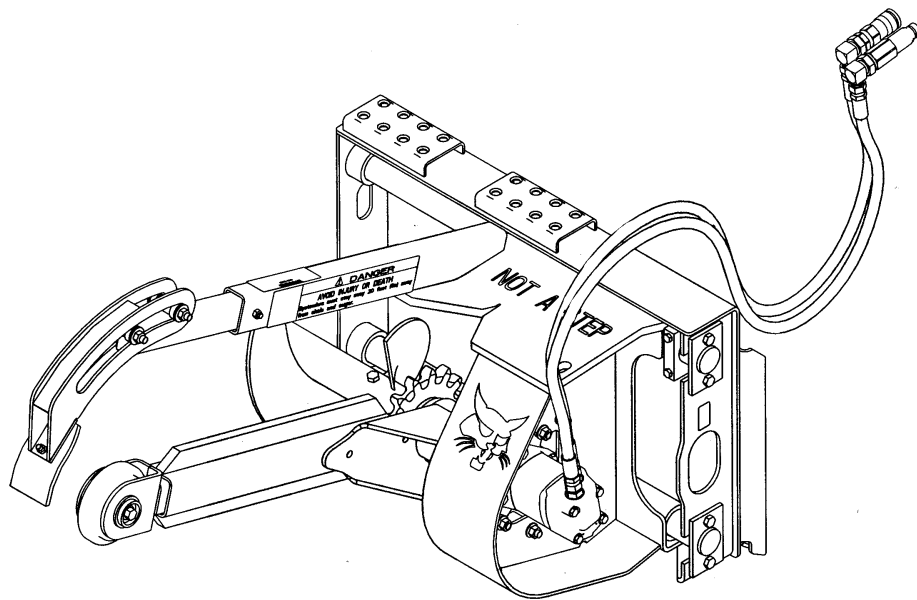




# Bobcat®

## Operation & Maintenance Manual

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### Trencher

(LT112 Trencher) S/N 045200101 & Above  
(MX112 Trencher) S/N 045100101 & Above  
(LT113 Trencher) S/N 233800101 & Above  
(LT113 Trencher) S/N B3WV00101 & Above



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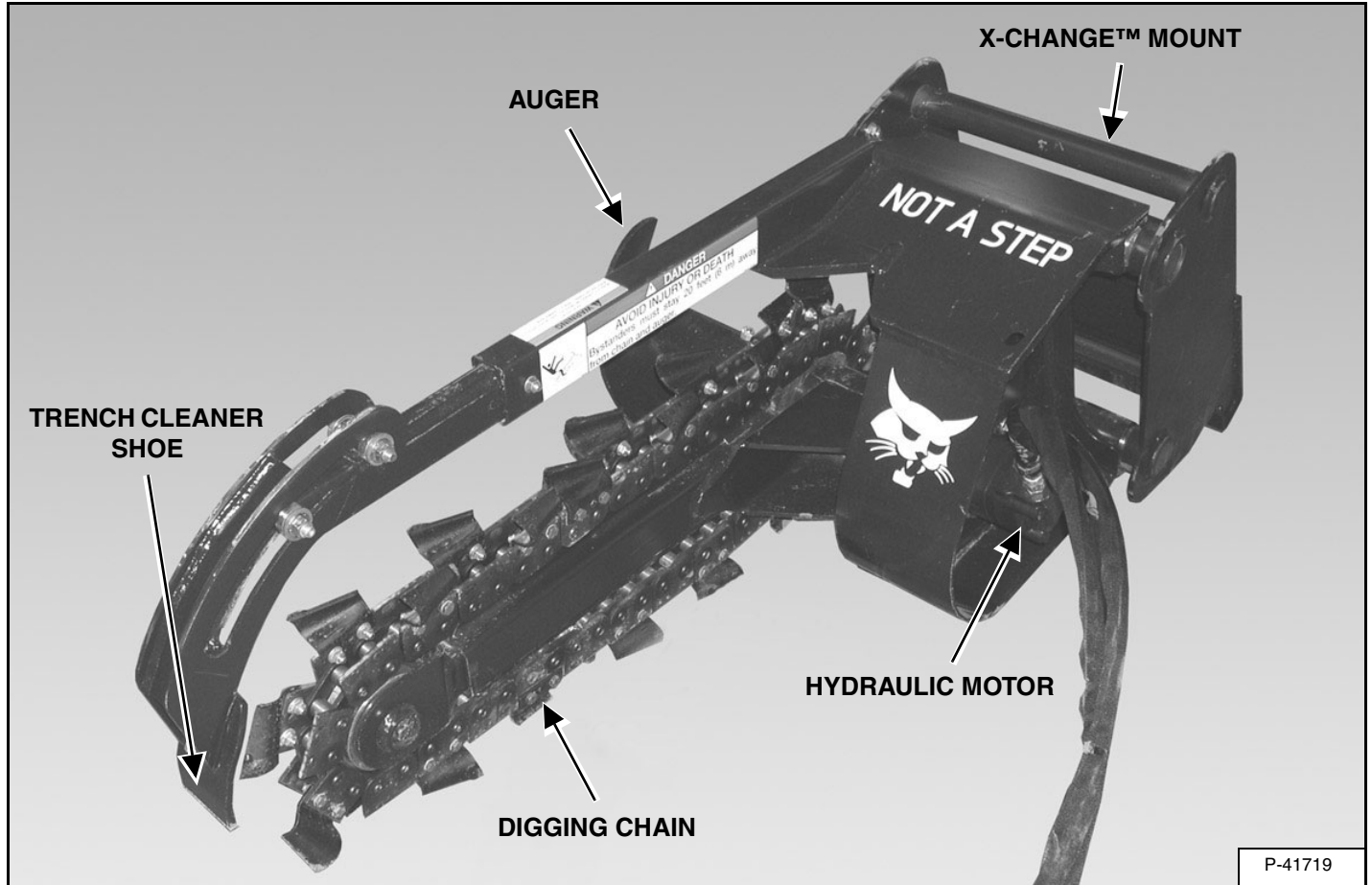


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**ATTACHMENT IDENTIFICATION (CONT'D)**

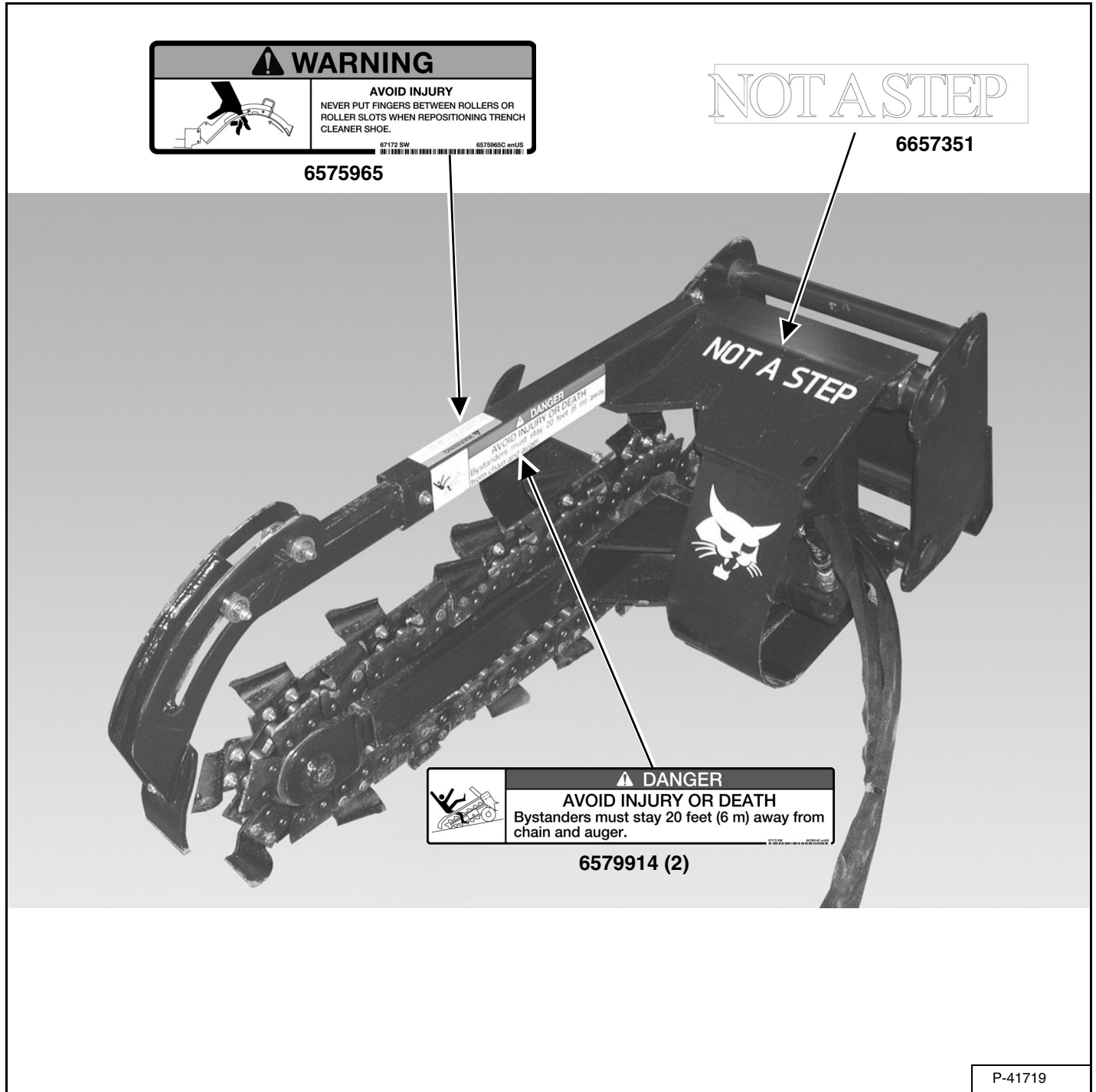
**MX112 Trencher**



## ATTACHMENT SIGNS (DECALS) (CONT'D)

### MX112 Trencher

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



## OPERATING PROCEDURE WITH LOADERS (CONT'D)

### Entering And Exiting The Loader (Cont'd)

#### *Exiting*

Lower the lift arms and put the attachment flat on the ground.

Stop the engine and engage the parking brake.

Lift the seat bar and make sure the lift and tilt functions are deactivated.

Remove the key.

Exit the loader.



#### **AVOID INJURY OR DEATH**

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

- **Lower the lift arms, put the attachment flat on the ground.**
- **Stop the engine and engage the parking brake.**
- **Move all pedals, handles, joysticks, and other controls until they are LOCKED or in the NEUTRAL position.**

**SEE THE MACHINE OPERATION & MAINTENANCE MANUAL FOR MORE INFORMATION.**

W-2722-0208

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## OPERATING PROCEDURE WITH EXCAVATORS (CONT'D)

### Entering And Exiting the Excavator

#### Entering



#### AVOID INJURY OR DEATH

When operating the machine:

- Keep the seat belt fastened snugly.
- The control console(s) must be lowered.
- Keep your feet and arms inside the cab.

W-2777-1208

Figure 34



Use the grab handles, tracks the and safety treads to enter and exit the excavator [Figure 34].

Figure 35



Fasten the seat belt snugly. Adjust the seat belt so that the belt is over the operator's hips [Figure 35].

Figure 36

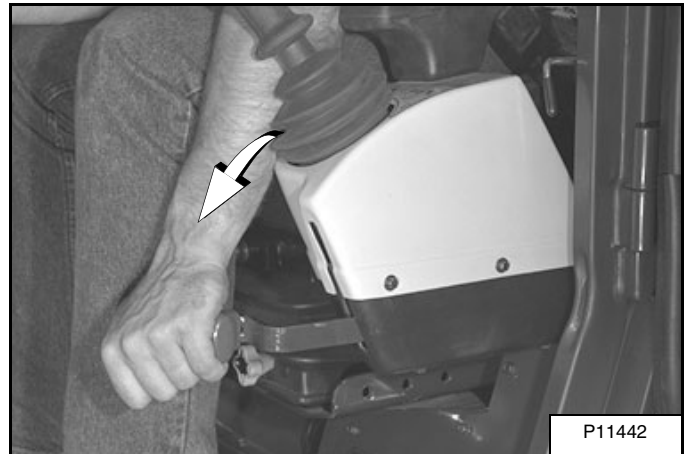


Figure 37



Lower the left control console [Figure 36] and [Figure 37] before starting the engine.

## OPERATING PROCEDURE WITH EXCAVATORS (CONT'D)

### Installation (Cont'd)

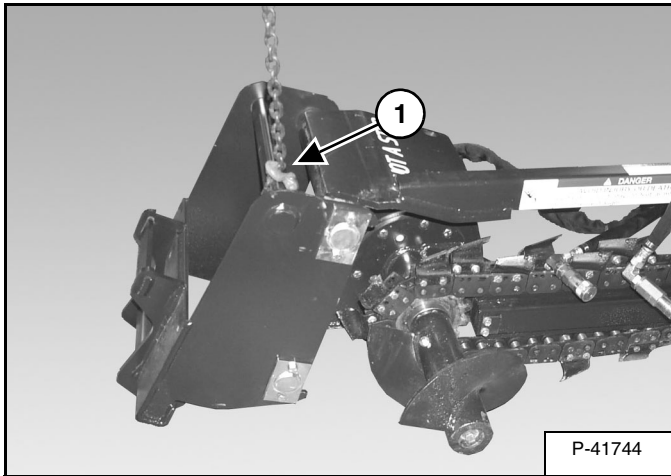
#### Hydraulic X-Change

The trencher will need to be rolled over before it can be mounted to the excavator.

Remove the trench cleaner before rolling the trencher over.

**NOTE:** Secure the hose so they do not get pinched or cut while rolling the trencher over.

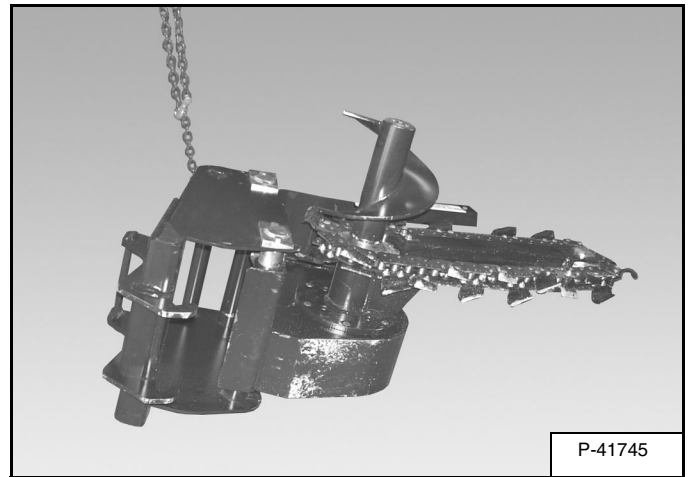
Figure 65



Attach a chain (Item 1) [Figure 65] to the mounting frame.

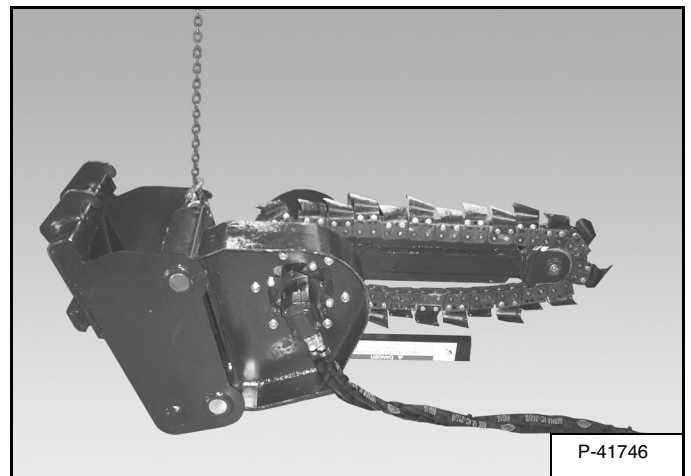
**NOTE:** Use chains that are in good condition and of adequate size to lift the attachment.

Figure 66



Roll the trencher to the flat side (the opposite side of the auger) [Figure 66]. Use a hoist to assist in rolling the trencher over.

Figure 67



Continue to roll the trencher over so it lays as shown [Figure 67].

Remove the chain.

Enter the excavator. (See Entering And Exiting the Excavator on Page 39.)

## OPERATING PROCEDURE WITH EXCAVATORS (CONT'D)

### Operation With The Excavator

#### Excavator Trenching Procedure

## WARNING

### AVOID INJURY OR DEATH

When operating the machine:

- Keep the seat belt fastened snugly.
- The control console(s) must be lowered.
- Keep your feet and arms inside the cab.

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### AVOID INJURY OR DEATH

Bystanders must stay 6 m (20 ft) away from chain and auger.

D-1019-0910

## WARNING

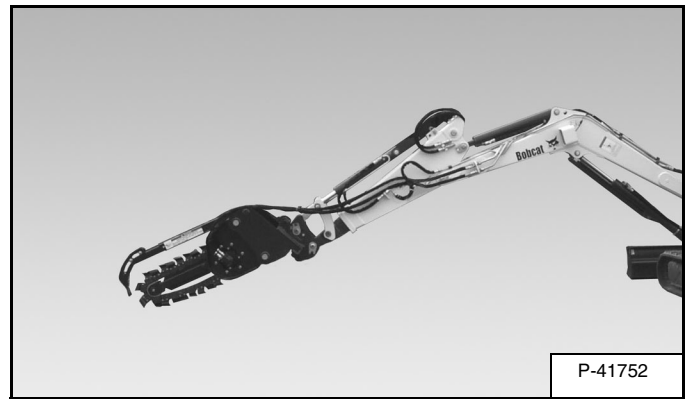
### AVOID INJURY OR DEATH

Check for underground utility lines before digging.

W-2120-0788

Move to the operator's seat, fasten seat belt and start the excavator.

Figure 89



Raise the boom and arm and tilt the trencher forward until the trencher is at a 20 - 25° angle to the ground [Figure 89].

Engage the auxiliary hydraulics. (See the excavator's Operation & Maintenance Manual and Operator's Handbook for correct procedure.)

Start the trencher. (See Control Functions on Page 57.)

Lower the boom until the end of the attachment contacts the ground and starts digging the trench. Continue to lower the boom while the trencher is digging until the trencher is fully lowered.

Slowly tilt the trencher into the ground until the trencher is approximately at a 60° angle to the ground.

When the attachment reaches this angle, it is at the best digging position.

Drive backward and continue trenching until the desired length of the trench is reached.

Figure 90



To dig closer to a building or other structure, extend the boom swing cylinder and swing the upper structure until the trencher is in the position shown [Figure 90].

## OPERATING PROCEDURE WITH MINI TRACK LOADERS

### Approved Mini Track Loader Models And Requirements

Figure 118

MINI TRACK LOADER MODEL	LT112	LT113
MT50	X	X
MT52	X	X
MT55	X	X
MT85	X	X
MT100	X	X

X = Approved

The chart [Figure 118] shows the approved trencher models for each mini track loader model.

**The warranty is void if this attachment is used on a non-approved carrier. See your Bobcat dealer for an updated list of approved carriers.**



**Never use attachments or buckets which are not approved by the Bobcat Company. Attachments and buckets for safe loads of specified densities are approved for each model. Unapproved attachments and buckets can cause injury or death.**

W-2662-0108

Figure 119



The loader must be equipped with front auxiliary hydraulics [Figure 119] for proper operation of the trencher. See your Bobcat dealer for available kits.

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## OPERATING PROCEDURE WITH MINI TRACK LOADERS (CONT'D)

### Operation With The Mini Track Loader

#### Manual Side Shift

Always park on flat level ground.

Lower the trencher keeping slightly off the ground.

Stop the engine and exit the operator's position. (See Entering And Leaving The Operator's Position on Page 70.)

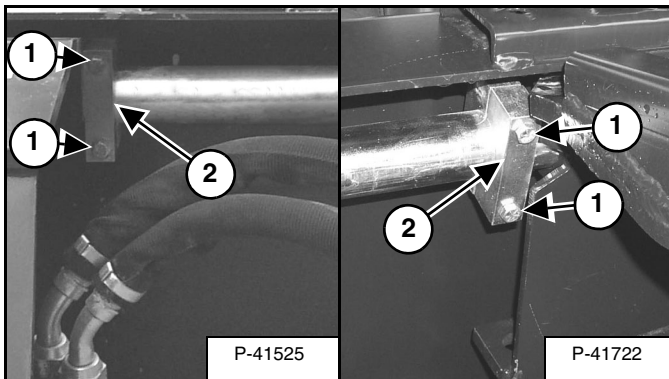


Before you leave the operator's position at the rear of the loader:

- Lower lift arms and put attachment flat on ground.
- Disengage auxiliary hydraulic system.
- Engage parking brake.
- Stop engine. Remove key.

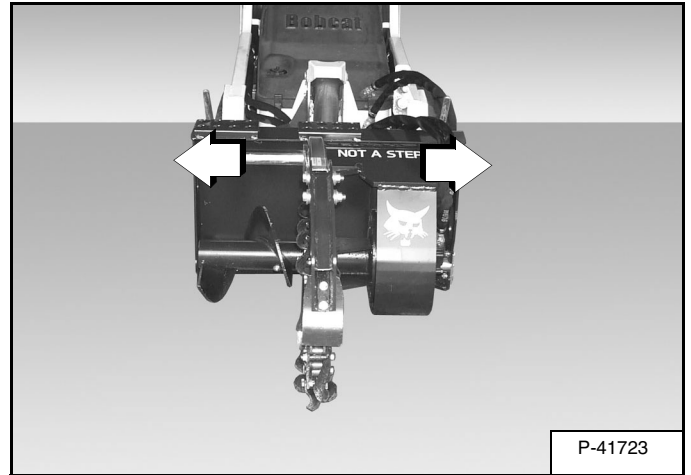
W-2416-1015

Figure 135



Loosen the two bolts (Item 1) from both the left and right blocks (Item 2) [Figure 135] holding the trencher in the desired position.

Figure 136



Move the trencher to the desired position [Figure 136].

Slide the blocks (Item 2) [Figure 136] against the trencher frame, then tighten the bolts to 34 - 38 N•m (25 - 28 ft-lb) torque.

## OPERATING PROCEDURE WITH SMALL ARTICULATED LOADERS (CONT'D)

### Entering And Exiting The Small Articulated Loader (Cont'd)

#### *Exiting*

Lower the lift arm and put the attachment flat on the ground.

Stop the engine and engage the parking brake.

Lift the arm rest and make sure the lift, tilt, auxiliary hydraulics, drive functions and telescopic (if equipped) are deactivated.

Remove the key.

Exit the small articulated loader.



#### **AVOID INJURY OR DEATH**

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

- Lower the lift arm and put the attachment flat on the ground.
- Stop the engine.
- Engage the parking brake.
- Raise the arm rest.
- Move all controls to the **NEUTRAL / LOCKED** position to make sure the lift, tilt, telescoping, auxiliary hydraulics and traction drive functions are deactivated.
- The Operator Interlock Control System (OICS) must deactivate these functions when the armrest is up. See your Bobcat dealer for service if controls do not activate.

**SEE THE MACHINE OPERATION & MAINTENANCE MANUAL FOR MORE INFORMATION.**

W-3095-0220

## OPERATING PROCEDURE WITH SMALL ARTICULATED LOADERS (CONT'D)

### Operation With The Small Articulated Loader (Cont'd)

#### Loader Trenching Procedure

**! DANGER**

**AVOID INJURY OR DEATH**  
Bystanders must stay 6 m (20 ft) away from chain and auger.

D-1019-0910

**! WARNING**

**AVOID INJURY OR DEATH**  
Check for underground utility lines before digging.

W-2120-0788

Enter the small articulated loader. (See Entering And Exiting The Loader on Page 28.)

Figure 175



Raise the lift arm and tilt the trencher forward until the trencher is at a 20 - 25° angle to the ground [Figure 28].

Start the trencher. (See Control Functions on Page 34.)

Lower the lift arm until the end of the attachment contacts the ground and starts digging the trench. Continue to lower the lift arms while the trencher is digging until the lift arm are fully lowered.

Slowly tilt the Bob-Tach into the ground until the trencher boom is approximately at a 60° angle to the ground.

When the attachment reaches this angle, it is at the best digging position.

Drive backward and continue trenching until the desired length of the trench is reached.

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# LT112 AND MX112 SINGLE STANDARD PATTERNS

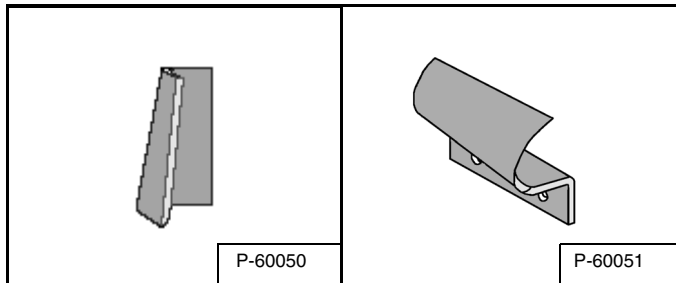
## Component Description



Do not strike the cutter bit with a hammer. The hard bit can shatter and cause serious injury. Use the correct bit installation tool.

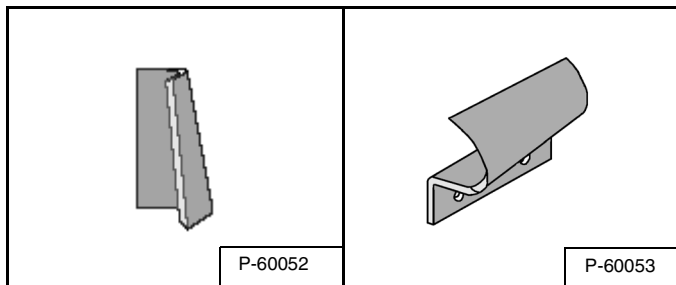
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Figure 202



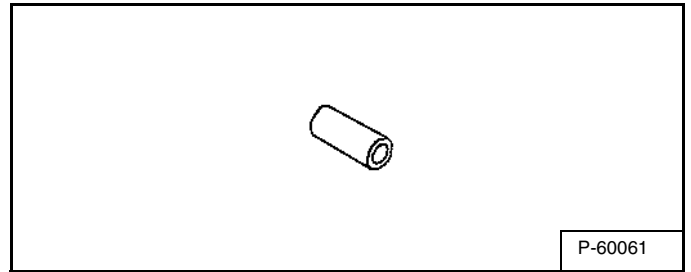
Right hand digging tooth [Figure 202].

Figure 203



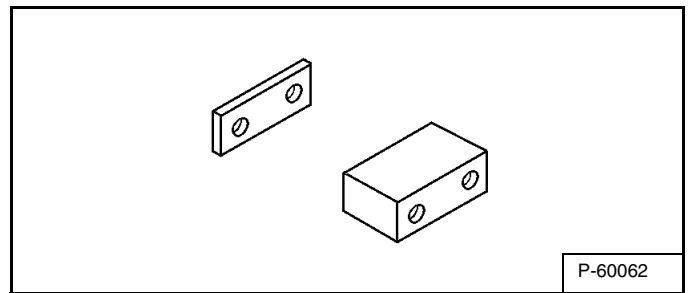
Left hand digging tooth [Figure 203].

Figure 204



Bushing [Figure 204].

Figure 205



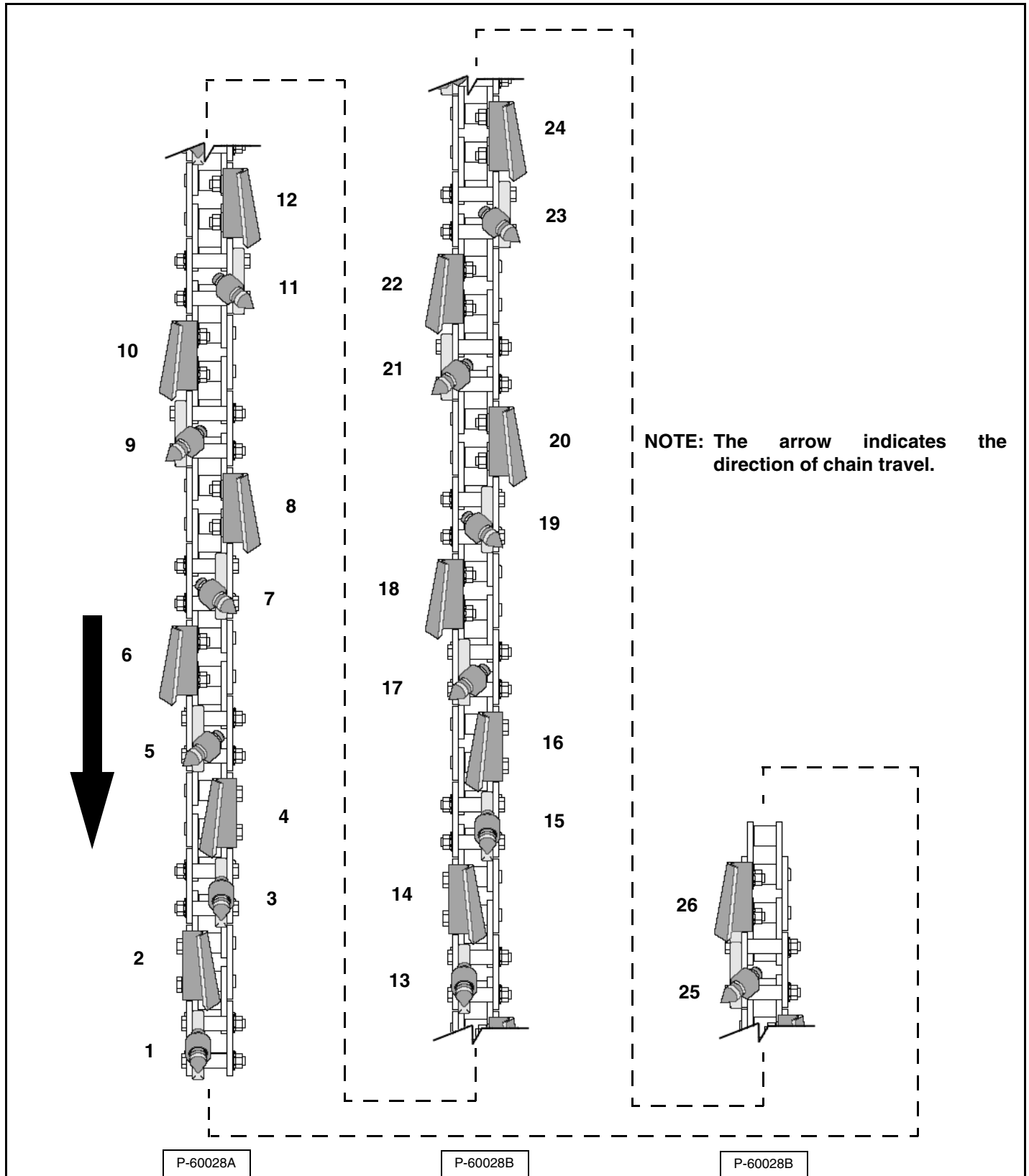
Spacers [Figure 205].



# LT113 DOUBLE STANDARD PATTERNS (CONT'D)

## 0,61 m x 102 mm (2 ft x 4 in) Cup Tooth / Carbide Tooth Pattern Installation

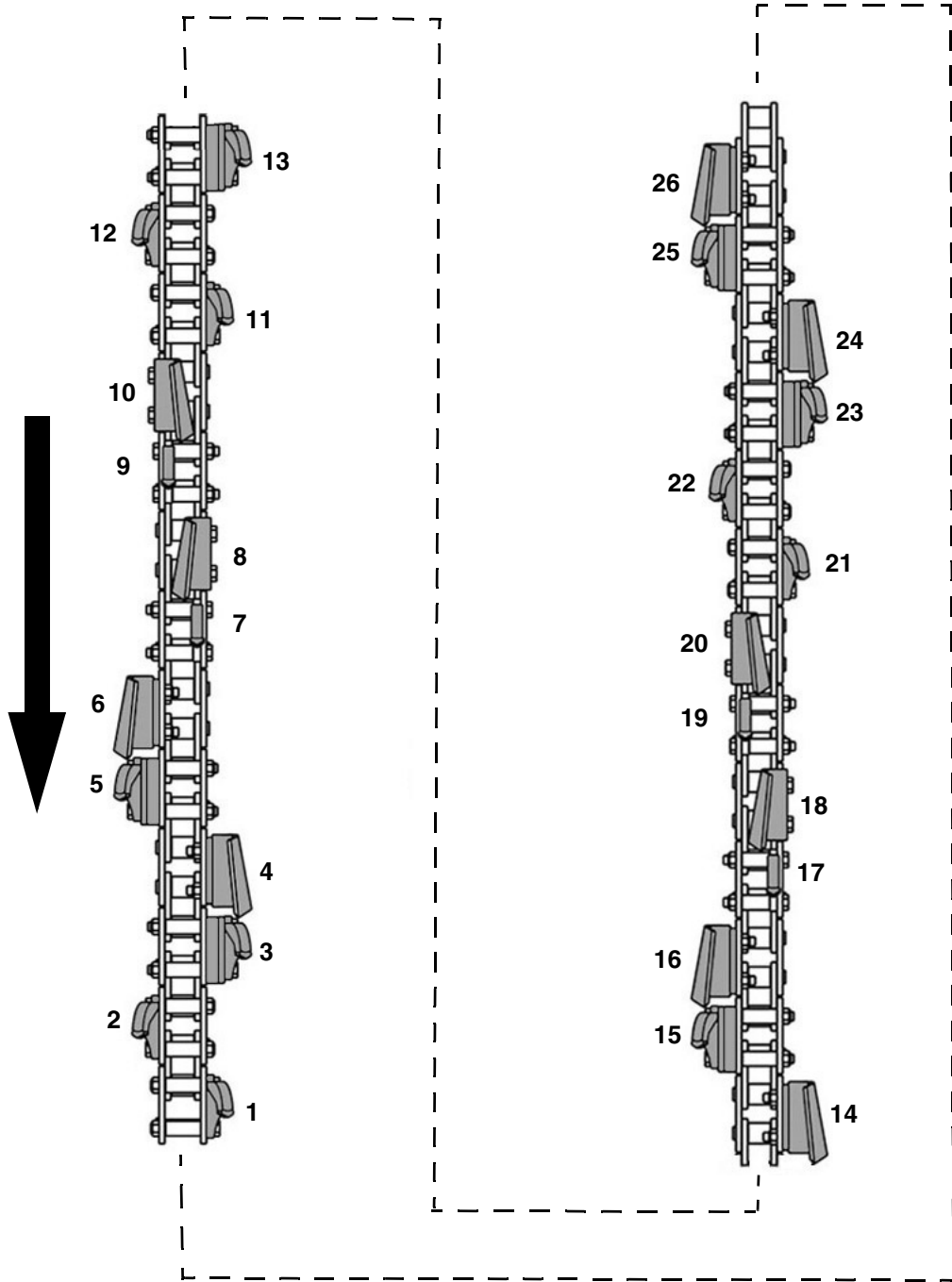
**Instructions:** Install teeth 1 thru 26 as indicated below.



**LT112 SHARK PATTERNS (CONT'D)**

**0,61 m x 152 mm (2 ft x 6 in) Shark Tooth Pattern Installation**

**Instructions:** Install teeth 1 thru 26 as indicated below.



**NOTE:** The arrow indicates the direction of chain travel.

NA7059

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Certain specification(s) are based on engineering calculations and are not actual measurements. Specification(s) are provided for comparison purposes only and are subject to change without notice. Specification(s) for your individual Bobcat equipment will vary based on normal variations in design, manufacturing, operating conditions and other factors.

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