EMD SPEED REDUCER KIT [A202]
INSTALLATION INSTRUCTIONS

These instructions apply to the following models:

- WR80 56’-71’
- WR100 31’-71’
- GHR80 56’-71’
- GHR100 31’-71’

Read and understand the safety information in the auger manual before proceeding.

Read and understand the instructions in this manual before attempting to install this product.

Refer to the auger manual for operation instructions.

PRE-INSTALLATION NOTES

The following instructions are for installing the kit during the assembly of a new auger. To install the kit on a used auger, some disassembly will be required. Left hand or right hand is determined by standing at intake end and facing the discharge end.
INSTALLATION PROCEDURE

1. Remove the 1/2" x 1" bolts from the top of the gearbox and recycle them.

   **Important:** In the following steps, the motor mount (1) is positioned behind the gearbox (2), towards the intake end of the auger, as shown in Figure 1.

2. Position the motor mount extension (3) between the jackshaft tower (4) and the gearbox (2), and fasten with:
   - Four 1/2" x 1-1/4" bolts (5) and 1/2" lockwashers (6)
   - Four 1/2" flat washers (7) (use as shims)

3. Attach the motor mount (1) to the motor mount extension (3) using two 1/2" x 1-1/4" bolts (5) and 1/2" locknuts (9).

4. Secure the motor mount supports (10) and tube clamp (11) with 7/16" x 1" bolts (12) and 7/16" locknuts (13).

**Figure 1 Installing Jackshaft Tower, Motor Mount, and Extension**
5. Attach the jackshaft assembly (14) to the jackshaft tower (4) using two 1/2" x 1-1/4" bolts (5) and 1/2" locknuts (9) as shown in Figure 2.

6. Install the right-hand pulley guard bracket (15) to right side of the jackshaft tower (4) using two 3/8" x 3/4" bolts (16) and 3/8" whiz nuts (17).

7. Install the left-hand pulley guard bracket (18) to end of the jackshaft tower (4) using two 7/16" x 1" bolts (12) and 7/16" locknuts (13).

Figure 2 Installing Jackshaft and Pulley Guard Brackets
8. Attach the pulley guard backplate (19) to the right-hand pulley guard bracket (15) with two 1/4" x 1/2" bolts (20) and 1/4" whiz nuts (21) as shown in Figure 3, but do not tighten them until later.

9. Slide the 1/4" x 1-1/2" square key (22) and 15" pulley (23) onto the gearbox shaft.

10. Slide the 1/4" x 1-1/2" square key (22) and 6-1/2" pulley (24) onto the jackshaft (hubs facing auger tube as shown).

11. Use a straight edge to align the pulleys, and tighten the set-screws.

Figure 3 Installing Pulley Guard Backplate and Pulleys
12. Slide the 1/4" x 1-1/2" square key (22) and 15" pulley (23) onto the left side of the jackshaft, with the hub towards the jackshaft as shown in Figure 4, and tighten the set-screws.

13. Slide the square key (22) and drive pulley (25) onto electric motor shaft, and tighten set-screws.

Note: The auger speed will be 50 rpm per motor pulley inch diameter, based on 1750 rpm motor. For example:

\[4-1/2" \text{ pulley} \times 50 \text{ rpm} = 225 \text{ rpm auger speed}\]

14. Place the electric motor (26) onto the mount and secure with the motor mounting hardware, but do not tighten them until step 17. Have a qualified electrician perform the electrical connections and wiring to the electric motor, ensuring the requirements on page 8 are met.

15. Install the B67 belts (27) on the gearbox pulley (23) and 6-1/2" jackshaft pulley (24) and tighten them using the 5/8" washer (28) and 5/8" locknut (29) on the threaded rod attached to the jackshaft tower (4).

16. Place the B82 belts (30) on the motor pulley (25) and the 15" pulley (23), align the pulleys using a straight edge, and tighten the set-screws.

17. Tighten the belts so that a 1" (25 mm) deflection is obtained when a 5 lb (22 N) force is applied at the belt center. Tighten the motor bolts.

Figure 4 Installing Electric Motor, Pulleys, and Belts
Note: Once all bolts and set screws are tightened, re-check pulley alignment. Proper alignment will prolong belt life.

18. Adjust the pulley backplate (19) to make sure it will not rub on the electric motor shaft. Tighten the backplate mount bolts/nuts securely.

19. Close and lock the plastic pulley guard using the quick-clip.

20. Assemble the adjustable two-piece pulley guard (31) and guard extension (32) using four 1/4" x 1/2" bolts (20) and 1/4" whiz nuts (21) as shown in Figure 5.

21. Attach the pulley guard to the left-hand pulley guard bracket (18) with a flat iron strap (33) and 5/16" x 6" bolts (34) and 5/16" locknuts (35).

Figure 5 Installing Two-Piece Pulley Guard and Extension
WARNING
ENTANGLEMENT HAZARD
To prevent serious injury or death:
• Keep body, hair, and clothing away from rotating pulleys, belts, chains, and sprockets.
• Do not operate with any guard removed or modified. Keep guards in good working order.
• Shut off and remove key or lock out power source before inspecting or servicing machine.

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WARNING
MISSING GUARD HAZARD
To prevent serious injury or death, shut off power and reattach guard before operating machine.

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Figure 6 Safety Decal Location Reference
ELECTRIC MOTOR SAFETY

⚠️ WARNING

Power Source

• Electric motors and controls shall be installed and serviced by a qualified electrician and must meet all local codes and standards.
• A magnetic starter should be used to protect your motor.
• You must have a manual reset button.
• Reset and motor starting controls must be located so that the operator has full view of the entire operation.
• Locate main power disconnect switch within reach from ground level to permit ready access in case of an emergency.
• Motor must be properly grounded.
• Guards must be in place and secure.
• Ensure electrical wiring and cords remain in good condition; replace if necessary.
• Use a totally enclosed electric motor if operating in extremely dusty conditions.

Lockout

• The main power disconnect switch should be in the locked position during shutdown or whenever maintenance is performed.
• If reset is required, disconnect all power before resetting motor.