

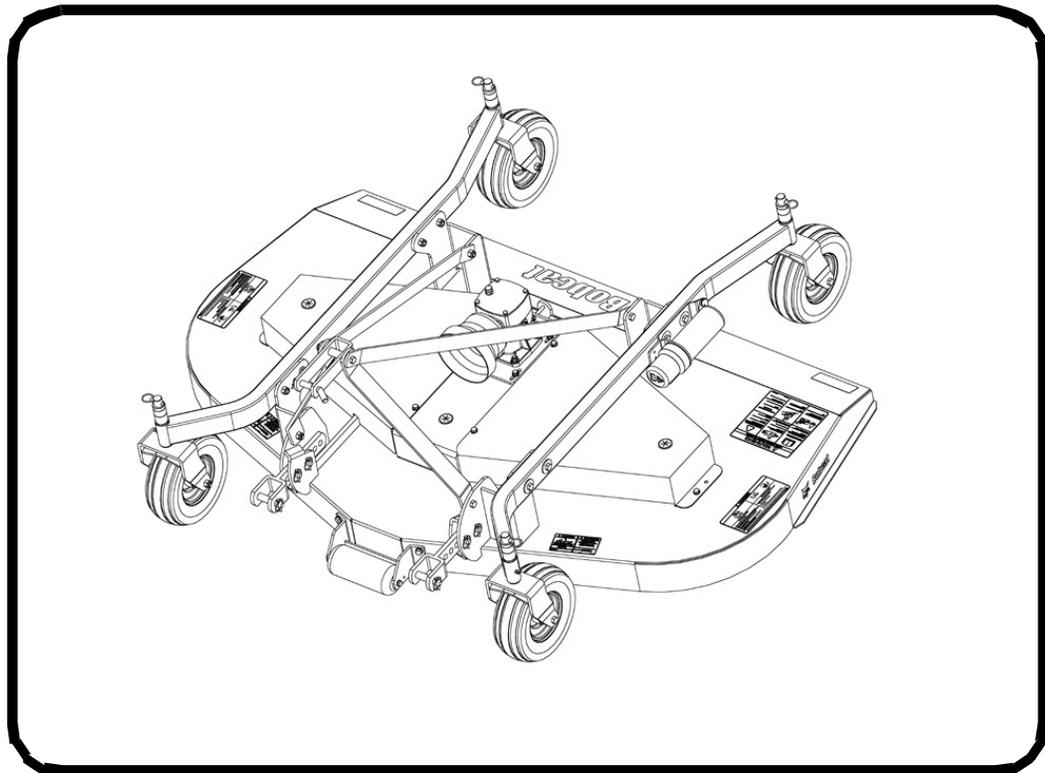


Bobcat®

Service Manual

Three-Point Finish Mower

(3FM84) S/N AF4500101 & Above



Sample of manual. Download All 74 pages at:

<https://www.arepairmanual.com/downloads/2009-bobcat-three-point-finish-mower-3fm84-service-repair-workshop-manual/>

Product: 2009 Bobcat Three-Point Finish Mower 3FM84 Service Repair Workshop Manual

Full Download: <https://www.arepairmanual.com/downloads/2009-bobcat-three-po>

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Sample of manual. Download All 74 pages at:

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MAINTENANCE SAFETY



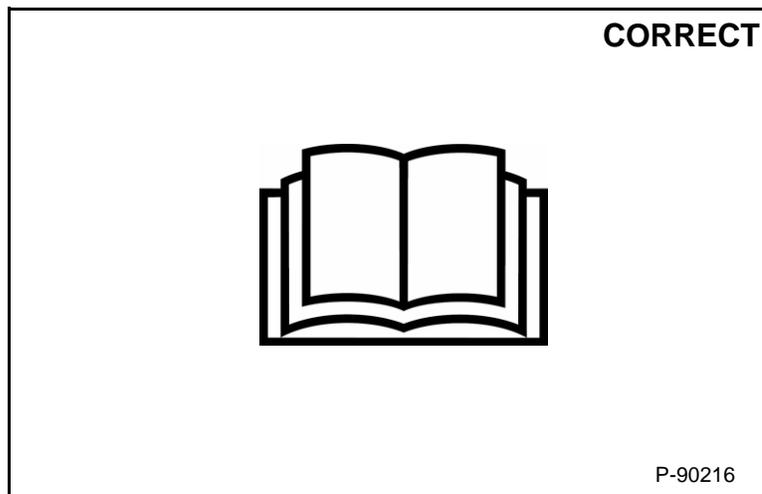
WARNING

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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**SAFETY AND
MAINTENANCE**

**MAIN
FRAME**

**SPECIFICATIONS
AND
SCHEMATICS**

REFERENCE INFORMATION

Write the correct information for YOUR three-point finish mower implement in the spaces below. Always use these numbers when referring to your three-point finish mower.

Three-Point Finish Mower Serial Number _____

NOTES:

YOUR BOBCAT® DEALER:

ADDRESS:

PHONE:

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

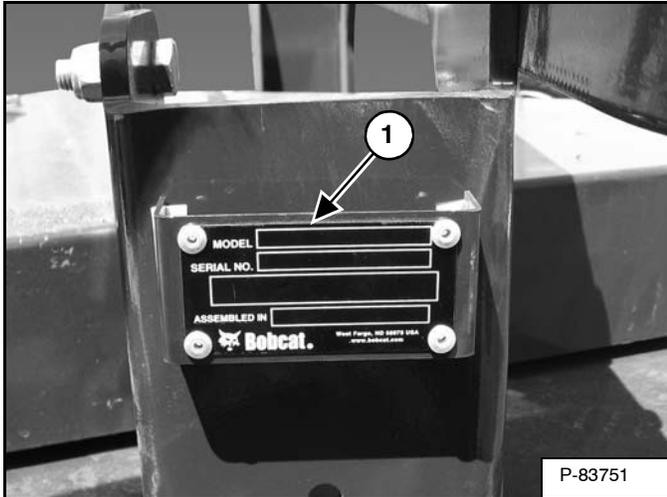
Bobcat Company Europe
Drève Richelle 167
B-1410 WATERLOO
Belgium



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SERIAL NUMBER LOCATION

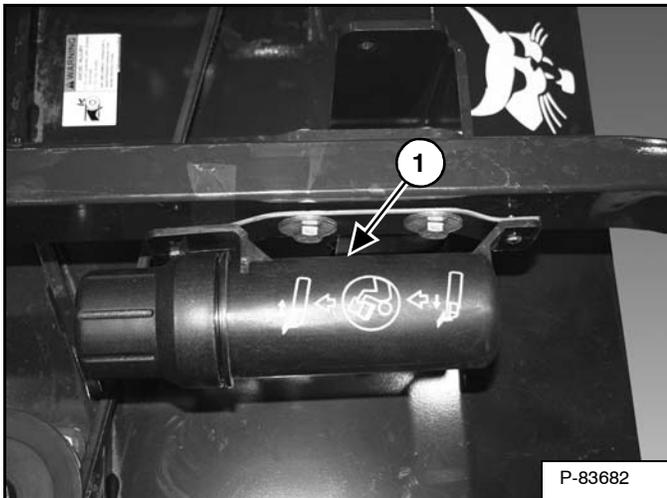
Figure 1



Always use the serial number (Item 1) [Figure 1] of the three-point finish mower 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

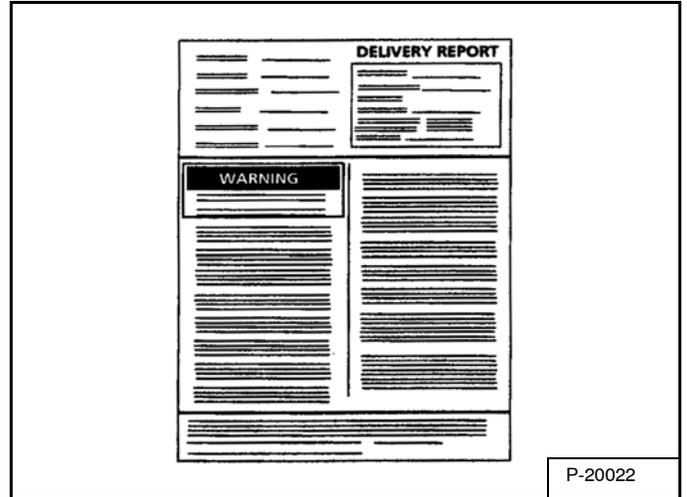
Figure 2



The manual storage container (Item 1) [Figure 2] is located on the wheel support bracket at the rear of the finish mower.

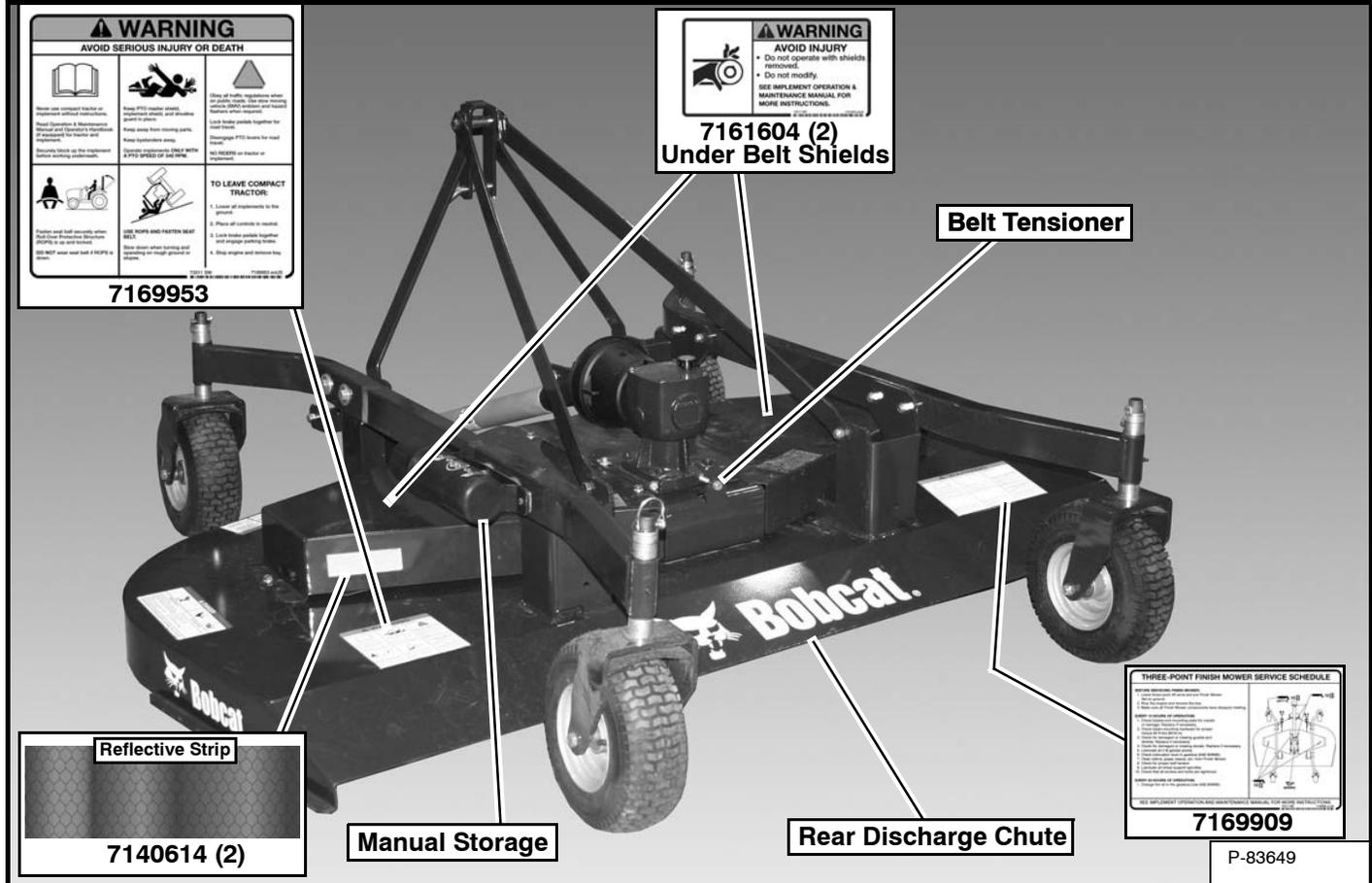
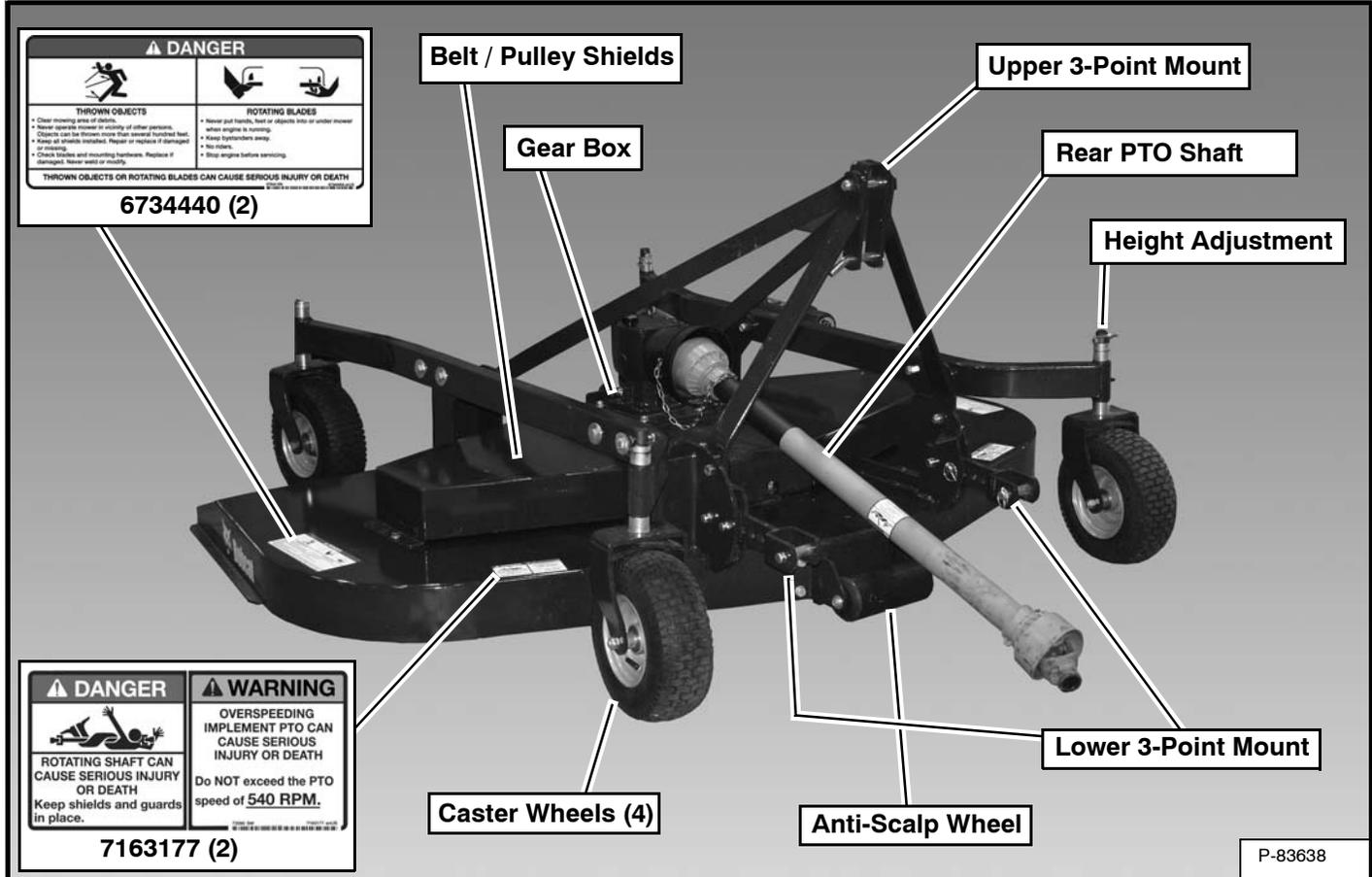
DELIVERY REPORT

Figure 3



The delivery report must be filled out by the dealer and signed by the owner or operator when the three-point finish mower is delivered. An explanation of the form must be given to the owner. Make sure it is filled out completely [Figure 3].

IDENTIFICATION AND MACHINE SIGNS (DECALS)



SAFETY AND MAINTENANCE

SAFETY AND MAINTENANCE

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TROUBLESHOOTING

Chart

TROUBLESHOOTING THE THREE-POINT FINISH MOWER		
PROBLEM	CAUSE	CORRECTION
Poor cutting	Travel speed too fast	Reduce travel speed
	Low blade RPM	Increase RPM
	Blade belt slipping	Adjust belt to correct tension
	Blades dull	Sharpen or replace the blades
Blades will not rotate	Worn or broken blade belt	Replace belt
	PTO driveline disconnected	Connect PTO driveline
Vibration	Build up of material on the bottom of the mower deck	Clean the bottom of the mower deck
	Loose or cracked hardware	Repair or replace as needed
	Blades worn or broken	Replace the blades
	Blade spindles bent	Replace spindles
	Blades not balanced	Balance or replace blades



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SERVICE SCHEDULE

Chart

THREE-POINT FINISH MOWER SERVICE SCHEDULE

BEFORE SERVICING FINISH MOWER:

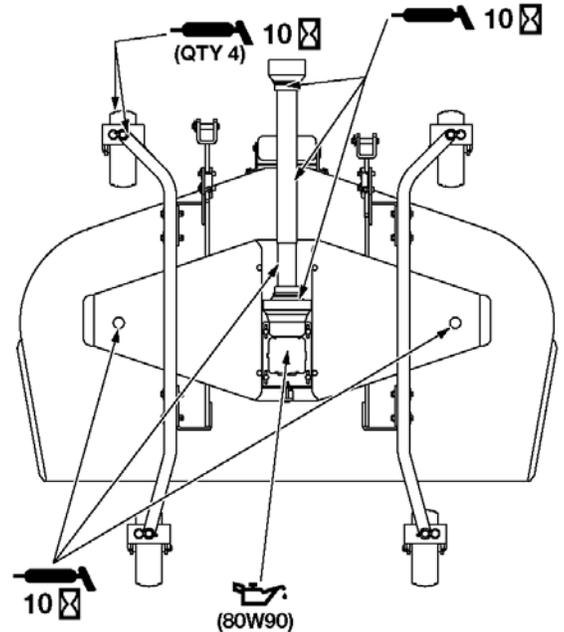
1. Lower three-point lift arms and put Finish Mower flat on ground.
2. Stop the engine and remove the key.
3. Make sure all Finish Mower components have stopped rotating.

EVERY 10 HOURS OF OPERATION:

1. Check blades and mounting plate for cracks or damage. Replace if necessary.
2. Check blade mounting hardware for proper torque 60 ft-lbs (85 N-m).
3. Check for damaged or missing guards and shields. Replace if necessary.
4. Check for damaged or missing decals. Replace if necessary.
5. Lubricate all (14) grease points.
6. Check lubrication level in gearbox (SAE 80W90).
7. Clean debris, grass, leaves, etc. from Finish Mower.
8. Check for proper belt tension
9. Lubricate all wheel support spindles
10. Check that all screws and bolts are tightened.

EVERY 50 HOURS OF OPERATION:

1. Change the oil in the gearbox (Use SAE 80W90)



SEE IMPLEMENT OPERATION AND MAINTENANCE MANUAL FOR MORE INSTRUCTIONS.

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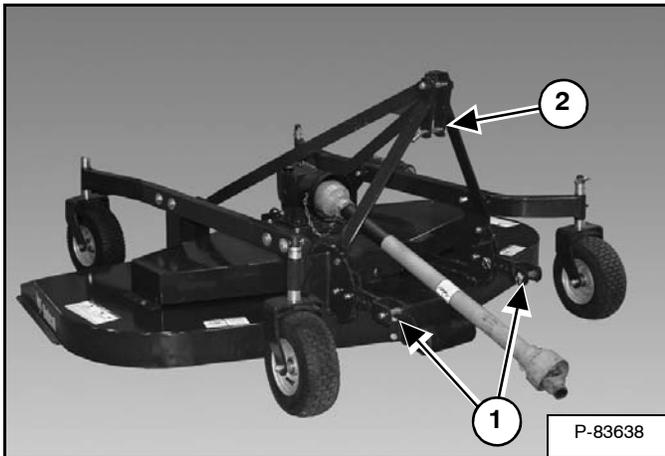


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INSPECTION

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 on the three-point finish mower for wear and damage each time the three-point finish mower is removed from the machine.

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.

INSPECTION (CONT'D)

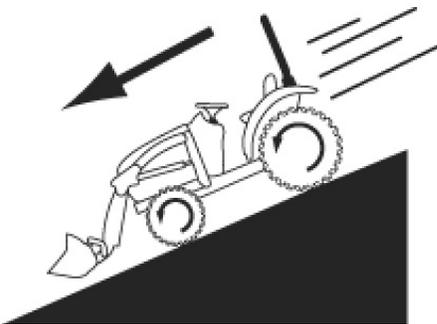
Three-Point Hitch

! 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.

W-2656-0807



! 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

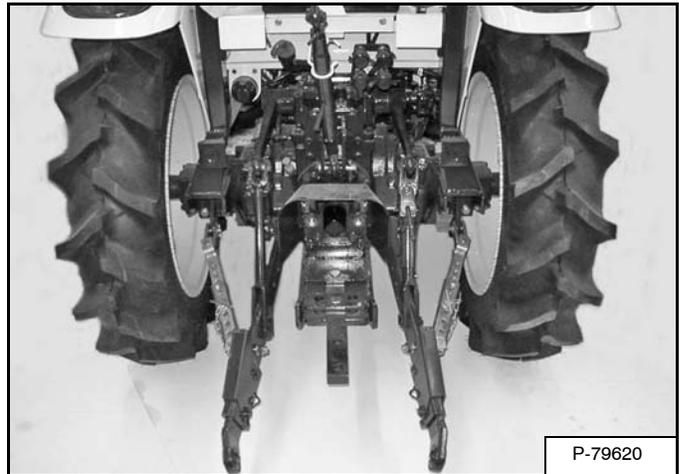
! DANGER

ROTATING BLADES WILL CAUSE SERIOUS INJURY OR DEATH

- Never put hands, feet or objects into or under mower when engine is running.
- Keep bystanders away.
- No riders.
- Stop engine before servicing.

D-1005-1108

Figure 10-30-2



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

See your machine's Operation & Maintenance Manual for detailed information on inspecting the machine.

REMOVAL AND INSTALLATION OF CUTTING BLADES

Procedure

Removal

NOTE: Refer to the service schedule for maintenance checks. (See **SERVICE SCHEDULE** on page 10-20-1.)

Service the blades only when attached to the machine.

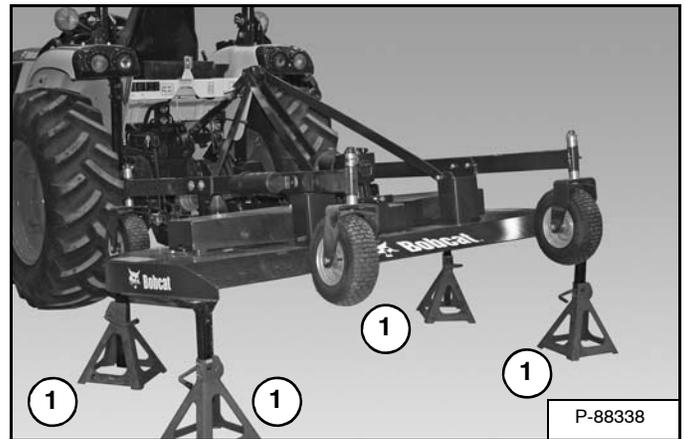
Stop the machine and implement on a flat level surface.

Raise the machine's three-point hitch lift links high enough to allow jack stands to be placed under the deck. (See the machine's Operation & Maintenance Manual for detailed information on operating the machine.)

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

Install blocks in front of and behind the rear tires of the machine.

Figure 10-40-1



Place jack stands (Item 1) **[Figure 10-40-1]** underneath the deck.

Move to the operator's position, fasten seat belt, start the engine.

Lower the three-point hitch and three-point finish mower down until it is securely on top of the jack stands.

Stop the engine, unfasten the seat belt, and remove the key.

Disconnect the PTO driveline.

! 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.

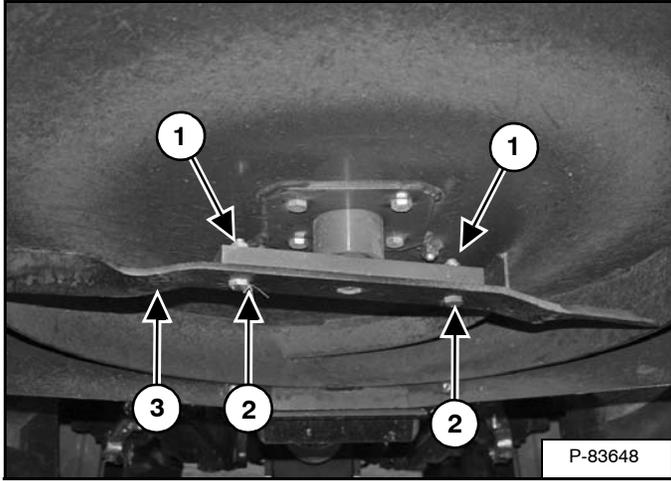
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REMOVAL AND INSTALLATION OF CUTTING BLADES (CONT'D)

Procedure (Cont'd)

Removal (Cont'd)

Figure 10-40-1



Remove lock nut (Items 1) and bolt (Item 2) from the blade (Item 3) [Figure 10-40-1].

NOTE: Blade bolt and blade may fall from the mounting plate when the lock nut is removed. Support the blade bolt and blade during removal.

Installation: Always use a new lock nut and bolt during assembly. Tighten the lock nut to 55 - 60 ft.-lb. (75 - 85 N•m) torque.

Repeat this procedure for all three blades.

Check the condition of the blade and mounting hardware. Replace worn parts as needed.

The blade bolt (Item 2) will only fit in the mounting plate one way, through the bottom. Install the nut (Item 1) [Figure 10-40-1] on top of the blade.



DANGER

ROTATING BLADES WILL CAUSE SERIOUS INJURY OR DEATH

- Never put hands, feet or objects into or under mower when engine is running.
- Keep bystanders away.
- No riders.
- Stop engine before servicing.

D-1005-1108

REMOVAL AND INSTALLATION OF BELT

Procedure

Removal

NOTE: The following illustrations may not show your exact mower as it appears but the procedure is correct.



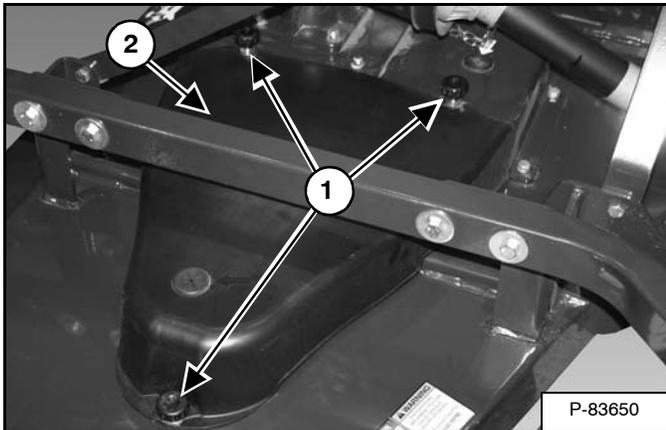
AVOID INJURY OR DEATH

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.

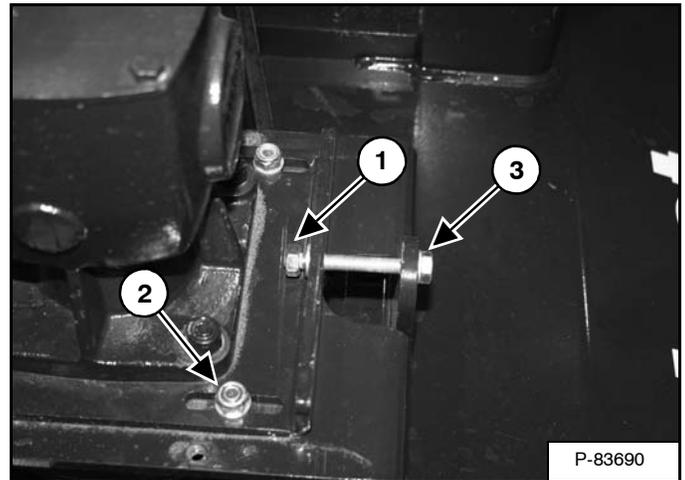
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Figure 10-50-1



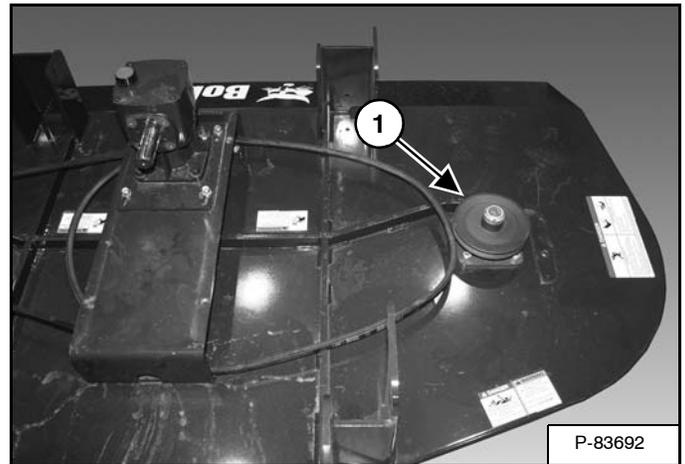
Remove the knobs (Item 1) and remove the belt shields (Item 2) [Figure 10-50-1] both sides of mower.

Figure 10-50-2



Loosen jam nut (Item 1), loosen four slide plate nuts (Item 2), loosen tension bolt (Item 3) [Figure 10-50-2].

Figure 10-50-3



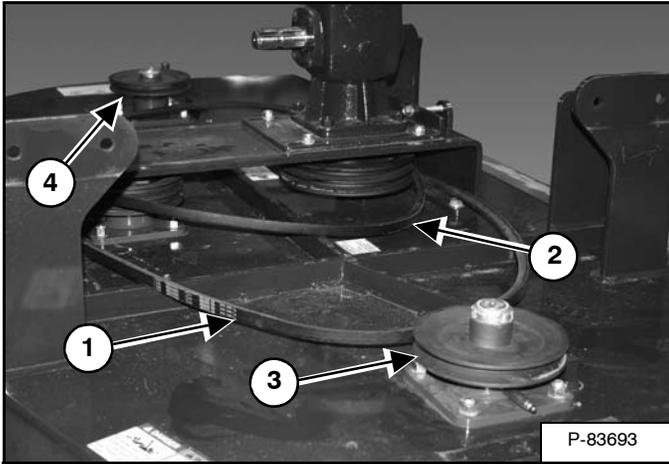
Remove belt from pulley (Item 1) [Figure 10-50-3] both sides.

REMOVAL AND INSTALLATION OF BELT (CONT'D)

Belt Procedure (Cont'd)

Installation

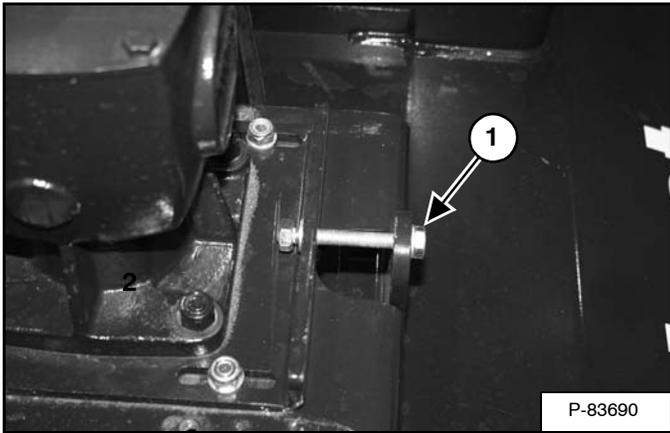
Figure 10-50-4



Install new belts. Install top belt (Item 1) first and lower belt (Item 2) second. Spindle pulley (Item 3) is lower in height than opposite side spindle pulley (Item 4) [Figure 10-50-4].

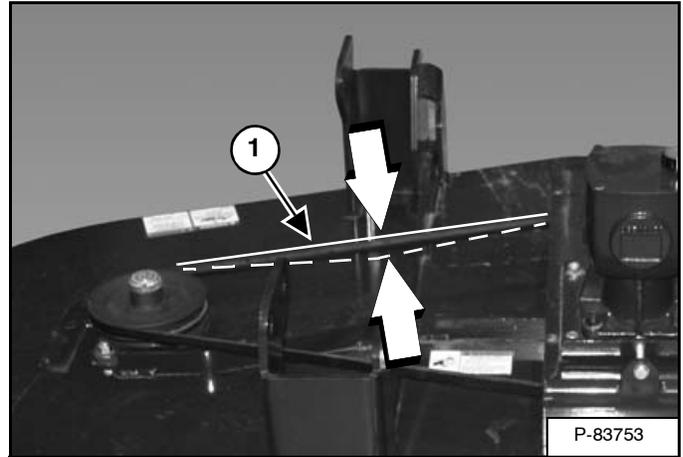
Ensure belts are over all three pulleys on each side of mower and not overlapping from top to bottom on dual belt pulleys.

Figure 10-50-5



Tighten tension bolt (Item 1) [Figure 10-50-5] to the proper belt tension.

Figure 10-50-6



Check belt tension by pressing forcefully on the belt.

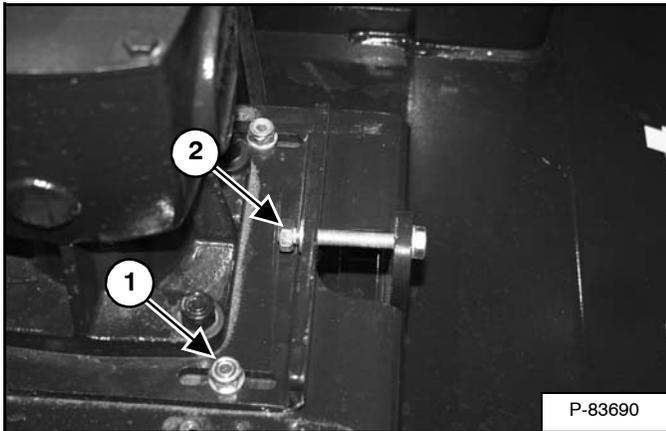
The belt tension should not exceed 0.4 in. (10 mm) (Item 1) [Figure 10-50-6].

REMOVAL AND INSTALLATION OF BELT (CONTD)

Procedure (Cont'd)

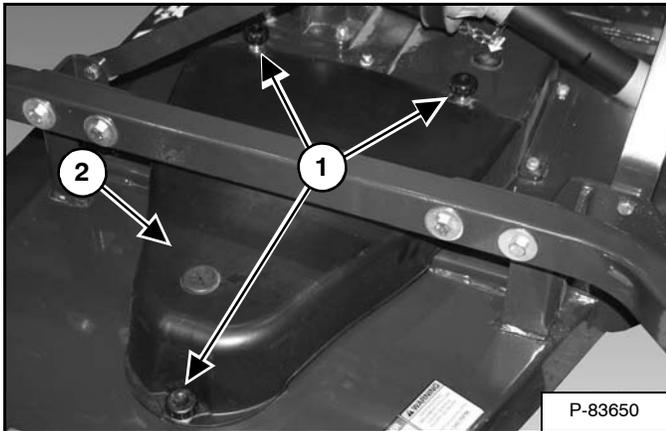
Installation (Cont'd)

Figure 10-50-7



Once proper belt tension is set, tighten the four slide plate nuts (Item 1) and jam nut (Item 2) [Figure 10-50-7].

Figure 10-50-8

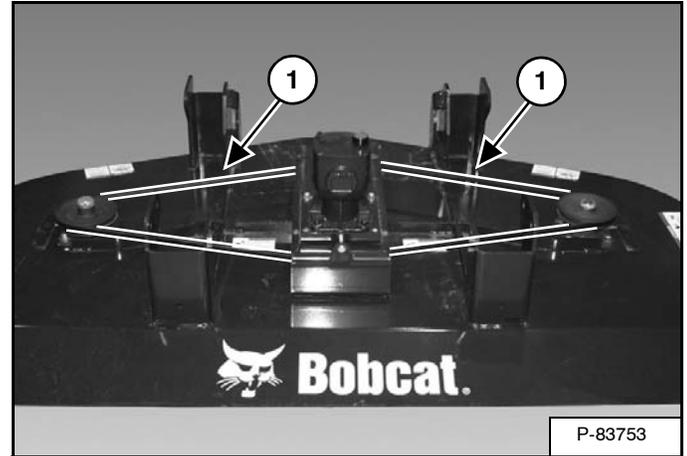


Install shield (Item 2) and knobs (Items 1) [Figure 10-50-8] and repeat for other side.

Reconnect the PTO driveline.

Belt Routing

Figure 10-50-9



Install the belts (Item 1) as shown [Figure 10-50-9] (highlighted in white).



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REGULAR MAINTENANCE ITEMS

Gearbox Fluid

! WARNING

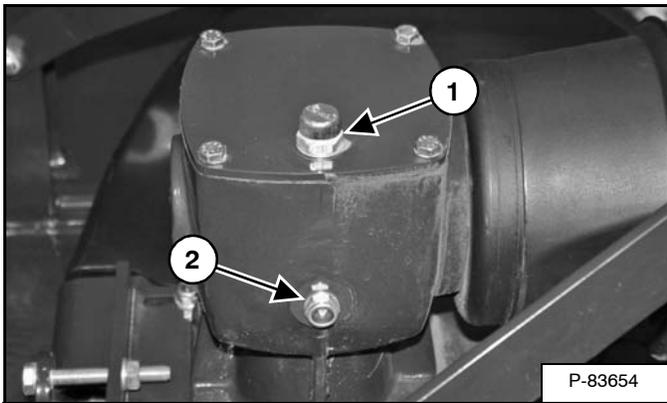
AVOID INJURY OR DEATH

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 10-60-1



Remove plug / vent (Item 1) [Figure 10-60-1].

Add oil (80W-90 Gear Lube) through the top hole until gear lube is visible in sight glass (Item 2). Install plug (Item 1) [Figure 10-60-1].

Cleaning The Three-Point Finish Mower

Stop the machine and implement on a flat level surface.

Raise the machine's three-point hitch lift links high enough to allow jack stands to be placed under the deck. (See the machine's Operation & Maintenance Manual for detailed information on operating the machine.)

Engage the parking brake. Disengage the rear-PTO and place all controls in neutral. Stop the engine, unfasten the seat belt, and remove the key.

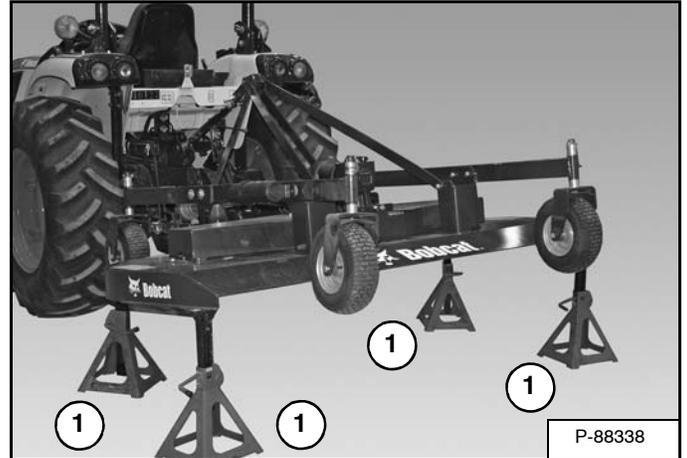
! WARNING

AVOID INJURY OR DEATH

Securely block up the implement before working underneath.

W-2565-0207

Figure 10-60-2



Place jack stands (Item 1) [Figure 10-60-2] underneath the deck.

Move to the operator's position, fasten seat belt, start the engine and release the parking brake.

Lower the three-point hitch and three-point finish mower down until it is securely on top of the jack stands.

Stop the engine, unfasten the seat belt, and remove the key.

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 finish mower.

Use care when removing any obstructions that are wrapped around blades and driveline.



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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 the implement.
- Lubricate the implement.
- Inspect the mounting arms and all welds on the implement for wear and damage.
- Inspect the PTO driveline shaft splines, guards and shields. Replace if damaged or missing.
- Inspect three-point hitch linkage condition.
- 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.

- Be sure all shields and guards are in place.
- Lubricate the implement.
- Install and operate implement, check for correct function.



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LUBRICATING THE IMPLEMENT

Lubrication Locations

Lubricate as specified for the best performance of the three-point finish mower.

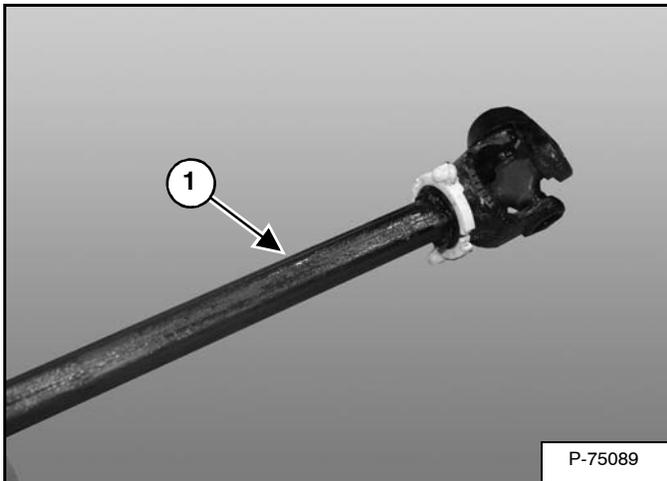
Always use a good quality lithium base multi-purpose grease when lubricating the attachment. Apply lubricant until extra grease shows.

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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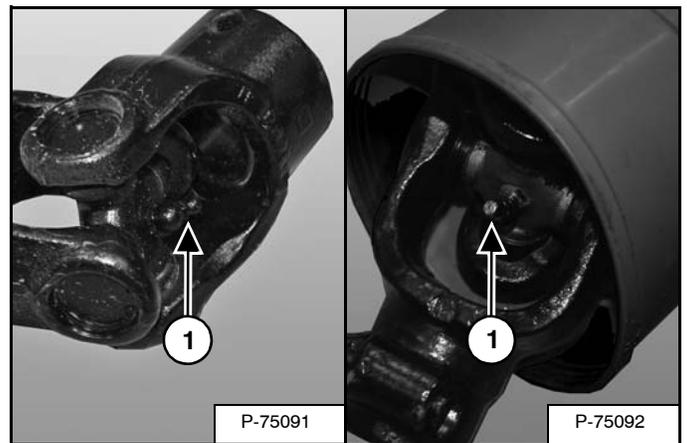
Figure 10-80-1



Lubricate the following every 10 hours of operation.

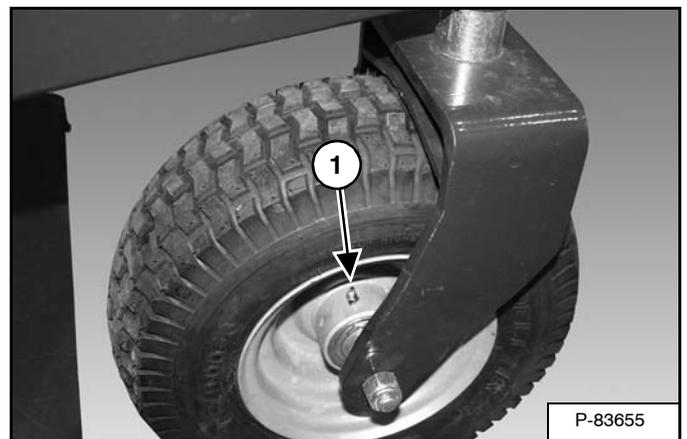
Apply grease to the PTO driveline (Item 1) [Figure 10-80-1].

Figure 10-80-2



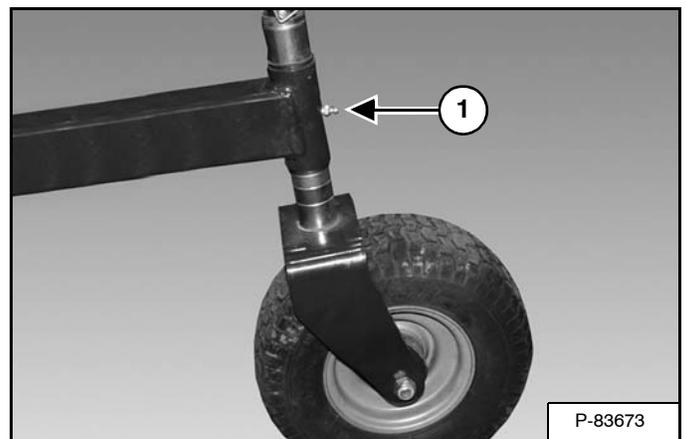
Lubricate the u-joints (Item 1) [Figure 10-80-2] on both ends of the PTO driveline.

Figure 10-80-3



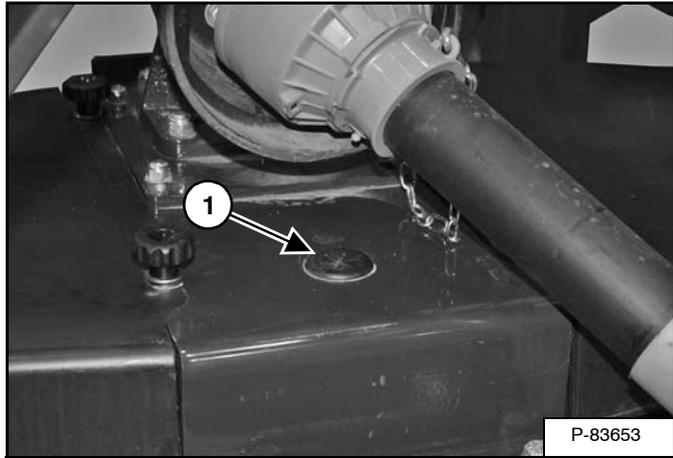
Lubricate the grease fitting (Item 1) [Figure 10-80-3] on the wheel hub.

Figure 10-80-4



Lubricate the grease fitting (Item 1) [Figure 10-80-4] on the wheel support arm, repeat for the other three support arms.

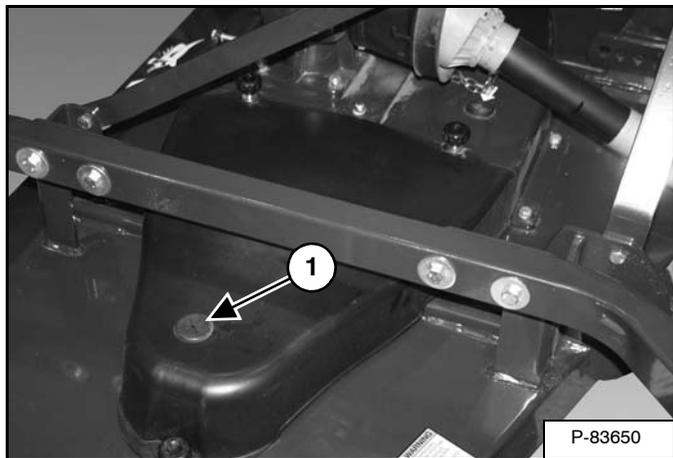
Figure 10-80-5



Lubricate the grease fitting for center blade spindle located under grease fitting access cover (Item 1) [Figure 10-80-5].

NOTE: Push grease gun fitting through grease fitting access cover and affix firmly to grease fitting to grease spindle bearings.

Figure 10-80-6



Lubricate the grease fitting for each side blade spindle located under grease fitting access cover (Items 1) [Figure 10-80-6].

NOTE: Push grease gun fitting through grease fitting access cover and affix firmly to grease fitting to grease spindle bearings.