

10" TOP DRIVE SEED BELT CONVEYOR

OWNER'S & OPERATOR'S MANUAL

Effective June 4, 2007

Publication No. 1027317

THIS MANUAL IS FOR CONVEYORS WITH SERIAL NUMBERS OF 919561 OR HIGHER.



Hutchinson/Mayrath/TerraTrack

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- (1) Improper assembly, including failure to properly install all safety equipment.
- (2) Improper installation (power & wiring included)
- (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, non-abrasive and dry materials, as intended.
- (8) Damaged through abusive use or accident.

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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.

Please remember safety equipment provides important protection for persons around a grain handling system that is in operation. Be sure all 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 symbol shown below is used to call your attention to instructions concerning your personal safety. Watch this symbol - it points out important safety precautions. It means "ATTENTION! Become alert! Your personal safety is involved!" Read the message that follows and be alert to the possibility of personal injury or death.



WARNING

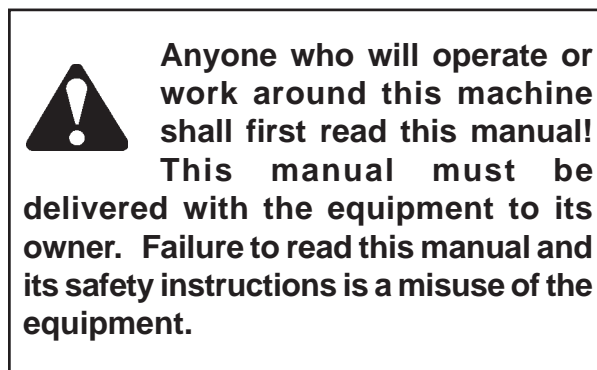


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SERIAL NUMBER

To ensure efficient and prompt service, please furnish us with the model and serial number of your conveyor in all correspondence or other contact. The serial plate is located on the right side of the upper frame of the undercarriage.

RIGHT AND LEFT DESIGNATION

When determining which is the left or right hand side of the unit, it is as if a person were standing at the intake end and looking toward the discharge end.

OPERATOR QUALIFICATIONS

Operation of this Portable Conveyor shall be limited to competent and experienced persons. In addition, anyone who will operate or work around a Portable 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 Portable Conveyors. 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 9.
4. A person who has not read and understood all operating and safety instructions is not qualified to operate the machine.

***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.

DATE	EMPLOYER SIGNATURE	EMPLOYEE SIGNATURE

MACHINE INSPECTION

After delivery of your new conveyor and/or completion of assembly and before each use, inspection of the machine is mandatory. 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 guards listed in the assembly instructions are in place, secured and functional.
2. Check all safety signs and replace any that are worn, missing or illegible. The safety signs are listed in the back of this manual. Safety signs may be obtained from your dealer or ordered from the factory.
3. Check undercarriage winch and cable for security and operation. There should be at least three complete wraps of cable around winch drum in full down position. Cable anchor on winch drum must be tight.
4. Are all fasteners tight?
5. Are drive belts properly adjusted? (See Maintenance Section.)
6. Is conveyor belt properly adjusted? (See Maintenance Section.)

Obtain any needed replacement parts from your dealer and install before using the machine.

MACHINE FEATURES

- Housing - 10" x 14 gauge galvanized
- Belt - 15" PVC Crescent pattern with slider bed backing with excluding belt alignment guide rollers to maintain belt tracking.
- Hopper - Lower profile transfer hopper style with collapsible spring supported canvas.
- Operating Speed - 450 Feet per minute for electric and variable speed control for hydraulic.
- Discharge Spout - adjustable plastic with 12" round outlet.
- Capacity - Up to 4000 bushings per hour.

POWER REQUIREMENTS (DRIVE)**ELECTRIC DRIVE**

RECOMMENDED ELECTRIC H.P.	MOTOR FRAME SIZE	RECOMMENDED MOTOR PULLEY
10 HP	215T	Pitch Dia. 3.8" 3-Groove "B" Section

HYDRAULIC DRIVE

RECOMMENDED HYDRAULIC SYSTEM PRESSURE	RECOMMENDED HYDRAULIC SYSTEM CAPACITY
1500 PSI	15 Gallons per minute

HITCHING TO TRACTOR INSTRUCTIONS

1. Pin the conveyor hitch to the tractor drawbar. make certain the hitch pin is securely attached.
2. An auxillary attachment system (safety chain) is required to retain the connection between towing and towed machines in the event of separation of the primary attachment system. The safety chain should be routed through the tube on the hitch and fastened to the tractor. A clevis or intermediate chain support should be fastened to the tractor drawbar no farther than 6" from the hitch pin. See Fig. 1.

NOTE : The safety chain is not furnished with the conveyor.

MOVING THE CONVEYOR

Move the conveyor with a tractor to or from the work area. A pick-up truck or other suitable vehicle may be used for transporting the conveyor over greater distances. Comply with your state and local regulations governing marking, towing and maximum width. Observe safe driving and operation practices.

Follow these steps when transporting the conveyor:

1. Always transport your conveyor in the full-down position.
2. There should be slight tension of the undercarriage winch cable.
3. Hitch should be secured to tractor. Hitch safety chain must be fastened in place.

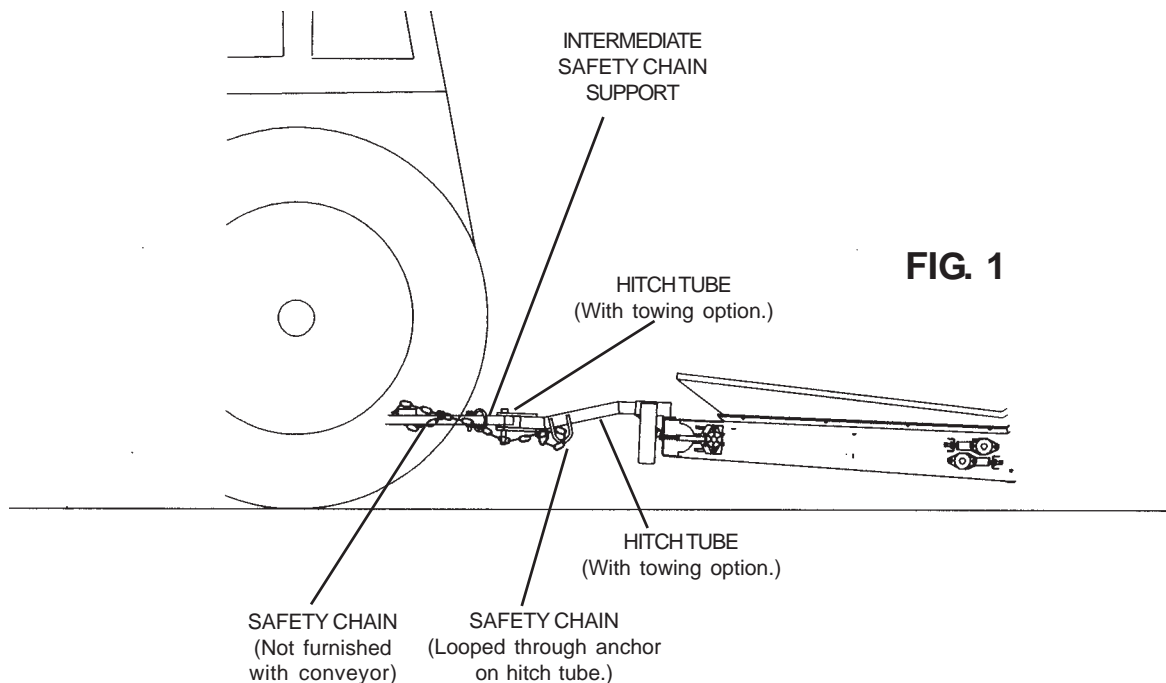


FIG. 1

MOVING THE CONVEYOR

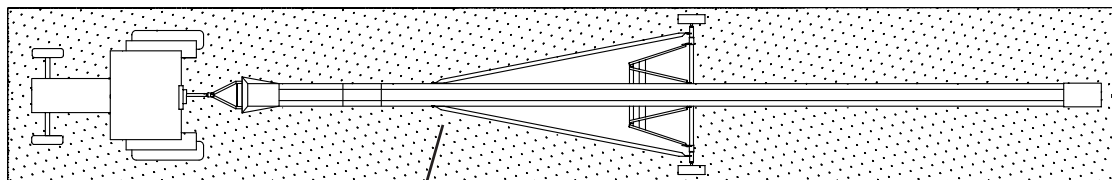
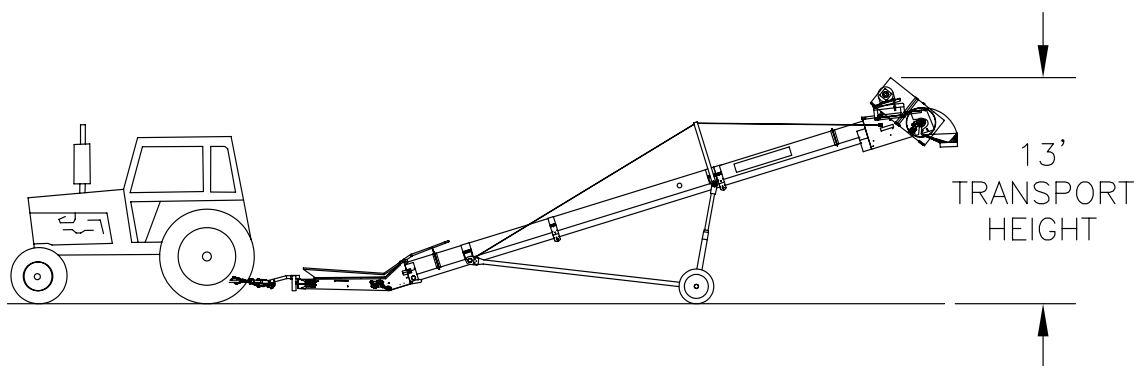
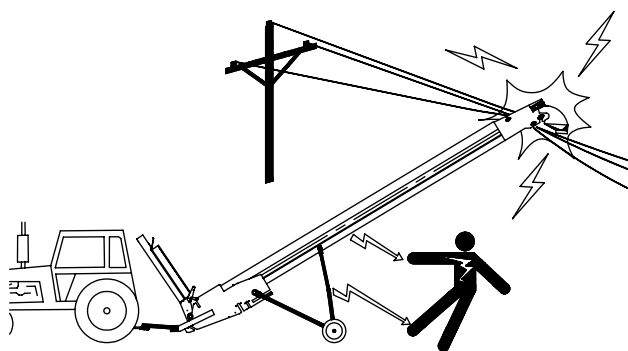
Moving your portable conveyor requires careful planning. Know the transport height of the conveyor before moving it. Plan your route to avoid overhead obstructions and power lines.

Before moving the conveyor, the operator should make sure all personnel are clear of the **Moving Conveyor Hazard Area** as shown in the following diagram. Never allow persons to stand underneath or ride on the conveyor when it is being transported.

IMPORTANT: Overall transport height is with the conveyor fully lowered and attached to a towing vehicle with a drawbar height of 16".



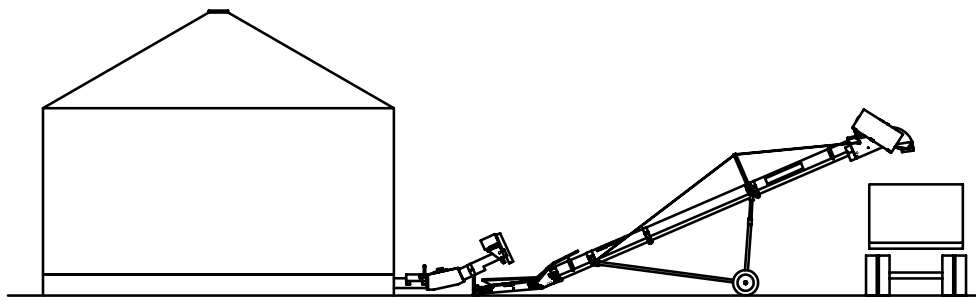
DANGER: Be alert to overhead obstructions and electrical wires. Failure to do so may result in electrocution. Lower conveyor well below level of power lines before moving. Maintain at least ten (10) feet of clearance. See above chart showing the height of each portable conveyor in the transport position to determine the height of your conveyor.



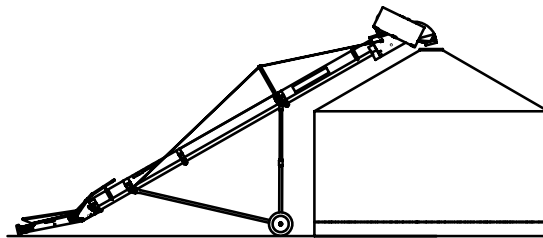
HAZARD AREA - KEEP OUT

PLACEMENT OF CONVEYOR

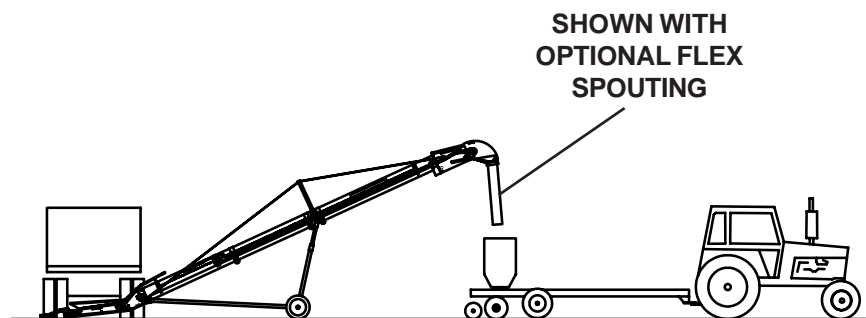
TYPICAL ARRANGEMENTS



BIN LOAD OUT



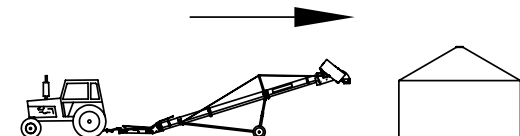
BIN FILL



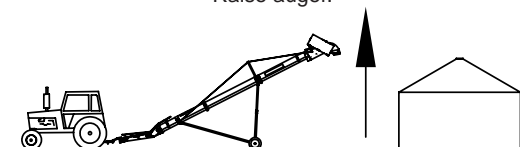
DRILL FILL

PLACEMENT OF CONVEYOR**STEP 1**

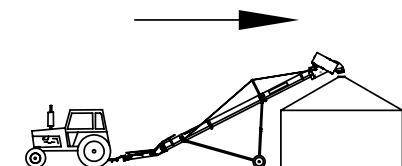
Locate conveyor next to bin.

**STEP 2**

Raise auger.

**STEP 3**

Back into position.

**Step 1**

Move conveyor slowly toward working position with a tractor. Locate the conveyor on level ground as close as possible to the bin or other structure. Leave adequate room for loaded vehicles to reach the conveyor intake area conveniently. The wheels must be allowed to roll freely when raising. Be sure the area is clear of any obstructions.



Make certain everyone is clear of the work area when moving the conveyor. To prevent tip-over when backing, avoid rolling over any obstructions. Also avoid moving the conveyor at right angles to a slope. If the conveyor must set on a slope, approach the bin uphill.

Make sure entire area above conveyor and in line of travel is clear of overhead obstructions and electrical wires. Failure to do so may result in electrocution. Maintain at least ten (10) feet of clearance. Electrocution can occur without direct contact.

Step 2

Raise the conveyor only high enough to allow minimum clearance above the bin.

To raise the conveyor, turn the winch handle clockwise (pulling) cable onto winch drum). There should be a clicking sound. 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 one side of the drum.

NOTE: The winch is equipped with a brake that is actuated by turning the handle. The brake is designed to hold the load whenever the handle is released.

NOTE: For additional winch instructions, see page 21.



Keep hands away from winch drum during operation. Don't allow conveyor to become hung up.

Step 3

Back conveyor slowly into working position with a tractor. **DO NOT ATTEMPT TO INCREASE CONVEYOR HEIGHT BY POSITIONING HEELS ON LUMBER, BLOCKS OR BY OTHER MEANS.**

1. Lower the conveyor until the conveyor discharge is directly over the bin opening. Consider that the discharge end will lower a few inches as the conveyor fills with grain. **NOTE:** When discharging into a grain spreader, maintain at least 12" of space between the conveyor discharge and the spreader.

To lower the conveyor, turn the winch handle counter-clockwise; there will be no clicking sound. To stop while lowering the conveyor, turn the handle clockwise until you hear two clicks to lock brake. (About a 6" movement of the handle.)

2. Once the conveyor is in place, put the tractor in park.
3. Follow unhitching instructions in next section.
4. If desired, remove pins from hitch mount tube and remove hitch from hitch mount.
5. Anchor the conveyor at the intake end and/or support it at the discharge end to prevent tipping from occurring when weight transfers to the top end as the conveyor empties. It is a good practice to tie the discharge end of the conveyor to the bin or storage structure to prevent possible wind damage. **Remember to untie the conveyor before attempting to move it.**

UN-HITCHING

Follow these steps to unhitch the conveyor:

NOTE: When the tractor is to be disconnected from a conveyor in the raised position, anchor the discharge end of the conveyor to the bin or structure to prevent possible wind damage.

- A. The conveyor wheels should be chocked to prevent the conveyor from rolling.
- B. Remove safety chain and hitch pin. Disconnect the tractor from the conveyor.
- C. Lower discharge to bin.

ESTABLISH WORK AREA

Before starting the conveyor, a designated work area should be established and properly marked. The following diagrams will show the manufacturers designed work area. These areas shall be marked off with colored nylon or plastic rope hung as portable barriers to define the designated work areas.

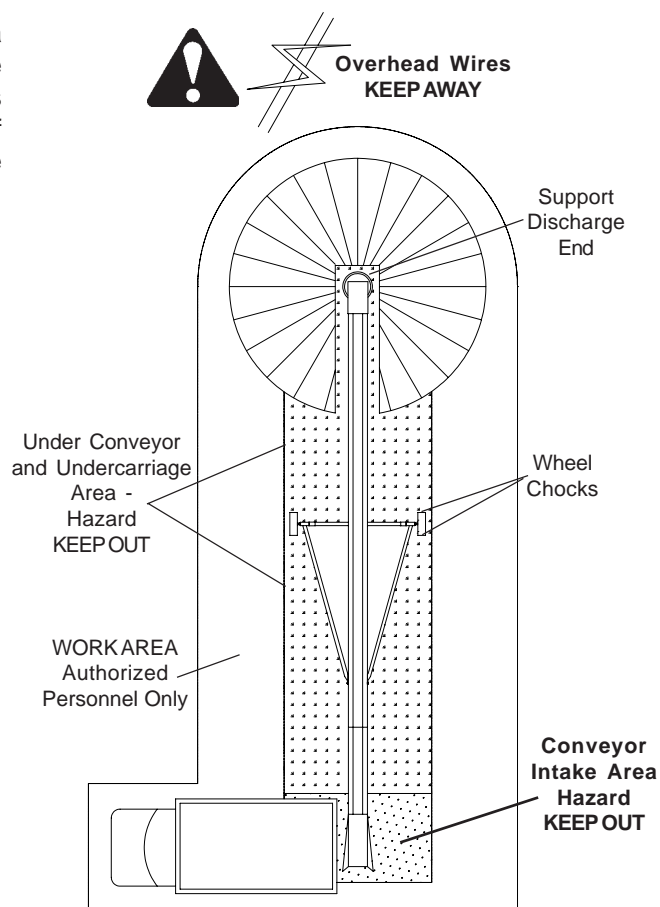
RULES FOR SAFE WORK AREA



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 operators to see that children and/or other persons stay out of the work areas! Trespass into the work area by anyone not involved in the actual operation, or trespass into a hazard area by anyone, shall result in an immediate shut down by the operator.

It shall be the responsibility of all operators 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.



OPERATING PROCEDURES

RULES FOR SAFE WORK AREA

It is essential to inspect your drive before adding power and know how to shut down in an emergency.

During the operation of your conveyor, one person shall be in a position to monitor the operation. Any conveyor when it is new or after it sets 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 inside of the tube. When the tube is polished, the conveyor can be run at full capacity.



During the initial start up and break-in period, the operator shall be aware of any unusual vibrations or noises, that would indicate a need for service or repair.

Keep all safety shields and devices in place.

Keep hands, feet and clothing away from moving parts.

The operator should have a full view of the work area and check that all personnel are clear of designated work area before adding power.



SHUT OFF POWER AND LOCKOUT DRIVE TO ADJUST, SERVICE OR CLEAN.

CONVEYOR BELT INFORMATION

It is very important that the conveyor belt run in the center of the conveyor when operating. Carefully read through the belt tension and training instructions on pages 35, 36 & 37 before attempting to operate the conveyor.

ELECTRIC MOTOR DRIVE INFORMATION

Always use a motor with required H.P. suggested in the chart below. Use a motor that operates at 1750 RPM. Electric motors and controls shall be installed by a qualified electrician and must meet the standards set by the National Electrical Code and all local and state codes. Reset and Motor Starting Controls may be mounted directly to the conveyor or in a nearby area, but they must be located so that the operators have full view of the entire operation from the control location.

A magnetic starter should be used to protect your motor when starting and stopping. It should stop the motor in case of power interruption, conductor fault, low voltage, circuit interruption, or motor overload. Then the motor must be restarted manually. Some motors have built-in thermal overload protection. If this type motor is used, use only those with manual reset.



Disconnect power before resetting motor overloads. Make certain electric motors are grounded.

Electric motor and motor sheave are not provided. Use the following table for recommended sizes. Using these recommendations will provide a belt speed of approximately 525 FPM. NOTE: Standard driven sheave provided is 20" pitch diameter.

If faster belt speeds are desired, a 4.6" pitch dia. motor heave will provide approximately a 630 FPM belt speed.

RECOMMENDED ELECTRIC H.P.	MOTOR FRAME SIZE	RECOMMENDED MOTOR PULLEY
10 HP	215T	Pitch Dia. 3.8" 3-Groove "B" Section

HYDRAULIC MOTOR DRIVE INFORMATION

IMPORTANT: Use a tractor which has the proper hydraulic capacity (15 gallons per minute) with a hydraulic oil pressure of 1500 PSI.

A flow control valve is provided to regulate the hydraulic motor speed. To operate the flow control valve, turn the control to "0" to stop the conveyor belt. Use the settings "1" thru "10" to increase the conveyor belt speed.

The hydraulic control lever on the tractor will operate the motor in either direction, making it possible to run the conveyor belt in the wrong direction. Therefore, make certain the belt is moving from the loading hopper into the conveyor tube.

NOTE ABOUT HYDRAULIC MOTORS AND TRACTOR: Hydraulic motors, when used properly, can be a very good source of power. Hydraulics, on the other hand, are a sophisticated system and can create problems, if not properly installed. Ordinarily, the hydraulic motors can be plugged into the standard outlets on the back of a tractor and be expected to work adequately. Most newer tractors have a hydraulic pump capable of supplying enough oil. Some problems are encountered with built-in restrictors in the stock valves - 1/2" lines supplying tractor outlet - the snap couplers themselves act as restrictors. Speeding up the tractor to overcome any of the above areas will only result in excess heat build-up which could damage the tractor or the motor.



Do not disconnect hydraulic lines while system is under pressure. Because hydraulic systems are highly pressurized, escaping hydraulic oil (even an invisible pinhole leak) can penetrate body tissues and cause serious injury. Use a piece of wood or cardboard when looking for leaks. Never use the hands or other parts of the body. When reassembling, make absolutely certain that all connections are tight. If injured by hydraulic oil escaping under pressure, see a doctor immediately. Serious infection or reaction may occur if medical attention is not received at once.



Keep all hydraulic lines away from moving parts. Refer to the rules and regulations applicable to the power source operating your hydraulic drive.

SHUTDOWN

A. NORMAL SHUTDOWN

Make certain that the conveyor is empty before stopping the unit. Before the operator leaves the work area, the power source shall be locked out. (See LOCKOUT).

B. INTERMITTENT OPERATION SHUTDOWN

When an 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 is more efficient.

C. EMERGENCY SHUTDOWN

Should the conveyor be immediately shut down under load, disconnect and lockout the power source. Clear as much grain from hopper and conveyor as you can. Never attempt to start when full. When as much grain as possible has been cleared, reconnect power source and clear conveyor gradually.

NOTE: Starting the unit under load may result in damage to the conveyor. Such damage is considered abuse of the equipment.

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. Precaution should be made to prevent anyone from operating the conveyor when the operator is absent from the work area.

HYDRAULIC DRIVE: Remove ignition key or coil wire from power source.

ELECTRIC DRIVE: A main power disconnect switch capable of being locked only in the OFF position shall be provided.

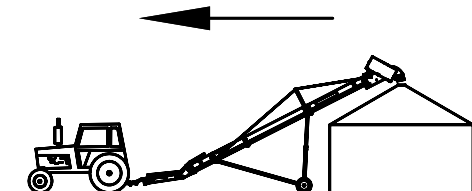
OPERATING CAPACITIES

Capacities of belt conveyors can vary greatly under diverse conditions. Different materials, moisture content, amounts of foreign matter, angle of operation, methods of feeding and speed all play a role in performance of the conveyor. Capacities will be the highest at lower angles of conveyor incline. For instance, an expected capacity of 3000 BPH at a 15 degree conveyor incline may drop to less than 2000 BPH when the conveyor is at a 30 degree incline. Maximum possible capacity will be less with high moisture grain (above 15%) than with dry grain. Feeding the material onto the feeder conveyor so that it is moving in the direction of the belt travel will aid capacity.

RELOCATION OF CONVEYOR

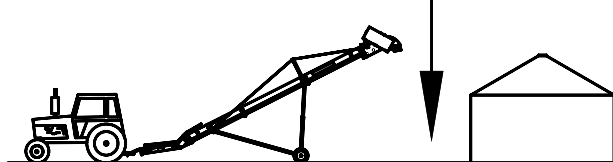
STEP 1

Move away from bin



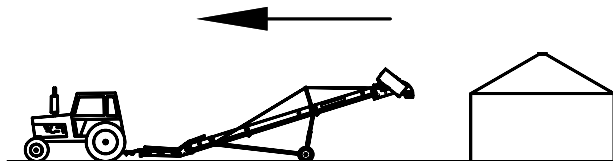
STEP 2

Lower conveyor



STEP 3

Move to next bin or unhitch



RELOCATION OF CONVEYOR

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

STEP 1

- A. Empty all grain from the conveyor. Clean up the area.
- B. Untie any anchors and/or remove all supports.
- C. Disconnect the power source.
Electric Drive - Unplug electric motor, wind up electric cables.
Hydraulic Drive - Disconnect hydraulic hoses from tractor.
- D. Raise the conveyor so the discharge spout is clear of bin opening. (See Step 2, Conveyor Raising Instructions on page 8).
- E. If removed, re-install the hitch tube assembly in hitch mount on conveyor inlet.
- C. Hitch the conveyor to the tractor. (See Hitching Instructions on page 5.)
- D. Remove wheel chocks.
- E. Move conveyor slowly away from the bin with the tractor.

STEP 2

- A. Lower conveyor immediately after clear of bin or storage structure.
IMPORTANT: Lower the conveyor, even if relocating to a bin in the immediate area.

STEP 3

- A. Follow unhitching instructions on page 9.
- B. Inspect the conveyor as outlined in "Machine Inspection" on page 3.

GENERAL

For economical and efficient operation of your conveyor, maintain regular and correct lubrication. Neglect leads to reduced efficiency, excessive wear and needless down time. Use the schedule on page 15.



Keep all safety shields and devices in place. Replace any that are damaged or missing. Shut off power and lockout drive to adjust, service or clean.

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.

PULLEY & “S” ROLLER BEARINGS

All bearings are fitted with grease zerks and should be lubricated as specified in the maintenance schedule on page 15. Before greasing the bearings, make certain the zerks are free of dirt, otherwise this will be passed into the bearing race. If the unit will be out of service for a period of time, purge the bearings.

HYDRAULIC HOSE

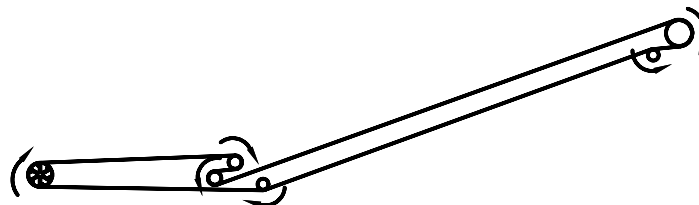


Check all the hydraulic fittings and hoses to see if they are tight and not leaking hydraulic oil. Replace any hydraulic hose that may be cut or damaged.

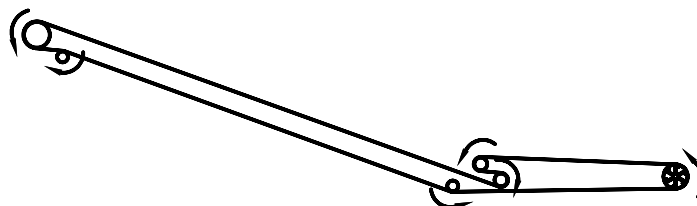


CAUTION: Do not connect or disconnect hydraulic components when there is pressure within the system. Hydraulic systems are highly pressurized. Escaping hydraulic oil, even an invisible pinhole leak, can penetrate body tissues and cause serious injury. Use a piece of wood or cardboard when looking for leaks. Never use the hands or other parts of the body. When reassembling, make absolutely certain that all connections are tight. If injured by hydraulic oil escaping under pressure, see a doctor immediately. Serious infection or reaction may occur if medical attention is not received.

IMPORTANT: SET BEARING ECCENTRIC LOCK COLLARS IN DIRECTION OF SHAFT ROTATION AS SHOWN BELOW



RIGHT SIDE



LEFT SIDE

DRIVE BELT ADJUSTMENT

On drives that are powered by belts, the belt tension will need periodic adjustment. Use the adjustment bolt under the motor mount plate.

HYDRAULIC MOTOR

A hydraulic motor is used to power the hydraulic drive type of seed belt conveyor. Hydraulic motors are built to extremely high standards and should be treated as such. It should be returned to your nearest service center or to the factory if in need of repair. Only trained personnel should repair and test returned motors, so that they meet the highest quality repair and test standards. Upon request, before repairs are made, the owner will be notified of the cost and probable cause of the failure. The only exception to the above is the replacement of the high pressure shaft seal.

Hydraulic motors are designed and manufactured to very strict tolerances and assembled under closely controlled conditions. If properly installed and with a minimum of attention, it will give long trouble-free service.

- Avoid nuisance fluid-leaks. Typical causes are: dirty, scratched, bowed or inadequately bolted joints; vibrating, unsupported lengths of flexible and rigid piping. The cure: careful assembly, proper seals, periodic inspection. Only compatible materials (resistant to fluid and temperatures involved) should be used.
- Avoid shock - limit the rate of pressure build-up. Adjust relief valves, avoid chatter, sudden pressure surges and higher than needed working pressures. Pressure and flow are energy - use them efficiently.
- Be aware of temperatures. Use oils that will not be too heavy when cold or too light when hot. Either may affect operation and lubrication.
- Include adequate filtration in the system. (10 micron or finer)

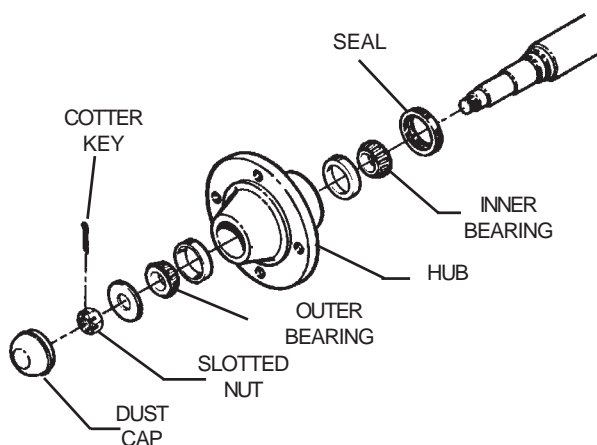
WHEEL BEARINGS

Undercarriage Axle Spindle Bearing

Tapered roller type bearings are standard on the seed belt conveyor and should be repacked with grease and adjusted annually or as needed, determined by usage.

Care must be used in dismantling wheel bearing assemblies. First remove the dust cap by prying around the edges. Remove the cotter pin, slotted nut and flat washer. Carefully remove the hub and bearings from the spindle. Inspect all parts for wear or damage and replace with new ones, if necessary.

When reassembling the hub, repack both bearing cones with grease and fill the hub cavity 1/3 full. Place inner bearing assemblies into the hub, and then press seal into hub and carefully reinstall the hub on the spindle. When placing hub on spindle be careful not to damage the lip of the grease seal. Install outer bearing assembly into the hub, and replace flat washer and slotted nut. Then tighten the slotted nut to seal the bearings until the hub binds as you rotate hub. Back off the slotted nut to the next slot and install a new 5/32" x 1 1/4" long cotter pin. Replace dust cap.



MANUAL WINCH - Hopper Side Panel Lifting)

Check the winch handle assembly on your conveyor to determine that it has been assembled correctly. See assembly section.



Never fully extend the cable and always keep three complete turns of cable around winch drum. Never operate winch with wet or oily hands and always use a firm grip on the handle.

SAFETY REMINDERS

1. Operator must pay attention during raising and lowering.
 - Watch cable to see if it is coiling properly onto winch drum evenly.
 - Keep hands away from winch drum during operation.
 - Don't use hands to guide cable onto winch drum during winch operation.
 - Don't continue to raise side panels after they reach the stops.

The following lubrication checks should be made to the winch periodically.

The conveyor hopper side panels should be in the lowered position when this inspection is being performed. Refer to operating and maintenance instructions furnished with your winch for proper inspection methods.

1. All gears should have a film of grease on them at all times.
2. Check brake disc. If worn to less than 1/16" thick, cracked or broken, replace both discs.
3. The following parts must be wet with oil at all times:
 - A. Two bushings located at ends of drum shaft.
 - B. The ratchet pawl pivot.

IMPORTANT: Do not get oil or grease on brake disc faces (located between ratchet gear brake hub and pinion shaft.)

SEED BELT MAINTENANCE SCHEDULE

- ° Inspect and replace the belt splice every 800,000 bushels or 265 hours.
- ° Back the adjustment bolts all the way off for the belt during the off season.
- ° Insert one - two pumps of grease in each of the bearings every 500,000 bushels or 165 hours or once a season, whichever is reached first (too much grease can push out the bearing seals) and after each time the unit is washed down. After the wash down, insert just enough grease to push out the water and let run for 15 minutes.
- ° Check all the drive belts on the unit and adjust, as needed.
- ° Examine all of the skirting at least every 1,000,000 bushels or 335 hours and replace, as needed.
- ° Check each bearing and return roller every 750,000 bushels or 250 hours or once a season, whichever is reached first.
- ° Clean all material out of the inlet hopper and main tube. Make sure to check under all of the skirting.
- ° If the unit will set outside during the off season, make sure that the discharge hood is installed and cover the inlet hopper section with a tarp or plastic. Keep the tarp or plastic off the ground. This should help keep rodents out of the unit and protect the belts. Store the unit inside out of the weather, if possible. Sunlight is hard on the belt and hoses.
- ° Keep the inlet section off the ground. This will also help keep rodents out of the unit and protect the belts.
- ° Before start up, tighten the adjustment bolts on the belt and check for proper alignment on start up.
- ° Check belt alignment during each operational season, adjust as needed.

HEAD, INLET AND CONVEYOR TUBES

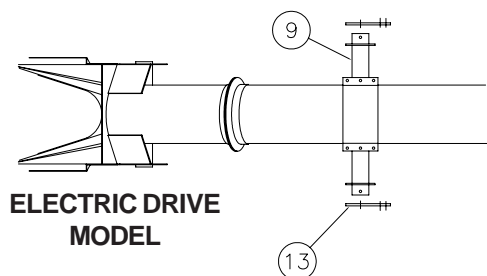
NOTE: Whenever reference is made to right or left side of conveyor, it is determined by standing at the inlet end of the conveyor and looking toward the discharge end.

1. Set the flanged tube weldment (Item 3) on saw horses. The bottom of the 10" conveyor tube should be at least 30" off the floor or assembly surface. Add spacer material on top of saw horses to get this height, if necessary.

IMPORTANT: The weld seam of the tubes should be on top of the conveyor. Arrange tube so caution decals are nearest the bottom or inlet end of the conveyor and logo decals are nearest the top or discharge end of the conveyor.

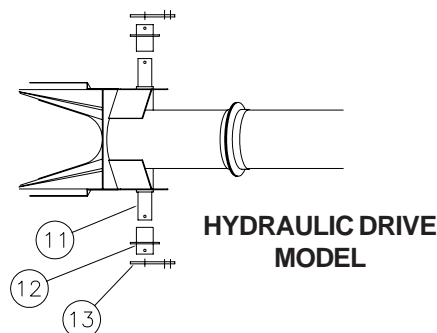
2. Position the inlet assembly (Item 1) near bottom or inlet end of conveyor tube assembly. Place saw horse and appropriate spacers under the inlet assembly, so that it is supported at a height which aligns with the conveyor tube assembly. Loosely connect the inlet assembly flange to the tube flange with eight 3/8" x 1" bolts and 3/8" locknuts. Using two of the top flange bolts, mount the skirt handle latch mount plate. Refer to drawings on pages 22 and P-4 (Item 17). Level the inlet assembly from side to side using a carpenter's level placed across the inlet frame perpendicular to the conveyor tube. Tighten bolts once inlet assembly is level.

IMPORTANT: Throughout the remainder of the tube assembly, each part installed will be leveled to assure that all rotating components (such as pulleys and return rollers) remain in alignment with each other. This is not only critical for part alignment, but also will improve the performance of the belt when placed in operation.



**ELECTRIC DRIVE
MODEL**

3. Position the discharge assembly (Item 2) near the top or discharge end of conveyor tube assembly. Place saw horse and appropriate spacers under the discharge assembly, so that it is supported at a height which aligns with the conveyor tube assembly. Loosely connect the discharge assembly flange to the tube flange with eight 3/8" x 1" bolts and 3/8" locknuts. Level the discharge assembly from side to side using a carpenter's level placed across the discharge frame perpendicular to the conveyor tube. Tighten bolts once discharge assembly is level.
4. On electric drive units, locate the lower pivot weldment (Item 9) at a distance of 1'-7". The distance is from flange connection at the inlet end of tube assembly to edge of band-on pivot weldment. Loosely clamp the pivot weldment to the conveyor tube at this location using a 6" wide half band (Item 7) and six 3/8" x 1 1/2" long bolts and locknuts. Level the lower pivot from side to side using a level placed on the tube of the pivot weldment. Tighten bolts once pivot is level.
5. On hydraulic drive models, slide pivot tube (Item 11) into the sleeve that is located at the discharge end of the inlet hopper. Install pivot sleeves (Item 12) onto pivot tube with bolt holes positioned to the outside.
6. For both hydraulic drive and electric drive models, slide undercarriage pivot plates (Item 13) onto sleeve bracket and secure into place using 3/8" x 3-1/2" long hex head capscrew and locknut or each end.
7. Establish the location of the upper pivot weldment (Item 5) on the conveyor tube and make a mark on the tube. The distance is 16'-4" on electric drive models and 14'-5" on hydraulic drive models. Distance is from flange connection at inlet end of tube assembly to edge of pivot band weldment. Loosely clamp the upper pivot weldment to the conveyor tube at this location. Use a 6" wide half band (Item 7) and six 3/8" x 1 1/2" long bolts and 3/8" locknuts. Level the upper pivot from side to side using a level placed on the tube of the pivot weldment. Tighten bolts once pivot is level.



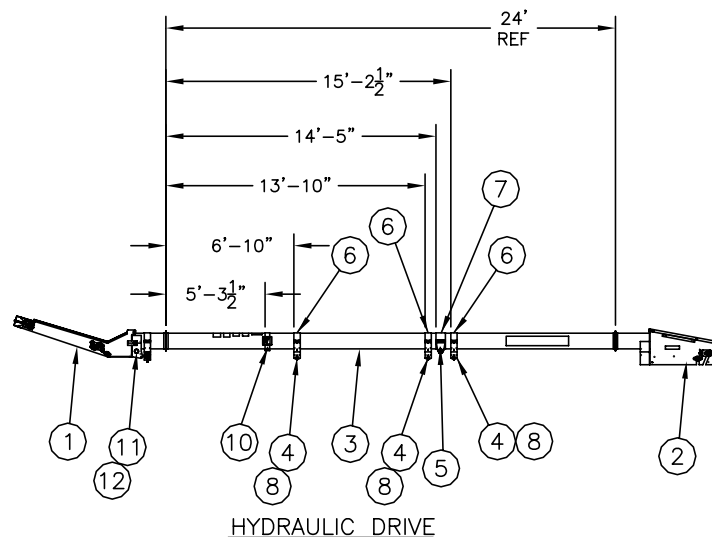
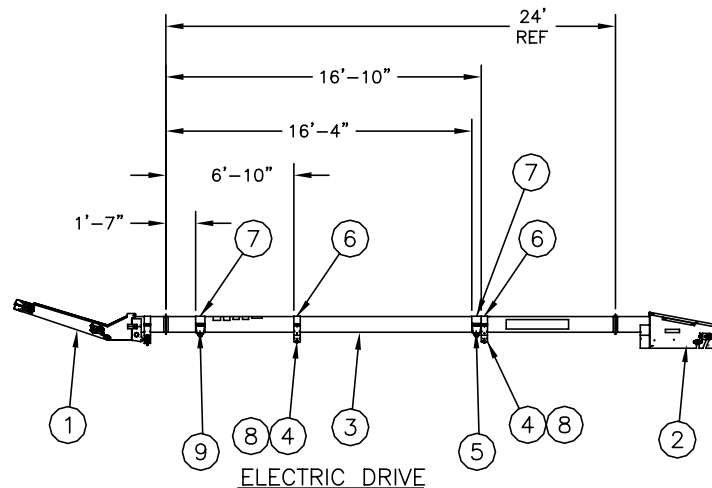
**HYDRAULIC DRIVE
MODEL**

HEAD, INLET AND CONVEYOR TUBES - CONT.

8. Establish the locations of the return roll supports (Item 4). There are two locations on the electric drive units. The distance is 6'-10" & 16'-10". On the hydraulic drive units, are three locations. The distance is 6'-10", 13'-10" & 15'-1/2". Distance is from flange connection at inlet end of tube assembly to edge of return roll support bands. Loosely clamp the return roll supports to the conveyor tube at these locations. Use one 4" wide half band (Item 6) and four 3/8" x 1 1/4" long bolts and 3/8" locknuts to mount each support.

8. cont. - One side of each roll support has an adjustment bracket attached. It will work best if the supports are positioned so that all the brackets are on the left side of the conveyor looking from inlet toward discharge. Level the return roll supports from side to side using a level placed across the bottom of the support perpendicular to the conveyor tube. Tighten bolts once return roll support is level.

9. Install return rollers (Item 8) into hex holes of return roll supports (Item 4). Insert the non-spring loaded hex shaft end of the roller first, then depress the spring loaded hex shaft end and slide into place until shaft pops through the hex hole of the roller support weldment.

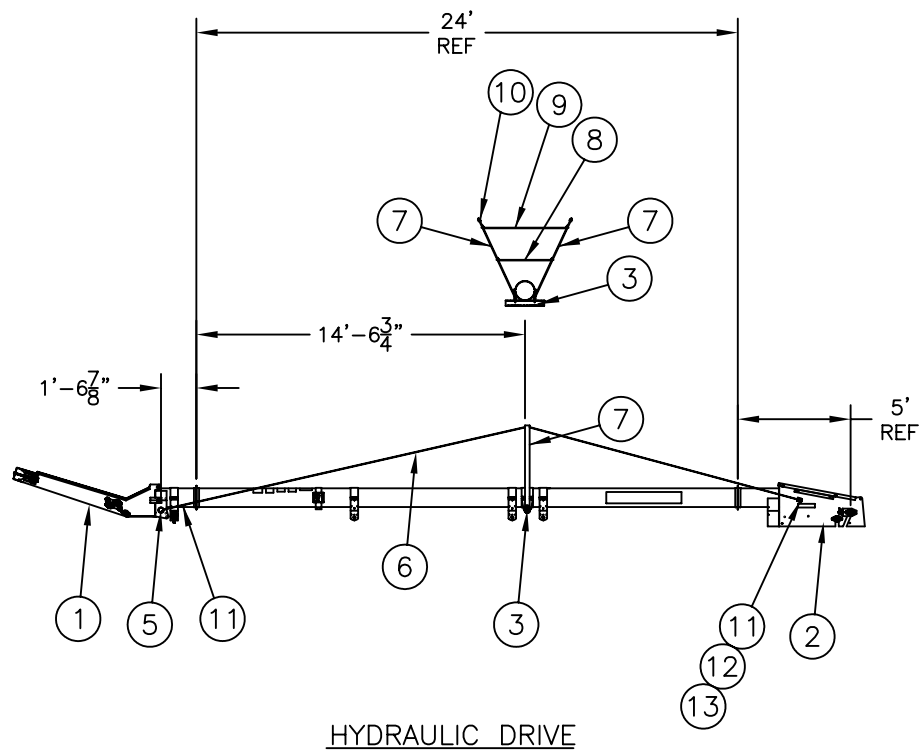
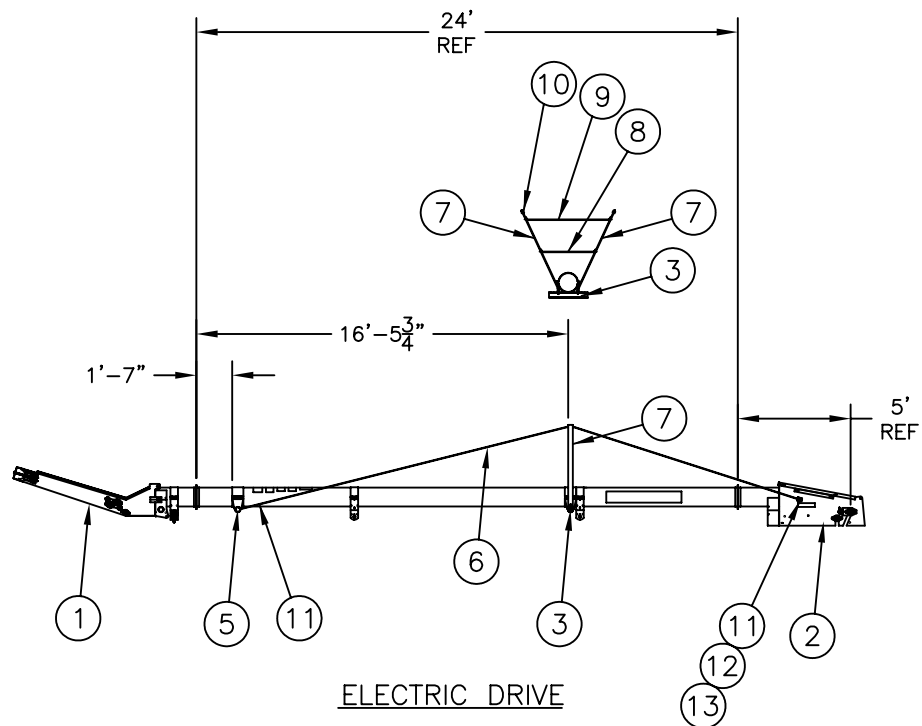


CONVEYOR TRUSS

NOTE: Whenever reference is made to right or left side of conveyor, it is determined by standing at the inlet end of the conveyor and looking toward the discharge end.

1. Attach the truss side bars (Item 7) to the upper pivot weldment (Item 3) with two 5/8" x 1 1-2" long bolts and 5/8" locknuts. NOTE: The upper pivot weldment was installed on the conveyor tube earlier during the tube assembly.
2. Install the truss crossbraces (Items 8 & 9) between the two truss side bars just installed. Use two 3/8" x 1-1/4" long bolts and 3/8" locknuts to attach each crossbrace.
3. Loosely attach a 3/8" cable clamp (Item 10) to the top ends of the upper side bars (Item 7).
4. Install the eyebolts (Item 12) to the truss anchor tabs on the sides of the discharge housing (Item 2). The eye end of each eyebolt should be pointing toward the inlet end of the conveyor. Install two 5/8" non-lock nuts on each eyebolt.
5. On hydraulic models, wrap one end of each truss cable (Item 6) around the undercarriage mount pipe (Item 5) that extends out each side of the inlet assembly (Item 1). NOTE: Use 1/4" x 31'-6" long.
6. On electric models, wrap one end of each truss cable (Item 6) around the lower pivot pipe (Item 5) that is clamped to the conveyor tube. NOTE: Use 1/4" x 31'-6" long cables.
7. Run the cables through the cable clamps (Item 10) at the top ends of the truss side bars (Item 7), then towards the discharge end of the conveyor.
8. Attach truss cables to eyebolts (Item 12) using two cable clamps (Item 11) per each cable. Secure the clamp u-bolts against the loose end of the cable.
9. Using the eyebolts (Item 12) tighten the cables until they are reasonably snug. Tighten cables equally. **DO NOT OVERTIGHTEN.** Sight down the tube to make sure it is straight. Some adjustment can be made after the conveyor is completely set-up.
10. Tighten cable clamps (Item 10) that secure cables to truss side bars (Item 7).

CONVEYOR TRUSS - CONT.



CONVEYOR WIND GUARDS

REFER TO ASSEMBLY DRAWING

NOTE: Whenever reference is made to right or left side of conveyor, it is determined by standing at the inlet end of the conveyor and looking toward the discharge end.

NOTE: Due to the close fit between the upper undercarriage support and the conveyor tube, it will work best if the wind guards are installed onto the conveyor prior to installing the undercarriage.

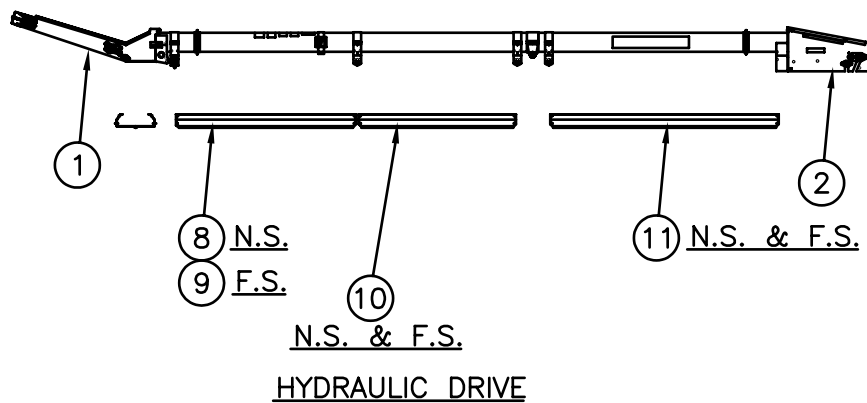
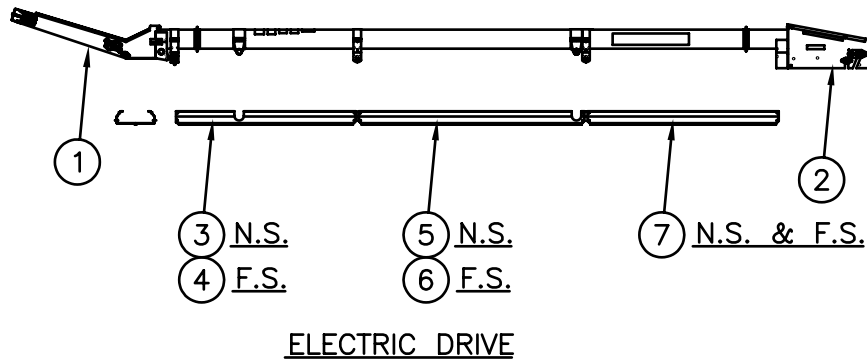
IMPORTANT: Although the wind guards protect the belt from adverse effect of the weather and improve operation, they also serve as a safety shield to keep anyone from inadvertently coming in contact with the moving return belt. All wind guards should be in place anytime the conveyor is operating.

1. Remove the wind guard panels from the wind guard bundle and lay them out along side the conveyor per the appropriate drawing. The items noted as NS (near side) go on the right hand side of the conveyor and the items noted as FS (far side) go on the left hand side of the conveyor.
2. Using 1/4" x 3/4" (grade 5) hex head capscrews with flat washers and hex locknuts, fasten the wind guards to the appropriate support structure. The support structures are the guide roller frame at the inlet end, the discharge assembly and the return roll supports.

On conveyors manufactured prior to serial number 913948, it is necessary to drill two 5/16" diameter holes in the guide roll support frame for fastening the top end of the wind guards.

3. Bolt the bottom flanges of each right hand wind guard to its adjoining left hand wind guard using 1/4" x 3/4" hex head capscrews with flat washers and hex locknuts.

CONVEYOR WIND GUARDS - CONT.



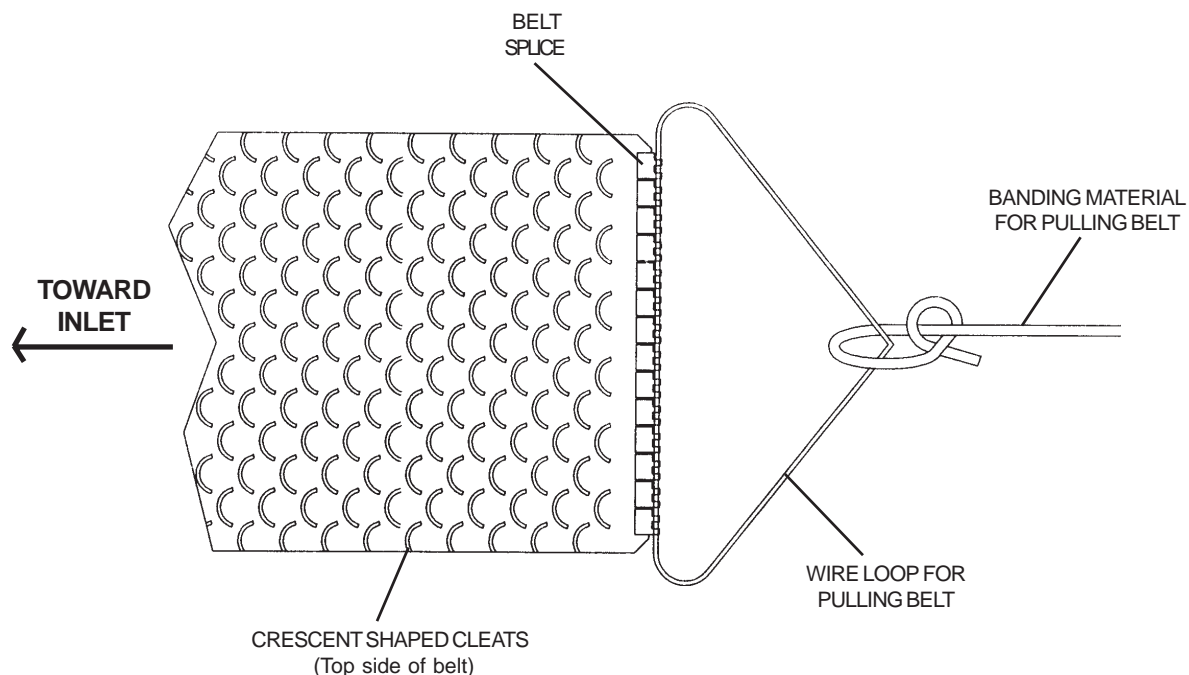
REF. NO.	PART NO.	DESCRIPTION
1	Ref.	Inlet Assembly
2	Ref.	Discharge Assembly
3	1028706	Wind Guard x 94-3/8" lg. w/Notch (right hand)
4	1028707	Wind Guard x 94-3/8" lg. w/Notch (left hand)
5	1028710	Wind Guard x 118-1/2" lg. w/Notch (right hand)
6	1028711	Wind Guard x 118-1/2" lg. w/Notch (left hand)
7	1028712	Wind Guard x 100-3/8" lg. (used both sides)
8	1028708	Wind Guard x 94-3/8" lg. (right hand)
9	1028709	Wind Guard x 94-3/8" lg. (left hand)
10	1028713	Wind Guard x 82-1/2" lg. (used both sides)
11	1030167	Wind Guard x 119-7/8" lg. (used both sides)

CONVEYOR BELT**REFER TO ASSEMBLY DRAWING ON PAGE 19.**

NOTE: Whenever reference is made to right or left side of conveyor, it is determined by standing at the inlet end of the conveyor and looking toward the discharge end.

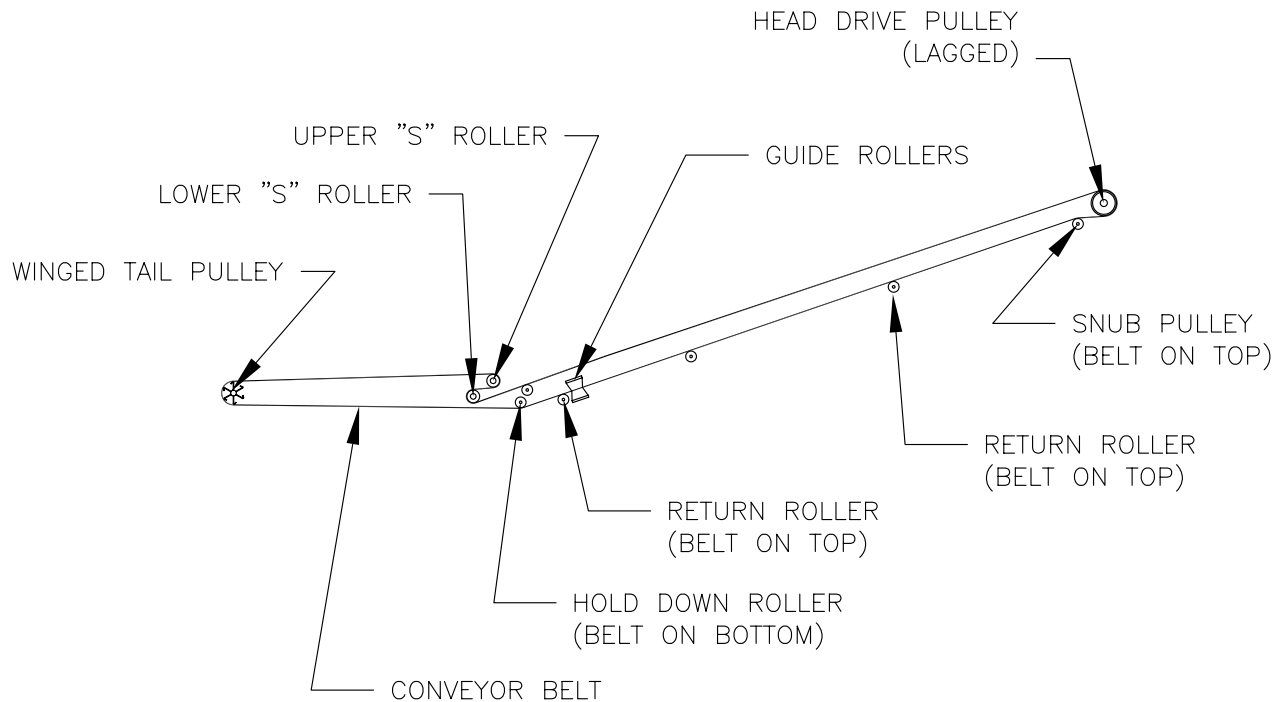
1. Move the roll of conveyor belting to the inlet end of the conveyor. Put a round bar through the wooden hub inside the belt and set each end of the rod on a saw horse or other support so that the roll of belting is free to rotate. Make sure the roll is arranged so that as it is unrolled and the end pulled through the conveyor tube, that the side of the belt with crescent shaped cleats (rough side) will be up and the smooth side will be down against the conveyor tube. Also, the crescent cleats should be cupped away from the inlet end of the conveyor.
2. Remove the nylon covered connecting pin from the exposed splice end of the belt roll.
NOTE: You may discard the two retaining washers when removing the pin, as they will not be used.

3. Pull the end of the belt out onto the flat loading surface of the inlet frame. Wrap the end of the belt over and around the top 2 1/4" diameter "S" roller then over and around the lower "S" roller and pull the belt end up into the transition area just before it enters the 10" diameter conveyor tube. (See belt path on the following page.)
4. Run a piece of straight wire at least 36" long through the loops of the exposed splice end of the belt. Tie the wire ends together to form an attachment loop for pulling the belt through the conveyor tube.
5. Run a length of banding material or similar object through the belt conveyor tube and tie it to the wire loop created in Step 4 above.
NOTE: The banding material should be slightly longer than the assembled conveyor tube length.
6. Pull the belt through the conveyor tube from inlet end to discharge end. Assure belt arranged as specified in Step 1 above. Pull approximately 35 feet of belt past the discharge end. This will allow the belt to be spliced near the inlet end.



CONVEYOR BELT - CONT.

7. Remove the banding material used to pull the belt.
8. Route the belt around the head pulley and over the top side of the 4" snub pulley that is just under and behind the head pulley. Continue to route the belt over the 2" return rollers and under the 2" hold down roller at the bottom of the inlet frame assembly.
9. Insert the end of the belt under the tail pulley and wrap it around the tail pulley. Now pull the end over the top of the tail pulley and out onto the flat loading surface of the inlet frame. Make sure the belt is underneath the bar across the end of the inlet hopper.
10. Inspect the path of the belt once again to make certain it matches the following diagram.

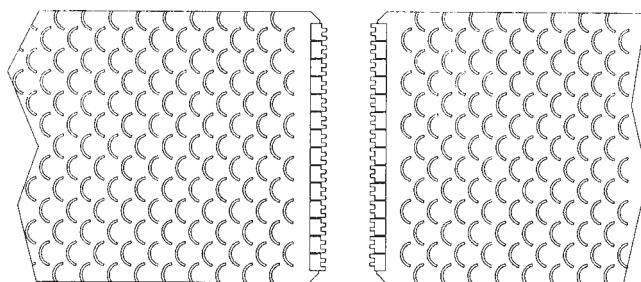
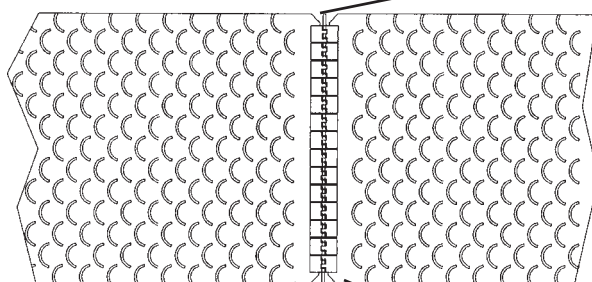


CONVEYOR BELT - CONT.

11. Pull the two ends of each belt together so that the splice bars interlock and insert the nylon covered pin (removed from the belt in Step 2) through the splice. Make certain the belt edges are aligned with each other. If not, the splice was probably connected improperly. It may be necessary to provide additional slack in the belt to get the ends to come together. If so, turn the take-up bolts to move the take-up pulley closer to the drive pulley.

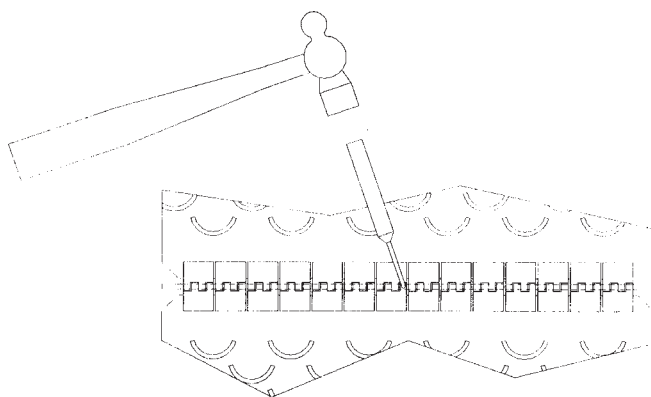
NOTE: Although two pin retaining washers may have been supplied with the splice pin, experience has shown that it is best to just discard them. The hinge pin will seat into the hinge after a short period of operation. To assure the pin stays in place until seated, using a punch, smash one of the lace hinge loops located in the center of the splice. This leaves the ends of the pin free to work inside the splice as if flexes going in and out of the conveyor tube. The splice should be monitored during the first few hours of conveyor operation to assure that the pin hasn't started to work out of the splice.

Pull Ends Together

**CONNECTED BELT**

Nylon covered
splice pin

Make certain belt
edges are aligned.



12. Tighten the conveyor belt by adjusting the take-up bolts on the tail pulley bearings. For now, the take-up adjustment should be equal on both the right and left sides.

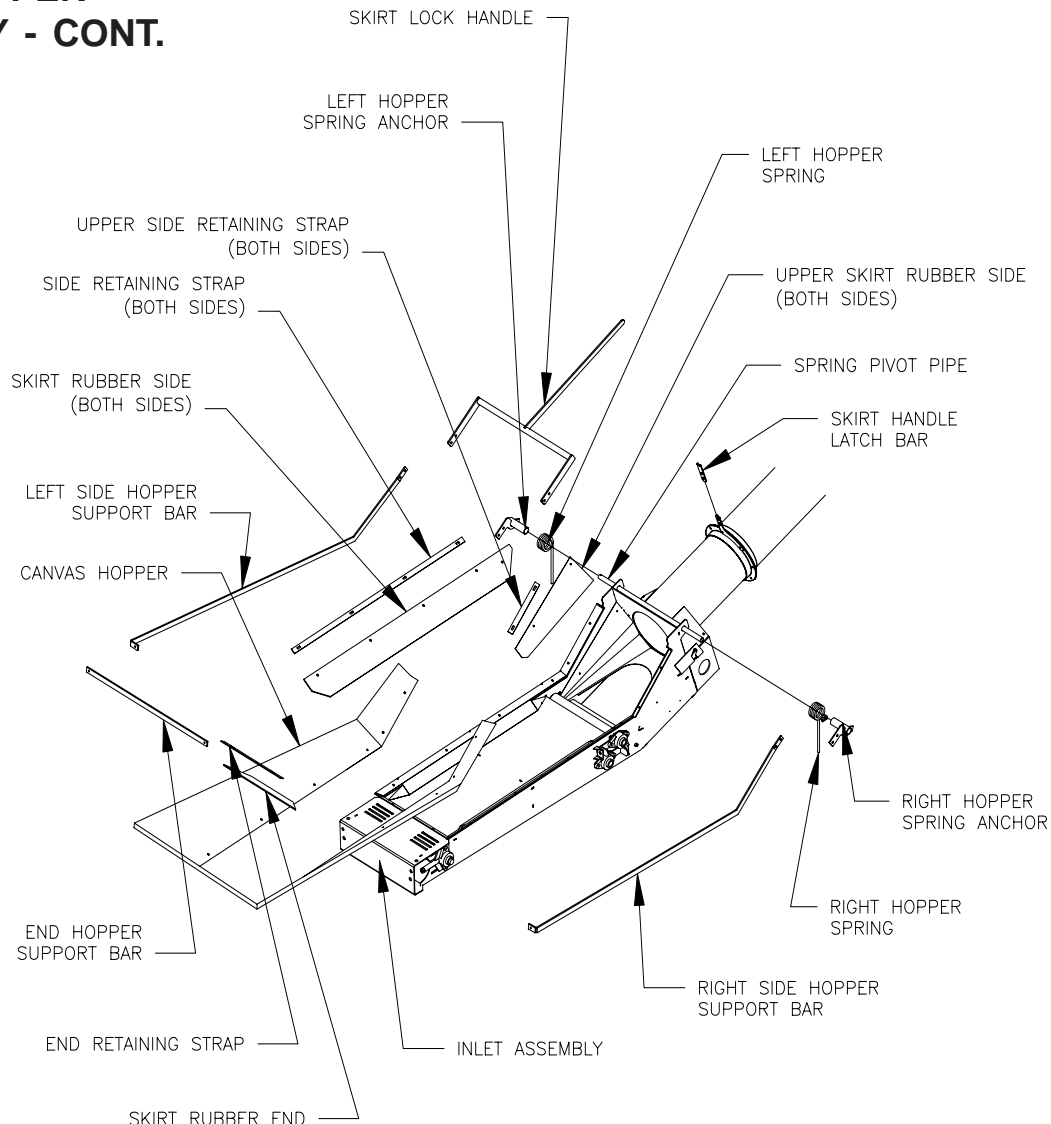
INLET HOPPER ASSEMBLY

NOTE: Whenever reference is made to right or left side of conveyor, it is determined by standing at the inlet end of the conveyor and looking toward the discharge end.

1. Insert the spring pivot pipe through 15/16" diameter holes in the side panels of the inlet housing assembly.
2. Slide the right side hopper spring over the tube of the right side spring anchor and slide over end of spring pivot pipe. Install a 5/32" x 1-1/4" long cotter pin in the hole in the end of the spring pivot pipe.
3. Repeat Step 2 for the left side hopper spring and spring anchor.
4. Lay canvas hopper out on a flat surface with the inside surface up. NOTE: One side of the canvas hopper has pockets sewn in for the support bars and the tarp retaining bars. This is the outside of the canvas hopper.
5. Insert a left and right side hopper support bar into the top sewn pocket on each side of the canvas hopper. The top pocket is the one with the largest opening and does not have bolt holes.
6. Insert the end hopper support bar into the top sewn pocket on the end of the canvas hopper.
7. Fasten the ends of the side hopper support bars to the ends of the end hopper support bar using two 1/4" x 3/4" long hex head capscrews with nylon locknuts.
8. Fasten the other end of each side hopper support bar and the ends of the skirt lock handle to the spring anchors with two 3/8" x 1-1/4" long hex head capscrews and nylon locknuts each. NOTE: The angle of the handle should be down so that the handle lays somewhat parallel to the belt conveyor tube. Also, note that the handle mounts on the inside of each spring bracket and the hopper support bars mount on the outside of each spring bracket.
9. Hook the straight portion of each hopper spring into the notch in the hopper spring retainer angle welded to each side of the inlet housing assembly. NOTE: Hooked end of each spring should be wrapped around tab of spring anchor.
10. Slide the lower tarp retaining straps into the bottom sewn pockets of the canvas hopper. There are two long and two short side retaining straps and one end retaining strap.
11. Lay the two lower skirt rubber sides and one skirt rubber end inside the inlet hopper. NOTE: The end skirt rubber piece should lay on top of the side skirt rubber pieces.
12. Lay the two upper skirt rubber sides inside the inlet hoppers incline section. The two 1/4" holes in the skirt rubbers should be aligned with the holes in the tapered metal side panels of the inlet housing.
NOTE: The narrowest end of the skirt rubber should be nearest the inlet end of the conveyor. Also, the lower skirt rubbers sides (from step 11 above) should lay on top of the upper skirt rubber sides.
13. Secure the two upper skirt rubber sides to the inlet hopper with two 1/4" x 3/4" long self tapping metal screws. NOTE: There is one hole in the end of each of the lower skirt rubber sides that is also fastened to the side panel with two of these same metal screws.
14. Pull the canvas hopper down toward the inlet housing assembly until the holes in the bottom of the canvas align with the holes in the inlet hopper side and end panels. NOTE: The skirt rubber sides and end needed to be sandwiched in between the canvas hopper and the metal sides of the inlet housing assembly. Fasten the canvas hopper, side retaining straps and side rubber skirts to the metal sides of the inlet housing assembly with twelve 1/4" x 1-1/4" long (grade 2) elevator bolts with lockwashers and non-lock nuts. The bolt heads should be on the inside of the hopper. Fasten the canvas hopper, end retaining strap and end rubber skirt to the metal end bar of the inlet housing with two 1/4" x 3/4" long carriage bolts with lockwashers and hex nuts. Carriage bolt heads should be on the inside of the hopper.
15. Attach the skirt handle latch bar to the latch bracket which was installed to the conveyor tube flange during the inlet to discharge assembly. Use two 5/16" x 3/4" long carriage bolts with flat washers and locknuts.

ASSEMBLY INSTRUCTIONS

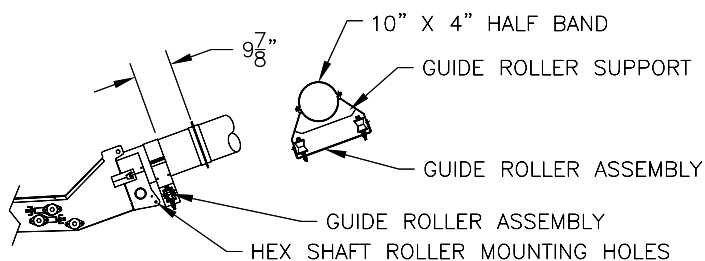
INLET HOPPER ASSEMBLY - CONT.



16. Clamp the guide roller support to the 10" diameter tube of the inlet housing using a 10" x 4" wide halfband and four 3/8" x 1-1/4" bolts and hex nuts. Locate 9-7/8" down from tube flange connections. (See drawing below.)

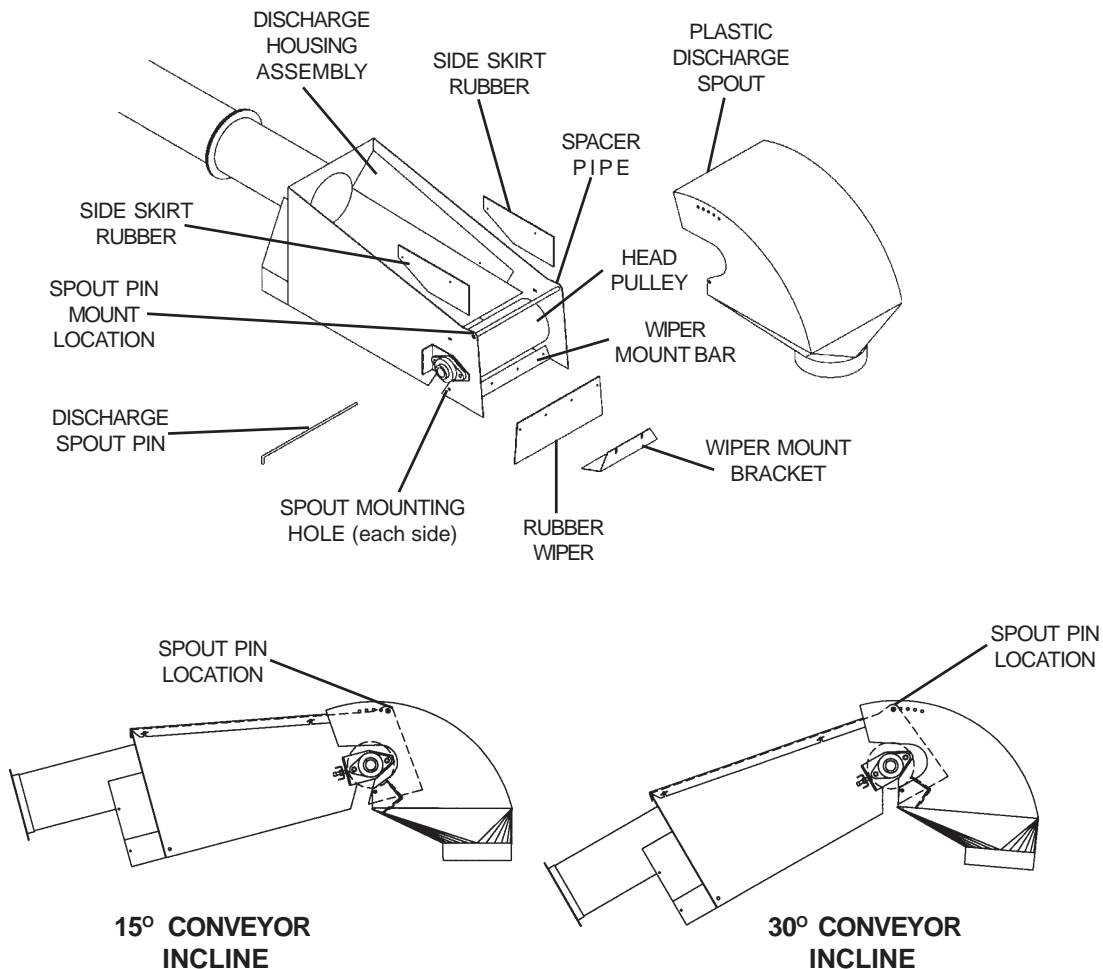
17. Fasten the guide roller assembly to the guide roller support using four 3/8" x 1-1/4" bolts, flat washers and locknuts.

18. Install a hex shaft roller into the hex holes of the inlet housing.



DISCHARGE SPOUT AND PULLEY WIPER ASSEMBLY

1. Fasten the rubber wiper and wiper mount bracket to the wiper mount bar located across the discharge end of the discharge housing assembly. Use four 1/4" x 1" long hex head capscrews with flat washers, lockwashers and non-lock nuts. NOTE: The rubber wiper should be sandwiched in between the wiper mount bracket and the wiper mount bar. The wiper mount bar is slotted so that the rubber wiper can be adjusted to make contact with the conveyor belt as it wraps around the head pulley. Fold the rubber wiper back away from the discharge opening.
2. Fasten the two discharge side skirt rubbers to the sides of the discharge housing. Use two 1/4" x 1" long bolts with flat washers, lock washers and nuts to fasten to the slots above the head pulley bearings and use two 1/4" x 3/4" long self tapping metal screws and flat washers to attach to the hole in the side of the formed bottom panel of the housing. The skirt rubbers should lay on top of the conveyor belt.
3. Bolt the bottom two 1/2" holes in the plastic discharge spout to the mounting holes in the side panels of the discharge housing assembly. Use two 3/8" x 1 1/4" long hex head capscrews, two 3/8" nylon locknuts and six 3/8" flat washers. Place the flat washers between the plastic spout and the housing side panels (three on each side) to serve as spacers.
4. Rotate the plastic spout until one of the top sets of holes in the spout align with the spacer pipe located across the top discharge end of the discharge housing assembly. Insert the 3/8" diameter pin through the holes in the plastic spout and the spacer pipe. Secure the pin in place with a 3/32" x 1 1/4" cotter pin and 3/8" flat washer. NOTE: The proper spout holes to use depends on the incline angle of the operating conveyor.

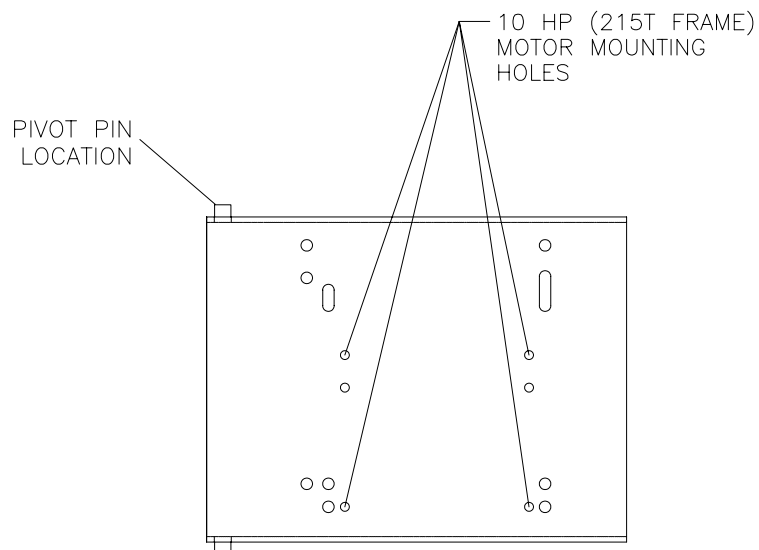
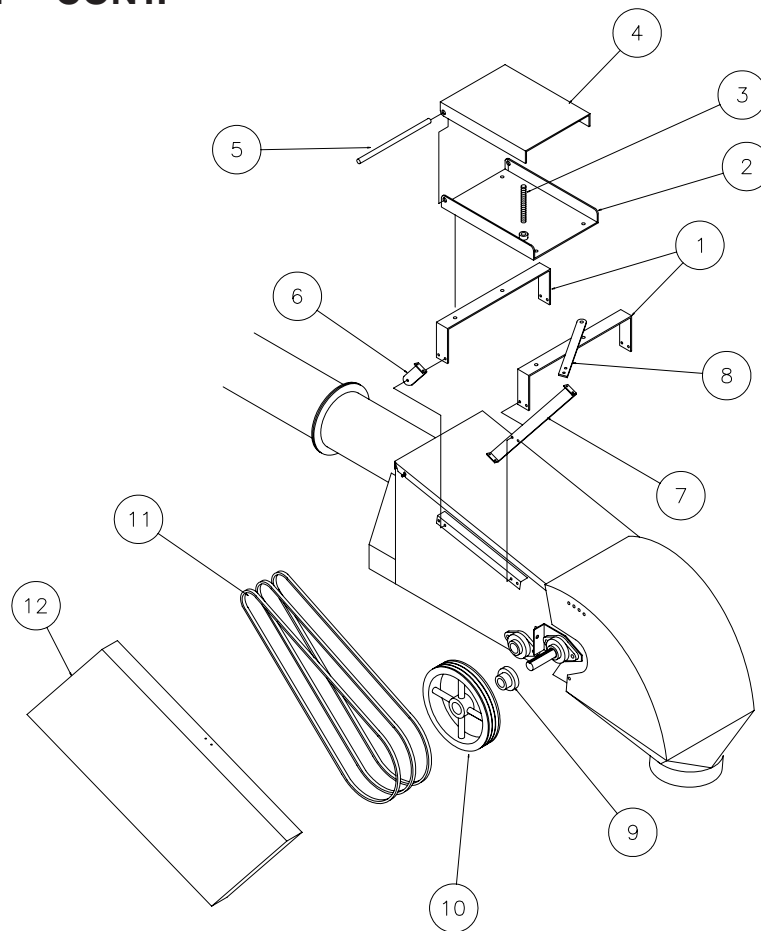


ELECTRIC DRIVE ASSEMBLY

(See drawing on page 25.)

1. Fasten the motor mount support straps (Item 1) to the angles welded to each side of the conveyor head. Belt guard brackets (Items 6 & 7) must be installed at the same time as the motor mount straps. Install belt guard bracket (Item 6) on strap closest to the intake of the conveyor and using the hole closest to the discharge end. The other belt guard bracket (Item 7) uses both holes of the motor mount straps to mount onto. Use eight 3/8" x 1 1/2" long hex head bolts and locknuts to make these assemblies.
2. Bolt the motor mount support plate (Item 2) to the motor mount support straps (Item 1). The belt guard support strap (Item 8) must be installed at this time also. The motor mount support plate must be positioned so that the nut welded to this plate is toward the discharge end. The belt guard support plate (Item 8) will be bolted on top of the support plate (Item 2). Use three 1/2" x 1 1/2" long hex head capscrews and one 1/2" x 1 3/4" long hex head capscrew, flat washers and locknuts to make this assembly. Use the longer bolt for the belt guard support strap (Item 8). Also, bolt the support strap (Item 8) to the belt guard bracket (Item 7) using two 3/8" x 1 1/2" long hex head capscrews and locknuts.
3. Thread the adjusting bolt (Item 3) down through the nut in the top of the motor mount support (Item 2) until it only extends two to three inches above the top of the support (final adjustment will be done after installing motor and belts).
4. Set the motor mount plate (Item 4) down over the motor mount support (Item 2) and align the pivot shaft holes in each. Install the pivot shaft (Item 5) through the holes and install a 3/16" x 1 1/2" long cotter pin in each end to secure it in place.
5. Install the belt guard weldment (Item 12) to the brackets (Items 6 & 7) using six 5/16" x 1 1/4" long hex head bolts with locknuts and flat washers. The guard goes on with the hinges toward the bottom.
6. Install a 1/4" x 3" long square key in the keyway of the head shaft.
7. Mount the 20" pitch diameter sheave onto the head shaft using a tapered lock Q.D. bushing.
8. Install a 10 HP, 1750 RPM, electric motor onto the motor mount plate. NOTE: Motor is not furnished.
9. Install a 3.8" pitch diameter sheave onto the motor shaft. The motor sheave is not furnished.
10. Align the motor sheave with the driven sheave by placing a straight edge across the edges of the sheaves. When aligned, tighten the setscrews to hold sheaves firmly on the shafts.
11. Install drive belts and tighten them by adjusting the threaded adjusting bolt up against the bottom of the motor mount plate. Once belts are tensioned properly, install a 3/4" hex nut onto the threaded adjusting bolt and secure it tightly against the bottom of the motor mount support.

ELECTRIC DRIVE ASSEMBLY - CONT.



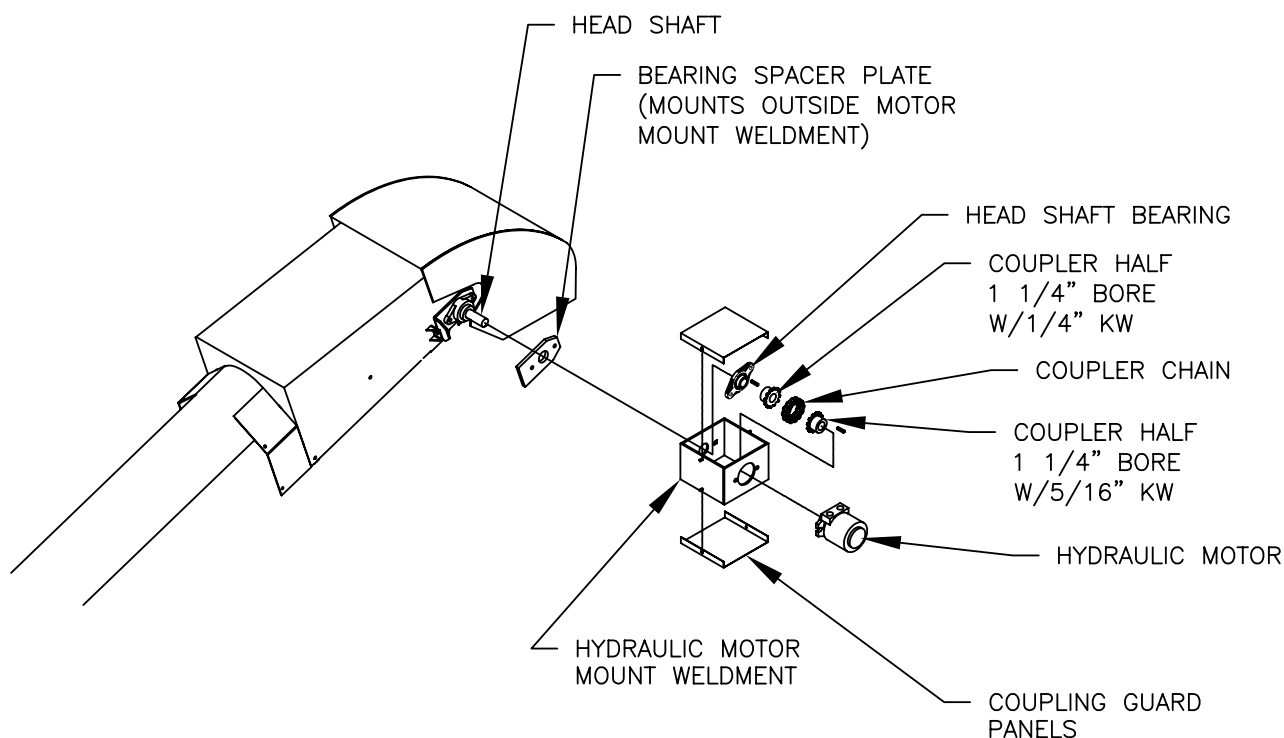
HYDRAULIC DRIVE ASSEMBLY

NOTE: Whenever reference is made to right or left side of conveyor, it is determined by standing at the inlet end of the conveyor and looking toward the discharge end.

NOTE: On hydraulic drive units, the head shaft bearing and bearing push plate on right hand side of the conveyor must be removed before mounting the hydraulic motor mount weldment. Discard the push plate and mount the bearing spacer plate between discharge housing side panel and the motor mount weldment. This allows room for the discharge spout to fit between the motor mount and the housing side panel. Use two 1/2" x 2-1/2" carriage bolts and locknuts. Make sure the bearing is on the inside of the mount.

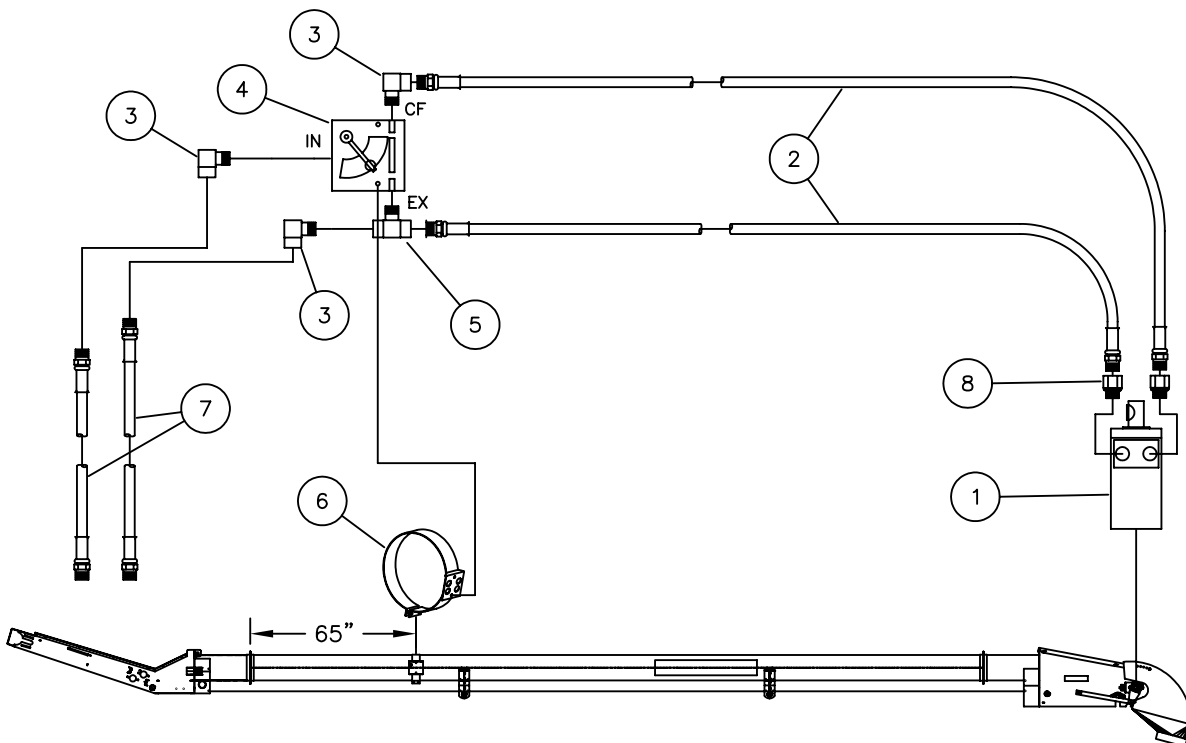
1. Install a 1/4" x 1-1/2" long key into keyway in right hand end of the conveyor head shaft.
2. Install the flex coupler half with 1-1/4" bore and 1/4" keyway onto the end of the head shaft.

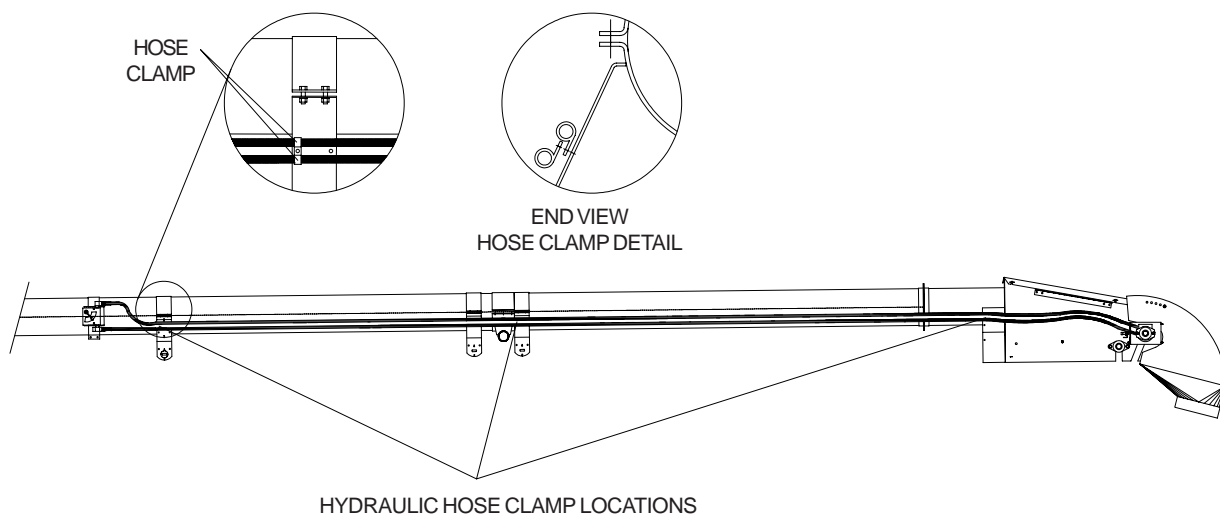
3. Slide the hydraulic motor shaft through the hole of the mounting weldment and install the other flex coupling half. Use the 5/16" to 1/4" stepped key to secure it to the shaft.
4. Bolt the hydraulic motor to the hydraulic motor mount with two 1/2" x 1-1/2" bolts and flatwashers and locknuts.
5. Install coupler chain around the two coupler halves and connect ends.
6. Install the two coupling guard panels to the motor mount using two 1/4" flat washers and four 1/4" lockwashers and nuts.



HYDRAULIC DRIVE ASSEMBLY

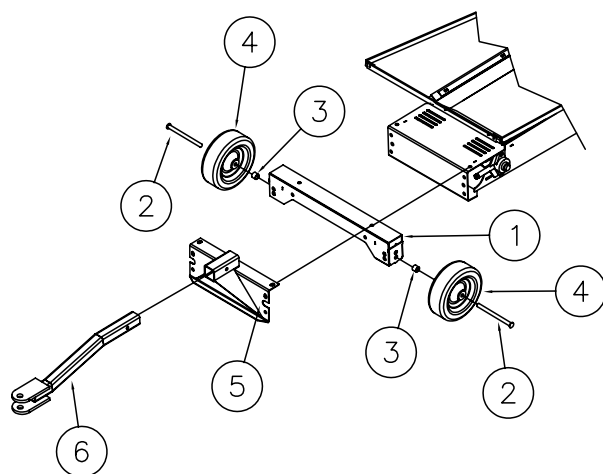
7. Install a 1/2" 90° hydraulic elbow fitting (Item 3) into one end of the hydraulic tee fitting (Item 5) and also into the controlled flow (CF) port and the inlet (IN) port of the hydraulic valve (Item 4).
8. Thread hydraulic tee (Item 5) into the exhaust (EX) port of the flow control valve (Item 4).
9. Bolt the flow control bracket (Item 6) to the conveyor housing using two 5/16" x 1-1/2" long hex head capscrews with nylon locknuts. Locate center of bracket 65" from flange connection.
10. Bolt the flow control valve (Item 4) to the flow control bracket (Item 6) using two 1/4" x 2-1/2" long hex head capscrews and nylon locknuts.
11. Install hydraulic adapters (Item 8) into the hydraulic motor (Item 1). These adapters are 7/8" - 14 male o-ring for the motor to 1/2" pipe thread for the hose ends.
12. Connect 25' long hydraulic hoses between the adapters (Item 8), the tee fitting (Item 5) and the elbow that is installed in the CF port of the valve.
13. Hydraulic hoses (Item 7) are not furnished that go between the remaining elbows (Item 3) and the tractor. We recommend a length of 12'. Determine the length you want based on where the conveyor will be in relation to the tractor during operation.



**HYDRAULIC DRIVE
ASSEMBLY - CONT.**

14. Install hose clamps in three locations shown above.

Use two clamps at each location to fasten hydraulic hose to head or roller support brackets. Fasten clamps with 1/4" x 1-3/4" long hex head capscrew and nylon locknut.

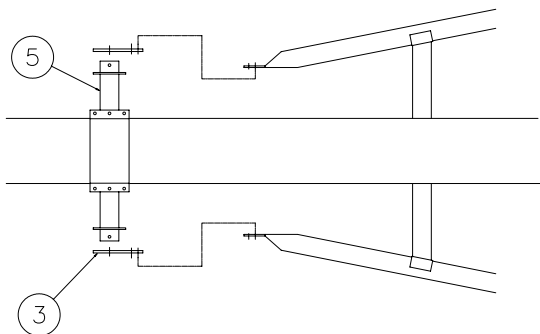
**HITCH AND HOPPER
WHEEL ASSEMBLY**

1. Connect the wheel mount weldment (Item 1) and the hitch mount weldment (Item 5) to the inlet housing using four 1/2" x 1-1/2" long hex head capscrews and locknuts.
2. Insert the wheel axles (Item 2) through the hub of each 10" wheel (Item 4) and the axle spacer tubes (Item 3).
3. Then install wheel axles (Item 2) into the top set of holes in the side of the wheel mount weldment and secure into place with 3/32" x 2" long hair pins. If greater ground clearance is desired, use bottom set of holes in the wheel mount weldment.
4. Slide hitch tube weldment (Item 6) into hitch mount weldment (Item 5) and secure into place with 1/2" x 3-1/8" long pin and hair pin.

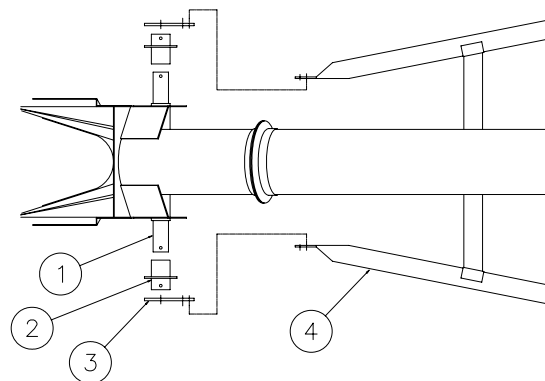
BELT CONVEYOR UNDERCARRIAGE

NOTE: Whenever reference is made to right or left side of conveyor, it is determined by standing at the inlet end of the conveyor and looking toward the discharge end.

1. Slide the hub and spindle assembly in the undercarriage axle and secure with a 1/2" x 4 1/2" long (grade 5) hex head capscrew and nylon locknut.
2. Secure tires and rims to hubs with five lug nuts.
3. On hydraulic drive models, slide pivot tube (Item 1) into the sleeve that is located at the discharge end of the inlet hopper. Install pivot sleeves (Item 2) onto pivot tube with bolt holes positioned to the outside. NOTE: This step & Step 4 were probably completed earlier. (See Page 16.)
4. For both hydraulic drive and electric drive models, slide undercarriage pivot plates (Item 3) onto sleeve bracket and secure into place using 3/8" x 3-1/2" long hex head capscrew and locknut on each end.
5. Position undercarriage weldment directly under the conveyor tube with axle centered on conveyor tube.
6. Fasten each lower arm (Item 4) of the undercarriage to one of the pivot plates (Item 3) with three 1/2" x 1-1/2" long (grade 5) bolts and lock nuts.
7. Install the spacer tube (Item 7) through the tube of the upper pivot weldment. (See page 30.)
8. Lift the conveyor assembly with a hoist high enough to line up the spacer tube of the upper pivot and the yoke of this push rod (Item 6). Use a chain hoist or other safe suitable means. **DO NOT** lift the entire weight of the conveyor from the extreme end.
9. Rotate the push rod portion of the undercarriage weldment around the axle and slide the tubes in or out, as required to align the mounting holes in the push rod yoke (Item 6) with the hole in the spacer tube (Item 7) that was inserted in the upper pivot weldment. Install the 1" x 24" long pivot bolt (Item 8) through the push rod yoke and the spacer tube. Secure with a 1" nut.



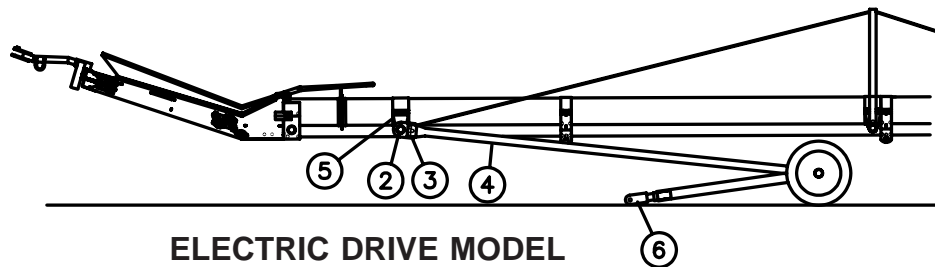
**ELECTRIC DRIVE
MODEL**



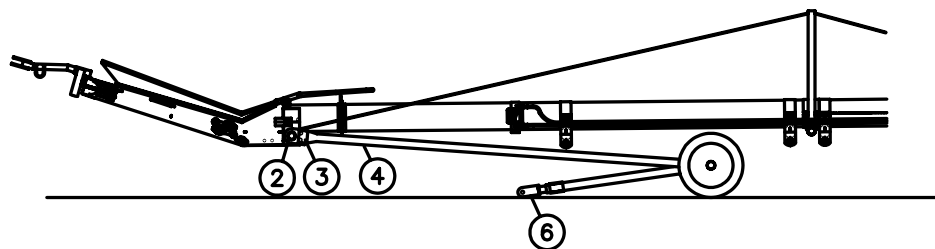
**HYDRAULIC DRIVE
MODEL**

ASSEMBLY INSTRUCTIONS

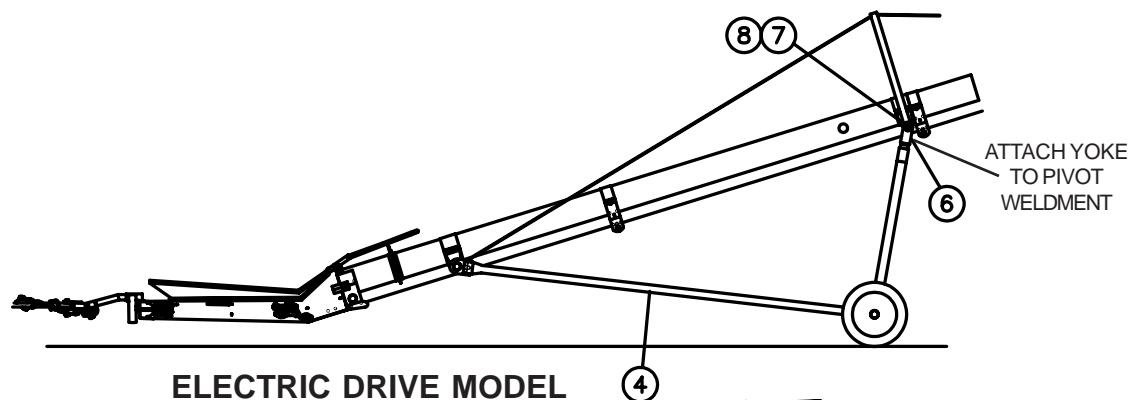
BELT CONVEYOR UNDERCARRIAGE - CONT.



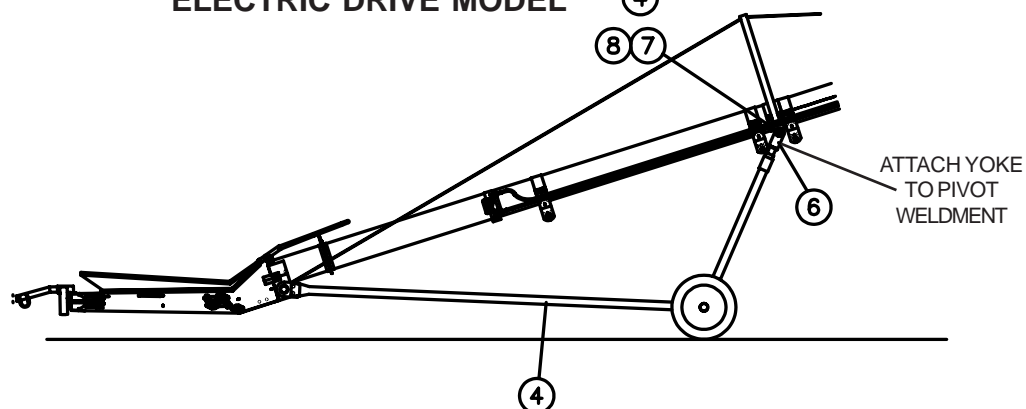
ELECTRIC DRIVE MODEL



HYDRAULIC DRIVE MODEL



ELECTRIC DRIVE MODEL

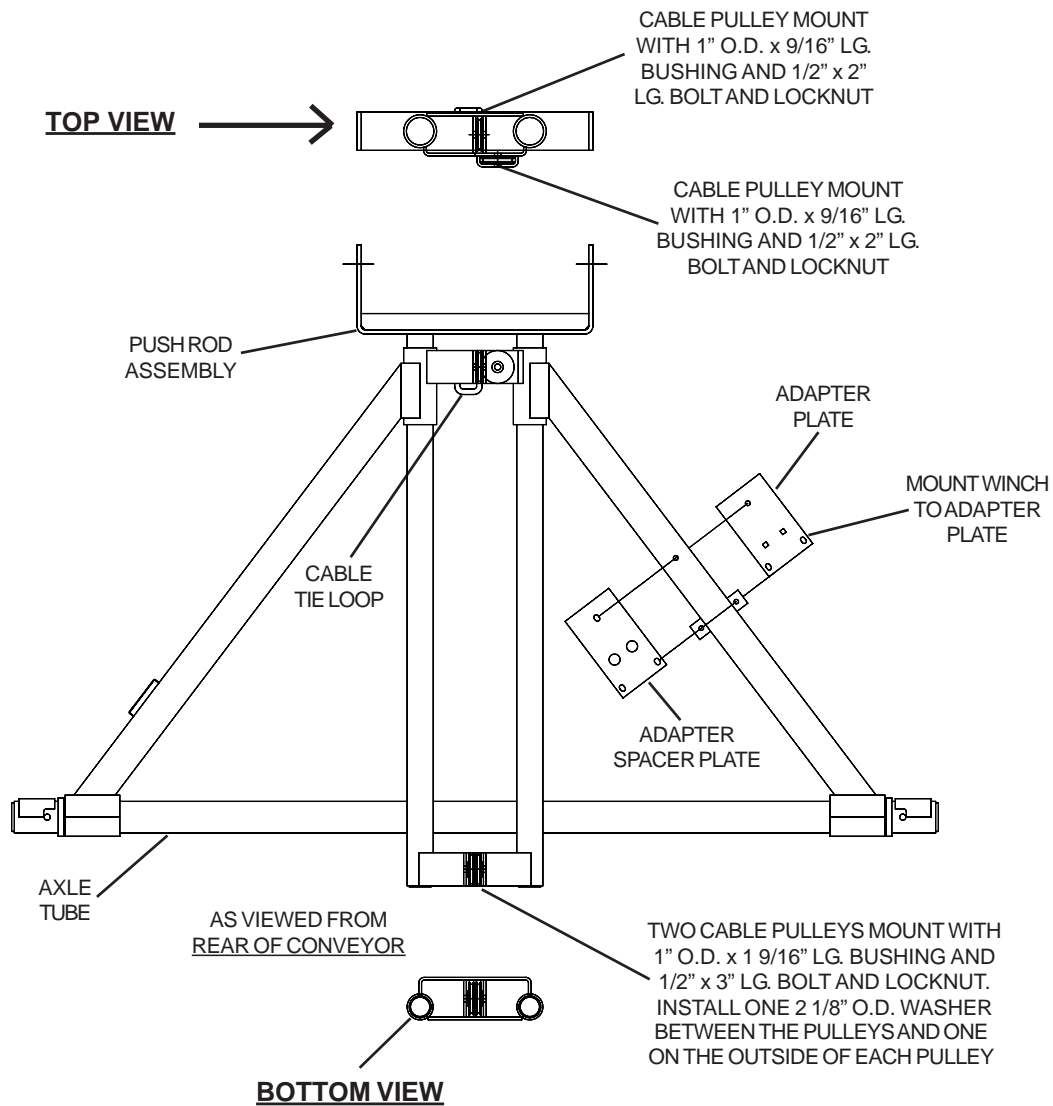


HYDRAULIC DRIVE MODEL

BELT CONVEYOR UNDERCARRIAGE - CONT.

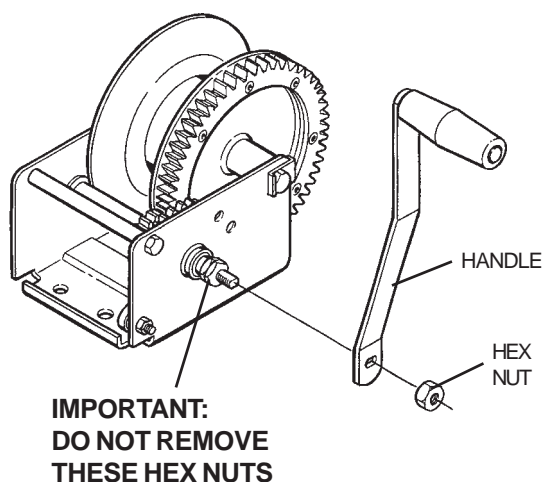
10. Mount the K1550 winch assembly to the adapter plate using two 3/8" x 1" long carriage bolts with nylon locknuts. Mount the adapter plate to the 3" square frame tube on the left side of the undercarriage push rod assembly. Use one 3/8" x 4-1/2" (grade 5) bolt and two 3/8" x 1-1/2" (grade 5) bolts with flat washers and locknuts. Sandwich the adapter spacer plate between the frame tube and the winch adapter plate.

11. Install cable pulleys to each end of the undercarriage push rod assembly. The two upper pulleys are mounted with 1/2" x 2" lg. bolts and locknuts. A 1" O.D. x 9/16" long bushing should be installed in each of the pulley bores. The two lower cable pulleys are mounted with a 1/2" x 3" lg. bolt and locknut. A 1" O.D. x 1 9/16" long bushing should be installed in the bore of the pulley. In addition, use three 2 1/8" O.D. flat washers (one between the two pulleys and one on the outside of each pulley).

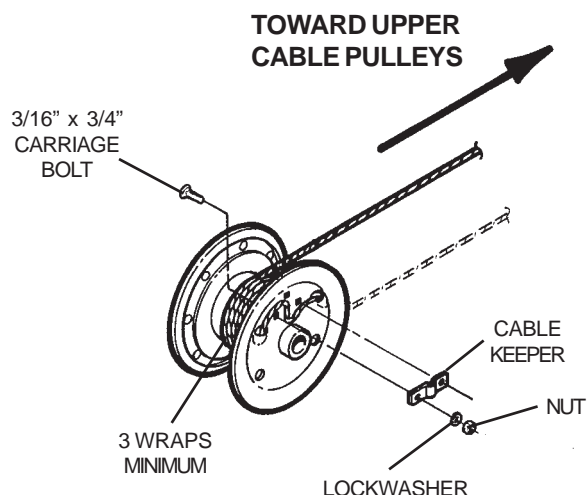


**BELT CONVEYOR
UNDERCARRIAGE - CONT.**

12. Align slot of handle with flat portion of winch pinion shaft. Use hex nut to hold handle in place and tighten securely. For additional winch information, follow the instructions and precautions listed in the material supplied with the winch from the manufacturer.



13. Attach 1/4" lift cable to winch drum so cable will wrap over winch drum when turning handle in a clockwise direction. From inside of drum, insert the cable through one round hole in the drum side, until it extends 1" past the two square holes. Next clamp the cable to the outside of the drum with the cable keeper, using two 3/16" x 3/4" carriage bolts, lockwashers and nuts. Be sure that the carriage bolt heads are on the inside of the drum.

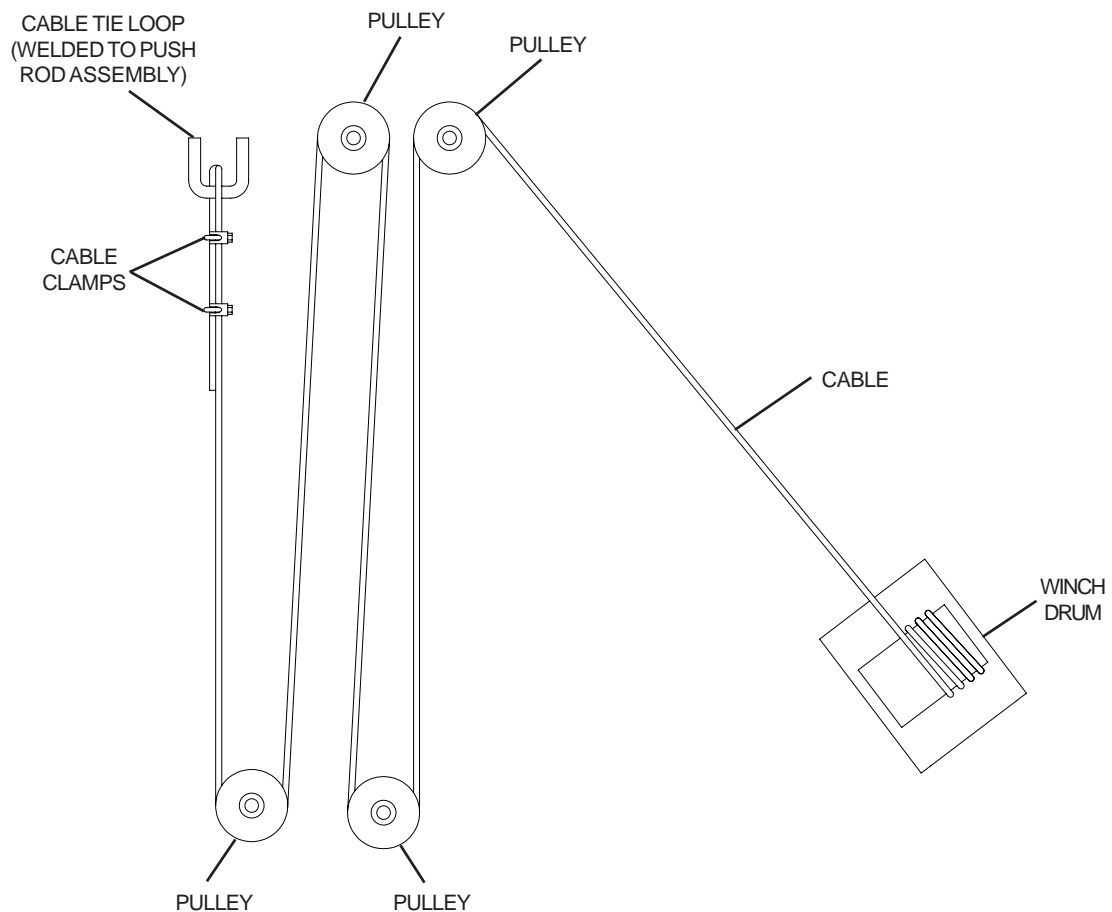


CAUTION: The rope keeper alone will not hold the weight of the auger. There should be enough cable so that when the auger is all the way down, there are at least (3) turns of cable on the winch drum. Never let the cable all the way out. Always keep a minimum of (3) turns of cable on the winch drum. If there are not (3) turns of cable around the winch drum when the auger is fully lowered, then the cable must be replaced with a longer cable.

BELT CONVEYOR UNDERCARRIAGE - CONT.

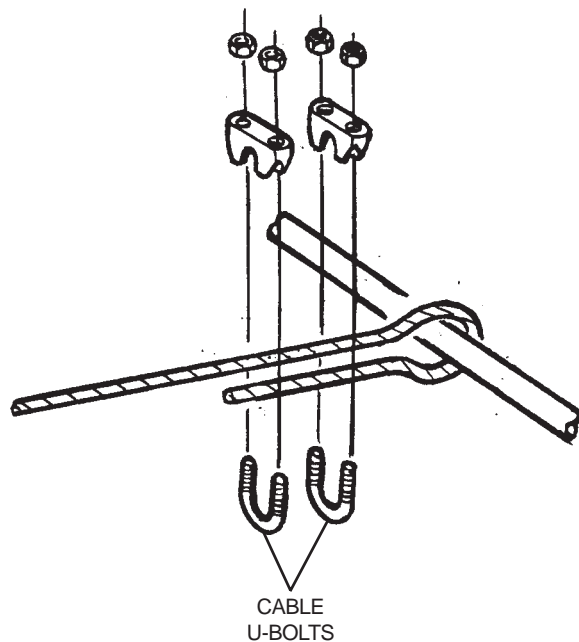
14. Route the winch cable through the notch in the side of the push rod pulley mount bracket and around the first cable pulley. This is the one pulley that sets perpendicular to the conveyor center line. From this pulley, route the cable down and around the first pulley at the lower end of the push rod assembly. Enter this pulley on the back side of the pulley (toward discharge end) and exit this pulley on the front side.

14. cont. - From here, route the cable up and around the remaining top pulley on the push rod assembly. Enter this pulley on the front side of the pulley (toward inlet end) and exit this pulley on the back side. From here, route the cable back down and around the other pulley at the bottom of the push rod assembly. Enter this pulley from the back side of the pulley (toward discharge end) and exit this pulley from the front side.



**BELT CONVEYOR
UNDERCARRIAGE - CONT.**

15. Extend the cable on up and around the cable tie loop welded to the top of the push rod assembly. Fasten the cable with two 1/4" cable clamps. It is important that the cable clamps are installed with the u-bolt part of the clamps against the loose end of the cable. Tighten clamps securely. Wind slack cable onto winch.



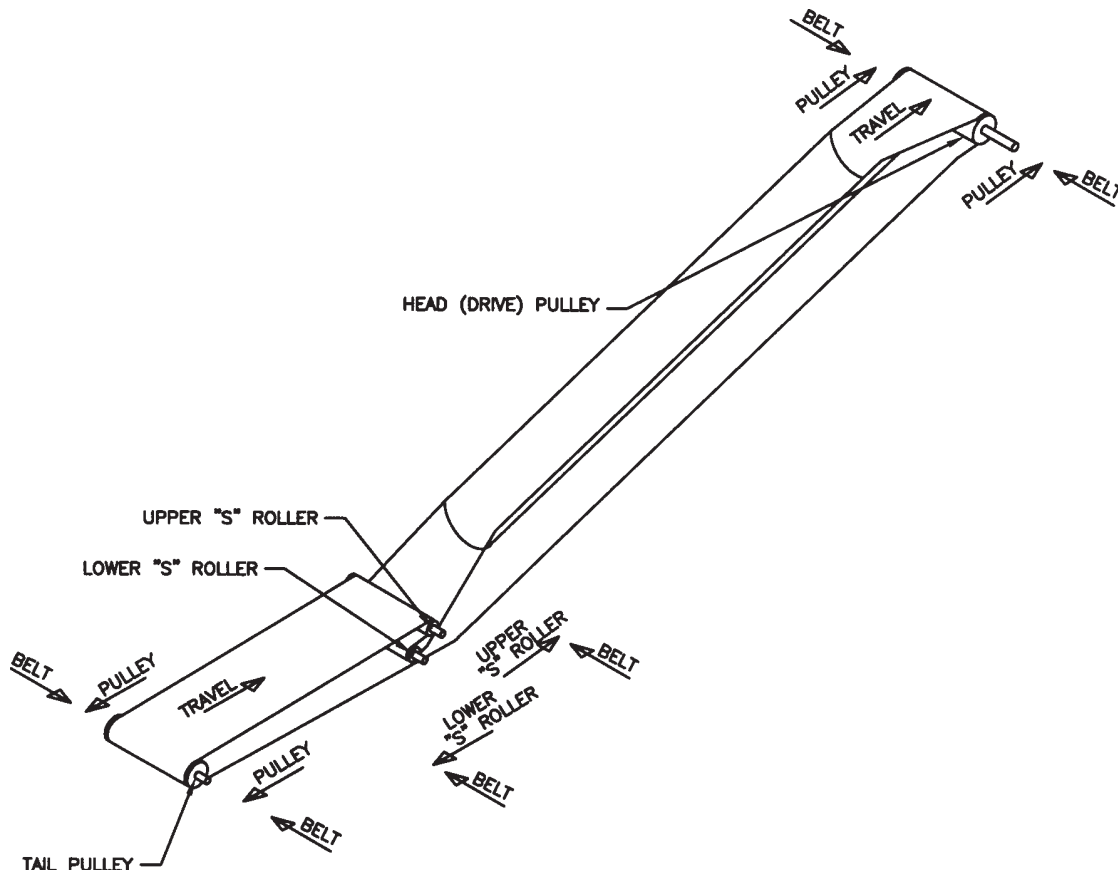
CONVEYOR BELT TENSION AND TRAINING

IMPORTANT: If the conveyor belt is installed correctly and trained properly, it will run straight and true. Training is the process of adjusting pulleys and rollers to get the belt to track down the center of the conveyor. If the belt is not properly trained, it may work its way off the end of a pulley and cause damage to the belt.

IMPORTANT: Belt tracking during the first few minutes of operation is critical. It is a good idea to run the belt at slow speeds (hydraulic models) or by stopping and starting (electric models) to prevent belt damage if the belt mistracks rapidly. Once the belt appears to be tracking using this procedure increase the speed until it is running at operating conditions. Make sure the belt is tracking properly before attempting to convey material. Check the belt frequently during the first 10 hours of operation. After 10 hours, the belt is normally seated and will need less frequent checking.

1. For initial operation, all rotating parts (head pulley, "S" rollers, tail pulley and return belt rollers) must be at a 90° angle to the direction of belt travel and should be level.
2. Slight adjustment of pulleys may be required to keep the belt centered on them. As a general rule, the belt will track toward the loose side. Therefore, if the belt runs to one side of the pulley, apply more tension to this end of the pulley. This is done by loosening the bearing bolts on the shaft end that is to be moved and moving the bearing with the adjustment bolt. Small movements (such as 1/16" to 1/8") are probably all that will be required. **NOTE:** Only the right hand end of the "S" rollers are movable.

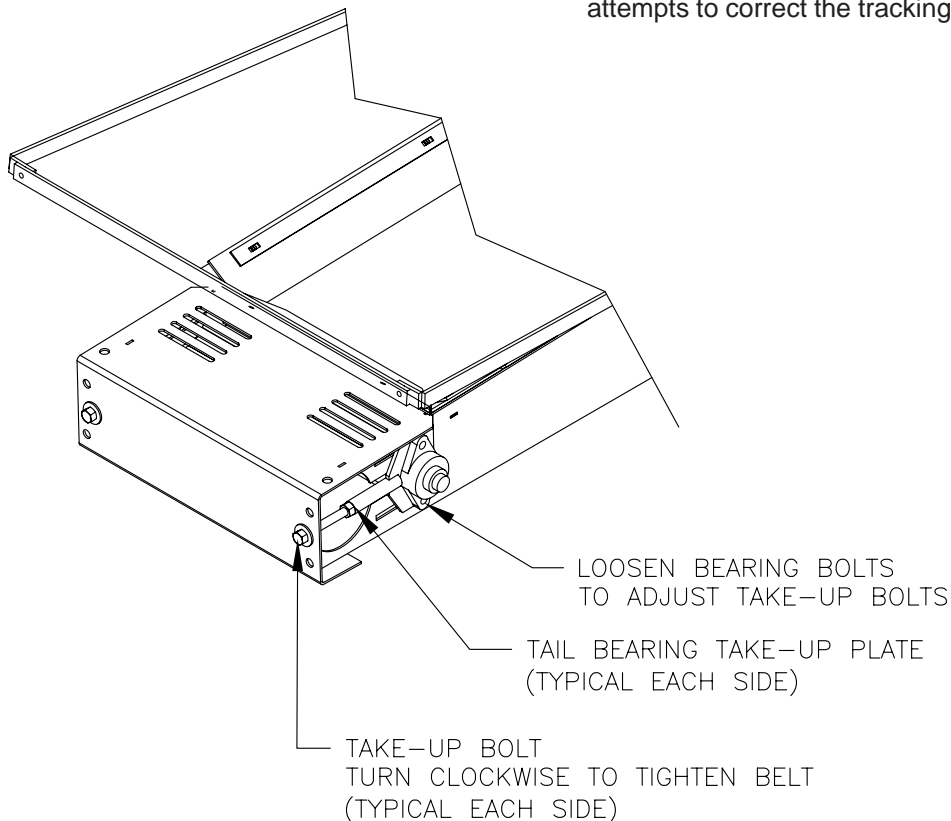
IMPORTANT: If there is too much tension on the conveyor belt, it will be more difficult to train the belt and may shorten the life of the belt.



CONVEYOR BELT TENSION AND TRAINING

3. It is best to leave the head (drive) pulley at 90° to the belt travel and make training adjustments with the other pulleys, if possible. The arrows in the diagram on page 39 show probable direction of belt movement for various movements of the head and tail pulleys. Also, notice belt movement vs. "S" roller movement. The belt tracking can be monitored by looking through the slotted cover over the tail pulley and by looking through the discharge opening of the spout. The belt can also be monitored at the point where it enters the incline tube. If it is tracking off to one side, that edge of the belt will be higher where it enters the tube.

4. The belt tension is adjusted by tightening or loosening the take-up bolts, which are attached to the tail pulley bearing plates. The bolts should be adjusted simultaneously the same amount to keep the pulley located the same relative to the belt. If slip occurs under load, additional belt tension should be applied by adjusting the take-up bolts enough to prevent slip from occurring under load and during belt start-up. It is very likely that one side of the take-up will have to be tensioned more than the other side to achieve proper belt tracking.
5. If the edge of the belt tracks completely off one side of a pulley, it will be necessary to loosen the take-up adjusting bolts enough to remove all tension from the belt so that it can be manually slid back onto the center of the pulley. It is a good idea to note the location of the take-up bearings before loosening so that they can be returned to their original position after moving the belt. Before restarting the conveyor, make the appropriate adjustments as recommended in Steps 2 & 3 to correct the tracking problem. It may take several attempts to correct the tracking.

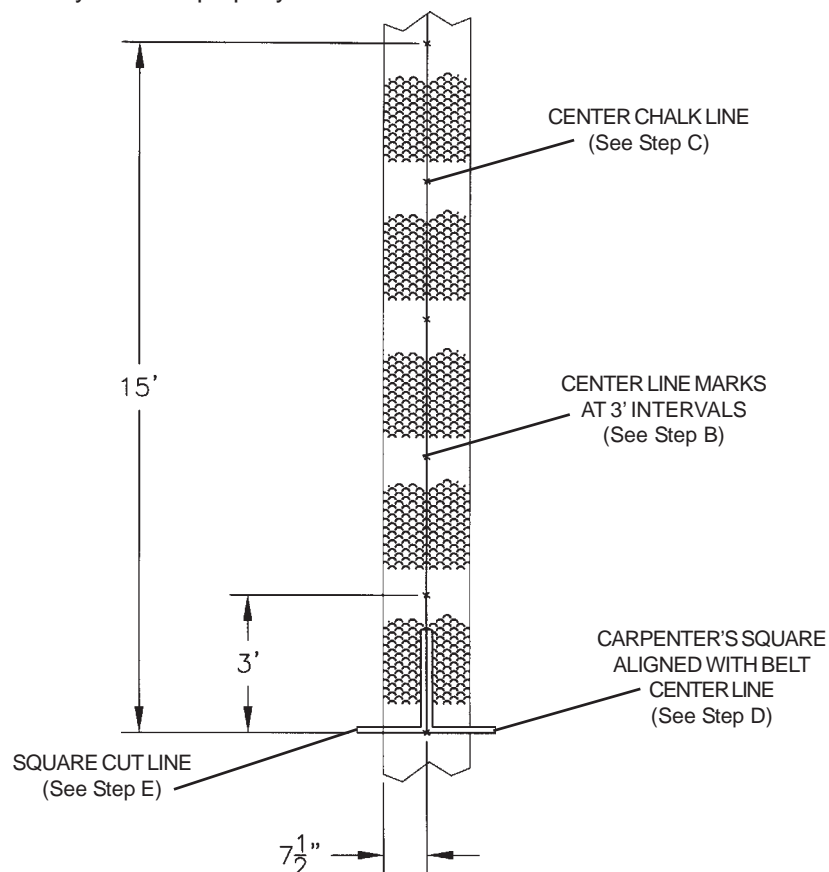


CONVEYOR BELT SPLICING

IMPORTANT: If the conveyor belt becomes damaged for some reason, it may be possible to splice in a section of replacement belt. However, if the damage has occurred along a considerable length of the belt, it may be better to replace the damaged belt with an entire new belt. Splicing the belt does require a special tool for installing the splice connectors to the belt ends. Check to see if your dealer has this tool. Replacement belting and splice kits are listed in the parts section of this manual.

1. The manufacturer of the belt splice provides detailed instructions with the splice kits, so refer to those instructions.
2. The most critical step in installing the belt splice will be to square the belt ends to be spliced. Squaring the belt ends requires only a few minutes and offers real paybacks in extending your belt splice life. A splice that is applied on a belt that is properly squared will have the tension evenly distributed across the splice. Properly squared splices are essential to good belt training. Following these steps will help ensure that your belt is properly squared.

- A. Prior to any work on the conveyor, make certain that the power has been turned off and the belt is "locked out".
- B. Mark the actual center points on the belt width at intervals of about 3 feet for a distance back from the intended splice area of 15 to 20 feet.
- C. Using a steel rule or chalk line, mark the average center line though the points measured from Step B.
- D. Using a carpenter's square, draw a line perpendicular to your average center line across the belt width.
- E. Cut your belt on this line using a sharp knife.



**TO DEALER/
ASSEMBLER NOTICE**

The assembly of the conveyor is complete if all the applicable assembly steps in this manual have been followed.

Before delivery to the owner, it is a good practice to check the following.

- A. Be sure all safety shields and devices are installed properly.
- B. Check all safety decals to see if they are clean and readable. If any are missing, damaged, painted over, etc. replace them. See pages P-1 & P-2 for safety sign location. Decals may be obtained from your dealer, distributor or ordered from the factory.
- C. Check all bolts and fasteners to see they are tightened and secured properly.
- D. Check that the Operator's Manual container (with Operator's Manual inside) is installed in its holder on the side of the conveyor undercarriage frame.

Deliver this Assembly and Operator's Manual to the owner, along with the conveyor.

TO THE OWNER

Use the assembly instructions in this manual as a reference to determine that the conveyor is assembled properly.

Make certain the maintenance schedule on page 15 is read and followed.

PROBLEM/CAUSE	For Solutions Refer to Answer # (Page 44)						
A. Belt runs off at tail pulley.	7	1	11				
B. Belt runs to one side for long distance or entire length of conveyor.	5	1	2				
C. Particular section of belt runs to one side at all points on conveyor.	3	4					
D. Conveyor belt runs to one side at given point on structure.	1	2	16				
E. Belt runs true when empty, crooked when loaded.	5						
F. Belt slips.	12	11					
G. Belt slips on starting	12	11					
H. Grooving, gouging or stripping of top belt cover.	18						
I. Severe pulley cover wear.	6	7	8				
J. Belt covers harden or crack.	10	13					
K. Belt cover swells in spots or streaks.	9						
L. Excessive belt edge wear, broken edges.	5	7	15	4	17	14	
M. Short breaks in carcass parallel to belt edge, star breaks in carcass.	8						
N. Belt ply separation.	10						
O. Belt cupping-old belt (was OK when new).	9	10					
P. Low conveyor capacity.	19	20	6	21	7	12	
Q. Pulley drags or does not turn.	22						

CONVEYOR SYSTEM PROBLEMS/

1. Idlers or pulleys out of square with center line of belt: Readjust idlers in affected area.
2. Conveyor frame or structure crooked: Straighten in affected area.
3. Belt not joined squarely: Remove affected splice and resplice.
4. Bowed belt: For new belt this condition should disappear during break-in; in rare instances belt must be straightened or replaced: Check storage and handling of belt rolls.
5. Off-center loading or poor loading: Load on center of belt; discharge material in direction of belt travel at or near belt speed.
6. Slippage on drive pulley: Increase tension through screw take-up.
7. Material spillage and build-up: Improve loading and transfer conditions, improve maintenance.
8. Material trapped between belt and pulley.
9. Spilled oil or grease: Improve Housekeeping.
10. Heat or chemical damage: Use belt designed for specific condition.
11. Screw take-up tension too light.
12. Insufficient traction between belt and pulley: Adjust tension.
13. Improper storage or handling.
14. Belt improperly spliced.
15. Belt hitting conveyor structure
16. Structure not level: Level structure in affected area.
17. Belt misalignment: See training recommendations.
18. Sharp edges of objects caught in inlet.
19. Steep conveyor incline: Capacity at 30° incline will be less than half the capacity at 15° incline.
20. Incorrect belt speed. Design capacity is at approximately 600 FPM belt speed. See hydraulic or electric drive section of manual.
21. Loose electric motor drive belts.

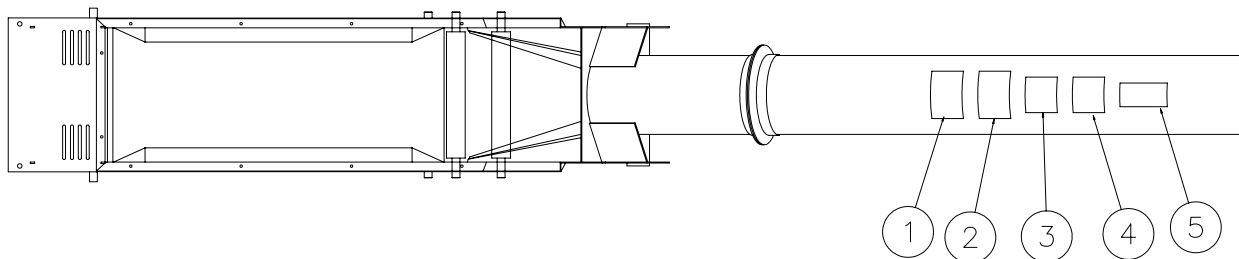
PARTS LIST

SAFETY SIGNS AND DECALS

(Refer to Page P-2)

Check all safety signs and replace any that are worn, missing or illegible. The safety sign locations are shown below. Copies of the safety signs are shown on the next page. Safety signs may be obtained from your dealer or ordered from the factory.

REF. NO.	PART NO.	QTY.	DESCRIPTION	SIZE
1	1001973	1	CAUTION - GENERAL STATEMENTS 1-8 (On Main Conveyor Housing)	4 3/4" x 8"
2	1001980	1	DANGER - BEWARE OF POWER LINES (On Main Conveyor Housing)	4" x 8"
3	1005324	1	DANGER - "STOP", IF ANY GUARDS, SHIELD... (On Main Conveyor Housing)	4" x 6"
4	1001984	1	DANGER - DO NOT ATTEMPT DISASSEMBLY (On Main Conveyor Housing)	4" x 6"
5	1001981	1	DANGER - UPENDING HAZARD (On Main Conveyor Housing)	4 1/2" x 6 1/4"
6	1002091	1	WARNING - MANUAL WINCH (One on side of left radius rod weldment)	2 3/4" x 5"
--	1021179	As Req'd.	RED REFLECTIVE DECAL (On back of Axle)	2" x 9"
--	1021180	As Req'd.	YELLOW REFLECTIVE DECAL (Along sides of Conveyor Head)	2" x 9"
--	1021181	As Req'd.	ORANGE FLUORESCENT DECAL (On back of Axle)	2" x 9"



SAFETY SIGNS AND DECALS

(Refer to Page P-1)

1

CAUTION

1. READ AND UNDERSTAND THE OPERATOR'S MANUAL BEFORE OPERATING.
2. DO NOT REMOVE OR MODIFY ANY GUARDS.
3. MAKE CERTAIN EVERYONE IS CLEAR BEFORE OPERATING OR MOVING THE MACHINE.
4. KEEP HANDS, FEET, HAIR AND CLOTHING AWAY FROM MOVING PARTS.
5. STOP MACHINE AND LOCKOUT POWER TO ADJUST, SERVICE OR CLEAN.
6. EMPTY MACHINE AND LOWER TO TRANSPORT POSITION FOR TRANSPORTING.
7. DO NOT ATTEMPT TO MOVE MACHINE MANUALLY. USE A TOWING VEHICLE.
8. KEEP CHILDREN WELL CLEAR OF WORK AREA.

1001973

2

DANGER

BEWARE OF POWER LINES
ELECTROCUTION HAZARD

- THIS MACHINE IS NOT INSULATED.
- KEEP AT LEAST 10 FEET AWAY FROM OVERHEAD ELECTRICAL WIRES.
- ELECTROCUTION CAN OCCUR WITHOUT DIRECT CONTACT.

FAILURE TO HEED WILL RESULT IN SERIOUS INJURY OR DEATH!

1001980

3

DANGER

STOP

IF ANY GUARDS, SHIELDS OR SAFETY DECALS ARE DAMAGED OR MISSING, ORDER FREE REPLACEMENTS BY CALLING

1-800-523-6993

OR WRITE TO:
HUTCHINSON/MAYRATH
P.O. BOX 629
CLAY CENTER, KANSAS 67432

1005324

4

DANGER

DO NOT ATTEMPT DISASSEMBLY BEFORE SUPPORTING THE AUGER WITH AN OVERHEAD HOIST OR OTHER SAFE, SUITABLE MEANS. THE AUGER MAY COLLAPSE WHILE LOOSENING A COMPONENT IF NOT SUPPORTED.

FAILURE TO HEED WILL RESULT IN SERIOUS INJURY OR DEATH!

1001984

5

DANGER

UPENDING HAZARD

- SUPPORT DISCHARGE END OR ANCHOR INTAKE END TO PREVENT UPENDING.
- EMPTY MACHINE BEFORE MOVING.
- DO NOT PUSH THE UNDERCARRIAGE BY HAND.
- LIFT THE INTAKE END SLOWLY AND NEVER HIGHER THAN VEHICLE TOW BAR. MAINTAIN CONTROL UNTIL SECURELY ATTACHED TO TOW BAR OR RESTING ON THE GROUND.
- LOWER TO TRANSPORT POSITION IMMEDIATELY WHEN CLEAR FROM GRAIN STORAGE STRUCTURE.

FAILURE TO HEED WILL RESULT IN SERIOUS INJURY OR DEATH!

1001981

6

WARNING

(FOR HYDRAULIC OR ELECTRIC WINCH OPERATION, PLEASE REFER TO THE OPERATOR'S MANUAL PROVIDED WITH UNIT.)

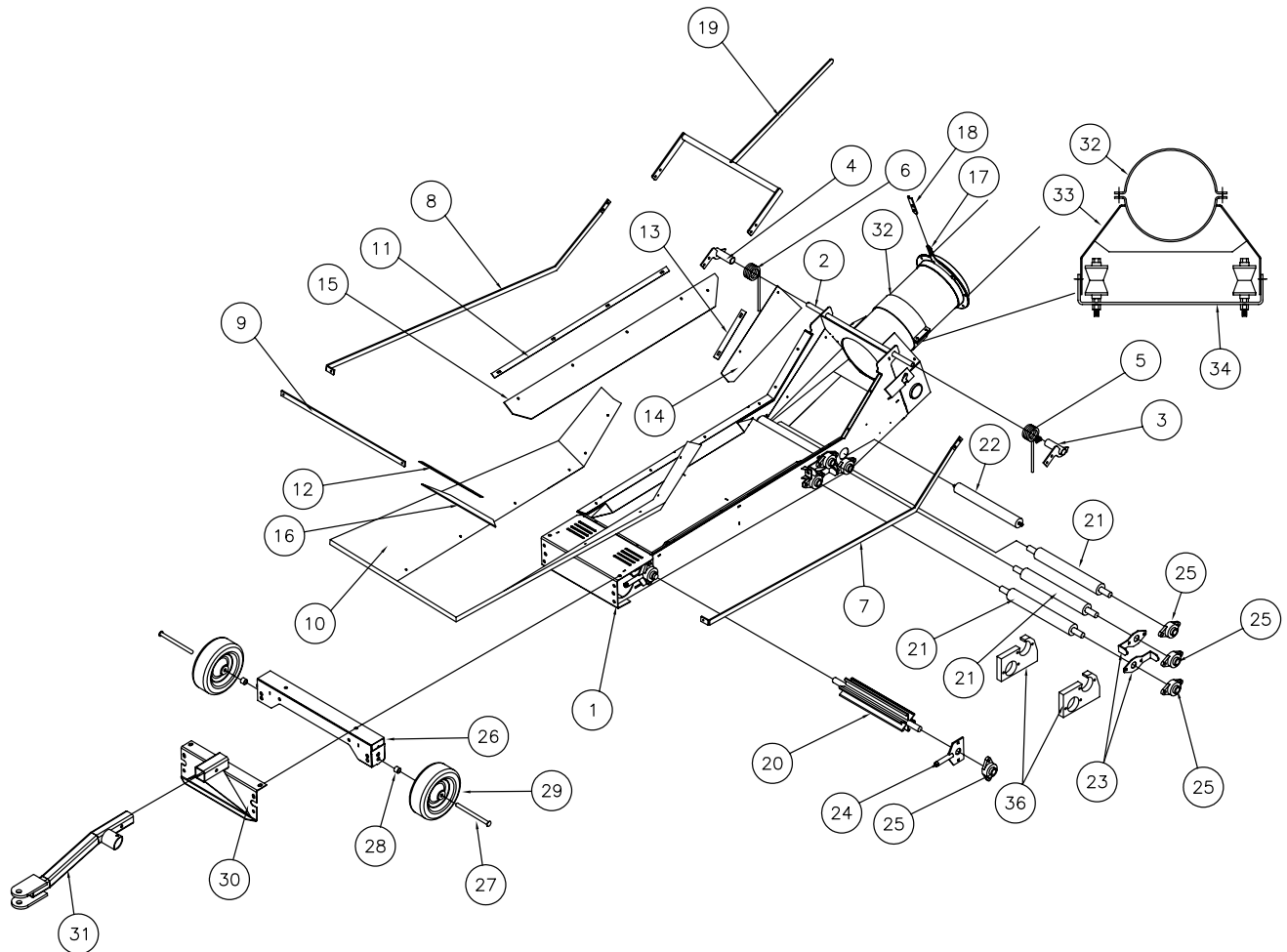
- AFTER LOWERING THE UNIT, ALWAYS TURN THE WINCH HANDLE CLOCKWISE UNTIL YOU HEAR AT LEAST TWO CLICKS. THIS TIGHTENS THE BRAKE LOCK.
- MAINTAIN CONTROL OF WINCH HANDLE AT ALL TIMES.
- DO NOT PUT LUBRICATION OF ANY KIND ON THE BRAKE DISC.
- CHECK CABLE BEFORE EACH USE. REPLACE IF FRAYED OR DAMAGED.
- MAINTAIN LIGHT CABLE TENSION WHEN TRANSPORTING.

FAILURE TO HEED WILL RESULT IN SERIOUS INJURY OR DEATH!

1002091

PARTS LIST

CONVEYOR INLET HOPPER



PARTS LIST

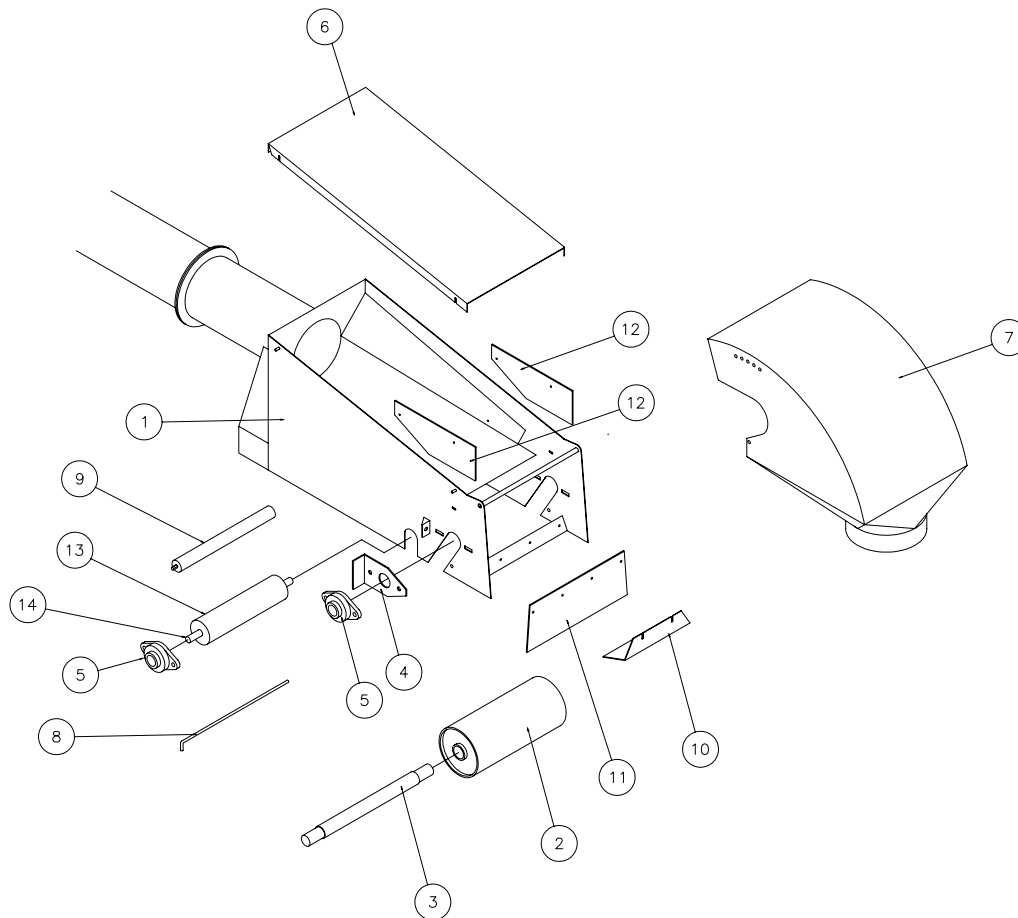
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CONVEYOR INLET HOPPER

REF. NO.	PART NO.	DESCRIPTION
1	1029007	Inlet Hopper Frame Weldment
2	1023835	Spring Pivot Pipe
3	1024361	Spring Anchor (right)
4	1024360	Spring Anchor (left)
5	1023398P	Hopper Spring (right)
6	1023399P	Hopper Spring (left)
7	1024363	Hopper Support Bar (right)
8	1024381	Hopper Support Bar (left)
9	1024366	Hopper End Bar
10	1024369	Canvas Hopper
11	1024367	Tarp Retaining Strap (side) (typical both sides)
12	1024368	Tarp Retaining Strap (end)
13	1024538	Tarp Retaining Strap (upper) (typical both sides)
14	1024546	Skirt Rubber (incline side) (typical both sides)
15	1024545	Skirt Rubber (side) (typical both sides)
16	1024544	Skirt Rubber (end)
17	1024519	Base Plate f/skirt latch
18	1024520	Skirt Latch Notched Bar
19	1024531	Skirt Lock Handle
20	1024275	Tail Pulley, 4" dia. x 16" CF Wing w/1" Shaft
21	1024392	Roller "S", 2-1/4" dia. w/1" Shaft
22	1024273	Roller, 1.9" dia. w/Hex Shaft
23	1024290	Bearing Push Plate f/1" Brg.
24	1024475	Take-up Bearing Bracket
25	1029746	Bearing, 1" 2-Hole Flanged
26	1024340	Wheel Mount Weldment
27	1024345	Wheel Axle
28	1021030	Spacer Bushing f/Wheel
29	1022373	Wheel, 10" x 3-1/4" w/5/8" Bore
30	1024463	Hitch Mount Weldment
31	1024466	Hitch Tube Weldment
32	5930A1	Half Band x 4" long
33	1026984	Guide Roller Support
34	1026098	Guide Roller Assembly
35	1029478	Bolt 1/2" x 5" f/Take-up Bracket (not shown)
36	1029001	UHMW Seal Panel (2 places)

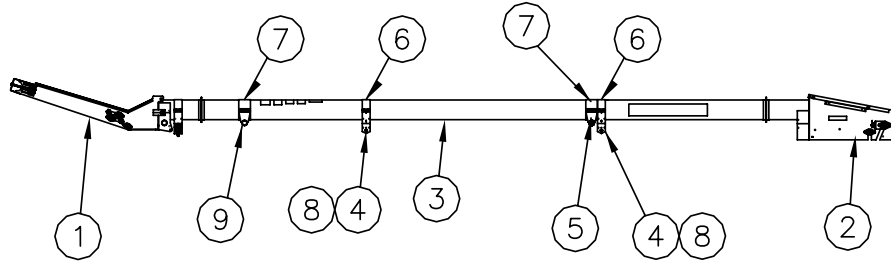
PARTS LIST

DISCHARGE ASSEMBLY COMPONENTS

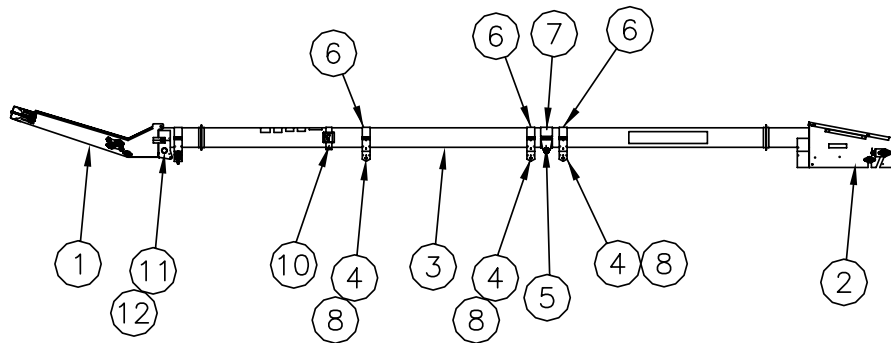


REF. NO	PART NO.	DESCRIPTION
1	1026861	Discharge Housing Weldment
2	1025860	Pulley, 6" dia. x 18" Crown Face w/1-1/4" Bore
3	1025920	Shaft, Head 1-1/4" x 27-1/16" long
4	1023727	Bearing Push Plate
5	1029742	Bearing, 1-1/4" 2-Bolt Flanged
6	1023839	Cover Panel
7	1023485	Plastic Discharge Spout
8	1023844	Discharge Spout Pin
9	1023329	Return Roller
10	1024162	Wiper Mount Bracket
11	1026982	Rubber Belt Wiper
12	1025412	Skirt Rubber (Discharge Sides)
13	1025862	Pulley, Snub 4" x 18" SF w/1-1/4" Bore
14	1023733	Shaft, Snub 1-1/4" x 24-1/4" long

MAIN CONVEYOR COMPONENTS



ELECTRIC DRIVE

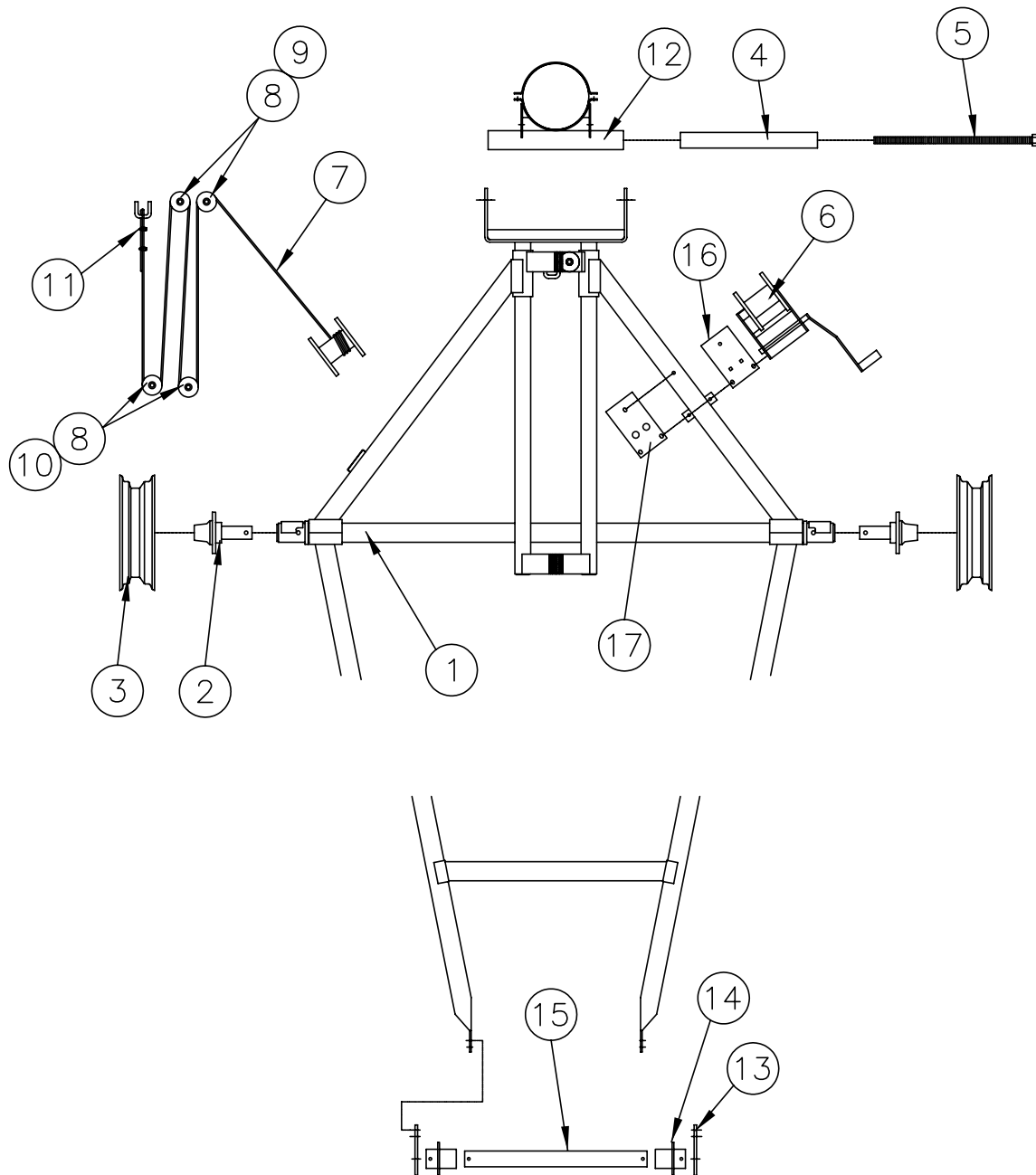


HYDRAULIC DRIVE

REF. NO.	PART NO.	DESCRIPTION
1	1029014	Inlet Assembly (See Pages P-3 & P-4 for Parts Breakdown)
2	1026862	Discharge Assembly (See Page P-5 for Parts Breakdown)
3	1026884-220	Tube Housing (Hutch)
3	1026884-320	Tube Housing (Mayrath)
4	1026885	Return Roll Support
5	1023454	Upper Pivot Weldment
6	5930A1	Half Band x 4" wide
7	106207-1	Half Band x 6" wide
8	1023329	Return Roller, 1.9" O.D. w/Hex Shafts & Bearings
9	1026964	Lower Arm Pivot Weldment (Electric Drive only)
10	1026917	Clamp Band Weldment for Hydraulic Valve (Hyd. Drive only)
11	1027015	Pivot Tube Sleeve (Hyd. Drive Only)
12	1027017	Pivot Sleeve Weldment (Hyd. Drive Only)

PARTS LIST

UNDERCARRIAGE COMPONENTS

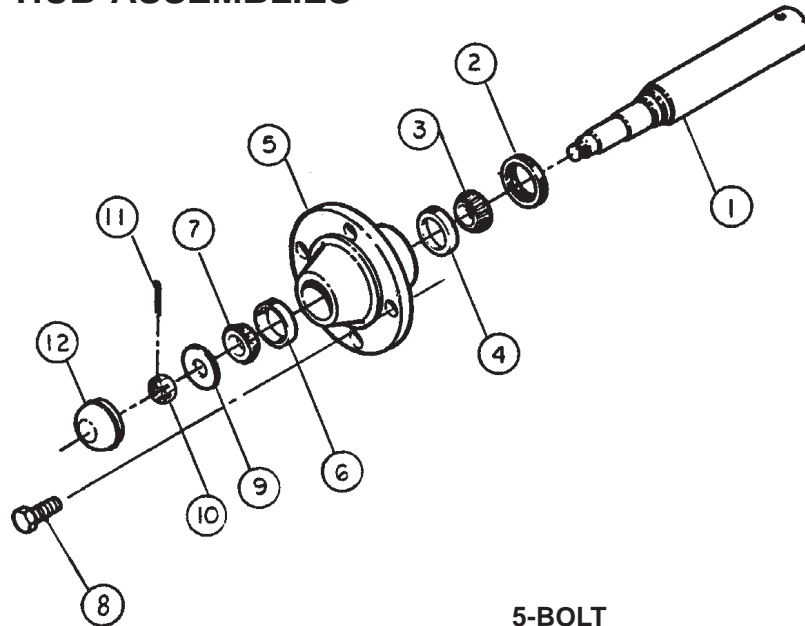


DISCHARGE ASSEMBLY COMPONENTS

REF. NO.	PART NO.	DESCRIPTION
1	1026542	Undercarriage Weldment
2	1003104	Spindle & Hub Assembly 5-Bolt (See Page P-9 for Parts)
3	107225	Wheel Rim (15" x 6" 5-Bolt)
4	1023458	Rod Spacer Tube
5	1023852	Pivot Bolt Weldment (1" x 24" long)
6	3335A11	Winch K1550 (See Page P-10 for Parts)
7	1003819	Cable 1/4" x 28" long
8	1008195	Cable Pulley 1/4" x 3" O.D.
9	50079A1	Pulley Bushing 1" O.D. x 9/16" long
10	1007713	Pulley Bushing 1" O.D. x 1-9/16" long
11	6369C	Cable Clamp
12	1023454	Upper Undercarriage Pivot
13	1026014	Pivot Plate for Undercarriage Arm
14	1027017	Pivot Sleeve Weldment (Hydraulic Model)
15	1027015	Pivot Tube Sleeve (Hydraulic Model)
16	1027019	Adapter Plate for Winch
17	1029622	Adapter Spacer Plate

PARTS LIST

SPINDLE & HUB ASSEMBLIES



REF.	DESCRIPTION	5-BOLT (2-3/8" x 14") <u>f/45'</u>
--	Spindle & Hub Assy.	1003104
1	Spindle	1001004
2	Grease Seal	107233
3	Inner Cone (Timken No.)	3078R1 (LM48548)
4	Inner Cup	3147R1
5	Hub	*1006987
6	Outer Cup (Timken No.)	3148R1 (LM67010)
7	Outer Cone (Timken No.)	3079R1 (LM67048)
8	Lug Bolt	--
8	Lug Nut	107235
9	Washer	107229
10	Slotted Hex Nut	6360C (3/4")
11	Cotter Pin	107230 (5/32" x 1 3/4")
12	Hub Cap	107234

*Furnished w/Cups and Lug Nuts.

**Furnished w/Cups Only.

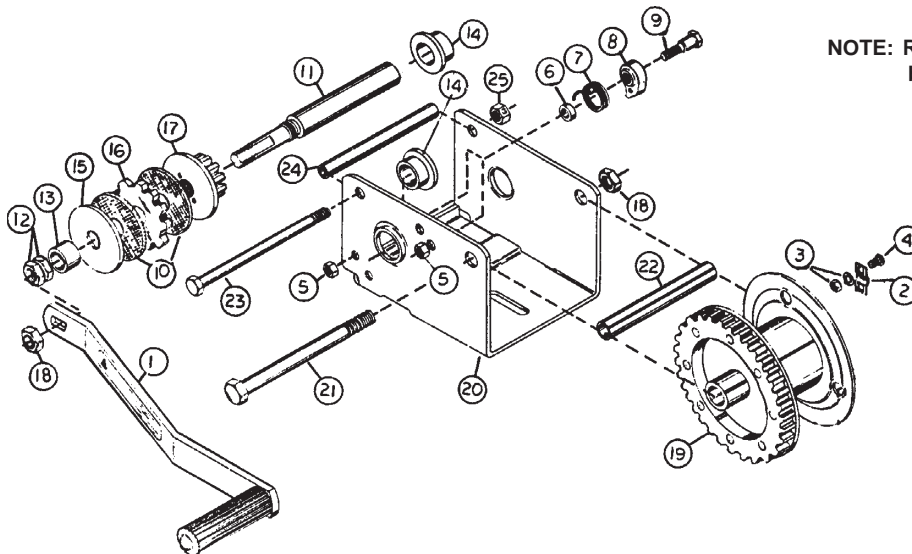
WINCH COMPONENTS

**FULTON MODEL K1550 WINCH
COMPLETE PART NO. 3335A11**

REF. NO.	DESCRIPTION	HUTCHINSON/ MAYRATH PART NO.	FULTON PART NO.
1	Handle Assembly	41595	2461S01
2	Cable Clamp		
3	Lock Washer & Nut	Cable Keeper	Cable Keeper
4	Carriage Bolt	Kit 41600	Kit 5621S01
5	Lock Nut 5/16" - 18 Hex		
6	Ratchet Spacer	Ratchet Kit	Ratchet Kit
7	Ratchet Spring	40836	6730S00
8	Ratchet Pawl		
9	Hex Head Shoulder Bolt	5/16" - 18	
10	Brake Disc Kit	41596	1558S00
11	Input Shaft		
12	Lock Nut 1/2" - 13 Hex		
13	Spacer	Input Shaft	Input Shaft
14	Bushing	Kit	Kit
15	Shaft Brake Disc	41597	1563S01
16	Ratchet Gear		
17	Pinion & Disc Assembly		
18	Hex Lock Nut 1/2" -13	*	*
19	Drum Assembly	**	**
20	Frame	**	**
21	Hex Head Capscrew 1/2" - 13 - 5 3/4"	*	*
22	Drum Spacer	**	**
23	Hex Head Capscrew 3/8" - 16 - 5 3/4"	*	*
24	Frame Spacer	**	**
25	Hex Lock Nut 3/8" - 18	*	*
26	Handle Label	2169A1	**

*Indicates standard hardware items - purchase locally.

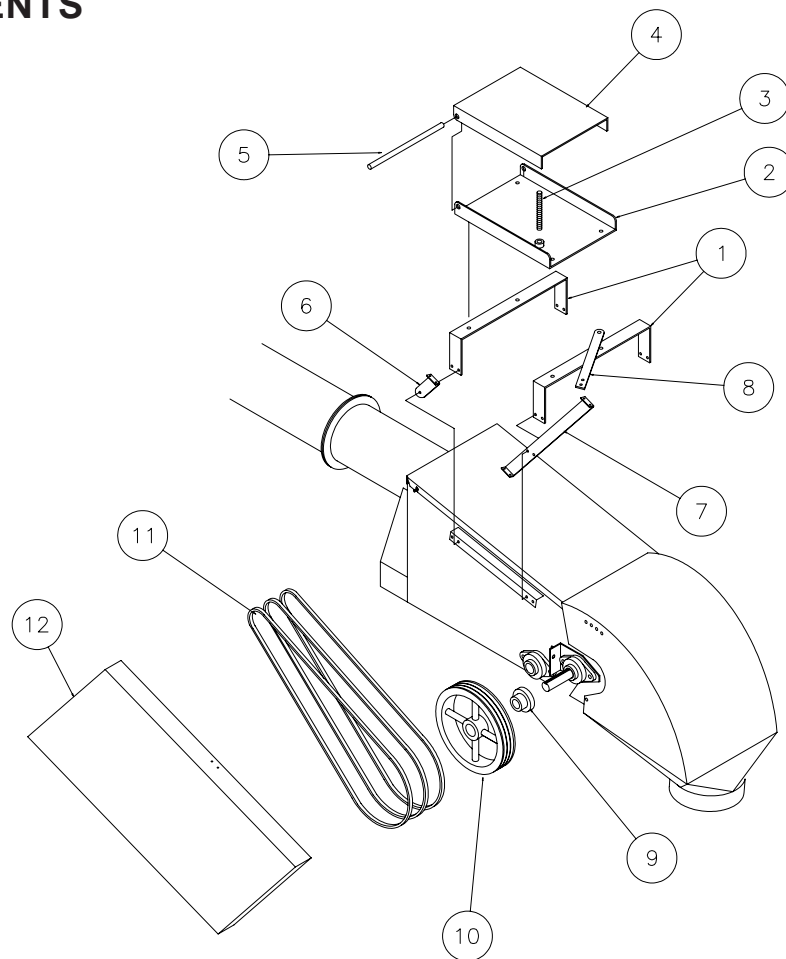
**These items are not available as separate parts because of the precision assembly required.
If these parts require replacement, a new winch unit is recommended.



NOTE: Repair parts for winch can also
be purchased directly from:
Fulton Manufacturing Corp.
P.O. Box 19903
Milwaukee, WI 53219
715-693-1700

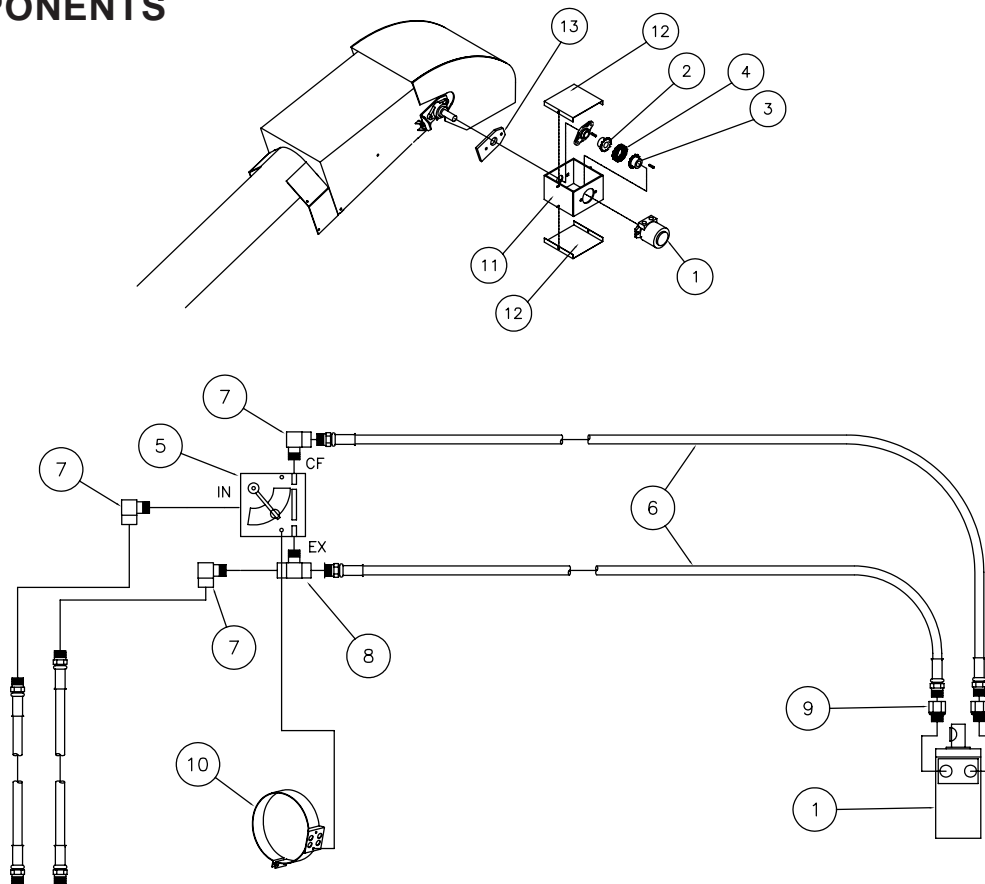
PARTS LIST

ELECTRIC DRIVE COMPONENTS



REF.	PART	
NO.	NO.	DESCRIPTION
1	1026970	Motor Mount Support Strap
2	1026895	Motor Mount Support Plate
3	1022381	Motor Mount Adjustment Rod
4	1022138	Motor Mount Plate
5	1022188	Motor Mount Pivot Rod
6	1026977	Belt Guard Bracket - Lower
7	1026975	Belt Guard Bracket
8	1026976	Belt Guard Bracket Support Strap
9	3085A1	Bushing - QD S.F. 1-1/4" Bore
10	40874	Sheave - QD 20" P.D. - 3-Groove
11	40133	Belt B-100 (3 req'd.)
12	1026899	Belt Guard

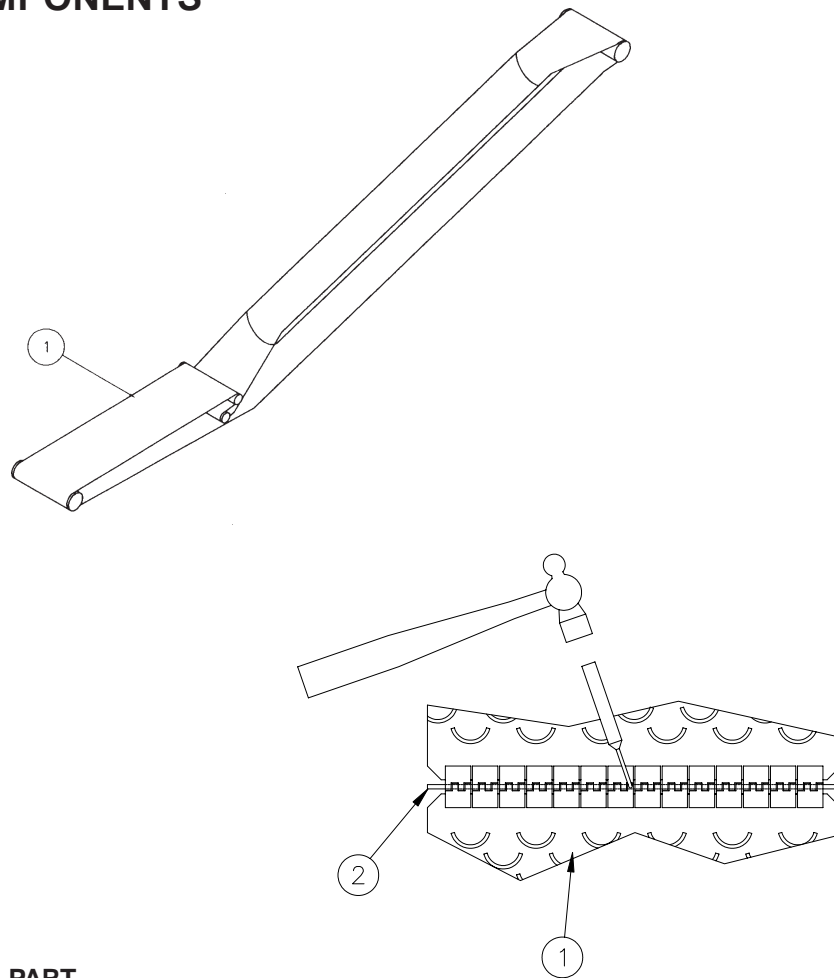
HYDRAULIC DRIVE COMPONENTS



REF. NO.	PART NO.	DESCRIPTION
1	1030713	Hydraulic Motor "H" Series 10.6 cu. in.
2	1017967	Coupler Half 80B12 w/1-1/4" Bore
3	1025349	Coupler Half 80B12 w/1-1/4" Bore
4	41051	Flex Coupler Chain RC-80
5	106404	Hydraulic Flow Control Valve
6	1026914	Hydraulic Hose 1/2" x 25' long
7	106413	Hydraulic Elbow, 90°
8	1004732	Hydraulic Tee
9	420146	Hydraulic Adapter (7/8" male o-ring to 1/2" female pipe)
10	1026917	Clamp Band Weldment for Valve
11	1029022	Hydraulic Motor Mount Weldment
12	1029028	Coupling Guard Panel
13	1029024	Bearing Spacer Plate

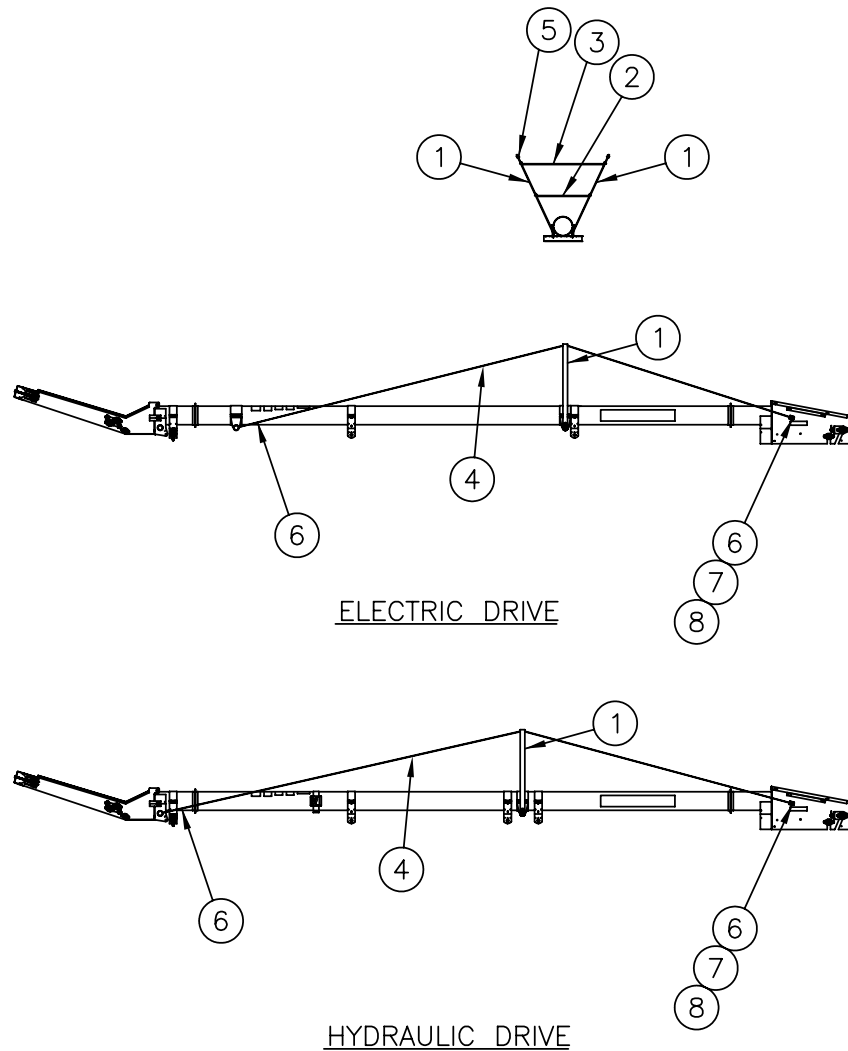
PARTS LIST

BELTING COMPONENTS



REF. NO	PART NO.	DESCRIPTION
1	1023739	Conveyor Belting, 15" wide x 75'-9" long Low Temp PVC, Black Crescent Top Cover w/Slider Bed Back, RS125 Alligator Lacing installed on both ends. (Includes nylon covered hinge pin)
1	1028990	Conveyor Belting, 15" wide x 75'-9" long Low Temp Rubber, Black continuous Chevron Top Cover w/Slider Bed Back, RS125 Alligator Lacing installed on both ends. (Includes nylon covered hinge pin)
2	1024218	Hinge Pin, nylon covered steel cable x 15" long
	1024215	Hinge Pin Material (per foot part no.)
--	1015AS-KIT	Belt Splice Kit (with installation tool) (Enough for four belt splices.)
--	1015AS-SET	Belt Splice Kit (without installation tool) (Enough for four belt splices.)

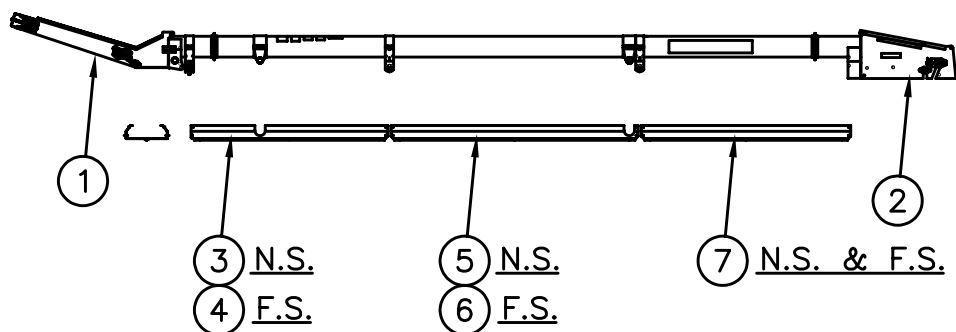
TRUSS COMPONENTS



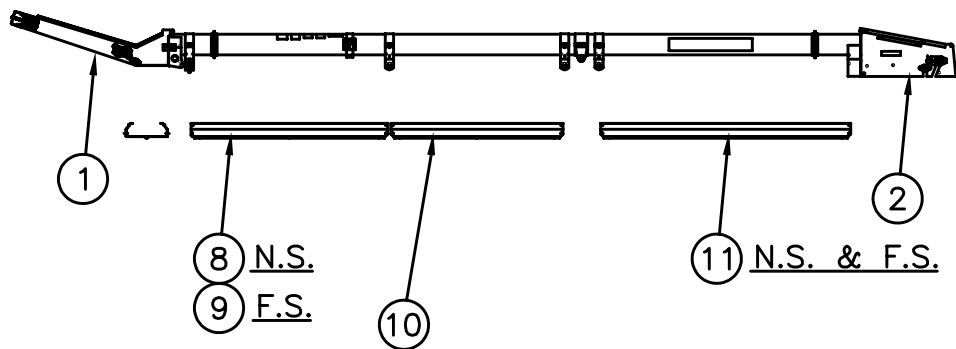
REF. NO	PART NO.	DESCRIPTION
1	1026091	Truss Side Bar
2	1026093	Truss Cross Bar (Lower)
3	1026092	Truss Cross Bar (Upper)
4	1002569	Cable, 1/4" x 31'-6" long (Cut off extra on electric models)
5	3010L11	Cable Clamp, 3/8"
6	6369C	Cable Clamp, 1/4"
7	866015-1	Eyebolt 5/8" x 11"
8	D1170	5/8" Non-Lock Nut

PARTS LIST

WIND GUARD COMPONENTS



ELECTRIC DRIVE



N.S. & F.S.

HYDRAULIC DRIVE

REF. NO.	PART NO.	DESCRIPTION
1	Ref.	Inlet Assembly
2	Ref.	Discharge Assembly
3	1028706	Wind Guard x 94-3/8" lg. w/Notch (right hand)
4	1028707	Wind Guard x 94-3/8" lg. w/Notch (left hand)
5	1028710	Wind Guard x 118-1/2" lg. w/Notch (right hand)
6	1028711	Wind Guard x 118-1/2" lg. w/Notch (left hand)
7	1028712	Wind Guard x 100-3/8" lg. (used both sides)
8	1028708	Wind Guard x 94-3/8" lg. (right hand)
9	1028709	Wind Guard x 94-3/8" lg. (left hand)
10	1028713	Wind Guard x 82-1/2" lg. (used both sides)
11	1030167	Wind Guard x 119-7/8" lg. (used both sides)



Hutchinson/Mayrath/TerraTrack

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