IMPORTANT! The reducer gearbox is shipped Without Oil. Oil must be added before operation. Refer to the Lubrication Section in this manual.
Prices: Prices in effect at time of shipment will apply. Prices are subject to change without notice. All prices are F.O.B. Clay Center, Kansas. Orders shipped from locations other than Clay Center, Kansas will be subject to additional charges, such as back freight and/or additional freight.

Service Charge: A service charge will be assessed for all past due balances as permitted by state law not to exceed 1-1/2% per month.

Minimum Order: Processing and handling costs necessitate a minimum charge of $15.00 net on all orders.

Back Orders: Back orders will be shipped as they become available. Contact Hutchinson/Mayrath Customer Service for alternative shipping options or if cancellation is desired.

Damaged Goods: It is the consignee’s responsibility to check all shipments thoroughly upon receipt of goods. If any damage is discovered, it must be noted on the freight bill of lading before signing. The consignee must make necessary claims against the respective freight line. All damage claims must be submitted within 30 days of delivery receipt.

Shortages: All shortages must be noted at time of delivery. Shortages must be noted on the freight bill of lading before signing. Hutchinson/Mayrath must be advised of all concealed shortages upon discovery. Once notified of concealed shortages Hutchinson/Mayrath will advise corrective action to be taken.

Return of Goods: All returns must be approved by Hutchinson/Mayrath prior to shipment. All return requests will be issued a return authorization number. NO RETURNS WILL BE ACCEPTED WITHOUT A RETURN AUTHORIZATION NUMBER AND PRIOR AUTHORIZATION FROM THE FACTORY. All returns must be shipped prepaid. A 15% restocking charge will be applied to all returned merchandise. Custom Products may not be returned for credit. Only current products in new and salable condition may be returned. No safety devices may be returned for credit.

Modifications: It is the policy of Hutchinson/Mayrath to improve its product whenever possible and practical to do so. We reserve the right to make changes, improvements and modifications at any time we believe it necessary. We must be advised of any changes, improvements or modifications made by anyone on any equipment sold previously.

Limited Warranty: (a) For a period of (1) year after receipt of goods by the original consumer buyer, Hutchinson/Mayrath will supply free of charge replacement parts for parts that prove defective in workmanship or material. Defective parts must be returned freight prepaid to a specified Hutchinson/Mayrath location. Only Hutchinson/Mayrath original repair parts may be used for warranty repairs.

(b) This limited warranty does not extend to parts designed to wear in normal operation and be replaced periodically; or to damage caused by negligence, accident, abuse or improper installation or operation.

(c) GOODS NOT MANUFACTURED BY HUTCHINSON/MAYRATH CARRY ONLY THE MANUFACTURER’S WARRANTY.

(d) THIS UNDERTAKING IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

FAILURE TO FOLLOW THE INSTRUCTIONS CONTAINED IN THE OWNER'S & OPERATOR'S MANUALS AND THE ITEMS LISTED BELOW WILL RESULT IN THE VOIDING OF THIS LIMITED WARRANTY.

(1) Improper assembly, including failure to properly install all safety equipment.
(2) Improper installation.
(3) Unauthorized alterations of goods.
(4) Goods operated when obviously in need of repair.
(5) Use of unauthorized repair parts.
(6) Irresponsible operation.
(7) Used to handle materials other than free flowing, nonabrasive and dry materials, as intended.
(8) Damaged through abusive use or accident.

Limitation of Liability: BUYER AGREES THAT IN NO EVENT SHALL HUTCHINSON/MAYRATH HAVE LIABILITY FOR DIRECT DAMAGES THE EXCESS OF THE CONTRACT PRICE OF THE GOODS IN RESPECT OF WHICH CLAIM IS MADE. BUYER FURTHER AGREES THAT IN NO EVENT SHALL HUTCHINSON/MAYRATH ON ANY CLAIM OF ANY KIND HAVE LIABILITY FOR LOSS OF USE, LOSS OF PROFITS, OR FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES.
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GENERAL SAFETY STATEMENT

This manual was written with the safety of the operator and others who work with the equipment as our prime concern. The instructions presented will help the reader learn SAFE day to day work practices. We want you as our partner in safety.

It is your responsibility as an owner, operator or supervisor to know what specific safety requirements and precautions exist and to make these known to all other personnel working with the equipment or in the area, so that they too may safely perform their duties and avoid any potentially hazardous situations.

We suggest the implementation of a Safety Program for all personnel that includes, but is not limited to, the proper use of PPE (personal protective equipment), Fall Protection Systems and Lock Out-Tag Out procedures.

Please remember safety equipment provides important protection for persons around a grain handling system that is in operation. Be sure ALL safety shields and protection devices are installed and properly maintained. If any shields or guards are damaged or missing, contact your dealer to obtain the correct items.

Avoid any alterations of the equipment. Such alterations may create a dangerous situation where serious injury or death may occur.

SAFETY ALERT SYMBOL

The safety symbol shown is used throughout this manual to alert you to information about unsafe actions or situations, and will be followed by the word DANGER, WARNING, or CAUTION.

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 property damage.

Watch this symbol - it points out important safety precautions. It means - ATTENTION! Become alert! Your safety and the safety of others is involved! Read the message that follows the symbol when a warning is given, be alert to the possibility of personal injury or death.

Follow Safety Instructions

Carefully read all safety messages in this manual and safety signs on your machine. Check to ensure all Safety Decals are present and in good condition.

If a decal cannot easily be read for any reason, or has been painted over, replace the decal immediately. Safety decals are offered free of charge, and can be ordered through your Hutchinson/Mayrath dealer or directly from the factory.

Learn how to operate the machine and how to use controls properly.

Keep your machinery in proper working condition. Understand service procedures before doing work. Never lubricate, service or adjust machine while it is in operation.

Keep work area clean, dry and free from of all debris and tools which may cause accidental tripping or falling.

Prepare for Emergencies

Keep emergency numbers for doctors, ambulance service, hospital and fire department near your telephone.

Keep a first-aid kit and fire extinguisher handy.

Be prepared if a fire starts
**Wear Proper PPE (Personal Protective Equipment)**

Some materials can create flying debris when they are filed, cut or drilled. Safety glasses should be worn at all times to protect your eyes from such debris.

Hearing protection should be worn when operating power tools or other power equipment that could be harmful to your hearing.

Gloves should be worn to protect your hands from sharp metal and plastic edges, as well as providing protection from the handling of heavy objects.

Wear steel toe boots to protect your feet from falling debris.

Wear a hard hat to help protect your head from falling objects as well as from accidental bumping.

Use caution when working at elevations greater than four (4) feet (1.22 m) above the ground.

Use the appropriate fall protection equipment as set forth by OSHA guidelines and regulations.

A respirator may be needed to prevent breathing potentially toxic fumes and dust, especially when working within a grain bin or storage structure.

---

**Operate Electric Motor(s) Properly**

Do not operate electric motor equipped units until motor(s) are properly grounded.

Know how to “Shutdown and Lockout” the power source. Shutdown and lockout power source before performing any service, maintenance or adjustments to the unit.

Disconnect power on electrical driven units before resetting motor overloads.

---

**Stay Clear of Moving Parts**

Keep all shields, covers and safety devices in place at all times.

Entanglement in moving chains, rotating impeller arms and sprockets will cause serious injury or death.

Wear close fitted clothing. Keep hands, feet and clothing away from moving parts.

Shutdown and lockout power source before making adjustments, cleaning or maintaining the equipment.
**SAFETY DECALS**

Check to ensure all Safety Decals are present and in good condition. If a decal cannot easily be read for any reason, or has been painted over, replace the decal immediately. Safety decals are offered free of charge, and can be ordered through your Hutchinson/Mayrath dealer or directly from the factory.

Refer to the Parts List Section for decal Part No’s. and location of decals on components.
**OPERATOR QUALIFICATIONS**

**WARNING**

Anyone who will operate or work around this machine shall first read this manual! This manual must be delivered with the equipment to its owner. Failure to read this manual and its safety instructions is a misuse of the equipment.

Operation of this conveyor system shall be limited to competent and experienced persons. In addition, anyone who will operate or work around a conveyor must use good common sense. In order to be qualified, he must also know and meet all other requirements, such as:

1. Some regulations specify that no one under the age of 16 may operate power machinery. This includes this conveyor. It is your responsibility to know what these regulations are in your area or situation.

2. Current OSHA regulations state in part: “At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee in safe operation and servicing of all equipment with which the employee is, or will be involved.” *

3. Unqualified persons are to stay out of the work area. See Page 17.

4. A person who has not read and understood all operating and safety instructions is not qualified to operate the machine.

5. Persons operating, servicing or repairing equipment that requires above ground work shall be properly secured with the use of “fall protection” equipment as set forth by OSHA guidelines and regulations.

*Federal Occupational Safety & Health Standards for Agriculture Subpart D, Section 1928.57 (a) (6).*

**SIGN OFF SHEET**

As a requirement of OSHA, it is necessary for the employer to train the employee in the safe operation and safety procedures with this conveyor. We include this sign off sheet for your convenience and personal record keeping.

<table>
<thead>
<tr>
<th>Training Sign-Off Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

**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.
MACHINE INSPECTION

Our conveyors are well made and we are proud of our line of equipment. We would like you, as our customer, to do your part in using caution and good judgement in using our equipment, as well as any other machinery.

After delivery of your new conveyor and/or completion of assembly and before each use, inspection of the machine is mandatory. The conveyor should be frequently checked and serviced to operate freely. Use the assembly instructions in this manual as a reference to determine that the conveyor is assembled properly. This inspection should include, but not be limited to:

1. Check to see that all shields listed in the assembly instructions are in place, secured and functional.
2. Check all safety signs (decals) and replace any that are worn, missing or illegible. Safety signs may be obtained free of charge from your dealer or ordered from the factory.
3. Check all fasteners; nuts, bolts, set screws etc. for tightness.
4. Check winch and cable for security and operation. Winch should have at least three complete wraps of cable around the winch drum with conveyor in the full down position.
5. Check oil levels in gearboxes (See the Lubrication and Maintenance Section in this manual).
6. Make sure clean-out door in bottom of hopper and all inspection opening covers are shut and secured.
7. Are drive belts and conveyor chains properly adjusted (See Maintenance Section).

GENERAL CONVEYOR INFORMATION

WARNING! Use caution when working in areas above the ground. Persons operating, servicing or repairing equipment that requires above ground work shall be properly secured with the use of “fall protection” equipment as set forth by OSHA guidelines and regulations.

Metal buildings, scaffolding and other types of work surfaces can become slippery, especially when surfaces are wet and/or oily. This can create hazardous working conditions. Use caution when working, climbing or walking on these surfaces.

BREAK-IN INFORMATION

Any conveyor when it is new, or after sitting idle for a season should go through a “break-in” period. The conveyor should be run at partial capacity until several hundred bushels of grain have been conveyed to polish the housing. A conveyor that has not been polished in this manner requires greater horsepower to operate, and damage to conveyor can occur.

When the housing has been polished and smooth, the conveyor can be run at full capacity. Never run the conveyor empty for any length of time as excessive wear will result. If at all possible, do not stop or start the conveyor under load, especially before the housing becomes well polished, as this may cause the conveyor to “freeze-up.”
TRACTOR & PTO REQUIREMENTS

The conveyor PTO was designed for use with a tractor that is capable of operating at 540 RPM's (speeds greater than this will cause excessive wear and/or damage to the conveyor).

NOTE: The PTO driveline furnished with the conveyor is equipped with a “Spring-Lok” coupler at the tractor end. This type of coupler is spring loaded and will fit the standard 1 3/8” x 6 splined PTO shaft from a tractor.

The PTO driveline is also equipped with a shear bolt at the tractor connection. The shear bolt protects the conveyor from damage should the conveyor become plugged or subjected to high loads. If this scenario should occur, the shear bolt would “shear off” causing the connection to the conveyor to suddenly stop (the tractor PTO would still continue turning, but not the conveyor driveline). Immediately shutdown the tractor and lockout before attempting to investigate the cause of the problem.

Extra shear bolts are located in the operator’s manual container. Always use same size and strength shear bolts (3/8-16 x 1” Grade 8 PLT).

The tractor should also be equipped with an adjustable drawbar and have a hydraulic control circuit capable of producing 1400 to 1500 PSI for the hydraulic winch used for raising and lowering the main conveyor.

OPERATING CAPACITIES

The 10” Portable Grain Pump conveyor has the ability to convey 6,000 BPH (162 TPH) of reasonably dry grain during normal operating conditions. Feed the conveyor as high on the inlet as possible.

Maximum possible capacity will be less with high moisture grain (above 15%) than with dry grain. Twenty-five percent (25%) moisture could cut capacity back by as much as 40% under some conditions.

The results or capacities of conveyors can vary greatly under varying conditions. Different materials, moisture content, amounts of foreign matter, angle of operation, methods of feeding and conveyor speed all play a role in the performance of the conveyor. A conveyor operating at a 40° incline could be cut by 20% in capacity compared to a conveyor operating horizontally.

Overfeeding the conveyor would result in increased power requirements, extra strain on the driveline and possibly a complete stalling out. Under the “extra” grain pressure conditions, a control gate or other method of limiting the amount of grain being fed into the conveyor should be used.

ELECTRIC DRIVE POWER REQUIREMENTS

The conveyor can also be operated using an electric drive motor. Always use a motor with the required power recommended shown in the chart below. Use a 60 hz motor that operates at 1750 RPM (50 hz @ 1460 RPM).

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

A magnetic starter should be used to protect your motor when starting or stopping. It should stop the motor in case of power interruption, conductor fault, low voltage, circuit interruption and/or motor overload. The motor should then be restarted manually.

A main power disconnect switch that can be locked only in the “Off” position shall be provided. This shall be locked whenever work is being done to the conveyor.

WARNING! Shut off power and lockout whenever cleaning or servicing the conveyor.

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

Disconnect power before resetting motor overloads.

Make certain electric motor is grounded.

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 conveyor.

Do Not enter the grain bin unless all power driven equipment has been shutdown and locked out.

<table>
<thead>
<tr>
<th>Conveyor Length</th>
<th>42’</th>
<th>52’</th>
<th>62’, 72’, 82’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended H.P. (kw)</td>
<td>15 H.P. (11 kw)</td>
<td>20 H.P. (15 kw)</td>
<td>25 H.P. (18.5 kw)</td>
</tr>
<tr>
<td>Maximum H.P. (kw)</td>
<td>30 H.P. (22 kw)</td>
<td>30 H.P. (22 kw)</td>
<td>30 H.P. (22 kw)</td>
</tr>
</tbody>
</table>

Electric Motor is **Not** furnished

The Motor Sheave & it’s SD QD Bushing and the Driven Sheave & it’s SF QD Bushing are furnished.
CONVEYOR CLEARANCE

WARNING! Be alert of all overhead obstructions and electrical wires, failure to do so can result in electrocution, serious injury to operator and bystanders, conveyor damage and/or extensive property damage.

Lower the conveyor well below the level of power lines before moving. Maintain at least 10 ft. (3.05 m) of clearance (electrocution can occur without direct contact of the power lines).

The clearance dimensions for the conveyors are shown below.
The dimensions below are given for the conveyor when it is @ 30° incline, 35° incline and in it’s full raised position.
Never transport the conveyor while it is in the raised position, even when moving from one work site to another. Always transport the conveyor in its full down position.

<table>
<thead>
<tr>
<th>Conveyor Model</th>
<th>Overall Transport Height**</th>
<th>Overall Transport Width</th>
<th>Discharge Height @ 30 Deg. (A)</th>
<th>Discharge Height @ 35 Deg. (A)</th>
<th>Discharge Height Maximum (B)</th>
<th>Clearance Height @ 35 Deg. (C)</th>
<th>Reach Distance @ 35 Deg.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10” x 42’</td>
<td>10’-11” (3.32 m)</td>
<td>11’-0” (3.35 m)</td>
<td>19’-11” (6.07 m)</td>
<td>23’-1” (7.04 m)</td>
<td>25’-5” (7.77 m)</td>
<td>14’-8” (4.47 m)</td>
<td>14’-9” (4.50 m)</td>
</tr>
<tr>
<td>10” x 52’</td>
<td>11’-9” (3.57 m)</td>
<td>11’-0” (3.35 m)</td>
<td>24’-11” (7.60 m)</td>
<td>28’-10” (8.79 m)</td>
<td>32’-10” (10.02 m)</td>
<td>17’-8” (5.38 m)</td>
<td>18’-2” (5.55 m)</td>
</tr>
<tr>
<td>10” x 62’</td>
<td>13’-7” (4.13 m)</td>
<td>11’-0” (3.35 m)</td>
<td>29’-11” (9.13 m)</td>
<td>34’-7” (10.54 m)</td>
<td>39’-4” (11.99 m)</td>
<td>20’-3” (6.16 m)</td>
<td>22’-9” (6.93 m)</td>
</tr>
<tr>
<td>10” x 72’</td>
<td>14’-6” (4.42 m)</td>
<td>13’-0” (3.96 m)</td>
<td>34’-10” (10.62 m)</td>
<td>40’-2” (12.24 m)</td>
<td>45’-8” (13.92 m)</td>
<td>21’-9” (6.63 m)</td>
<td>28’-9” (8.76 m)</td>
</tr>
<tr>
<td>10” x 82’</td>
<td>15’-1” (4.60 m)</td>
<td>10’-0” – 13’-0” (3.7 m – 4.6 m)</td>
<td>40’-0” (12.19 m)</td>
<td>45’-11” (14.00 m)</td>
<td>50’-9” (15.48 m)</td>
<td>26’-1” (7.95 m)</td>
<td>30’-7” (9.33 m)</td>
</tr>
</tbody>
</table>

** Overall Transport Height is with intake on the ground. Actual height will be lower when attached to towing vehicle.
**TRANSPORT INFORMATION**

Always observe safe driving and operating practices, and comply with your local and state regulations that govern marking, towing and maximum width while transporting.

**WARNING! Be alert of all overhead obstructions and electrical wires, failure to do so can result in electrocution.**

Lower the conveyor well below the level of power lines before moving. Maintain at least 10 feet (3.05 m) of clearance (electrocution can occur without direct contact of the power lines).

Electrocution Can Occur Without Direct Contact of Power Lines!

- Plan your route to avoid overhead obstructions and power lines.
- Move the conveyor with a tractor to and from the work area. A pickup truck or other suitable vehicle may be used for transporting the conveyor over great distances.
- Always transport your conveyor in the full down position. On 82’ Models, the axles need to be collapsed for transport.
- The undercarriage slide (trolley) should be seated against the down position stop with slight tension on the winch cable.
- Hitch should be secured to tractor and jack stored in its transport position (make sure to attach hitch safety chain).
- **Avoid Sharp Turns!** It is possible to hit the tractor tires or fenders.
- To prevent conveyor from upending, make sure all grain has been emptied from the conveyor before transporting.
- Before moving the conveyor, the operator should make sure all personnel are clear of the “Moving Conveyor Hazard Area” shown below. Never allow persons to stand underneath or ride on the conveyor when it is being transported.
- Know the transport height of the conveyor before moving it (see chart below).

**Transport Height** is with conveyor fully lowered. Hitch pinned in lowest position, and attached to a vehicle with a drawbar height of 1’-6” (45.7 cm).

<table>
<thead>
<tr>
<th>Conveyor Length</th>
<th>10” x 42’</th>
<th>10” x 52’</th>
<th>10” x 62’</th>
<th>10” x 72’</th>
<th>10” x 82’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport Height</td>
<td>9’-6” (2.90 m)</td>
<td>10’-3” (3.12 m)</td>
<td>11’-10” (3.61 m)</td>
<td>12’-9” (3.89 m)</td>
<td>13’-8” (4.17 m)</td>
</tr>
</tbody>
</table>
ATTACH CONVEYOR to TOWING VEHICLE

WARNING! Never stand between the tractor and conveyor when hitching unless all controls are in neutral and the brakes are locked. Never allow persons to stand underneath or ride on the conveyor when it is being transported. Never raise the hitch end higher than necessary to attach to the towing vehicle (weight transfers rapidly to the discharge end as the hitch end is being raised, particularly when the conveyor is in the raised position).

The screw jack provided with the conveyor, will be used on the end of the hitch tube for hitching and unhitching to the tow vehicle. When positioned on the inlet hopper, it is used to raise the inlet to take the weight off the hitch tube (when attached to tow vehicle) so the tube will rotate between the hitch mounting plates when hitch location pin has been removed and repositioned. This will be necessary for transporting and for placing conveyor next to grain storage structure.

1. Depending on the position of the conveyor (raised or lowered) the jack needs to be as vertical to the ground as possible when being used. Remove the safety pin from the jack stand and rotate the jack accordingly, reinstall the pin to secure the jack once the jack is positioned (See Fig. 1).

With the jack positioned on the hitch tube, raise the intake end of the conveyor only high enough to allow connection to the drawbar of the towing vehicle.

2. Secure the conveyor hitch clevis to tractor drawbar with hitch pin and keeper, or you can use a bolt, flat washers and two nuts jammed together. An auxiliary attachment system (safety chain) is required when transporting on public roads. Its function is to retain the connection between the towing and towed machines in the event of separation of the primary attachment system.

3. Fasten one end of a safety chain (not furnished) to the drawbar on the towing vehicle, and the other end to the loop-anchor welded to the side of the conveyor hitch tube (See Fig. 2).

A clevis or similar type of intermediate support for the chain should be fastened to the hitch tube no farther than 6" (15.2 cm) from the hitch pin.

When transporting the conveyor, the hitch tube should be secured using the hole in its mounting plates that is closest to the inlet hopper (See Fig. 1). Using this hole will allow the conveyor, when in its full down position, to be at its lowest height possible for transport.

4. Once the conveyor has been properly hitched to the towing vehicle, raise jack stand, rotate and secure it in transport position (the jack stand can also be removed and stored with the towing vehicle).
PLACEMENT of CONVEYOR for FILLING GRAIN BIN

**CAUTION!** Make sure entire area above conveyor and the path of travel is clear of overhead obstructions and electrical wires. Failure to do so can result in electrocution (maintain at least 10 feet of clearance from power lines, electrocution can occur without direct contact of the power lines).

To prevent tip-over when backing, avoid rolling over any obstructions and avoid steep slopes. If the conveyor is to be set on a slope, approach the bin uphill. Avoid moving the conveyor at right angles to a slope. Ensure everyone is clear of the work area when moving the conveyor. Keep hands clear of the winch drum when winch is in operation.

- Conveyor should be placed on as level a surface as possible (the wheels must be allowed to roll freely as the conveyor is being raised).

**STEP 1: Locate Conveyor Next to Bin**

1. Move the conveyor into its working position with a towing vehicle (See Fig. 3). Locate the conveyor as close as possible to the bin, or other storage structure (move conveyor slowly towards the bin with the towing vehicle - not by hand).

2. For 82’ Models: This model is equipped with an extendable/collapsible axle. After the conveyor is positioned at the bin site, and before raising the conveyor, the axles must be extended (See Step 3 and Fig. 3).

**IMPORTANT!** Conveyor must be in the full down position and attached to the towing vehicle before extending the axles. A hydraulic jack with a minimum 5 ton (4536 kg) rating is recommended.

Raise one side of the undercarriage at a time to extend or collapse the axles. There is a collar welded to the bottom side on each end of the axle tube to prevent the jack from slipping off, position the jack below this collar.

**PLACEMENT of CONVEYOR (con’t)**

3. Raise the axle just high enough for the tire to clear the ground. Place jack stands or equivalent beneath the axle for support. Remove the lock pin securing the inner axle tube and extend the axle out aligning the next hole in the inner axle with the hole from which the lock pin was previously removed (the axle will extend approximately 19” [48.3 cm] to the next hole location). Reinsert lock pin. Remove jack stands or supports, and lower tire to ground. Repeat this procedure on the opposite side of the conveyor.

---

**Fig. 3**

![Diagram of conveyor placement and axle extension](image-url)
STEP 2: Raise Conveyor

1. With conveyor still connected to towing vehicle and in transport position, remove the jack from the end of the hitch and secure it to the jack mount tube on the rear of the inlet hopper. Raise the inlet hopper just enough to relieve pressure on the hitch locating pin. Remove the locating pin and lower the inlet end to the ground (See Fig’s. 4 & 5).

**WARNING!** Hydraulic systems are highly pressurized. Do Not connect or disconnect hydraulic components when there is pressure in the system. Escaping hydraulic oil, even an invisible pinhole leak, can penetrate body tissues and cause severe injury. If injured by hydraulic oil escaping under pressure, see a doctor at once. Serious infection or reaction may occur if medical attention is not received immediately.

2. Leave the locating pin out. Connect the hydraulic hoses from the conveyor winch to the tractor and raise the discharge end of the conveyor high enough to clear the top of the bin (See Fig. 6). **Keep hands clear of the winch drum during winch operation.**

**IMPORTANT!** Observe the cable as it is winding onto the winch drum. The cable should roll up on the drum evenly, avoid cable build-up on just one side of the drum.

Do Not block or restrict the movement of the tires. The wheels must be allowed to roll freely as the conveyor is being raised.

3. Raise the inlet end just high enough to allow the locating pin to be reinserted into the first available hole, See Fig. 7 (this will allow the inlet end to be slightly above the ground).

4. Raise the jack stand so the conveyor can be moved without dragging the jack on the ground. Check to make sure the conveyor discharge spout remains high enough to clear the top of the bin.

---

4/15 0400100-3 0400100-4 0400100-7 0400100-5
**STEP 3: Back into Position**

1. After raising the inlet end off the ground, back the conveyor slowly into working position with the towing vehicle (See Fig. 8). **Never move the conveyor by hand, always use a vehicle.**

Do Not attempt to increase conveyor height by positioning its wheels on lumber, blocks or any other means to raise its height.

2. Continue backing the conveyor until the discharge spout is directly over the bin opening (when positioning the discharge over the bin opening, keep in mind that the discharge end will lower a few inches as the conveyor fills with grain). When discharging into a grain spreader, maintain at least 12" (30.5 cm) of space between the discharge and the spreader.

**CAUTION!** Never stand between the tractor and conveyor when hitching or unhitching, unless all controls are in neutral and the brakes locked.

Never raise the intake end higher than necessary to attach to a towing vehicle. Weight is transferred rapidly to the discharge end when the intake is raised, especially when conveyor is in the raised position.

Persons operating, servicing or repairing equipment that requires above ground work shall be properly secured with the use of “fall protection” equipment as set forth by OSHA guidelines and regulations.

3. Chock the conveyor wheels to prevent the conveyor from rolling. Disconnect tractor from conveyor as detailed below.

**NOTE:** It is good practice to secure the discharge end of the conveyor to the bin or storage structure to prevent possible wind damage (remember to disconnect any tie-downs and/or anchors before moving the conveyor away from the bin).

4. Position the jack at the end of the hitch. Raise the hitch end high enough to remove the hitch weight from the tractor drawbar. Remove safety chain and tractor hitch pin.

If hydraulic hoses were attached for winch operation, make sure they are disconnected and properly secured before moving the tractor from the area. Make sure all clean-out doors, access panels and safety guards are in place before beginning grain transfer operations.

If applicable, ensure all electrical cords are properly secured away from moving parts and out of traffic areas where they could become damaged.

---

**STEP 4: Lower Inlet End to Ground**

1. With the discharge directly over the bin opening, lower the jack and raise the inlet end to take the pressure off the hitch locating pin. Remove the pin.

2. Lower the inlet hopper to the ground and check discharge spout position. If necessary, reposition and/or lower conveyor so spout is directly above opening when intake is resting on the ground.
RELOCATION OF CONVEYOR

When grain conveying is completed, the conveyor should be moved away from the bin and lowered. It can then be moved to a different bin for more conveying operations, or it can be cleaned-up for storage.

**CAUTION!** Never stand between the tractor and conveyor when hitching or unhitching, unless all controls are in neutral and the brakes locked. Never raise the intake end higher than necessary to attach to a towing vehicle. Weight is transferred rapidly to the discharge end when the intake is raised, especially with conveyor in the raised position.

**STEP 1: Raise Conveyor**

1. Empty all grain from the conveyor and clean up the work area. Loosen the wingnut on the small hopper door located on the lower right side of the inlet hopper and clean excess grain from hopper.
2. Untie any anchors and/or supports that were used to help secure the conveyor.
3. Disconnect the power source. Electric units, unplug all electrical cords and store them so they cannot become damaged during transport.
   PTO drive units, place PTO driveline into the storage/transport bracket and secure for transport.
4. Raise the hitch just high enough to attach it to the tractor drawbar. Secure with hitch pin and install safety chain (Refer to Page 10 for safety chain information). Connect the hydraulic winch hoses to the tractor’s hydraulic system.
5. Remove the wheel chocks and raise conveyor until the discharge spout clears the top of the bin.
6. Use the jack to raise the inlet end just enough to insert the hitch locating pin into the first available hole (this will allow the inlet to be raised slightly above ground). Move the conveyor slowly away from the grain bin with the towing vehicle. **Never attempt to move conveyor by hand, always use a vehicle.**

**STEP 2: Lower Conveyor**

1. Immediately after conveyor has cleared the bin or storage structure, use jack to raise inlet end slightly, remove hitch locating pin and lower inlet to ground, then lower the conveyor to its full down position. **IMPORTANT!** Lower the conveyor to its full down position even if only relocating to another bin. Do Not transport or move conveyor when it is in the raised or even in the partially raised position.
2. Use the jack to raise the inlet far enough to insert locating pin into the front hole used for transport (See Fig. 1 on Page 10).

**STEP 3: Move to Next Bin or Storage**

1. Disconnect and secure the hydraulic winch hoses so they will not become damaged during transport. **On 82’ Models, the axles will need to be collapsed before transporting conveyor.** Refer to the following page (Page 15) on procedures for collapsing the axles.
2. Move conveyor to next bin or storage site, or prepare the conveyor for storage (conveyor should be stored in the full down position).
   If the conveyor will be stored outside, make sure the small inlet hopper door on the lower right side of the hopper remains open (this will allow rain water, melted snow, etc. to drain from the hopper).
3. Follow the machine inspection recommendations on Page 6 before operating conveyor again.

---

**Fig. 9**

**Step 1**
Attach to Vehicle, Move Away from Bin

**Step 2**
Lower Conveyor

**Collapse Axle for Transport**
(82' Models Only)

**Step 3**
Move to Next Bin or Storage Unit

---

**4/15  0400101-4  0400101-5  0400101-6  1031580-13**
Collapse Axles for Transporting Conveyor (82’ Models Only)

**CAUTION!** When raising the conveyor axle, Do Not rely solely on hydraulic or mechanical jacks for support. Use appropriate jack stands or equivalent for supporting the unit.

1. **The 82’ Models** are equipped with an extendable/collapsible axle. The axles must be collapsed for transporting.
   
   **IMPORTANT!** Conveyor must be in the full down position and attached to the towing vehicle before collapsing the axles.
   
   A hydraulic jack with a minimum 5 ton (4536 kg) rating is recommended for lifting.

2. Raise one side of the undercarriage at a time to collapse the axles. There is a collar welded to the bottom side on each end of the axle tube to prevent the jack from slipping off, position the jack below this collar (see Fig. 10).
   
   Raise the axle just high enough for the tire to clear the ground. Place jack stands or equivalent beneath the axle for support.

3. Remove the lock pin securing the inner axle tube and collapse the axle inward aligning the next hole in the inner axle with the hole from which the lock pin was previously removed. Reinsert lock pin.
   
   Repeat this procedure on the opposite side of the conveyor.

---

**Conveyor Moving Hazard Area**

**WARNING!** Before moving the conveyor, the operator should make sure all personnel are clear of the “Moving Hazard Area” as shown in the diagram below.

Never allow persons to ride on the conveyor while it is being transported.

Shaded area represents the area to stay clear of.
**WARNING!** Under no circumstances should persons not involved in the operation be allowed to trespass into the work area. It shall be the duty of all operator’s to see that children and/or other persons stay out of the work areas. Trespassing into the work area by anyone not involved in the actual operation, or trespassing into a hazard area by anyone shall result in immediate shutdown by the operator.

It shall be the responsibility of the operator’s to see that the work area has secure footing, is clean and free of all debris and tools which might cause accidental tripping and/or falling. It shall also be their responsibility to keep the work area clean and orderly during the operation.

Use caution when working in areas above the ground. Persons operating, servicing or repairing equipment that requires above ground work shall be properly secured with the use of “fall protection” equipment as set forth by OSHA guidelines and regulations.

Metal buildings, scaffolding and other types of work surfaces can become slippery, especially when surfaces are wet and/or oily. This can create hazardous working conditions. Use caution when working, climbing or walking on these surfaces.

Before starting the conveyor, a designated work area should be established and properly marked. The following diagram shows the manufacturers designated work area for conveyor operation.

These areas shall be marked off with colored nylon or plastic rope or banners hung as portable barriers to define the designated work area.

All operator’s shall know how to shutdown and lockout the equipment in the event of an emergency.

This area should be observed when operating Electric drive units.
WARNING! Under no circumstances should persons not involved in the operation be allowed to trespass into the work area. It shall be the duty of all operator’s to see that children and/or other persons stay out of the work areas. Trespassing into the work area by anyone not involved in the actual operation, or trespassing into a hazard area by anyone shall result in immediate shutdown by the operator.

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These areas shall be marked off with colored nylon or plastic rope or banners hung as portable barriers to define the designated work area.

All operator’s shall know how to shutdown and lockout the equipment in the event of an emergency.

This area should be observed when operating PTO drive units.

Be cautious of slippery surfaces. Make sure area is clear of tools, debris, or other items that may trip you or create a hazardous situation.
OPERATING PROCEDURES
(ELECTRIC DRIVE MODELS)

WARNING! The operator shall be aware of any unusual vibrations, noises and the loosening of any fasteners. Keep all safety shields and devices in place. Keep hands, feet and clothing away from moving parts. The operator shall have a full view of the conveyor work area and check that all personnel are clear of hazard areas before adding power. 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 conveyor. The reset and starting controls must be located so that the operator has full view of the entire operation. Disconnect power before resetting motor overloads. Make certain electric motor is grounded. Shut off power and lockout whenever cleaning or servicing the conveyor.

Check the following before adding power:
• All safety devices are in place and properly fastened, and the clean-out door on bottom of hopper is in place.
• Drive belts are properly tightened and in good condition. Replace belts if they are cracked, frayed, or damaged in anyway.
• Check electrical cords to ensure they are in good condition. Replace if necessary.
• Check electric power box and controls. Verify the power source can be locked out.
• Ensure conveyor is properly positioned and work area is appropriately marked and free of tools, debris and other hazards.
• Verify all drive component hardware and fasteners are tight, i.e. motor mount, pulleys, setscrews etc.

Begin Grain Conveying Operations
1. Start the electric motor and check to make sure conveyor is running properly.
2. Slowly begin filling the inlet hopper with grain until desired flow rate is achieved.

ELECTRIC DRIVE
SHUTDOWN/LOCKOUT

WARNING! If the operator must leave the work area, or whenever servicing or adjusting, the conveyor must be stopped and the power source turned off and locked out. Precaution should be made to prevent anyone from operating the conveyor when the operator is away from the work area.

Emergency Shutdown
Should the conveyor be immediately shutdown under load, disconnect and lockout the power source. Clear as much grain from the hopper and conveyor as you can. Use the clean-out door in the bottom of the hopper to help clean grain from this area. When as much grain as possible has been cleared, reconnect the power source and clear the conveyor gradually. Never attempt to restart conveyor when full of grain. Starting the unit under load may result in damage to the conveyor, such damage is considered abuse and is not covered by warranty.

Normal Shutdown
Make certain that the hopper and conveyor are empty before stopping the unit. Before the operator leaves the work area, the power source shall be locked out (See “Lockout” below).

Intermittent Shutdown
When a conveyor is stopped and restarted under full load, it may result in damage to the conveyor. Therefore if intermittent operation is to be carried out, it is advisable to reduce the load level. When kept from absolute filling, conveyor start-up is easier and operation more efficient.

Lockout
The power source for electric units shall have a main disconnect box that can be locked only in the “Off” position. That is what “shutdown and lockout” refers to. Shut off the main power source and lock the handle or breaker switch in the “Off” position.
OPERATING PROCEDURES
(PTO DRIVE MODELS)

WARNING! The operator shall be aware of any unusual vibrations, noises and the loosening of any fasteners.
Keep all safety shields and devices in place.
Keep hands, feet and clothing away from moving parts.
The operator shall have a full view of the conveyor work area and check that all personnel are clear of hazard areas before adding power.
Shut off power and lockout whenever cleaning or servicing the conveyor.
Before starting tractor, be certain power to the PTO is off.
Be certain the PTO driveline is securely attached to the conveyor and tractor.
Use a PTO with a rotating shield in good working condition that can be turned freely on the shaft.
Stay out of designated hazard area of an operating PTO.

Check the following before adding power:
• All safety devices are in place and properly fastened, and the clean-out door on bottom of hopper is in place.
• Make sure tractor is parallel to conveyor with PTO driveline as horizontal as possible. Do Not operate PTO at extreme angles. The driveline should never be operated at angles more than 15°.
• Ensure conveyor is properly positioned and work area is appropriately marked and free of tools, debris and other hazards.
   Verify all drive component hardware and fasteners are tight.

Begin Grain Conveying Operations
1. Engage PTO at a slow RPM to minimize shock loads, then work up to recommended RPM. Make sure conveyor is running properly.
   The conveyor can be operated at speeds from 450 to 540 RPM’s. Do Not attempt full load operation at speeds below 450 RPM as high torque requirements may damage the conveyor.
2. Slowly begin filling inlet hopper with grain until desired flow rate is achieved.

PTO DRIVE
SHUTDOWN/LOCKOUT

WARNING! If the operator must leave the work area, or whenever servicing or adjusting, the conveyor must be stopped and the power source turned off and locked out.
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Emergency Shutdown
Should the conveyor be immediately shutdown under load, disconnect and lockout the power source.
Clear as much grain from the hopper and conveyor as you can. Use the clean-out door in the bottom of the hopper to help clean grain from this area.
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Never attempt to restart conveyor when full of grain. Starting the unit under load may result in damage to the conveyor, such damage is considered abuse and is not covered by warranty.

Normal Shutdown
Make certain that the hopper and conveyor are empty before stopping the unit. Before the operator leaves the work area, the power source shall be locked out (See “Lockout” below).

Intermittent Shutdown
When a conveyor is stopped and restarted under full load, it may result in damage to the conveyor. Therefore if intermittent operation is to be carried out, it is advisable to reduce the load level.
When kept from absolute filling, conveyor start-up is easier and operation more efficient.

Lockout
Stop PTO and turn off power source. Remove ignition key from power source (if this is not possible, remove the PTO driveline from the work area).
GENERAL MAINTENANCE INFORMATION

WARNING! Shut off power and lockout before attempting to adjust, service, clean or repair the conveyor or any of its components.

Keep hands, feet and clothing away from moving parts.

Make sure all safety devices, shields and guards are in place and functional. Immediately replace any that are damaged or missing.

Never rely solely on mechanical or hydraulic jacks for support. Use jack stands or equivalent for support.

Never operate the conveyor with access doors or panels open.

WARNING! Hydraulic systems are highly pressurized. Do Not connect or disconnect hydraulic components when there is pressure within the system.

Escaping hydraulic oil, even an invisible pin hole leak can penetrate body tissues and cause serious injury.

Use a piece of wood or cardboard when searching for leaks, Never use your hands or other parts of your body.

If injured by hydraulic oil escaping under pressure, see a doctor immediately. Serious infection or reaction can occur if medical attention is not received at once.

For economical and efficient operation of your conveyor, maintain regular and correct lubrication, maintenance and service schedules. Neglect leads to reduced efficiency, excessive wear and needless down time.

Any parts needing replacement should be replaced with parts of the same type and size. Do Not modify or alter any of the conveyor components.

GUARDS

Check all guards to see if they are properly adjusted and securely fastened.

Guards should not be rubbing against pulleys, belts, chains or sprockets. Immediately replace any worn or damaged guards.

BEARING LUBRICATION

HEAD & INLET HOPPER BEARINGS

The head bearings are located on the head section at the discharge end of the conveyor (one bearing on each side of the head section). The inlet hopper bearing is located on the right-hand side of the inlet hopper.

These bearings are fitted with grease zerks (lubrication fittings) and should be lubricated after every 50 hrs. of operation or once annually.

Before greasing the bearings, make sure the zerks are free of dirt, otherwise the dirt will be passed into the bearing race which can cause contamination resulting in bearing failure.

Use an SAE multi-purpose type grease. Normally only one to two pumps of the grease gun is sufficient when servicing the bearings. NOTE: Over greasing can be just as harmful as under greasing if it forces grease out of the bearing seals.

The bearings themselves do not require adjustment, but check to make sure the hardware securing the bearings is tight. Also check the setscrews in the lock collars to ensure they are tight against the shaft.

Lubricate Bearings after every 50 hrs. of operation
1 to 2 pumps is sufficient
UNDERCARRIAGE AXLE BEARINGS

**WARNING!** Do Not rely solely on hydraulic or mechanical jacks for support. Use jack stands or equivalent to support undercarriage axle.

Tapered roller bearings are standard on all auger axles and should be **repacked with grease annually, or as needed determined by usage.**

Use an anti-seize compound on the hub to axle spindle connection.

**To Repack Wheel Bearings:**

1. Raise the undercarriage axle high enough to allow the tire to clear the ground (only raise one side of the axle at a time). Place jack stands or equivalent beneath the axle for support and remove the tire.

2. Remove the dust cover by prying around the edges, (See Fig. 12) then remove the cotter pin, slotted nut and flat washer from the end of the axle shaft.

3. Carefully remove the hub from the shaft being careful so the outer bearing doesn’t fall to the ground. Clean the bearing with solvent and inspect the bearing for wear and damage, replace if necessary.

   To inspect the inner bearing you will need to remove the seal from the rear of the hub (the seal may become damaged during this procedure, replace as necessary).

   With the seal removed, you can now remove the inner bearing from the hub. Clean the bearing with solvent and inspect it for wear and damage. Replace if necessary.

4. Clean the hub cavity with solvent before reassembly. Using a good **automotive type axle grease,** repack the inner bearing. Insert the inner bearing into the hub and press on the grease seal.

5. Reinstall the hub onto the axle shaft being careful not to damage the lip of the seal during installation.

6. Repack the outer bearing. Fill the hub cavity with grease until about 1/3 full, then install the outer bearing.

7. Reinstall the flat washer and the slotted nut. Tighten the nut to seat the bearings. Keep tightening the slotted nut until the hub begins to bind as it is being rotated. Back off the slotted nut to the next slot and install a new 5/32” x 1 3/4” cotter pin. Reinstall the dust cap and remount the tire.

   Repeat this procedure on the opposite wheel hub.

**Grease Winch Bearing**

The winch bearing will need to be lubricated periodically, usually **once before each season of operation.**

The bearing can be accessed from the bottom side of the motor mount plate (See Fig. 13).

Make sure the grease zerk is free of dirt so as not to contaminate the bearing race (contamination can result in bearing failure). Use a good quality lithium based grease. Normally **1 to 2 pumps** is sufficient.

**Note:** Over greasing can be just as harmful as under greasing if it forces grease out the bearing seals.

---

**Fig. 12**

**Fig. 13**
HYDRAULIC COMPONENTS

The hydraulic components received with your Grain Pump Conveyor were selected to deliver the most efficient and economical use during operation. Any parts used for replacement should be parts of the same type and size as the original.

**WARNING!** Hydraulic systems are highly pressurized. Do Not connect or disconnect hydraulic components when there is pressure within the system.

Escaping hydraulic oil, even an invisible pin hole leak can penetrate body tissues and cause serious injury. Use a piece of wood or cardboard when searching for leaks. Never use your hands or other parts of your body.

If injured by hydraulic oil escaping under pressure, see a doctor immediately. Serious infection or reaction can occur if medical attention is not received at once.

- Allow hoses to coil in their original shape. Avoid pinching, crimping or twisting the hoses that would otherwise restrict the flow of the hydraulic system.

**IMPORTANT!** Keep hydraulic hoses away from moving parts. Make sure to secure the hoses in a manner that they cannot become damaged when transporting the conveyor.

- Check hoses, fittings and connectors for leaks. Repair or replace as necessary.

- When not in use, make sure the fittings on the end of the hoses are protected from dirt and other contaminants.

- The fittings required for attaching the hoses to the tractor are not furnished. **Two (2) 1/2” NPT female fittings are needed for attaching hose ends to the tractor fittings.**

Hydraulic Operated Winch

**IMPORTANT!** Although the winch is shipped with oil already added to the gearbox, we recommend checking oil level before operation.

To check oil level, remove the level check plug from the side of the gearbox (See Fig. 14). Oil should begin to leak from the opening. If it does, oil level is sufficient, replace plug.

If additional oil is needed, remove fill plug from upper face of gearbox and remove level check plug.

**WARNING!** Before engaging PTO, be sure the PTO driveline shaft shield turns freely on shaft.

The PTO driveline has three (3) fittings that require lubrication (See illustration on Page 23). Lubricate all fittings with a good quality lithium based EP grease which meets NLGI No. 2 Specifications and contains no more than 1 percent molybdenum disulfide (example: Shell Super Duty or equivalent).

An EP grease meeting the NLGI No. 2 Specifications and containing 3 percent molybdenum disulfide may be substituted in the telescoping members only example: Mobil Oil Co. (Mobil Grease CMP); Shell Oil (Retinax AM); & Texaco (Molyex EP No. 0 & No. 2).
An EP grease meeting the NLGI No. 2 Specifications and containing 3 percent molybdenum disulfide may be substituted in the telescoping members only example: Mobil Oil Co. (Mobil Grease CMP); Shell Oil (Retinax AM); & Texaco (Molyex EP No. 0 & No. 2). Telescoping members should be lubricated while in the collapsed position.

• The first lube interval should be 16 to 24 hours after initial start-up and operation, then follow the recommendations shown below.
• Check the u-joint setscrews at the conveyor end to make sure they are tight against the drive shaft.

Replacement Parts are Not Lubricated
Replacement parts must be lubricated at the time of assembly. Depending on the replacement part, use the chart below to determine the proper amount of grease to use for that particular location. After repaired parts have been lubricated and installed, follow the recommendations in the chart for lubrication intervals.

PTO Driveline Lubrication Recommendations
After the first lube interval (first 16 to 24 hours of operation) the following schedule should be maintained.

<table>
<thead>
<tr>
<th>Interval</th>
<th>Location</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 hrs.</td>
<td>U–Joint Cross &amp; Bearing</td>
<td>1 Pump</td>
</tr>
<tr>
<td>8 hrs.</td>
<td>Telescoping Members</td>
<td>4–8 Pumps</td>
</tr>
</tbody>
</table>

PTO DRIVELINE SHEAR BOLT
The PTO driveline is equipped with a shear bolt at the tractor connection. Extra shear bolts are provided and stored in the operator’s manual container.

The shear bolt protects the conveyor from damage should the conveyor become plugged or subjected to high loads. If this scenario should occur, the shear bolt would “shear off” causing the connection to the conveyor to suddenly stop (the tractor’s PTO would still continue turning, but not the conveyor driveline).

Immediately shut down the tractor and lockout before attempting to investigate the cause of the problem. It is important that the correct replacement bolt be of the same size and strength as the original (see chart below). This is to insure the shear device will function properly to help protect the operator and the conveyor.

Shear Bolt Specifications

<table>
<thead>
<tr>
<th>Conveyor Size</th>
<th>Shear Bolt Size</th>
<th>Shear Bolt Grade</th>
<th>Replacement Shear Bolt Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>10” x 42’</td>
<td>3/8–16 x 1”</td>
<td>Grade 8</td>
<td>Part No. 1018892</td>
</tr>
<tr>
<td>10” x 52’</td>
<td>3/8–16 x 1”</td>
<td>Grade 8</td>
<td>Part No. 1018892</td>
</tr>
<tr>
<td>10” x 62’</td>
<td>3/8–16 x 1”</td>
<td>Grade 8</td>
<td>Part No. 1018892</td>
</tr>
<tr>
<td>10” x 72’</td>
<td>3/8–16 x 1”</td>
<td>Grade 8</td>
<td>Part No. 1018892</td>
</tr>
<tr>
<td>10” x 82’</td>
<td>3/8–16 x 1”</td>
<td>Grade 8</td>
<td>Part No. 1018892</td>
</tr>
</tbody>
</table>

HITCH JACK LUBRICATION
A grease zerk (lubrication fitting) is located on the handle side of the jack. Its a good idea to lubricate just before storage or as determined by usage. Use a good quality SAE multi-purpose grease and lubricate annually.

Extend the leg on the jack and lubricate it with a spray type lubricant or apply a thin layer of a good quality multi-purpose grease, then retract the leg. This too should be done just before storage and again at the start of seasonal operation. Lubricate annually or as determined by usage.
**ELECTRIC WINCH OIL LEVEL**

**Electric Operated Winch**
The winch is designed to be connected to a 230 volt electrical power system.

**IMPORTANT!** The electric winch is shipped with oil already added to the gearbox. It is necessary to install the vent/fill plug that is shipped with the winch. Remove the plug from the top of the gearbox and install the vent/fill plug (See Fig. 16).

**Check oil level before operation.** To check oil level in the winch gearbox. Position the winch as horizontal as possible. Remove one of the plugs from the side of the gearbox. Oil should begin to flow from the opening.

**If additional oil is needed:**
1. Remove the vent/fill plug from the top of the gearbox and remove one of the plugs from the side of the gearbox.
2. Add an EP 85W140 non-foaming multipurpose gear oil into the top vent/fill plug opening until oil begins to leak from the opening in the side of the gearbox. Reinstall the plugs (See Fig. 16).

**Do Not overfill the gearbox.** Too much oil can damage the seals.

3. To drain oil, remove the vent/fill plug from the top of the gearbox and the level check plug as determined by the angle of conveyor shown in Fig. 17. Add approx. 4 quarts (3.78 L) of SAE 90 weight* high grade petroleum base, rust and oxidation inhibited (R&O) gear oil to the gearbox until it begins to flow from the level check opening. Reinstall plugs.

**Gearbox Oil Level**

**IMPORTANT!** The gearbox is shipped without oil. Oil needs to be added before operation of the conveyor.

Even under normal working conditions, oil will still dissipate. Check oil level in gearboxes periodically and maintain proper level.

**Gearbox Oil Level**

**Lubrication is extremely important.** For satisfactory operation, follow the information shown on the reducer gearbox nameplate, its warning tag and in the manual provided with the gearbox.

**Failure to observe these precautions could result in damage to the equipment.**

Oil should be changed more frequently when conveyor is being operated at high temperatures, under extreme dirty conditions, or when operated continuously.

Under these extreme conditions the oil should be changed every 1 to 3 months, depending on severity of the conditions.

**CAUTION:** Too much oil will cause overheating and too little oil will result in gear wear and failure. Check oil level regularly.

**Capacity:** Approximately 4 qts. (3.78 L)

Very often, small metal particles will show up in the oil due to the wearing process. A magnetic drain plug is provided to help contain the particles.

1. With conveyor in the full down position, remove the vent/fill plug from the top of the gearbox and the level check plug as determined by the angle of conveyor shown in Fig. 17.

**Add approx. 4 quarts (3.78 L) of SAE 90 weight** high grade petroleum base, rust and oxidation inhibited (R&O) gear oil to the gearbox until it begins to flow from the level check opening. Reinstall plugs.

Oil level should be checked each time with the conveyor in the same position as when oil level was initially checked.

**Oil Change Intervals:**

Initial change after 2 weeks of operation (if desired, this oil may be filtered and reused).

Thereafter, every 2500 hours, or 6 months. Under more extreme conditions, 1 to 3 months of operation. Oil should be drained, magnetic plug cleaned, and gearbox flushed and refilled with new oil.

*For temperatures below 40° F (4.4° C), use an SAE 80 weight oil the same quality as the 90 weight oil. Extra pressure additives may be of value in severe applications.
CONVEYOR DRIVE CHAIN TENSION
and ADJUSTMENT (con’t.)

Regular inspections should be established to ensure that the conveyor chain is in good operating condition at all times.

The life of the conveyor chain will be shortened when the chain is allowed to sit in water or is operated in acidic conditions. Try to avoid these situations.

To extend chain life, spray a light coat of soybean oil on the chain after each season’s use. Use extreme caution, keep away from moving chain and paddles.

Check Chain Tension
1. Inspect conveyor chain for loose bolts, missing chain parts, missing or damaged chain paddles and overall chain condition.
2. Check chain tension. Grasp one of the paddles at the inlet end, and attempt to rotate it up towards the chain (See Fig. 18). Proper chain tension should allow only minimal movement of the paddle. There may be some flexing of the paddle itself, but overall there should be very minimal movement of the paddle and chain.

Adjust Chain Tension
1. Loosen the four (4) carriage bolts on each of the take-up slides on the head section at the discharge end of the unit. See Fig. 19 (there will be a total of eight carriage bolts).
2. Move the jam nuts on the conveyor chain adjustment bolts in direction desired to either loosen or tighten the chain. Move the jam nuts in equal increments so that the head shaft remains straight.

Check each side for equal distance by measuring from the shaft of each bearing to the head end. Once proper tension has been set, tighten the eight carriage bolts and secure the jam nuts.

If the chain is still too loose after these adjustments, it may be necessary to remove one or more chain links from the chain.
**ELECTRIC WINCH BELT ADJUSTMENT**

*WARNING!* Shut off power and lockout power source before attempting to adjust, service, clean or repair any power driven equipment.

**Electric Winch Belt Adjustment:**

1. Check belts for fraying, cracking, or other damage. Replace as necessary.
2. Check belts for proper tension. Belts should deflect approximately 1/2" (13 mm) when firmly pressed in the center of the span between the two sheaves.
3. To adjust belt tension, loosen the four bolts securing the motor mount plate, two bolts at top and two bolts at bottom (one of the top bolts is also used to secure the belt guard bracket as shown in Fig. 20). Using a pry bar, piece of wood or similar object, pry the motor mount plate out to achieve proper belt tension (the pry bar can be inserted from the bottom side of the motor mount plate). After proper tension has been set, retighten all four bolts.

**Electric Drive Belt Adjustment (con’t.)**

Check to see that correct alignment of the sheaves is maintained. Check that all sheaves are secured to their shaft, drive key is in place and setscrews are tight.

1. Note the 3/4” jam nuts securing the threaded rods to the plate on the boot (See Fig. 21). Loosen the jam nuts and use the threaded tightener rod to adjust belt tension. Make sure to adjust the rods equally to keep the motor and drive sheaves properly aligned. **Do Not overtighten.** Proper belt tension is approx. 9/16” (14 mm) of deflection per belt when using 7.50 lbs. of force at the center of the span between the two sheaves. After 24 hours of operation, and for the remainder of belt life, deflection should be 9/16” (14 mm) using 4 to 4.50 lbs. of force. If you do not have a weight set to apply recommended amount of force, a fish scale is a good alternative.

Tension can also be checked by simply pressing firmly on the belts at the center of the span between the motor sheave and reducer sheave. **Do Not overtighten the belts.** Overtightening will create high stress on the belts and other conveyor components. This can result in damage to the belts and/or conveyor.

---

*Loosen Bolts on Each Side of Mount Plate (this bolt also secures belt guard bracket)*

*Loosen Bolts on Each Side of Mount Plate*

*Pivot Motor to Set Belt Tension*

---

*Fig. 20*

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*Fig. 21*
ELECTRIC WINCH OPERATION

WARNING! Shut off power and lockout power source before attempting to adjust, service, clean or repair the winch or any of its components.

The winch is designed to be connected to a grounded 230 volt electrical power system.

A main power disconnect switch capable of being locked only in the “Off” position shall be used. This shall be locked whenever work is being done to the equipment and components.

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

The pendant control is used to operate the upward and downward motions of the conveyor by depressing either of the buttons labeled “Forward” or “Reverse” on the hand-held pendant (See illustration below).

IMPORTANT! Do Not continuously press buttons back-and-forth in quick succession, pause at least 2 seconds before changing winch direction.

If the winch operates in the opposite direction that is shown on the label, simply reverse the two wires that are located on the back panel in the control box.

It is suggested to have a qualified electrician or a Hutchinson/Mayrath service tech perform the following procedure:

1. Shut off and lockout the power source. Remove the cover from the control panel box as shown in the illustration below.

2. Reverse the 2T1 & 4T2 wires as shown.

![Diagram of Electric Winch Operation](image-url)
TROUBLE SHOOTING

LOW CAPACITY
• The conveyor may not be getting enough grain. Check to see that the hopper intake has not bridged over restricting the flow.
• Chain speed is too slow. See power requirement chart on Page 7.
• Grain is high in moisture. A low capacity will likely be achieved with high moisture grain. Excessive feeding of high moisture grain can cause plugging.

PADDLE BREAKING OR BENDING
• Paddles may be coming loose from the chain. Keep the paddles securely connected to the chain.
• Housing misalignment.
• Frequent starts underload. Allow conveyor to clean out before shutting down.
• Sprockets at intake or discharge ends may be off center. Align in center of housing.
• Overfeeding; adjust the feeding of the conveyor to allow less grain to enter while maintaining full speed.

EXCESSIVE CONVEYOR NOISE
• Conveyor chain is too loose. Check chain tension and adjust if necessary (See Maintenance Section).
• Improper assembly or misalignment of housing. Loosen housing connection(s) that are the source of noise and disassemble. Check for end smoothness and grind if necessary.
• Sprockets at intake or discharge end may be off center. Check setscrew in sprocket and ensure that it is tight.

BELT SLIPPAGE ON ELECTRIC DRIVE
• Incorrect belt tension. Turn the adjustment bolts on the motor mount end until proper tension is reached.
• Unit is plugged. Clean the grain and any obstructions from the conveyor.

GRAIN RETURNING to the INTAKE END THROUGH the TOP of the UNIT
• The discharge spout may be mounted backwards. Spout must be mounted so it slopes back towards the main body of the unit.
• Partially blocked discharge, remove obstruction.

CONVEYOR WILL NOT RAISE OR LOWER
• Hydraulic coupler may not be properly attached to the tractor.
• Tractor reservoir may not be full of oil.
• Hydraulic pressure bypass valve on winch capacity exceeded.
**TRUNK HOUSING LAYOUT**

**WARNING!** Do Not rely solely on hydraulic or mechanical jacks or the hoist for support. Always use jack stands or equivalent for support.

- Keep hands, legs and other body parts out from under the conveyor when conveyor is being raised by the hoist or by any other means.
- Some parts are heavy, use assistance with lifting and while assembling these parts.
- Wear the proper personal protective gear (ie. safety glasses, ear protection, gloves, etc.).
- Keep the assembly and work area clean and free of tools and objects which could cause unsafe situations.

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

Choose an open level ground accessible to a chain hoist or other lifting devices where the conveyor may be laid out in full length.

It will be convenient for assembly if the sections are placed on stands or saw horses, this will also make assembly of the undercarriage easier as well.

Be sure the stands or saw horses can support the weight of the tube sections. A stand height of at least 36" (91.4 cm) tall is recommended.

Before beginning assembly it is suggested to read through the assembly instructions in this manual and layout all items from the kits 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 assembly process.

1. Position the tube sections in their respective positions as shown in the following illustrations.

The support stands may have to be repositioned when installing the tracks on the bottom side of the housing. The tube sections, once connected together, can also be turned upside down to install the tracks and other components that attach to the underside of the conveyor.
TRUNK HOUSING LAYOUT (con't.)

62' Model

Boot (Inlet) Section (1041180)

Upper Housing Section (1045517)

Connecting Bands

Connecting Rods

Lower Housing Section (1045516)

Tracks (1045522, L) (1045523, R)

Upper Trolley Stop

Lower Trolley Stop

197 1/4" (5.01 m) to truss mount

211 1/4" (5.37 m) to truss mount

22" (559 mm) to First Mount Hole

Connecting Bands

Head (Discharge) Section (1030984)

30 ft. (9.14 m)

20 ft. (6.10 m)

30 ft. (9.14 m)

30 ft. (9.14 m)

72' Model

Boot (Inlet) Section (1041180)

Upper Housing Section (1031204)

Connecting Bands

Connecting Rods

Lower Housing Section (1031192)

Tracks (1034276, L) (1034277, R)

Upper Trolley Stop

Lower Trolley Stop

131 1/2" (3.34 m) to truss mount

13" (330 mm) to First Mount Hole

192 1/4" (4.88 m) to truss mount

13" (330 mm) to First Mount Hole

30 ft. (9.14 m)

30 ft. (9.14 m)

Upper Trolley Stop

Lower Trolley Stop

82' Model

Boot (Inlet) Section (1041180)

Middle Housing Section (1030836)

Connecting Bands

Connecting Rods

Lower Housing Section (1030830)

Tracks (1034278, L) (1034279, R)

Upper Housing Section (1031204)

Upper Trolley Stop

Lower Trolley Stop

10 5/16" (262 mm) to First Mount Hole

10 ft. (9.14 m)

82 1/2" (78.7 cm) to truss mount

9 7/8" (251 mm) to First Mount Hole

82 1/2" (78.7 cm) to truss mount

30 ft. (9.14 m)

30 ft. (9.14 m)
**CONNECTING BAND & CONNECTING ROD ASSEMBLY**

Do Not bolt the head section to the tube housing during these assembly procedures. This section will be attached after the chain has been installed into the housing.

With the tubing sections properly positioned, slide the connecting bands onto the inlet section of tubing (use eight 3/8” x 1 1/2” bolts and nuts for each connecting band, but do not tighten at this time). It may be helpful to measure the half-length of the connecting band and then using that dimension, measure over from the end of the conveyor tube and place a mark. When installing the connecting band place the edge of the band at that mark, this will help ensure the connecting band is centered over the tube joint.

Slide the next section of tubing (the lower section) into the connecting bands until the ends of the inlet and lower tubing sections contact each other.

Use the 1/2” x 33 1/2” long connecting rods, flat washers, lock washers and non-lock nuts to secure the tubing sections together (ensure the tubing sections stay aligned with each other). The rods will pass through the rod anchors welded to the top and bottom of the inlet and lower section housing. **NOTE: The bottom rod will not be used on the lower-to-upper section connection on the 52’, 62’ & 72’ models, and on the lower-to-middle section connection for the 82’ models. These sections will have the track assembly attached to them and will only require the upper connecting rod** (See the layout illustrations on the previous pages, 29 & 30).

Tighten the connecting rods, then tighten the connecting bands. Continue assembling the connecting bands, working towards the discharge end, making sure the tubing stays straight and the tubing ends remain tight against each other. Ensure all connecting rods and connecting bands are secure.

---

42’ Models will use both the top and bottom connecting rods on the “boot–to–housing” connection.

52’, 62, & 72’ Models will use both the top and bottom connecting rods on the “boot–to–lower tube” connection, and only the top connecting rod on the “lower-to-upper” tube connection.

82’ Models will use both the top and bottom connecting rods on the “boot–to–lower tube” connection, the top connecting rod only on the “lower-to-middle” tube connection and both the top and bottom connecting rods on the “middle-to-upper” tube connection.

The connecting points not using the bottom connecting rod will have the tracks attached at these locations, thus eliminating the need for the bottom connecting rod.


**INSTALL TRACK ANGLES**

**42', 52' & 62' MODELS**

After the tube sections have been properly connected together, the bolt-on tracks will need to be secured to the attachment brackets welded to the bottom side of the conveyor housing.

On 42' Models the tracks are 160" (4.06 m) long; 52' Models the tracks are 200" (5.08 m) long and 62' Models the tracks are 260" (6.60 m) long.

The tracks are made from 3" x 2" angle iron. The three inch side of the track will be bolted to the attachment brackets on the bottom of the conveyor housing with the two inch side facing towards the ground (See illustration below).

Note the mounting holes at each end on the 2" side of the track. On one end of the track the first mounting hole is approximately 19 1/8" (486 mm) from the end of the track (for 42' Models), 14 3/4" (375 mm) from the end of the track for 52' Models and 22" (559 mm) from the end of the track on 62' Models. This end of the track is positioned towards the discharge end of the conveyor.

There is a left side track and a right side track, make sure the mounting holes align with each other when the track is installed.

Position the tracks against the attachment brackets and secure them using the 1/2" x 3 1/4" bolts and nylon locknuts provided.

**NOTE:** There are areas of the track that do not have an attachment bracket to bolt to, typically below the connecting bands.

When encountering these areas, use the supplied 2" (51 mm) long spacers and install them between the tracks. Use the 1/2" x 3 1/4" bolts and nylon locknuts to secure track and spacers in place.

<table>
<thead>
<tr>
<th>Tracks</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>42'</td>
<td>1045518 – Left, 160&quot; (4.06 m)</td>
</tr>
<tr>
<td></td>
<td>1045519 – Right, 160&quot; (4.06 m)</td>
</tr>
<tr>
<td>52'</td>
<td>1045520 – Left, 200&quot; (5.08 m)</td>
</tr>
<tr>
<td></td>
<td>1045521 – Right, 200&quot; (5.08 m)</td>
</tr>
<tr>
<td>62'</td>
<td>1045522 – Left, 260&quot; (6.60 m)</td>
</tr>
<tr>
<td></td>
<td>1045523 – Right, 260&quot; (6.60 m)</td>
</tr>
</tbody>
</table>

**Track Mounting Holes:**

- **42' Models:**
  - First Mounting Hole: 19 1/8" (486 mm) from end of track
  - Use 2" spacers in areas that have no track attachment bracket

- **52' Models:**
  - First Mounting Hole: 14 3/4" (375 mm) from end of track
  - Use 2" spacers in areas that have no track attachment bracket

- **62' Models:**
  - First Mounting Hole: 19 1/4" (489 mm) from end of track
  - Use 2" spacers in areas that have no track attachment bracket
INSTALL TRACK ANGLES
72’ & 82’ MODELS

After the tube sections have been properly connected together, the bolt-on tracks will need to be secured to the attachment brackets welded to the bottom side of the conveyor housing.

On 72’ models each track will be 260” (6.60 m) long; 82’ models tracks are 320” (8.13 m) long.

The tracks are made from 3” x 2” angle iron. The three inch side of the track will be bolted to the attachment brackets on the bottom of the conveyor housing with the two inch side facing towards the ground (See illustration below).

Note the mounting holes at each end on the 2” side of the track. On one end of the track the first mounting hole is approximately 5 1/4” (133 mm) from the end of the track (for 72’ Models), and 10 5/16” (262 mm) from the end of the track for 82’ Models. This end of the track is positioned towards the discharge end of the conveyor.

There is a left side track and a right side track, make sure the mounting holes align with each other when the track is installed.

Position the tracks against the attachment brackets and secure them using the 1/2” x 3 1/4” bolts and nylon locknuts provided.

NOTE: There are areas of the track that do not have an attachment bracket to bolt to, typically below the connecting bands.

When encountering these areas, use the supplied 2” (51 mm) long spacers and install them between the tracks. Use the 1/2” x 3 1/4” bolts and nylon locknuts to secure track and spacers in place.
TOP TRUSS ASSEMBLY for 52’ and 62’
10” PORTABLE GRAIN PUMP

Note: 42’ Models do not require a truss system. The following instructions are for the truss systems used on the 52’ & 62’ Models.

1. Loosely bolt the 32” (813 mm) long truss sides to the mounting brackets welded to the tube sections. Secure each truss side using two 1/2” x 1 1/2” bolts, and nylon locknuts.

2. Bolt the 28” (711 mm) truss crossbraces between the truss sides and secure using two 3/8” x 1 1/4” bolts and nylon locknuts.

3. Tighten the truss hardware.

4. Install the eyebolts through the truss cable anchors located at the inlet and discharge ends of the conveyor. After the eyebolt has been inserted through the anchor, install a 5/8” flat washer and two 5/8” non-lock nuts onto the ends of the eyebolts.

5. Attach one end of each cable to the eyebolts at the discharge end of the conveyor. Secure each cable using two 3/8” cable clamps. Secure the loose end of the cable against the u-bolt portion of the cable clamp as shown in the illustration on the following page.

6. Run the cables over the truss crossbraces and to the eyebolts at the inlet end of the conveyor. Attach the cables to inside upper-part of the truss sides using the 3/8” cable clamps provided (Do Not tighten the clamps at this time).

7. Attach the cable ends to the eyebolts and pull as much slack from the cables as possible. Secure cables to the eyebolts in the same manner used for attaching the cables at the discharge end (two clamps with the u-bolt portion against the loose end of the cable).

8. Using the eyebolts, tighten the cables until they are reasonably snug. Sight down the conveyor to make sure all tube sections are straight (some adjustment can be made after the undercarriage has been installed onto the conveyor housing).

9. Tighten all cable clamps on the truss sides and make sure all truss hardware is secure. Tighten the locking nuts on the eyebolts locking them into place.

Truss Cable Lengths:
52’ Models: 3/8” dia. x 43’ long cables (10 mm x 13.11 m)
62’ Models: 3/8” dia. x 52’ long cables (10 mm x 15.85 m)
TOP TRUSS ASSEMBLY for 52' and 62'
10” PORTABLE GRAIN PUMP

Shown as Reference Only
Installation Procedures are the
Same for Both 52’ & 62’ Models

Attach Eyebolt & Cable in
the Same Manner as
Shown for the Inlet End

Attach Cable with
3/8” Cable Clamps to Tops
of Truss Sides

Attach All Cross Braces
with 3/8” x 1 1/4” Bolts
and Nylon Locknuts

Attach Truss Sides with
1/2” x 1 1/2” Bolts and
Nylon Locknuts

Attach Eyebolt & Cable Attach the
Same on the Discharge End

5/8” Non-Lock Nuts
and Flat Washer

5/8” Eyebolt

Cable Lengths (Truss Assembly)
52’ Models – 3/8” dia. x 43’ long
(10 mm x 13.11 m)
62’ Models – 3/8” dia. x 52’ long
(10 mm x 15.85 m)

Position U-Bolts
Against the Loose End
of the Cable

Bottom
Truss Anchor

Truss Side
32” (813 mm)

Truss Cross Brace
28” (711 mm)
**TOP TRUSS ASSEMBLY for 72’ and 82’**

**10” PORTABLE GRAIN PUMP**

1. Loosely bolt the truss sides to the mounting brackets welded to the tube sections. Attach the shorter truss sides [32” long (81.3 cm)] to the brackets located at the inlet and discharge ends of the conveyor. Attach the taller truss sides [43” long (1.09 m)] to the middle mounting brackets. Secure each truss side using two 1/2” x 1 1/2” bolts, and nylon locknuts.

2. Bolt the truss crossbraces between the truss sides and secure using two 3/8” x 1 1/4” bolts and nylon locknuts. Use one 28” long crossbrace on the inlet and discharge end truss sides, and use two crossbraces [24” & 36” long (61.0 cm & 91.4 cm)] for the middle truss.

3. Tighten the truss hardware.

4. Install the eyebolts through the truss cable anchors located at the inlet and discharge ends of the conveyor. After the eyebolt has been inserted through the anchor, install a 5/8” flat washer and two 5/8” non-lock nuts onto the ends of the eyebolts.

5. Attach one end of each cable to the eyebolts at the discharge end of the conveyor. Secure each cable using two 3/8” cable clamps. Secure the loose end of the cable against the u-bolt portion of the cable clamp as shown in the illustration on the following page.

6. Run the cables over the truss crossbraces and to the eyebolts at the inlet end of the conveyor. Attach the cables to inside upper-part of the truss sides using the 3/8” cable clamps provided. Do Not tighten the clamps at this time.

7. Attach the cable ends to the eyebolts and pull as much slack from the cables as possible. Secure cables to the eyebolts in the same manner used for attaching the cables at the discharge end (two clamps with the u-bolt portion against the loose end of the cable).

8. Using the eyebolts, tighten the cables until they are reasonably snug. Sight down the conveyor to make sure all tube sections are straight (some adjustment can be made after the undercarriage has been installed onto the conveyor housing).

9. Tighten all cable clamps on the truss sides and make sure all truss hardware is secure. Tighten the locking nuts on the eyebolts locking them into place.

**Truss Cable Lengths:**

72’ Models: 3/8” dia. x 62’ long cables (10 mm x 18.9 m)

82’ Models: 3/8” dia. x 73’ long cables (10 mm x 22.2 m)
TOP TRUSS ASSEMBLY for 72’ and 82’
10” PORTABLE GRAIN PUMP

Shown as Reference Only
Installation procedures are the same for both 72’ & 82’ Models

Attach All Cross Braces with 3/8” x 1 1/4” Bolts and Nylon Locknuts

Attach Cable with 3/8” Cable Clamps to Tops of Truss Sides

Position U-Bolts Against the Loose End of the Cable

Use the Shorter Truss Sides at the Discharge and Inlet Ends

Attach Truss Sides with 1/2” x 1 1/2” Bolts and Nylon Locknuts

3/8” Cable

Cross Brace 28” (711 mm)

Truss Bracket

Attach Truss Sides with 1/2” x 1 1/2” Bolts and Nylon Locknuts

Attach Cable with 3/8” Cable Clamps to Tops of Truss Sides

Attach Cable with 3/8” Cable Clamps to Tops of Truss Sides

Attach Truss Sides with 1/2” x 1 1/2” Bolts and Nylon Locknuts

Attach Truss Sides with 1/2” x 1 1/2” Bolts and Nylon Locknuts

Attach Cable with 3/8” Cable Clamps to Tops of Truss Sides

Attach Truss Sides with 1/2” x 1 1/2” Bolts and Nylon Locknuts

Attach Cable with 3/8” Cable Clamps to Tops of Truss Sides

Attach Cable with 3/8” Cable Clamps to Tops of Truss Sides

Cable Lengths (Truss Assembly)
72’ Models – 3/8” dia. x 62’ long (10 mm x 18.90 m)
82’ Models – 3/8” dia. x 73’ long (10 mm x 22.25 m)
UNDERCARRIAGE TROLLEY
& TROLLEY STOP ASSEMBLY

CAUTION! When initially installed, the trolley will roll freely on the tracks and can create pinch points and/or a crushing hazard. To prevent personal injury, secure trolley from rolling after installation onto the tracks.

1. At the inlet end of the tracks, position the lower trolley stop as shown in Fig. 23 below. Secure using four 1/2" x 1 1/4" bolts, flat washers and nylon locknuts. The lower stop will bolt to the tracks in the same manner for all Models.

2. Position the trolley at the discharge end of the tracks with the trolley pulley facing towards the inlet end of the conveyor (42', 52' & 62' Models have rollers in front of the pulley, the same principle applies, pulley facing towards inlet end). Slide the trolley on far enough so it does not interfere with the installation of the upper trolley stop. Use vise-grips, tie-down straps or any similar method to hold the trolley in place while the stops are being installed.

3. Bolt the upper trolley stop to the discharge end of the track using four 1/2" x 1 1/4" bolts, flat washers and nylon locknuts (See Fig. 24). The upper trolley stop will bolt to the tracks in the same manner for all Models.

---

**Fig. 23**

**Fig. 24**
**CHAIN & PADDLE INSTALLATION**

(48 pitch chain lengths)

The chain and paddles come pre-assembled from the factory in 10'-5 1/4" (3.18 m) lengths (some lengths may be shorter depending on the model).

The model number of the chain is stamped on the side of the chain links, make sure all of the conveyor chain is the same type. The conveyor models listed in this manual use the 81XHH Chain and 1/2" (13 mm) thick UHMW paddles.

Install the chain so the paddle mounting bracket will be behind the paddle as grain is moved up the tube.

Be careful not to twist the conveyor chain when feeding it through the tube housing. To check for twisted conveyor chain, place a light source at the inlet section and look into the tube housing from the discharge end.

1. Assemble the sections of conveyor chain together using the connecting links and cotter pins provided (if necessary, a half link is also provided).
2. The chain and paddles will be inserted into the tube housing from the discharge end of the conveyor. Route the chain down the lower tube housing first, around the tail sprocket (at inlet end), then through the upper tube housing.
3. Bolt the head section onto the housing using the connecting band and appropriate hardware.
4. Route the chain & paddles around the head sprocket and join the chains together with the connecting link and cotter pins.
5. Adjust chain tension as outlined on Page 25 in the maintenance section of this manual (it may be necessary to shorten the chain to obtain the correct length).
6. Check the sprockets at the inlet and discharge ends to see if centered in housing. Also check the setscrews in the sprocket hubs to make sure they are tight against the sprocket shaft.

Use illustration below if paddle replacement is needed. Torque to 15 to 20 ft. lbs. (20.1 - 26.8 N-m). Excessive tightening can deform paddles.
LOWER UNDERCARRIAGE MOUNT, WINCH MOUNT w/ LOWER PULLEY and WINCH ASSEMBLY

Electric and hydraulic winch mount in the same location in the same manner.

1. Attach the lower undercarriage mount to the conveyor using the mount bracket that is closest to the inlet end (See illustration below). Bolt the mount to the bracket using six 5/8” x 1 1/2” bolts and nylon lock nuts (it will be easiest to insert the middle bolts from the bottom, and the upper and lower bolts from the top).

2. Fasten the winch mount onto the mount bracket closest to the discharge end (position the winch mount so that the pulley assembly is facing towards the discharge end). Bolt the winch mount to the bracket using six 5/8” x 1 1/2” bolts and nylon lock nuts. Again, it will be easiest to insert the middle bolts from the bottom, and the upper and lower bolts from the top.

3. Remove the shipping bolts from the winch assembly. Fasten the winch assembly to the mount using six 1/2” x 2 1/2” bolts and nylon lock nuts.

4. Position the hydraulic winch so that the hydraulic relief valve is facing toward the inlet end of the conveyor. Position the electric winch with the belt guard facing the inlet end of conveyor. Fasten the winch assembly to the winch mount using six 1/2” x 2 1/2” bolts and nylon lock nuts.

5. For 72’ & 82’ Models, slide the cable clevis over the anchor pipe on front of the winch mount and install the 1/4” x 3” cotter pin (See illustration below). Insert the spacer bushing into the cable pulley and slide one 1 1/2” spacer washer over the bushing on each side of the pulley. Install this assembly into the end of the clevis and secure using a 1” x 3 1/2” long bolt and nylon locknut. (NOTE: Install the bolt with the head of the bolt facing down and against the tab welded to the clevis. This is necessary for cable clearance). The 42’, 52’ & 62’ Models do not use the clevis and pulley, but installation of the undercarriage and winch mounts are the same as shown.
HYDRAULIC HOSE ASSEMBLY

WARNING! Hydraulic systems are highly pressurized. Do Not connect or disconnect hydraulic components when there is pressure within the system.

Escaping hydraulic oil, even an invisible pin hole leak can penetrate body tissues and cause serious injury.

Use a piece of wood or cardboard when searching for leaks, Never use your hands or other parts of your body. If injured by hydraulic oil escaping under pressure, see a doctor immediately. Serious infection or reaction can occur if medical attention is not received at once.

1. Apply a light coat of clean oil around the o-rings on the end of the hoses. From the inlet side of the undercarriage mount, insert the hoses through the mount and attach them to the relief valve on the winch (See illustration below).

2. There are hose clamp mounting brackets w/nuts welded to the lower portion of the conveyor housing. Starting at the winch end of the hose, fasten the hydraulic hoses to the conveyor housing using the provided hose clamps and 5/16" x 3/4" bolts with lock washers. (See illustration below).

3. Continue working towards the inlet end securing the hoses to the brackets. Make sure not to twist or kink the hoses, let them uncoil in their natural shape.

At the inlet hopper, loosen the nut that is holding down the hose clamp bracket on the upper rear bolt of the four hole flange bearing. Insert the hoses under the bracket, and retighten the nut.

Secure the hose ends out of the way while the remaining assembly procedures are being performed (damage to the hoses and/or hose ends can occur if they are not moved out of the way).
**UNDERCARRIAGE ASSEMBLY**

When assembling the undercarriage, leave all bolts loose until all components of the undercarriage have been installed. Refer to the illustration on Page 43 for assistance with the assembly process and parts identification. The instructions below will show a reference number in parenthesis ( ), this number refers to the item shown in the assembly illustration shown on Page 43.

1. Bolt the axle (Ref. 1) to the lower arms (Ref. 2 & 3) using six 5/8” x 2” bolts and nylon locknuts. **NOTE:** The lower arms will bolt on the inside of the axle plate (position axle so the reflective decals face up).

2. Install the longer X-brace tubes (Ref. 4) to the lower arms and secure using four 1/2” x 1 1/2” bolts, flat washers and nylon locknuts. **NOTE:** All X-braces have a hole near the center of the tube but is offset to one end, this hole should be positioned towards the narrow end of the undercarriage (X-brace dimensions are shown below).

   Bolt the X-brace tubes together using one 1/2” x 3 1/4” bolt, flat washer and nylon locknut.

3. Attach the upper lift arms (Ref. 5 & 6) to the lower arms (Ref. 2 & 3). Secure each arm using one 1” x 3” bolt, flat washer, spacer bushing (Ref. 7) and nylon locknut, See Detail “A” (the bolt is inserted from the inside of the lower arms, the bushing used is 1 1/2” O.D. x 1 1/16” I.D. x 11/16” long).

4. Bolt the shorter X-brace tubes (Ref. 8) to the upper lift arms using four 1/2” x 1 1/2” bolts, flat washers and nylon locknuts. Make sure to position the offset hole towards the narrow end of the arms (X-brace dimensions are shown below).

   Bolt the X-brace tubes together using one 1/2” x 3 1/4” bolt, flat washer and nylon locknut.

5. Attach the connecting brace tube (Ref. 9) to the bottom side of the lower arms as shown in Detail “A” on the following page. Secure using two 1/2” x 1 1/2” bolts and nylon locknuts. **IMPORTANT! The connecting tube MUST be installed on the BOTTOM side of the lower arms as shown in Detail “A” on Page 43 (dimensions for connecting tube are shown below).**

6. Position the conveyor housing over the undercarriage. The trolley should be against the upper trolley stop and strapped to prevent it from rolling, if not, do so at this time. Install the 7 5/8” long bushing (Ref. 10) into the trolley and position the trolley between the upper arms (See illustration on Page 43).

   Secure the trolley using one 1” x 11” bolt, two flat washers and one nylon locknut.

7. Tighten all bolts in the upper arm assembly, including the bolts that connect the upper and lower arms together.

8. Raise the conveyor with a hoist at a point approximately two-thirds of the distance towards the discharge end (raise the conveyor only high enough to allow the undercarriage to be bolted to the undercarriage mount attached to mount welded to the conveyor housing, See Detail “B” on Page 43).

9. Secure arms and bracket to the conveyor mount using two 1” x 3” bolts, bushings (Ref. 11), flat washers and nylon locknuts. The bushing goes inside the holes of the support bracket and lower lift arm ears. The flat washer goes under the head of the bolt with the bolt head on the outside, the nylon locknut on the inside, See Detail “B” on Page 43 (the bushing dimensions are, 1 1/2” O.D. x 1 1/16” I.D. x 15/16” long).

10. Install the cross stiffener (Ref. 12) between the lower undercarriage arms as shown on Page 43. Use the end plates (Ref. 13) and eight 1/2” x 5 1/2” bolts and nylon locknuts to secure the cross stiffener. Position the stiffener so each end contacts the undercarriage arms and bolt into place.

11. Install the reflector brackets (Ref 14) to the lower arms (near the axle) using two 5/16” x 1” bolts and nylon locknuts.

12. Tighten all lower arms assembly bolts and remove temporary strap from trolley.

**Cross Braces & Connecting Tube**

<table>
<thead>
<tr>
<th>Item</th>
<th>42’ Models – 81 1/2” lg (2.07 m)</th>
<th>52’ Models – 83 5/8” lg (2.12 m)</th>
<th>62’ Models – 85 3/4” lg (2.18 m)</th>
<th>72’ Models – 103 3/4” lg (2.64 m)</th>
<th>82’ Models – 99 3/4” lg (2.53 m)</th>
<th>42’ Models – 70 7/8” lg (1.80 m)</th>
<th>52’ Models – 75” lg (1.91 m)</th>
<th>62’ Models – 80 1/2” lg (2.04 m)</th>
<th>72’ Models – 95 3/4” lg (2.43 m)</th>
<th>82’ Models – 95 1/4” lg (2.42 m)</th>
<th>42’ Models – 85 1/16” lg (2.16 m)</th>
<th>52’ Models – 90 1/4” lg (2.29 m)</th>
<th>62’ Models – 91 1/4” lg (2.32 m)</th>
<th>72’ Models – 113 1/2” lg (2.88 m)</th>
<th>82’ Models – 114 1/2” lg (2.91 m)</th>
</tr>
</thead>
</table>

When assembling the undercarriage, leave all bolts loose until all components of the undercarriage have been installed. Refer to the illustration on Page 43 for assistance with the assembly process and parts identification.
NOTE: Connecting Tube (Item 9) Bolts to the Bottom Side of the Lower Arm

1/2" x 2" Bolt and Nylon Locknut

1" x 3" Bolt, Flat Washer, Spacer and Nylon Locknut

1/2" x 1 1/2" Bolt and Nylon Locknut

1/2" x 3 1/4" Bolt and Nylon Locknut

1/2" x 1 1/2" Bolt, Flat Washer and Nylon Locknut

5/16" x 1" Bolt and Nylon Locknut

1" x 11" Bolt and Nylon Locknut

1/2" x 1 1/2" Bolt, Flat Washer and Nylon Locknut

1/2" x 5 1/2" Bolt & Nylon Locknut

When installing axle, make sure reflective decals are facing up.

Trolley is already installed onto the tracks, shown here for reference only.

Inlet End of Conveyor

Connects to Mount on Conveyor Housing

1" x 3" Bolt, Flat Washer, Spacer & Nylon Locknut

Detail “A”

Detail “B”
**HUB & TIRE ASSEMBLY**

**Assemble Hub**

The 82’ Models already have the hubs mounted to the axles. Use the following procedures for assembling the hubs to the axles of the 42’, 52’, 62’ & 72’ Models.

The hub is shipped with the bearing cups already installed. The remaining parts will need to be assembled as detailed below.

When assembling the heavy duty bearing hub, use a good quality axle bearing grease to pack the bearing with. Pack both bearings with grease and fill the hub cavity one-third full.

Place the inner bearing into the hub, and install seal. Carefully install the hub onto the spindle (when placing hub on spindle, be careful not to damage the lip of the grease seal).

Install outer bearing into the hub and onto the spindle. Slide flat washer on and install slotted (castle) nut. Tighten the slotted nut to seat the bearings until the hub begins to bind as you rotate it. Back off the slotted nut to the next slot and install the 5/32” x 1 1/4” long cotter pin. Install the dust cap.

![Diagram of Hub and Tires](image)

**Mount Tires**

CAUTION! When raising the conveyor axle, Do Not rely solely on hydraulic or mechanical jacks for support. Use appropriate jack stands or equivalent for supporting the unit.

Raise one side of the conveyor axle at a time. Place appropriate supports beneath the axle.

Mount the tire to the hub (valve stem to outside) and secure with the provided lug bolts.

Repeat procedures on opposite side of axle.

Ensure the tire pressure is correct. Use the rating stated on the tire for proper pressure.

![Diagram of Tire and Rim Assembly](image)
**INSTALL WINCH CABLE**

**42', 52' & 62' MODELS**

1. Attach cable to the winch drum. Make sure there are a minimum of three (3) wraps of cable around the winch drum, then pass the free end of the cable through the small opening in the drum. Lock the cable to the drum by tightening the cable anchor setscrew (See illustration below). Make sure cable will wind onto the top of the winch drum as the conveyor is being raised.

2. The cable may be too stiff to pass through the rollers and around the pulley on the trolley. If necessary, remove the four bolts securing the roller assembly to the trolley. Route cable through rollers, around pulley and back through the rollers. Reinstall the roller assembly and secure using the hardware previously removed (make sure the cable passes between the pulley and the cotter pin).

Take the cable down to the winch mount and secure the cable to the anchor tube on front of the winch mount (See illustration below). Secure the cable using the two cable clamps provided (make sure the u-bolt portion of the clamp is against the loose end of the cable). Cut off any excess cable if desired.

---

**Winch Cable Routing**

42', 52' & 62' Models

- Route Down & Anchor to Winch Mount
- Route Up & Around Trolley Pulley
- Attach Cable to Anchor Tube on Winch Mount
- Winch Cable Routing (same for 42', 52' & 62' Models)

**Winch Cable Lengths**

- 42' Models – 48' lg (14.63 m)
- 52' Models – 48' lg (14.63 m)
- 62' Models – 54' lg (16.46 m)
INSTALL WINCH CABLE
72’ & 82’ MODELS

1. Attach cable to the winch drum, make sure there are a minimum of three (3) wraps of cable around the winch drum. Pass the free end of the wire cable through the small opening in the drum. Lock the cable in the drum by tightening the cable anchor setscrew (See illustration below). Make sure cable will wind onto the top of the winch drum as the conveyor is being raised.

2. Route cable from the winch up and around the pulley on the trolley (ensure cable is positioned between pulley and cotter pin). Bring cable back down and around the pulley attached to the winch mount (make sure cable is between pulley and cotter pin).

Take the cable back up to the trolley and secure it to the anchor bushing in front of the trolley pulley. Secure using the two cable clamps provided (make sure the u-bolt portion of the clamp is against the loose end of the cable). Cut off any excess cable if desired.
ELECTRIC DRIVE ASSEMBLY

The unit is shipped with the electric drive motor being used on the left-hand side of the conveyor. The drive can also be switched to be used on the right-hand side depending on your application.

The following instructions refer to the drive motor being installed for use on the **left-hand side** of the conveyor. Instructions for **right-hand side** installation begins on Page 53.

1. Assemble the motor mount slides. Insert a 3/4” non-lock nut into the nut keepers and bolt to the inside of the motor slide using the nut retainer and two 3/8” x 2” bolts and nylon locknuts (See illustration below).

2. Insert a slide rod into each of the motor mount slides. Align the ends of the slide rods with the 11/16” (17 mm) dia. holes in the gusset plates welded to the inlet (make sure the end with the retaining nut and cutout is facing the discharge end of conveyor). Secure each end using a 5/8” x 1 1/2” bolt, lock washer and flat washer (See illustration below). **Note the orientation of the motor mount slides shown below, one will be vertical** (left-hand side of conveyor) **and the other will be at an angle** (right-hand side of conveyor).

3. Insert one of the threaded tightener rods partially through the 15/16” (24 mm) dia. hole located next to the slide rod hardware and install a 3/4” non-lock nut onto the threaded rod (See illustration below). Thread the nut on until the tightener rod can be threaded into the nut installed into the nut retainer on the motor mount slide. Adjustment will be made later when the motor is installed. Repeat procedure for other motor slide.
Install Motor Mount Plate

1. Position the motor mount plate down on top of the motor mount slides previously installed (the slides should be on the inside of the motor mount plate attachments, See Illustrations below).

   Secure the motor mount plate using six 1/2” x 1 1/4” bolts and nylon locknuts.

All Motor Mount Plate Hardware:
1/2” x 1 1/4” Bolts & 1/2” Nylon Locknuts
Install Belt Guard Brackets

1. Install the upper belt guard bracket to the rear gusset plate. Remove and retain the existing hardware securing the end of the motor slide rod to the gusset plate. Install the bracket as shown below, secure using the retained hardware from the motor slide and an additional 5/8" x 1 1/2" bolt, flat washer and nylon locknut. Note the hole locations in the bracket (marked “A”) for mounting to the gusset plate.

2. Locate the lower inner belt guard bracket and the outer lower belt guard bracket from the box of parts. Use the illustration below to determine mounting hole locations for each bracket.
3. Attach the lower inner bracket to the three existing bolts welded to the inlet (use the holes marked “B” shown in the illustration on the previous page). Secure the bracket using three 3/8” flat washers and 3/8” nylon locknuts. (See illustration below).

4. Bolt the outer lower bracket to the inner bracket using the holes in column “A” and row “1” as shown in the illustration on the previous page. Secure the brackets using three 3/8” x 1” bolts, flat washers and nylon locknuts (See illustration below).
Install Motor & Belt Guard

1. Install the motor onto the motor mount plate using the appropriate sized hardware (mounting hardware not furnished). It is advised to use lock washers or locknuts to secure the motor. Align the end of the motor shaft with the end of the inlet reducer gearbox shaft and tighten motor into place.

2. Install the belt guard attaching it to the upper and lower brackets using five 3/8" x 1" bolts, flat washers and nylon locknuts. Note the slotted motor cover plate on the back side of the belt guard. This plate can be adjusted so the motor shaft does not contact the belt guard, make adjustment as necessary.

Install Motor & Reducer Sheaves

The sheaves and bushings for the motor and reducer are furnished. The chart below shows the recommended sizes used to keep the conveyor operating at peak performance. The sizes shown are for use with a 60 hz. motor, contact the factory for sheave sizes if using a 50 hz. motor.
1. Install the reducer bushing onto the reducer shaft using the key provided (the key may be taped to the reducer input shaft or it may be in the bolt kit). Mount the bushing so the hub is toward the reducer.

2. Install the reducer sheave onto the bushing (leave loose so it can be aligned with the motor sheave).

3. Install the motor bushing and sheave onto the motor shaft (ensure the key is inserted properly).

4. Using a straight edge along the face of the sheaves, align the motor and reducer sheaves. Once aligned, tighten the bolts securing the sheaves to the bushings and re-check alignment. Tighten setscrews to secure bushings to the shafts.

5. Install the drive belts around the sheaves. Start at the back groove and work your way out. Tighten the belts using the threaded adjustment rods on front of the motor mount slides. Tighten threaded rods equally to ensure motor remains square. Once properly tensioned, tighten the jam nut to lock into place. Proper belt tension is approximately 9/16” (15 mm) of deflection when belts are firmly pressed in the center of the span between the two sheaves.
**ELECTRIC DRIVE ASSEMBLY**

**MOUNT MOTOR on RIGHT-HAND SIDE**

The following instructions show the procedures for mounting the drive motor onto the right-hand side of the conveyor. Since the unit is shipped with the drive on the left-hand side of the conveyor, it will be necessary to move the gearbox to the right-hand side of the inlet hopper.

The belt guard will also need to be re-assembled to match right-side operation.

Because the safety decals are applied to the conveyor for left-hand operation, it is recommended to apply new decals when switching to right-hand side operation. Safety decals can be obtained free of charge and ordered either from your Hutchinson/Mayrath dealer or directly from the factory.

---

**Mounting Motor on Right-Hand Side**

1. Remove the grate weldments and tube cover from inside the inlet hopper to allow access to the sprocket, bearing bolts and gearbox mounting bolts.

   Remove the bearing and bearing mount plate from the right side of the inlet. Use emery cloth to polish the sprocket shaft to ensure sprocket can be removed.
2. Support the gearbox so it is stable and remove the four bolts securing the reducer to the mount plate (See illustration below). Loosen the setscrews securing the sprocket to the shaft. Pull the gearbox away from the inlet and at the same time, slide the sprocket off the shaft as the gearbox is being removed (the sprocket shaft will remain attached to the gearbox). Make sure to retain the 5/8” x 3 3/4” long sprocket key.

3. Remove the gearbox mount plate and retain the hardware.

4. Remove the vent plug and bushing from the top of the gearbox and replace with a solid plug. Rotate the gearbox 180 degrees. Remove the outside solid plug on what is now the top side of the gearbox and install the bushing and vent plug (See illustration below).
ASSEMBLY INSTRUCTIONS

MOUNTING MOTOR ON RIGHT-HAND SIDE (con’t.)

5. Install the bearing plate on the left side of the inlet and the gearbox mounting plate on the right side of the inlet. Secure the mount plates using the hardware previously removed (See illustration below).

6. Install the gearbox, sliding the sprocket onto the shaft as the gearbox is being installed (ensure the sprocket key is positioned properly). Secure the gearbox to the mount plate using the four bolts and lock washers previously removed. Do Not tighten completely at this time.

7. Slide the bearing onto the shaft making sure the mounting holes line up. Secure the bearing, then tighten the four bolts securing the gearbox.

8. Align the sprocket so it is centered on the shaft and tighten the setscrews securing the sprocket to the shaft.

9. After assembling the gearbox, sprocket and bearing, re-install the grate weldments and tube cover.

Drive Assembly, Right-Hand Side

Assemble Motor Mount Slides

1. Insert a 3/4” non-lock nut into the two nut keepers and bolt to the inside of the motor slide using the nut retainer and two 3/8” x 2” bolts and nylon locknuts (See Fig. 27).
2. Insert a slide rod into each of the motor mount slides. Align the ends of the slide rods with the 11/16" (17 mm) dia. holes in the gusset plates welded to the inlet (make sure the end with the retaining nut and cutout is facing the discharge end of conveyor). Secure each end using a 5/8" x 1 1/2" bolt, lock washer and flat washer (See illustration below). Note the orientation of the motor mount slides shown below, one will be vertical (right-hand side of conveyor) and the other will be at an angle (left-hand side of conveyor).

3. Insert one of the threaded tightener rods partially through the 15/16" (24 mm) dia. hole located next to the slide rod hardware and install a 3/4" non-lock nut onto the threaded rod (See illustration below). Thread the nut on until the tightener rod can be threaded into the nut installed into the nut retainer on the motor mount slide. Adjustment will be made later when the motor is installed. Repeat procedure for other motor slide.
MOUNTING MOTOR ON RIGHT-HAND SIDE (con’t)

Install Motor Mount Plate

1. Position the motor mount plate down on top of the motor mount slides (the slides should be on the inside of the motor mount plate attachments (See illustrations below).

   Secure the motor mount plate using six 1/2” x 1 1/4” bolts and nylon locknuts.

![Diagram showing motor mount plate installation](image-url)
MOUNTING MOTOR ON RIGHT-HAND SIDE (con’t.)

Install Belt Guard Brackets

1. Install the upper belt guard bracket to the rear gusset plate located directly in front of the inlet. Remove and retain the existing hardware securing the end of the motor slide rod to the gusset plate. Install the bracket as shown below, secure using the retained hardware from the motor slide and an additional 5/8” x 1 1/2” bolt, flat washer and nylon locknut. **Note the hole locations in the bracket (marked “A”) for mounting to the gusset plate.**

2. Locate the lower inner belt guard bracket and the outer lower belt guard bracket from the box of parts. Use the illustration below to determine mounting hole locations for each bracket.

---

**Use Holes Marked “A” for:**
- Weasler 8600 Gear Reducers

**Use Holes in the Horizontal Rows Marked “1” when attaching to the Lower Inner Bracket**
- (these holes will be used with the motor mounted on either the left or right hand side of the unit)

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**Upper Belt Guard Bracket**
- 5/8” Nylon Locknut

**Existing 5/8” x 1 1/2” Bolt, Lock Washer & Flat Washer from Slide Rod**

**5/8” x 1 1/2” Bolt**

---

**Lower Inner Bracket**
- “A”
- “B”
- “A”
- “B”

**Use Holes Marked “B” to Attach Lower Inner Bracket to Existing Bolts Welded to the Inlet**

**Use Holes Marked “A” to Attach Outer Lower Bracket to Lower Inner Bracket**

**Outer Lower Bracket**
- “A”

**When Attaching Outer Lower Bracket to Lower Inner Bracket:**
- Use Holes in Column “A” for Weasler 8600 Gear Reducers

---
3. Attach the lower inner bracket to the three existing bolts welded to the inlet (use the holes marked “B” shown in the illustration on the previous page). Secure the bracket using three 3/8” flat washers and 3/8” nylon locknuts. (See illustration below).

4. Bolt the outer lower bracket to the inner bracket using the holes in column “A” and row “1” as shown in the illustration on the previous page. Secure the brackets using three 3/8” x 1” bolts, flat washers and nylon locknuts (See illustration below).
MOUNTING MOTOR ON RIGHT-HAND SIDE (con’t)

Assemble Belt Guard
The belt guard will need to be modified to make it functional for right side operation. The belt guard door has decals on both sides so it can be used for either left-hand or right-hand applications.

1. Remove the wing bolts and Tinnerman nuts from the bottom of the belt guard. Remove and retain the hinges from both the door and the belt guard panel (See illustration below).

   Remove the rear panel and retain all hardware. The rear panel has a motor cover plate attached, remove the plate and install it on the opposite side of the rear cover (See illustration below).

   Remove Hinges from Top of Belt Guard Panel and from Door
   Remove Rear Panel
   Door will be Installed on Opposite Side of Belt Guard Panels
   Remove the Motor Cover Plate and Install on Opposite Side of Rear Panel
   Remove all 4 Wing Bolts & Tinnerman Nuts
2. Install the rear panel onto the belt guard panels on the side from which the door was previously removed from (the motor cover plate should now be on the outside of the panel).

3. Install the Tinnerman nuts along the bottom of the belt guard panel in the opposite location of where they previously were.

4. Attach the hinges to the top of the belt guard panel. Secure the door to the hinges with the hinges on the inside of the door (See illustration below). The belt guard can now be installed for right side operation.

Once Fully Assembled, Belt Guard can be installed on Right Hand Side of Hopper
ELECTRIC DRIVE ASSEMBLY (con’t.)

Install Motor & Belt Guard

1. Install the motor onto the motor mount plate using the appropriate sized hardware (mounting hardware not furnished). It is advised to use lock washers or locknuts to secure the motor. Align the end of the motor shaft with the end of the inlet reducer gearbox shaft and tighten motor into place.

2. Install the belt guard attaching it to the upper and lower brackets using five 3/8" x 1" bolts, flat washers and nylon locknuts. Note the slotted motor cover plate on the back side of the belt guard. This plate can be adjusted so the motor shaft does not contact the belt guard, make adjustment as necessary.
Install Motor & Reducer Sheaves

The sheaves and bushings for the motor and reducer are furnished. The chart below shows the recommended sizes used to keep the conveyor operating at peak performance. The sizes shown are for use with a 60 hz. motor, contact the factory for sheave sizes if using a 50 hz. motor.

<table>
<thead>
<tr>
<th>Conveyor Length</th>
<th>Drive HP (kw)</th>
<th>Reducer</th>
<th>No. of Belts</th>
<th>Motor Sheave 60 hz (50 hz)</th>
<th>Motor Bushing 60 hz (50 hz)</th>
<th>Reducer Sheave 60 hz (50 hz)</th>
<th>Reducer Bushing 60 hz (50 hz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>42', 52'</td>
<td>15 to 20</td>
<td>Weasler 8100/8600</td>
<td>4</td>
<td>5.0&quot; SD (contact factory)</td>
<td>1 5/8&quot; SD (41 mm)</td>
<td>20.0&quot; SF (contact factory)</td>
<td>1 3/4&quot; SF (44 mm)</td>
</tr>
<tr>
<td></td>
<td>(11 – 15 kw)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62', 72', 82'</td>
<td>25 to 30</td>
<td>Weasler 8100/8600</td>
<td>4</td>
<td>5.0&quot; SD (contact factory)</td>
<td>1 7/8&quot; SD (48 mm)</td>
<td>20.0&quot; SF (contact factory)</td>
<td>1 3/4&quot; SF (44 mm)</td>
</tr>
<tr>
<td></td>
<td>(18.5 – 22 kw)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. Install the reducer bushing onto the reducer shaft using the key provided (the key may be taped to the reducer input shaft or it may be in the bolt kit). Mount the bushing so the hub is toward the reducer.

2. Install the reducer sheave onto the bushing (leave loose so it can be aligned with the motor sheave).

3. Install the motor bushing and sheave onto the motor shaft (ensure the key is inserted properly).

4. Using a straight edge along the face of the sheaves, align the motor and reducer sheaves. Once aligned, tighten the bolts securing the sheaves to the bushings and re-check alignment. Tighten setscrews to secure bushings to the shafts.

5. Install the drive belts around the sheaves. Start at the back groove and work your way out.

Tighten the belts using the threaded adjustment rods on front of the motor mount slides. Tighten threaded rods equally to ensure motor remains square. Once properly tensioned, tighten jam nut to lock into place.

Proper belt tension is approximately 9/16" (15 mm) of deflection when belts are firmly pressed in the center of the span between the two sheaves.
PTO DRIVE INSTALLATION
(LEFT HAND DRIVE ONLY)

1. Attach the PTO shaft support to the bracket on the inlet boot using one 3/4" x 1 1/2" bolt flat washer and nylon locknut (See illustration below).

2. Remove and discard the two bolts from the upper part of the gearbox, but retain the lock washers. Locate the 1/2" x 6 1/2" bolts and the 1" O.D. x 9/16" I.D. x 1/2" thick spacers from the bolt kit. Slide a lock washer onto the 1/2" x 6 1/2" bolts and insert the bolts through the upper mounting holes of the PTO shield hanger. Slide the spacers onto the bolts and mount hanger to the gearbox using the holes from which the existing bolts were removed.

3. Using two 1/2" x 1" bolts, flat washers and nylon locknuts, secure the PTO shield to the hanger.

4. Apply anti-seize compound to the gearbox input shaft. Connect the 1 3/4" bore end of the PTO driveline to the gearbox shaft making sure the 3/8" x 3" key is in place. Tighten the setscrews to secure the driveline to the shaft. IMPORTANT! For the setscrew in the PTO driveline yoke to be properly engaged, slide the yoke onto the shaft until the setscrew sits on the flat portion of the input shaft. Do Not extend input shaft beyond the inside of the yoke (See illustration below).

5. Remove the pin from the end of the PTO shaft support. Place the PTO driveline into the saddle and replace pin. IMPORTANT! Make sure when the conveyor is to be transported, the PTO driveline is positioned in the support saddle and the pin is properly secured. To prevent damage to the PTO driveline, the driveline should also be kept in the support saddle during storage.
INSTALL HITCH AND JACK

1. Attach the hitch to the inlet hopper and secure using the 13/16” x 11” long hitch pin and two hair pins (See illustration below). Position the hitch in one of the mounting holes and secure using the 3/4” x 4 1/2” long bent pin and hair pin (hitch position at this time is not crucial, so hitch can be positioned in any of the holes). Refer to the “Transporting Conveyor” section of this manual for positioning of the hitch during conveyor transport.

2. Install the jack. Slide the jack onto the jack mount tube on the rear of the inlet hopper. Secure using the pin attached to the jack.

The jack will be used on the inlet hopper to assist with repositioning the hitch for placement of conveyor at bin site, and moved to the end of the hitch when hitching and unhitching to/from the transport vehicle. Refer to the “Transporting Conveyor” section in this manual.
**HOPPER INSTALLATION**  
*(TALL HOPPER EXTENSION)*

1. Loosely attach the hopper end panels to the inside of the hopper using 5/16” x 1” bolts, flat washers and nylon locknuts (the flanges on the sides of the panels should be facing each other (See illustration below).

2. Using 5/16” x 1” bolts, flat washers and nylon locknuts, loosely attach the hopper side panels to the flanges on top of the inlet hopper (the vertical flanges on the end panels should be inside the side panels).

3. Attach the side panels to the end panels using 5/16” x 1” bolts, flat washers and nylon locknuts. Tighten all hardware beginning at the inlet hopper, then the side-to-end panels.

4. The hopper cover should be in place whenever the conveyor is not in use. Attach the cover using 5/16” x 1” bolts, flat washers and nylon locknuts.

Multiple hopper extensions can be added together to gain hopper height, Refer to Page 68 for details.

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**Diagram:**
- Hopper Cover
- Tall Hopper End Panel
- Tall Hopper Side Panel
- Hopper Cover, Side Panels and End Panels all Attach using 5/16” x 1” Bolts, Flat Washers & Nylon Locknuts
**HOPPER INSTALLATION**

**(TAPERED HOPPER EXTENSION)**

1. Loosely attach the hopper end panels to the inside of the hopper using 5/16” x 1” bolts, flat washers and nylon locknuts (the flanges on the sides of the panels should be facing each other (See illustration below).
2. Using 5/16” x 1” bolts, flat washers and nylon locknuts, loosely attach the hopper side panels to the flanges on top of the inlet hopper (the vertical flanges on the end panels should be inside the side panels).
3. Attach the side panels to the end panels using 5/16” x 1” bolts, flat washers and nylon locknuts. Tighten all hardware beginning at the inlet hopper, then the side-to-end panels.
4. The hopper cover should be in place whenever the conveyor is not in use. Attach the cover using 5/16” x 1” bolts, flat washers and nylon locknuts.

**Tapered hopper extensions can be stacked on top of tall hopper panels, Refer to Page 68 for details.**
**HOPPER INSTALLATION**  
*(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 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.

Mounting hardware is the same as used when installing the hopper extensions (5/16” x 1” bolts, flat washers and nylon locknuts).

If stacking additional hopper extensions, attach the bottom of the additional extension panels to the top flange on the existing hopper panels, keeping the end panels to the inside of the hopper.
PARTS LIST TABLE OF CONTENT

Note: All parts shown in the following Parts List pages are used for the 10” x 42’, 52’, 62’, 72’ & 82’ Portable Grain Pump Models unless otherwise indicated.

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Main Conveyor Components ......................................................... P-4 to P-5
   Housing Sections & Connecting Bands ...................................... P-4
   Tracks ......................................................................................... P-4
   Truss & Truss Cable, 52’, 62’, 72’ & 82’ Models ......................... P-5
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Tapered Hopper Extensions ....................................................... P-16
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## DECALS & SAFETY SIGNS

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>1012872</td>
<td>Danger Decal, Do Not Operate...</td>
</tr>
<tr>
<td>2</td>
<td>1002301</td>
<td>Caution Decal, General Operator’s</td>
</tr>
<tr>
<td>3</td>
<td>1002311</td>
<td>Danger Decal, Moving Chain...</td>
</tr>
<tr>
<td>4</td>
<td>1005324</td>
<td>Danger Decal, Missing Guards</td>
</tr>
<tr>
<td>5</td>
<td>1001974</td>
<td>Warning Decal, Escaping Hydraulic</td>
</tr>
<tr>
<td>6</td>
<td>1001973</td>
<td>Caution Decal, General Statement</td>
</tr>
<tr>
<td>7</td>
<td>1001980</td>
<td>Danger Decal, Electrocution...</td>
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<tr>
<td>8</td>
<td>1001981</td>
<td>Danger Decal, Upending Hazard</td>
</tr>
<tr>
<td>9</td>
<td>1001975</td>
<td>Warning Decal, Transport Width</td>
</tr>
<tr>
<td>10</td>
<td>1001984</td>
<td>Danger Decal, Do Not Attempt...</td>
</tr>
<tr>
<td>11</td>
<td>1021180</td>
<td>Reflective Decal, Yellow</td>
</tr>
<tr>
<td>12</td>
<td>1021179</td>
<td>Reflective Decal, Red</td>
</tr>
<tr>
<td>13</td>
<td>1021181</td>
<td>Reflective Decal, Red/Orange</td>
</tr>
<tr>
<td>14</td>
<td>1041833</td>
<td>Decal, Made in the Heart...</td>
</tr>
<tr>
<td>15</td>
<td>1001127</td>
<td>Decal, Hutchinson</td>
</tr>
</tbody>
</table>
# WIDE INLET BOOT COMPONENTS

Ref. | Part No. | Description |
--- | --- | --- |
1 | 1041181 | Wide Inlet Boot Weldment |
2 | 1040331 | Grate f/ Wide Inlet Boot |
3 | 1040261 | Tube Cover f/ Wide Inlet Boot |
4 | 1031082-1 | Reducer, Weasler 8600, 4:1 |
5 | 1039191 | Shaft, f/ Wide Inlet Boot |
6 | 1040257 | Plate, Reducer Mount |
7 | 420062 | Sprocket, 81C 14 tooth |
8 | 1040678 | Plate, Bearing Mount |
9 | 3090L1 | Bearing, 4-Hole 2 7/16” bore |
10 | 1002301 | Caution Decal, General Operator |

<table>
<thead>
<tr>
<th>Ref.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
</table>
11 | 1012872 | Danger Decal, Do Not Operate |
12 | 1004738 | Door, Inlet Hopper |
13 | 1031448 | Bracket, Hydraulic Hose Clamp |
14 | 53060 | Key, 5/8” x 3 3/4” long |
15 | 1031921 | Key, 5/8” x 5 1/4” long |
16 | 1041833 | Decal, Made in the Heart... |
17 | 33110 | Bolt, 3/4"-10 x 2" |
18 | D1153 | Washer, 3/4" Lock |
19 | 1031922 | Washer, 3 1/2" O.D. Flat |
20 | 1002311 | Danger Decal, Moving Chain |

Item No. 3 (Tube Cover) is attached using:
- 4701-1 – 5/16" x 3/4" Bolts, 33144 – 5/16" Lock Washers, 33023 – 5/16" Flat Washers

Item No. 4 (Reducer) is attached using:
- 1031908 – 1/2" x 6" Bolts, D1143 – 1/2" Lock Washers

Item No’s. 6 & 8 (Mounting Plates) are attached using:

Item No. 9 (Bearing) is attached using:
- 33244 – 5/8” x 2” Bolts, 33139 – 5/8” Nylon Locknuts

Item No. 12 (Inlet Hopper Door) is attached using:
MAIN CONVEYOR COMPONENTS

42' Model

52' Model

See Detail "A"

See Detail "B"

See Detail "C"

62' Model

See Detail "A"

See Detail "B"

See Detail "C"

72' Model

See Detail "A"

See Detail "B"

See Detail "C"

82' Model

See Detail "A"

See Detail "B"

See Detail "C"

Same Items as in Detail "C"
## MAIN CONVEYOR COMPONENTS (con’t)

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>1041180</td>
<td>Wide Inlet Boot (All Models)</td>
<td>(8)</td>
<td>1045517</td>
<td>Upper Tube Housing f/ 62' 20' (6.10 m) long</td>
</tr>
<tr>
<td>2</td>
<td>1045513</td>
<td>Main Tube Housing f/ 42' 30' (9.14 m) long</td>
<td>(8)</td>
<td>1031204</td>
<td>Upper Tube Housing f/ 72' 30' (9.14 m) long</td>
</tr>
<tr>
<td>3</td>
<td>1030984</td>
<td>Head Assembly (All Models)</td>
<td>(8)</td>
<td>1030836</td>
<td>Middle Tube Housing f/ 82' 30' (9.14 m) long</td>
</tr>
<tr>
<td>4</td>
<td>1045518</td>
<td>Left track f/ 42' Models</td>
<td>9</td>
<td>552752</td>
<td>Truss Cable f/ 52' Models 3/8&quot; x 43' (10 mm x 13.11 m)</td>
</tr>
<tr>
<td>(4)</td>
<td>1045519</td>
<td>Right Track f/ 42' Models</td>
<td>(9)</td>
<td>1021087</td>
<td>Truss Cable f/ 62' Models 3/8&quot; x 52' (10 mm x 15.85 m)</td>
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<tr>
<td>4</td>
<td>1045520</td>
<td>Left Track f/ 52' Models</td>
<td>(9)</td>
<td>1031209</td>
<td>Truss Cable f/ 72' Models 3/8&quot; x 62' (10 mm x 18.9 m)</td>
</tr>
<tr>
<td>(4)</td>
<td>1045521</td>
<td>Right Track f/ 52' Models</td>
<td>(9)</td>
<td>1031183</td>
<td>Truss Cable f/ 82' Models 3/8&quot; x 73' (10 mm x 22.2 m)</td>
</tr>
<tr>
<td>4</td>
<td>1045522</td>
<td>Left Track f/ 62' Models</td>
<td>10</td>
<td>1030794</td>
<td>Upper Tube Housing f/ 82' 3/8&quot; x 82' (21.34 m)</td>
</tr>
<tr>
<td></td>
<td>1045523</td>
<td>Right Track f/ 62' Models</td>
<td>11</td>
<td>106398</td>
<td>Truss Crossbrace, 28&quot; (711 mm)</td>
</tr>
<tr>
<td>(4)</td>
<td>1034276</td>
<td>Left Track f/ 72' Models</td>
<td>12</td>
<td>106399</td>
<td>Truss Side, 32&quot; (813 mm)</td>
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<tr>
<td>(4)</td>
<td>1034277</td>
<td>Right Track f/ 72' Models</td>
<td>13</td>
<td>1011211</td>
<td>Truss Crossbrace, 24&quot; (610 mm)</td>
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<tr>
<td>(4)</td>
<td>1034278</td>
<td>Left Track f/ 82' Models</td>
<td>14</td>
<td>1011200</td>
<td>Truss Side, 43&quot; (1.00 m)</td>
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<tr>
<td>(4)</td>
<td>1034279</td>
<td>Right Track f/ 82' Models</td>
<td>15</td>
<td>1011201</td>
<td>Truss Crossbrace, 36&quot; (914 mm)</td>
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<tr>
<td>5</td>
<td>1012D</td>
<td>Connecting Band, 10&quot;</td>
<td>16</td>
<td>866015-1</td>
<td>Eyebolt, 5/8&quot; x 11&quot;</td>
</tr>
<tr>
<td>6</td>
<td>630930</td>
<td>Connecting Rod, 1/2&quot; x 33 1/2&quot;</td>
<td>17</td>
<td>3010L11</td>
<td>Clamp, 3/8&quot; Cable</td>
</tr>
<tr>
<td>7</td>
<td>1045514</td>
<td>Lower Tube Housing f/ 52' 30' (9.14 m) long</td>
<td>18</td>
<td>D1170</td>
<td>Nut, 5/8&quot; Non-Lock</td>
</tr>
<tr>
<td>(7)</td>
<td>1045516</td>
<td>Lower Tube Housing f/ 62' 30' (9.14 m) long</td>
<td>19</td>
<td>33026</td>
<td>Washer, 5/8&quot; Flat</td>
</tr>
<tr>
<td>(7)</td>
<td>1031192</td>
<td>Lower Tube Housing f/ 72' 30' (9.14 m) long</td>
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<tr>
<td>(7)</td>
<td>1030830</td>
<td>Lower Tube Housing f/ 82' 30' (9.14 m) long</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>1045515</td>
<td>Upper Tube Housing f/ 52' 10' (3.05 m) long</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

**Track Lengths:**

- 42' Models - 160" (4.06 m)
- 52' Models - 200" (5.08 m)
- 62' Models - 260" (6.60 m)
- 72' Models - 260" (6.60 m)
- 82' Models - 320" (8.13 m)

See Page P-3 for Wide Inlet Boot Components
See Page P-6 for Head Assembly Components
HEAD ASSEMBLY COMPONENTS

HEAD ASSEMBLY

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1029593</td>
<td>Head Weldment, 10” Grain Pump</td>
</tr>
<tr>
<td>2</td>
<td>1030986</td>
<td>Shaft, 2 7/16” Sprocket</td>
</tr>
<tr>
<td>3</td>
<td>420062</td>
<td>Sprocket, 81C 14 tooth, 2 7/16” bore</td>
</tr>
<tr>
<td>4</td>
<td>3090L1</td>
<td>Bearing, 4-Hole Flange, 2 7/16” bore</td>
</tr>
<tr>
<td>5</td>
<td>1030983</td>
<td>Take-Up Plate Weldment</td>
</tr>
<tr>
<td>6</td>
<td>1029597</td>
<td>Bolt, Adjustment</td>
</tr>
<tr>
<td>(6)</td>
<td>D1152</td>
<td>Nut, 3/4” Non-Lock</td>
</tr>
<tr>
<td>7</td>
<td>90040</td>
<td>Fastener, Quick Release</td>
</tr>
<tr>
<td>8</td>
<td>1021180</td>
<td>Decal, Yellow Reflective</td>
</tr>
<tr>
<td>9</td>
<td>53060</td>
<td>Key, 5/8” sq. x 3 3/4” long</td>
</tr>
</tbody>
</table>

Item No. 4 (Bearing) is attached using:

Item No. 7 (Quick Release Fastener) is attached using:
1029728 – #8 x 3/4” Screws, 1029737 – #8 Flat Washers, 4501 – #8 Lock Washers, 4001 – #8 Non-Lock Nuts

Item No. 5 (Take-Up Plate) is attached using:
1002243 – 1/2” x 1 1/2” Carriage Bolts, 33025 – 1/2” Flat Washers, D1143 – 1/2” Lock Washers, D1169 – 1/2” Non-Lock Nuts

CHAIN & PADDLES COMPONENTS

CHAIN & PADDLES

The Chain & Paddles are shipped pre-assembled from the factory in 10’-5 1/4” (3.18 m) lengths. To obtain complete assembly order Part No. 1042404

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1031431</td>
<td>Paddle, 1/2” thick UHMW</td>
</tr>
<tr>
<td>2</td>
<td>1038008</td>
<td>Chain w/ Brackets, 81XHH 10’-5 1/4” (3.18 m) lg, 48 pitch</td>
</tr>
<tr>
<td>3</td>
<td>1017077</td>
<td>Connecting Link (f/ 81XHH Chain)</td>
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<tr>
<td>*</td>
<td>1034495</td>
<td>Half Link f/ 81XHH Chain</td>
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<tr>
<td>4</td>
<td>4736</td>
<td>Bolt, 5/16”-18 x 1 1/2”</td>
</tr>
<tr>
<td>5</td>
<td>33023</td>
<td>Washer, 5/16” Flat</td>
</tr>
<tr>
<td>6</td>
<td>33135</td>
<td>Nut, 5/16”-18 Nylon Lock</td>
</tr>
</tbody>
</table>

* Not Shown

Torque to 15 - 20 ft. lbs. (20.1 – 26.8 N-m)

Direction of Grain Movement
### HUB ASSEMBLY

**42’, 52’, 62’ & 72’ MODELS**

![HUB ASSEMBLY Diagram]

<table>
<thead>
<tr>
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<th>Part No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1033876</td>
<td>Spindle (weld-in)</td>
</tr>
<tr>
<td>2</td>
<td>1026088</td>
<td>Grease Seal</td>
</tr>
<tr>
<td>3</td>
<td>1026089</td>
<td>Inner Cone (Timken No. JL69349)</td>
</tr>
<tr>
<td>4</td>
<td>1026090</td>
<td>Inner Cup (Timken No. JLM506810)</td>
</tr>
<tr>
<td>5</td>
<td>1025911</td>
<td>Hub (furnished with items 4 &amp; 6)</td>
</tr>
<tr>
<td>6</td>
<td>3148R1</td>
<td>Outer Cup (Timken No. 67010)</td>
</tr>
<tr>
<td>7</td>
<td>3079R1</td>
<td>Outer Cone (Timken No. LM67048)</td>
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<tr>
<td>8</td>
<td>106241</td>
<td>Lug Bolt, 1/2”-20 x 1”</td>
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<td>9</td>
<td>D1148</td>
<td>Flat Washer</td>
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<tr>
<td>10</td>
<td>D1147</td>
<td>Slotted Hex Nut (castle nut)</td>
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<tr>
<td>11</td>
<td>107230</td>
<td>Cotter Pin, 5/32” x 1 3/4”</td>
</tr>
<tr>
<td>12</td>
<td>107234</td>
<td>Dust Cover f/ Hub</td>
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</table>

### PTO DRIVELINE & COMPONENTS

**PTO DRIVELINE**

![PTO DRIVELINE Diagram]

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>1031926</td>
<td>PTO Driveline, 35R x 1 3/4” bore</td>
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<tr>
<td>2</td>
<td>1041252</td>
<td>Support, PTO Shaft</td>
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<tr>
<td>3</td>
<td>1031925</td>
<td>Hanger, PTO Shield</td>
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<tr>
<td>4</td>
<td>1031967</td>
<td>Shield f/ PTO</td>
</tr>
<tr>
<td>5</td>
<td>1031970</td>
<td>Spacer, 1” O.D. x 1/2” long</td>
</tr>
<tr>
<td>6</td>
<td>1031978</td>
<td>Bolt, 1/2”-13 x 6 1/2”</td>
</tr>
<tr>
<td>7</td>
<td>4073A1</td>
<td>Key, 3/8” sq. x 3” long</td>
</tr>
</tbody>
</table>

Apply Anti-Seize to Gearbox Shaft
NOTE: Connecting Tube (Item 9) Bolts to the Bottom Side of the Lower Arm

When installing axle, make sure reflective decals are facing up.

Inlet End of Conveyor
### UNDERCARRIAGE COMPONENTS

All items shown are used on All Models unless otherwise noted.

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1021382</td>
<td>Axle f/ 42', 52' &amp; 62' Models 126 3/4&quot; (3.22 m) long</td>
<td>(5)</td>
<td>1032404</td>
<td>Upper Arm f/ 52' Models 190 7/16&quot; (4.84 m) long</td>
</tr>
<tr>
<td></td>
<td>(1) 1021383</td>
<td>Axle f/ 72' Models 150 3/4&quot; (3.83 m) long</td>
<td>(5)</td>
<td>1019207</td>
<td>Upper Arm f/ 62' Models 219 5/32&quot; (5.57 m) long</td>
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<tr>
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<td>(1) 1034148</td>
<td>Axle, Collapsible, f/ 82' Models (See Page P-10 for components)</td>
<td>(5)</td>
<td>1018360</td>
<td>Upper Arm f/ 72' Models 236&quot; (5.97 m) long</td>
</tr>
<tr>
<td>2</td>
<td>1046732</td>
<td>Lower Arm (left) f/ 42' Models 132 5/16&quot; (3.36 m) long</td>
<td>(5)</td>
<td>1033971</td>
<td>Upper Arm f/ 82' Models 270&quot; (6.86 m) long</td>
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<tr>
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<td>(2) 1032402</td>
<td>Lower Arm (left) f/ 52' Models 188 1/16&quot; (4.78 m) long</td>
<td>(6)</td>
<td>1021065</td>
<td>Bushing (1 1/2&quot; OD x 11/16&quot; long)</td>
</tr>
<tr>
<td></td>
<td>(2) 1019204</td>
<td>Lower Arm (left) f/ 62' Models 206 1/2&quot; (5.25 m) long</td>
<td>(7)</td>
<td>1046749</td>
<td>Upper Arm X-Brace Tube f/ 42' 70 7/8&quot; (1.80 m) long</td>
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<tr>
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<td>(2) 1018362</td>
<td>Lower Arm (left) f/ 72' Models 230 1/4&quot; (5.85 m) long</td>
<td>(7)</td>
<td>1032412</td>
<td>Upper Arm X-Brace Tube f/ 52' 75&quot; (1.91 m) long</td>
</tr>
<tr>
<td></td>
<td>(2) 1033937</td>
<td>Lower Arm (left) f/ 82' Models 266&quot; (6.76 m) long</td>
<td>(7)</td>
<td>1019589</td>
<td>Upper Arm X-Brace Tube f/ 62' 80 1/2&quot; (2.04 m) long</td>
</tr>
<tr>
<td>3</td>
<td>1046733</td>
<td>Lower Arm (right) f/ 42' Models 132 5/16&quot; (3.36 m) long</td>
<td>(7)</td>
<td>1019134</td>
<td>Upper Arm X-Brace Tube f/ 72' 95 3/4&quot; (2.43 m) long</td>
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<tr>
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<td>(3) 1032403</td>
<td>Lower Arm (right) f/ 52' Models 188 1/16&quot; (4.78 m) long</td>
<td>(7)</td>
<td>1034079</td>
<td>Upper Arm X-Brace Tube f/ 82' 95 1/4&quot; (2.42 m) long</td>
</tr>
<tr>
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<td>(3) 1019205</td>
<td>Lower Arm (right) f/ 62' Models 206 1/2&quot; (5.25 m) long</td>
<td>(8)</td>
<td>1046750</td>
<td>Connecting Tube f/ 42' 85 1/16&quot; (2.16 m) long</td>
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<tr>
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<td>(3) 1018361</td>
<td>Lower Arm (right) 72' Model 230 1/4&quot; (5.85 m) long</td>
<td>(8)</td>
<td>1032409</td>
<td>Connecting Tube f/ 52' 90 1/4&quot; (2.29 m) long</td>
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<tr>
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<td>(3) 1033938</td>
<td>Lower Arm (right) 82' Model 266&quot; (6.76 m) long</td>
<td>(8)</td>
<td>1019218</td>
<td>Connecting Tube f/ 62' 91 1/4&quot; (2.32 m) long</td>
</tr>
<tr>
<td>4</td>
<td>1046748</td>
<td>Lower Arm X-Brace Tube f/ 42' 81 1/2&quot; (2.07 m) long</td>
<td>(8)</td>
<td>1019132</td>
<td>Connecting Tube f/ 72' 113 1/2&quot; (2.88 m) long</td>
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<tr>
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<td>(4) 1032411</td>
<td>Lower Arm X-Brace Tube f/ 52' 83 5/8&quot; (2.12 m) long</td>
<td>(8)</td>
<td>1034227</td>
<td>Connecting Tube f/ 82' 114 1/2&quot; (2.91 m) long</td>
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<tr>
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<td>(4) 1019219</td>
<td>Lower Arm X-Brace Tube f/ 62' 85 3/4&quot; (2.18 m) long</td>
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<td>1020041</td>
<td>Bushing f/ Trolley (7 5/8&quot; long)</td>
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<tr>
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<td>(4) 1020015</td>
<td>Lower Arm X-Brace Tube f/ 72' 103 3/4&quot; (2.64 m) long</td>
<td>(10)</td>
<td>1021198</td>
<td>Bushing, 1 1/2 OD x 15/16&quot; long</td>
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<tr>
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<td>(4) 1033952</td>
<td>Lower Arm X-Brace Tube f/ 82' 99 3/4&quot; (2.53 m) long</td>
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<td>1046756</td>
<td>Cross Stiffener f/ 42'</td>
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<tr>
<td>5</td>
<td>1046734</td>
<td>Upper Arm f/ 42' Models 155 5/16&quot; (3.97 m) long</td>
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<td>1040958</td>
<td>Cross Stiffener f/ 52' &amp; 62'</td>
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<td>(11) 1040896</td>
<td>Cross Stiffener f/ 72'</td>
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<td>(11) 1034254</td>
<td>Cross Stiffener f/ 82'</td>
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<tr>
<td>12</td>
<td>1029094</td>
<td>End Plate</td>
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<td>13</td>
<td>1021204</td>
<td>Reflector Bracket</td>
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COLLAPSIBLE AXLE COMPONENTS
(82' MODELS ONLY)

The Complete Axle Assembly can be Obtained by Ordering Part No. 1034148
(complete axle assembly includes all parts listed below)

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1033923</td>
<td>Axle Tube f/ Collapsible Axle</td>
<td>11</td>
<td>1026088</td>
<td>Grease Seal</td>
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<tr>
<td>2</td>
<td>1021179</td>
<td>• Decal, Red Retroreflective</td>
<td>12</td>
<td>3079R1</td>
<td>Outer Cone Bearing (Timken No. LM67048)</td>
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<tr>
<td>3</td>
<td>1021181</td>
<td>• Decal, Orange Transport</td>
<td>13</td>
<td>1026089</td>
<td>Inner Cone Bearing (Timken No. JL69349)</td>
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<tr>
<td>4</td>
<td>1033842</td>
<td>Hub &amp; Axle Assembly</td>
<td>14</td>
<td>106241</td>
<td>Lug Bolt, 1/2-20 x 1 1/2”</td>
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<tr>
<td>5</td>
<td>1033649</td>
<td>Axle/Spindle Ay. w/o hub</td>
<td>15</td>
<td>D1147</td>
<td>Slotted Hex Nut (castle nut)</td>
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<tr>
<td>6</td>
<td>1033931</td>
<td>Pin Weldment f/ Collapsible Axle</td>
<td>16</td>
<td>D1148</td>
<td>Washer, 2.00” O.D. x 15/16” I.D. 8 ga.</td>
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<tr>
<td>7</td>
<td>1025911</td>
<td>Hub (furnished with cups)</td>
<td>17</td>
<td>107230</td>
<td>Cotter Pin, 5/32” x 1.75”</td>
</tr>
<tr>
<td>8</td>
<td>1026090</td>
<td>• Inner Bearing Cup (Timken No. JLM506810)</td>
<td>18</td>
<td>107234</td>
<td>Dust Cap, Wheel Hub</td>
</tr>
<tr>
<td>9</td>
<td>3148R1</td>
<td>• Outer Bearing Cup (Timken No. LM67010)</td>
<td>19</td>
<td>D1166</td>
<td>Hair Pin</td>
</tr>
<tr>
<td>10</td>
<td>1033876</td>
<td>Spindle (weld-in)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

• Indented parts names indicate these parts are included in the previous assembly.

4/15  0400110-4  1031580-P10
## TROLLEY COMPONENTS
### 42', 52' & 62' MODELS

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
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<td>1021077</td>
<td>1</td>
<td>Trolley Weldment</td>
</tr>
<tr>
<td>1021057</td>
<td>2</td>
<td>Pin, Roller (fl/ Trolley)</td>
</tr>
<tr>
<td>1021060</td>
<td>3</td>
<td>Roller Assembly</td>
</tr>
<tr>
<td>1047384</td>
<td>4</td>
<td>Guide, Trolley Roller</td>
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<tr>
<td>1047385</td>
<td>5</td>
<td>Roller Tube fl/ Trolley</td>
</tr>
<tr>
<td>1021160</td>
<td>6</td>
<td>Pulley fl/ 1/2&quot; dia. Cable</td>
</tr>
<tr>
<td>1021155</td>
<td>7</td>
<td>Clevis, Pulley</td>
</tr>
<tr>
<td>1031583</td>
<td>8</td>
<td>Spacer, 3/8&quot; thick</td>
</tr>
<tr>
<td>1021146</td>
<td>9</td>
<td>Bushing, Pulley Anchor</td>
</tr>
<tr>
<td>1021064</td>
<td>10</td>
<td>Bolt, 1&quot;-8 x 4&quot; Gr 8</td>
</tr>
<tr>
<td>1007943</td>
<td>11</td>
<td>Nut, 1&quot;-8 Nylon Lock</td>
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<tr>
<td>D1165</td>
<td>12</td>
<td>Cotter Pin, 1/4&quot; x 3&quot;</td>
</tr>
<tr>
<td>1002227</td>
<td>13</td>
<td>Bolt, 1/2&quot;-13 x 1 1/2&quot;</td>
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<tr>
<td>33025</td>
<td>14</td>
<td>Washer, 1/2&quot; Flat</td>
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<tr>
<td>33138</td>
<td>15</td>
<td>Nut, 1/2&quot;-13 Nylon Lock</td>
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<td>1047387</td>
<td>16</td>
<td>Bolt, 1/2&quot;-13 x 9&quot;</td>
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<tr>
<td>3337A1</td>
<td>17</td>
<td>Cotter Pin, 3/16&quot; x 1 1/2&quot;</td>
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### TROLLEY COMPONENTS
### 72' & 82' MODELS

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
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<td>1</td>
<td>Trolley Weldment</td>
</tr>
<tr>
<td>1021057</td>
<td>2</td>
<td>Pin, Roller (fl/ Trolley)</td>
</tr>
<tr>
<td>1021060</td>
<td>3</td>
<td>Roller Assembly</td>
</tr>
<tr>
<td>1021160</td>
<td>4</td>
<td>Pulley fl/ 1/2&quot; dia. Cable</td>
</tr>
<tr>
<td>1021146</td>
<td>5</td>
<td>Bushing, Pulley Anchor</td>
</tr>
<tr>
<td>1021064</td>
<td>6</td>
<td>Bolt, 1&quot;-8 x 4&quot; Gr 8</td>
</tr>
<tr>
<td>1031583</td>
<td>7</td>
<td>Spacer, 3/8&quot; thick</td>
</tr>
<tr>
<td>1021154</td>
<td>8</td>
<td>Clevis, Pulley</td>
</tr>
<tr>
<td>1021064</td>
<td>9</td>
<td>Bolt, 1&quot;-8 x 4&quot; Gr 8</td>
</tr>
<tr>
<td>1007943</td>
<td>10</td>
<td>Nut, 1&quot;-8 Nylon Lock</td>
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<tr>
<td>D1165</td>
<td>11</td>
<td>Cotter Pin, 1/4&quot; x 3&quot;</td>
</tr>
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</table>

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Complete Trolley Assembly, Part No. 1047408

Complete Trolley Assembly, Part No. 1021062
### WINCH LIFT COMPONENTS
#### 42', 52' & 62' MODELS

<table>
<thead>
<tr>
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<th>Part No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1039136</td>
<td>Cable, Lift f/ 42' &amp; 52' Models 1/2&quot; dia. x 48' (13 mm x 14.63 m)</td>
</tr>
<tr>
<td>(1)</td>
<td>1040439</td>
<td>Cable, Lift f/ 62' Models 1/2&quot; dia. x 54' (13 mm x 16.46 m)</td>
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<td>2</td>
<td>1031141</td>
<td>Winch Mount Weldment</td>
</tr>
<tr>
<td>3</td>
<td>1021069</td>
<td>Hydraulic Winch Complete (less covers and relief valve)</td>
</tr>
<tr>
<td>4</td>
<td>1032392</td>
<td>Bypass Relief Valve (hydr. winch)</td>
</tr>
<tr>
<td>5</td>
<td>1021242</td>
<td>Upper Guard Half (hydr. winch)</td>
</tr>
<tr>
<td>6</td>
<td>1021237</td>
<td>Lower Guard Half (hydr. winch)</td>
</tr>
<tr>
<td>7</td>
<td>1032553</td>
<td>Electric Winch, Complete</td>
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<tr>
<td>8</td>
<td>1047408</td>
<td>Trolley, Complete</td>
</tr>
<tr>
<td>9</td>
<td>1019827</td>
<td>Stop, Upper Trolley</td>
</tr>
<tr>
<td>10</td>
<td>1031146</td>
<td>Stop, Lower Trolley</td>
</tr>
<tr>
<td>11</td>
<td>1021158</td>
<td>Clamp, Cable (f/ 1/2&quot; cable)</td>
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</table>
## WINCH LIFT COMPONENTS
### 72' & 82' MODELS

Winch Cable Routing is Same for Both 72' & 82' Models Equipped with Either Electric or Hydraulic Winch

See Page P-17 for Electric Winch Parts Breakdown

See Page P-18 for Hydraulic Winch Parts Breakdown

### PARTS LIST

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>1021069</td>
<td>Hydraulic Winch Complete (less covers and relief valve)</td>
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<tr>
<td>(1)</td>
<td>1032553</td>
<td>Electric Winch, Complete</td>
</tr>
<tr>
<td>2</td>
<td>1032392</td>
<td>Bypass Relief Valve (hydr. winch)</td>
</tr>
<tr>
<td>3</td>
<td>1021237</td>
<td>Lower Guard Half (hydr. winch)</td>
</tr>
<tr>
<td>4</td>
<td>1021242</td>
<td>Upper Guard Half (hydr. winch)</td>
</tr>
<tr>
<td>5</td>
<td>1031141</td>
<td>Winch Mount Weldment</td>
</tr>
<tr>
<td>6</td>
<td>1031146</td>
<td>Stop, Lower Trolley</td>
</tr>
<tr>
<td>7</td>
<td>1019827</td>
<td>Stop, Upper Trolley</td>
</tr>
<tr>
<td>8</td>
<td>1021091</td>
<td>Cable, Lift (fl/ 72' Models) 1/2” dia. x 96’ (29.26 m)</td>
</tr>
<tr>
<td>(8)</td>
<td>1021084</td>
<td>Cable, Lift (fl/ 82' Models) 1/2” dia. x 106’ (32.31 m)</td>
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<table>
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<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>9</td>
<td>1021062</td>
<td>Trolley, Complete</td>
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</tr>
<tr>
<td>11</td>
<td>33150</td>
<td>Nut, 1”-8 Nylon Lock</td>
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<td>1021064</td>
<td>Bolt, 1”-8 x 4” Gr8</td>
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<tr>
<td>13</td>
<td>1031583</td>
<td>Spacer, 3/8” thick</td>
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<td>14</td>
<td>1021160</td>
<td>Pulley, 5” O.D. fl/ 1/2’ Cable</td>
</tr>
<tr>
<td>15</td>
<td>1021146</td>
<td>Bushing, Pulley Anchor</td>
</tr>
<tr>
<td>16</td>
<td>1021158</td>
<td>Clamp, Cable (fl/ 1/2” cable)</td>
</tr>
<tr>
<td>17</td>
<td>D1165</td>
<td>Cotter Pin, 1/4” x 3” long</td>
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</tbody>
</table>
The complete Belt Guard Assembly can be obtained by ordering Part No, 104911. The complete assembly includes items 2, 3, 4, 5, 6, 7, 24 & 25.

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<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1040681</td>
<td>Plate, Motor Mount</td>
<td>(15)</td>
<td>3280A1</td>
<td>Bushing, SD QD 1 7/8” bore</td>
</tr>
<tr>
<td>2</td>
<td>1040910</td>
<td>Panel, Back (f/ Belt Guard)</td>
<td>16</td>
<td>1040852</td>
<td>Slide Weldment, Motor Mount</td>
</tr>
<tr>
<td>3</td>
<td>1040909</td>
<td>Panel, Belt Guard Door</td>
<td>17</td>
<td>1040856</td>
<td>Retainer f/ 3/4” Nut</td>
</tr>
<tr>
<td>4</td>
<td>1013215</td>
<td>Hinge Pin, 1/4” Pin Staked</td>
<td>18</td>
<td>1040855</td>
<td>Plate, Spacer (f/ 3/4” Nut)</td>
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<tr>
<td>5</td>
<td>1040918</td>
<td>Plate, Motor Cover</td>
<td>19</td>
<td>D1152</td>
<td>Nut, 3/4”-10 Non-Lock</td>
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<td>6</td>
<td>1001127</td>
<td>Decal, Hutchinson</td>
<td>20</td>
<td>1002199</td>
<td>Bolt, 3/8”-16 x 2”</td>
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<tr>
<td>7</td>
<td>34349</td>
<td>Decal, Grain Pump</td>
<td>21</td>
<td>33136</td>
<td>Nut, 3/8”-16 Nylon Lock</td>
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<tr>
<td>8</td>
<td>1040930</td>
<td>Bracket, Upper Belt Guard</td>
<td>22</td>
<td>1040168</td>
<td>Threaded Adjustment Rod</td>
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<tr>
<td>9</td>
<td>1040931</td>
<td>Bracket, Inner Lower</td>
<td>23</td>
<td>4073A1</td>
<td>Key, 3/8” sq. x 3” long</td>
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<tr>
<td>10</td>
<td>1040932</td>
<td>Bracket, Lower Outer</td>
<td>24</td>
<td>1013133</td>
<td>Nut, 1/4”-20 Tinnerman</td>
</tr>
<tr>
<td>11</td>
<td>420078</td>
<td>Sheave, QD 4-Belt 5” PD</td>
<td>25</td>
<td>1013131</td>
<td>Bolt, 1/4”-20 x 1/2” Wing</td>
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<td>12</td>
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<td>Bushing, SF QD, 1 3/4” bore</td>
<td>26</td>
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<td>Slide Rod</td>
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<td>13</td>
<td>40649</td>
<td>Sheave, QD 4-Belt 20” PD</td>
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<td>14</td>
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<td>15</td>
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<td>Bushing, SD QD 1 5/8” bore</td>
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Item No. 2 (Back Panel) is attached using:
4605-1 – 1/4” x 3/4” Bolts, 33022 – 1/4” Flat Washers, 4003 – 1/4” Nylon Locknuts

Item No. 5 (Motor Cover Plate) is attached using:
4605-1 – 1/4” x 3/4” Bolts, 33022 – 1/4” Flat Washers, 4003 – 1/4” Nylon Locknuts

Item No. 4 (Door Hinges) are attached using:
**Parts List**

**Jack & Hitch Components**

<table>
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<th>Part No.</th>
<th>Description</th>
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<tr>
<td>1</td>
<td>1030940</td>
<td>Hitch f/ Wide Inlet Boot</td>
</tr>
<tr>
<td>2</td>
<td>1024776</td>
<td>Jack w/ Pin, 15” Side Crank</td>
</tr>
<tr>
<td>3</td>
<td>1031450</td>
<td>Pin, Hitch Mounting (13/16” x 11” long)</td>
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<tr>
<td>4</td>
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<td>Hair Pin</td>
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<tr>
<td>5</td>
<td>1031068</td>
<td>Bent Pin, 3/4” x 4 1/2” long</td>
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<tr>
<td>6</td>
<td>1036990</td>
<td>Cannister, Operator’s Manual</td>
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**Hydraulic Components**

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<th>Part No.</th>
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<tr>
<td>1</td>
<td>1021162</td>
<td>Winch, Hydraulic (less valve)</td>
</tr>
<tr>
<td>2</td>
<td>1032392</td>
<td>Crossover Relief Valve</td>
</tr>
<tr>
<td>3</td>
<td>1032436</td>
<td>Hose, Hydr. f/ 42’ Models 3/8” x 28’ (10 mm x 8.53 m) long</td>
</tr>
<tr>
<td>3</td>
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<td>Hose Hydr. f/ 52’, 62’ &amp; 72’ 3/8” x 30’ (10 mm x 9.14 m) long</td>
</tr>
<tr>
<td>3</td>
<td>1032438</td>
<td>Hose Hydr. f/ 82’ Models 3/8” x 38’ (10 mm x 11.58 m) long</td>
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<tr>
<td>4</td>
<td>1006324</td>
<td>Clamp, Hydr. Hose Mounting</td>
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**Rim & Tire Assembly**

Ensure Tire Pressure is Sufficient According to Rating on Tire

<table>
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<th>Part No.</th>
<th>Description</th>
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<tbody>
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<td>Tire, 16” 235/85R16, 10-Ply</td>
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<tr>
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<td>Rim, 6-Bolt, 16” x 6”</td>
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<tr>
<td>3</td>
<td>106241</td>
<td>Lug Bolt, 1/2”-20 x 1”</td>
</tr>
</tbody>
</table>

The Rim & Tire assembly can be obtained by ordering Part No. 1026197
TALL HOPPER EXTENSION
COMPONENTS

The Tall Hopper Extensions can be used on all Model lengths. Multiple Tall Hopper Extensions can be stacked together to gain hopper height, but cannot be stacked on top of tapered hopper extensions.

Ref.  Part No.  Part No.  Description
1   1040966  Cover f/ Tall Hopper (wide boot)
2   1040289  Panel, End (f/ wide boot)
3   1040287  Panel, Side (f/ wide boot)

All Mounting Hardware: 5/16” x 1” Bolts, 5/16” Flat Washers, 5/16” Nylon Locknuts

TAPERED HOPPER EXTENSION
COMPONENTS

The Tapered Hopper Extensions can be used on all Model lengths. A Tapered Hopper Extension can be stacked on top of a Tall Hopper Extension, but a Tall Hopper Extension cannot be stacked on a Tapered Hopper Extension.

Ref.  Part No.  Part No.  Description
1   1041012  Cover f/ Tapered Hopper
2   1041009  Panel, Right Side, Wide Boot (f/ tapered hopper)
3   1041010  Panel, Left Side, Wide Boot (f/ tapered hopper)
4   1040289  Panel, End f/ Wide Boot Hopper

All Mounting Hardware: 5/16” x 1” Bolts, 5/16” Flat Washers, 5/16” Nylon Locknuts
### ELECTRIC WINCH COMPONENTS

**f/ 10” PORTABLE GRAIN PUMPS**

The complete winch assembly (Part No. 1032553) consists of all items listed below.

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1032539NF</td>
<td>Frame, Winch Weldment</td>
</tr>
<tr>
<td>2</td>
<td>1034250</td>
<td>Motor, 5 HP, 3PH (184T frame)</td>
</tr>
<tr>
<td>3</td>
<td>1032555</td>
<td>Plate, Motor Mount</td>
</tr>
<tr>
<td>4</td>
<td>1042690</td>
<td>Control Box w/ Pendant</td>
</tr>
<tr>
<td>5</td>
<td>1043334</td>
<td>Plate, Control Box Mount</td>
</tr>
<tr>
<td>6</td>
<td>1035366</td>
<td>Guard, Upper Half</td>
</tr>
<tr>
<td>7</td>
<td>1035367</td>
<td>Guard, Lower Half</td>
</tr>
<tr>
<td>8</td>
<td>1032818</td>
<td>Bracket, Upper Belt Guard</td>
</tr>
<tr>
<td>9</td>
<td>1032817</td>
<td>Bracket, Bottom Belt Guard</td>
</tr>
<tr>
<td>10</td>
<td>1038341</td>
<td>Belt Guard</td>
</tr>
<tr>
<td>11</td>
<td>1032536-1</td>
<td>Gearbox, 50:1 (LH assembly)</td>
</tr>
<tr>
<td>12</td>
<td>1032551</td>
<td>Drum, Winch</td>
</tr>
<tr>
<td>13</td>
<td>1032548</td>
<td>Shaft, f/ Winch</td>
</tr>
<tr>
<td>14</td>
<td>1032840</td>
<td>Key, 1/2” sq. x 16” long</td>
</tr>
<tr>
<td>15</td>
<td>1029745</td>
<td>Bearing, 1 1/2” (4 hole flange)</td>
</tr>
<tr>
<td>16</td>
<td>1035342</td>
<td>Cable, Power Supply, 12/4-600V 20 amps, .650” x 5’ long</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>1035351</td>
<td>Strap, Pendant Cable Holder</td>
</tr>
<tr>
<td>18</td>
<td>1038412</td>
<td>Adapter, Conduit</td>
</tr>
<tr>
<td>19</td>
<td>1006554</td>
<td>Decal, Caution, f/ Electric Winch</td>
</tr>
<tr>
<td>20</td>
<td>40157</td>
<td>Sheave, 15” O.D. x 1” bore 2B</td>
</tr>
<tr>
<td>21</td>
<td>40191</td>
<td>Sheave, 3” O.D. x 1 1/8” bore 2B</td>
</tr>
<tr>
<td>22</td>
<td>4045A1</td>
<td>Key, 1/4” sq. x 2” long</td>
</tr>
<tr>
<td>23</td>
<td>8371C</td>
<td>Key, 1/4” sq. x 1 1/2” long</td>
</tr>
<tr>
<td>24</td>
<td>1013131</td>
<td>Wing Bolt, 1/4” x 1/2”</td>
</tr>
<tr>
<td>25</td>
<td>1013133</td>
<td>Nut, 1/4” Tinnerman</td>
</tr>
<tr>
<td>26</td>
<td>1043576</td>
<td>Hanger, f/ Pendant</td>
</tr>
<tr>
<td>27</td>
<td>1043588</td>
<td>Cord, Electric Motor</td>
</tr>
<tr>
<td>28</td>
<td>1013215</td>
<td>Hinge, 2” x 1 3/4”</td>
</tr>
<tr>
<td>29</td>
<td>1009129</td>
<td>Belt, B-73</td>
</tr>
<tr>
<td>30</td>
<td>1006763</td>
<td>Clamp, Electric Cord (Not Shown)</td>
</tr>
</tbody>
</table>
## HYDRAULIC WINCH COMPONENTS

**f/ 10” PORTABLE GRAIN PUMPS**

The Part No's. Shown are Bloom Manufacturing Part No's.

<table>
<thead>
<tr>
<th>Ref. No.</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>W-202-1-25</td>
<td>Worm Shaft, 40:1 Ratio</td>
</tr>
<tr>
<td>2</td>
<td>10-203-1-25</td>
<td>Bronze Gear, 40:1 Ratio</td>
</tr>
<tr>
<td>3</td>
<td>10-206</td>
<td>Gear Case Cover</td>
</tr>
<tr>
<td>4</td>
<td>12-208</td>
<td>End Bearing, 1 1/2” I.D. x 3 1/8” O.D.</td>
</tr>
<tr>
<td>5</td>
<td>W-210K</td>
<td>Gear Case Cover Gasket Kit</td>
</tr>
<tr>
<td>6</td>
<td>10-216</td>
<td>Oil Seal</td>
</tr>
<tr>
<td>7</td>
<td>10-217</td>
<td>Key, 3/8” sq. x 1 7/16” long</td>
</tr>
<tr>
<td>8</td>
<td>10-220</td>
<td>Retaining Ring, External, 1 1/2”</td>
</tr>
<tr>
<td>9</td>
<td>W-226</td>
<td>Pipe Plug, 3/8”</td>
</tr>
<tr>
<td>10</td>
<td>W-227</td>
<td>Bolt, 5/16-18 NC x 1” HT</td>
</tr>
<tr>
<td>11</td>
<td>W-229</td>
<td>Setscrew, 1/2” x 1/2” Socket</td>
</tr>
<tr>
<td>12</td>
<td>W-232</td>
<td>Bearing Cup, 3/4” (21212)</td>
</tr>
<tr>
<td>13</td>
<td>W-233</td>
<td>Bearing Cone, 3/4” (21075)</td>
</tr>
<tr>
<td>14</td>
<td>W-234</td>
<td>Bearing Cup, 1 1/2” (LM29710)</td>
</tr>
<tr>
<td>15</td>
<td>W-235</td>
<td>Bearing Cone, 1 1/2” (LM29749)</td>
</tr>
<tr>
<td>16</td>
<td>W-236</td>
<td>Spacer, .270 - .275</td>
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<tr>
<td>17</td>
<td>W-237K</td>
<td>Gasket Kit f/ Motor</td>
</tr>
<tr>
<td>18</td>
<td>W-249</td>
<td>Bolt, 7/16-17 NC x 1 1/2” HT &amp; 7/16” Lock Washer</td>
</tr>
<tr>
<td>19</td>
<td>W-250</td>
<td>Key, 1/4” x 1” Woodruff</td>
</tr>
<tr>
<td>20</td>
<td>4853-1</td>
<td>Spec. Drum</td>
</tr>
<tr>
<td>21</td>
<td>W-258</td>
<td>Setscrew, 3/8” x 1/2” Socket</td>
</tr>
<tr>
<td>22</td>
<td>10-265</td>
<td>Gear Case</td>
</tr>
<tr>
<td>23</td>
<td>10-269</td>
<td>Shaft, 1 1/2”</td>
</tr>
<tr>
<td>24</td>
<td>10-278</td>
<td>End Housing</td>
</tr>
<tr>
<td>25</td>
<td>10-4845</td>
<td>BM Motor Char-Lynn 101-1042</td>
</tr>
<tr>
<td>26</td>
<td>W-3231</td>
<td>Seal Kit, Char-Lynn H- Series 101-xxxx-009 (60540)</td>
</tr>
</tbody>
</table>

Parts can be ordered directly from Bloom Manufacturing, Inc.

When Ordering Parts, Specify Serial No. and Model Stamped on Winch Cover

Bloom Manufacturing, Inc.
Winch Division
Independence, IA  50644 USA
Phone: 319-827-1139   Fax: 319-827-1140