Hutchinson/Mayrath ASSEMBLY INSTRUCTIONS

The following instructions are to be used for assistance with the set-up and installation of equipment, accessories, and serviceable parts used on this machinery and are not meant to replace any operating or safety procedures as outlined in the Operator's Manual included with the auger.

This safety symbol is used throughout these instructions to alert you to information about unsafe actions or situations, and will be followed by the word DANGER, WARNING, or CAUTION. Be Alert! Your safety and the safety of others is involved.

DANGER - Indicates immediate hazards that may result in severe injury or death. **WARNING** - Indicates unsafe actions or situations that may cause severe injury, death and/or major equipment or property damage. **CAUTION** - Indicates unsafe actions or situations that may cause injury, and/or minor equipment or property damage.

ELECTRIC DRIVE TRACTOR for ARC AXLE KIT, PART NO's. A2031B1 and A2031B2 for use with the P3074A or P3075A Hub Mount Style Swivel Arc Axle Kits

NOTE: This kit has been designed to work with the swivel arc axle kits that are used on the 60' to 85' single belt conveyors and the 35' to 90' Squeeze Belt® conveyors. The drive frame mounts to the swivel arc axle frame and can be adjusted to push directly perpendicular to the conveyor center line, or at an angle up to 10 degrees for swinging conveyor in an arc.

CAUTION! Some of the items from the drive tractor kit are heavy, to prevent personal injury use assistance during the installation and assembly process.

When raising the swivel axle, Do Not rely solely on mechanical jacks, hydraulic jacks, or overhead hoist's for support. Use appropriate jack stands or equivalent for supporting the unit.

Electric motors and controls shall be installed by a qualified electrician and must meet the standards set by the National Electrical Code and all local and state codes.

Before beginning assembly it is suggested to read through these instructions and lay out all items from the kit to ensure all parts are accounted for. This not only helps you become familiar with the parts and assembly procedures, but also makes you aware of what tools, equipment or materials you may need to complete the installation process.

Whenever reference is made to the front, rear, left and right side of the conveyor it is always determined by standing at the inlet end and looking towards the discharge end.

- The drive frame and tractor can attach to either the right or left hand side swivel axle.
- The swivel axle only needs to be raised high enough to allow the tires to clear the ground.
- The tractor drive wheels must be removed when the swivel arc axles are in the transport position.
- Raise and support the swivel axle before installing the drive frame (place supports at each end of the swivel axle to keep the middle area open for installation of the drive frame).

Install Support Stand

1. Locate the drive frame and support stand from the kit (See Fig. 1). Using one (1) 1/2" x 3" bolt and nylon locknut, secure the support stand into the drive frame tube.

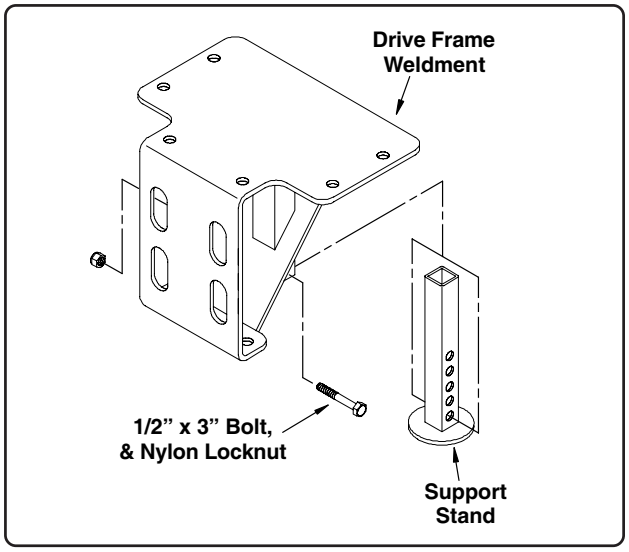


Fig. 1

Install Drive Frame, Gearbox and Electric Motor

1. Attach the drive frame to the swivel axle using the two channel clamps as shown in Fig. 2. Secure the clamps using four 1/2" x 7 1/2" bolts, lock washers and non-lock nuts.
2. Attach the gearbox mount plate to the drive frame. Secure using four 1/2" x 1 3/4" bolts, two flat washers, four lock washers and four non-lock nuts (position a flat washer over the slotted hole on the top and on the bottom of the gearbox mount plate, See Fig. 2). **NOTE: For mounting on left hand side, the gearbox mount plate should be mounted in reverse of what is shown in Fig. 3 (rotate the mount plate 180° so when installed, the slotted holes are facing towards the discharge end of the conveyor).**

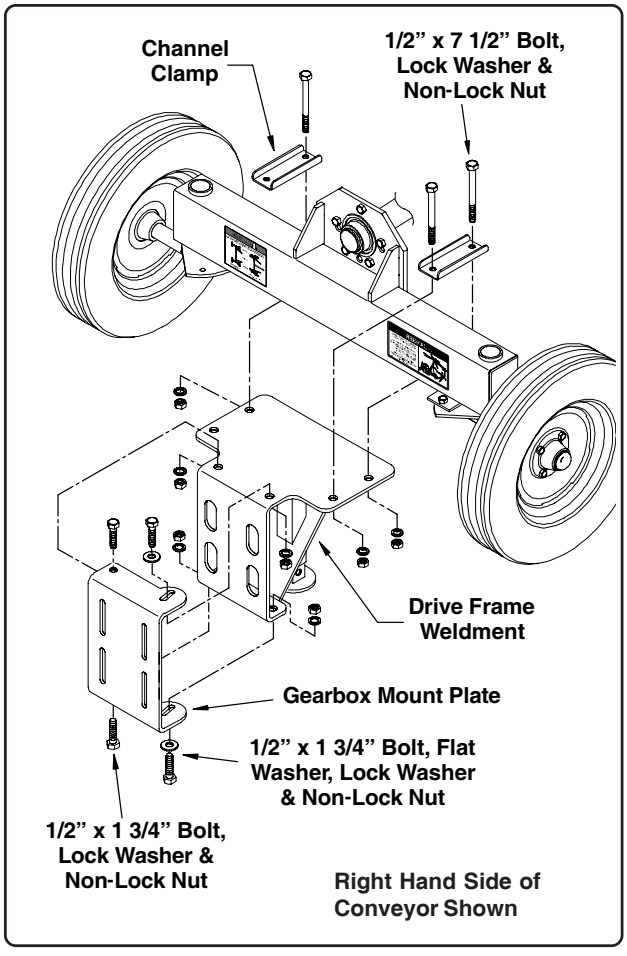


Fig. 2

3. Attach the gearbox to the front of the mount plate as shown in Fig. 4. Secure the gearbox using four 1/2" x 2 1/2" bolts, eight flat washers, four lock washers and four non-lock nuts (the bolts will be inserted from the back side of the mount plate).

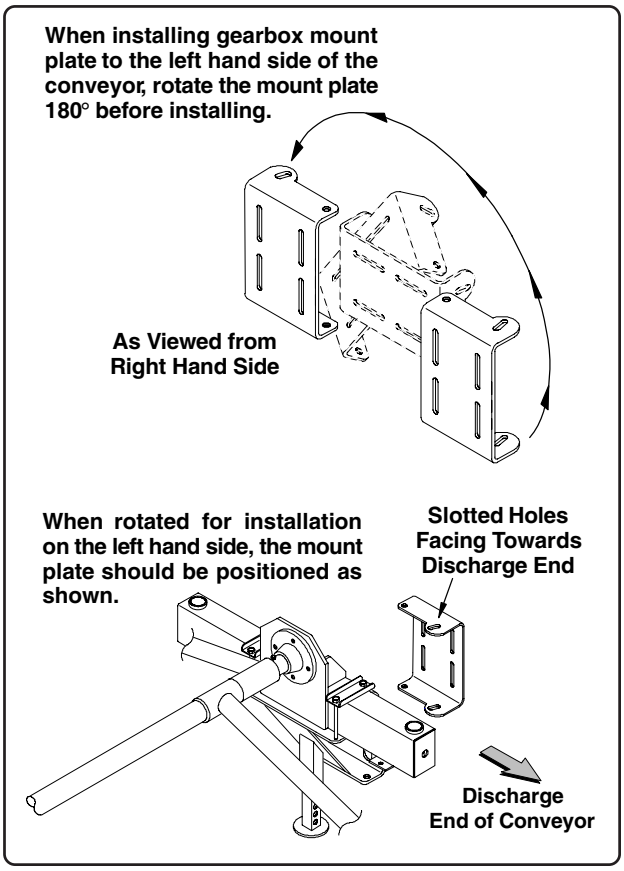


Fig. 3

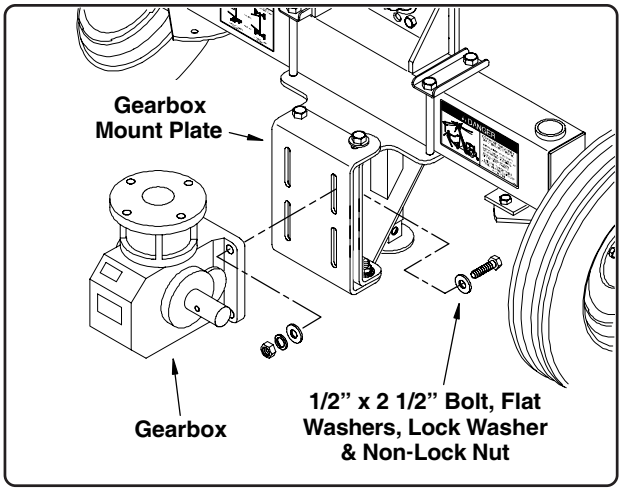


Fig. 4

4. Position the electric motor on top of the gearbox as shown in Fig. 5 (electrical connection opening facing away from the drive frame). Secure the motor to the gearbox using four 3/8" x 1" bolts and lock washers (the bolts will pass up through the gearbox flange and tighten into the bottom of the motor).

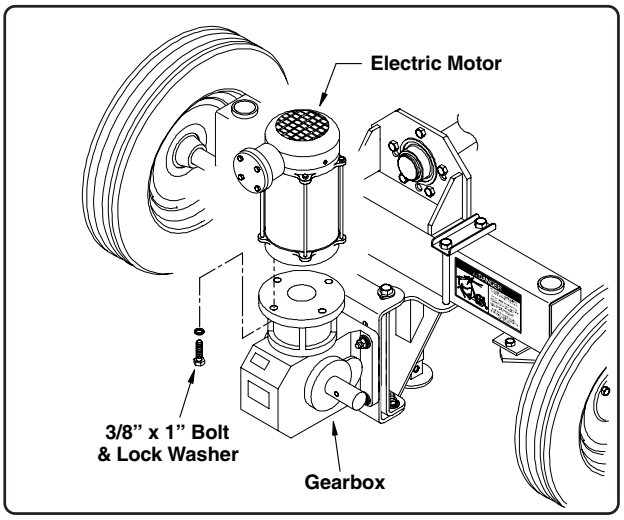


Fig. 5

Install Wheel Hubs and Tires

1. Attach the wheel hubs to the shafts on each side of the gearbox (See Fig. 6). Secure each hub using one 3/8" x 2 1/2" bolts and nylon locknuts.
2. Mount the tire and rim assembly's onto the wheel hubs and secure using the lug bolts provided. **NOTE: There is a right and left hand tire and rim assembly. Mount tires so tire lugs appear as shown in Fig. 6.**

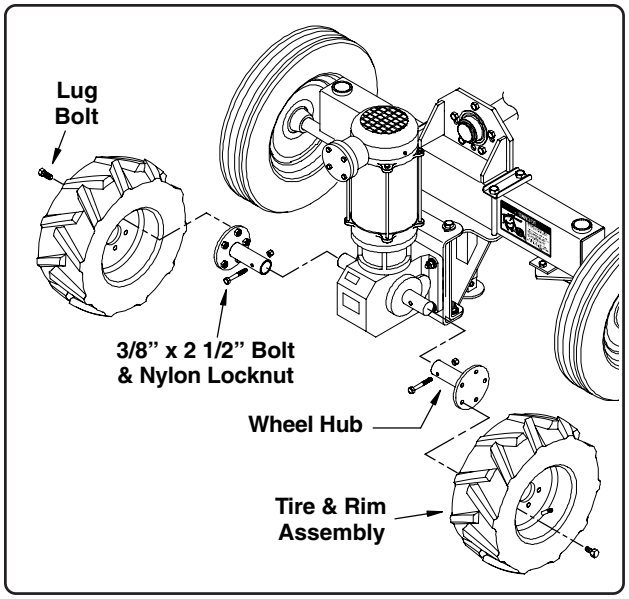


Fig. 6

Drive Motor Adjustment

The tractor can be positioned to push the conveyor in a straight line (perpendicular to conveyor center line) or angled for swinging the conveyor in an arc. **Each time the tractor is adjusted, the conveyor's swivel axle will need to be raised high enough to allow the tractor to properly pivot into position.**

1. To adjust the tractor's angle of travel, make sure the swivel axle is supported high enough to allow the tractor to pivot freely.
   Loosen the four bolts securing the gearbox mount plate to the drive frame and adjust tractor to desired position.
2. After the tractor has been positioned, lower the swivel axle until the conveyor tires just clear the ground (the tractor tires should be in contact with the ground at this time).
   Tighten the four bolts securing the tractor and gearbox assembly.
3. Lower the conveyor swivel axle until the conveyor tires are resting on the ground as well.

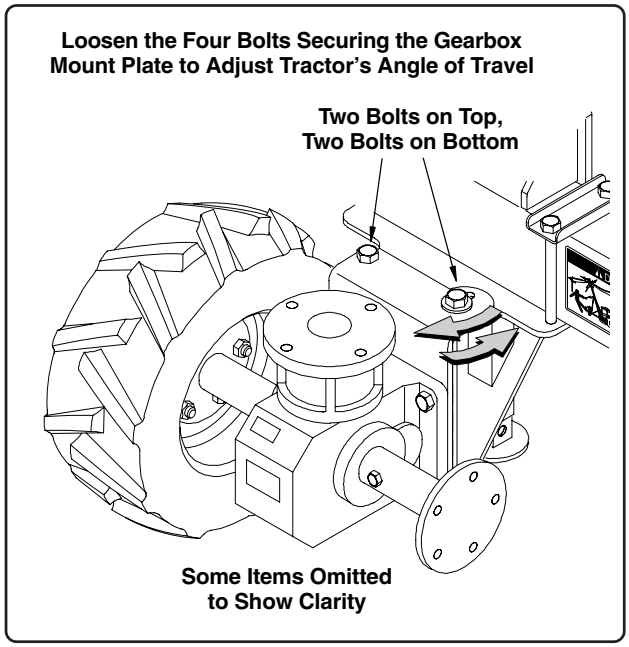


Fig. 7

NOTE: Too much weight on the tractor tires may cause damage to the gearbox shafts. The tractor tires should be firmly on the ground, but not to the extent that they appear to be flat [make sure tire pressure is at proper reading, 23 PSI max (158 kPa). Check conveyor tire pressure as well (inflate to manufacturer's recommendation listed on the tire).

NOTE: The main intent for the support stand is to support the weight of the swivel axle and conveyor in the event the tires on the conveyor should go flat. When the conveyor is not in use, or when it is being stored, secure the support stand as close to the ground as the adjustment holes allow.

Connect Electrical Hook-up for Tractor

All electrical work shall be installed by a qualified electrician and must meet the standards set by the National Electrical Code and all local and state codes.

CAUTION! A main power disconnect switch that can be locked in only the "Off" position shall be provided. This shall be locked whenever work is being done to the drive tractor or to the conveyor.

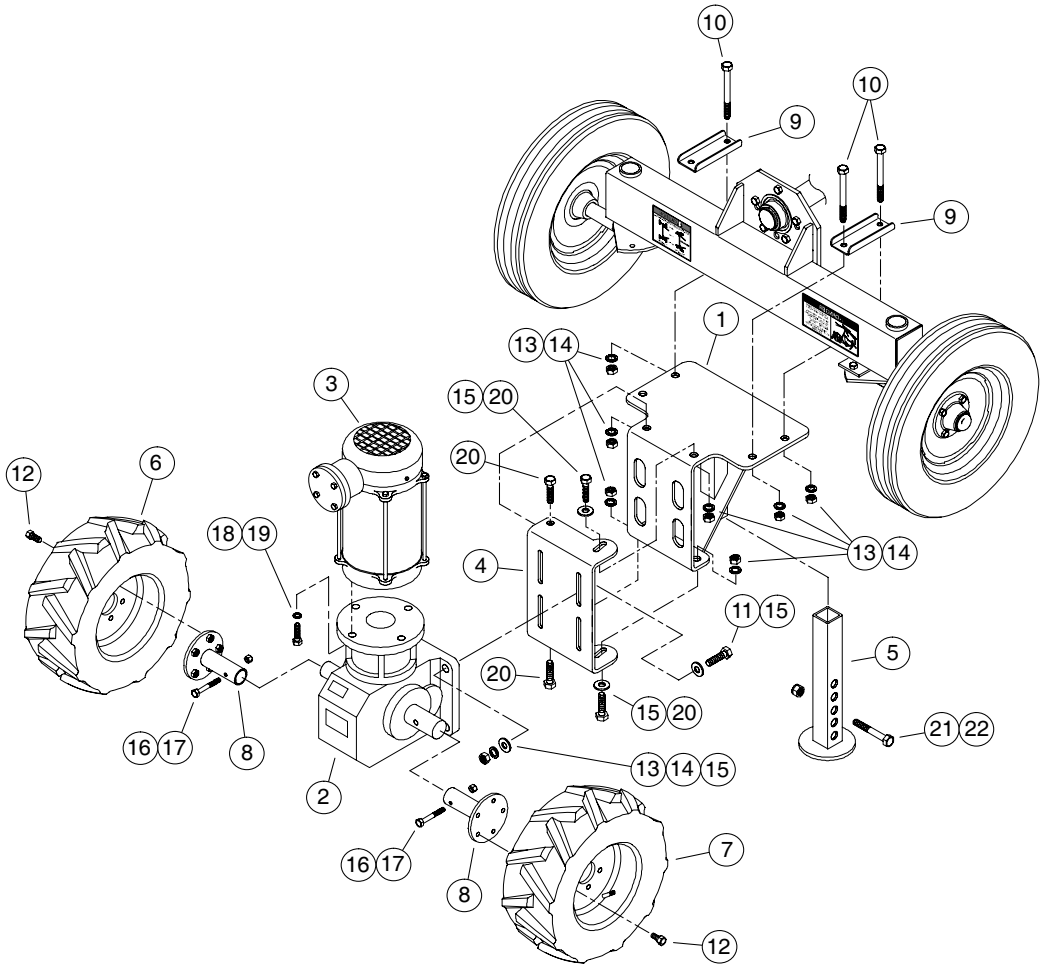
The reset and starting controls must be located so that the operator has full view of the entire operation.

1. Route the electrical wiring. Connect the motor to an appropriate power source and secure the cord in a manner in which it cannot become entangled or damaged during tractor operation.
2. Start the motor and check to make sure the tractor is traveling as intended. Make any necessary adjustments to ensure proper tractor operation.

Where Used Bolt List

Part	Description	Qty.	Where Used
1002229	Bolt, 1/2-13 x 2 1/2" G5 PLT	4	Gearbox to Gearbox Mount Frame
D1143	Washer, Lock 1/2" PLT	4	
D1169	Nut, Non-lock 1/2" PLT	4	
33025	Washer, Flat 1/2" PLT	8	
1002232	Bolt, 1/2-13 x 7 1/2" G5 PLT	4	Clamp Channel to Drive Frame
D1143	Washer, Lock 1/2" PLT	4	
D1169	Nut, Non-lock 1/2" PLT	4	
33091	Bolt, 1/2-13 x 3" G5 PLT	1	Support Stand to Drive Frame Tube
33138	Nut, 1/2-13 Nylon Lock PLT	1	
33060	Bolt, 3/8-16 x 1" G5 PLT	4	Electric Motor to Gearbox
D1150	Washer, Lock 3/8" PLT	4	
33375	Bolt, 3/8-16 x 2 1/2" G5 PLT	2	Wheel Hubs to Gearbox Shaft
33136	Nut, 3/8-16 Nylon Lock PLT	2	
103241	Lug Bolt, 1/2-20 G5 PLT	10	Wheels to Hubs
33247	Bolt, 1/2-13 x 1 3/4" G5 PLT	4	Gearbox Mount Plate to Drive Frame
D1143	Washer, Lock 1/2" PLT	4	
D1169	Nut, Non-lock 1/2" PLT	4	
33025	Washer, Flat 1/2" PLT	2	

PARTS LIST
ELECTRIC DRIVE TRACTOR ARC AXLE KIT
PART NO'S. A2031B1 & A2031B2



All parts listed are included with each of the Arc Axle Kits, the only difference is the electric motors, one is a 3-phase and one is a 1-phase.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	1037295	Drive Frame	12	106241	Lug Bolt, 1/2-20 x 1"
2	1026652	Gearbox, 240:1 Reduction	13	D1143	Washer, Lock, 1/2" PLT
3 *	1027929	Motor, Electric (1-Phase)	14	D1169	Nut, Non-Lock, 1/2" PLT
(3) ƒ	1027064	Motor, Electric (3-Phase)	15	33025	Washer, Flat 1/2" PLT
4	1031296	Plate, Gearbox Mount	16	33375	Bolt, 3/8-16 x 2 1/2" G5 PLT
5	1031313	Stand, Support	17	33136	Nut, Nylon Lock 3/8-16 PLT
6	1026676	Wheel & Tire (RH)	18	33060	Bolt, 3/8-16 x 1" G5 PLT
7	1026653	Wheel & Tire (LH)	19	D1150	Washer, Lock 3/8" PLT
8	1026633	Hub, Wheel	20	33247	Bolt, 1/2-13 x 1 3/4" G5 PLT
9	1037300	Clamp, Channel	21	33091	Bolt, 1/2-13 x 3" G5 PLT
10	1002232	Bolt, 1/2-13 x 7 1/2" G5 PLT	22	33138	Nut, Nylon Lock 1/2-13 PLT
11	1002229	Bolt, 1/2-13 x 2 1/2" G5 PLT			

* With Electric Drive Arc Axle Kit A2031B1 (1 1/2 HP 230/460v 60 HZ, 1-Phase elec. motor).

ƒ With Electric Drive Arc Axle Kit A2031B2 (1 1/2 HP 230/460v 60 HZ, 3-Phase elec. motor).

Hutchinson/Mayrath

*A Division of **GLOBAL** Industries Inc.*

Hutchinson/Mayrath • P.O. Box 629 • Clay Center, KS. 67432
Ph. 785–632–2161 • Fx. 785–632–5964 • Toll Free 800–523–6993
www.hutchinson-mayrath.com