HORIZONTAL CUSTOM BELT CONVEYOR

OWNER’S & OPERATOR’S MANUAL

Effective March 2, 2012

Publication No. 1030621

THIS MANUAL IS FOR CONVEYORS WITH SERIAL NUMBERS OF 943565 OR HIGHER.
Prices: Prices in effect at time of shipment will apply. Prices are subject to change without notice. All prices are F.O.B. Clay Center, Kansas. Orders shipped from locations other than Clay Center, Kansas will be subject to additional charges, such as back freight and/or additional freight.

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

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

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

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

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

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

Modifications: It is the policy of Hutchinson/Mayrath to improve its product whenever possible and practical to do so. We reserve the right to make changes, improvements and modifications at any time without incurring the obligation to make such changes, improvements and modifications on any equipment sold previously.

Limited Warranty: (a) For a period of (1) year after receipt of goods by the original consumer buyer, Hutchinson/Mayrath will supply free of charge replacement parts for parts that prove defective in workmanship or material. Defective parts must be returned freight prepaid to a specified Hutchinson/Mayrath location. Only Hutchinson/Mayrath original repair parts may be used for warranty repairs.
(b) This limited warranty does not extend to parts designed to wear in normal operation and be replaced periodically; or to damage caused by negligence, accident, abuse or improper installation or operation.
(c) GOODS NOT MANUFACTURED BY HUTCHINSON/MAYRATH CARRY ONLY THE MANUFACTURER’S WARRANTY.
(d) THIS UNDERTAKING IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Failure to follow the instructions contained in the owner’s & operator’s manuals and the items listed below will result in the voiding of this limited warranty.

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

Limitation of Liability: BUYER AGREES THAT IN NO EVENT SHALL HUTCHINSON/MAYRATH HAVE LIABILITY FOR DIRECT DAMAGES THE EXCESS OF THE CONTRACT PRICE OF THE GOODS IN RESPECT OF WHICH CLAIM IS MADE. BUYER FURTHER AGREES THAT IN NO EVENT SHALL HUTCHINSON/MAYRATH ON ANY CLAIM OF ANY KIND HAVE LIABILITY FOR LOSS OF USE, LOSS OF PROFITS, OR FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES.
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 an be alert to the possibility of personal injury or death.

WARNING

Anyone who will operate or work around this machine shall first read this manual! This manual must be delivered with the equipment to its owner. Failure to read this manual and its safety instructions is a misuse of the equipment.
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<td>P-1 thru P-12</td>
</tr>
</tbody>
</table>

**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 discharge housing.

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

1. Some regulations specify that no one under the age of 16 may operate power machinery. This includes 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.

<table>
<thead>
<tr>
<th>DATE</th>
<th>EMPLOYER SIGNATURE</th>
<th>EMPLOYEE SIGNATURE</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>
GENERAL INFORMATION

GENERAL CONVEYOR ARRANGEMENT

1'-1" "A" NOMINAL PULLEY CENTERS
ACTUAL CENTER IS 3" MORE THAN CATALOG NUMBER
EXAMPLE UB150016 IS 16'-3" CENTERS

1'-8"

3'-1"
5' TROUGH SECTIONS

3'-2"

8"

1'-8"

TAIL/INLET HOUSING

DISCHARGE SPOUT

SHOWN AS UB150016

2'-7½" MAXIMUM

WITH 2 FT LEGS

1½" AT TOP OF COVER

WITHOUT LEGS

1'-2½"

AT TOP OF COVER

1'-2"

TYPICAL INLET WELL
OPERATING PROCEDURES

DESIGNATED WORK AREA
Before starting the conveyor a designated work area should be established around it.

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.

DO NOT enter the grain bin unless all power driven equipment has been shut down and locked out.

ELECTRIC MOTOR DRIVE INFORMATION

NOTE: Electric motor is not provided. Always use a motor with required H.P. suggested in the following charts. 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.

Motor horsepower requirements are dependant on the length of conveyor, conveyor operating speed and capacity and conveyor incline angle.

The following three tables based on conveyor incline angle show the maximum conveyor length that can be used for various motor horsepowers. Look down the belt speed column and select the motor horsepower that will be adequate for a length greater than or equal to the conveyor length to be operated. For instance, 1 61 foot conveyor operating at 400 feet per minute and zero degree incline can use a 3 horsepower motor, but if the same conveyor is to operate at 600 feet per minute, it will require a 5 HP motor and to operate at 800 RPM will require a 7 1/2 HP motor.

NOTE: The appropriate drive should have been purchased at the time the conveyor was purchased. Also, note that increasing horsepower or changing belt speeds will most likely require a pulley and drive belt change also. There is a table on page 8 that shows intended pulley and belt combinations based on speed and horsepower.
### UNDER BIN BELT CONVEYOR MOTOR SELECTION CHART

- **CONVEYOR BELT SPEED (FPM):** 400, 600, 800
- **CONVEYOR CAPACITY (APPROX BU/HR):** 3300, 4950, 6600

<table>
<thead>
<tr>
<th>MOTOR HORSEPOWER</th>
<th>MAXIMUM LENGTH OF CONVEYOR (FEET)</th>
</tr>
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<tbody>
<tr>
<td>3</td>
<td>41</td>
</tr>
<tr>
<td>5</td>
<td>86</td>
</tr>
<tr>
<td>7 1/2</td>
<td>131</td>
</tr>
<tr>
<td>10</td>
<td>NA</td>
</tr>
<tr>
<td>15</td>
<td>NA</td>
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- **CONVEYOR BELT SPEED (FPM):** 400, 600, 800
- **CONVEYOR CAPACITY (APPROX BU/HR):** 3100, 4600, 6200

<table>
<thead>
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<th>MOTOR HORSEPOWER</th>
<th>MAXIMUM LENGTH OF CONVEYOR (FEET)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>36</td>
</tr>
<tr>
<td>5</td>
<td>76</td>
</tr>
<tr>
<td>7 1/2</td>
<td>121</td>
</tr>
<tr>
<td>10</td>
<td>NA</td>
</tr>
<tr>
<td>15</td>
<td>NA</td>
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</table>

- **CONVEYOR BELT SPEED (FPM):** 400, 600, 800
- **CONVEYOR CAPACITY (APPROX BU/HR):** 2900, 4300, 5800

<table>
<thead>
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<th>MOTOR HORSEPOWER</th>
<th>MAXIMUM LENGTH OF CONVEYOR (FEET)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>36</td>
</tr>
<tr>
<td>5</td>
<td>71</td>
</tr>
<tr>
<td>7 1/2</td>
<td>111</td>
</tr>
<tr>
<td>10</td>
<td>NA</td>
</tr>
<tr>
<td>15</td>
<td>NA</td>
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## UNDER BIN BELT CONVEYOR DRIVE PARTS

<table>
<thead>
<tr>
<th>DRIVE CATALOG NO</th>
<th>NOMINAL BELT SPEED</th>
<th>MOTOR HP</th>
<th>PRIMARY BELT</th>
<th>DRIVE</th>
<th>SECONDARY BELT</th>
<th>DRIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>DRIVER SHEAVE</td>
<td>SHEAVE</td>
<td>DRIVER BELTS</td>
<td>SHEAVE</td>
</tr>
<tr>
<td>UB15D01</td>
<td>400</td>
<td>3</td>
<td>18 4.2&quot; P.D.</td>
<td>QD SH 1.125</td>
<td>(1) B73</td>
<td>18 4.2&quot; P.D.</td>
</tr>
<tr>
<td>UB15D02</td>
<td>400</td>
<td>5</td>
<td>2B 4.2&quot; P.D.</td>
<td>QD SH 1.125</td>
<td>(2) B73</td>
<td>2B 4.2&quot; P.D.</td>
</tr>
<tr>
<td>UB15D03</td>
<td>400</td>
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<td>QD SH 1.375</td>
<td>(2) B73</td>
<td>3B 4.2&quot; P.D.</td>
</tr>
<tr>
<td>UB15D04</td>
<td>600</td>
<td>3</td>
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<td>QD SH 1.125</td>
<td>(1) B70</td>
<td>2B 4.2&quot; P.D.</td>
</tr>
<tr>
<td>UB15D05</td>
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<td>2B 4.2&quot; P.D.</td>
<td>QD SH 1.125</td>
<td>(2) B70</td>
<td>2B 4.2&quot; P.D.</td>
</tr>
<tr>
<td>UB15D06</td>
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<td>2B 4.2&quot; P.D.</td>
<td>QD SH 1.375</td>
<td>(2) B70</td>
<td>3B 4.2&quot; P.D.</td>
</tr>
<tr>
<td>UB15D07</td>
<td>600</td>
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<td>3B 4.2&quot; P.D.</td>
<td>QD SH 1.375</td>
<td>(3) B70</td>
<td>4B 4.2&quot; P.D.</td>
</tr>
<tr>
<td>UB15D08</td>
<td>800</td>
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<td>18 4.2&quot; P.D.</td>
<td>QD SH 1.125</td>
<td>(1) B66</td>
<td>1B 4.2&quot; P.D.</td>
</tr>
<tr>
<td>UB15D09</td>
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<td>2B 4.2&quot; P.D.</td>
<td>QD SH 1.125</td>
<td>(2) B66</td>
<td>2B 4.2&quot; P.D.</td>
</tr>
<tr>
<td>UB15D12</td>
<td>800</td>
<td>7.5</td>
<td>2B 4.2&quot; P.D.</td>
<td>QD SH 1.375</td>
<td>(2) B66</td>
<td>2B 4.2&quot; P.D.</td>
</tr>
<tr>
<td>UB15D10</td>
<td>800</td>
<td>10</td>
<td>3B 4.2&quot; P.D.</td>
<td>QD SH 1.375</td>
<td>(3) B66</td>
<td>3B 4.2&quot; P.D.</td>
</tr>
<tr>
<td>UB15D11</td>
<td>800</td>
<td>15</td>
<td>3B 4.2&quot; P.D.</td>
<td>QD SH 1.625</td>
<td>(3) B66</td>
<td>4B 4.2&quot; P.D.</td>
</tr>
</tbody>
</table>

(Based on 60 HZ)
OPERATING PROCEDURES

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

C. EMERGENCY SHUTDOWN
Should the conveyor be immediately shut down under load, close slide gates at inlet(s) to prevent additional grain from entering the inlet(s). When restarting, it may be necessary to start and stop the conveyor to gradually empty itself. DO NOT reopen slide gates until it has completely emptied out.

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.

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 0 degree conveyor incline may drop to 2500 BPH when the conveyor is at a 10 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.

See motor selection charts in Electric Motor Drive Information Section, Page 6 for estimated capacities based on belt speed and incline angle.

MAINTENANCE SCHEDULE

• Inspect and replace the main splice every 800,000 bushels (22,400 tons) or every 150 hours.

• Replace all tension springs every 1,000,000 bushels (28,000 tons) or every 200 hours.

• When the conveyor will not be used for an extended period, back the adjustment nuts all the way off for the belt drive tension springs.

• Insert one to two pumps of grease in each of the bearings every 500,000 bushels (140,000 tons) or 110 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 belts on the unit and adjust, as needed.

• Examine all of the skirting at least every 1,000,000 bushels (28,000 tons) or 220 hours and replace, as needed.

• Check each bearing and return roller very 750,000 bushels (21,000 tons) or 165 hours or once a season, whichever is reached first.

• Before start up, tighten the adjustment nuts for the belt drive tension springs. Once the tension springs have been tensioned, check for tracking of the belt and tension under load.
HORIZONTAL CUSTOM BELT CONVEYOR
MAIN TROUGH SECTIONS

1. Starting at one end or the other of the conveyor, bolt the trough sections (Items 3) to each other and to the inlet assembly (Item 2) and the discharge assembly (Item 1) using six 3/8" x 1" long bolts and lock nuts at each joint. A belt splice shield plate (Item 9) should be mounted to the bottom two holes at each joint. The lower bent edge of the shield plate should point toward the inlet end of the conveyor. Also, bolt the bottom pan of each trough section to the adjoining trough section with two 5/16" x 3/4" long bolts and lock nuts. It will work best if the conveyor is supported off the floor or ground with blocks several inches to permit access to fasteners underneath the conveyor. If the finished conveyor height is known, it is best to block it up to this elevation and level and straighten the conveyor sections as they are installed. NOTE: The support legs (Item 7) at the inlet and discharge should be inserted up through the mounting tubes welded to the sides of the housings prior to connecting to the trough sections since there may not be room to insert them after assembling the sections.

2. Mount a support leg attachment bracket (Item 6) to the bottom of the appropriate trough section flanges. The overall conveyor assembly layouts on pages 13 and 14 give the suggested support leg locations for each conveyor length. The attachment brackets bolt to the flange joints with four 3/8" x 1" long bolts and lock nuts at each joint.

3. Clamp the support legs (Items 7) to the attachment brackets just installed using the 1/2" u-bolts (Item 8) and two flat washers, lock washers and non-locking nuts for each u-bolt. The top of the tubing leg should extend through the notched cutout of the attachment bracket since this limits the rotation of the leg in the bracket. The legs are designed to allow for a slight adjustment in angle relative to the conveyor. This is useful if the conveyor is running at a slight incline or decline angle.

4. Install a plastic tube cap (Item 12) over the top open end of each support leg (Item 7). See page 12.

5. The assembly of the top and side covers (Items 4, 5 and 10) will be left until the conveyor belt has been installed.

6. Install the return belt roller assemblies into the bottom pan of every other trough section, as shown on page 16. Remove the two end nuts and insert the threaded rod through the holes in the sides of the pan. Align the rollers with the slots in the bottom of the pan and reinstall and secure the two end nuts.
HORIZONTAL CUSTOM BELT CONVEYOR
MAIN TROUGH SECTIONS - CONT.

Use the following diagram for reference. NOTE: Three trough sections (Item 3) are shown. The quantities of trough sections, covers and supports will vary depending on conveyor length. See the layout for the appropriate conveyor length on pages 13 and 14. See page 12 for description of item numbers.
TYPICAL TROUGH JOINT CONNECTION

TYPICAL SUPPORT LEG CONNECTION

<table>
<thead>
<tr>
<th>REF. NO.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>1</td>
<td>1029477</td>
<td>Discharge Assembly</td>
</tr>
<tr>
<td>2</td>
<td>1029476</td>
<td>Inlet Assembly</td>
</tr>
<tr>
<td>3</td>
<td>1029470</td>
<td>Trough Section Weldment</td>
</tr>
<tr>
<td>4</td>
<td>1029474</td>
<td>End Trough Cover</td>
</tr>
<tr>
<td>5</td>
<td>1029473</td>
<td>Trough Cover</td>
</tr>
<tr>
<td>6</td>
<td>1029499</td>
<td>Support Leg Attachment Bracket</td>
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<tr>
<td>7</td>
<td>1030379</td>
<td>Support Leg Weldment</td>
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<td>8</td>
<td>33240</td>
<td>U-Bolt</td>
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<td>9</td>
<td>1029496</td>
<td>Belt Splice Shield</td>
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<tr>
<td>10</td>
<td>1029516</td>
<td>Side Cover Panel</td>
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<td>11</td>
<td>1036684</td>
<td>Flange Cap Panel</td>
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<tr>
<td>12</td>
<td>1036622</td>
<td>Tube Cap (For Items 7)</td>
</tr>
<tr>
<td>13</td>
<td>1037061</td>
<td>Return Belt Roller Assembly</td>
</tr>
</tbody>
</table>
CONVEYOR BELT

REFER TO ASSEMBLY DRAWING ON PAGE 16.

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 trough, 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 trough. 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. Remove the cover panel that is over the tail pulley at the inlet assembly of the conveyor.

4. Loosen the nuts on the take-up bolts of the tail pulley and shove the tail pulley as far as it will go toward the discharge end of the inlet housing.

5. 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 trough.

6. Run a length of banding material or similar object through the belt conveyor and tie it to the wire loop created in Step 5 above. NOTE: The banding material should be slightly longer than the assembled conveyor trough length.

7. Pull the belt through the conveyor trough from inlet end to discharge end. Assure belt arranged as specified in Step 1 above.
CONVEYOR BELT - CONT.

8. Thread the end of the pull rope or strap along the return path of the belt. This will take it around the head pulley so that it passes between the pulley and the belt wiper mount bar. Next pass over the snub pulley and hex shaft roller. Next pass it along the return pan of the trough sections until it again reaches the inlet housing. Make certain to go on top of the return belt roller assemblies. Then, go over the hex shaft roller and under and around the tail pulley.

9. 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. See detail at bottom of this page. This leaves the ends of the pin free to work inside the splice as it flexes going in and out of the conveyor trough. 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.

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 SKIRTING

1. Lay the two skirt rubber sides (Item 1) inside the inlet hopper. NOTE: The end skirt rubber piece (Item 2) should lay on top of the side skirt rubber pieces.

2. Sandwich the end skirt rubber piece between the brush flight panel (Item 3) and the hold down panel (Item 4) and lay across the end of inlet housing. NOTE: The end skirt rubber piece should lay on top of the side skirt rubber pieces. Also, note that the brush flight on the panel should be on the outside (toward take-up spring) side of the panel.

3. Fasten the rubber skirts to the metal sides of the inlet housing assembly with eight 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.

4. Install a 1/4” x 3/4” long self tapping screw with flat washer in the side skirt rubbers to secure them to the bottom pan section of the inlet housing. (Holes should already exist in pan.)

REF. PART NO. NO. DESCRIPTION
1 1027033 Rubber Skirt (side)
2 1027034 Rubber Skirt (end)
3 1027036 Brush Flight Panel Weldment
4 1027037 Hold Down Panel
DISCHARGE SPOUT AND PULLEY WIPER ASSEMBLY

1. Fasten the rubber wiper and wiper clamp bar to the wiper mount bar located across the discharge end of the discharge housing assembly. Use four 1/4" x 1" long hex head cap screws with flat washers, lock washers and non-lock nuts. **NOTE:** The rubber wiper should be sandwiched in between the wiper clamp bar 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.

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. **NOTE:** The 1/4" x 1" long bolts should be installed with the bolt heads to the outside of the housing to give clearance to the spout sides.

3. Bolt the bottom two 1/2" holes in the 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 cap screws, two 3/8" nylon locknuts and six 3/8" flat washers. Place the flat washers between the spout and the housing side panels (three on each side) to serve as spacers.

4. Rotate the 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 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 spout can be rotated up to 20 degrees from horizontal by pining through alternate holes in the spout.

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**REF. PART NO. NO. DESCRIPTION**

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<td>Discharge Spout Pin</td>
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ELECTRIC DRIVE ASSEMBLY
(See drawing on page 21.)

1. Fasten the motor mount support straps (Item 1) to the angles welded to each side of the conveyor head. Belt guard bracket (Item 9) must be installed at the same time as the motor mount straps. 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 motor mount support plate must be positioned so that the nut welded to this plate is toward the discharge end. Use four 1/2” x 1 1/2” long hex head capscrews, flat washers and locknuts to make this assembly.

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. Attach a rear belt guard bracket (Item 8) to the right side panel of the discharge housing using two 3/8” x 1” bolts with flat washers and lock nuts. NOTE: Use the two holes furthest from the discharge end, as shown.

6. Bolt the primary drive belt guard (Item 7) to the angle on the right side panel of the discharge housing. Loosen the front two bolts that attach the front motor mount strap to the angle and slide the back of the guard panel over the heads of these bolts. Connect the other mounting hole in the guard back panel to the center hole in the mounting angle. Use a 3/8” x 1-1/4” bolt with a non-lock nut sandwiched between guard and angle, as a spacer. Secure bolt with a lock nut.

7. Bolt the side of the primary drive belt guard (Item 7) to the read guard bracket (Item 8) with two 3/8” x 1” long bolts, flat washers and lock nuts.

8. Attach a rear belt guard bracket (Item 8) to the left side panel of the discharge housing using two 3/8” x 1” long bolts with flat washers and locknuts. NOTE: Use the two holes nearest the discharge end.

9. Bolt the back panel of the secondary drive belt guard (Item 6) to the belt guard bracket (Item 9) installed in Step 1 above. Use two 1/4” x 3/4” long bolts, flat washers and lock nuts.

10. Attach the rear belt guard bracket (Item 8) to the side of the belt guard using two 3/8” x 1” long bolts with flat washers and lock nuts.

11. Install the appropriate size, 1750 RPM, electric motor onto the motor mount plate (Item 4). NOTE: Motor is NOT furnished. (See drawing on page 22.)

12. Install a drive key in the motor shaft keyway. Use 1/4” square for 3 & 5 HP, 5/16” square for 7-1/2 and 10 HP and 3/8” square for 15 HP. The key length should be 2” long.

13. Install 1/4” square x 2” long keys in the ends of the head pulley and jack shaft.

14. Install the appropriate drive and driven sheaves to the primary and secondary drives based on the drive chart on page 24. NOTE: The sheave pitch diameters & number of grooves is specific to each motor horsepower and conveyor belt speed. If a change to either the horsepower or belt speed is made it is likely that an alternate drive needs to be used.

15. Align the drive sheaves with the driven sheaves by placing a straight edge across the edges of the sheaves. When aligned, tighten the QD bushings to hold sheaves firmly on the shafts.

16. Install the secondary drive belts and tighten them by adjusting the jack shaft take-up bolts.

17. Install the primary 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.

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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 start and stop the conveyor quickly the first few times to prevent belt damage if the belt mistracks rapidly. Once the belt appears to be tracking using this procedure, increase the running time gradually 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, snub pulley and tail pulley) must be at a 90 degree 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.

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 degrees
to the belt travel and make training adjustments
with the other pulleys, if possible. The arrows in
the diagram on page 25 show probable direction of
belt movement for various movements of the head
and tail pulleys. 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 trough sections. If it is
tracking off to one side, that edge of the belt will be
higher where it enters the trough.

4. The belt tension is adjusted by tightening or
loosening the take-up bolts, which are attached to
the take-up pulley bearings. The bolts should be
adjusted simultaneously the same amount to keep
the pulley located the same relative to the belt.
NOTE: There is a high and low tension indicator
built into the spring mount plate near each take-up
bolt spring. This indicator serves as a reference
device to let the operator know that the tension is
somewhere in the designed operating range. The
position of the 3/4” flat washer on the end of the
take-up springs relative to the “H” and “L” indicators
will serve as a guide to the belt tension. The washer
should be located somewhere in this range and
preferably nearer the “L” low tension end. See figure
on page 27. If slip occurs under load, additional
belt tension should be applied by adjusting the
spring tension 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 slide 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 step 2 to correct
the tracking problem. It may take several attempts
to correct the tracking.

NOTE: If the belt has tracked off, monitor the nylon
pin of the belt splice to assure it is still properly installed
and centered in the splice. It not, loosen the belt and
center the pin in the splice. Retighten belt. Reference
Trouble Shooting section, item T on page 32.
6. The take-up adjusting bolts have two 3/4” hex nuts at the outer ends. The inside nut is for adjusting the take-up tension. The outside nut needs to be snugged against the inside nut after making any adjustments to assure that the take-up position is maintained during operation.

NOTE: When training the belt, it is often helpful to use a screw driver as a pry bar to compress or decompress the tensioner springs to get a very quick idea of what belt tracking results can be expected before actually threading the adjusting nuts in or out on the adjusting bolts.
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. One method of making a square cut is shown below. 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.
TOP AND SIDE TROUGH COVERS
(Reference figure on page 11.)

1. Fasten end trough covers (Item 4) to the top of the two trough sections, which are connected to the inlet and discharge housings. Use four 3/8" x 1" long bolts and locknuts and ten 1/4" x 3/4" long bolts with tinnerman nuts and lockwashers.

2. Install the remaining trough covers (Items 5) to the remaining trough sections. Use ten 1/4" x 3/4" long bolts with tinnerman nuts and lockwashers per cover. Connect each cover to the adjoining cover, using 5/16" x 3/4" long bolts and locknuts. Two each per joint.

3. Install side cover panels to the end flanges of the trough sections using 1/4" x 3/4" long bolts with flat washers, lock washers and tinnerman nuts.
INTERMEDIATE INLET GATE

1. Locate the desired placement of the inlet gate(s) along the length of the conveyor. Cut a 9-3/4" wide x 14-1/2" long hole through the cover so the inlet sets partially through the cover. See diagram below.

NOTE: If the inlet is centered between two cover mounting holes, the inlet can bolt directly to these holes. If the inlet is not centered between two cover mounting holes, mark the required location for the holes in the cover and drill 13/32" holes.
TO DEALER/ASSEMBLER NOTICE

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

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 page P-1 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. Make certain an Operator’s Manual is delivered to the conveyor owner.

TO THE OWNER

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

<table>
<thead>
<tr>
<th>PROBLEM/CAUSE</th>
<th>For Solutions Refer to Answer #</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Belt runs off at tail pulley.</td>
<td>7 1 11 17</td>
</tr>
<tr>
<td>B. Belt runs to one side for long distance or entire length of conveyor.</td>
<td>5 1 2 17</td>
</tr>
<tr>
<td>C. Particular section of belt runs to one side at all points on conveyor.</td>
<td>3 4</td>
</tr>
<tr>
<td>D. Conveyor belt runs to one side at given point on structure.</td>
<td>1 2 16</td>
</tr>
<tr>
<td>E. Belt runs true when empty, crooked when loaded.</td>
<td>5</td>
</tr>
<tr>
<td>F. Belt slips.</td>
<td>12 11</td>
</tr>
<tr>
<td>G. Belt slips on starting</td>
<td>12 11</td>
</tr>
<tr>
<td>H. Grooving, gouging or stripping of top belt cover.</td>
<td>18</td>
</tr>
<tr>
<td>I. Severe pulley cover wear.</td>
<td>6 7 8</td>
</tr>
<tr>
<td>J. Belt covers harden or crack.</td>
<td>10 13</td>
</tr>
<tr>
<td>K. Belt cover swells in spots or streaks.</td>
<td>9</td>
</tr>
<tr>
<td>L. Excessive belt edge wear, broken edges.</td>
<td>5 7 15 4 17 14</td>
</tr>
<tr>
<td>M. Short breaks in carcass parallel to belt edge, star breaks in carcass.</td>
<td>8</td>
</tr>
<tr>
<td>N. Belt ply separation.</td>
<td>10</td>
</tr>
<tr>
<td>O. Belt cupping-old belt (was OK when new).</td>
<td>9 10</td>
</tr>
<tr>
<td>P. Low conveyor capacity.</td>
<td>19 20 6 21 7 12</td>
</tr>
<tr>
<td>Q. Pulley drags or does not turn.</td>
<td>22</td>
</tr>
<tr>
<td>T. Nylon belt splice pin pulling out of belt splice.</td>
<td>23</td>
</tr>
</tbody>
</table>
CONVEYOR SYSTEM PROBLEMS/CAUSES AND THEIR SOLUTIONS

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.
15. Belt hitting conveyor structure.
17. Belt misalignment: See training recommendations.
19. Steep conveyor incline.
20. Incorrect belt speed. Design capacity is at specified belt speed. See electric drive section of manual.
21. Loose electric motor drive belts. (Primary and secondary drives)
22. Frozen bearings. Lubricate or replace.
23. Belt tracking off to side at inlet or drive (items 1 or 2, page P-2).
SAFETY SIGNS AND DECALS

Check components as specified below to insure that safety decals are present and in good condition. These decals are located on the right hand side of the discharge housing. If a decal cannot be easily read for any reason or has been painted over, replace it immediately. Decals may be ordered through your dealer.

**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. DISCONNECT POWER BEFORE SETTING MOTOR OVERLOAD.
7. MAKE CERTAIN ELECTRIC MOTORS ARE GROUNDED.
8. KEEP CHILDREN WELL CLEAR OF WORK AREA.

“CAUTION” Decal
Part No. 1002301

**DANGER**

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

“DANGER” Decal
Part No. 1005324
## TROUGH SECTION COMPONENTS

<table>
<thead>
<tr>
<th>REF. NO.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1029477</td>
<td>Discharge Assembly</td>
</tr>
<tr>
<td>2</td>
<td>1029476</td>
<td>Inlet Assembly</td>
</tr>
<tr>
<td>3</td>
<td>1029470</td>
<td>Trough Section Weldment</td>
</tr>
<tr>
<td>4</td>
<td>1029474</td>
<td>End Trough Cover</td>
</tr>
<tr>
<td>5</td>
<td>1029473</td>
<td>Trough Cover</td>
</tr>
<tr>
<td>6</td>
<td>1029499</td>
<td>Support Leg Attachment Bracket</td>
</tr>
<tr>
<td>7</td>
<td>1030379</td>
<td>Support Leg Weldment</td>
</tr>
<tr>
<td>8</td>
<td>33240</td>
<td>U-Bolt</td>
</tr>
<tr>
<td>9</td>
<td>1029496</td>
<td>Belt Splice Shield</td>
</tr>
<tr>
<td>10</td>
<td>1029516</td>
<td>Side Cover Panel</td>
</tr>
<tr>
<td>11</td>
<td>1036684</td>
<td>Flange Cap Panel</td>
</tr>
<tr>
<td>12</td>
<td>1036622</td>
<td>Tube Caps for Items 7</td>
</tr>
<tr>
<td>13</td>
<td>1037061</td>
<td>Return Belt Roller Assembly</td>
</tr>
</tbody>
</table>
## INLET HOUSING COMPONENTS

<table>
<thead>
<tr>
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<th>PART NO.</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>1</td>
<td>1028521</td>
<td>Inlet Housing Weldment</td>
</tr>
<tr>
<td>2</td>
<td>1031931</td>
<td>Pulley, 6&quot; x 18&quot; CF w/1-1/4&quot; Bore</td>
</tr>
<tr>
<td>3</td>
<td>1032842</td>
<td>Shaft, Tail Pulley 1-1/4&quot; x 24-1/4&quot;</td>
</tr>
<tr>
<td>4</td>
<td>1029743</td>
<td>Bearing, 1-1/4&quot; Take-up</td>
</tr>
<tr>
<td>5</td>
<td>1023329</td>
<td>Roller, 1.9&quot; O.D. Hex Shaft</td>
</tr>
<tr>
<td>6</td>
<td>1026004</td>
<td>Guide Roller Mount Plate</td>
</tr>
<tr>
<td>7</td>
<td>1036617</td>
<td>Guide Roller (Hex Bore)</td>
</tr>
<tr>
<td>8</td>
<td>1036711</td>
<td>Hex Roller Shaft</td>
</tr>
<tr>
<td></td>
<td>1036730</td>
<td>Guide Roller Assembly (Includes Items 6, 7 &amp; 8)</td>
</tr>
</tbody>
</table>

(NOTE: If old style Guide Roller #1025833, Spacer Tube #1030100, Bolt #1026107, Ball Bearing, 1/2" Bore #1026002 or Spacer Tube 1013829 are requested, substitute part number 1037508.)

<table>
<thead>
<tr>
<th>REF. NO.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>1023737</td>
<td>Threaded Take-up Rod 3/4&quot; x 24&quot;</td>
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<tr>
<td>11</td>
<td>1023328P</td>
<td>Spring</td>
</tr>
<tr>
<td>12</td>
<td>1029957</td>
<td>UHMW Washer</td>
</tr>
<tr>
<td>13</td>
<td>1027033</td>
<td>Rubber Skirt (side)</td>
</tr>
<tr>
<td>14</td>
<td>1027034</td>
<td>Rubber Skirt (end)</td>
</tr>
<tr>
<td>15</td>
<td>1027036</td>
<td>Brush Flight Panel Weldment</td>
</tr>
<tr>
<td>16</td>
<td>1027037</td>
<td>Hold Down Panel</td>
</tr>
<tr>
<td></td>
<td>1031939</td>
<td>Items 2 &amp; 3 Assembled</td>
</tr>
</tbody>
</table>
DISCHARGE ASSEMBLY
COMPONENTS
**DISCHARGE HOUSING ASSEMBLY**

<table>
<thead>
<tr>
<th>REF. NO.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1029469</td>
<td>Discharge Frame Weldment</td>
</tr>
<tr>
<td>2</td>
<td>1023839</td>
<td>Cover Panel</td>
</tr>
<tr>
<td>3</td>
<td>1029904</td>
<td>Discharge Spout (metal)</td>
</tr>
<tr>
<td>4</td>
<td>1023844</td>
<td>Discharge Spout Pin</td>
</tr>
<tr>
<td>5</td>
<td>1035369</td>
<td>Pulley, 6&quot; x 18&quot; CF w/1-1/4&quot; Bore (Herringbone Grooved Lagging)</td>
</tr>
<tr>
<td>6</td>
<td>1032484</td>
<td>Shaft, Head 1-1/4&quot; x 27-1/16&quot;</td>
</tr>
<tr>
<td>7</td>
<td>1031935</td>
<td>Pulley, 4&quot; x 18&quot; SF w/1-1/4&quot; Bore</td>
</tr>
<tr>
<td>8</td>
<td>1032482</td>
<td>Shaft, Snub 1-1/4&quot; x 24-1/4&quot;</td>
</tr>
<tr>
<td>9</td>
<td>1029742</td>
<td>Bearing, 1-1/4&quot; Two-Bolt Flanged</td>
</tr>
<tr>
<td>10</td>
<td>1023727</td>
<td>Bearing Push Plate</td>
</tr>
<tr>
<td>11</td>
<td>1029493</td>
<td>Shaft, 1-1/4&quot; x 31-1/2&quot;</td>
</tr>
<tr>
<td>12</td>
<td>1029479</td>
<td>Take-up Bearing Bracket</td>
</tr>
<tr>
<td>13</td>
<td>1027641</td>
<td>Bolt 1/2&quot; x 7-1/2&quot;</td>
</tr>
<tr>
<td>14</td>
<td>1025412</td>
<td>Skirt Rubber</td>
</tr>
<tr>
<td>15</td>
<td>1030585</td>
<td>Rubber Pulley Wiper</td>
</tr>
<tr>
<td>16</td>
<td>1030586</td>
<td>Wiper Clamp Bar</td>
</tr>
<tr>
<td>17</td>
<td>1023329</td>
<td>Roller, 1.9&quot; O.D. Hex Shaft</td>
</tr>
<tr>
<td>-</td>
<td>1035370</td>
<td>Items 5 &amp; 6 Assembled</td>
</tr>
<tr>
<td>-</td>
<td>1031942</td>
<td>Items 7 &amp; 8 Assembled</td>
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</tbody>
</table>
## ELECTRIC DRIVE COMPONENTS

<table>
<thead>
<tr>
<th>REF. NO.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1026970</td>
<td>Motor Mount Support Strap</td>
</tr>
<tr>
<td>2</td>
<td>1026895</td>
<td>Motor Mount Support Plate</td>
</tr>
<tr>
<td>3</td>
<td>1022381</td>
<td>Motor Mount Adjustment Rod</td>
</tr>
<tr>
<td>4</td>
<td>1022138</td>
<td>Motor Mount Plate</td>
</tr>
<tr>
<td>5</td>
<td>1022188</td>
<td>Motor Mount Pivot Rod</td>
</tr>
<tr>
<td>6</td>
<td>1030351</td>
<td>Belt Guard (secondary drive)</td>
</tr>
<tr>
<td>7</td>
<td>1030350</td>
<td>Belt Guard (primary drive)</td>
</tr>
<tr>
<td>8</td>
<td>1030404</td>
<td>Belt Guard Bracket (rear)</td>
</tr>
<tr>
<td>9</td>
<td>1030399</td>
<td>Belt Guard Bracket (front)</td>
</tr>
</tbody>
</table>

For sheaves, belts and bushings, refer to table on page P-9 for part numbers based on the drive being used.
<table>
<thead>
<tr>
<th>DRIVE NOMINAL MOTOR</th>
<th>PRIMARY BELT DRIVE</th>
<th>SECONDARY BELT DRIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CATALOG NO.</td>
<td>BELT HP</td>
<td>SHEAVE</td>
</tr>
<tr>
<td>UB15D01 400 3</td>
<td>1B 4.2&quot; P.D.</td>
<td>QD SH 1.125</td>
</tr>
<tr>
<td>UB15D02 400 5</td>
<td>2B 4.2&quot; P.D.</td>
<td>QD SH 1.125</td>
</tr>
<tr>
<td></td>
<td>1024515</td>
<td>3079A1</td>
</tr>
<tr>
<td>UB15D03 400 7.5</td>
<td>2B 4.2&quot; P.D.</td>
<td>QD SH 1.375</td>
</tr>
<tr>
<td></td>
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<tr>
<td>UB15D04 600 3</td>
<td>1B 4.2&quot; P.D.</td>
<td>QD SH 1.125</td>
</tr>
<tr>
<td>UB15D05 600 5</td>
<td>2B 4.2&quot; P.D.</td>
<td>QD SH 1.125</td>
</tr>
<tr>
<td>UB15D06 600 7.5</td>
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<td>QD SH 1.375</td>
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<tr>
<td>UB15D07 600 10</td>
<td>3B 4.2&quot; P.D.</td>
<td>QD SH 1.375</td>
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<tr>
<td>UB15D08 800 3</td>
<td>1B 4.2&quot; P.D.</td>
<td>QD SH 1.125</td>
</tr>
<tr>
<td>UB15D09 800 5</td>
<td>2B 4.2&quot; P.D.</td>
<td>QD SH 1.125</td>
</tr>
<tr>
<td>UB15D10 800 7.5</td>
<td>2B 4.2&quot; P.D.</td>
<td>QD SH 1.375</td>
</tr>
<tr>
<td>UB15D11 800 10</td>
<td>3B 4.2&quot; P.D.</td>
<td>QD SH 1.375</td>
</tr>
<tr>
<td>UB15D12 800 15</td>
<td>3B 4.2&quot; P.D.</td>
<td>QD SH 1.625</td>
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</tbody>
</table>
## BELTING COMPONENTS

<table>
<thead>
<tr>
<th>REF. NO.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>- - -</td>
<td>Conveyor Belting, 15” wide x length noted below. Low Temp PVC, Black Crescent Top Cover w/Slider Bed Back, RS125 Alligator Lacing installed both ends. (Includes nylon covered hinge pin)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PVC Belt</th>
<th>Rubber Belt</th>
<th>Belt Length</th>
<th>Pulley Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1030367-34</td>
<td>1039387-34</td>
<td>34'-6&quot;</td>
<td>16'-3&quot;</td>
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<tr>
<td>1030367-44</td>
<td>1039387-44</td>
<td>44'-6&quot;</td>
<td>21'-3&quot;</td>
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<tr>
<td>1030367-54</td>
<td>1039387-54</td>
<td>54'-6&quot;</td>
<td>26'-3&quot;</td>
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<tr>
<td>1030367-64</td>
<td>1039387-64</td>
<td>64'-6&quot;</td>
<td>31'-3&quot;</td>
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<tr>
<td>1030367-74</td>
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<td>74'-6&quot;</td>
<td>36'-3&quot;</td>
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<td>1039387-204</td>
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<td>101'-3&quot;</td>
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<td>1039387-224</td>
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<td>1039387-244</td>
<td>244'-6&quot;</td>
<td>121'-3&quot;</td>
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<td>254'-6&quot;</td>
<td>126'-3&quot;</td>
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<tr>
<td>1030367-264</td>
<td>1039387-264</td>
<td>264'-6&quot;</td>
<td>131'-3&quot;</td>
</tr>
</tbody>
</table>

1024743 Per Foot Conveyor Belting part number (PVC Belting)
1031951 Per Foot Conveyor Belting part number (Rubber Belting)

(For repair - NOTE: Belt end splices not installed)

2 1024218 Hinge Pin Kit, nylon covered steel cable x 15" long
2 1024215 Hinge Pin material (per foot part number)

4 1015AS-SET Belt Splice Kit (without installation tool) (material for four belt splices)
PARTS LIST

INTERMEDIATE INLET GATE COMPONENTS

<table>
<thead>
<tr>
<th>REF. NO.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1030634</td>
<td>Inlet Housing Weldment</td>
</tr>
<tr>
<td>2</td>
<td>1029212</td>
<td>Inlet Slide Gate</td>
</tr>
<tr>
<td>3</td>
<td>1029208</td>
<td>Gate Wiper</td>
</tr>
</tbody>
</table>
## OPTIONAL CANVAS HOPPER COMPONENTS

<table>
<thead>
<tr>
<th>REF. NO.</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1023396</td>
<td>Canvas Inlet Hopper</td>
</tr>
<tr>
<td>2</td>
<td>1023398P</td>
<td>Spring Hopper Torsion (right hand)</td>
</tr>
<tr>
<td>3</td>
<td>1023399P</td>
<td>Spring Hopper Torsion (left hand)</td>
</tr>
<tr>
<td>4</td>
<td>1023833</td>
<td>Spring Anchor Weldment (right)</td>
</tr>
<tr>
<td>5</td>
<td>1023834</td>
<td>Spring Anchor Weldment (left)</td>
</tr>
<tr>
<td>6</td>
<td>1023835</td>
<td>Spring Pivot Pipe</td>
</tr>
<tr>
<td>7</td>
<td>1023756</td>
<td>Tarp Retaining Strap (side)</td>
</tr>
<tr>
<td>8</td>
<td>1023757</td>
<td>Tarp Retaining Strap (end)</td>
</tr>
<tr>
<td>9</td>
<td>1023848</td>
<td>Hopper Support Bar (side)</td>
</tr>
<tr>
<td>10</td>
<td>1023849</td>
<td>Hopper Support Bar (end)</td>
</tr>
<tr>
<td>11</td>
<td>1030380</td>
<td>Inlet Cover Panel</td>
</tr>
</tbody>
</table>

(NOTE: Item 11 is standard on inlet.)