ASSEMBLY INSTRUCTIONS

STATIONARY & PORTABLE 10” DOUBLE RUN GRAIN PUMP with WIDE BOOT

RIGHT and LEFT DESIGNATION
When referencing the left, right, front, or rear of the conveyor, it is always determined by standing at the inlet end of the conveyor and looking towards the discharge end.

GEAR REDUCER
IMPORTANT! Reducers are shipped without oil. It is necessary to add the proper amount of oil before running.

It is first necessary to identify which gear reducer was shipped with your conveyor. Not all gearboxes will be available for every configuration. The options are as follows:

<table>
<thead>
<tr>
<th>Gearbox Mfg./Model</th>
<th>Hutchinson/Mayrath P.N.</th>
<th>Identifying Marks</th>
<th>HP Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weasler 6100/6600</td>
<td>1043983</td>
<td>Metal tag</td>
<td>7.5-20HP</td>
</tr>
<tr>
<td>Weasler 8100/8600</td>
<td>1031082/1031082-1</td>
<td>Metal tag</td>
<td>25-30HP</td>
</tr>
<tr>
<td>Dodge TA2115H05</td>
<td>1040862</td>
<td>Casting/Tag</td>
<td>7.5-10HP</td>
</tr>
<tr>
<td>Dodge TA3203H05</td>
<td>1040861</td>
<td>Casting/Tag</td>
<td>15-20HP</td>
</tr>
<tr>
<td>Dodge TA4207H05</td>
<td>1040860</td>
<td>Casting/Tag</td>
<td>25HP</td>
</tr>
<tr>
<td>Dodge TA5215H05</td>
<td>1040859</td>
<td>Casting/Tag</td>
<td>30HP</td>
</tr>
</tbody>
</table>

For Weasler 6100/6600 reducers fill with 48 oz. (1.42 l.) of SAE 90 weight oil. For Weasler 8100/8600 reducers, use 128 oz. (3.78 l.) of SAE 90 wt. oil. Re-locate the breather & drain plugs to the appropriate locations. See Figure 1 below.

Figure 1. Reducer Oil Level
For Dodge reducers, follow the oil fill recommendations included in the Dodge Reducer Manual. If this Manual was not included with your conveyor, please contact the factory.

**ELECTRIC DRIVE INSTALLATION**

**Note:** Non-portable units may have the motor plate assembly factory installed. If so, skip to step 5.

1. Install ¾” non-lock nut into nut keeper. Bolt to inside of electric motor slide using nut retainer, along with two 3/8” x 2” bolts and two 3/8” nylock nuts.

![Figure 2. Motor Mount Slide Assembly](image)
2. See Figure 4 for slide position details based on the drive configuration. Locate the appropriate 11/16” hole on the mounting plate. Install a slide rod into each slide. Lift the slide and slide rod assembly and align end of shaft with the 11/16” diameter hole. Using a 5/8” x 1-1/2” bolt, flat washer, & lock washer secure the ends of the shaft to the plates. Make sure to position the slides so that the end with the ¾” nut & cutout is closest to the discharge end of the conveyor. Repeat for the opposite side.
**Figure 4. Motor Mount Slide Position Detail**

<table>
<thead>
<tr>
<th>Motor/Drive Configuration</th>
<th>Slide Rod Position</th>
<th>Slide Tensioner Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top, Left</td>
<td>A</td>
<td>A1</td>
</tr>
<tr>
<td>Top, Right</td>
<td>B</td>
<td>B1</td>
</tr>
<tr>
<td>Bottom, Left</td>
<td>C</td>
<td>C1</td>
</tr>
<tr>
<td>Bottom, Right</td>
<td>D</td>
<td>D1</td>
</tr>
</tbody>
</table>

**Note:** Motor/Drive configuration refers to desired motor position when standing at the inlet end of the conveyor and looking towards the discharge end. Top & Bottom refers to the position of the electric motor relative to the tubes.
3. Next to the mounting bolt which secures the slide mounting shaft to the boot you will find a 15/16” diameter hole. Insert one of the tightener rods through this hole and install a 3/4” non-lock nut. Thread this nut onto the rod until it is nearly to the gusset plate, but do not tighten. Thread the tightener rod into the ¾” nut attached to the motor slide at the same time. Repeat this process for the other motor slide.

Figure 5. Tightener Rod Detail
4. Set the motor mount plate weldment down on top of the plates of the two motor mount slides just installed. The motor mount slides should be to the inside of the attachments on the motor mount plate (see Figure 7). Secure the motor mount plate to the motor mount slides using six ½” x 1-1/4” bolts with nylock nuts.

![Figure 6. Motor Mount Plate Installation](image)

**Note:** Motor Mount Slides are inside of Motor Mount Plate
5. If you have not done so already, determine which gear reducer you have using the instructions on the first page of this manual. The position of the belt guard & belt guard brackets depends on which gear reducer is being used.

6. Bolt the upper belt guard bracket to the boot weldment. See the Figure 9 on the next page for correct positioning of the bracket. Remove the 5/8” x 1-1/2” bolt, lock washer, & flat washer used to secure the end of the motor slide rod & position the belt guard bracket against the boot bracket. Re-install the hardware removed from the end of the motor slide rod. Use an additional 5/8” x 1-1/2” bolt, flat washer, & 5/8” nylock nut to secure the bracket.
Figure 8. Upper Belt Guard Bracket Installation

- 5/8" Nylock Nut
- Upper Belt Guard Bracket
- 5/8" Flat Washer
- 5/8" x 1-1/2" Bolt
- 5/8" Lock Washer
**Figure 9. Upper Belt Guard Bracket Position Detail**

**Note:** For a conveyor with the drive on top of the tube & on the left side of the conveyor, use holes marked “A” for Weasler 8100/8600 & 6100/6600 gear reducers. Use holes marked “B” for Dodge TA2115H05 gear reducers. Use holes marked “C” for Dodge TA3203H05, TA4207H05, & TA5215H05 gear reducers.
7. Bolt the inner lower belt guard bracket to the bolts welded to the boot using three 3/8” flat washers and nylock nuts. The bracket should be positioned as shown below, with the long flange closest to the gear reducer.

8. Bolt the outer lower belt guard bracket to the inner lower belt guard bracket using three 3/8” x 1” long bolts, flat washers, & nylock nuts. See Figures 11 & 12 for correct positioning of brackets.

Figure 10. Lower Belt Guard Bracket Installation
**Note:** Use the three holes shown on the left to bolt the lower inner belt guard bracket to the boot. Use the holes marked “A” to attach the outer lower belt guard bracket to the inner lower belt guard bracket when the electric motor will be installed on top of the tubes. Use the holes marked “B” when the motor will be installed underneath the tubes.
Note: Use the holes in column “A” for Weasler 8100/8600 & 6100/6600 gear reducers. Use the holes in column “B” for Dodge TA2115H05 gear reducers. Use the holes in column “C” for Dodge TA3203H05, TA4207H05, & TA5215H05 gear reducers.

Use the holes in rows marked “1” for units with the electric motor on top of the tubes & on either the left or right side. Use the holes in the rows marked “2” for units with the electric motor on the bottom of the tubes & on the left hand side of the conveyor. Use the holes in the rows marked “3” for units with the electric motor on the bottom of the tubes & on the right hand side of the conveyor.
9. Mount the electric motor to the motor mount plate using appropriate sized hardware. It is advised to using lock washers or lock nuts to secure the motor.

Figure 13. Electric Motor Installation

10. Bolt the belt guard to the upper & lower belt guard brackets using five 3/8” x 1” bolts, flat washers, & nylock nuts.
Figure 14. Belt Guard Installation (Belt Guard Door not shown)

**Note:** The motor cover plate slot on the back of the belt guard may need to be adjusted to match up with the motor shaft. Loosen the four bolts on the cover panel & adjust so that the motor shaft will not contact the belt guard. Re-tighten bolts.

Figure 15. Motor Cover Plate Detail
Note: For the following instructions, see the chart below for specific sheave & bushing combinations for a particular drive setup.

11. Install the reducer bushing onto the reducer input shaft. Use the key that was provided either in the bolt kit, or taped to the reducer input shaft. Mount so the hub of the QD bushing is toward the reducer.

12. Install the reducer sheave onto the QD bushing. Leave loose so it can be aligned with the drive sheave on the motor later.

13. Install the motor bushing onto the motor shaft.

14. Install the motor pulley onto the QD bushing.

15. Using a straight edge, align the drive and driven sheaves. Once aligned, tighten the bolts holding the sheaves to the QD bushings & tighten setscrews in bushings. Re-check alignment of sheaves and adjust if necessary.

16. Install the 120” belts around the sheaves. Start with the back groove of the sheaves and work out.

17. Adjust the tightener rods installed earlier to tighten the drive belts.

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**Figure 16. Drive Sheave & Belt Installation (belt guard door not shown for clarity)**

<table>
<thead>
<tr>
<th>Drive HP</th>
<th>Reducer</th>
<th># of Belts</th>
<th>Motor Sheave</th>
<th>Motor Bushing</th>
<th>Reducer Sheave</th>
<th>Reducer Bushing</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.5 to 10</td>
<td>Weasler 6100/6600</td>
<td>2</td>
<td>5.0&quot; SDS</td>
<td>1-3/8&quot; SDS</td>
<td>20.0&quot; SF</td>
<td>1-1/2&quot; SF</td>
</tr>
<tr>
<td>15 to 20</td>
<td>Weasler 6100/6600</td>
<td>3</td>
<td>5.0&quot; SD</td>
<td>1-5/8&quot; SD</td>
<td>20.0&quot; SF</td>
<td>1-1/2&quot; SF</td>
</tr>
<tr>
<td>25 to 30</td>
<td>Weasler 8100/8600</td>
<td>4</td>
<td>5.0&quot; SD</td>
<td>1-7/8&quot; SD</td>
<td>20.0&quot; SF</td>
<td>1-3/4&quot; SF</td>
</tr>
<tr>
<td>7.5 to 10</td>
<td>Dodge TA2115H05</td>
<td>1</td>
<td>6.4&quot; SDS</td>
<td>1-3/8&quot; SDS</td>
<td>20.0&quot; SK</td>
<td>1-1/8&quot; SK</td>
</tr>
<tr>
<td>15 to 20</td>
<td>Dodge TA3203H05</td>
<td>2</td>
<td>6.4&quot; SDS</td>
<td>1-5/8&quot; SDS</td>
<td>20.0&quot; SF</td>
<td>1-3/8&quot; SF</td>
</tr>
<tr>
<td>25</td>
<td>Dodge TA4207H05</td>
<td>3</td>
<td>6.4&quot; SD</td>
<td>1-7/8&quot; SD</td>
<td>20.0&quot; SF</td>
<td>1-7/16&quot; SF</td>
</tr>
<tr>
<td>30</td>
<td>Dodge TA5215H05</td>
<td>3</td>
<td>6.4&quot; SD</td>
<td>1-7/8&quot; SD</td>
<td>20.0&quot; SF</td>
<td>1-5/8&quot; SF</td>
</tr>
</tbody>
</table>

**Figure 17. Drive Configuration Chart**
RIGHT HAND DRIVE CONVERSION (STATIONARY & NON-PTO DRIVE PORTABLES)

The drive can be moved to the right hand side of the conveyor for clearance if necessary. To install the drive on the right hand side, first remove the screen & cover plate in the inlet area to allow access to the sprocket, bearing bolts, & reducer mount bolts. Next, remove the bearing & bearing mounting plate from the right side of the inlet. Loosen the set-screws in the main drive sprocket & make sure the sprocket is free to slide off the shaft. It may be necessary to polish the shaft with emery cloth to ensure the sprocket can be removed. Next, support the gearbox so that it is stable & remove either the bolts holding the gearbox to the mounting plate, or the mounting plate to the boot. Simultaneously move the gearbox away from the boot & slide the sprocket off the shaft. Remove the reducer mounting plate from the reducer or boot & re-install on the opposite side of the boot. Re-install the remainder of the components in the reverse order of their removal.

Assemble the drive as shown previously in the instructions. It will be necessary to reverse the door & back panels on the belt guard. Move the motor shaft cover to the opposite side of the belt guard back panel (so the motor shaft cover is on the outside of the belt guard).

BOTTOM DRIVE CONVERSION (EXCEPT DROP-THROUGH BOOTS)

To install the motor on the bottom side, follow the directions in the electric drive section. If the bottom drive is to be on the right side, no changes need to be made to the belt guard. If the bottom drive is to be on the left hand side, the belt guard will need to be reversed.

DROP-THRU BOOT INSTRUCTIONS

Remove the cover panel that was factory installed on the bottom of the boot & install the gated outlet. The gated outlet should be positioned so the gate is at the top of the gated outlet. The gated outlet can have the end positioned under the double run tube, or sticking out past the boot.
**HOPPER INSTALLATION**

**Tall Hopper Extension:** Loosely bolt the hopper end panels to the inside of the boot with the flanges at the ends of the end panels facing each other. Use a 5/16” x 1” bolt, two 5/16” flat washers, & a 5/16” nylock nut at each hole/slot. Loosely bolt the hopper side panels to the flange on each side of the boot. The vertical flanges of the end panels should be inside the side panels. Again, use a 5/16” x 1” bolt, two 5/16” flat washers, & a 5/16” nylock nut at each slot/ hole. Finally, bolt the side panels & end panels together using a 5/16” x 1” bolt, two 5/16” flat washers, & a 5/16” nylock nut at each slot. After all parts are loosely bolted together, tighten all bolts.

![Figure 18. Tall Hopper Installation](image-url)
**Tapered Hopper Extension:** Loosely bolt the hopper end panels to the inside of the boot with the flanges at the ends of the end panels facing each other. The short panel should be at the end of the inlet nearest the discharge end of the conveyor. Use a 5/16” x 1” bolt, two 5/16” flat washers, & a 5/16” nylock nut at each hole/slot. Loosely bolt the hopper side panels to the flange on each side of the boot. The vertical flanges of the end panels should be inside the side panels. Again, use a 5/16” x 1” bolt, two 5/16” flat washers, & a 5/16” nylock nut at each slot/trace. Finally, bolt the side panels & end panels together using a 5/16” x 1” bolt, two 5/16” flat washers, & a 5/16” nylock nut at each slot. After all parts are loosely bolted together, tighten all bolts.

**Multiple Hopper Extensions:** It is possible to install multiple hopper extensions together to gain hopper height. The overall height of the hopper with extensions should make the “water level” of grain in the hopper high enough that it covers where the bottom tube exits the front panel of the hopper. Multiple Tall Hopper Extensions can be stacked together. A Tapered Hopper Extension can also be stacked on top of a Tall Hopper Extension, but a Tall Hopper Extension cannot be stacked on top of a Tapered Hopper Extension.
PTO DRIVE INSTALLATION (LEFT HAND DRIVE ONLY, WEASLER 8100/8600 GEARBOX ONLY)

1. Attach the PTO Shaft Support to the bracket on the inlet boot using one ¾” x 1-1/2” bolt, flat washer, and nylock nut.
2. Remove and discard the two existing bolts and lock washers from the upper part of the gearbox. Locate the ½” x 6-1/2” bolts and 1” O.D. x 9/16” I.D. x ½” thick spacers from the bolt kit. Slide a lock washer onto the ½” x 6-1/2” bolts and insert them through the upper mounting holes of the PTO shield hanger. Slide the spacers onto the bolts and attach the hanger to the gearbox using the holes from which the existing bolts were previously removed.
3. Bolt the PTO shield to the PTO shield hanger using two ½” x 1” bolts, flat washers, and nylock nuts.
4. Connect the 1-3/4” bore diameter end of the PTO driveline to the reducer gearbox input shaft making sure the 3/8” x 3” long square key is in place. Tighten the setscrews to secure the driveline to the input shaft.
   IMPORTANT! For the setscrew in the PTO driveline yoke to be properly engaged on the input shaft, slide the yoke onto the shaft until the setscrew will sit on the flat portion of the input shaft. Do Not extend the gearbox input shaft beyond the inside edge of the yoke.
5. Remove the pin from the yoke end of the PTO shaft support. Place the driveline into the yoke and replace the pin. IMPORTANT! Make sure when the conveyor is to be transported, the PTO driveline is positioned in the support yoke and the pin is properly secured.
6. Attach the hitch to the inlet hopper and secure using the 13/16” x 11” long pin and two hair pins. Pin the hitch in position using one ¾” x 4-1/2” long bent pin and one hair pin.
7. Attach the jack to the inlet hopper using the pin provided with the jack.

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**Figure 20. PTO Drive Installation**

- 1” O.X. x 9/16” I.D. X
- ½” thick spacer
- PTO Shield Hanger
- 1/2” Lock Washer
- ½” x 6-1/2” Bolt
- PTO Shield
- 3/8” x 3” Key
- ¾” x 1-1/2” Bolt
- ¾” Nylock Nut
- Flat Washer
- PTO Shaft Support
- PTO Shaft