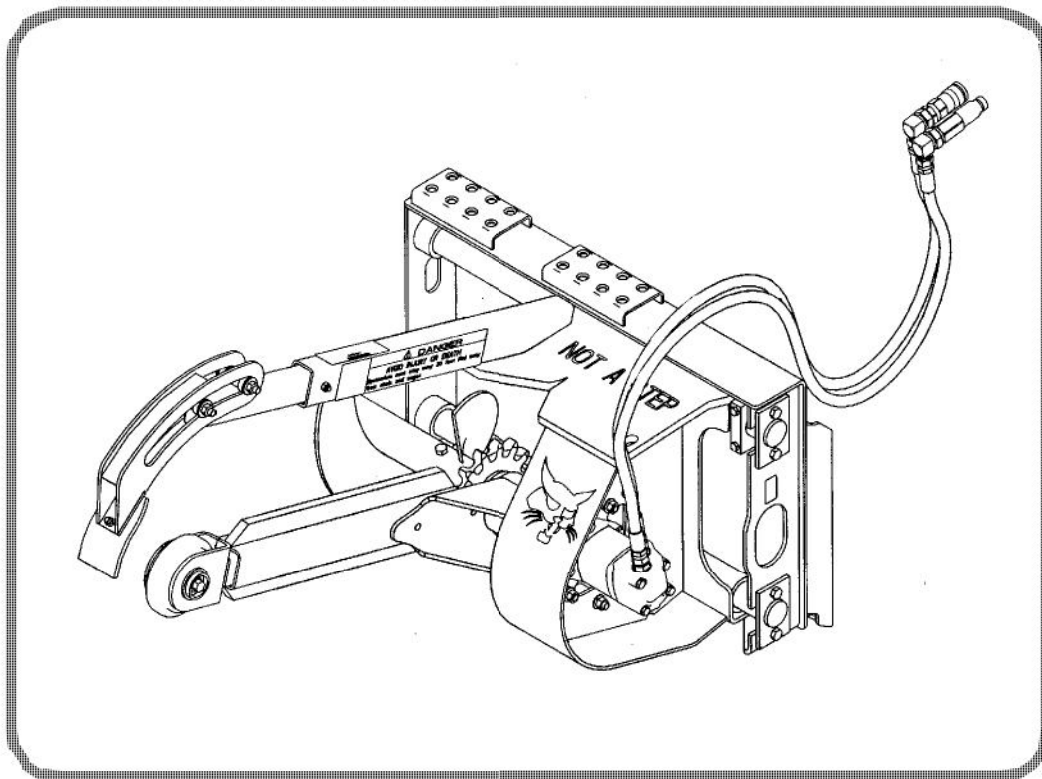




# Bobcat®

## Service Manual Trencher

(LT112) S/N 045200101 & Above  
(MX112) S/N 045100101 & Above  
(LT113) S/N 233800101 & Above  
(LT213) S/N 045300101 & Above  
(LT313) S/N 045400101 & Above  
(LT414) S/N A0RS00101 & Above



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# MAINTENANCE SAFETY



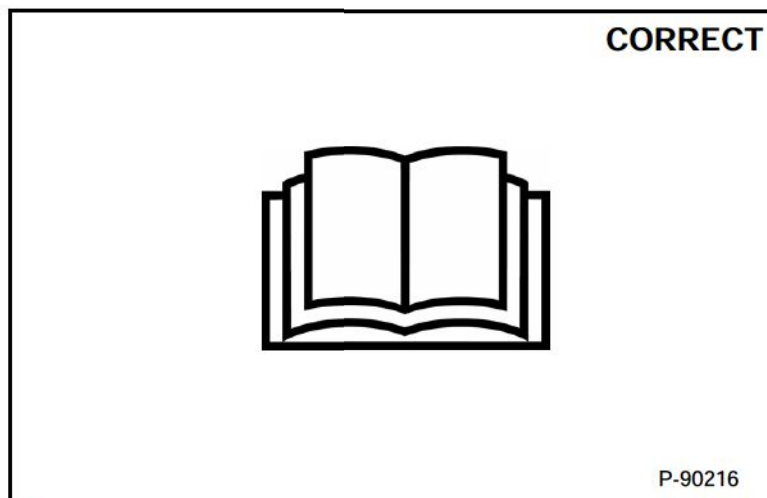
## WARNING









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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MSW30-0409

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## SERIAL NUMBER LOCATION

### Attachment Serial Number

Figure 1

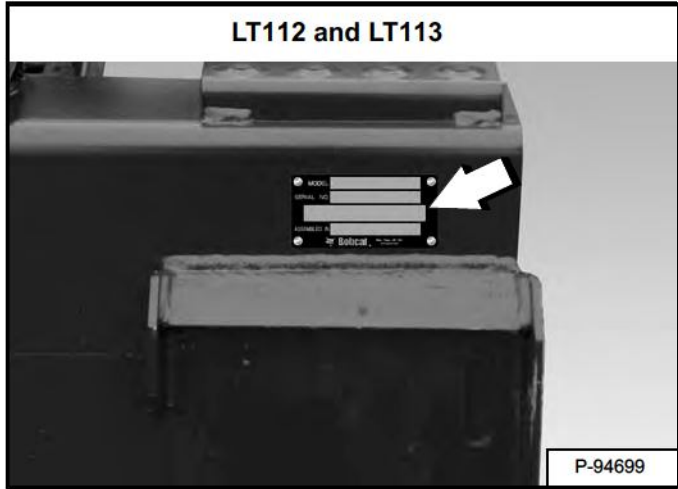


Figure 2

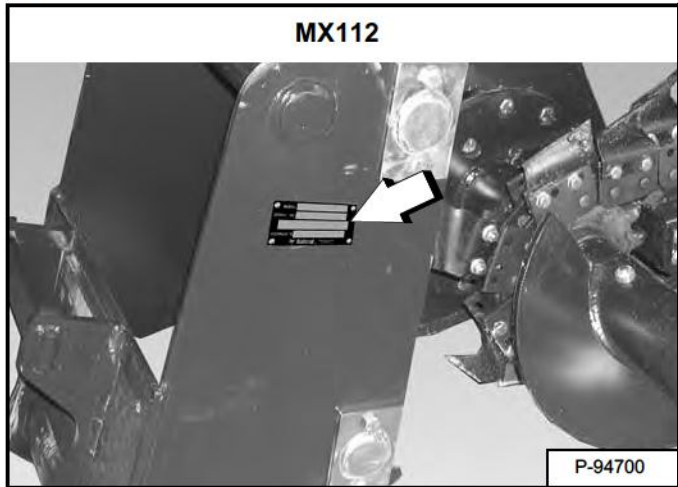


Figure 3



Figure 4



Always use the serial number of the trencher 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], [Figure 3] or [Figure 4].

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# DELIVERY REPORT

Figure 5

**Bobcat** Delivery Report Attachment

Machine Number: \_\_\_\_\_  
Serial Number: \_\_\_\_\_

SALES SPECIALIST NAME: \_\_\_\_\_

**WARNING**

1. Read the operator's manual for this machine. It contains important information for safe operation and proper use of the machine. It also contains information on safety and health hazards.

2. Do not operate the machine until you have read and understood the operator's manual. Do not allow anyone else to operate the machine until they have read and understood the operator's manual.

3. Do not operate the machine if you are under the influence of alcohol, drugs, or medication, or if you are tired or otherwise impaired.

4. Do not operate the machine if you are not properly trained and certified to do so.

5. Do not operate the machine if you are not wearing your seat belt.

6. Do not operate the machine if you are not wearing your safety harness.

7. Do not operate the machine if you are not wearing your safety glasses.

8. Do not operate the machine if you are not wearing your hearing protection.

9. Do not operate the machine if you are not wearing your protective footwear.

10. Do not operate the machine if you are not wearing your protective clothing.

11. Do not operate the machine if you are not wearing your protective gloves.

12. Do not operate the machine if you are not wearing your protective helmet.

13. Do not operate the machine if you are not wearing your protective earplugs.

14. Do not operate the machine if you are not wearing your protective earmuffs.

15. Do not operate the machine if you are not wearing your protective earplugs and earmuffs.

16. Do not operate the machine if you are not wearing your protective earplugs and earmuffs and hearing protection.

17. Do not operate the machine if you are not wearing your protective earplugs and earmuffs and hearing protection and hearing aid.

18. Do not operate the machine if you are not wearing your protective earplugs and earmuffs and hearing protection and hearing aid and hearing aid.

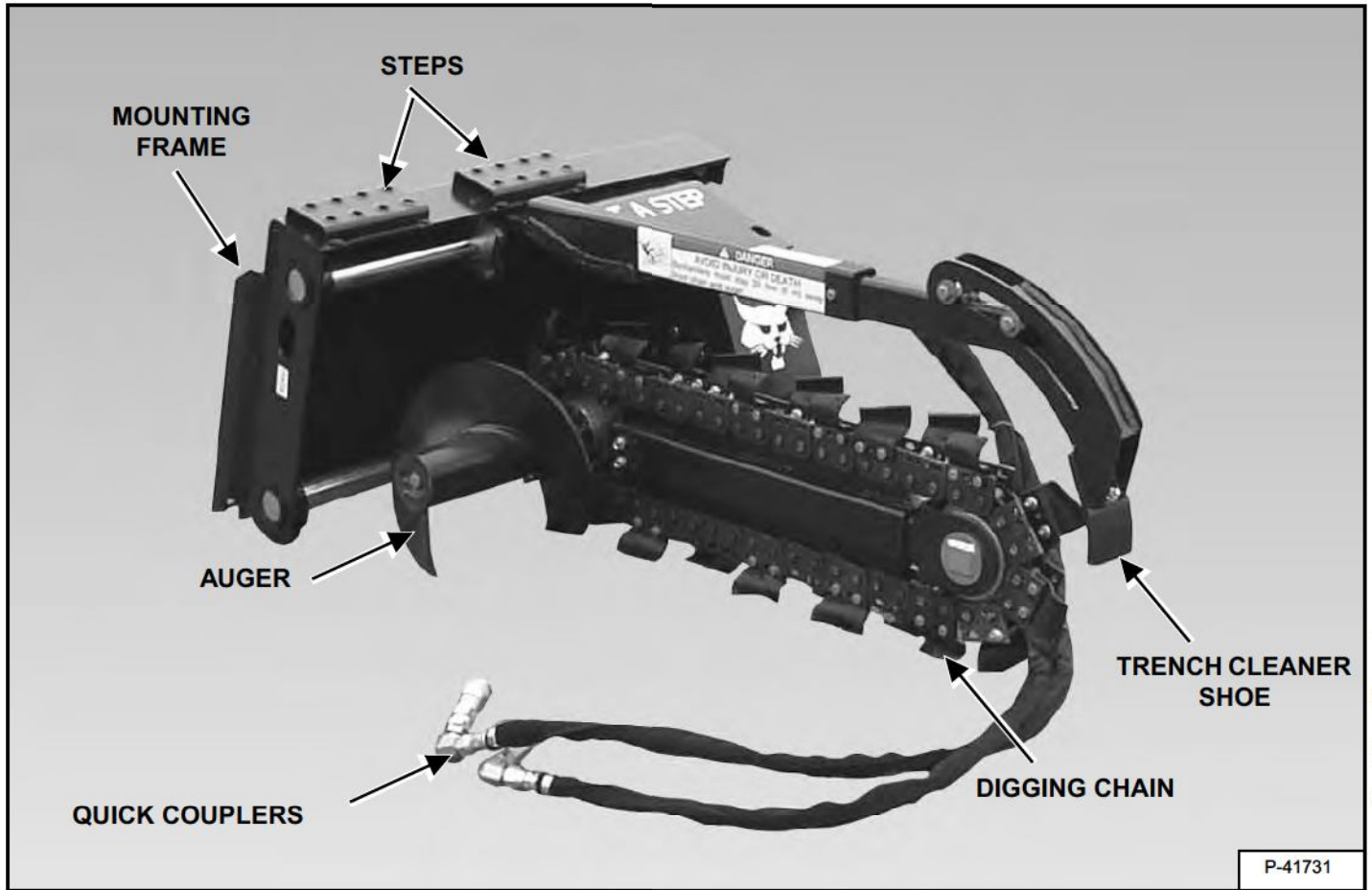
Dealer Representative Signature: \_\_\_\_\_ Date: \_\_\_\_\_

NA7494

The delivery report [Figure 5] must be completed by the dealer and signed by the owner or operator when the Bobcat trencher is delivered. An explanation of the form must be given to the owner.

**ATTACHMENT IDENTIFICATION**

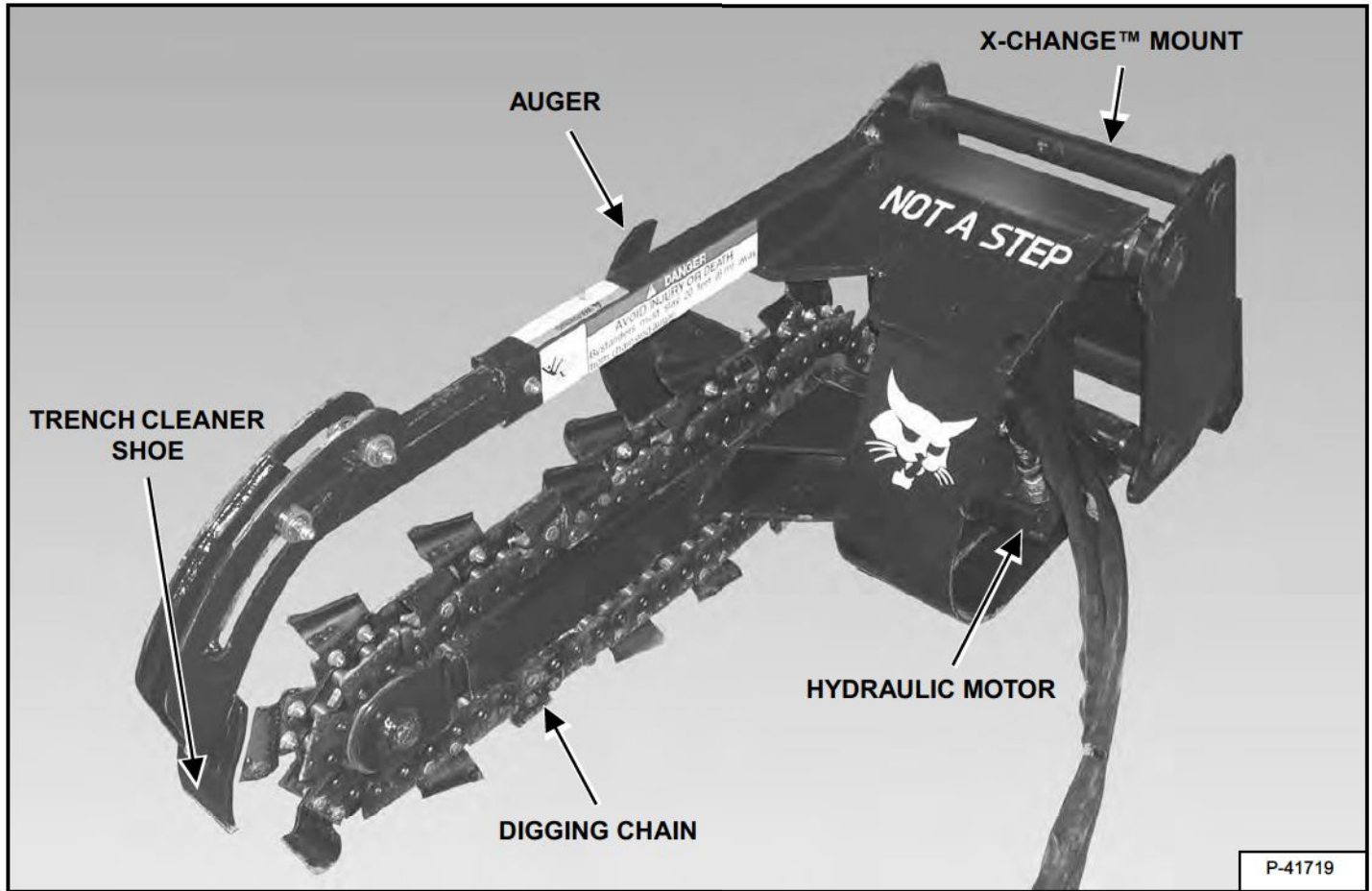
**LT112 And LT113 Trencher**



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ATTACHMENT IDENTIFICATION (CONT'D)

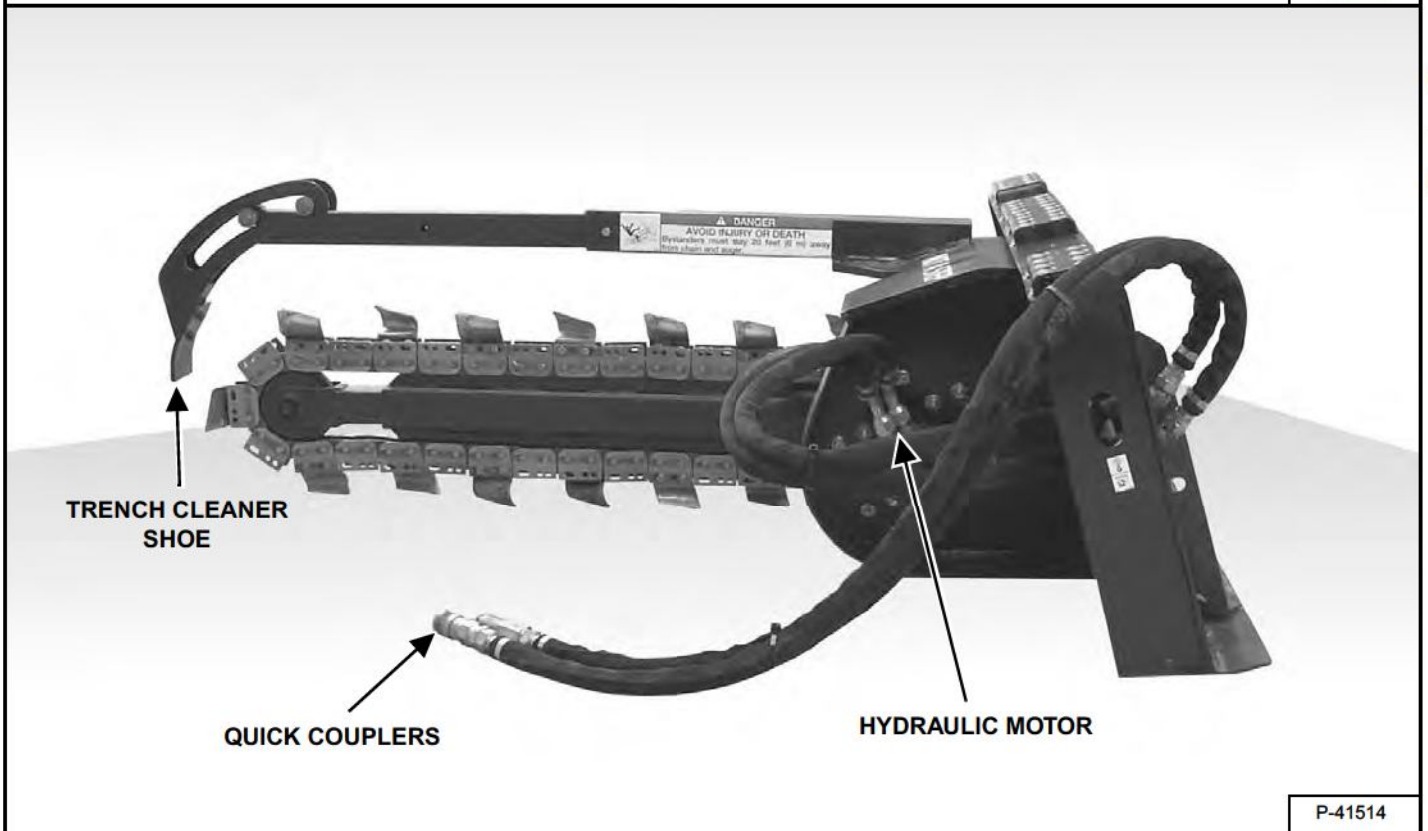
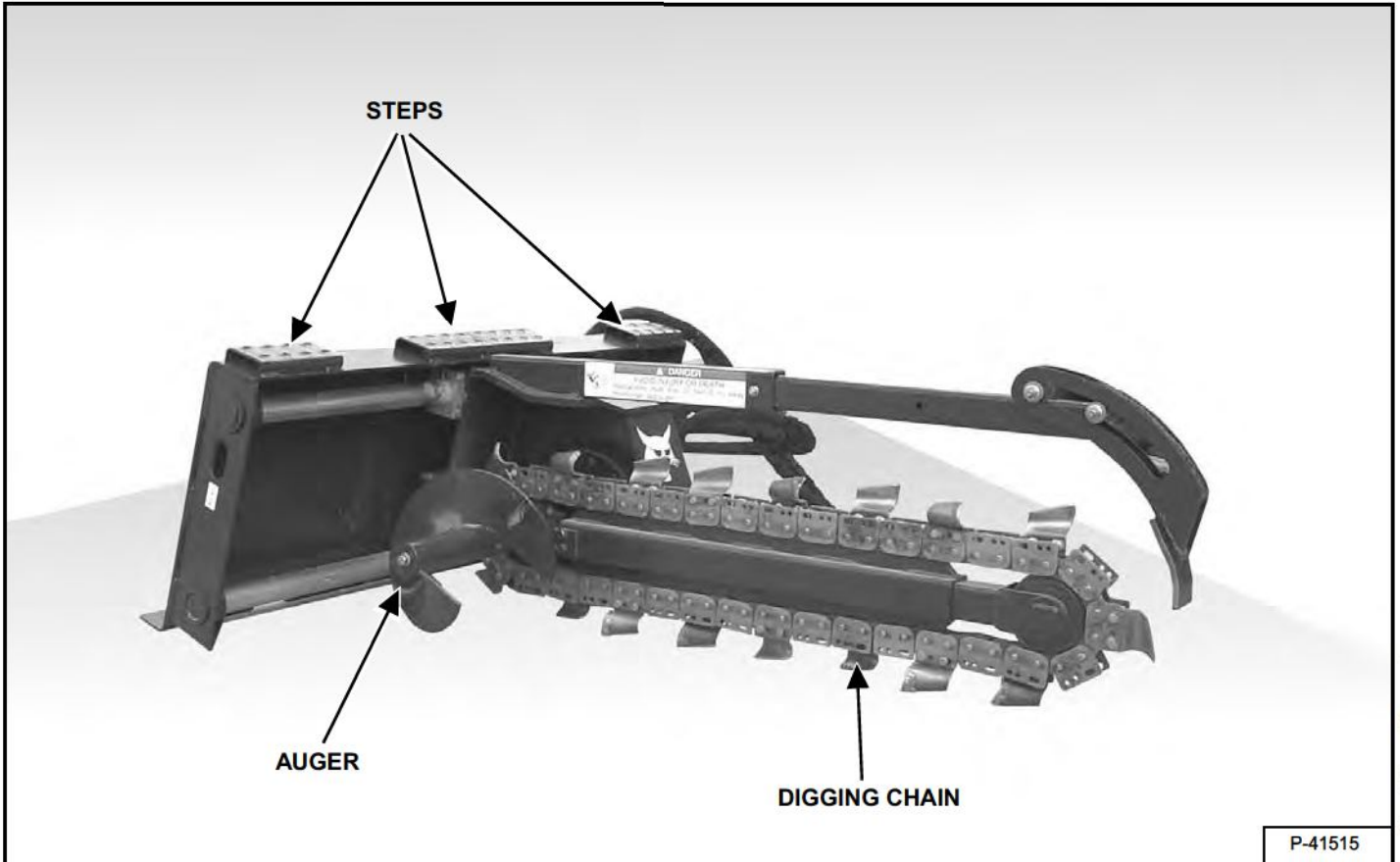
MX112 Trencher



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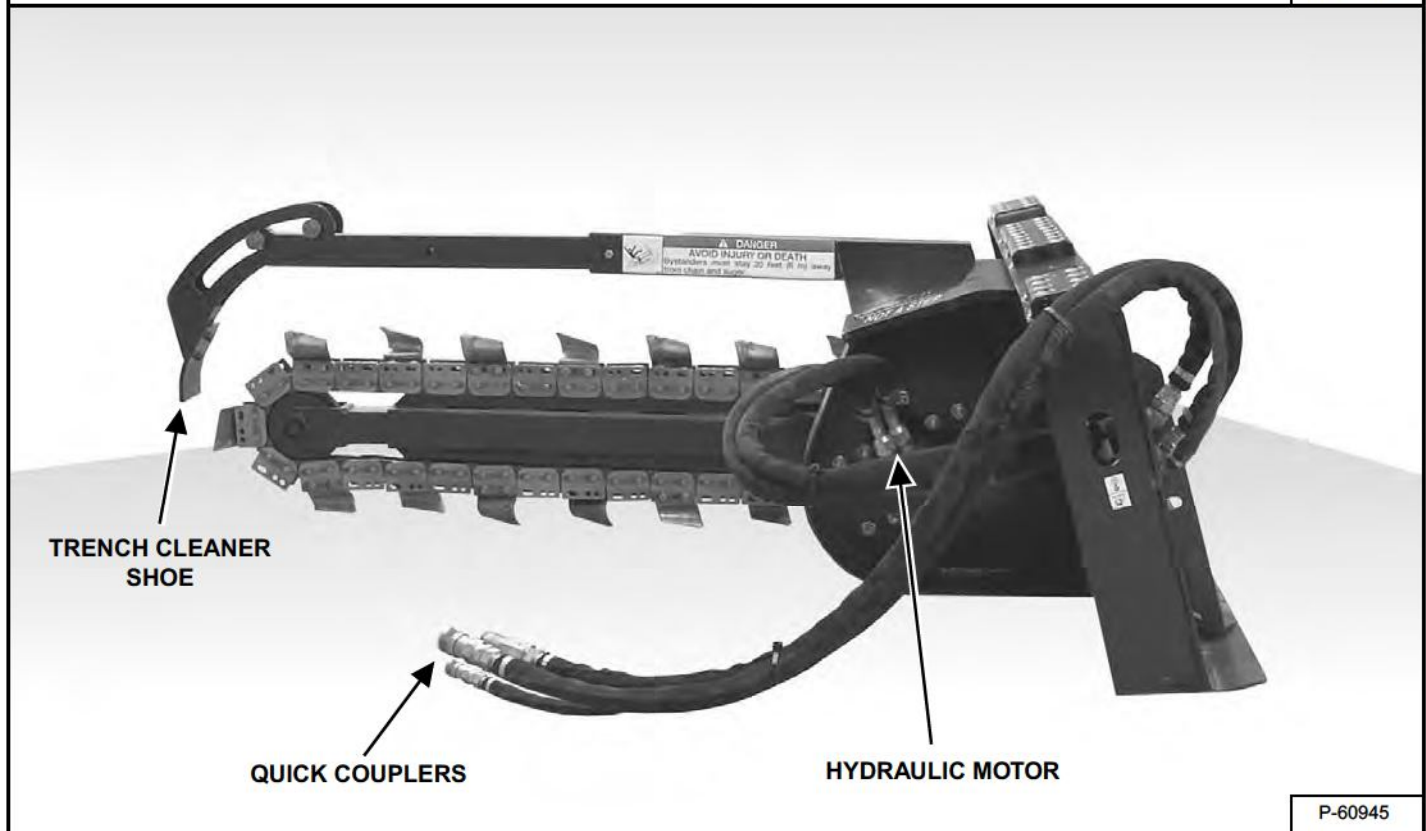
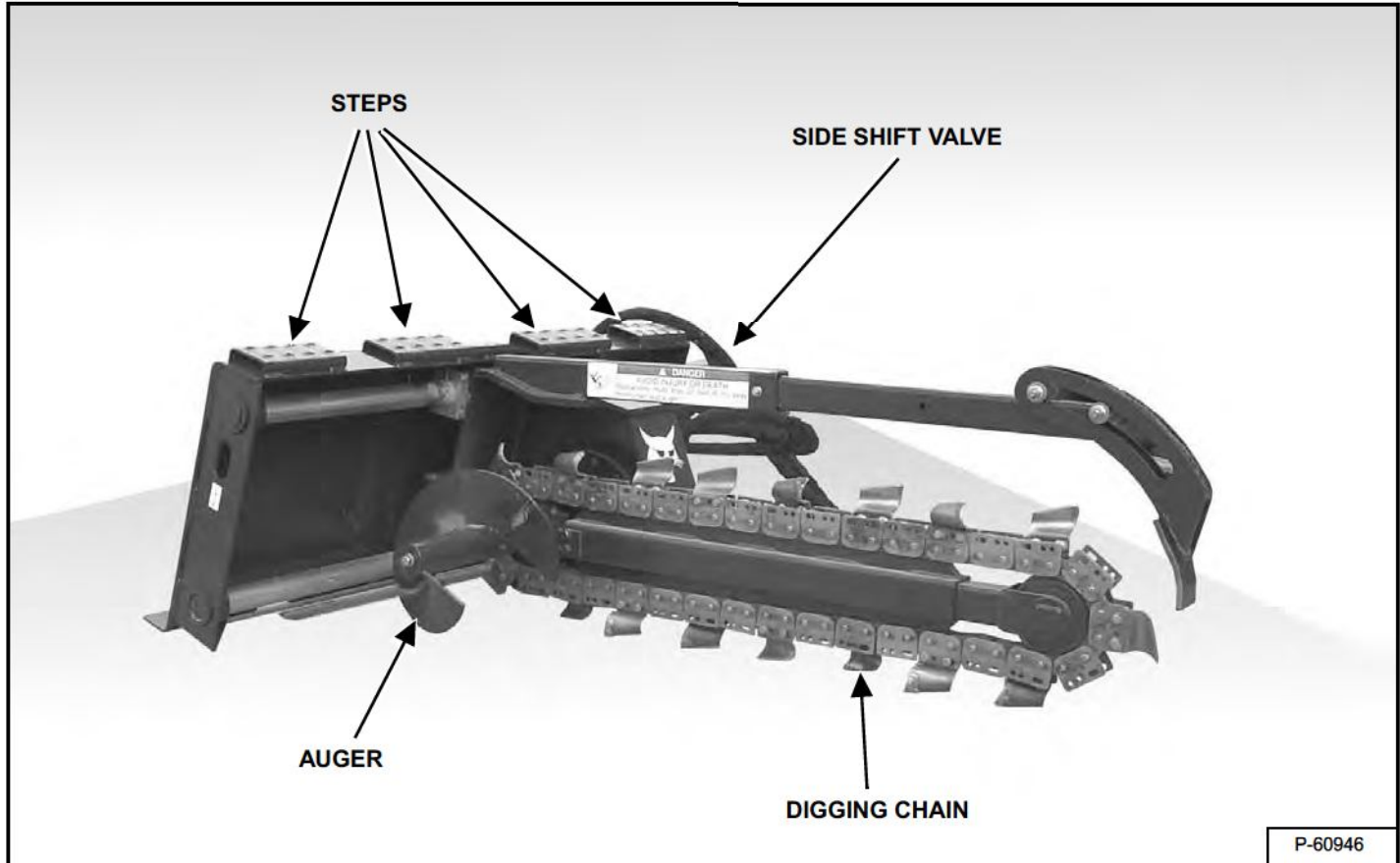
LT213 And LT313 Trencher



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ATTACHMENT IDENTIFICATION (CONT'D)

LT414 Trencher



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## TROUBLESHOOTING

### Chart

 <b style="font-size: 24pt; margin-left: 10px;">WARNING</b>	<p>Instructions are necessary before operating or servicing machine. Read and understand the Operation &amp; 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> <p style="text-align: right; font-size: 10pt;">W-2003-0807</p>
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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
Trencher does not mount properly on the Bob-Tach™.	Bob-Tach wedges are not fully retracted before installing.	Retract Bob-Tach wedges before installing.
	Mud, dirt or stones are lodged between the Bob-Tach and the trencher mount.	Remove debris between Bob-Tach and trencher mount.
Trencher does not operate.	No hydraulic flow.	Activate machine front auxiliary hydraulics.
		Check quick couplers connection. Check for damaged hose ends and fittings.
Digging chain does not stay adjusted to the correct tension.	Damaged grease cylinder.	Repair or replace grease cylinder.

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## DAILY INSPECTION

### Bob-Tach

#### Hand Lever Bob-Tach

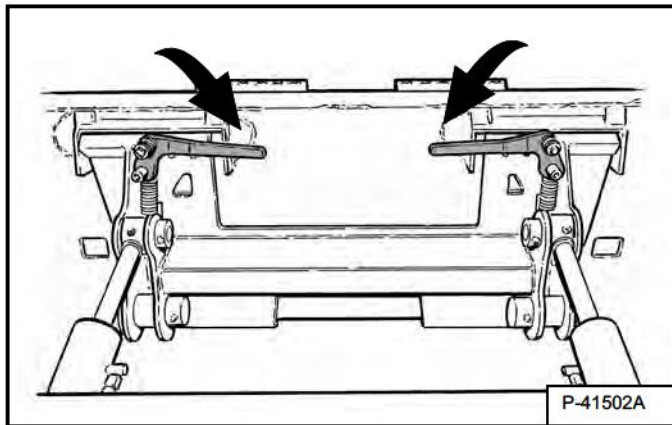


#### AVOID INJURY OR DEATH

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.

W-2715-0208

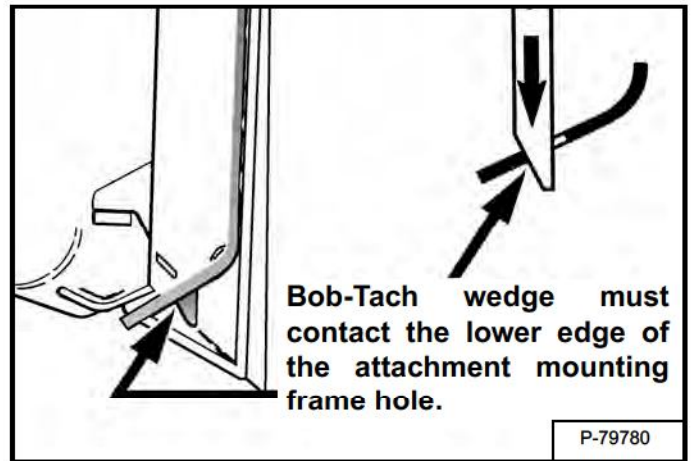
Figure 10-20-1



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.

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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## DAILY 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.

W-2715-0208

Figure 10-20-3

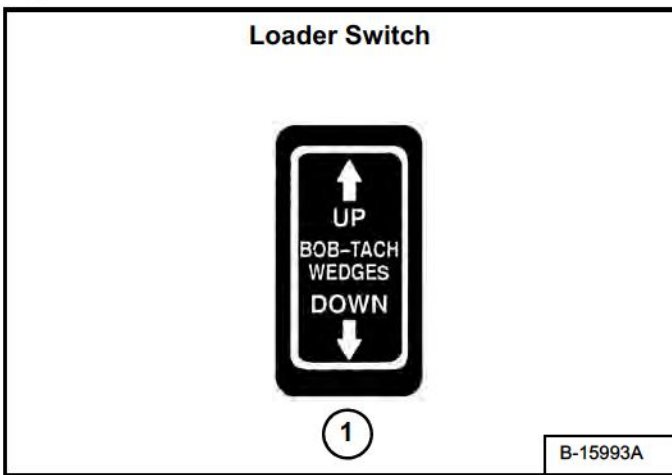


Figure 10-20-4

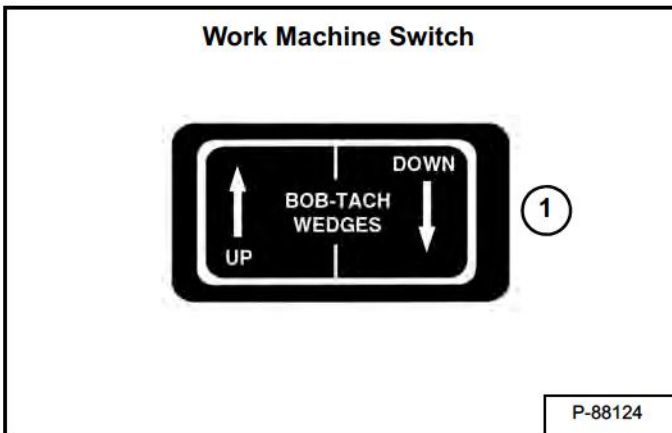
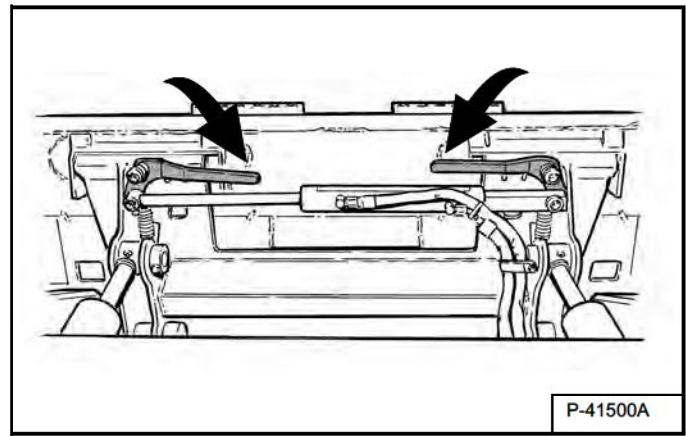
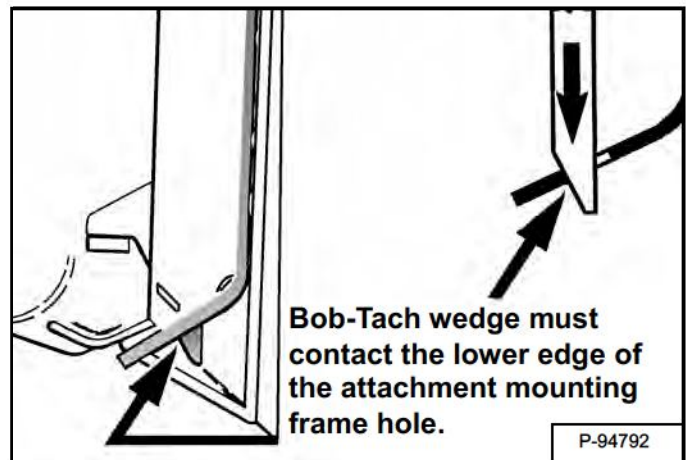


Figure 10-20-5



Push (Item 1) [Figure 10-20-3] or [Figure 10-20-4] and hold the BOB-TACH "WEDGES DOWN" switch 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 & 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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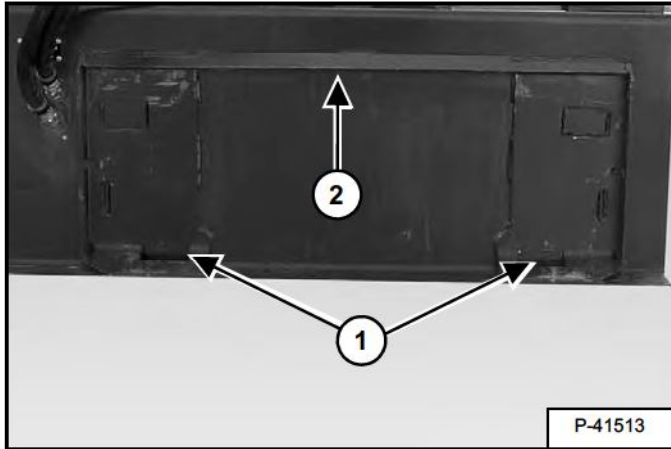
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## INSPECTION (CONT'D)

### Trencher Mount Inspection

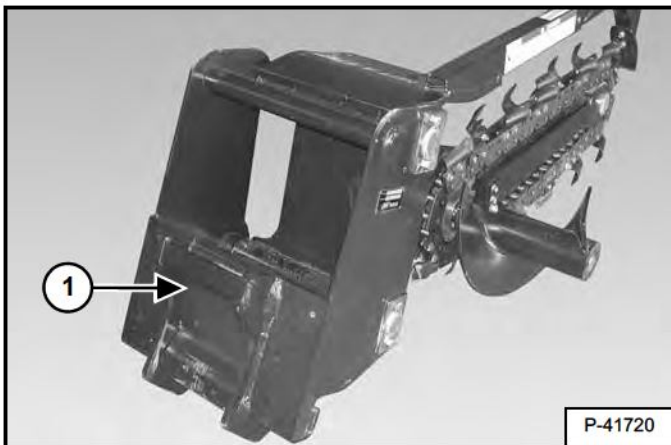
Figure 10-20-7



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

### X-Change Mount Inspection

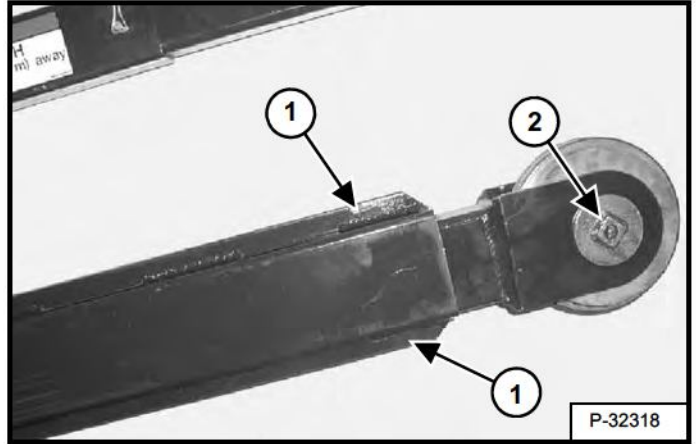
Figure 10-20-8



Inspect the X-Change mount (Item 1) [Figure 10-20-8] and all welds for wear or damage each time the trencher is removed from the excavator.

### Chain Guide Inspection

Figure 10-20-9



Inspect the top and bottom chain guide (Item 1) [Figure 10-20-9] for wear and damage.

**NOTE: The digging chain is removed for photo clarity.**

### LUBRICATION

#### Daily Lubrication

Add grease daily to the idler wheels (Item 2) [Figure 10-20-9] on the LT313 and LT414 trenchers.

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