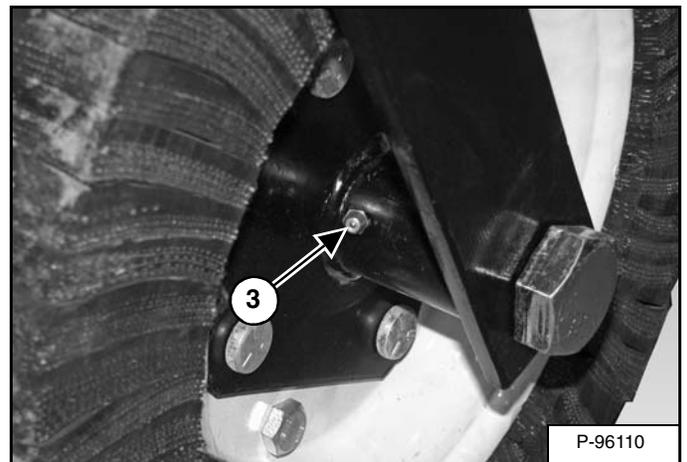
1. PTO driveline (1) [Figure 10-30-1].

Figure 10-30-2



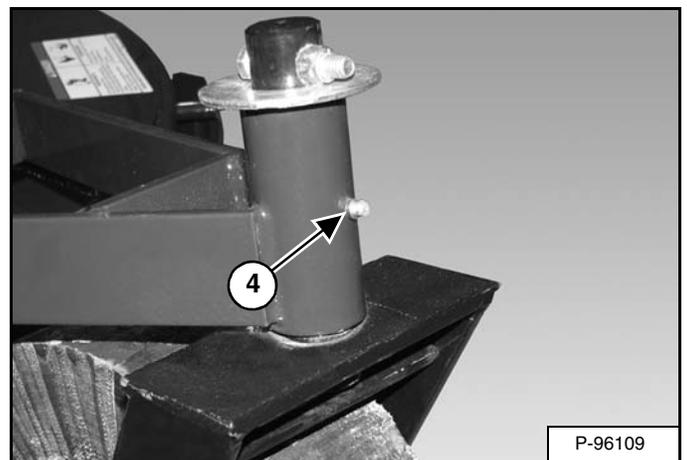
2. U-joint (2) [Figure 10-30-2] (on both ends of the PTO driveline).

Figure 10-30-3



3. Wheel hub (1) [Figure 10-30-3].

Figure 10-30-4



4. Pivot shaft (1) [Figure 10-30-4].



Bobcat®

REMOVAL AND INSTALLATION OF CHAIN GUARDS

Procedure

! 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.

W-2019-0907

! WARNING

AVOID INJURY OR DEATH

Never operate rotary cutter without front or rear chain guards.

W-2698-1007

! WARNING

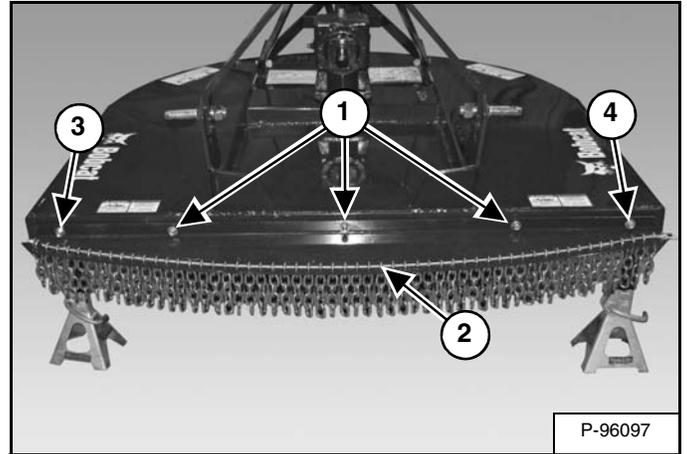
AVOID INJURY OR DEATH

- Do NOT exceed the rated implement PTO speed.
- Stay clear of rotating driveline.
- Keep bystanders away.
- Keep hands, feet, clothing and long hair away.
- Keep PTO shields and all guards in place.
- Disengage PTO (rear and mid), engage the parking brake, stop the engine and make sure all rotating components are stopped before exiting compact tractor.
- Do NOT service the compact tractor or implement with the PTO (rear or mid) engaged.
- Do NOT service the implement in a raised position unless properly blocked and with all rotating components stopped.
- Disengage PTO (rear and mid) for road travel.

W-2697-1007

Front Chain Guard

Figure 10-40-1



Remove the bolts and nuts (Item 1) from chain guard (Item 2) [Figure 10-40-1].

Remove bolt and nut (Item 3) [Figure 10-40-1]. Set the end of chain guard on the ground.

Remove bolt and nut (Item 4) [Figure 10-40-1]. Set the end of chain guard on the ground.

Repair or replace chain guard as needed.

Installation: Lift one end of guard aligning mounting holes, install bolt and nut.

Lift other end of guard aligning mounting holes, install bolt and nut.

Install remaining bolts and nuts.

Tighten front chain guard bolts and nuts to specified torque. (See TORQUE SPECIFICATIONS FOR BOLTS on Page SPEC-20-1.)

REMOVAL AND INSTALLATION OF CHAIN GUARDS (CONT'D)

Procedure (Cont'd)

Rear Chain Guard



Be careful when removing or installing parts which have spring tension. Wear safety glasses or goggles. Failure to obey warnings, can cause injury or death.

W-2311-0398

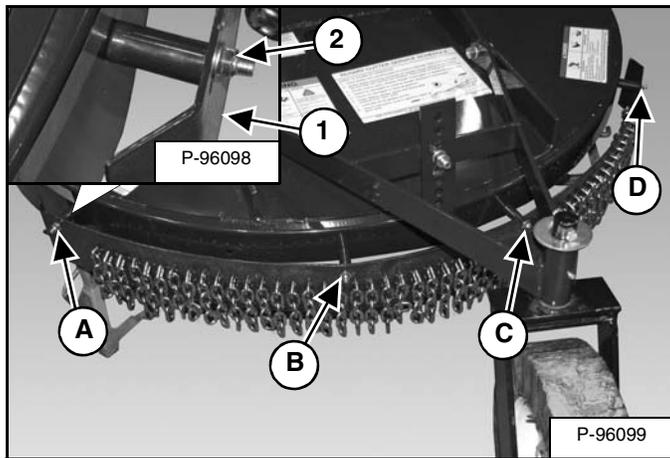
NOTE: The rear guard is not preformed to match the three-point rotary cutter, it will need to be formed during installation.

Install the next bolt and spacer, align and place guard onto bolt, install flange nut.

Repeat procedure for the remaining locations.

Tighten rear guard bolts and nuts to specified torque. (See TORQUE SPECIFICATIONS FOR BOLTS on Page SPEC-20-1.)

Figure 10-40-2



NOTE: Rear chain guard is under tension. Hold the rear chain guard while removing retaining hardware. Hold rear chain guard tightly and release slowly.

Starting at location **A** of the rear chain guard, hold the rear chain guard (Item 1), remove the flange nut (Item 2) [Figure 10-40-2]. Slowly release tension from rear chain guard.

Repeat procedure in the order listed for the remaining locations: **B, C & D** [Figure 10-40-2].

Repair or replace chain guard as needed.

Installation: Install bolt through first hole in rear of deck, install a spacer bushing on bolt.

NOTE: Make sure the mounting holes are to the top of the guard when mounting and the formed end of the guard is facing the deck.

Lift one end of guard aligning mounting hole with bolt, install flange nut.

REMOVAL AND INSTALLATION OF SHEAR BOLT (GRADE 2)

Procedure

WARNING

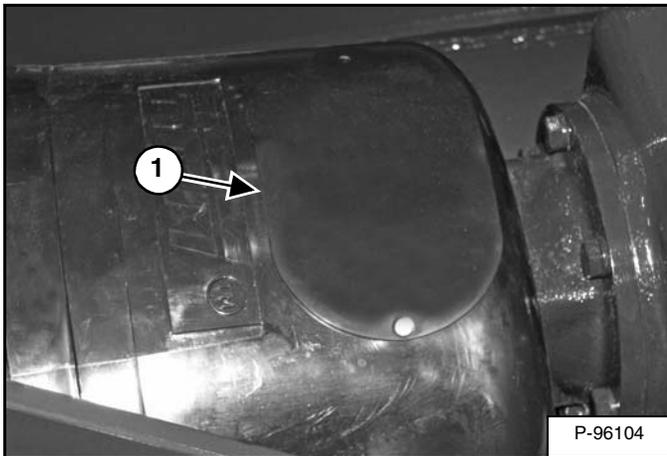
AVOID INJURY OR DEATH

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.

W-2019-0907

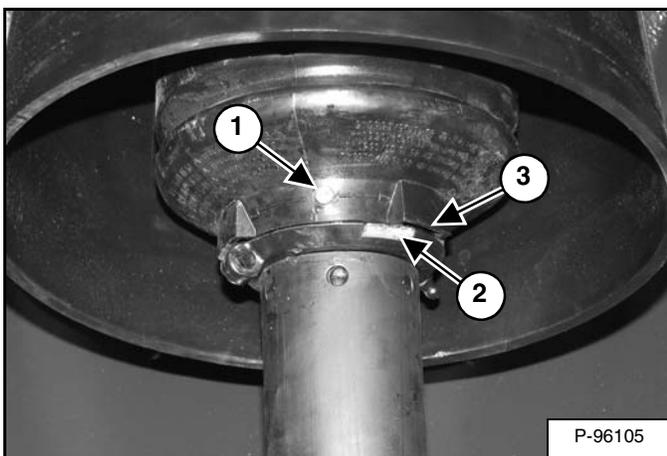
Figure 10-50-1



Open the gearbox shield access covers (Item 1) [Figure 10-50-1].

Installation: Close and secure the shield access covers.

Figure 10-50-2



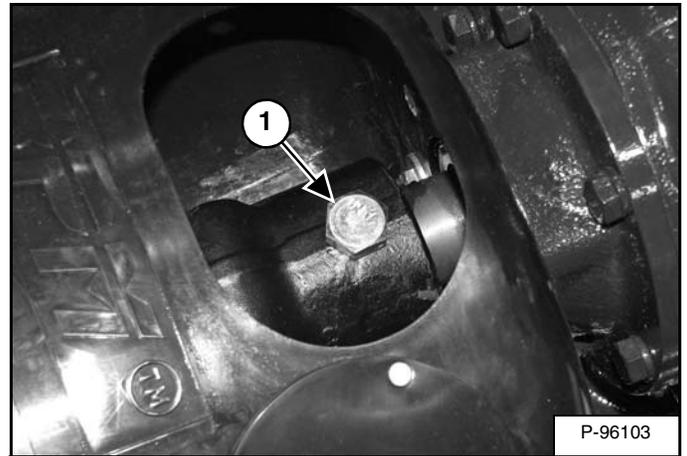
Remove the retaining screw (Item 1) [Figure 10-50-2] from the PTO shaft.

Remove the shield by aligning the white tabs (Item 2) with the openings (Item 3) [Figure 10-50-2] and pull back the guard.

Installation: Slide the guard over the gearbox connection aligning the white tabs with the openings.

Turn the shield to offset white tabs and openings. Install retaining screw to lock shield in position.

Figure 10-50-3



Remove the shear bolt (Item 1) [Figure 10-50-3].

Installation: Align holes in the PTO driveline and gear box shaft. Install the Grade 2 shear bolt. Install and tighten the lock nut.

WARNING

AVOID INJURY OR DEATH

- Do NOT exceed the rated implement PTO speed.
- Stay clear of rotating driveline.
- Keep bystanders away.
- Keep hands, feet, clothing and long hair away.
- Keep PTO shields and all guards in place.
- Disengage PTO (rear and mid), engage the parking brake, stop the engine and make sure all rotating components are stopped before exiting compact tractor.
- Do NOT service the compact tractor or implement with the PTO (rear or mid) engaged.
- Do NOT service the implement in a raised position unless properly blocked and with all rotating components stopped.
- Disengage PTO (rear and mid) for road travel.

W-2697-1007



Bobcat®

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.
- Lubricate the implement.
- Inspect the three-point mounts, mounting pins and all welds on the implement for wear and damage.
- Check for loose hardware, missing guards or damaged parts.
- Replace worn or damaged parts.
- Check for damaged or missing decals. Replace if necessary.
- Place the implement in a dry protected shelter.
- Place the implement flat on the ground.

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.
- Be sure all shields and guards are in place.
- Lubricate the implement.
- Check for loose hardware, missing or damaged parts.
- Check for leaks. Repair as needed.
- Check oil level in the gearbox.
- Install and operate implement, check for correct function.

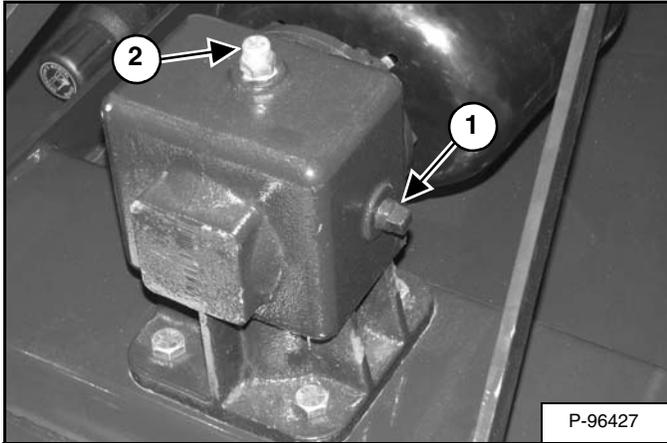


Bobcat®

REGULAR MAINTENANCE ITEMS

Gearbox Fluid

Figure 10-70-1



Check for proper oil level in the gearbox. Remove fluid level check plug (Item 1) [Figure 10-70-1].

NOTE: The correct oil level is approximately half the depth of the gearbox or to the shaft centerlines.

If fluid does not come out of check plug hole, remove vent / fill plug (Item 2) [Figure 10-70-1]. Add oil (SAE 90 Gear Lube) until in starts to come out of check plug hole. Reinstall the plugs.

Cleaning The Three-Point Rotary Cutter

Always park on flat level ground. Fully lower the loader arms and put the attachment flat on the ground (if equipped).

Raise the machine's three-point hitch. (See the machine's Operation & Maintenance Manual for detailed information on operating the three-point hitch.)

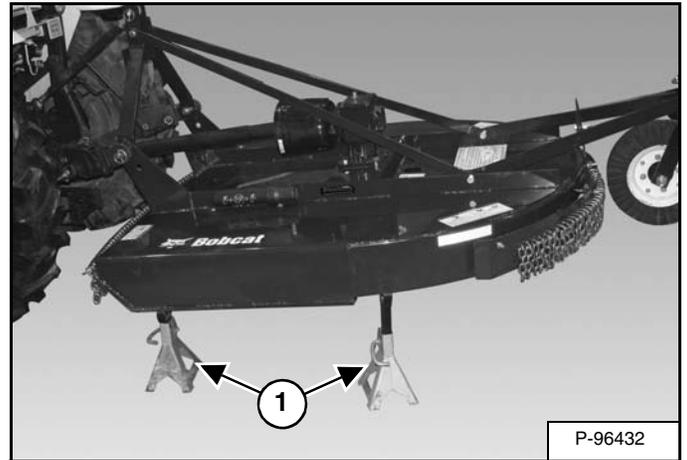
Stop the engine and exit the machine. (See the machine's Operation & Maintenance Manual for detailed information on entering and exiting the machine.)

WARNING

AVOID INJURY OR DEATH
Securely block up the implement before working underneath.

W-2565-0207

Figure 10-70-2



Place jack stands (Item 1) [Figure 10-70-2] underneath the three-point rotary cutter deck.

Enter the machine and start the engine. (See the machine's Operation & Maintenance Manual for detailed information on entering and exiting the machine.)

Lower the three-point hitch setting the three-point rotary cutter deck securely on the jack stands.

Stop the engine and exit the machine. (See the machine's Operation & Maintenance Manual for detailed information on entering and exiting the machine.)

Disconnect the PTO driveline.

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.

W-2019-0907

Use water or air pressure to clean debris from the three-point rotary cutter.

Use care when removing any objects that are wrapped / tangled around the blades and driveline.



Bobcat®

MAINFRAME

CUTTING BLADES	20-10-1
Removal And Installation	20-10-1
CASTER WHEEL	20-20-1
Removal	20-20-1
Installation	20-20-2
PTO DRIVELINE	20-30-1
PTO Driveline Removal And Installation	20-30-1
U-Joint Removal And Installation	20-30-3
Slip Clutch	20-30-4
GEARBOX	20-40-1
Removal And Installation	20-40-1
Parts Identification	20-40-4
Inspection	20-40-5
Disassembly	20-40-6
Assembly	20-40-12

Product: 2010 Bobcat Three-Point Rotary Cutter 3RC60SB,3RC60SC,3RC72SB,3RC72SC Service Repair Workshop Manual
Full Download: <https://www.arepairmanual.com/downloads/2010-bobcat-three-point-rotary-cutter-3rc60sb3rc60sc3rc72sb3rc72sc-service-repair-workshop-manual/>



Bobcat®

Sample of manual. Download All 68 pages at:

<https://www.arepairmanual.com/downloads/2010-bobcat-three-point-rotary-cutter-3rc60sb3rc60sc3rc72sb3rc72sc-service-repair-workshop-manual/>