

## ELECTRIC DRIVE ASSEMBLY H08-3, H10-3 and H13-3

### A. HEAD DRIVE ASSEMBLY

1. Remove dirt and paint from upper end of flight shaft.
2. Install a woodruff key (or square key) provided, slide the larger pulley onto the flight shaft with the hub facing away from the auger and DO NOT tighten setscrews at this time. (See **Table 1** for proper pulley size.)

**Table 1 Pulley Sizes / Combinations**

AUGER SIZE	RECOMMENDED SIZES		
	AUGER PULLEY	MOTOR PULLEY	*FLIGHT SPEED (RPM)
8" Hopper	12.7"	3.25"	440
	12.7"	3.5"	475
10" Hopper	15"	3.25"	375
	15"	3.5"	402
13" Hopper	16"	3.25"	350
	16"	3.5"	378

\*Speed is calculated using a 1725 RPM electric motor.  
To determine flight speed (RPM):  
Divide the speed (RPM) of the motor by the outside diameter of the large auger pulley, then multiply by the outside diameter of the small motor pulley.

**Example:**  
 $1725 \text{ (RPM)} \div 15" \times 3.5" = 402 \text{ RPM}$

**NOTE:** If a slower flight speed is desired, install a smaller motor pulley.

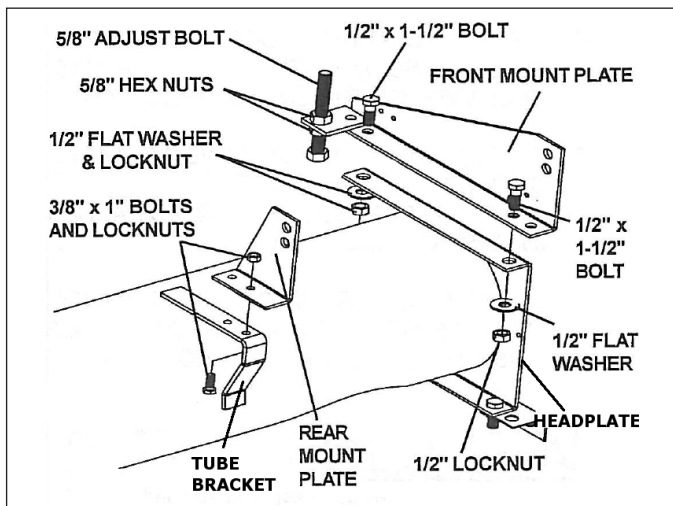
### B. MOTOR MOUNT ASSEMBLY

(see both **Figure No. 1 & 2**)

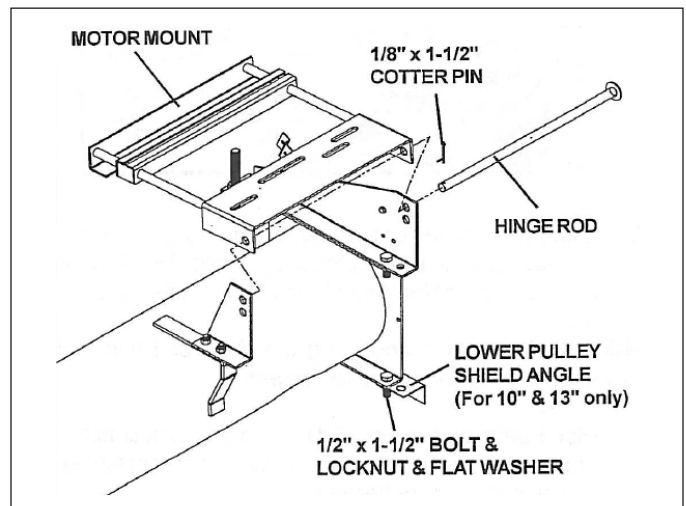
1. Install front mount plate onto head plate, using two 1/2" x 1-1/2" bolts, locknuts and 1/2" flat washers, as shown in **Figure No. 1**. Tighten securely.
2. Place 5/8" adjust bolt through available hole in front mount plate, and secure in place using two 5/8" hex nuts (one top, one bottom). Leave adjust bolt loose to allow for later adjustment.

**NOTE:** The 5/8" nuts and adjust bolt are used to adjust belt tension (see Section C, step 3).

3. Assemble rear mount plate onto tube bracket, as shown in **Figure No. 1**. Using two 3/8" x 1" bolts and locknuts, tighten securely.
4. Place motor mount assembly in between the two mount plates, and insert hinge rod as shown in **Figure No. 2**. Secure hinge rod with a 1/8" x 1-1/2" cotter pin.
5. For 10" & 13" augers, attach lower pulley shield angle to the head plate with two 1/2" x 1-1/2" bolts, locknuts and 1/2" flat washers, as shown in **Figure No. 2**. Tighten securely.



**Figure No. 1**



**Figure No. 2**

## C. ELECTRIC MOTOR INSTALLATION / ALIGNMENT

- Place electric motor (see **Table 2** for proper horsepower requirements) onto motor mount and secure. Ensure that motor shaft is parallel to and centered on discharge tube before tightening adjust bolt.

### IMPORTANT

When using an electric motor, the following steps will apply.

- The motor and controls should be installed by a qualified electrician in accordance with all local and national codes.
  - A magnetic starter should be incorporated to protect the motor.
  - The motor must have a manual reset button.
  - Reset and starter controls must be located so that the operator has a full view of the entire operation.
  - A main power disconnect switch should be located within reach from ground level to permit ready access in case of emergency.
  - A main power disconnect switch capable of being locked (in the off position only) must be provided.
- Slide drive pulley onto motor shaft (see **Table 1** for suggested sizes). Insert the appropriate size of square key. Do not tighten setscrew until belts are aligned.

**NOTE:** We recommend using the three belt and triple groove pulley option on all 13" augers.

- Place belts on pulleys. Adjust the 5/8" adjust bolt on front mount plate until the belts have the proper tension, with about a 1/8" deflection.

**NOTE:** The correct operating tension is the lowest tension at which the belts will not slip under peak load conditions.

- Align the two pulleys (use a straight edge). Once belts are aligned and under tension, lock the 5/8" hex nuts and tighten pulley setscrews.

**NOTE:** Once all bolts and setscrews are tightened, recheck alignment. Proper alignment will prolong belt life.

- For 8" systems**, assemble the adjustable two-piece pulley shield with two 1/4" x 1/2" bolts and washer locknuts.

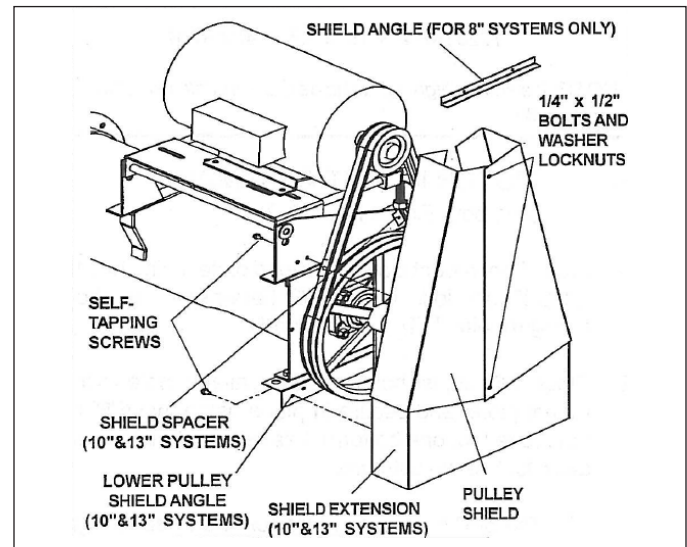
**For 10" & 13" systems**, assemble the adjustable three-piece pulley shield with four 1/4" x 1/2" bolts and washer locknuts (see **Figure No. 3**).

**Table 2 Horsepower Requirements**

HOPPER	HORSEPOWER (HP)
8" Hopper	3 - 5
10" Hopper	5 - 7½
10" Hopper LP	5 - 7½
13" Hopper	10 - 15
13" Hopper LP	10 - 15

Approximate electric motor horsepower requirements under normal conditions. When augering full tube of high moisture grain, additional horsepower will be needed.

**NOTE:** A shield extension is required on all powerheads using a 15" pulley.



**Figure No. 3**

- For 8" systems**, attach the pulley shield to the front mount plate and the end plate with four self-tapping screws. The shield is mounted to front mount plate using a single shield angle, attached with self-tapping screws.

**For 10" & 13" systems**, attach the pulley shield to the lower pulley shield angle and the end plate with four self-tapping screws. The shield is mounted to the end plate using two shield spacers, attached with self-tapping screws.



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