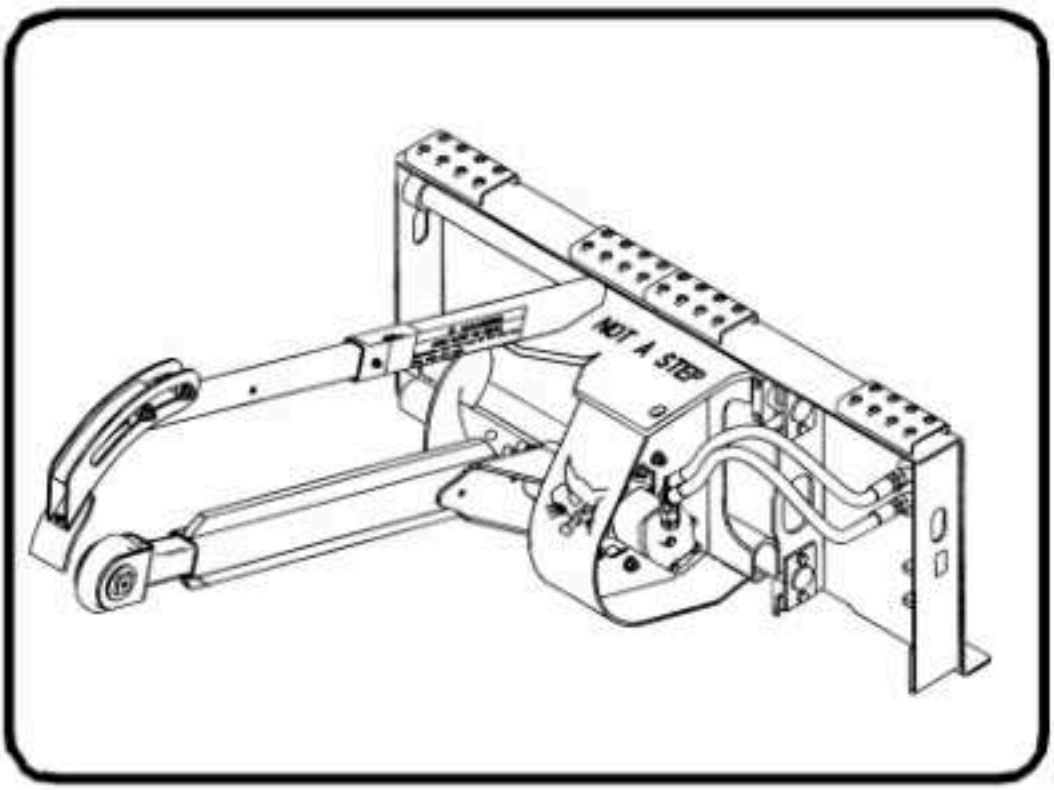
Bobcat®

# Operation & Maintenance Manual
# Trencher

**(Trencher LT213) - S/N 045300101 & Above**
**(LT313 Trencher) - S/N 045400101 & Above**
**(LT414 Trencher) - S/N A0RS00101 & Above**




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**REFERENCE INFORMATION**

Write the correct information for YOUR trencher in the spaces below. Always use these numbers when referring to your trencher.

Trencher 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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# FOREWORD



This Operation & Maintenance Manual was written to give the owner/operator instructions on the safe operation and maintenance of the trencher. READ AND UNDERSTAND THIS OPERATION & MAINTENANCE MANUAL BEFORE OPERATING YOUR trencher. If you have any questions, see your Bobcat dealer.

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**Operation With The Work Machine (Cont'd)**

*Manual Side Shift*

**Figure OI-100**

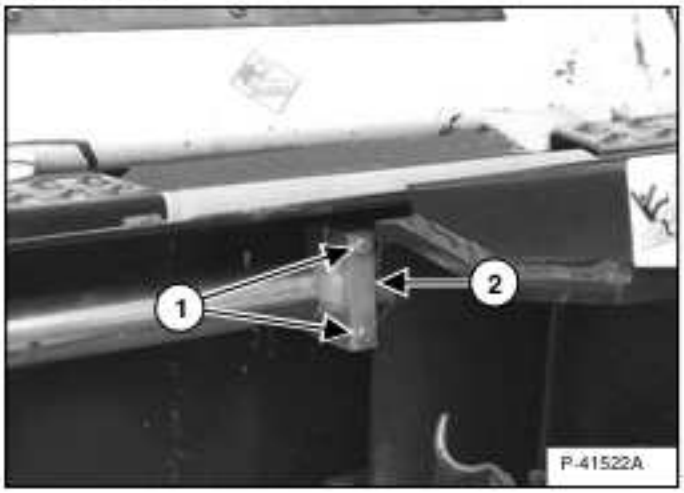
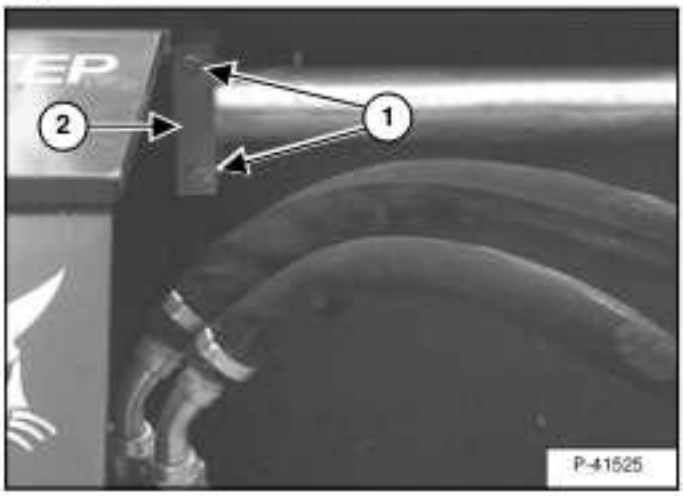



**Figure OI-101**




Loosen the two bolts (Item 1) **[Figure OI-100]** & **[Figure OI-101]** from the blocks (Item 2) **[Figure OI-100]** & **[Figure OI-101]**.

Move the trencher to the desired position.

Slide the blocks (Item 2) **[Figure OI-100]** & **[Figure OI-101]** against the trencher frame.

Tighten the bolts to 25-28 ft.-lb. (34-38 N•m) torque.

*Hydraulic Side Shift*

Hydraulic side shift is optional for the LT213 and LT313 trenchers. It is available as a field installed kit from your Bobcat dealer.

Hydraulic side shift is standard on the LT414 trenchers.

Stop the engine and exit the machine when changing the hydraulic side shift selector valve.

**⚠ WARNING**

**Before you leave the operator's seat:**

- **Lower the lift arms, put the attachment flat on the ground.**
- **Stop the engine.**
- **Engage the parking brake.**
- **Raise seat bar.**
- **(Foot Pedal Controls) Move pedals until both lock.**
- **(Advanced Control System-ACS) Move the hydraulic controls to the NEUTRAL POSITION to make sure that both lift and tilt functions are deactivated.**
  **The seat bar system must deactivate the lift and tilt control functions when the seat bar is up. Service the system if hand controls do not deactivate.**
- **(Selectable Joystick Controls-SJC) Move the joysticks to the NEUTRAL POSITION to make sure that travel and hydraulic functions are deactivated.**
  **The seat bar system must deactivate these functions when the seat bar is up. Service the system if controls do not deactivate.**

W-2463-0603

**⚠ WARNING**

**AVOID INJURY OR DEATH**

**Before you leave the operator's seat:**

- **Lower the lift arm, put the attachment flat on the ground.**
- **Put Travel Direction Control Lever in PARK.**
- **Stop the engine.**
- **Raise operator arm rest.**

W-2443-1102

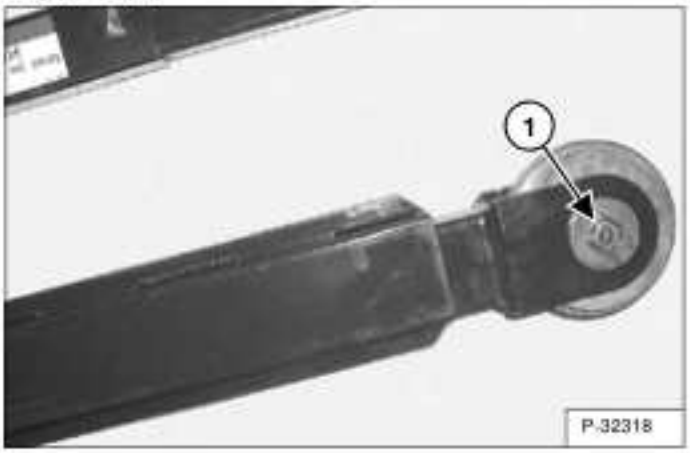


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## LUBRICATING THE ATTACHMENT

### Lubrication Locations

**Figure PM-1**

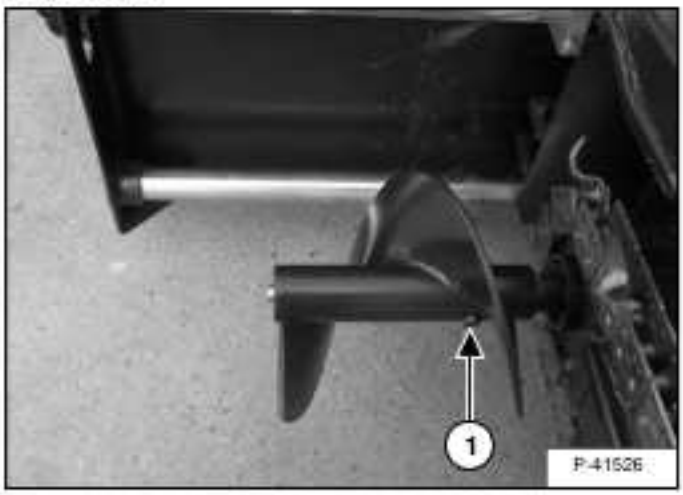



Add grease daily to the idler wheels (Item 1) **[Figure PM-1]** on the LT313 and LT414 trenchers.

## REMOVAL AND INSTALLATION

### Auger

**Figure PM-2**

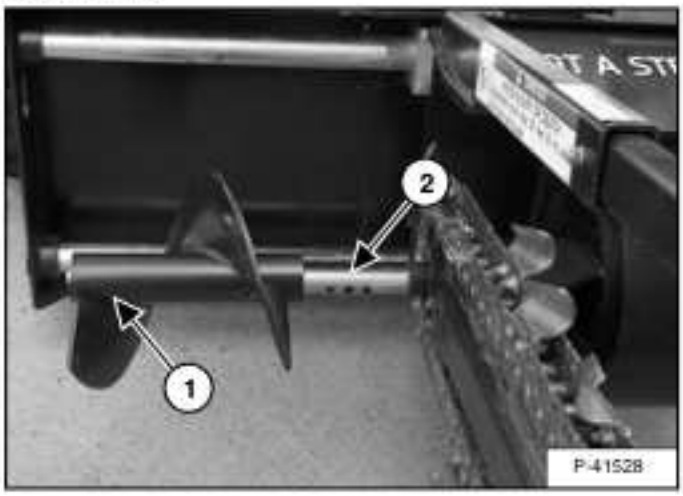



Remove the mounting bolt (Item 1) **[Figure PM-2]** and nut from the auger mounting shaft.

***LT213 & LT313 Installation:*** Tighten auger mounting bolt and nut to 65-70 ft.-lb. (88-95 N•m) torque.

***LT414 Installation:*** Tighten auger mounting bolt and nut to 125-140 ft.-lb. (170-190 N•m) torque.

**Figure PM-3**




Slide the auger (Item 1) **[Figure PM-3]** off the mounting shaft.

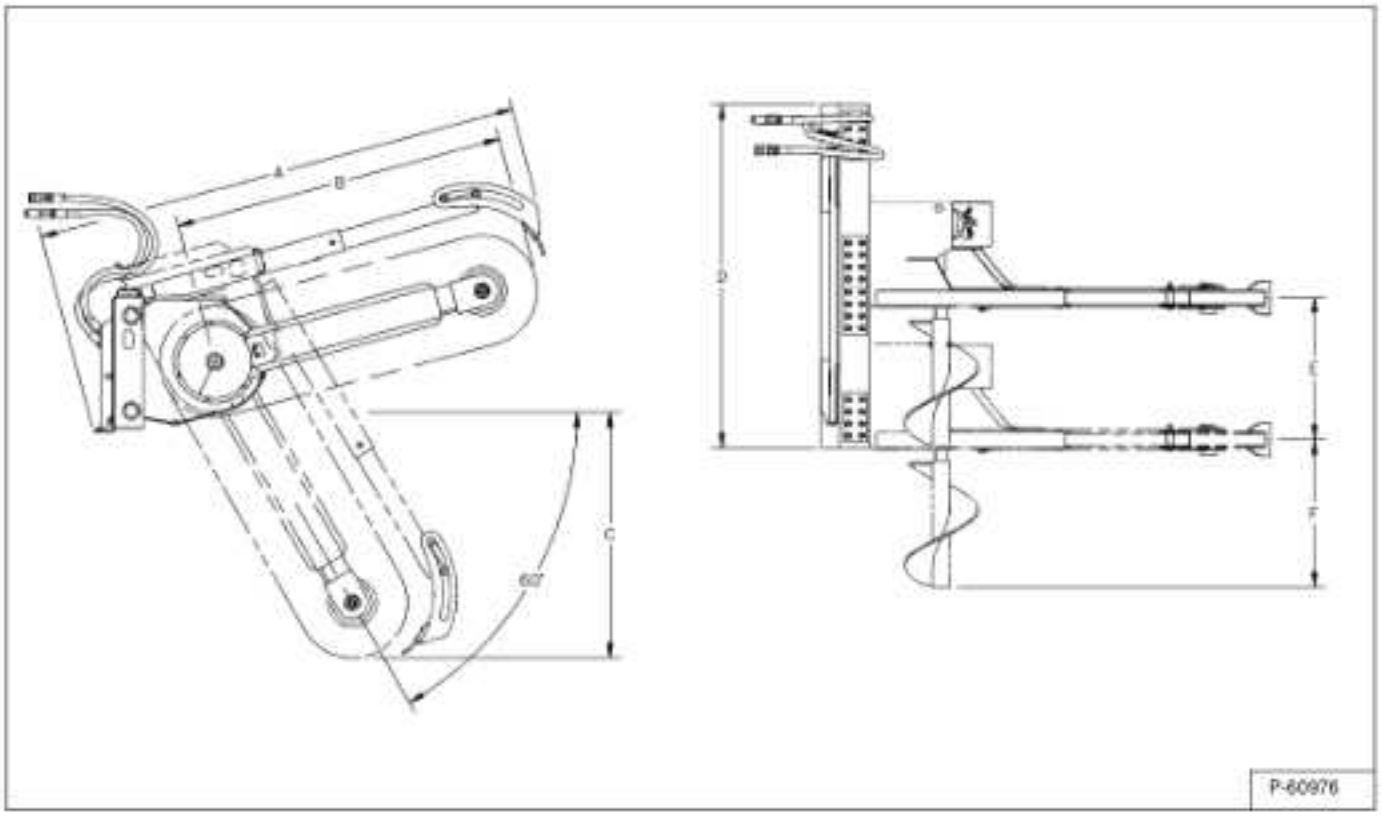
Apply anti-seize to the shaft (Item 2) **[Figure PM-3]** when installing the auger.



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**Dimensions**

- All dimensions are shown in inches. Respective metric dimensions are given in millimeters enclosed by parentheses.
- Where applicable, specifications conform to **SAE and ISO** standards and are subject to change without notice.




| DESCRIPTION | LT414 TRENCHER (4 FT.) | LT414 TRENCHER (5 FT.) |
|---|---|---|
| Operating Weight (Without Teeth) | 1188 lb. (539 kg) | 1225 lb. (556 kg) |
| Overall Length (A) | 90.0 in. (2286 mm) | 104.0 in. (2642 mm) |
| Flow Range | 28-40 GPM (105-151 L/min.) | 28-40 GPM (105-151 L/min.) |
| Maximum Operating Pressure | 3300 PSI (22750 KPa) | 3300 PSI (22750 KPa) |
| Chain Size | 2.00 in. (50.8 mm) | 2.00 in. (50.8 mm) |
| Chain Speed @ 18 gpm (68 L/min) | 330 ft./min. (100 m/min) | 330 ft./min. (100 m/min) |
| Standard Boom Length (B) | 65.0 in. (1651 mm) | 79.0 in. (2011 mm) |
| Frame Width (D) | 56.25 in. (1428.8 mm) | 56.25 in. (1428.8 mm) |
| Digging Depth @ 60° (C) | 50.0 in. (1270 mm) | 62.0 in. (1575 mm) |
| Chain Tightener | Grease Cylinder | Grease Cylinder |
| Auger Diameter | 12.0 in. (305 mm) / 14.25 in. (362 mm) | 12.0 in. (305 mm) / 14.25 in. (362 mm) |
| Auger Clearance (F) | 23.4-26.4 in. (594-671 mm) | 23.4-26.4 in. (594-671 mm) |
| Side Shift Travel (E) | 21.8 in. (554 mm) | 21.8 in. (554 mm) |
| Trenching Widths Available | 6-12 in. (152-305 mm) | 6-8 in. (152-203 mm) |



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## SAFETY INSTRUCTIONS

### Safe Operation Is The Operator's Responsibility

**Safety Alert Symbol**

**This symbol with a warning statement means: "Warning, be alert! Your safety is involved!" Carefully read the message that follows.**

**WARNING**

**Operator must have instructions before running the machine. Untrained operators can cause injury or death.**

W-2001-1285

**IMPORTANT**

**This notice identifies procedures which must be followed to avoid damage to the machine.**

I-2019-0284

**DANGER**

**The signal word DANGER on the machine and in the manuals indicates a hazardous situation which, if not avoided, will result in death or serious injury.**

D-1002-1107

**WARNING**

**The signal word WARNING on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.**

W-2044-1107

The Bobcat machine and attachment must be in good operating condition before use.

Check all of the items on the Bobcat Service Schedule Decal under the 8-10 hour column or as shown in the Operation & Maintenance Manual.

### Safe Operation Needs A Qualified Operator

For an operator to be qualified, he or she must not use drugs or alcoholic drinks which impair alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he or she can safely operate a machine and the attachment.

*A Qualified Operator Must Do The Following:*

*Understand the Written Instructions, Rules and Regulations*

- The written instructions from Bobcat Company include the Delivery Report, Operation & Maintenance Manual, Operator's Handbook, Safety Manual and machine signs (decals).
- Check the rules and regulations at your location. The rules may include an employer's work safety requirements. Regulations may apply to local driving requirements or use of a Slow Moving Vehicle (SMV) emblem. Regulations may identify a hazard such as a utility line.

*Have Training with Actual Operation*

- Operator training must consist of a demonstration and verbal instruction. This training is given by your Bobcat dealer before the product is delivered.
- The new operator must start in an area without bystanders and use all the controls until he or she can operate the machine and attachment safely under all conditions of the work area. Always fasten seat belt before operating.

*Know the Work Conditions*

- Know the weight of the materials being handled. Avoid exceeding the machine load capacities. Material which is very dense will be heavier than the same volume of less dense material. Reduce the size of load if handling dense material.
- The operator must know any prohibited uses or work areas, for example, he or she needs to know about excessive slopes.
- Know the location of any underground lines. Call local utilities or the TOLL FREE phone number found in the *Call Before You Dig* Section of this manual.
- Wear tight fitting clothing. Always wear safety glasses when doing maintenance or service. Safety glasses, respiratory equipment, hearing protection, Special Applications Kits or a Front Window Guard are required for some work. See your Bobcat dealer about Bobcat Safety equipment for your machine.

SI ATT-0208



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