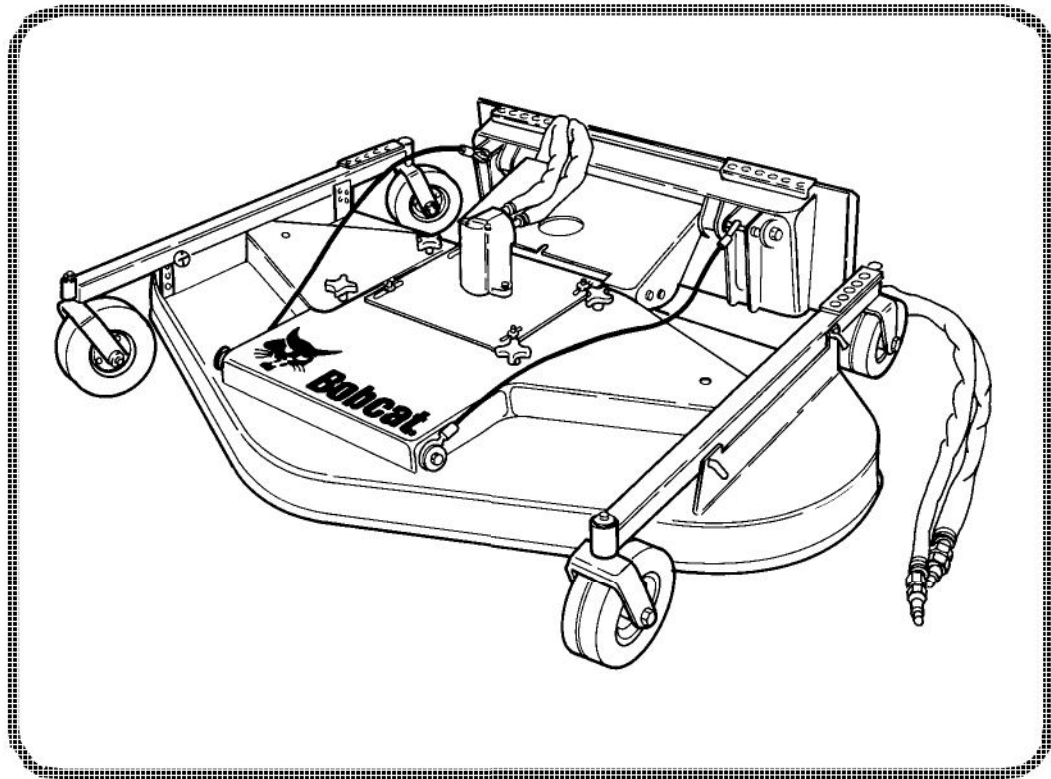




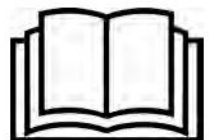
Bobcat®

Service Manual Mower

(Mower 72) S/N 230400101 & Above
(MI Finish Mower 72) S/N A8WB00101 & Above
(90 Mower) S/N 230700101 & Above
(MI Finish Mower 90) S/N A8SD00101 & Above



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MAINTENANCE SAFETY



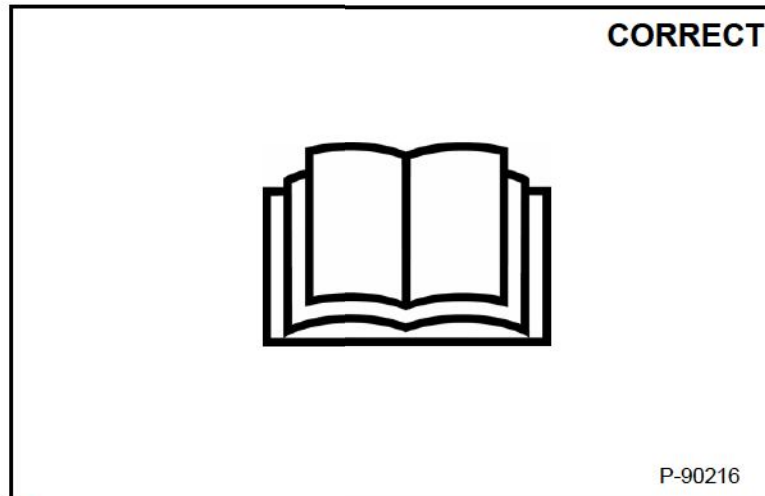
WARNING









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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CONTENTS

SAFETY AND MAINTENANCE	10-01
HYDRAULIC SYSTEM	20-01
MAINFRAME	30-01
SPECIFICATIONS	SPEC-01
ALPHABETICAL INDEX	INDEX-01

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FOREWORD

SERIAL NUMBER LOCATION	1-7
Attachment Serial Number	1-7
DELIVERY REPORT	1-7
ATTACHMENT IDENTIFICATION	1-8
72 Inch S/N 230400101 & Above	
90 Inch S/N 230700101 & Above	1-8
72 Inch S/N A8WB00101 & Above	
90 Inch S/N A8SD00101 & Above	1-9

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SERIAL NUMBER LOCATION

Attachment Serial Number

Always use the serial number of the 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.

Figure 1

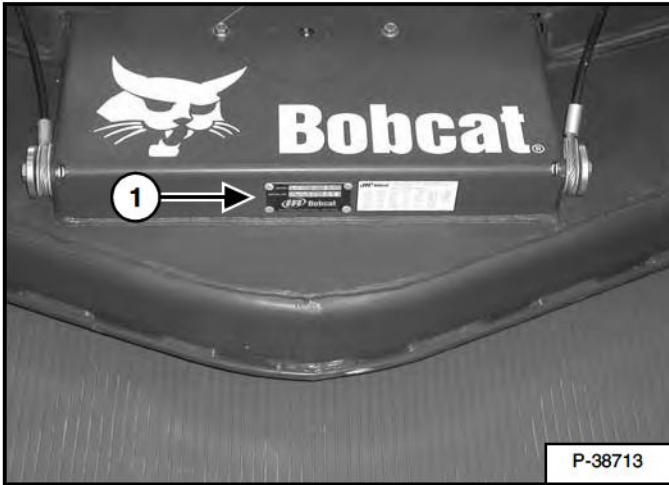
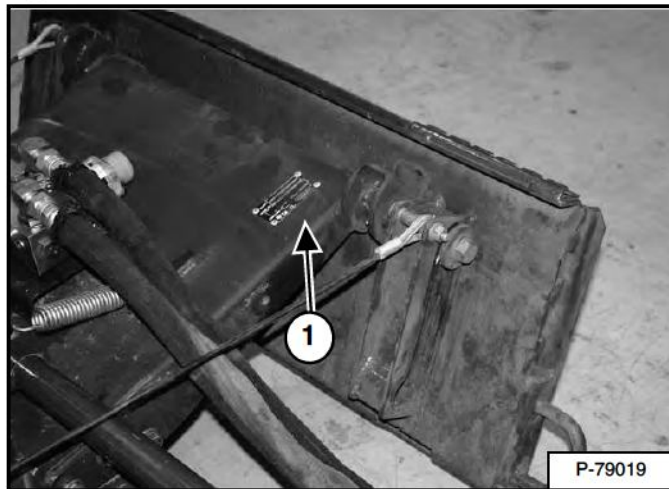


Figure 2



The mower serial number plate (Item 1) [Figure 1] or [Figure 2] is located on the frame in either position as shown, depending on mower model.

DELIVERY REPORT

Figure 3

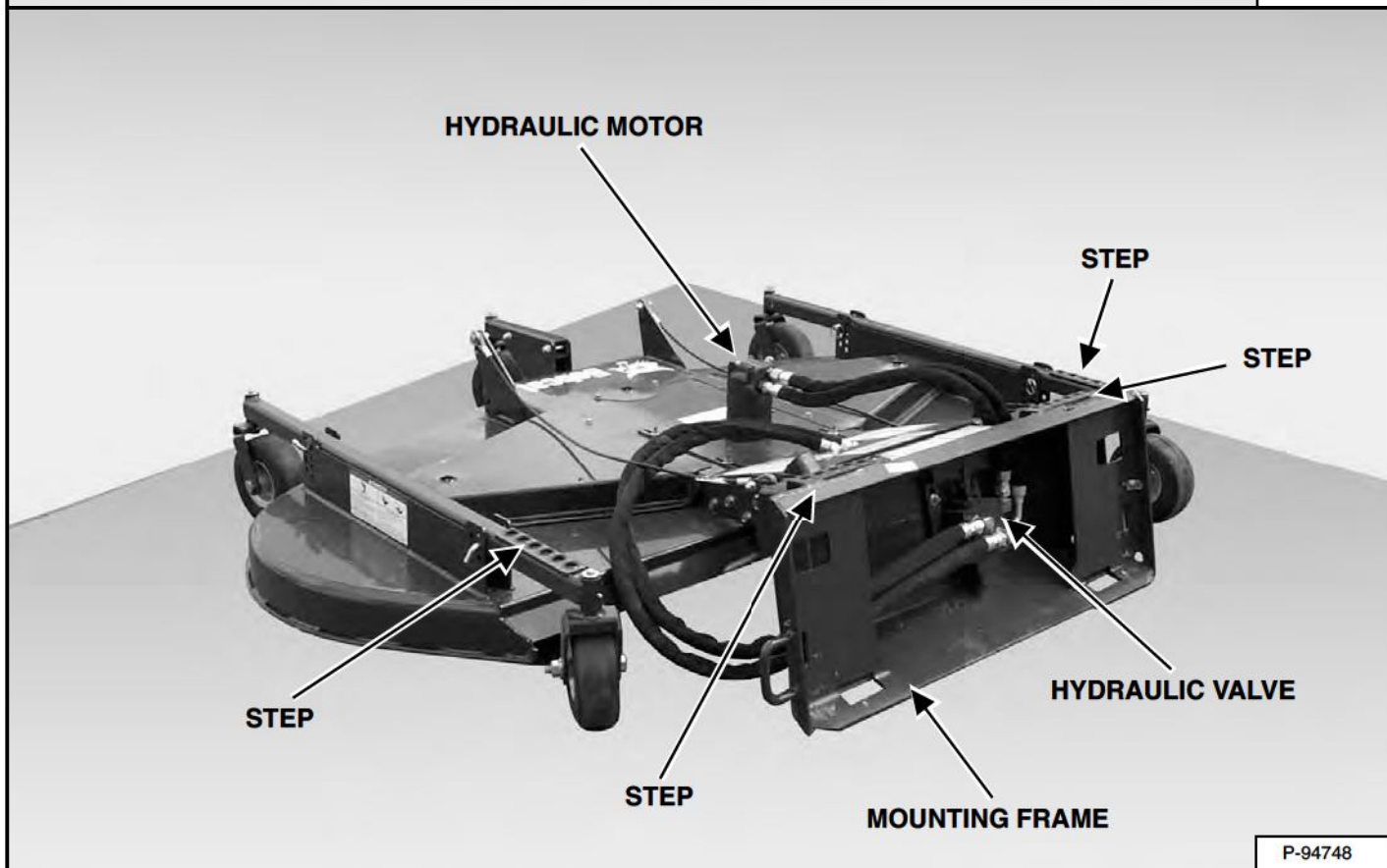
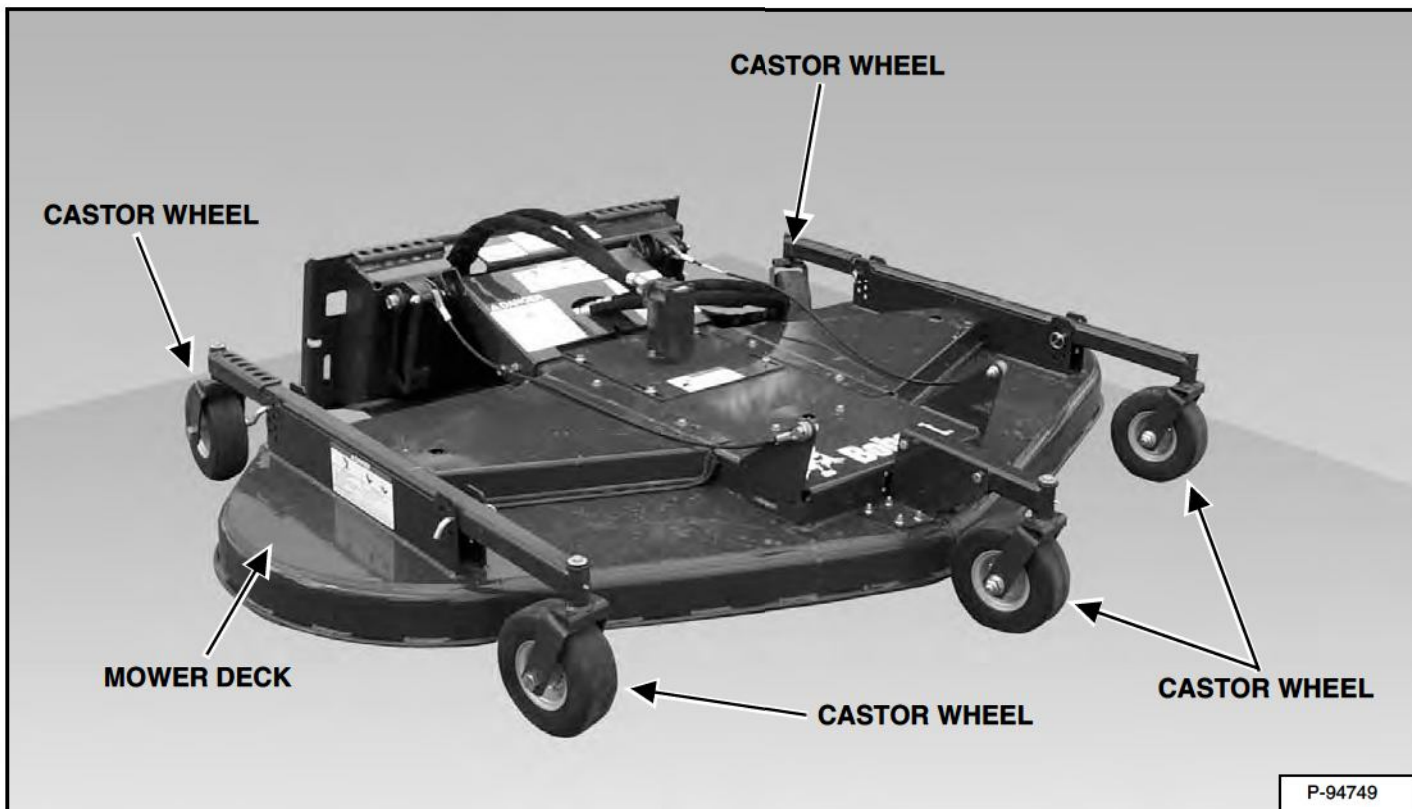
A black and white image of a "DELIVERY REPORT" form. The form is divided into several sections. At the top right is the title "DELIVERY REPORT". Below it is a section for "WARNING" with a black header. The rest of the form consists of multiple rows of horizontal lines for text entry. A small box in the bottom right corner of the form contains the number "B-16315".

The delivery report [Figure 3] must be completed by the dealer and signed by the owner or operator when the Bobcat mower is delivered. An explanation of the form must be given to the owner.

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ATTACHMENT IDENTIFICATION

72 Inch S/N 230400101 & Above
90 Inch S/N 230700101 & Above

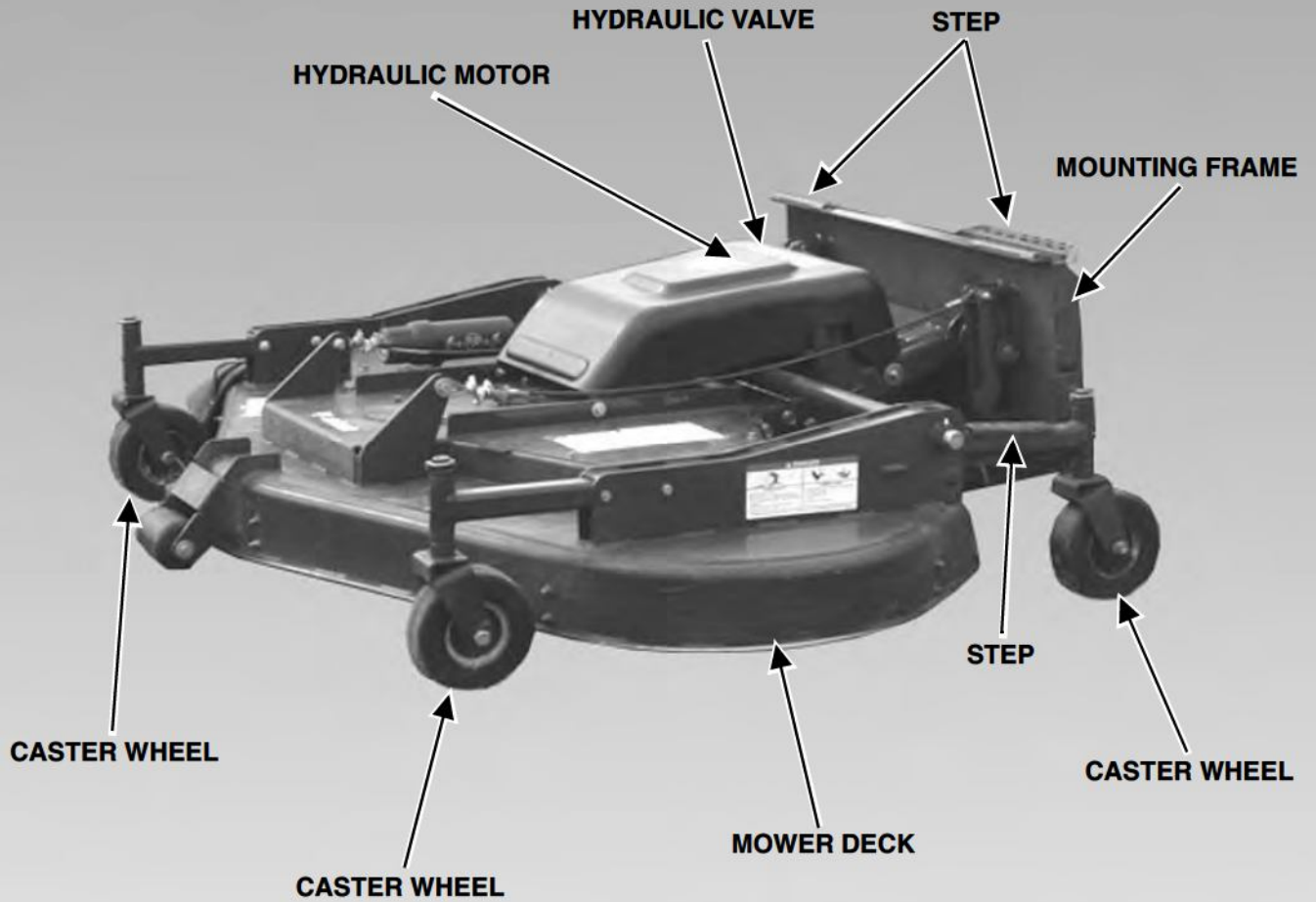


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ATTACHMENT IDENTIFICATION (CONT'D)

72 Inch S/N A8WB00101 & Above

90 Inch S/N A8SD00101 & Above



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SAFETY & MAINTENANCE

TROUBLESHOOTING	10-10-1
INSPECTION	10-20-1
Bob-Tach	10-20-1
Attachment Mounting Frame	10-20-3
Mower	10-20-3
Checking The Mechanical Linkage (S/N 230400101 & Above, S/N 230700101 & Above)	10-20-4
Checking The Mechanical Linkage (S/N A8WB00101 & Above, S/N A8SD00101 & Above)	10-20-5
Checking The Blade Shut-off Device (S/N 230400101 & Above, S/N 230700101 & Above)	10-20-6
Checking The Blade Shut-off Device (S/N A8WB00101 & Above, S/N A8SD00101 & Above)	10-20-7
LUBRICATION	10-30-1
Lubrication Locations (S/N 230400101 & Above, S/N 230700101 & Above)	10-30-1
Lubrication Locations (S/N A8WB00101 & Above, S/N A8SD00101 & Above)	10-30-2
MOWER SERVICE	10-40-1
Cleaning The Mower (S/N 230400101 & Above, S/N 230700101 & Above)	10-40-1
Cleaning The Mower (S/N A8WB00101 & Above, S/N A8SD00101 & Above)	10-40-3
Blade Removal And Installation (S/N 230400101 & Above, S/N 230700101 & Above)	10-40-5
Blade Removal And Installation (S/N A8WB00101 & Above, S/N A8SD00101 & Above)	10-40-7
Blade Belt Adjustment (S/N 230400101 & Above, S/N 230700101 & Above)	10-40-9
Blade Belt Adjustment (S/N A8WB00101 & Above, S/N A8SD00101 & Above)	10-40-11
CUTTING HEIGHT	10-50-1
Cutting Height Adjustment (S/N 230400101 & Above, S/N 230700101 & Above) ..	10-50-1
Cutting Height Adjustment (S/N A8WB00101 & Above, S/N A8SD00101 & Above)	10-50-3
SERVICE SCHEDULE	10-60-1
Chart (S/N 230400101 & Above, S/N 230700101 & Above)	10-60-1
Chart (S/N A8WB00101 & Above, S/N A8SD00101 & Above)	10-60-1

TROUBLESHOOTING



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

If the attachment is not working correctly, check the hydraulic system of the machine thoroughly before making any repairs on the attachment. Attachment problems can be affected by a hydraulic system that is not operating to specifications. Connect a flow meter to the machine to check the hydraulic pump output, relief valve setting and tube lines to check flow and pressure. (See the machine's Service Manual for the correct procedure to connect the flow meter.)

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

PROBLEM	CAUSE	CORRECTION
Poor cutting.	Travel speed too fast.	Reduce travel speed.
	Damaged motor	Repair or replace motor.
	Low blade RPM.	Check auxiliary flow and pressure.
	Blade belt slipping	Adjust belt to correct tension.
	Blades dull.	Sharpen or replace the blades.
Blades will not rotate.	Lift arms too high.	Lower lift arms and reactivate the auxiliary hydraulics.
	Hydraulic fluid level too low.	Add hydraulic fluid to the fluid reservoir on the machine.
	Damaged quick coupler(s).	Replace quick couplers.
	Damaged hydraulic hoses.	Repair or replace hoses.
	Worn or broken blade belt.	Replace belt.
	Blade shut-off linkage broken or missing.	Repair or replace as needed. See dealer for service.
	Internal damage to valve.	See dealer for service.
	Machine main relief valve set too low.	Adjust main relief valve to correct setting.
Blades will not stop when shut-off lever is engaged.	Linkage broken.	Replace linkage.
	Internal damage to valve.	See dealer for service.
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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INSPECTION

Bob-Tach

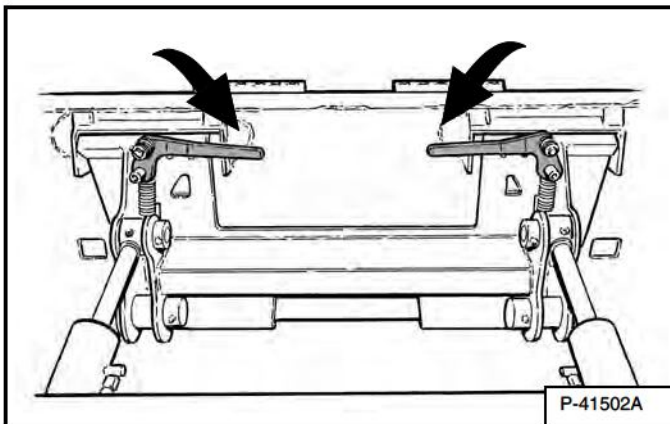
Hand Lever Bob-Tach

! WARNING

Bob-Tach wedges must extend through the holes in attachment. Lever(s) must be fully down and locked. Failure to secure wedges can allow attachment to come off and cause injury or death.

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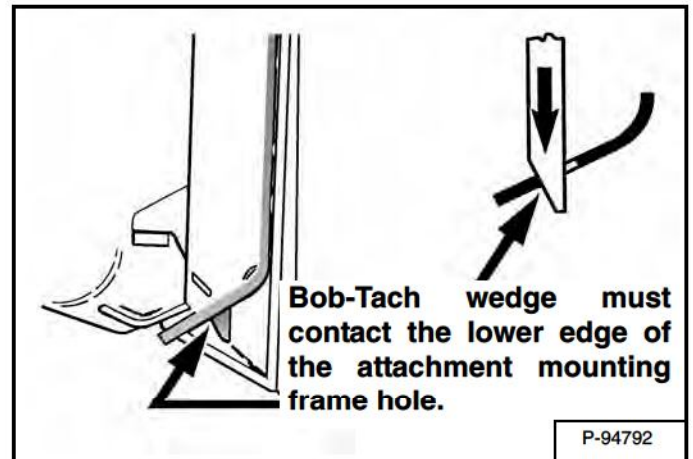
Figure 10-20-1



Push down on the Bob-Tach levers until they are fully engaged in the locked position [Figure 10-20-1] (wedges fully extended through the attachment mounting frame holes).

The levers and wedges must move freely [Figure 10-20-1].

Figure 10-20-2



Bob-Tach wedge must contact the lower edge of the attachment mounting frame hole.

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The wedges must extend through the holes in the attachment mounting frame, securely fastening the attachment to the Bob-Tach [Figure 10-20-2].

NOTE: If the wedge does not contact the lower edge of the hole, the attachment will be loose and can come off the Bob-Tach.

Inspect the mounting frame on the attachment. (See the machine's Operation and Maintenance Manual for inspecting the Bob-Tach). Replace any parts that are damaged, bent or missing. Keep all fasteners tight. Look for cracked welds. Contact your Bobcat dealer for repair or replacement parts.

Lubricate the wedges. (See the machine's Operation & Maintenance Manual for the correct procedure.)

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INSPECTION (CONT'D)

Bob-Tach (Cont'd)

Power Bob-Tach

! WARNING

AVOID INJURY OR DEATH

The Bob-Tach wedges must extend through the holes in the attachment mounting frame. Levers must be fully down and locked. Failure to secure wedges can allow attachment to come off.

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Figure 10-20-3

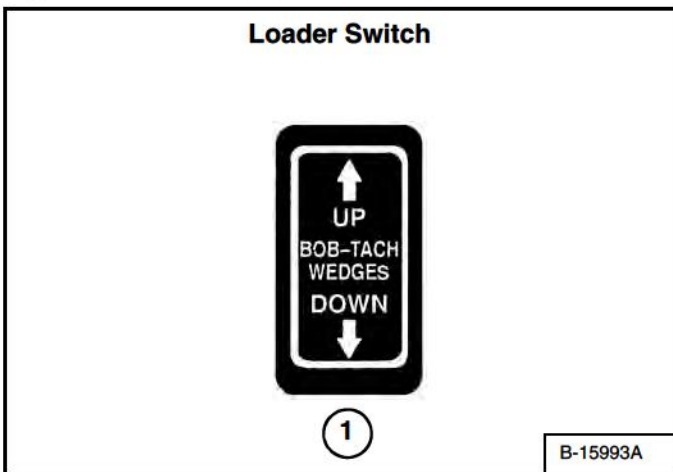


Figure 10-20-4

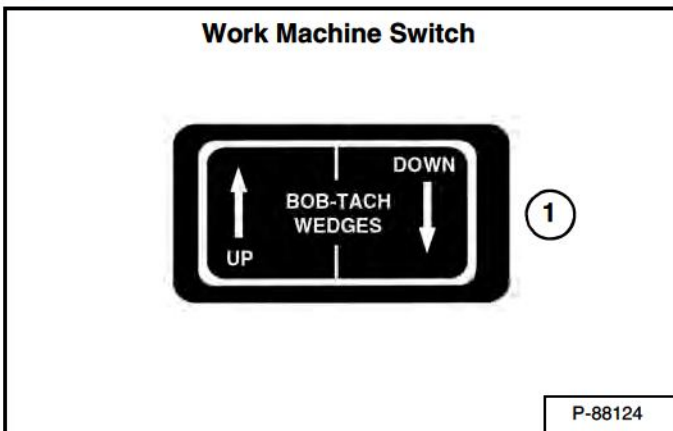
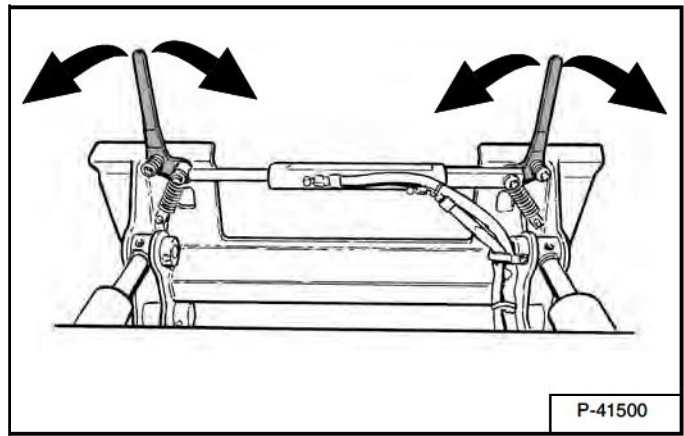
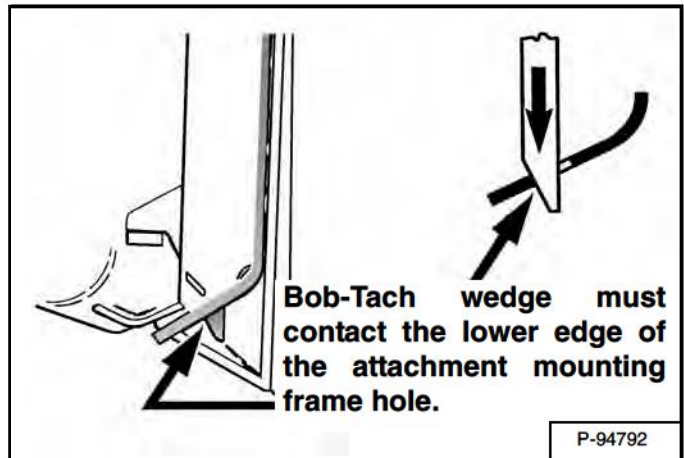


Figure 10-20-5



Push and hold the BOB-TACH "WEDGES DOWN" switch (Item 1) [Figure 10-20-3] or [Figure 10-20-4] until the levers are fully engaged in the locked position [Figure 10-20-5] (wedges fully extended through the attachment mounting frame holes).

Figure 10-20-6



The wedges must extend through the holes in the attachment mounting frame, securely fastening the attachment to the Bob-Tach [Figure 10-20-6].

NOTE: If the wedge does not contact the lower edge of the hole, the attachment will be loose and can come off the Bob-Tach.

Inspect the mounting frame on the attachment. (See the machine's Operation and Maintenance Manual for inspecting the Bob-Tach). Replace any parts that are damaged, bent or missing. Keep all fasteners tight. Look for cracked welds. Contact your Bobcat dealer for repair or replacement parts.

Lubricate the wedges. (See the machine's Operation & Maintenance Manual for the correct procedure.)

INSPECTION (CONT'D)

Attachment Mounting Frame

Figure 10-20-7

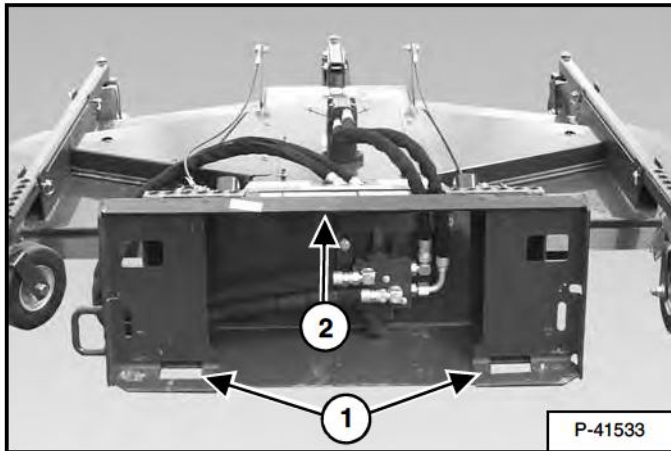
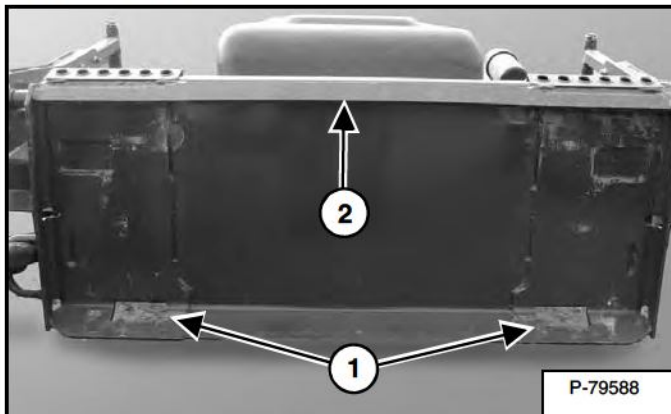


Figure 10-20-8



Inspect the Bob-Tach wedge mounts (Item 1), mounting flange (Item 2) [Figure 10-20-7] or [Figure 10-20-8] and all welds on the attachment mount for wear or damage each time the attachment is removed from the machine.

Mower

Check the following items every 10 hours of operation:

- Check the blade shut-off device for proper function. (See Checking The Blade Shut-off Device (S/N 230400101 & Above, S/N 230700101 & Above) on page 10-20-6.) (See Checking The Blade Shut-off Device (S/N A8WB00101 & Above, S/N A8SD00101 & Above) on page 10-20-7.)

Install an approved support device. (See the machine's Operation & Maintenance Manual and Operator's Handbook for correct procedure.)

NOTE: Approved support device styles can vary. See the correct machine Operation & Maintenance Manual for additional information.

WARNING

Never work on a machine with the attachment raised unless secured by an approved support device. Failure to use an approved support device can cause the lift arms, boom or attachment to fall and cause injury or death.

Service the support device if damaged or if parts are missing. Using a damaged support device or with missing parts can cause lift arms or boom to drop or fall causing injury or death.

W-2784-0209

- Check blades for cracks or damage. Replace if necessary.
- Check blade mounting hardware for proper torque 100 ft.-lb. (135 N•m).
- Check deck and shields. Repair if damaged or replace if necessary.
- Check for damaged or missing decals. Replace if necessary.
- Check for damaged or leaking hydraulic hoses or fittings. Replace if necessary.
- Clean debris, leaves, grass and flammable material from deck area and under covers.
- Lubricate all 17 grease points.
- Check blade belts for condition and wear. Adjust or replace as necessary.

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WARNING

AVOID INJURY OR DEATH

Diesel fuel or hydraulic fluid under pressure can penetrate skin or eyes, causing serious injury or death. Fluid leaks under pressure may not be visible. Use a piece of cardboard or wood to find leaks. Do not use your bare hand. Wear safety goggles. If fluid enters skin or eyes, get immediate medical attention from a physician familiar with this injury.

W-2072-0807

INSPECTION (CONT'D)

Checking The Mechanical Linkage (S/N 230400101 & Above, S/N 230700101 & Above)

Remove the mower from the machine. (See the mower's Operation & Maintenance Manual for correct procedure.)

Figure 10-20-9

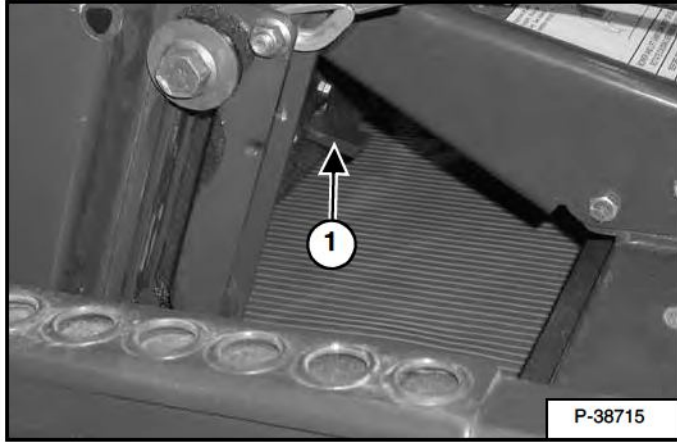
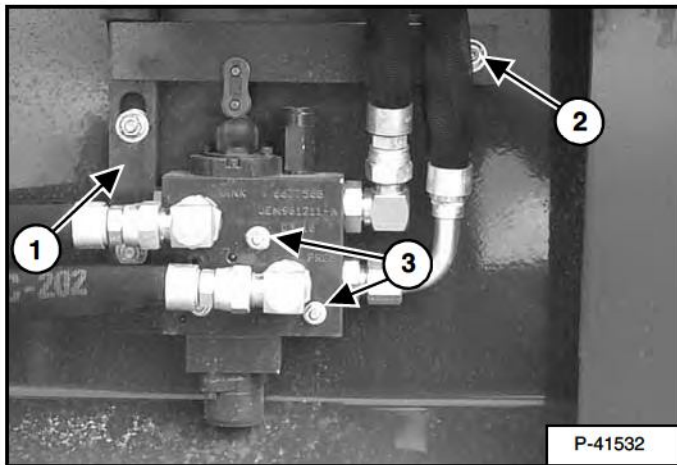


Figure 10-20-10



Check the bar (Item 1) [Figure 10-20-9] & [Figure 10-20-10] for damage and loose or missing nuts and bolts.

Check if the pivot bolt (Item 2) [Figure 10-20-10] in the shut-off lever is loose or missing.

Check for loose or missing nuts and bolts on the valve mount (Item 3) [Figure 10-20-10].

Check hydraulic hoses for loose connections.

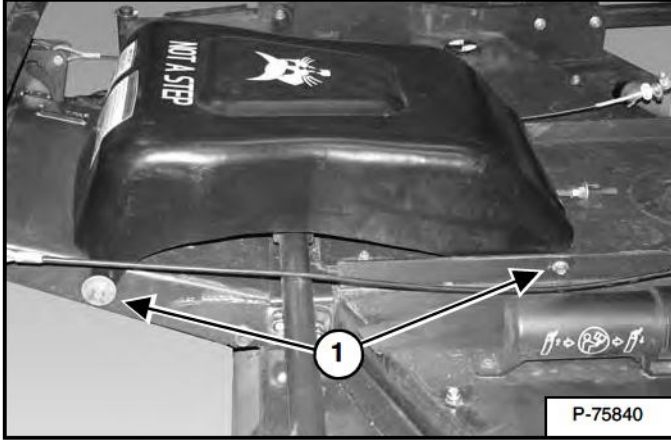
Repair or replace parts as needed before proceeding.

INSPECTION (CONT'D)

Checking The Mechanical Linkage (S/N A8WB00101 & Above, S/N A8SD00101 & Above)

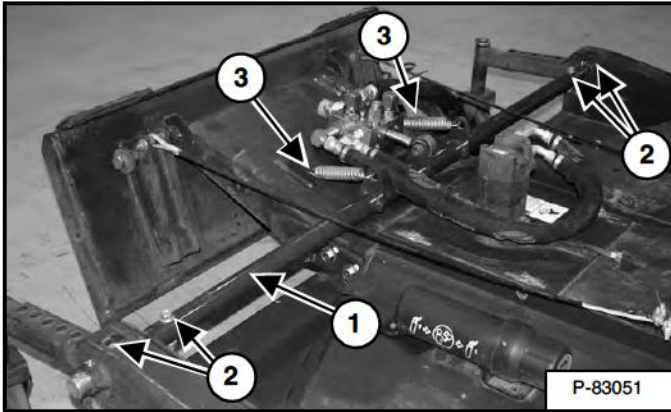
Remove the mower from the machine. (See the mower's Operation & Maintenance Manual for correct procedure.)

Figure 10-20-11



Remove two bolts and nuts (Item 1) [Figure 10-20-11] on each side of the cover. Remove cover.

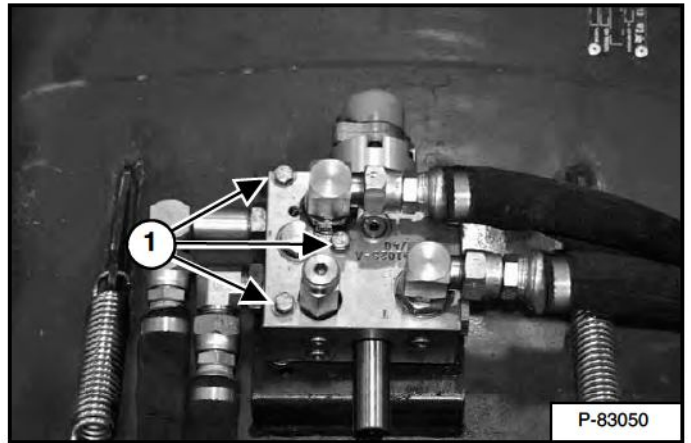
Figure 10-20-12



Check the bar (Item 1) for damage and loose or missing nuts and bolts (Item 2) [Figure 10-20-12].

Check for loose or missing springs (Item 3) [Figure 10-20-12].

Figure 10-20-13



Check for loose or missing nuts and bolts on the valve mount (Item 1) [Figure 10-20-13].

Check hydraulic hoses for loose connections.

Repair or replace parts as needed before proceeding.

Re-install mower cover.

INSPECTION (CONT'D)

Checking The Blade Shut-off Device (S/N 230400101 & Above, S/N 230700101 & Above)

! WARNING

AVOID INJURY OR DEATH

Never put hands, feet, or objects under mower when engine is running.

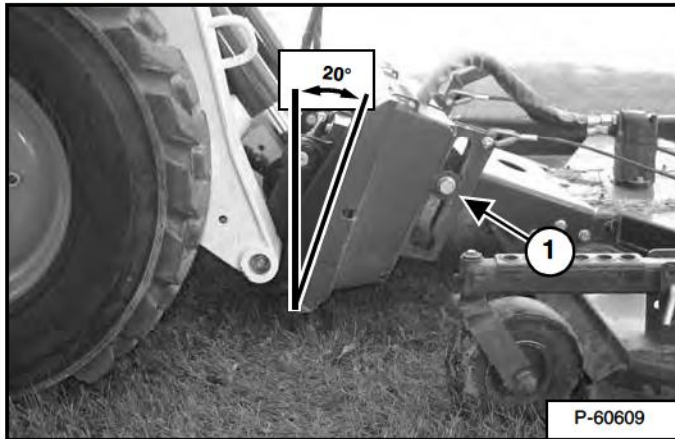
W-2537-1006

Install the mower on a machine and connect the hydraulic quick couplers.

Loader: Enter the loader and fasten seat belt. Lower the seat bar and start the engine.

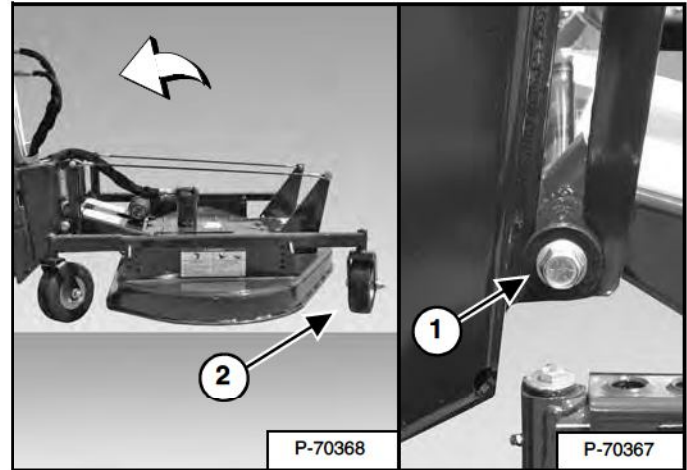
Utility Work Machine: Enter the cab and fasten the seat belt. Lower the operator arm rest and start the engine.

Figure 10-20-14



1. Fully lower the mower flat on the ground until the mower pivot frame (Item 1) [Figure 10-20-14] is positioned in the center of the slot in the mounting frame. Tilt the Bob-Tach slightly forward [Figure 10-20-14]. Engage the auxiliary hydraulics. (See the machine's Operation & Maintenance Manual and Operator's Handbook for correct procedure.) The blades should rotate.

Figure 10-20-15



2. Raise the mower until the pivot frame (Item 1) is positioned at the bottom of the slot in the mounting frame and the rear caster wheels (Item 2) [Figure 10-20-15] begin to lift off the ground. This will cause the blade shut off to come into contact with the bearing, stopping the flow of hydraulic fluid. The blades must come to a complete stop within 7 seconds.
3. Fully lower the lift arms and position the mower flat on the ground. The blades must remain stopped.

NOTE: If the blades do not come to a complete stop within 7 seconds when the mower pivot frame is positioned at the bottom of the slot in the mounting frame, see your Bobcat dealer for service.

4. Disengage the auxiliary hydraulics. Re-engage the auxiliary hydraulics to start blade rotation.

NOTE: Shut-off valve WILL NOT reset until the auxiliary hydraulics are disengaged.

! WARNING

AVOID INJURY OR DEATH

Never operate without blade shut-off device.

Never modify the blade shut-off device and check that it is operating properly.

W-2298-0398



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INSPECTION (CONT'D)

Checking The Blade Shut-off Device (S/N A8WB00101 & Above, S/N A8SD00101 & Above)

! WARNING

AVOID INJURY OR DEATH

Never put hands, feet, or objects under mower when engine is running.

W-2537-1006

! WARNING

AVOID INJURY OR DEATH

Never operate without blade shut-off device.

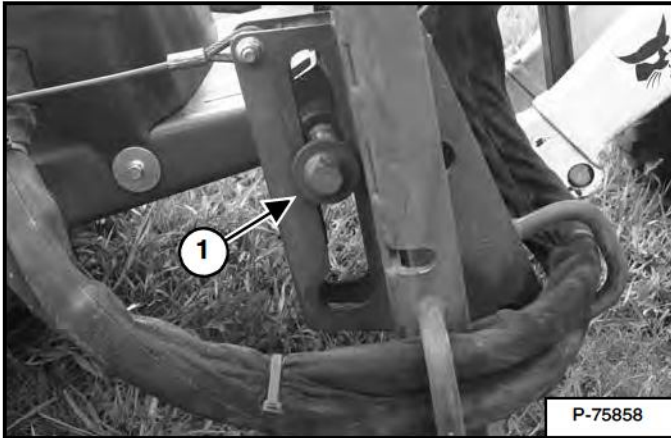
Never modify the blade shut-off device and check that it is operating properly.

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Install the mower on a machine and connect the hydraulic quick couplers.

Enter the cab, fasten the seat belt and start the engine.

Figure 10-20-16



1. Fully lower the mower flat on the ground until the mower pivot frame (Item 1) [Figure 10-20-16] is positioned in the center of the slot in the mounting frame. Tilt the Bob-Tach slightly forward [Figure 10-20-16]. Engage the auxiliary hydraulics. (See the machine's Operation & Maintenance Manual and Operator's Handbook for correct procedure.) The blades should rotate.

Figure 10-20-17

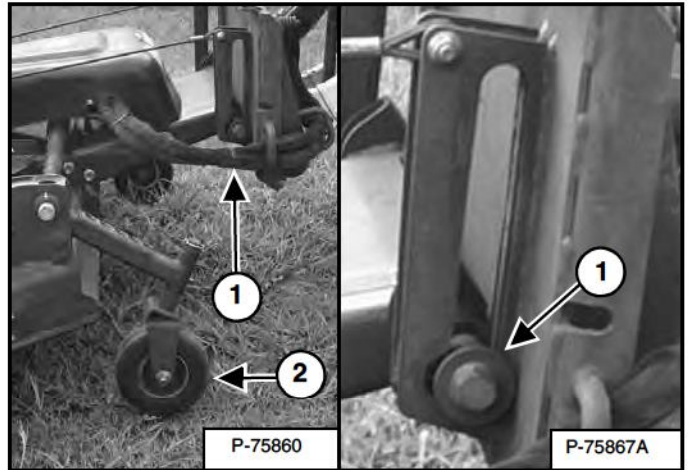
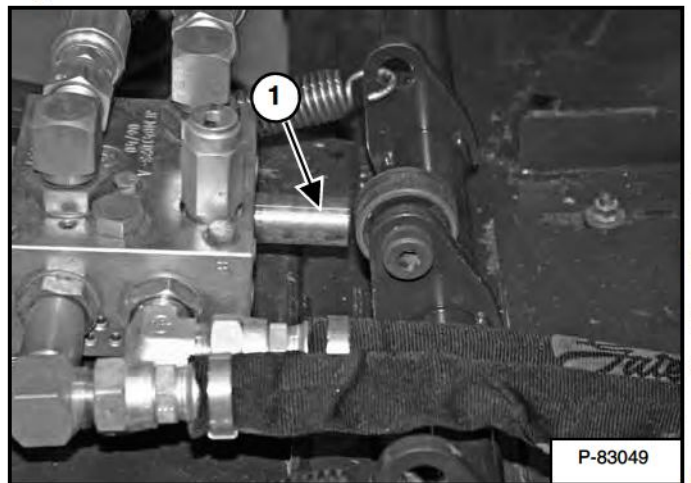


Figure 10-20-18



2. Raise the mower until the pivot frame (Item 1) is positioned at the bottom of the slot in the mounting frame and the rear caster wheels (Item 2) [Figure 10-20-17] begin to lift off the ground. This will cause the blade shut off (Item 1) [Figure 10-20-18] to come into contact with the bearing, stopping the flow of hydraulic fluid. The blades must come to a complete stop within 7 seconds.
3. Fully lower the mower flat on the ground. The blades must remain stopped.

NOTE: If the blades do not come to a complete stop within 7 seconds when the mower pivot frame is positioned at the bottom of the slot in the mounting frame, see your Bobcat dealer for service.

4. Disengage the auxiliary hydraulics. Re-engage the auxiliary hydraulics to start blade rotation.

NOTE: Shut-off valve WILL NOT reset until the auxiliary hydraulics are disengaged.

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