

Field Manual
Powered Trash Belt Conveyor
Installation Procedures, Maintenance, and
Parts Identification



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Read these documents thoroughly before attempting to perform maintenance or repairs to the applicable Intelligrated conveyor system components or devices. Exercise extreme caution when working around moving and rotating conveyor equipment. Wear the proper clothing and safety equipment. **DO NOT** attempt to perform any maintenance until the equipment is de-energized, locked out and tagged out in accordance with established company procedures.

The information presented in these documents are correct at the time of publication. Intelligrated has made every effort to ensure that the information presented is correct and free from error. However, some errors or misprints may occur. Please contact Intelligrated with any corrections.

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Package Conveyors



| | | |
|---|--|--|
|  <p>Do Not Climb, Sit, Stand, Walk, Ride, or Touch the Conveyor at Any Time</p> |  <p>Do Not Perform Maintenance on Conveyor Until Electrical, Air, Hydraulic and Gravity Energy Sources Have Been Locked Out or Blocked</p> |  <p>Operate Equipment Only With All Approved Covers and Guards in Place</p> |
|  <p>Do Not Load a Stopped Conveyor or Overload a Running Conveyor</p> |  <p>Ensure That All Personnel Are Clear of Equipment Before Starting</p> |  <p>Allow Only Authorized Personnel To Operate or Maintain Material Handling Equipment</p> |
|  <p>Do Not Modify or Misuse Conveyor Controls</p> |  <p>Keep Clothing, BodyParts, and Hair Away from Conveyors</p> |  <p>Remove Trash, Paperwork, and Other Debris Only When Power is Locked Out and Tagged Out</p> |
|  <p>Ensure That ALL Controls and Pull Cords are Visible and Accessible</p> |  <p>Know the Location and Function of All Stop and Start Controls</p> |  <p>Report All Unsafe Conditions Jams should be cleared ONLY BY Authorized, Trained, Personnel</p> |

POST IN PROMINENT AREA

Field Manual Issue and Revision Date(s)

| | |
|--------------|-------------|
| 1st Issue | April 2005 |
| 1st Revision | August 2006 |

Field Manual Revision Summary

| Revision Date | Manual Section(s) | Revision Summary |
|----------------------|--------------------------|-------------------------|
| August 2006 | Section I | Updated Part Numbers |
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SECTION G: INSTALLATION PROCEDURES

Accepting Shipment

Immediately upon delivery, verify that you have received all equipment listed on the bill of lading or carrier's freight bill. Any shipping discrepancy or equipment damage should be clearly noted on the freight bill before signing.

Shortages or Errors

Report any shortages or errors to the Manufacturer's Customer Service in writing within ten days after receipt of shipment.

Lost or Damaged Shipment

Report lost shipments to the Manufacturer's Shipping Department.

If shipping damage is evident upon receipt of the conveyor equipment, note the extent of the damage on the freight bill and immediately contact the transportation carrier to request an inspection. Do not destroy the equipment crating and packing materials until the carrier's agent has examined them. Unless otherwise agreed to by the manufacturer, the Purchaser (User) shall be responsible for filing claims with the transportation carrier. A copy of the inspection report along with a copy of the freight bill should be sent to the Manufacturer's traffic department.

Claims and Returns

All equipment furnished in accordance with the Manufacturer's Agreement is not returnable for any reason except when authorized in writing by the Manufacturer. Notification of return must be made to the Manufacturer's Customer Service Department, and if approved, a "Return Authorization Tag" will be sent to the Purchaser (Users). The return tag sealed in the "Return Authorization Envelope" should be securely affixed to the exterior surface on any shipping carton side (not top or bottom), or affixed to any smooth flat surface on the equipment, if not boxed.

Send authorized return shipment(s) transportation charges prepaid to the address indicated on the Return Authorization Tag. If the Purchaser refuses initial shipment, the Purchaser (User) shall be liable for all freight charges, extra cost of handling, and other incidental expenses.

Codes and Standards

The conveyor equipment is designed and manufactured to comply with the American National Standard Institute's "Safety Standards for Conveyors and Related Equipment" (ANSI B20.1) and with the National Electrical Code (ANSI/NFPA70).

The Purchaser/Operator shall be familiar with, and responsible for, compliance with all codes and regulations having jurisdiction regarding the installation, use, and maintenance of this equipment. Appropriate lockout/tagout policy and procedures shall comply with the minimum safety requirements outlined in the American National Standard Institute's current publication (ANSI Z244.1).

Warning Signs

Warning signs and labels posted on or near the conveyor equipment shall not be removed, painted over, or altered at any time. All safety devices, warning lights, and alarms associated with the conveyor system should be regularly tested for proper operation and serviced as needed. If the original safety item(s) become defective or damaged, refer to the conveyor parts list(s) or bill(s)-of-materials for replacement part numbers.

Safety Precautions

- Do not turn off conveyor power source(s) and affix appropriate lockout/tagout device(s) to operating controls before servicing the equipment. ONLY trained and qualified personnel who are aware of the safety hazards should perform equipment adjustments or required maintenance while the conveyor is in operation.
- Do observe all warning signs, lights, and alarms associated with the conveyor operation and maintenance, and be alert at all times to automatic operation(s) of adjacent equipment.
- Do use extreme caution near moving conveyor parts to avoid the hazard of hands, hair, and clothing being caught.
- Do not sit on, stand on, walk, ride, or cross (over or under) the conveyor at any time except where suitable catwalks, gates, or bridges are provided for personnel travel.
- Do not attempt to repair any equipment while the conveyor is running, replace any conveyor component without appropriate replacement parts, or modify the conveyor system without prior approval by the manufacturer.
- Do not operate the conveyor until all safety guards are securely in place, all tools and non-product materials are removed from or near the conveying surfaces, and all personnel are in safe positions.
- Do not remove or modify any safety devices provided on or with the conveyor.
- Do not clear jams or reach into any unit before first turning off the equipment power source(s) and affixing appropriate lockout/tagout device(s).

Parts Replacement

To minimize production downtime, selected conveyor spare parts should be stocked for replacement of defective components when required. Refer to the equipment bill(s)-of-materials where quantity requirements or code numbers are not indicated on the conveyor parts list. For added convenience, a list of selected spare parts for standard products is included in Section I of this manual.

Factory Assistance

Contact Field Service for installation, operation, or maintenance assistance, or Customer One Protection (COP) for replacement parts.

Pre-Installation Setup

Powered Trash Belt Conveyors are furnished with either an End or Intermediate type drive unit as standard.

The Intermediate Drive is normally furnished to provide End Idlers at the discharge to the next conveyor, either inline or 90° transfer.

For horizontal applications, the Intermediate Drive unit should be located as close as possible to the end of the conveyor that discharges the load.

For inclined applications, it is preferred that the Intermediate Drive be located close to the upper end of the conveyor.

Throughout this section, references are made to the “series” designation of a conveyor and its various component. The series is determined by the conveyor’s pull requirement and the components are sized accordingly.

Table G 1: Diameter Dimensions By Drive Type

| Type of Drive | End Drive | | Intermediate Drive | |
|-----------------------|------------|------------|--------------------|----------|
| | Series 600 | Series 800 | SA2000 | SA2001 |
| Drive Pulley Diameter | 6-5/16” | 8-5/16” | 8-3/8” | 5-7/8” |
| Drive Shaft Diameter | 1-7/16” | 1-11/16” | 1-11/16” | 1-11/16” |

Pre-Assembled Components

All drive/power units, idler/take-up units, and intermediate bed sections are shipped from the factory fully assembled. During installation, additional field assembly is required for the following:

- Mounting floor or ceiling type supports
- Splicing adjoining intermediate bed sections
- Attaching powered feeder and upper bend units
- Attaching two-pulley hitch and/or In-line transition
- Installing and tracking the belt
- Mounting side guides
- Installing bed stiffener angles
- Installing intermediate underside guards

Before installing the conveyor, review the layout drawings to determine the proper location, orientation, and elevation of the conveyor sections. Read all instructions provided in this manual before installing the conveyor.

Review the plan drawings to identify the individual components that make up the conveyor unit. Note the orientation, right-hand or left-hand, of the appropriate components and drives. A box depicting a chain guard on one side of the conveyor shows the orientation of motor driven components on the plan of the conveyor. See Figure G - 1.

Snap a chalk line on the floor or other support base to establish the centerline of the conveyor. Arrange the conveyor items and mounting supports along this base line according to the layout drawing. This ensures that all components are present and are compatible for proper assembly. Leave field-installed rollers and other accessory items in the shipping containers until all conveyor items are completely assembled, mounted on supports, and adjusted for proper elevation.

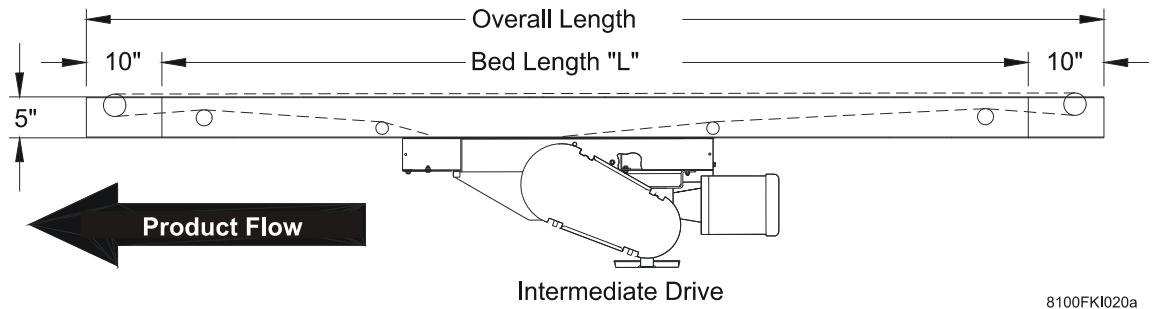
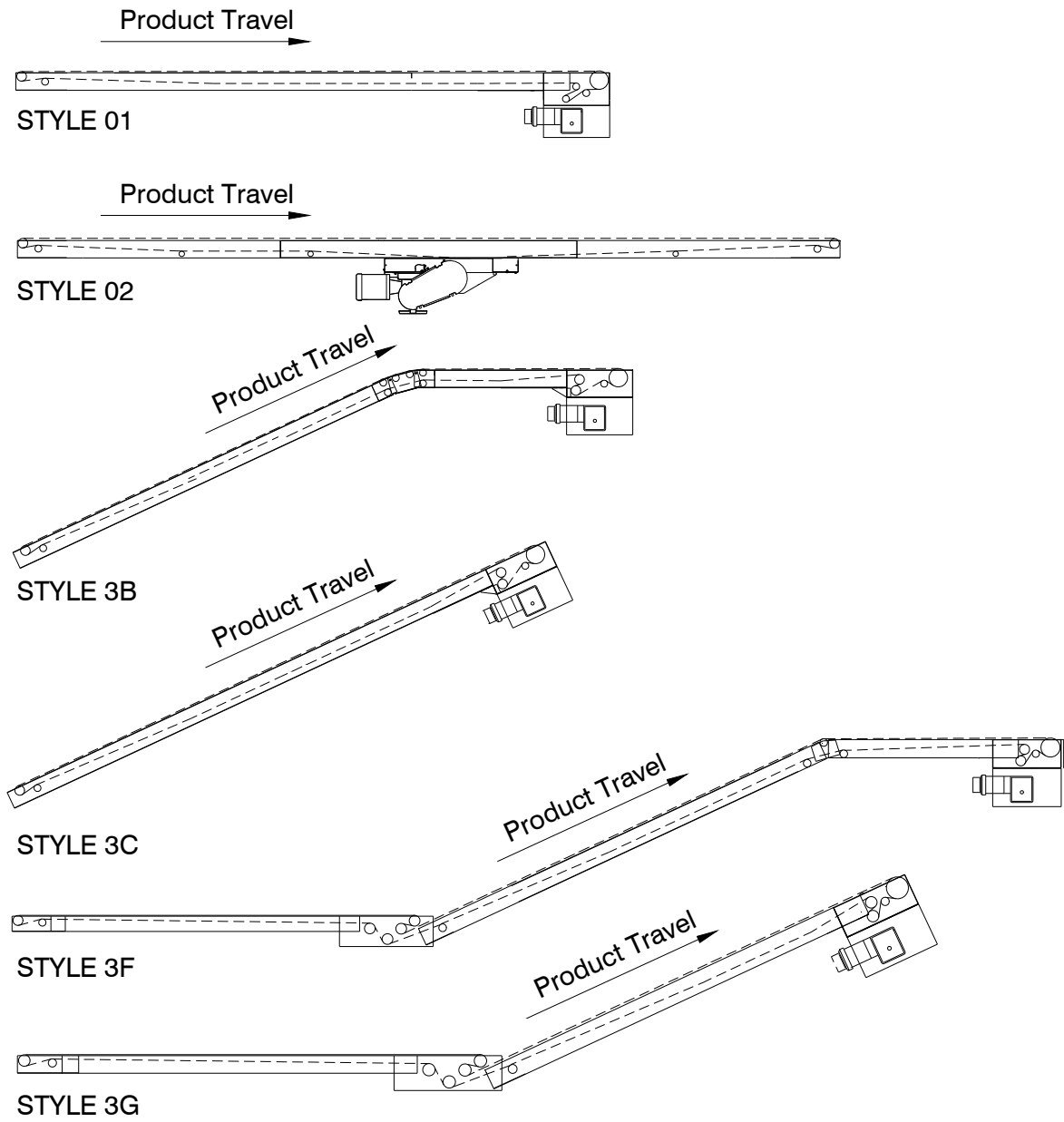


Figure G - 1 Typical Powered Trash Belt Conveyor (Style 02 Shown)

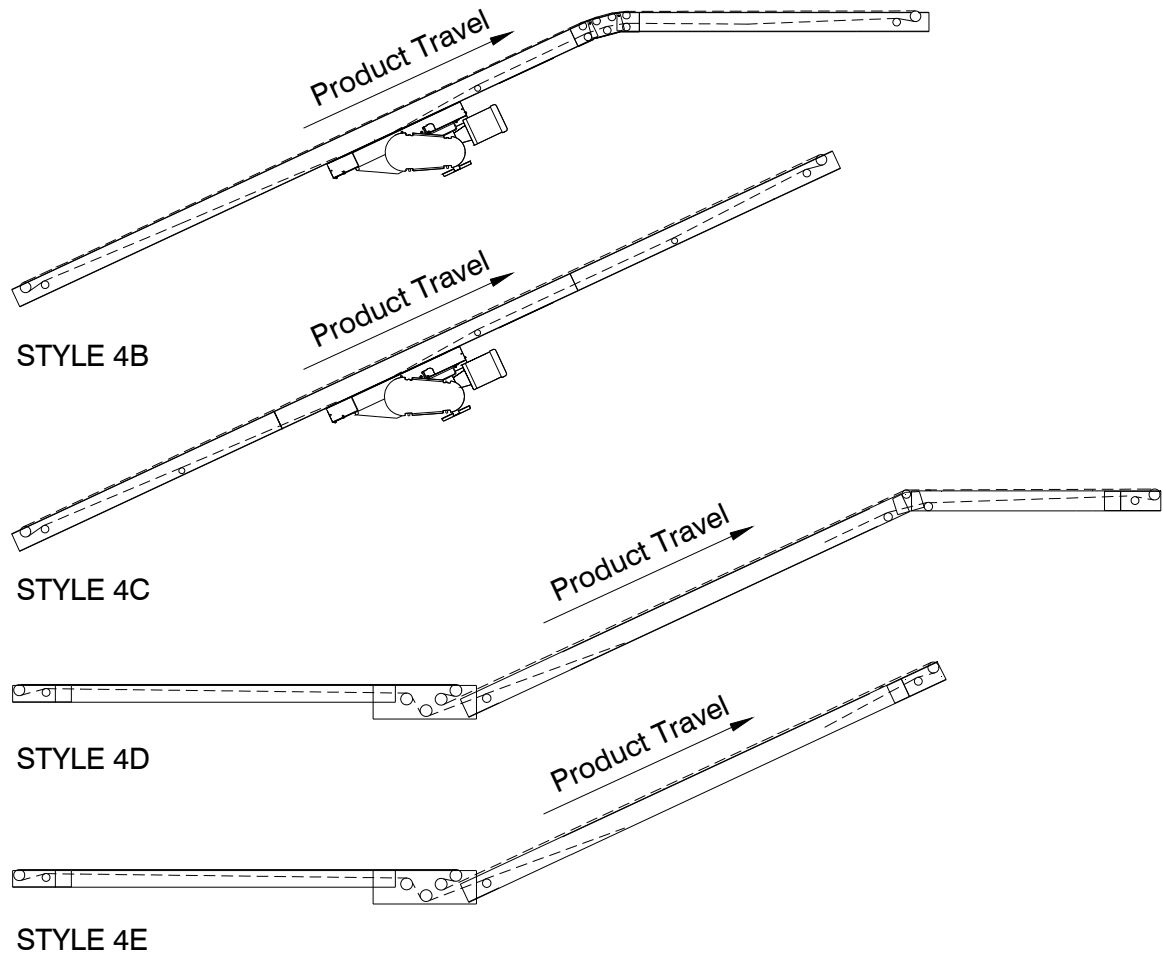
Style Identification

Equipment element combinations vary. Figures G - 2 and G - 3 illustrate available conveyor styles.



BUSFKI021A

Figure G - 2 Powered Trash Belt Conveyor Style Identification - Sheet 1 of 2



BUSFKI022A

Figure G - 3 Powered Trash Belt Conveyor Style Identification - Sheet 2 of 2

Assembling the Bed Section

The bed section is normally installed with a support (floor or ceiling type) mounted to the frame's bottom flanges at the junction of two sections using $3/8" \times 1"$ hex head bolts. See Figure G - 4 and Figure G - 5.

When it is not possible to locate a support at the junction of two sections, it may be necessary to field drill the bottom flanges of the slider bed and relocate the support.

Mount a pair of four-bolt splice plates to the inside of the frames at each splice connection using $3/8" \times 1"$ hex head bolts. See Figure G - 4. Before tightening the bolts, check that the adjoining surfaces are flush and aligned.

When installing, position the bed section so that the belt return rollers are in the same relative position in all sections. This will assure the proper spacing of the return rollers.

Return rollers are furnished as follows:

- Two for each 10'-0" and 12'-0" section.
- One for each 5'-0" and 7'-6" section.

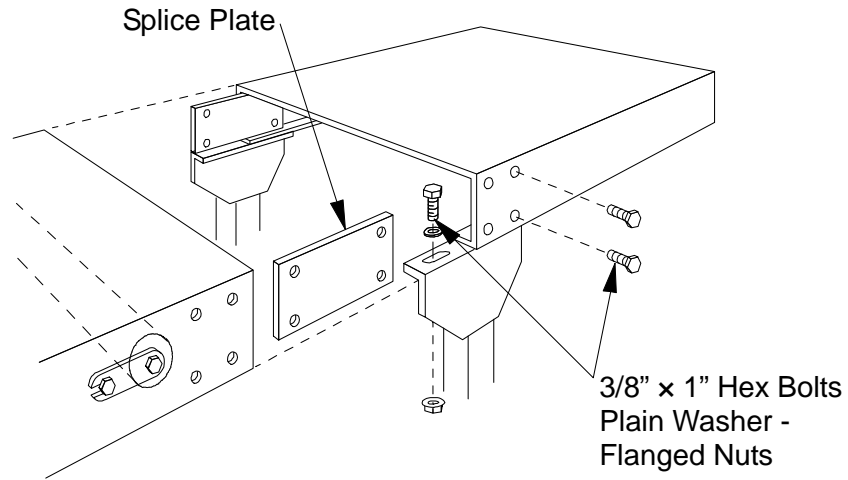


Figure G - 4 Splicing of Floor Supported Slider Bed Section

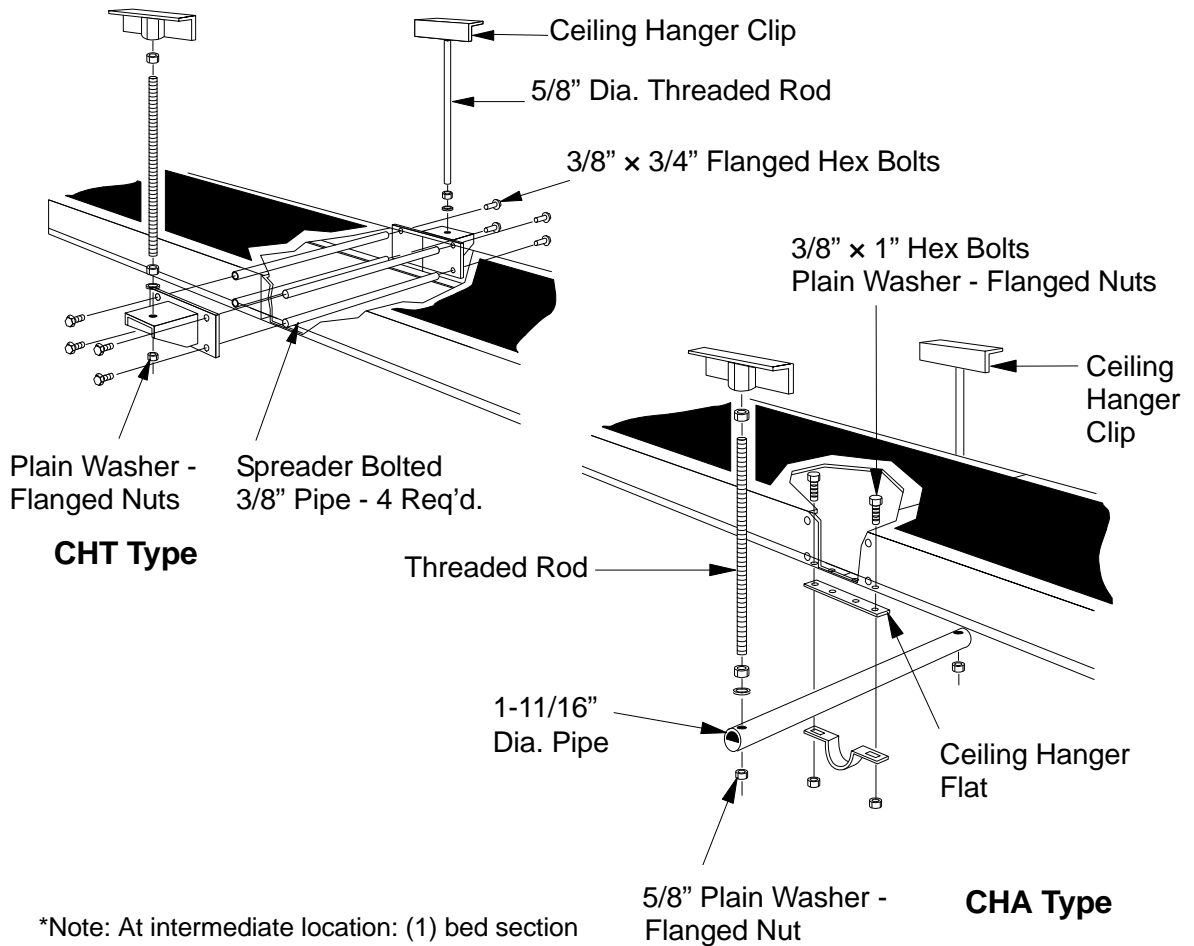


Figure G - 5 – Ceiling Hangers - Types CHT and CHA

Power Unit Assembly

Power Units ship from the factory fully-assembled to the drive section. Check the following before beginning installation:

- Lubricant
- Reducer plugs/fittings
- Sprocket alignment and set screws

Lubricant

Check that the reducer lubricant is up to the “Oil Level Plug.” Before adding any lubricant, refer to the manufacturer’s tags attached to the reducer.

Reducer Plugs and Fittings

Check that the oil level and drain plugs are properly installed and sufficiently tightened. Sprocket Alignment and Fasteners

Check sprocket alignment, see Figure G - 6. Shafts must be parallel.

See “Pre-Startup Preparation”, on page G - 24, for additional information.

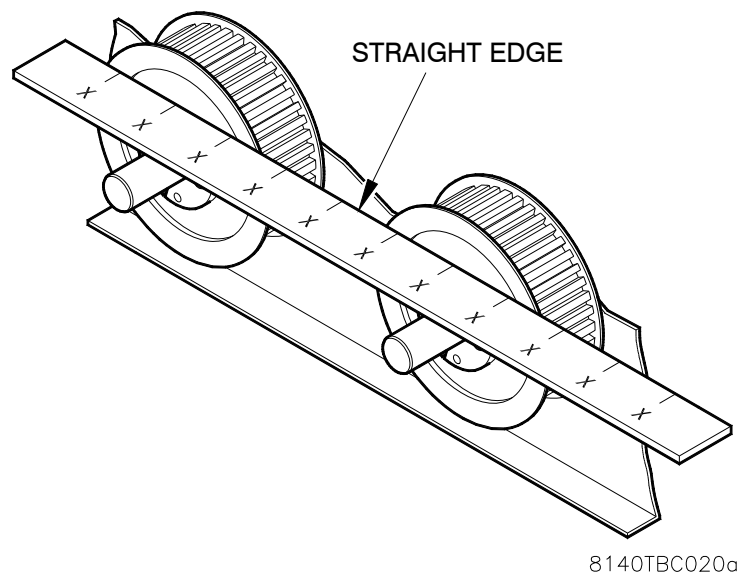


Figure G - 6 Checking Sprocket Alignment

Installing the Upper Bend Unit

The Upper Bend Unit ships from the factory fully in one of the following conditions:

- Connected to a terminal end (End Drive or End Idler). See Figure G - 7.
- Shipped separately to connect on-site to the Intermediate Section(s) when the conveyor has a horizontal run-out. See Figure G - 8.

When installing the Upper Bend Unit, adjust the Upper Bend so that the change between the inclined and horizontal planes is equally divided between the unit's two pivot points. See Figure G - 8.

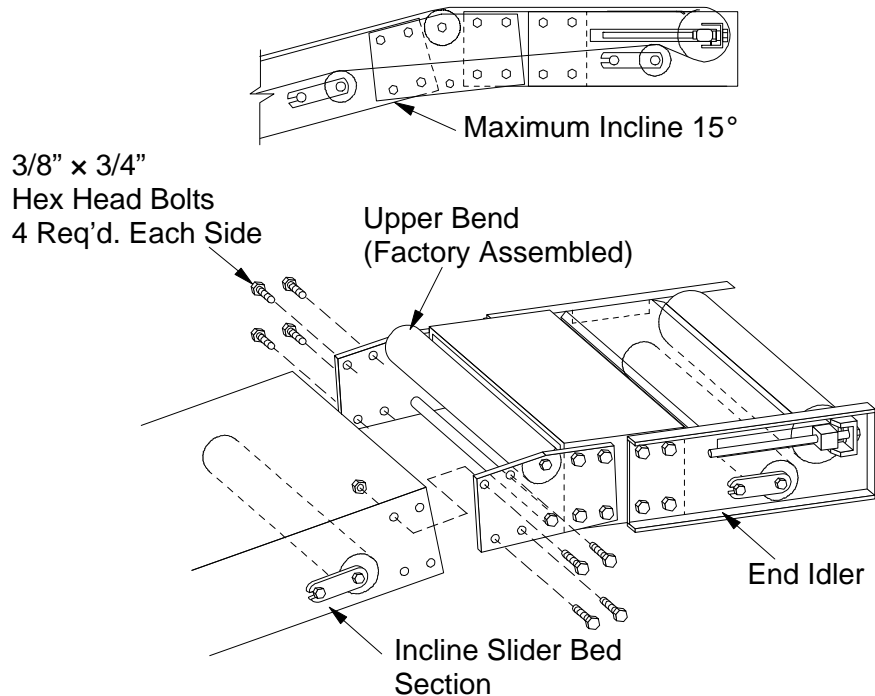


Figure G - 7 Attaching the Upper Bend Unit to a Terminal End

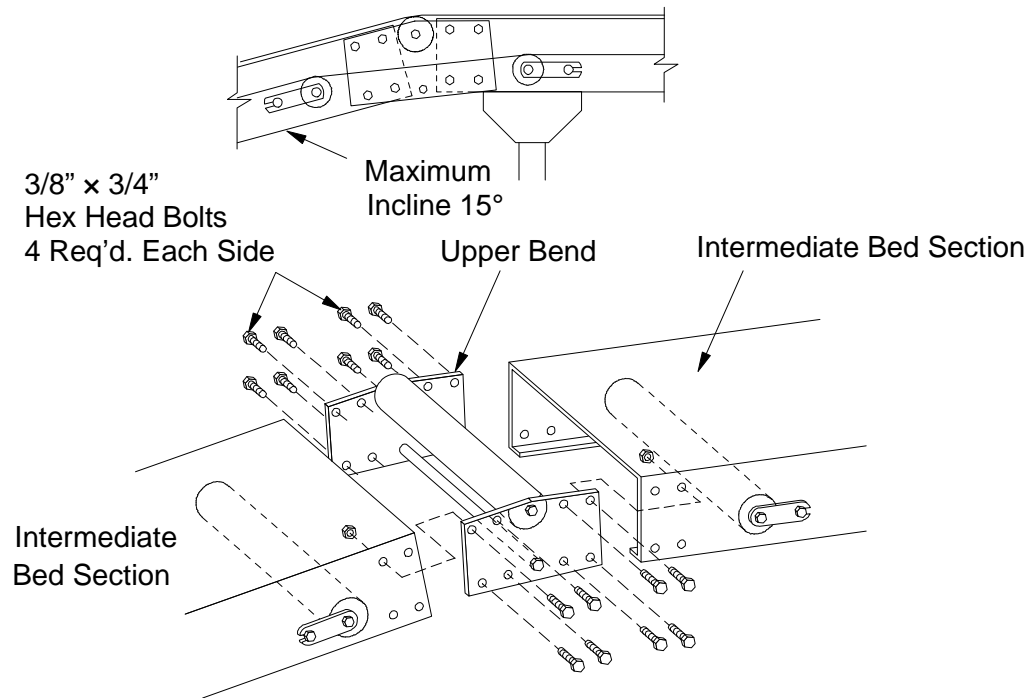


Figure G - 8 Attaching Upper Bend Unit When Conveyor Has Horizontal Run-Out

Installing the Right-Angle Transfer Unit

The width of the downstream take-away conveyor (Right Angle Transfer Unit) must be equal to the length of the largest item conveyed plus the horizontal distance that the discharge end of the feeding conveyor extends beyond the side guide of the take-away conveyor (6" recommended). See Figure G - 9.

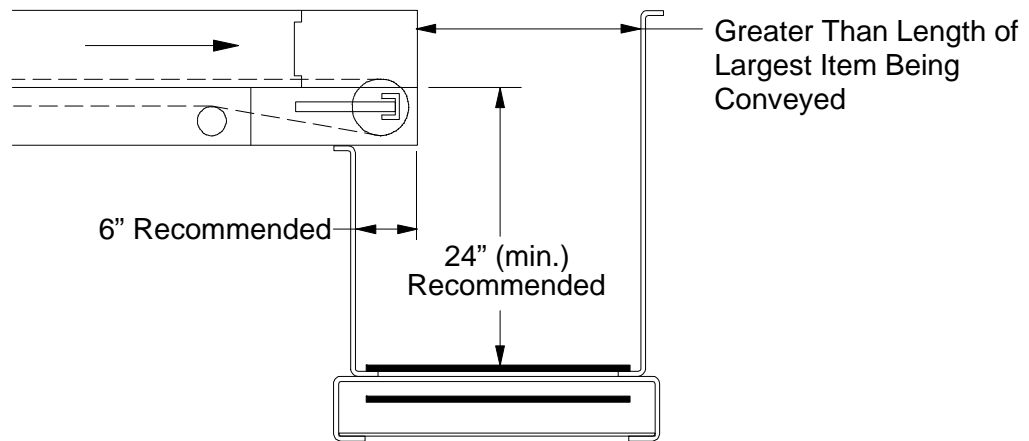


Figure G - 9 Right-Angle Transfer Unit

Assembling the In-Line Transition

The In-Line Transition Unit is pre-assembled at the factory and connected on-site to the Intermediate Bed sections at the transition point between two adjoining Powered Trash Belt Conveyors. The downstream section may be horizontal or inclined. The transition unit contains the end terminal pulley for both the upstream and downstream sections. See Figure G - 10.

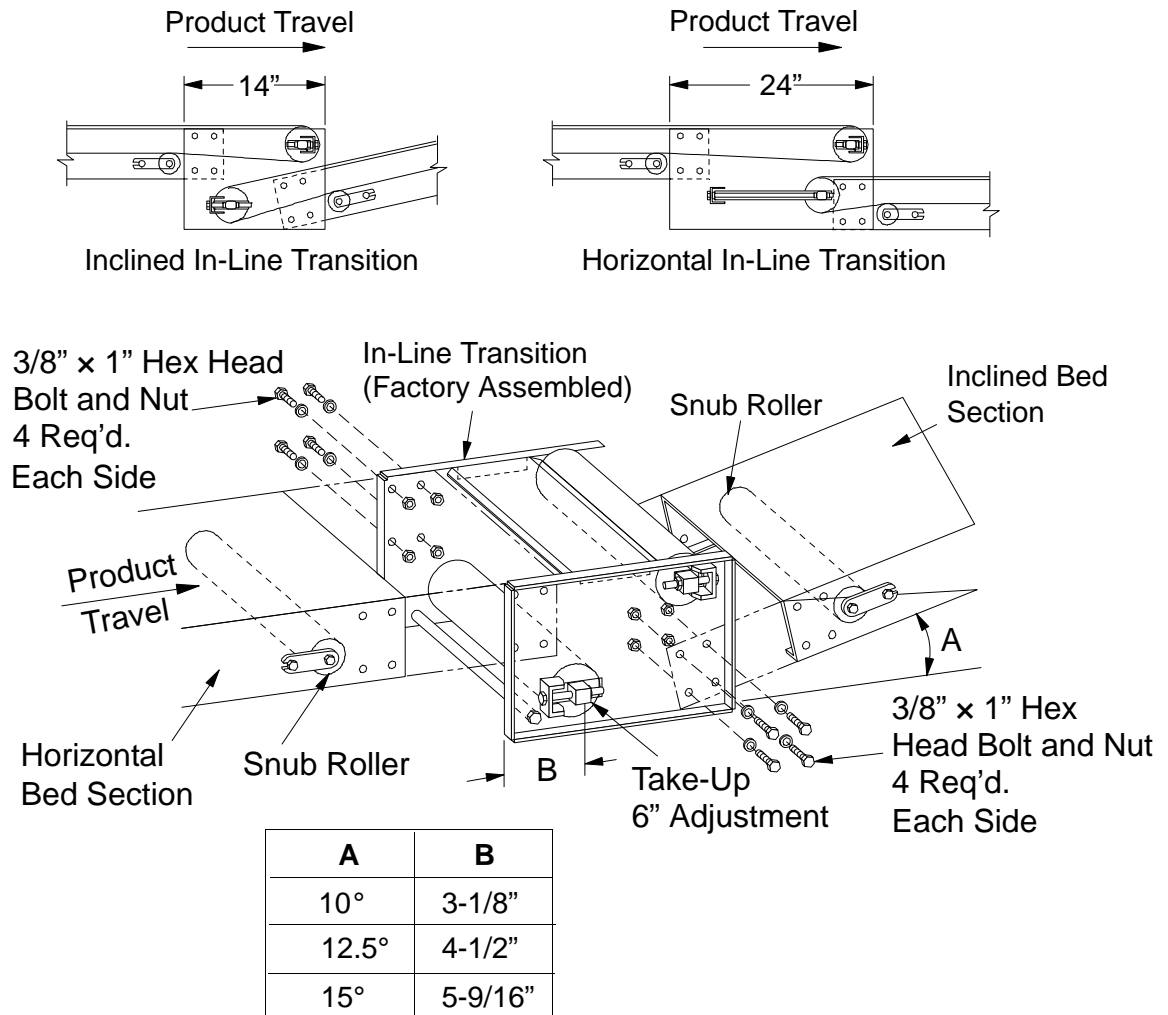


Figure G - 10 In-Line Transition Unit

Assembling the Two-Pulley Hitch Unit

The Two-Pulley Hitch Unit is pre-assembled at the factory and connected on-site to two Intermediate Bed sections at the transition point between horizontal and inclined sections of a single Powered Trash Belt Conveyor. The Two-Pulley Hitch Unit contains all pulleys to accommodate the carrying belt and return belt runs. See Figure G - 11.

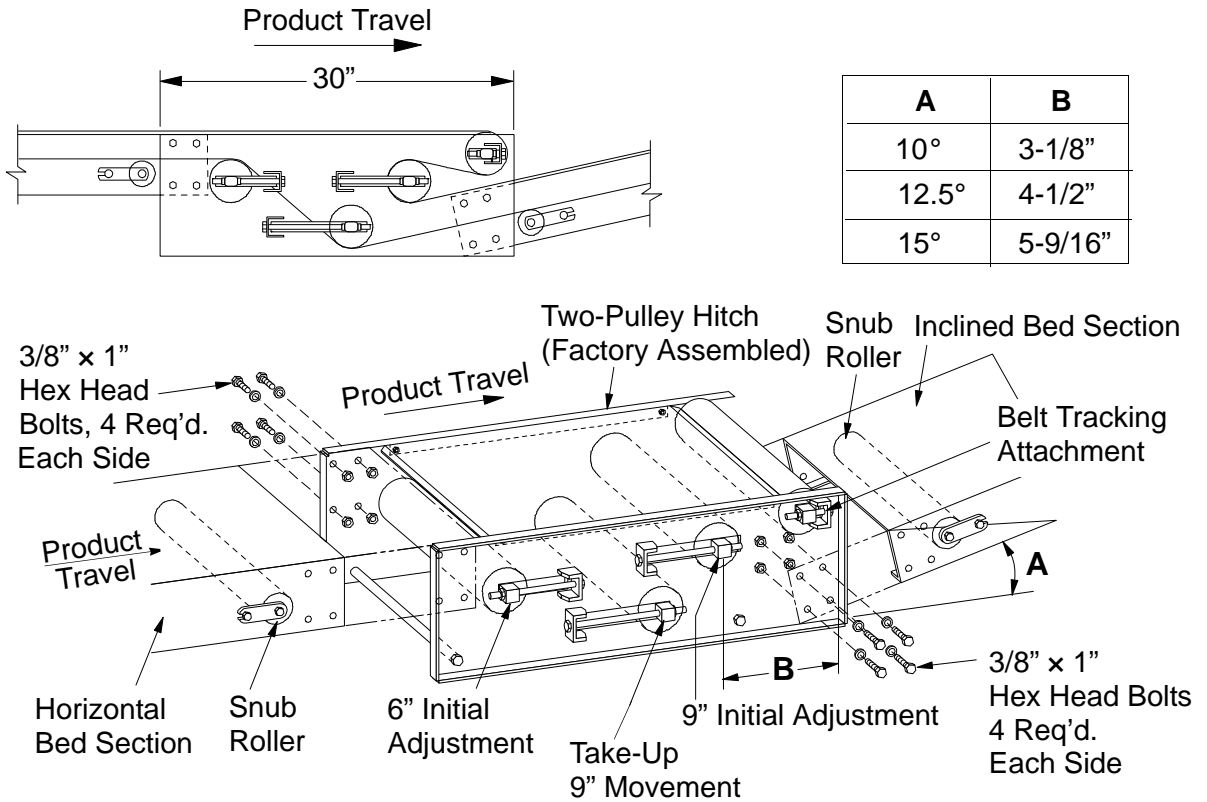


Figure G - 11 Two-Pulley Hitch Unit

Side Guide Installation

Assemble the 1-1/2" x 2" x 3/16" stiffener angle under the slider bed (33", 39", 45", and 51" widths only) when the Side Guide is installed. Use a 5/16" x 3/4" long special truss head bolt through the side guide flange, slider bed and stiffener angle, at the holes provided in the bed.

The number of angles supplied depends on the size of the bed section:

- 12'-0" bed section - four angles required
- 10'-0" bed section - four angles required
- 7'-6" bed section - three angles required
- 5'-0" bed section - three angles required
- 6'-0" bed section - three angles required

Locate one stiffener angle 6" from each end of the slider bed. Space the intermediate angles appropriately.

For 18" high side guide rails, bolt the side guide bracket to the side of the bed at the holes provided, using 5/16" x 3/4" long special truss head bolts and flanged hex nut. This procedure is not required for 6" high side guide.

Refer to Figure G - 12 through Figure G - 16 for Side Guide assembly illustrations.

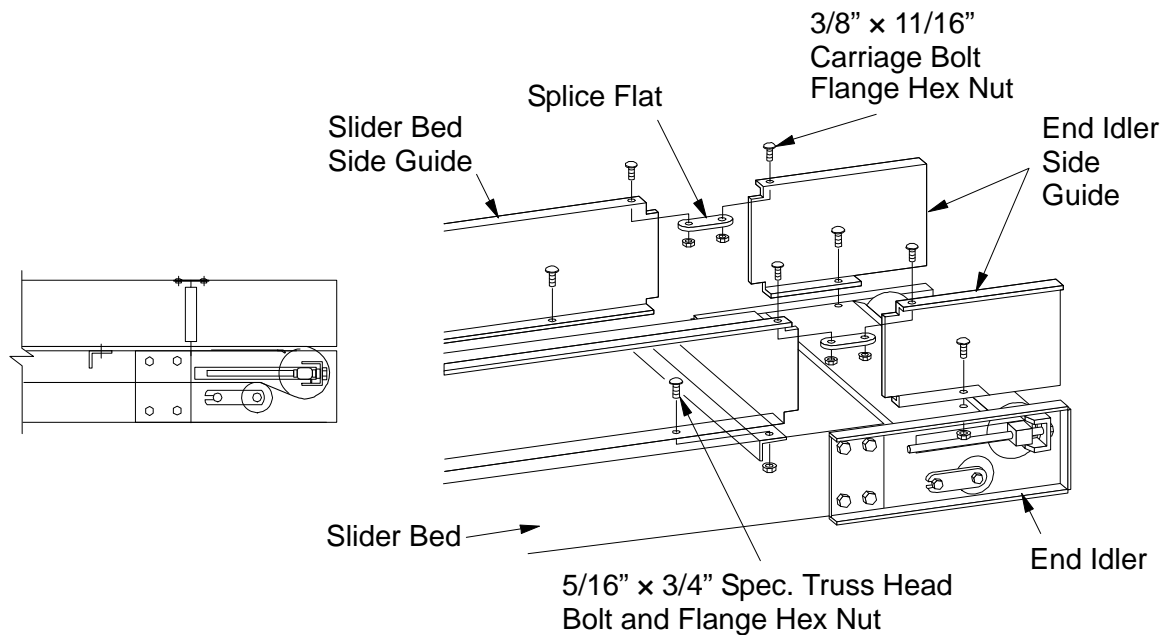


Figure G - 12 End Idler and End Take-Up Side Guide Assembly

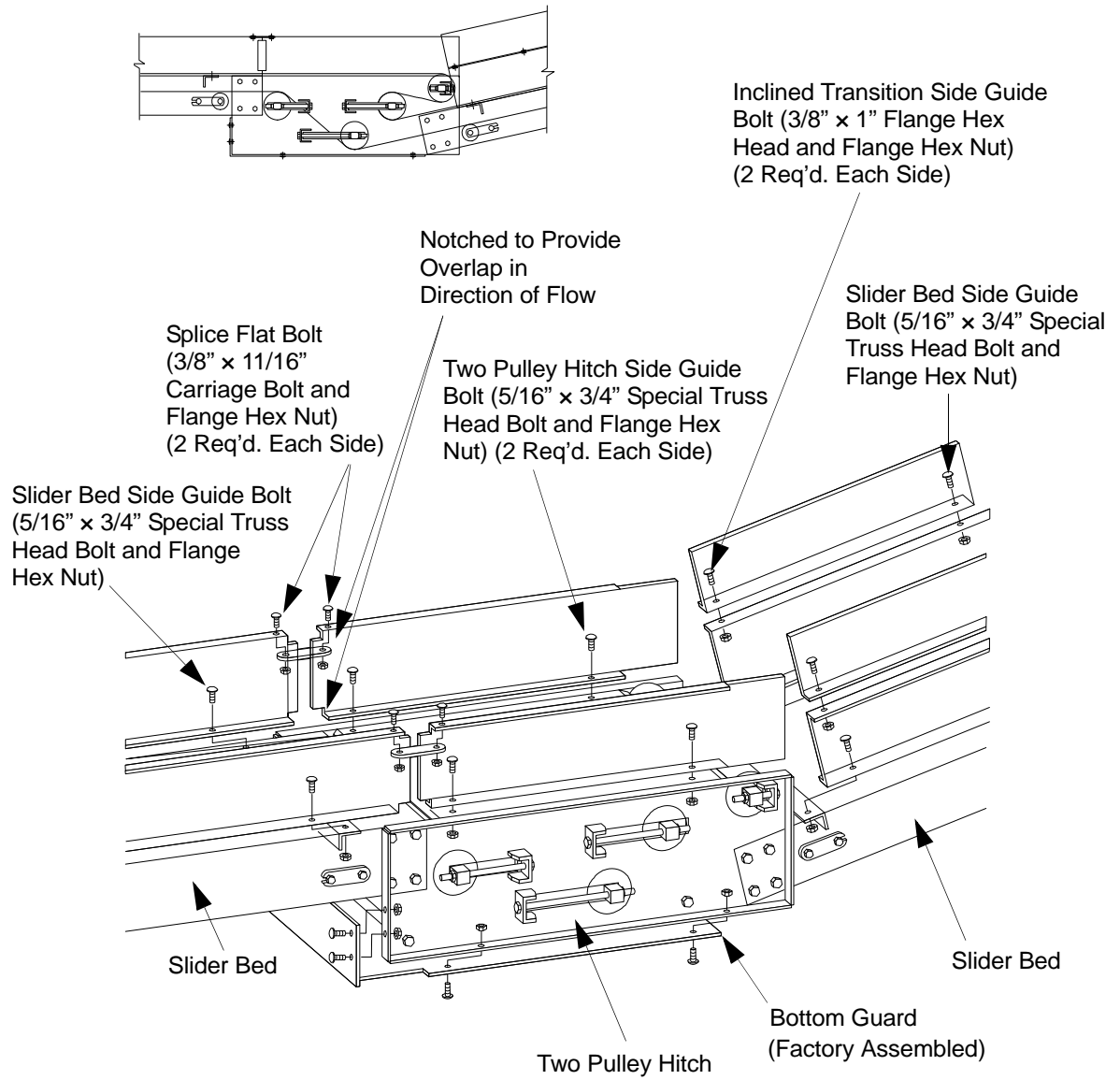


Figure G - 13 Two-Pulley Hitch Side Guide Assembly

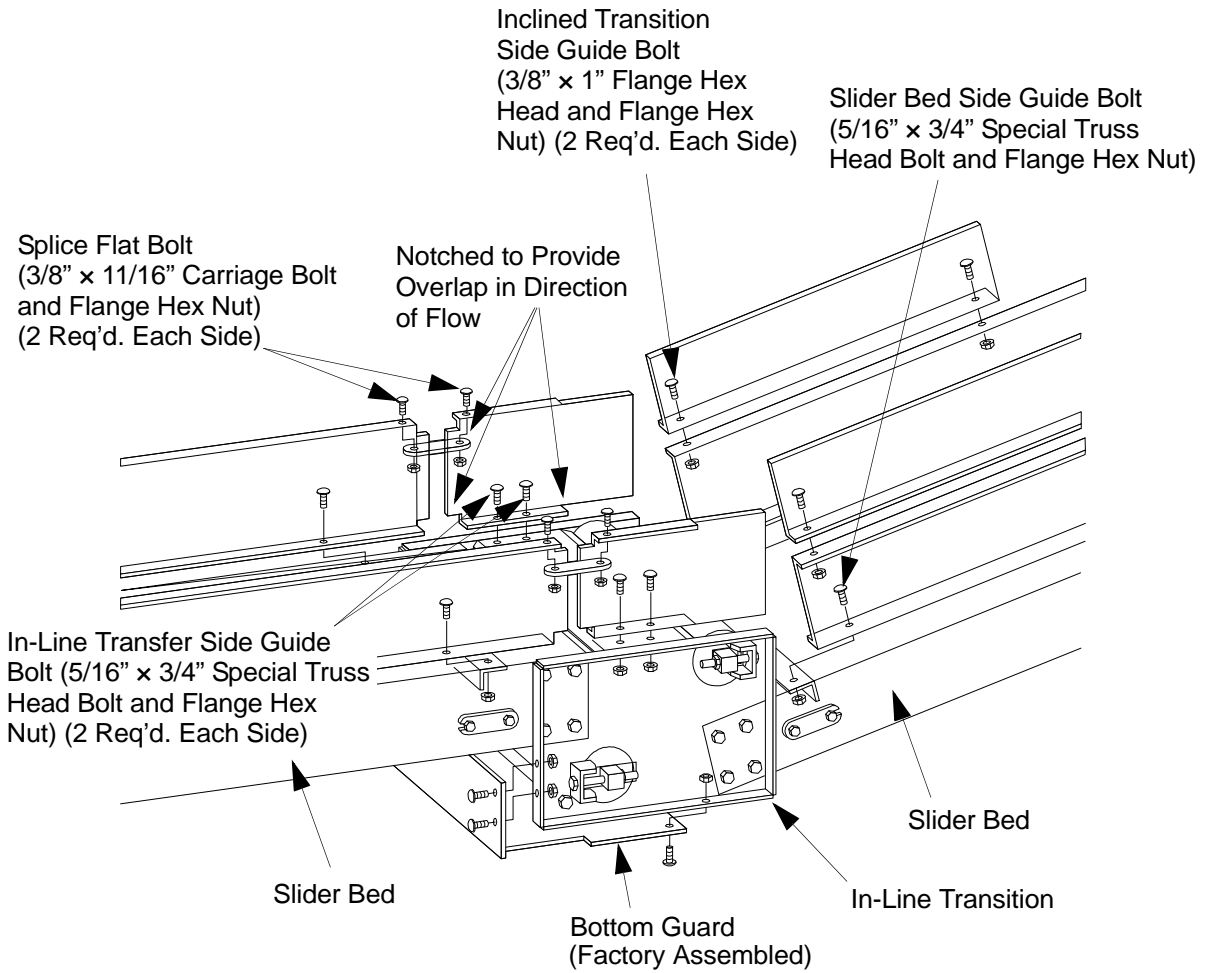
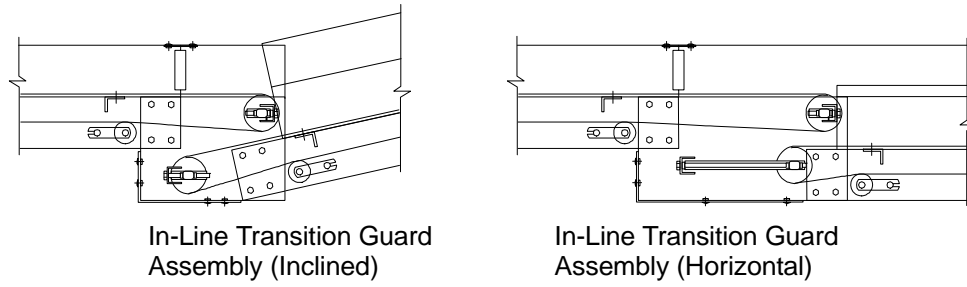


Figure G - 14 In-Line Transition Side Guide Assembly

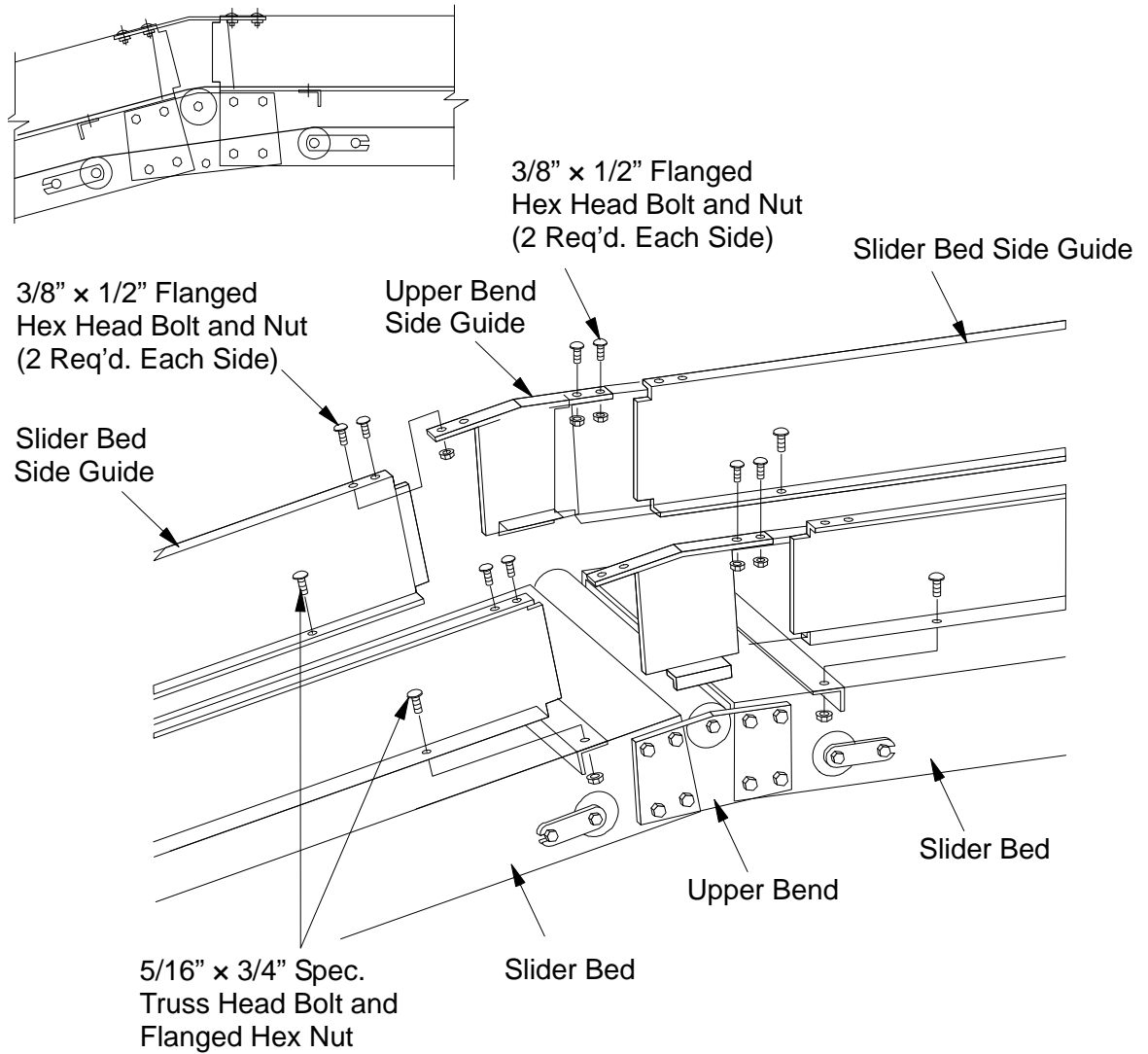


Figure G - 15 Upper Bend Side Guide Assembly

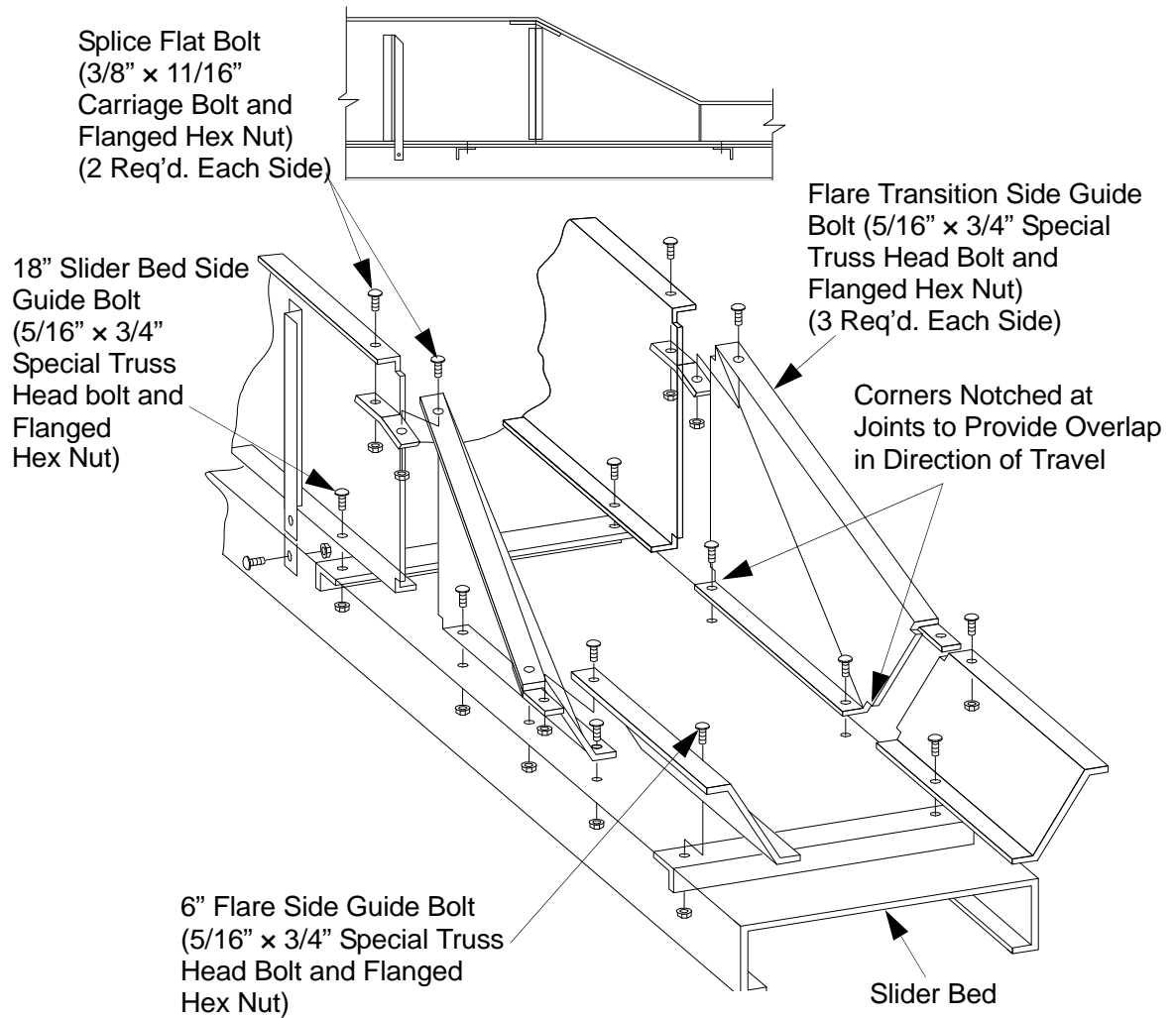


Figure G - 16 Flare Transition Side Guide Assembly

Installing (Threading) the Belt

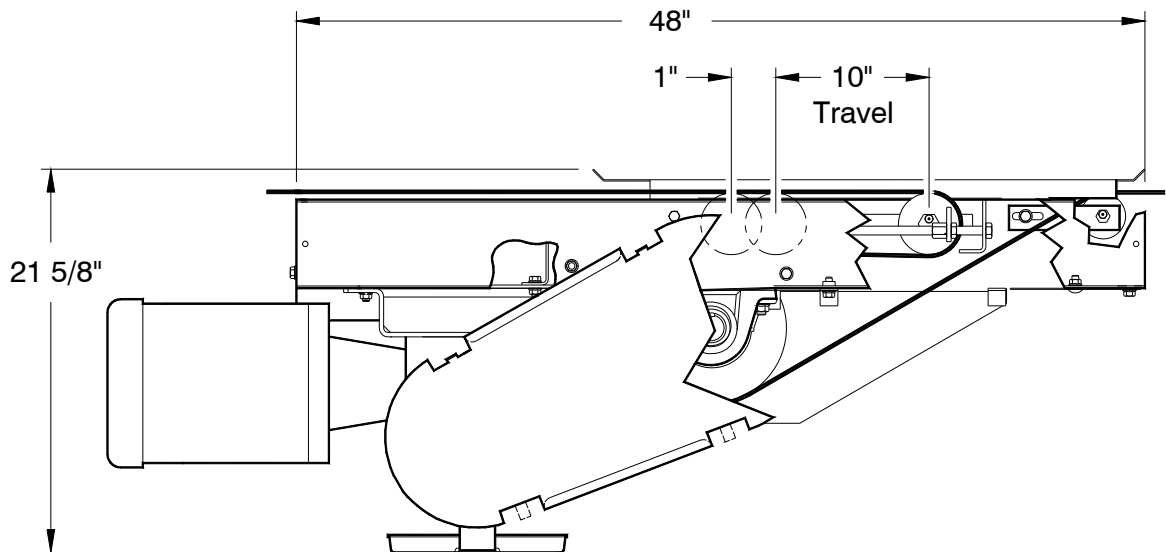
After assembling the conveyor components, install (thread) the belt.

Before installing the belt, make certain that:

- All frame sections are level, properly aligned, and securely anchored
- All pulley and roller shafts are perpendicular to the conveyor frame
- All idler pulleys and rollers rotate freely
- No dips or humps exist along the conveyor bed surface

To install the belt:

1. By turning the take-up screws, bring the take-up pulley within 1" of the positions of minimum travel. See Figure G - 17 and Figure G - 18.
2. Starting at either end of the conveyor, thread the belt under the end pulley, over the snub and return rollers and around the drive and pulleys. Follow the belt path that matches your conveyor.
3. Place the belt up and over the end pulley(s), and bring the ends together on top of the bed as near to an end idler/take-up pulley as possible.



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Figure G - 17 Intermediate Drive with Take-Up

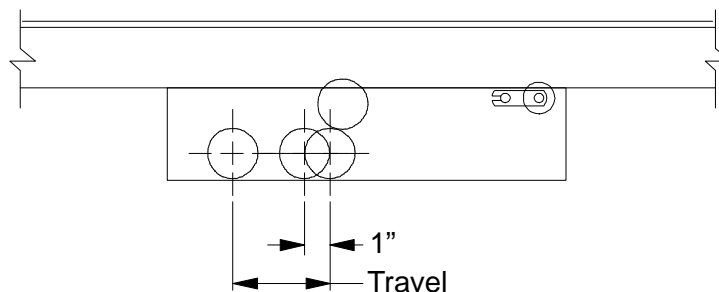


Figure G - 18 Center Take-Up

Belt length requirements are shown in Table G 2.

Table G 2: Belt Lengths

| Style | Series | | | |
|-------|--------|--------|--------|--------|
| | 600 | 800 | SA2000 | SA2000 |
| 1 | 5'-0" | 6'-0" | - | - |
| 2 | - | - | 8'-0" | 8'-0" |
| 3B | 9'-0" | 10'-0" | - | - |
| 3C | 5'-0" | 6'-0" | - | - |
| 3F | 15'-0" | 16'-0" | - | - |
| 3G | 14'-0" | 15'-0" | - | - |
| 4B | - | - | 11'-0" | 10'-0" |
| 4C | - | - | 8'-0" | 8'-0" |
| 4D | - | - | 16'-0" | 15'-0" |
| 4E | - | - | 15'-0" | 14'-0" |

Cutting the Belt Square

To assure against many common belt problems, square belt ends before lacing. A properly squared belt trains correctly and distributes stress evenly through the splice.

To cut the belt ends:

1. Pull the belt ends together and secure them to the bed with appropriate clamps. See Figure G - 19.

If excess belt remains, overlap the belt ends and pull the belt until the belt sag between the return rollers is about 1" (with conveyor take-up at minimum take-up position); then mark the cut line with chalk or a pencil.

2. Cut belt ends precisely square to ensure proper belt tracking and even distribution of the tension load through the belt splice:
 - Using chalk or pencil, mark the center of the belt at a number of points about 1' apart in the vicinity of the planned cut.
 - Using a straightedge, mark the centerline of the belt by passing the line through as many center marks as possible.
 - Using a steel square, mark the cut line perpendicular to the drawn centerline.
 - Carefully cut the belt with a sharp knife or belt cutting tool.
3. Chamfer corners on squared cut ends of the belt by cutting off a triangle measuring 1/2" along the belt width by 1-1/2" along the belt length.

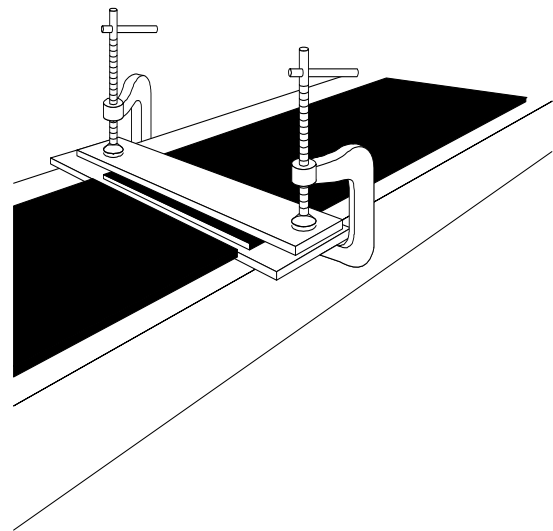


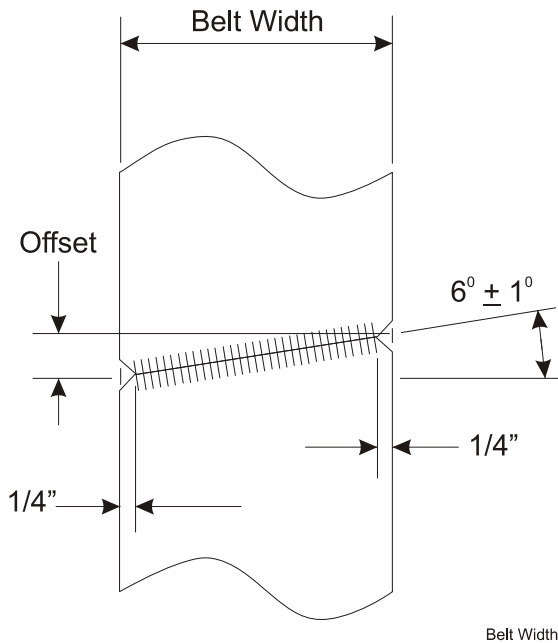
Figure G - 19 Cutting the Belt

Splicing the Belt

Splice the belt with the supplied lacing. Follow the lacing manufacturer's instructions.

Replacing the Belt(s)

When replacing the belt(s), it may be beneficial in certain applications to splice the belt on a bias to reduce noise. When the belt is spliced on a bias, Intelligrated engineering requires the angle of the splice to be less than 7 degrees. Use the table below as a guide for common belt widths and dimensions. Each end of the belt must be cut at the exact same angle to ensure proper belt tracking. Be sure to take the offset measurement before trimming 1/4" from the corners, so as not to exceed the maximum bias angle.



| Common Belt Widths | Offset Dimension for 6 Degree Bias |
|--------------------|------------------------------------|
| 12" | 1-1/4" |
| 18" | 1-7/8" |
| 24" | 2-1/2" |
| 30" | 3-1/8" |
| 36" | 3-13/16" |

Installing the Underside Guard - Intermediate Sections

Horizontal

Place the guard panels inside the bed so they are supported by the lower flanges of the bed. To properly align the support cutouts, start at the end of a standard length Intermediate Section.

The number and size of guard panels supplied depends on the size of the bed section:

- 12'-0" bed section - six 2'-0" long panels.
- 10'-0" bed section - four 2'-6" long panels.
- 7'-6" bed section - three 2'-6" long panels.
- 5'-0" bed section - two 2'-6" long panels.

Slide the panels longitudinally to butt the end flanges of adjacent panels. Fasten the flanges using a 1/4" x 1/2" round head machine screw. See Section View A-A, Figure G - 20.

Incline/Decline

This guard is designed for horizontal conveyors and incline/decline conveyors up to 15°.

For inclines/declines 5° to 15°, fasten one guard panel per conveyor section to the slider bed flanges, to prevent any movement of the panels downhill while the conveyor is running. Use self-tapping screws. See Figure G - 20. For inclines or declines greater than 15°, fasten all panels to the bed.

The following Powered Trash Belt Conveyor components ship with underside personnel guards and factory-assembled:

- End Drive
- Intermediate Drive
- End Idler
- Center Take-Up
- Two-Pulley Hitch
- In-Line Transfer
- Upper Bend Unit

Guards removed during installation or check out must be reinstalled prior to conveyor operation.

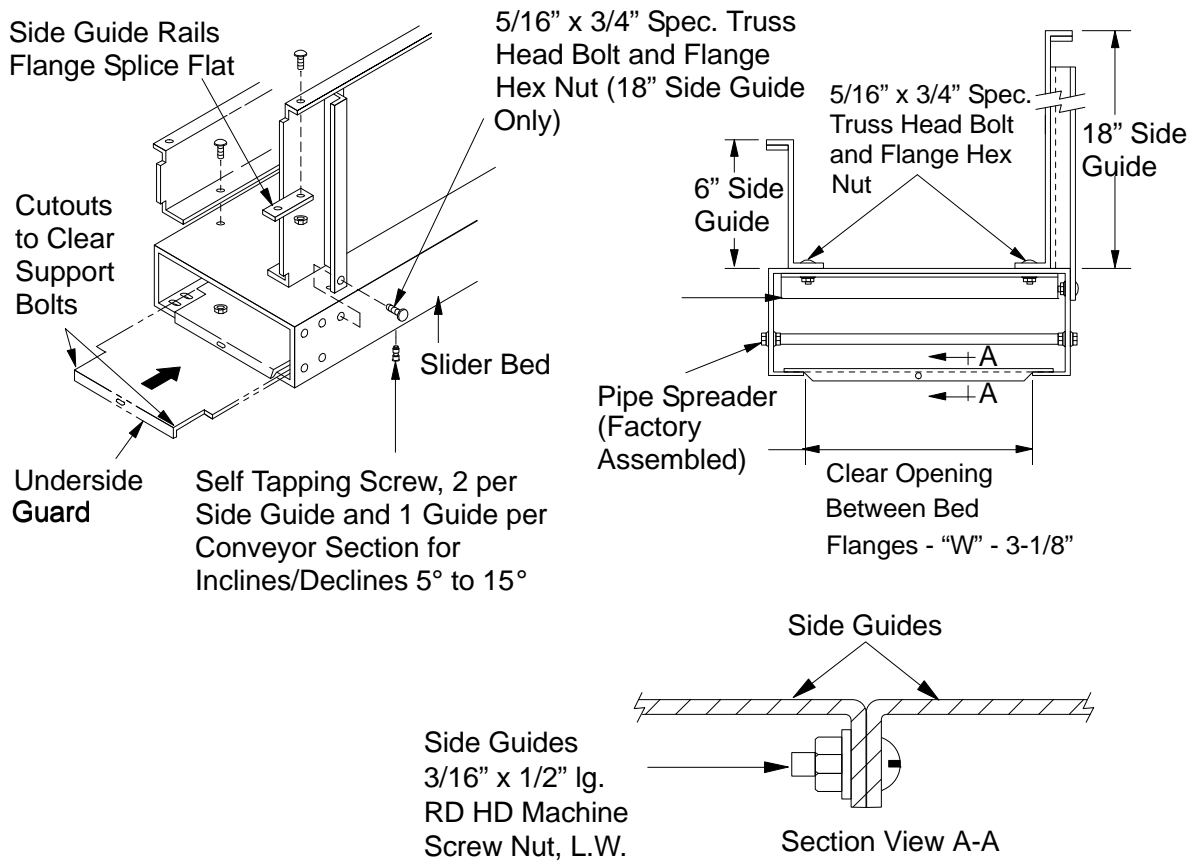


Figure G - 20 Installing Underside Guards for Intermediate Sections

Installing Electrical Wiring

Electrical wiring must be installed by a licensed electrician familiar with the operation and adjustment requirements of the conveyor. The conduit and wiring apparatus must not interfere with required access to the conveyor.

A lockable disconnect switch with an appropriate service rating must be mounted near and wired to each drive motor. All power connections to the motor must be routed through the disconnect switch. This allows service personnel making repairs or adjustments to the drive to physically lockout the motor.

After completing the wiring, the electrician should "bump" each drive motor, and if necessary, modify the connections to achieve proper rotation for the required direction of belt travel.

Pre-Startup Preparation

To ensure the safety of personnel, and proper operation of the conveyor, perform the following pre-operation checks before and during conveyor startup.

Pre-Operation Checklist

Perform the following:

1. Check that the power unit has proper oil level and that the vent plug is installed, as shown on the installation and maintenance tag attached to the power unit.
2. Check that the belt has been properly threaded.
3. Check that the lacing connection has been properly made.
4. With the chain guard removed, check alignment, lubrication, and tension of the drive chain and sprockets, as shown on the chain Maintenance Label, located on the inside of the chain guard. Also, check that the set screws in the sprocket hubs are tight.
5. Check that the conveyor is free of all foreign objects.
6. Check that the power unit has been properly connected.
7. Check that all personnel are clear of the conveyor, and that they are aware the conveyor is about to be started.
8. Check that all safety guards are in place.
9. Jog the power unit and check for proper belt travel.
10. Adjust the take-up pulley until the belt tension is sufficient to prevent the belt from slipping on the drive pulley.

WARNING: Ensure that the take-up pulley is adjusted equally on both sides; otherwise, the belt will run off the pulley.

11. Review all Safety Precautions listed in this Section. See “Safety Precautions” on page G - 2.

Belt Tracking

At this point, the conveyor should have been properly installed, all sections aligned, and all carrier rollers level and square with the frame. The belt is installed with all pulleys, snub, and return rollers at right angles to the conveyor frame, and all pre-start-up precautions observed. Now you are ready to track the belt.

WARNING: Belt tracking is performed while the conveyor is running, and is therefore dangerous. Only trained and qualified personnel must perform the belt tracking function. Personnel must always be alert for any unsafe condition and use extreme care when tracking the belt.

Principles of Belt Tracking

You must understand the principles of belt tracking in order to properly track the belt:

- **Crowned Pulleys** - Belts connecting parallel shafts tend to run toward that part of the pulley which is largest in diameter. Therefore, pulleys are crowned to keep the belt on center.
- **Taut Belt** - The belt must be sufficiently tensioned, so it does not slip on the drive pulley. Do not overtighten.
- **Parallel Shafts** - If the pulley shafts are not parallel, the belt will creep toward the side where the shaft centers are closest. For pulley adjustment, see Figure G - 23 through Figure G - 25.

Instructions for Belt Tracking

1. When first tracking the belt, place qualified personnel at each end of the conveyor to observe possible belt tracking problems.
2. It is seldom possible to make pulley shafts perfectly parallel. Make corrective adjustments with the snub rollers. See Figure G - 23 through Figure G - 27.
3. A common mistake is to adjust the end pulleys for any belt tracking problem. Adjust the end pulleys only for mis-tracking on the pulley at the discharge end of the conveyor. See Figure G - 23.
4. Note that the belt creeps toward the side of the pulley or snub roller that it touches first. Make adjustments accordingly. See Figure G - 23 through Figure G - 27.
5. All adjustments should be slight. Allow sufficient time for the belt to react to the adjustment, especially if the conveyor operates at slow speeds. Multiple revolutions of the belt are required for the belt to reach equilibrium.

Examples of Belt Tracking

As shown in Figure G - 23 and Figure G - 24, the belt always creeps to the right side of the conveyor. The right side of the conveyor is the side to your right when you are facing in the direction of forward travel of the product. See Figure G - 21. Forward travel is the direction of travel used to convey the largest amount of product.

The terminal ends are identified by their location in relation to the forward direction of product travel.

The conveyor's infeed end (forward travel) is referred to as the "tail" end, and the discharge end is the "head" end. See Figure G - 22.

Reversing travel is not applicable to the Powered Trash Belt Conveyor.

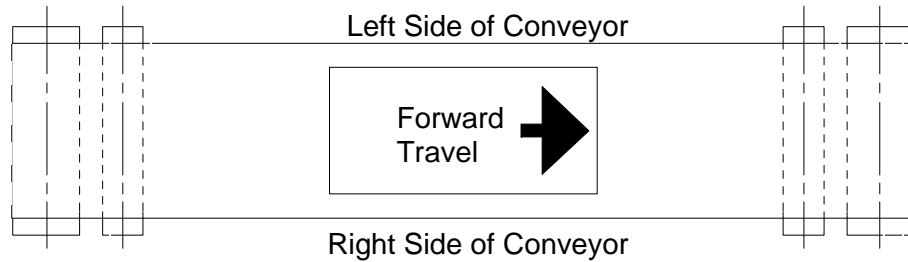


Figure G - 21 Direction of Travel

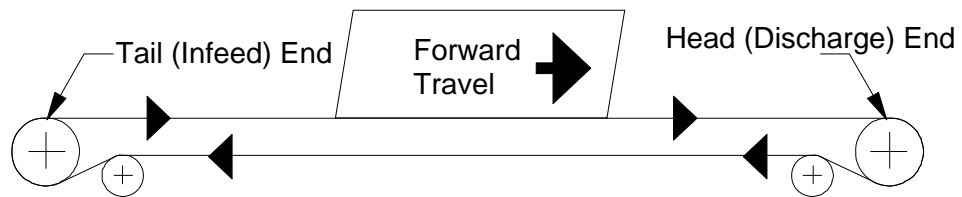


Figure G - 22 Product Travel From Tail End to Head End

During forward product travel, if the belt creeps to the right on the head pulley (drive/idler), adjust the right side of the head pulley in direction "F" (Forward) or the left side in direction "R" (Rearward). See Figure G - 23.

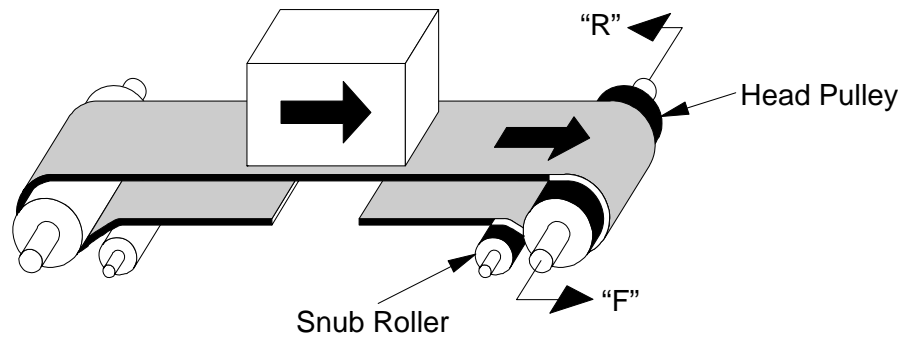


Figure G - 23 Adjusting the Right Side of the Head Pulley

During forward product travel, if the belt creeps to the right on the tail pulley, adjust the right side of the tail end snub roller in direction "R" or the left side in direction "F". See Figure G - 24.

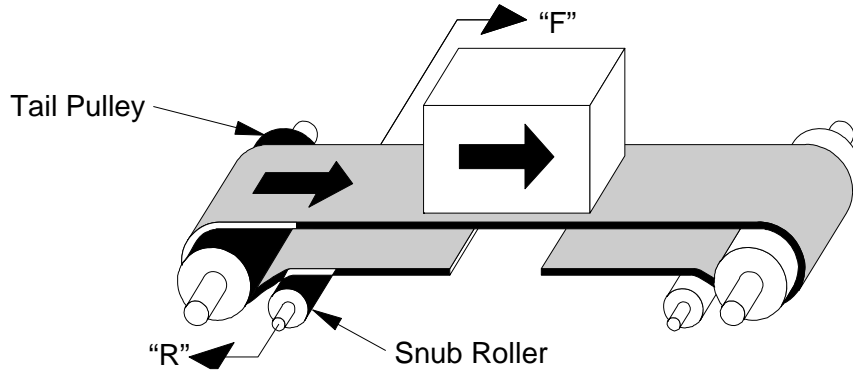


Figure G - 24 Adjusting the Right Side of the Tail End Snub Roller

During forward product travel, if the belt creeps to the right side of Pulley A, adjust the right side of Pulley A in direction "F" or the left side in direction "R". See Figure G - 25.

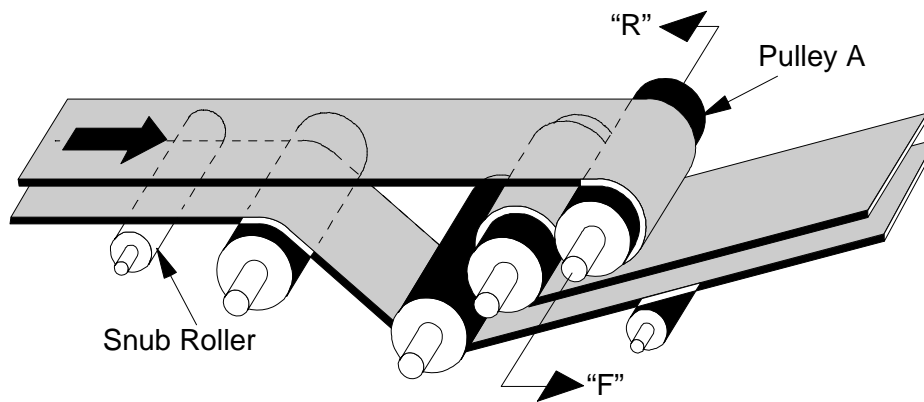


Figure G - 25 Tracking the Two-Pulley Hitch

During forward product travel, if the belt creeps to the right of the upper bend, adjust the right side of the upper bend roller in direction “F” and/or the left in direction “R”. See Figure G - 26. Proper installation is a key factor in tracking the belt at the upper bend. Make certain the unit is level from side-to-side, and that both sides are adjusted evenly.

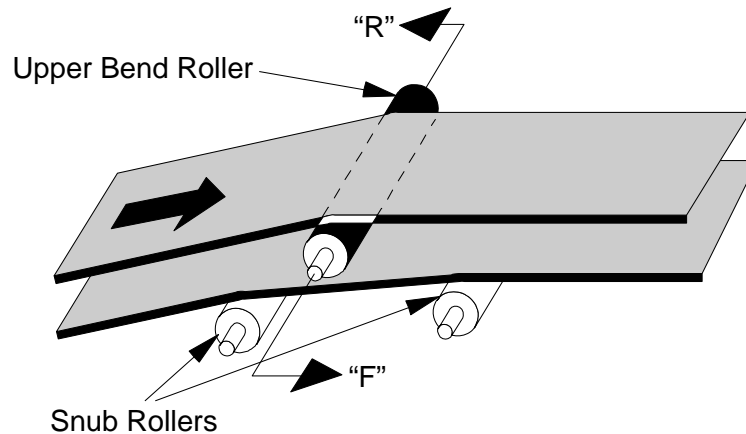


Figure G - 26 Adjusting Upper Bend Snub Rollers for Tracking the Return Run of Belting
 With the belt travel as shown in Figure G - 27, if the belt creeps to the near side of the drive and take-up pulleys, adjust the near side of snub roller A in direction “R” and/or the far side in direction “F.”

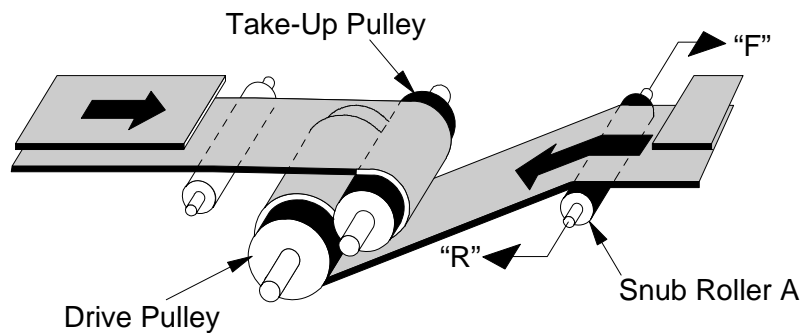


Figure G - 27 Adjusting the Near Side of the Snub Roller A for Tracking Intermediate Drives

Belt Tracking Checklist

Perform the following:

1. Check the entire belt path for serious tracking problems that require immediate attention.
2. Watch the belt's position at a given point for at least one complete rotation. If the belt wanders off center and then returns to the center position, no adjustments are necessary. When the belt wanders off center, it is caused by camber in the belt length which will tend to straighten out in time.
3. If the upper run of belt runs "off-center" the full length of the conveyor, first make adjustments of the snub roller as shown in Figure G - 24. Then, if necessary, adjust the end pulley as shown in Figure G - 23.
4. Observe the belt's return run and its position on each return roller. Adjust any roller that causes the belt to move off center.
5. If the belt mis-tracks at the upper bend unit, adjust the upper bend or snub rollers as shown in Figure G - 26.
6. If the belt mis-tracks at the Intermediate Drive unit, adjust the snub roller proceeding the drive as shown in Figure G - 27.

Adjusting Belt Tension

Tension the belt by adjusting the Take-Up Pulley. See Figure G - 28 through Figure G - 30. Adjustments must be made equally on both sides and in small increments.

Adjust the Take-Up Pulley so that the belt tension is just tight enough to prevent the belt from slipping on the drive pulley. Excess tension will reduce the life of the belt, lacing, snub rollers, and pulley bearings.

WARNING: You may need to remove the chain guard before adjusting the Take-Up Pulley. When adjusting the Take-Up Pulley, stay clear of the chain and drive components.

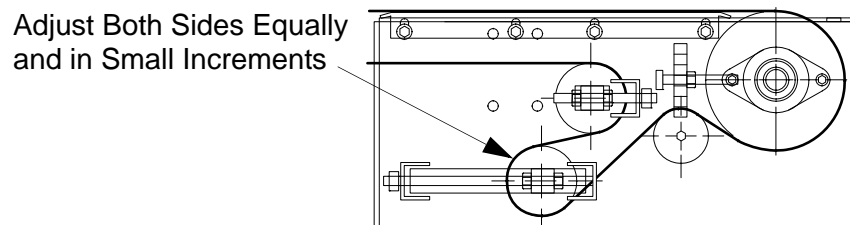
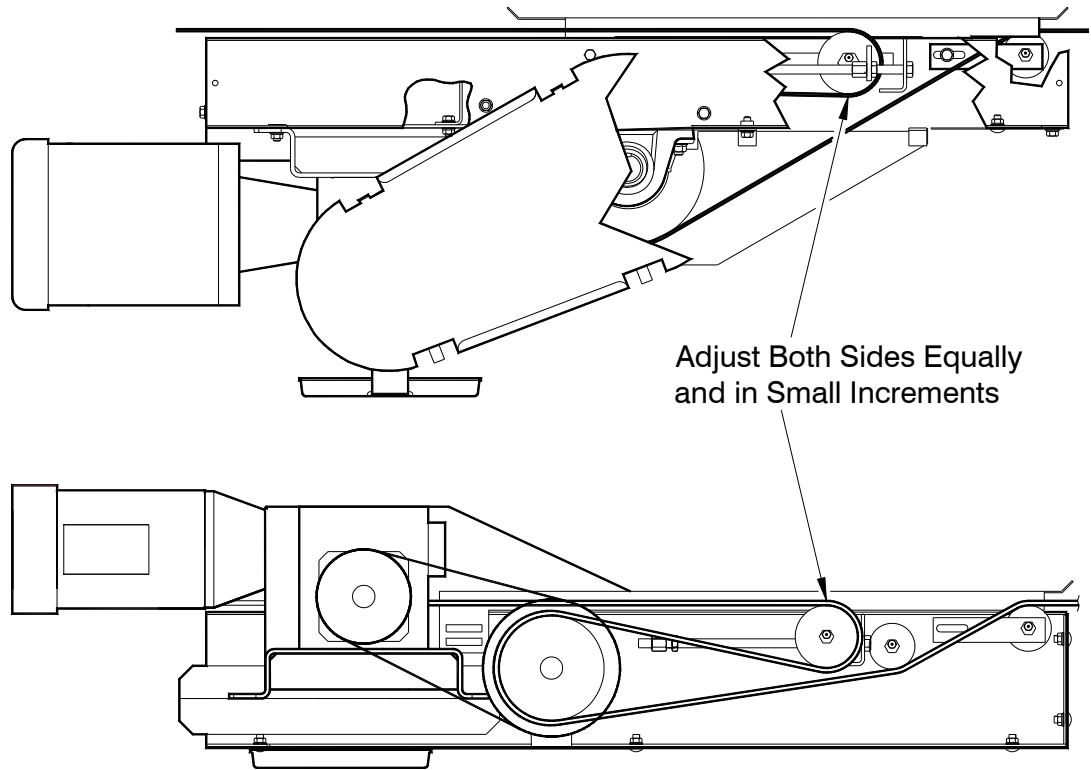


Figure G - 28 End Drive Take-Up



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Figure G - 29 Intermediate Drive Take-Up

Adjusting Snub Rollers

A typical Snub Roller mounting is illustrated in Figure G - 30. The assembly of the clips, bolts, etc. is common for all End Drive Take-Ups and Idlers. To adjust, loosen both the bolt and nut on one side and shift the roller as required.

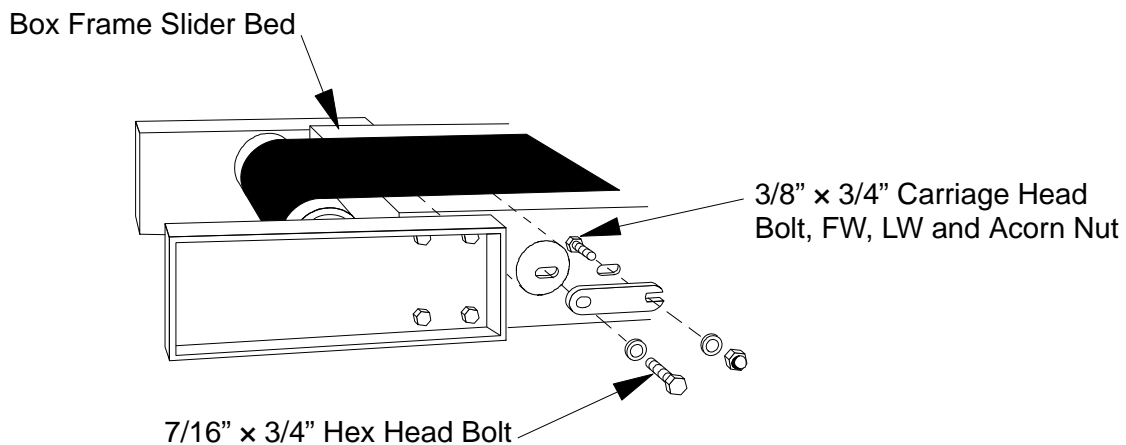


Figure G - 30 Adjustable Snub Roller Assembly

End Drives also have a Snub Roller. Adjustment requires that the two bolts be loosened before the roller can be shifted. See Figure G - 31.

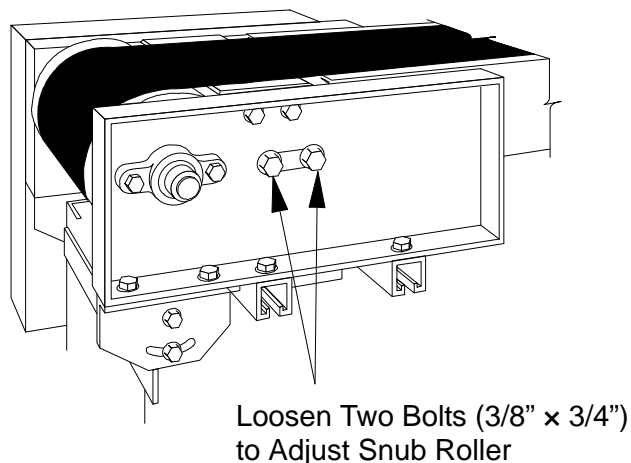


Figure G - 31 Adjusting an End Drive Snub Roller

SECTION H: MAINTENANCE

General

The recommended inspection and maintenance functions described in this Section apply to intermittent-duty conveyor applications. Additional functions may be required for continuous-duty operation or extreme environmental conditions.

Maintenance Safety

WARNING: Maintenance must be performed only by qualified personnel who are trained in normal and emergency operations of the conveyor and who are knowledgeable of all safety devices, their locations, and functions.

Before performing maintenance on a conveyor, make certain that the conveyor's power disconnect is locked in the OPEN position and tagged to prevent accidental or unexpected application of power.

Do not perform maintenance while the conveyor is running unless specifically instructed to do so in this manual.

Note: Other than belt tracking and checking chain tension, it is NOT necessary to have the conveyor turned ON to perform any of the work described in this section.

Before restarting a conveyor:

- Remove all foreign objects from the conveyor.
- Be sure that all guards and safety devices are properly installed and working.
- Make sure that all persons are clear of the conveyor and are aware that the conveyor is about to be restarted.

New Installations

All newly installed equipment should be inspected frequently and serviced as needed during the first 40 hours of operation. See "Initial Start-up and Run-in Period" on page H - 2. Thereafter, an appropriate maintenance program should be established and followed. See Table H 1.

Maintenance Logs

Maintenance logs should be kept on all conveyor installations. Each log sheet should show:

- The date when an Inspection or Maintenance function was performed
- Details of the Inspection or Maintenance function
- Names of personnel performing the Inspection or Maintenance function

Initial Start-up and Run-in Period

Chain and Sprockets

Check the drive chain tension daily for the first week of operation, then monthly. Refer to the “Chain Maintenance” label on the inside of chain guard.

WARNING: Chain tension must be checked while the conveyor is running with the chain guard removed. When checking, be careful to stay clear of the chain and drive components.

Power Unit Reducer

Grove and Reliance reducers are supplied with “lifetime” synthetic lubricants (Mobile SHC-634) that do not need to be changed after the unit is put into service.

Note: All reducers tend to run hot when first put into operation until the maximum break-in efficiency is reached (approximately 120 hours).

Scheduled Inspections and Maintenance

Intervals indicated for performing inspections and maintenance should be considered for an 8 hour per day operation. An application may subject the equipment to conditions that would necessitate more frequent maintenance. This may best be determined by performing maintenance more frequently when the conveyor is first put into operation, and then lengthening the intervals based on experience.

Table H 1: Scheduled Maintenance

| | Components | Item Check | | | | | | | | | |
|----------------------------|-----------------------------|-------------|-----------|---------|------|-----------|-----------|------------|--------|----------|-----------|
| | | Lubrication | Oil Level | Tension | Wear | Alignment | Fasteners | Set Screws | Proper | Physical | Operation |
| Weekly | Belt | | | X | X | X | | | | X | |
| | Belt Lacing | | | | | | | | | X | |
| | Carrier/Belt Return Rollers | | | | | | | | | X | X |
| | Electrical Devices | | | | | | | | X | X | X |
| | General Structure | | | | | | X | | | X | X |
| | Power Unit - Reducer | | X | | | | | | | | |
| | Safety Guards/Devices | | | | | | | | X | X | X |
| Monthly | Bearings - External | | | | | | X | X | | X | |
| | Drive Chains and Sprockets | X | | X | X | X | X | X | | X | |
| | Timing Belts and Sprockets | | | X | X | X | X | X | | X | X |
| | Take-up/Idler Pulleys | | | | | | | | | X | X |
| | Power Unit - Motor | | | | | | X | | | X | |
| | Power Unit - Reducer | | | | | | X | | | X | |
| | Pulley Lagging | | | | | | | | | X | |
| | Supports and Hangers | | | | | | X | | | X | |
| Semi Annually 1040 hrs. | Bearings - External | X | | | | | | | | | |
| | Power Unit - Motor | X | | | | | | | | | |
| | Power Unit - Reducer | X | X | | | | | | | | |

Daily Inspections

General walk-through inspections of the conveyor equipment during daily plant operation are recommended. Listen for unusual noises and carefully observing the system. For continuous duty applications, conduct conveyor inspections once each shift.

Frequently check equipment safety guards, warning signs, lights, and alarms associated with the operation of the conveyor system and keep them in good condition to ensure the safety of all plant personnel. Report and promptly correct any unusual conveyor noise, oil leaks, and operational problems.

Weekly Inspections

Belting

Check that the belt is tracking properly along the entire conveyor length. Make appropriate adjustments of snub rollers, etc. if required; check that the belt tension is sufficient to prevent the belt from slipping on the drive pulley under the maximum required load. Remove any buildup of product spillage.

Belt Lacing

Check the lacing for damage or protrusions which might cause damage to the conveyor or product. If the lacing needs to be replaced and the take-up permits, cut both ends of the belt square and re-splice. If the take-up does not permit, cut and lace in a short length of belting (1'-0" long minimum).

Carrier and Belt Return Rollers

Check that all rollers are in place and turning freely. Remove any buildup of dirt or product spillage. Take care in keeping cleaning materials from coming in contact with the ball bearings.

General Structure and Operation

Check the conveyor's physical condition, looking for loose fasteners, and damaged or wearing components. Listen for unusual noises such as squeaking bearings, chains jumping sprockets, etc.

Check that the conveyed product travels along the length of the conveyor without obstruction or hesitation.

Power Unit Reducer

Check for signs of oil leaking on the floor and/or in the drip pan. If leaking persists or the amount of leakage is significant, repair or replace the unit. Until corrections have been made, closely monitor the unit's oil level.

Safety Guards and Devices

Check that the safety guards, warning signs, light, and alarms are in place and in proper working condition. Check that all Emergency Stop pull-cords and/or push buttons are functioning properly.

Electrical Devices

Periodically inspect and adjust photocells, proximity sensors, limit switches, etc. as needed. Wipe lenses and reflectors on photoelectric devices clean on a daily basis. For additional maintenance provisions, refer to the appropriate instructions provided by vendors.

Monthly Maintenance

External Bearings

Check that all mounting bolts, set screws, etc., are securely tightened, and that no lubricant is coming out of the seals. Listen for any unusual noises.

Internal Bearings

Check that the bearings are fully-pressed into the roller tube, and that the lubricant is not coming out of the seals. Listen for any unusual noises.

Power Unit Motor

Remove any build-up of dirt/dust around the motor vent openings. Check that all mounting bolts are securely tightened and that the motor lead wires are securely connected.

Unless specified, wick-oil sleeve bearings should be lubricated every 2000 to 4000 hours. After the first 4000 hours of operation lubricate with 3 or 4 drops of light grade mineral oil or SAE10W motor oil. Refer to the motor lubrication plate or vendors instruction tag(s).

Power Unit Motor/Brake

Due to normal wear, the brakes require periodic inspection and adjustment. For instructions, refer to the vendors installation and maintenance manual or contact the manufacturer for additional information.

Power Unit Reducer

Check the oil level while the unit is warm, but not running. If required, add oil through the "fill" hole until the oil begins to run out of the "oil level" hole. All standard reducers are filled by the manufacturer with a synthetic gear lubricant. When replenishing the oil, be sure to use the same brand and type. DO NOT MIX lubricants. For further information, refer to the instruction tag attached to the unit.

To prevent oil leakage, apply Teflon tape or Permatex to the threads of the fill plug and oil level plug before reinstalling. Properly install and tighten the plugs before putting the unit back into operation.

Hub City reducers only - Wipe off any dirt on the breather plug which could clog the unit and interfere with its operation.

Power Unit Sprockets

Check sprocket alignment by placing a straight edge across the face of the sprockets simultaneously.

Inspect chain sprockets for need of lubrication. If required, lubricate the chain lightly with SAE 30 oil. DO NOT use grease. Also check teeth for wear. Realign if required,

Power Unit Chains

Lubricate and check tension per instructions given on the "Chain Maintenance" label located on the inside of the chain guard. Remove any dirt or dried oil with a kerosene soaked rag.

Power Unit Timing Belts

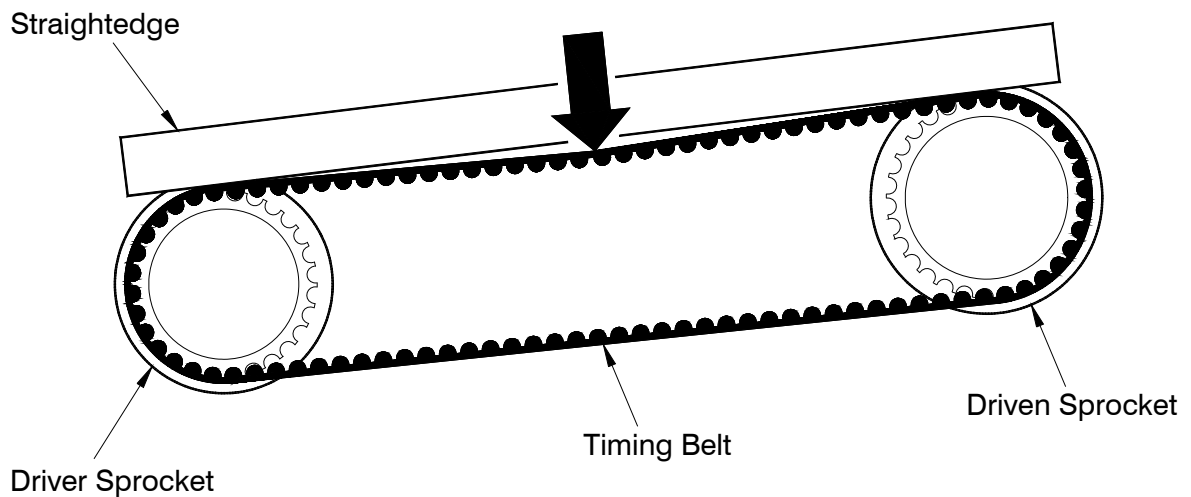
Adjust reducer to remove any belt slack and achieve a snug belt tension.

Use the following steps to check belt tension:

1. Measure the center distance between the driver and driven sprockets to determine the belt span length. See Figure H - 1.
2. Determine the correct deflection for the span as follows: Deflection = Span Length ÷ 64.
3. Use a spring-scale tension checker (possible source Browning) to determine the force required to produce the required deflection. See Table H 2.

Table H 2: Timing Belt Deflection/Force

| Belt | | Deflection |
|-------|-------|------------|
| Pitch | Width | Force |
| 8mm | 12mm | 7 lbs. |
| | 22mm | 15 lbs. |
| | 35mm | 20 lbs. |
| Pitch | 42mm | 23 lbs. |



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Figure H - 1 Measuring Timing Belt Deflection

Drive Sprockets

Check the alignment by placing a straight-edge across the face of both sprockets simultaneously. Also check for wear on the sprocket teeth and side bars of the chain. If loose, tighten the sprocket fasteners.

Drive Pulley and Lagging

Check the pulley alignment and make certain that all mounting bolts are securely tightened. Check for worn or damaged lagging on the drive pulley. Repair or replace as required.

Supports and Hangers

Check that all floor supports and/or ceiling hangers are in good physical condition and have not been damaged. Check that all fasteners are securely tightened and that none are missing.

Semi-Annual Maintenance

Power Unit Motor

Units up to 5 HP are lubricated for life. For 7.5 HP motors, refer to the manufacturer's motor lubrication plate or operating instruction tag wired to the motor.

Power Unit Reducer

Check that all fasteners are secure.

External Pulley Bearings

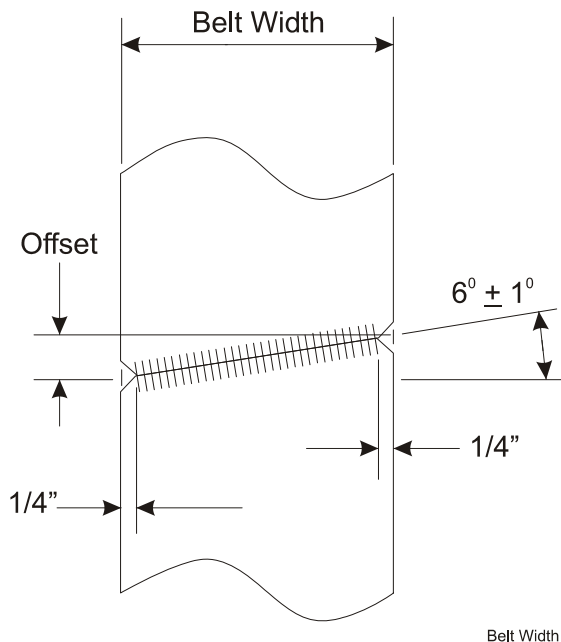
All external bearings have lubed-for-life bearing cartridges, and do not require periodic lubrication.

If desired, the bearings may be re-lubricated using the grease-fitting that is provided in all bearing housings. Once grease is added, the bearing must be re-lubricated every 6 months with a lithium based ball bearing grease or compatible grease conforming to NLG1 Grade 2 consistency.

Add the grease slowly and sparingly while the pulley is rotating until a slight showing of grease forms around the seals. **DO NOT OVER LUBRICATE.** Too much grease may damage the seals. If a bearing is over greased; remove the fitting to allow the excess grease to escape. Replace the fitting and wipe clean before putting the conveyor back into operation.

Replacing the Belt(s)

When replacing the belt(s), it may be beneficial in certain applications to splice the belt on a bias to reduce noise. When the belt is spliced on a bias, Intelligrated engineering requires the angle of the splice to be less than 7 degrees. Use the table below as a guide for common belt widths and dimensions. Each end of the belt must be cut at the exact same angle to ensure proper belt tracking. Be sure to take the offset measurement before trimming 1/4" from the corners, so as not to exceed the maximum bias angle.



| Common Belt Widths | Offset Dimension for 6 Degree Bias |
|--------------------|------------------------------------|
| 12" | 1-1/4" |
| 18" | 1-7/8" |
| 24" | 2-1/2" |
| 30" | 3-1/8" |
| 36" | 3-13/16" |

Troubleshooting

This section outlines basic troubleshooting provisions for the Trash belt conveyor. For troubleshooting the specific conveyor system installed, always check the maintenance information. Basic troubleshooting is outlined in Table H 3.

CAUTION: Do not clear jams or reach into any unit before first turning off the equipment power source(s) and making certain that all moving parts are fully stopped. To avoid personal injury or equipment damage, lockout and tag the conveyor operation control(s) before attempting to correct any malfunction.

Table H 3: Basic Troubleshooting Problems and Solutions

| Problem | Cause | Solution |
|--------------------------------------|---|--|
| Conveyor does not start. | Electrical power shut off or control circuit not energized. System control devices (photo-cells, limit switches, etc.) out of adjustment or defective. Motor overload block open. | Check that system control panel(s) are energized. Be certain emergency stop devices are not activated. Adjust or replace. Check conveyor drive system and overload sizing before resetting. |
| Conveyor shuts off. | Accumulation photocell or other control device(s) actuated or defective. Emergency stop activated. Power or component failure at system control center. Motor overload. | Check conveyor accumulation or obstruction of control device; replace control device if defective. Correct condition and reset according to control logic. Refer to vendor manuals. Check conveyor drive system and overload sizing before re-starting. |
| One part of belt creeps to one side. | Belt ends not cut square. | Cut the belt ends perfectly square using a T-square. |

Table H 3: Basic Troubleshooting Problems and Solutions (Continued)

| Problem | Cause | Solution |
|--|--|---|
| Entire belt creeps to one side. | <p>Improper loading of belt.</p> <p>Belt shifts to low side. The base structure or conveyor frame is not level or is crooked.</p> <p>Alignment of pulleys; drive, tail, pulleys, or snub rollers are out of line or not perpendicular with the center line of the conveyor.</p> <p>Underside of the belt is dirty.</p> | <p>Center the product on the belt. Load in direction of travel.</p> <p>Stretch a string along the edge of the frame, check alignment of the frame and correct. Next, check the level of support structure.</p> <p>Use a T-square against the edge of the conveyor to recheck and square the pulleys.</p> <p>Remove foreign matter, because it creates a new crown on the pulley/roller face adversely affecting the tracking.</p> |
| Belt creeps to one side in head (discharge) pulley area. | Head pulley is out of alignment (not perpendicular with the center line of the conveyor). | First, adjust the snub roller. Second, realign the head pulley by advancing (belt travel direction) the end of the pulley to which the belt has shifted. |
| Belt creeps to one side in tail (infeed) pulley area. | Tail pulley is out of alignment (not perpendicular with the center line of the conveyor). | First, adjust the snub roller. Second, realign the tail pulley by advancing (return belt travel direction) the end of the pulley to which the belt has shifted. |
| Belt wanders irregularly. | <p>The conveyor is over-belted. This results in the belt being too stiff to properly operate over the pulley diameters.</p> <p>Off center or improper loading.</p> | <p>Change to the proper belt or use pulleys with larger diameters.</p> <p>Correct loading procedure.</p> |
| Edge wear is excessive. | <p>Belt edges fold up on conveyor guards and frame.</p> <p>Belt shifts to opposite side and rubs excessively due to side loading.</p> <p>Refer to previous Belt Problems to eliminate edge rubbing.</p> | <p>Remove the rough areas on the conveyor guards or frame.</p> <p>Loading in direction of belt travel will improve this condition.</p> |

Table H 3: Basic Troubleshooting Problems and Solutions (Continued)

| Problem | Cause | Solution |
|-----------------------------|--|---|
| Belt fasteners pulling out. | Fasteners are incorrect size | Re-lace the belt with proper size fasteners. |
| | Too much tension on belt. | Relieve tension until belt will run without slipping on the drive pulley. |
| | Pulley diameters too small for the thickness of belt used. | Replace with larger diameter pulleys or thinner belt, if practical. |

SECTION I: PARTS IDENTIFICATION

General Information

The purpose of this section is to identify parts for a quality preventative maintenance program and to minimize the chances for extended down time.

The following pages illustrate the location of these parts as they apply to each particular unit. Keep in mind that these illustrations only apply to the standard product line. These items will show on the bill-of-material as a coded item.

There will be items on the bill-of-material such as gearmotors, sprockets, chain, etc., that will show up on the price sheets only.

Intermediate Sections

Box Bed

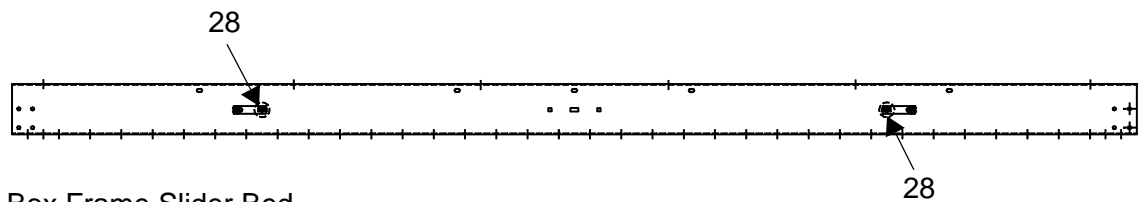
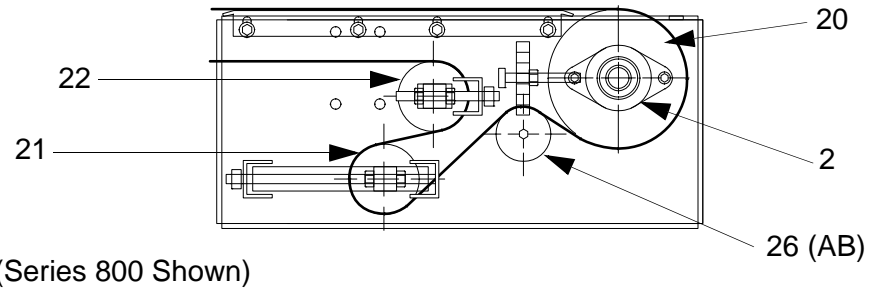


Figure I - 1 Box Bed Intermediate Section

End Drive

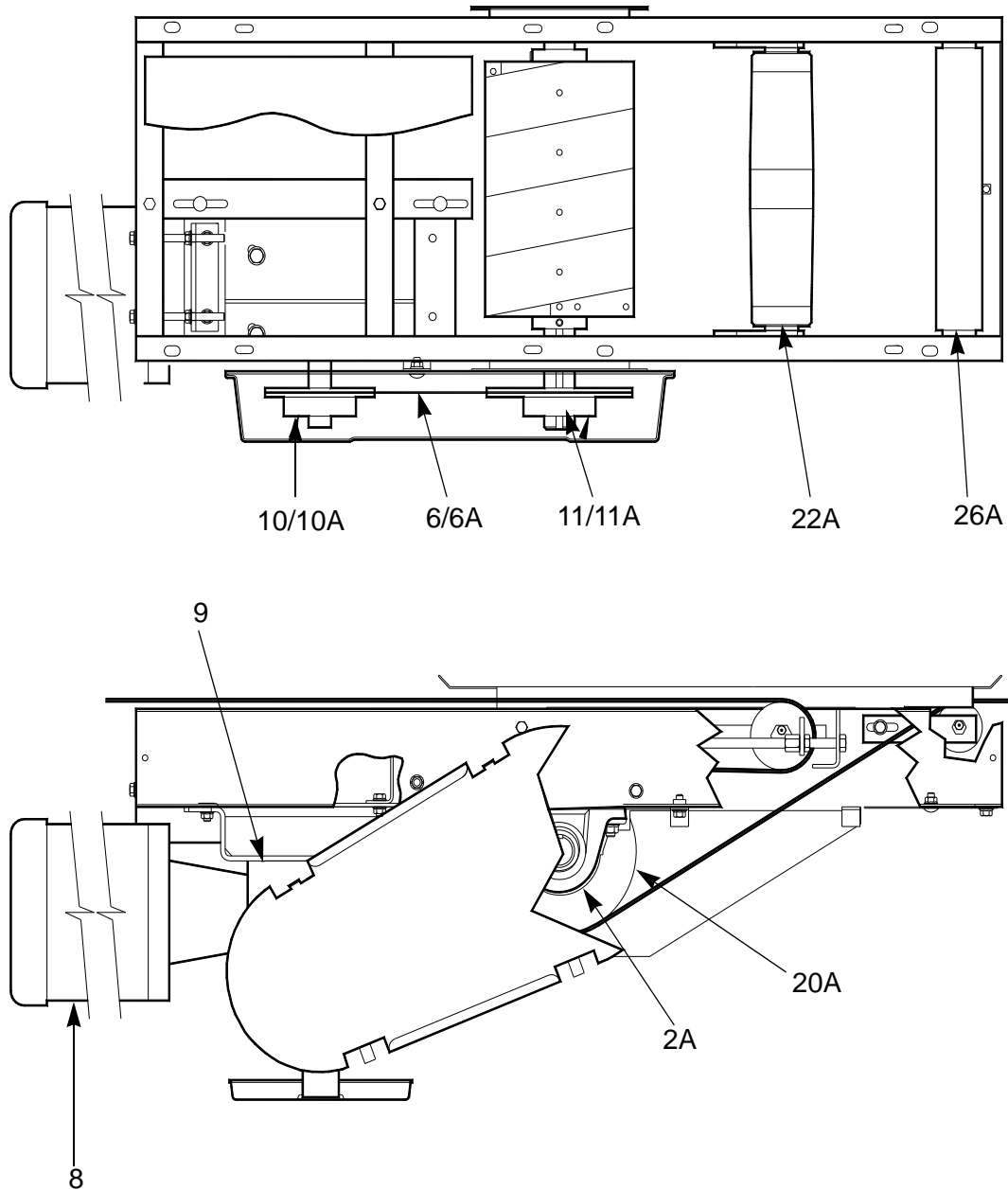
End Drive with Take-Up



(Series 800 Shown)

Figure I - 2 End Drive Section with Take-Up

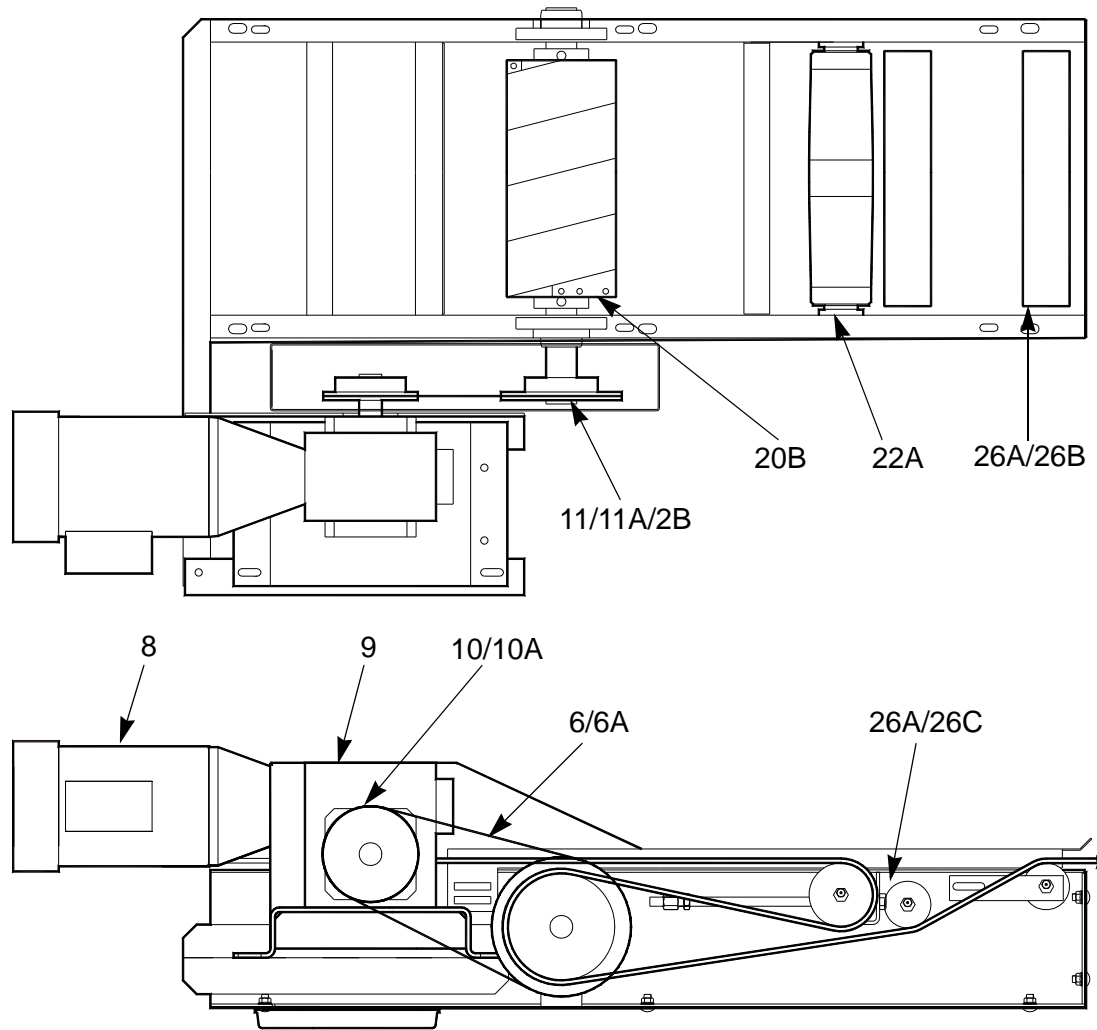
Intermediate Drives
SA2000 - Intermediate Section



8100FKI005a

Figure I - 3 SA2000 - Intermediate Section

SA2001 - Intermediate Section - Low Profile



8100FKI006.

Figure I - 4 SA2001 - Intermediate Section - Low Profile

End Idler Sections

Take-Up

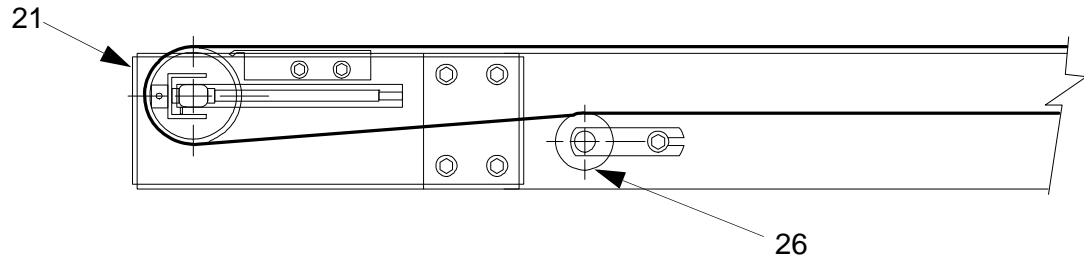


Figure I - 5 Idler Take-Up

PTO

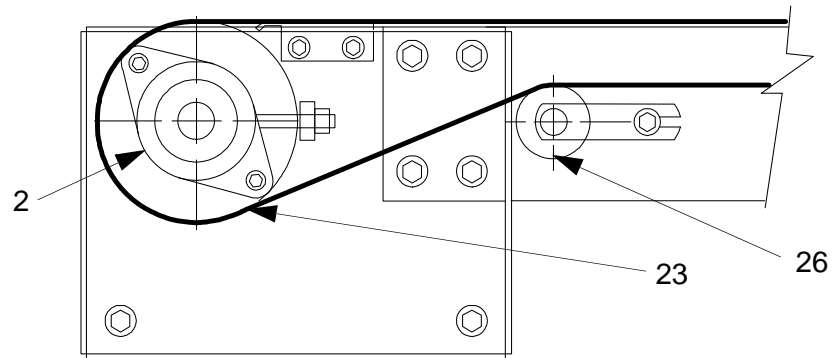


Figure I - 6 Idler PTO

Auxiliary Take-Up Sections Manual (3.5" Pulleys)

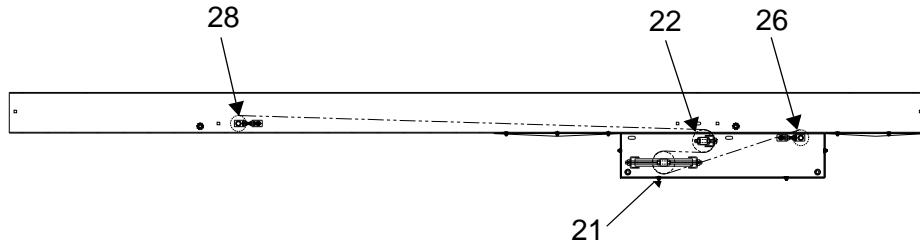


Figure I - 7 Auxiliary Take-Up Section - Manual (3.5" Pulleys)

Manual - 6" Pulleys

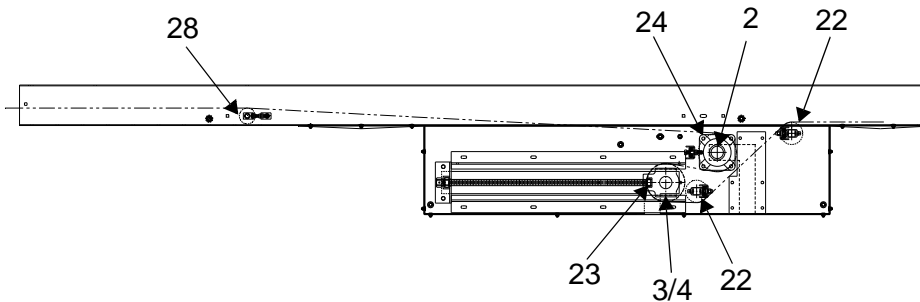


Figure I - 8 Auxiliary Take-Up Section - Manual (6" Pulleys)

Automatic (Air) - 6" Pulleys

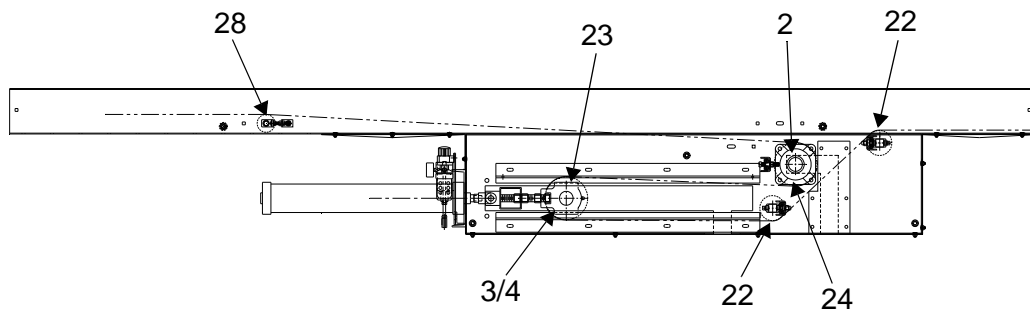
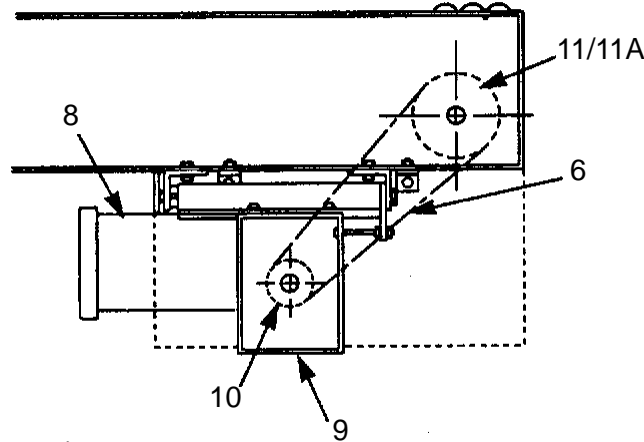


Figure I - 9 Auxiliary Take-Up Section - Automatic (Air) (6" Pulleys)

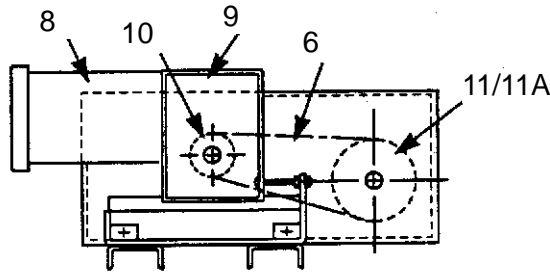
**Power Units
Under-Hung Mount**



(RH Assembly Shown)

Figure I - 10 Power Unit - Under-hung Mount

Side-Mounted



(RH Assembly Shown)

Figure I - 11 Power Unit - Side-Mounted

Table I 1: Reducer Assembly Designation

| Under-hung Mount | | | Side-Mount | | |
|---|----------|-------------|---|----------|-------------|
| Assembly | Brand | Designation | Assembly | Brand | Designation |
| Series 4/6/800 (RH-Shown) SA2000 (RH-Shown) | Grove | 3 | Series 4/6/800 (LH-Opp) SA2001 (LH-Opposite) | Grove | 2 |
| | Reliance | L1 | | Reliance | K1 |
| Series 4/6/800 (LH-Opp) SA2000 (LH-Opposite) | Grove | 2 | Series 4/6/800 (RH-Shown) SA2001 (RH-Shown) | Grove | 3 |
| | Reliance | K1 | | Reliance | L1 |

Miscellaneous Sections

In-Line Transition Unit - Horizontal

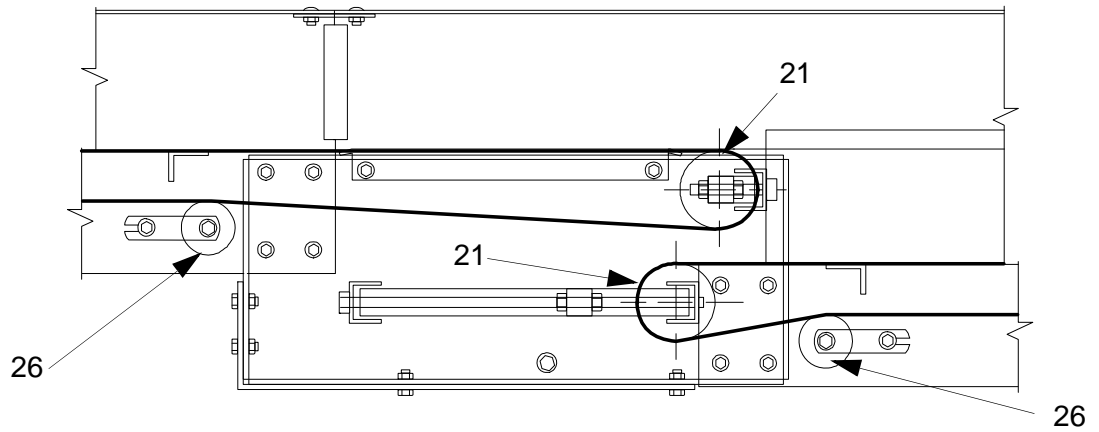


Figure I - 12 In-Line Transition Unit (Horizontal)

In-Line Transition Unit - Inclined

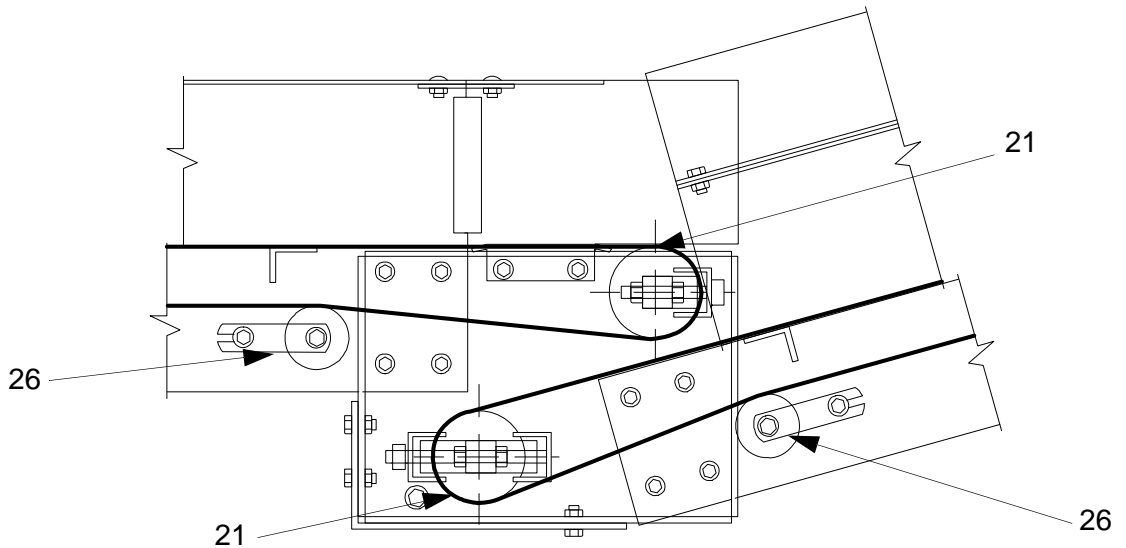


Figure I - 13 In-Line Transition Unit (Inclined)

Two-Pulley Hitch with Variable Degree Incline

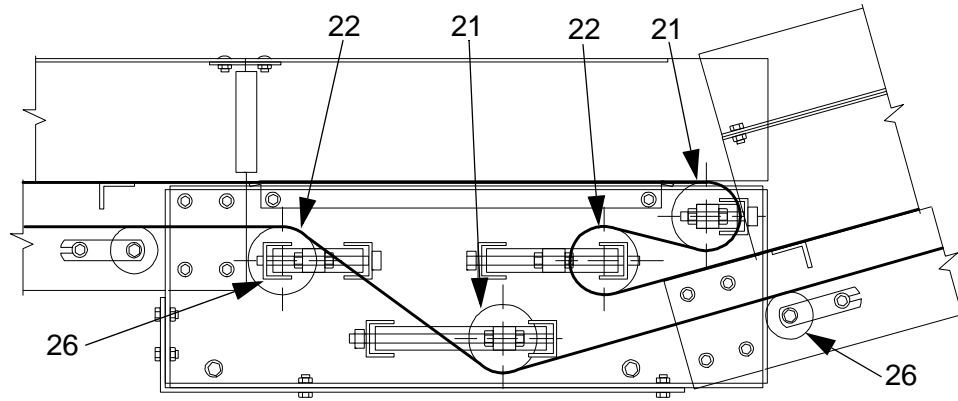


Figure I - 14 Two-Pulley Hitch with Variable Degree Incline

Upper Bend Unit

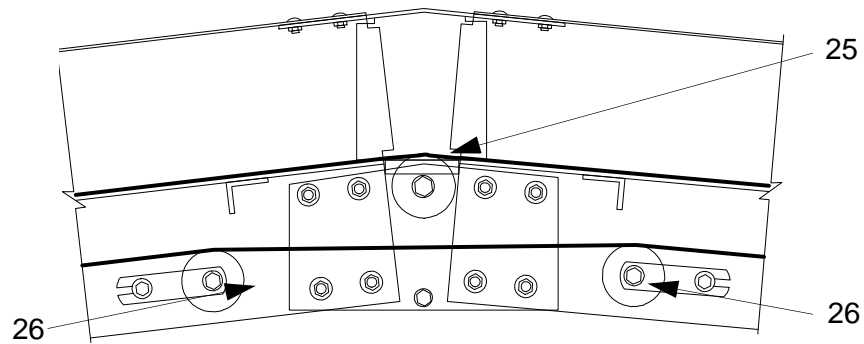


Figure I - 15 Upper Bend Unit

Non-Width Related Parts

| Key No. | Part Description | Part Number |
|---------|---|-------------|
| 1 | Air Cylinder 4x24 Flange Mounted Aluminum Body | 27-2832 |
| 2 | Bearing, 2-Bolt Flange, 1-3/16" BR - Pressure Lubricated | 40-0985 |
| | Bearing, 2-Bolt Flange, 1-7/16" BR - Pressure Lubricated | 40-0987 |
| | Bearing, 2-Bolt Flange, 1-11/16" BR - Pressure Lubricated | 40-0990 |
| | Bearing, 2-Bolt Flange, 1-15/16" BR - Pressure Lubricated | 40-0995 |
| | Bearing, 4-Bolt Flange, 1-15/16" BR - Pressure Lubricated | 40-0970 |
| 2A | Bearing, 2-Bolt Flange, 1-11/16" BR - Pressure Lubricated (SA2000) | 7522411 |
| 2B | Bearing, Pillow Block, 1-11/16" BR - Pressure Lubricated (SA2001) | 7712387 |
| 3 | Bearing, Take-Up, 1-15/16" BR (5/16" Wide Slot) | 70-0145 |
| 4 | Bearing, Take-Up, 1-15/16" BR (11/16" Wide Slot) | 70-0161 |
| 5 | Bearing, (3174-GT) for No. G251GT Roller (11/16" Hex BR) | 35-0200 |
| | Bearing, (Miller MF-2) for No. G251HS Roller (11/16" Hex BR) | 35-0372 |
| | Bearing, for 3.5" Diameter, Take-Up and Idler Pulley (1-1/8" SQ BR) | 35-0360 |
| 6 | Chain - RC-50 | 20-0970 |
| | Chain - RC-50 Connector Link | 20-0040 |
| | Chain - RC-60 (High-Speed) | 20-0987 |
| | Chain - RC-60 Connector Link | 20-0986 |
| | Chain - RC-80 (High Speed) | 20-0989 |
| | Chain - RC-80 Connector Link | 20-0070 |
| | Chain - RC-100 (High Speed) | 20-1000 |
| | Chain - RC-100 Connector Link | 20-0080 |
| 6A | Timing Belt - Pitch / Width / Length | |
| | 8mm / 21mm / 1200mm | 7001504 |
| | 8mm / 21mm / 1280mm | 7001506 |
| | 8mm / 36mm / 1200mm | 7001512 |
| | 8mm / 36mm / 1280mm | 7001514 |
| | 14mm / 37mm / 1400mm | 7001519 |
| 7 | Reg and Gauge 0-160 w/Bracket | 27-1741 |
| 12 | Pressure Switch 10-150 psi | 30-2407 |

| Key No. | Part Description | Part Number | | | |
|---------|---|-------------|-------------|----------|-------------|
| | C-Face Motor | Baldor | | Reliance | |
| | | Motor | Brake Motor | Motor | Brake Motor |
| 8 | 208-230/460V-3PH-60HZ - Standard Efficiency | | | | |
| | 1/2HP 56C | 7155562 | 7742489 | 7001600 | 7001631 |
| | 3/4HP 56C | 7150592 | 7150962 | 7001601 | 7704084 |
| | 1HP 56C | 7745139 | 7716179 | 7001602 | 7172635 |
| | 1-1/2HP 145C | 7778225 | 7716197 | 7001603 | 7001511 |
| | 2 HP 145TC | 7274611 | 7325286 | 7001604 | 7704091 |
| | 3 HP 182TC | 7747525 | 7747295 | 7001605 | 7704708 |
| | 5 HP 184TC | 7747294 | 7817618 | 7001606 | 7001612 |
| | 7-1/2 HP 213TC | 7329946 | 7005792 | 7001607 | 7001613 |
| | 208-230/460V-3PH-60HZ - Premium Efficiency | | | | |
| | 1/2HP 56C | 7002040 | 7002030 | 7830000 | 7001621 |
| | 3/4HP 56C | 7002041 | 7002031 | 7001615 | 7001622 |
| | 1HP 56C | 7002042 | 7002032 | 7888089 | 7001623 |
| | 1-1/2HP 145C | 7002043 | 7002033 | 7001632 | 7001625 |
| | 2 HP 145TC | 7002044 | 7002034 | 7001617 | 7001626 |
| | 3 HP 182TC | 7002045 | 7002035 | 7001633 | 7001627 |
| | 5 HP 184TC | 7002046 | 7002036 | 7001618 | 7001628 |
| | 7-1/2 HP 213TC | 7002047 | 7002037 | 7001619 | 7001629 |
| | 575V-3PH-60HZ - Standard Efficiency | | | | |
| | 1/2HP 56C | 7717583 | - | 7002088 | - |
| | 3/4HP 56C | 7717584 | 7152666 | 7002089 | 7002090 |
| | 1HP 56C | 7717598 | 7717586 | - | 7002091 |
| | 1-1/2HP 145C | 7331614 | - | - | - |
| | 2 HP 145TC | 7763322 | - | - | - |
| | 3 HP 182TC | 7362599 | - | - | - |
| | 5 HP 184TC | 7866559 | - | - | - |
| | 7-1/2 HP 213TC | 7005793 | - | - | - |
| | 575V-3PH-60HZ - Premium Efficiency | | | | |
| | 1/2HP 56C | 7002050 | 7002060 | 7001621 | 7002092 |
| | 3/4HP 56C | 7002051 | 7002061 | 7001622 | 7002093 |
| | 1HP 56C | 7002052 | 7002062 | 7001623 | 7002094 |
| | 1-1/2HP 145C | 7002053 | 7002063 | 7001625 | 7002095 |
| | 2 HP 145TC | 7002054 | 7002064 | 7001626 | 7002096 |
| | 3 HP 182TC | 7002055 | 7002065 | 7001627 | 7002097 |
| | 5 HP 184TC | 7002056 | 7002066 | 7001628 | 7002098 |
| | 7-1/2 HP 213TC | 7002057 | 7002067 | 7001629 | 7002099 |

| Key No. | Item | | Part Number | | | |
|---------------|------------------|-------|--------------------------|----------|--------------------------|----------|
| | C-Face Reducer | | | | | |
| | | | Assembly | | | |
| | | | Series 600 and 800 RU-LS | | Series 600 and 800 LU-RS | |
| | | | SA2000 - Shown (RH) | | SA2000 - OPP (LH) | |
| | | | SA2001 - OPP (LH) | | SA2001 - Shown (RH) | |
| | Reducer | | Grove | Reliance | Grove | Reliance |
| Reducer Model | Motor Frame | 3 | L1 | 2 | K1 | |
| 9 | 5:1 Ratio | | | | | |
| | 218 | 56C | 7005800 | | 7005801 | - |
| | 218 | 145TC | 7005802 | - | 7005803 | - |
| | 220 | 56C | 7005804 | - | 7005805 | - |
| | 220 | 145TC | 7005806 | - | 7005141 | - |
| | 220 | 184TC | 7005807 | - | 7005808 | - |
| | 224 | 145TC | 7005809 | - | 7005810 | - |
| | 224 | 182TC | 7005035 | - | 7005811 | - |
| | 226 | 56C | 7030646 | - | 7030645 | - |
| | 226 | 145TC | 7030649 | - | 7030648 | - |
| | 226 | 182TC | 7005021 | - | 7030474 | - |
| | 226 | 184TC | 7005021 | - | 7030474 | - |
| | 230 | 184TC | 7005039 | - | 7005812 | - |
| | 232 | 213TC | 7005813 | - | 7005814 | - |
| | 175 | 56C | - | 7005899 | - | 7005900 |
| | 175 | 145TC | - | 7005901 | - | 7005902 |
| | 200 | 56 | - | 7005920 | - | 7005921 |
| | 200 | 145TC | - | 7005922 | - | 7005923 |
| | 200 | 182TC | - | 7005924 | - | 7005925 |
| | 262 | 56C | - | 7005940 | - | 7005941 |
| | 262 | 145TC | - | 7005942 | - | 7005943 |
| | 262 | 182TC | - | 7005944 | - | 7005945 |
| | 262 | 184TC | - | 7005944 | - | 7005945 |
| | 350 | 184TC | - | 7005968 | - | 7005969 |

| Key No. | Item | | Part Number | | | |
|---------------|--------------------|-------|--------------------------|---------|--------------------------|---------|
| | C-Face Reducer | | | | | |
| | | | Assembly | | | |
| | | | Series 600 and 800 RU-LS | | Series 600 and 800 LU-RS | |
| | | | SA2000 - Shown (RH) | | SA2000 - OPP (LH) | |
| | | | SA2001 - OPP (LH) | | SA2001 - Shown (RH) | |
| Reducer | | Grove | Reliance | Grove | Reliance | |
| Reducer Model | Motor Frame | 3 | L1 | 2 | K1 | |
| 9 | 7.5:1 Ratio | | | | | |
| | 220 | 56C | 7005815 | - | 7005025 | - |
| | 220 | 145TC | 7005159 | - | 7005027 | - |
| | 224 | 145TC | 7005816 | - | 7005036 | - |
| | 224 | 182TC | 7005817 | - | 7005818 | - |
| | 230 | 184TC | 7005819 | - | 7005820 | - |
| | 232 | 213TC | 7005821 | - | 7005822 | - |
| | 242 | 213TC | 7005823 | - | 7005824 | - |
| | 200 | 56C | - | 7005926 | - | 7005927 |
| | 200 | 145TC | - | 7005928 | - | 7005929 |
| | 262 | 182TC | - | 7005946 | - | 7005947 |
| | 350 | 182TC | - | N/A | - | N/A |
| 9 | 10:1 Ratio | | | | | |
| | 218 | 56C | 7005825 | - | 7005826 | - |
| | 220 | 56C | 7005223 | - | 7005312 | - |
| | 220 | 145TC | 7005827 | - | 7005828 | - |
| | 224 | 145TC | 7005830 | - | 7005831 | - |
| | 226 | 56C | 7031010 | - | 7031017 | - |
| | 226 | 145TC | 7030471 | - | 7030470 | - |
| | 230 | 182TC | 7005832 | - | 7005833 | - |
| | 232 | 182TC | 7031008 | - | 7031009 | - |
| | 232 | 184TC | 7031008 | - | 7031009 | - |
| | 242 | 184TC | 7005834 | - | 7005835 | - |
| | 242 | 213TC | 7005836 | - | 7005837 | - |
| | 175 | 56C | - | 7005903 | - | 7005904 |
| | 200 | 56C | - | 7005930 | - | 7005931 |
| | 200 | 145TC | - | 7005932 | - | 7005933 |
| | 262 | 56C | - | 7005948 | - | 7005949 |
| | 262 | 145TC | - | 7005950 | - | 7005951 |
| 350 | 182TC | - | 7005972 | - | 7005973 | |

| Key No. | Item | | Part Number | | | |
|---------------|-------------------|-------|--------------------------|----------|--------------------------|----------|
| | C-Face Reducer | | | | | |
| | | | Assembly | | | |
| | | | Series 600 and 800 RU-LS | | Series 600 and 800 LU-RS | |
| | | | SA2000 - Shown (RH) | | SA2000 - OPP (LH) | |
| | | | SA2001 - OPP (LH) | | SA2001 - Shown (RH) | |
| | Reducer | | Grove | Reliance | Grove | Reliance |
| Reducer Model | Motor Frame | 3 | L1 | 2 | K1 | |
| 9 | 15:1 Ratio | | | | | |
| | 218 | 56C | 7005838 | - | 7005839 | - |
| | 220 | 56C | 7005221 | - | 7005840 | - |
| | 220 | 145TC | 7005033 | - | 7005841 | - |
| | 224 | 56C | 7005037 | - | 7005158 | - |
| | 224 | 145TC | 7005038 | - | 7005032 | - |
| | 226 | 56C | 7031016 | - | 7031014 | - |
| | 226 | 145TC | 7005086 | - | 7005030 | - |
| | 230 | 182TC | 7005142 | - | 7005731 | - |
| | 232 | 145TC | 7005842 | - | 7005843 | - |
| | 232 | 182TC | 7005092 | - | 7005091 | - |
| | 242 | 184TC | 7005844 | - | 7005845 | - |
| | 242 | 213TC | 7005846 | - | 7005847 | - |
| | 175 | 56C | - | 7005905 | - | 7005906 |
| | 200 | 56C | - | 7005934 | - | 7005935 |
| | 262 | 56C | - | 7005952 | - | 7005953 |
| | 262 | 145TC | - | 7005954 | - | 7005955 |
| | 350 | 145TC | - | 7005974 | - | 7005975 |
| | 350 | 182TC | - | 7005976 | - | 7005977 |

| Key No. | Item | | Part Number | | | |
|----------------------|-----------------------|----------|---------------------------------|-----------------|---------------------------------|-----------------|
| | C-Face Reducer | | | | | |
| | | | Assembly | | | |
| | | | Series 600 and 800 RU-LS | | Series 600 and 800 LU-RS | |
| | | | SA2000 - Shown (RH) | | SA2000 - OPP (LH) | |
| | | | SA2001 - OPP (LH) | | SA2001 - Shown (RH) | |
| | Reducer | | Grove | Reliance | Grove | Reliance |
| Reducer Model | Motor Frame | 3 | L1 | 2 | K1 | |
| 9 | 20:1 Ratio | | | | | |
| | 218 | 56C | 7005848 | - | 7005849 | - |
| | 220 | 56C | 7005850 | - | 7005851 | - |
| | 224 | 56C | 7005852 | - | 7005853 | - |
| | 224 | 145TC | 7005854 | - | 7005333 | - |
| | 226 | 56C | 7031012 | - | 7031013 | - |
| | 226 | 145TC | 7005081 | - | 7005080 | - |
| | 230 | 182TC | 7005855 | - | 7005320 | - |
| | 232 | 145TC | 7030647 | - | 7031018 | - |
| | 232 | 182TC | 7005090 | - | 7005089 | - |
| | 242 | 182TC | 7005856 | - | 7005857 | - |
| | 242 | 184TC | 7005856 | - | 7005857 | - |
| | 175 | 56C | - | 7005907 | - | 7005908 |
| | 200 | 56C | - | 7005936 | - | 7005937 |
| | 262 | 56C | - | 7005746 | - | 7005956 |
| | 262 | 145TC | - | 7005957 | - | 7005958 |
| | 350 | 145TC | - | 7005978 | - | 7005979 |
| 350 | 182TC | - | 7005980 | - | 7005981 | |

| Key No. | Item | | Part Number | | | |
|---------------|-------------------|-------|--------------------------|---------|--------------------------|---------|
| | C-Face Reducer | | | | | |
| | | | Assembly | | | |
| | | | Series 600 and 800 RU-LS | | Series 600 and 800 LU-RS | |
| | | | SA2000 - Shown (RH) | | SA2000 - OPP (LH) | |
| | | | SA2001 - OPP (LH) | | SA2001 - Shown (RH) | |
| Reducer | | Grove | Reliance | Grove | Reliance | |
| Reducer Model | Motor Frame | 3 | L1 | 2 | K1 | |
| 9 | 25:1 Ratio | | | | | |
| | 218 | 56C | 7005858 | - | 7005859 | - |
| | 220 | 56C | 7005860 | - | 7005861 | - |
| | 224 | 56C | 7005862 | - | 7005863 | - |
| | 224 | 145TC | 7005864 | - | 7005865 | - |
| | 226 | 56C | 7031015 | - | 7031011 | - |
| | 230 | 145TC | 7005866 | - | 7005867 | - |
| | 232 | 145TC | 7005085 | - | 7005084 | - |
| | 232 | 182TC | 7005088 | - | 7005087 | - |
| | 175 | 56C | - | 7005909 | - | 7005910 |
| | 200 | 56C | - | 7005744 | - | 7005913 |
| | 262 | 56C | - | 7005754 | - | 7005742 |
| | 262 | 145TC | - | 7005959 | - | 7005960 |
| | 350 | 145TC | - | 7005982 | - | 7005983 |
| | 350 | 182TC | - | 7005984 | - | 7005985 |
| | 30:1 Ratio | | | | | |
| | 218 | 56C | 7005868 | - | 7005869 | - |
| | 224 | 56C | 7005870 | - | 7005783 | - |
| | 226 | 56C | 7005069 | - | 7005068 | - |
| | 230 | 56C | 7005871 | - | 7005872 | - |
| | 232 | 145TC | 7005083 | - | 7005082 | - |
| | 242 | 145TC | 7005874 | - | 7005875 | - |
| | 242 | 182TC | 7005766 | - | 7005876 | - |
| | 175 | 56C | | 7005911 | | 7005912 |
| | 200 | 56C | | 7005914 | | 7005915 |
| | 262 | 56C | | 7005961 | | 7005962 |
| | 350 | 145TC | | 7005986 | | 7005541 |

| Key No. | Item | | Part Number | | | |
|---------------|-------------------|-------|--------------------------|---------|--------------------------|---------|
| | C-Face Reducer | | | | | |
| | | | Assembly | | | |
| | | | Series 600 and 800 RU-LS | | Series 600 and 800 LU-RS | |
| | | | SA2000 - Shown (RH) | | SA2000 - OPP (LH) | |
| | | | SA2001 - OPP (LH) | | SA2001 - Shown (RH) | |
| Reducer | | Grove | Reliance | Grove | Reliance | |
| Reducer Model | Motor Frame | 3 | L1 | 2 | K1 | |
| 9 | 40:1 Ratio | | | | | |
| | 220 | 56C | 7005877 | - | 7005878 | - |
| | 224 | 56C | 7005879 | - | 7005328 | - |
| | 226 | 56C | 7005065 | - | 7005064 | - |
| | 230 | 56C | 7005880 | - | 7005881 | - |
| | 232 | 145TC | 7005075 | - | 7005074 | - |
| | 242 | 145TC | 7005882 | - | 7005883 | - |
| | 242 | 182TC | 7005321 | - | 7005884 | - |
| | 200 | 56C | - | 7005916 | - | 7005917 |
| | 262 | 56C | - | 7005752 | - | 7005963 |
| | 350 | 145TC | - | 7005987 | - | 7005988 |
| 9 | 50:1 Ratio | | | | | |
| | 224 | 56C | 7005885 | - | 7005886 | - |
| | 232 | 56C | 7005887 | - | 7005888 | - |
| | 232 | 145TC | 7005073 | - | 7005072 | - |
| | 242 | 145TC | 7005889 | - | 7005890 | - |
| | 200 | 56C | - | 7005918 | - | 7005919 |
| | 262 | 56C | - | 7005964 | - | 7005965 |
| | 350 | 56C | - | 7005989 | - | 7005990 |
| 350 | 145TC | - | 7005991 | - | 7005992 | |

| Key No. | Item | | Part Number | | | |
|----------------------|-----------------------|----------|---------------------------------|-----------------|---------------------------------|-----------------|
| | C-Face Reducer | | | | | |
| | | | Assembly | | | |
| | | | Series 600 and 800 RU-LS | | Series 600 and 800 LU-RS | |
| | | | SA2000 - Shown (RH) | | SA2000 - OPP (LH) | |
| | | | SA2001 - OPP (LH) | | SA2001 - Shown (RH) | |
| | Reducer | | Grove | Reliance | Grove | Reliance |
| Reducer Model | Motor Frame | 3 | L1 | 2 | K1 | |
| 9 | 60:1 Ratio | | | | | |
| | 220 | 56C | 7005891 | - | 7005892 | - |
| | 224 | 56C | 7005893 | - | 7005894 | - |
| | 226 | 56C | 7005061 | - | 7005060 | - |
| | 230 | 56C | 7005895 | - | 7005896 | - |
| | 232 | 56C | 7005067 | - | 7005066 | - |
| | 232 | 145TC | 7005071 | - | 7005070 | - |
| | 242 | 145TC | 7005897 | - | 7005898 | - |
| | 200 | 56C | - | 7005938 | - | 7005939 |
| | 262 | 56C | - | 7005966 | - | 7005967 |
| | 350 | 56C | - | 7005993 | - | 7005994 |
| | 350 | 145TC | - | 7005995 | - | 7005996 |

| Key No. | Item | | Part Number | | | | | |
|----------------------------|--------------------------------------|--|-------------------------------|--------|--------|--------|--------|--|
| | Chain Sprocket (Power Unit - Driver) | | | | | | | |
| | Size - Teeth - Belt Width | Sprocket Hub Type (TL Bushing No.) | Reducer Output Shaft Diameter | | | | | |
| .875 | | | 1.000 | 1.125 | 1.250 | 1.500 | 1.875 | |
| 10 | Series 600 and 800 - End Drive | | | | | | | |
| | RC50 - 11T | Type B Hub | 745505 | | | | | |
| | RC50 - 13T | Type B Hub | 745513 | 745512 | 745510 | | | |
| | RC50 - 14T | Type B Hub | | | 745514 | | | |
| | RC50 - 17T | Type B Hub | | | 745517 | | | |
| | RC60 - 9T | Type B Hub | 745100 | | | | | |
| | RC60 - 10T | Type B Hub | 745101 | | 745102 | | | |
| | RC60 - 11T (TL Bushing) | Type B Hub | 745111 | 745110 | 745112 | | | |
| | | Type TL Hub (1008) | 745631 | | 745631 | | | |
| | RC60 - 13T (TL Bushing) | Type B Hub | | | 745133 | | | |
| | | Type TL Hub (1210) | 745633 | 745633 | 745633 | | | |
| | RC60 - 14T (TL Bushing) | Type B Hub | | | 745142 | | 745144 | |
| | | Type TL Hub (1210) | 745634 | 745634 | 745634 | | 745634 | |
| | RC60 - 15T (TL Bushing) | Type TL Hub (1610) | 745635 | 745635 | 745635 | | 745635 | |
| | | | 230746 | 230747 | 230748 | | 230753 | |
| | RC60 - 16T (TL Bushing) | Type B Hub | | | | | 745165 | |
| | | Type TL Hub (1610) | | | | | 745636 | |
| | RC60 - 17T (TL Bushing) | Type B Hub | | | | | 230753 | |
| | | Type TL Hub (1610) | | | 745637 | | 745637 | |
| | RC60 - 18T (TL Bushing) | Type TL Hub (1610) | | | 230748 | | 230753 | |
| | | | 745638 | 745638 | 745638 | | 745638 | |
| RC60 - 19T (TL Bushing) | Type TL Hub (1610) | | | 230748 | | 230753 | | |
| | | 745639 | 745639 | 745639 | | 745639 | | |
| RC60 - 20T (TL Bushing) | Type TL Hub (2012) | | | | | 745640 | | |
| | | | | | | 230785 | | |
| RC60 - 21T (TL Bushing) | Type TL Hub (2012) | | | | | 745641 | | |
| | | | | | | 230785 | | |

| Key No. | Item | | Part Number | | | | | |
|--------------|--------------------------------------|--|-------------------------------|--------|--------|-------|--------|--------|
| | Chain Sprocket (Power Unit - Driver) | | | | | | | |
| | Size - Teeth - Belt Width | Sprocket Hub Type (TL Bushing No.) | Reducer Output Shaft Diameter | | | | | |
| .875 | | | 1.000 | 1.125 | 1.250 | 1.500 | 1.875 | |
| 10 | RC60 - 22T (TL Bushing) | Type TL Hub (2012) | | 745642 | 745642 | | 745642 | |
| | | | | 230777 | 230778 | | 230785 | |
| | RC60 - 25T (TL Bushing) | Type TL Hub (1008)???? | | | | | 745645 | |
| | RC60 - 26T (TL Bushing) | Type TL Hub (1210) | | | | | 745646 | |
| | RC60 - 29T (TL Bushing) | Type TL Hub (1610) | | | | | 745649 | |
| | | | | | | | 230753 | |
| | RC60 - 30T (TL Bushing) | Type TL Hub (1610) | | | | | 745650 | |
| | | | | | | | 230753 | |
| | RC80 - 11T | Type B Hub | | | | | 745313 | |
| | RC80 - 12T | Type B Hub | | | | | 745322 | |
| | (TL Bushing) | Type TL Hub (1615) | | | | | 745683 | |
| | | | | | | | 230766 | |
| | RC80 - 13T | Type B Hub | | | | | 745333 | |
| | (TL Bushing) | Type TL Hub (1615) | | | | | 745684 | |
| | | | | | | | 230766 | |
| | RC80 - 14T | Type B Hub | | | | | 745342 | |
| | (TL Bushing) | Type TL Hub (1615) | | | | | 745685 | |
| | | | | | | | 230766 | |
| | RC80 - 16T | Type B Hub | | | | | 745360 | |
| | (TL Bushing) | Type TL Hub (2012) | | | | | | 745687 |
| | | | | | | | 230786 | |
| RC80 - 17T | Type B Hub | | | | | | 745372 | |
| (TL Bushing) | Type TL Hub (2012) | | | | | | 745688 | |
| | | | | | | | 230786 | |
| RC80 - 18T | Type TL Hub | | | | | | 745689 | |
| (TL Bushing) | (2012) | | | | | | 230786 | |
| RC80 - 19T | Type TL Hub | | | | | | 745690 | |
| (TL Bushing) | (2012) | | | | | | 230786 | |
| RC80 - 20T | Type TL Hub | | | | | | 745691 | |
| (TL Bushing) | (2517) | | | | | | 230798 | |
| RC80 - 21T | Type TL Hub | | | | | | 745692 | |
| (TL Bushing) | (2517) | | | | | | 230798 | |
| RC80 - 23T | Type TL Hub | | | | | | 745694 | |
| (TL Bushing) | (2517) | | | | | | 230798 | |

| Key No. | Item | | Part Number | | | | | | |
|----------------------------|--|--|-------------------------------|---------|---------|---------|---------|---------|--|
| | Chain Sprocket (Power Unit - Driver) | | | | | | | | |
| | Size - Teeth - Belt Width | Sprocket Hub Type (TL Bushing No.) | Reducer Output Shaft Diameter | | | | | | |
| .875 | | | 1.000 | 1.125 | 1.250 | 1.500 | 1.875 | | |
| 10 | RC100 - 10T | Type B Hub | | | | | | 745500 | |
| | RC100 - 11T | Type B Hub | | | | | | 745432 | |
| | | Type TL Hub | | | | | | 745718 | |
| | | (SDS) | | | | | | 230759 | |
| | RC100 - 12T | Type B Hub | | | | | | 745440 | |
| | | Type TL Hub | | | | | | 745719 | |
| | | (SDS) | | | | | | 230759 | |
| | RC100 - 13T | Type TL Hub | | | | | | 745723 | |
| | | (2012) | | | | | | 230786 | |
| | RC100 - 14T | Type TL Hub | | | | | | 745758 | |
| | | (2517) | | | | | | 230798 | |
| | SA2000 and SA2001 - Intermediate / Low-Profile Drive | | | | | | | | |
| | RC60 - 16T (TL Bushing) | Type TL Hub (1610) | | 7788120 | 7788120 | 7788120 | 7788120 | | |
| | | | | 7115210 | 7115213 | 7115223 | 7115228 | | |
| | RC60 - 19T (TL Bushing) | Type TL Hub (1610) | | 7742721 | 7742721 | 7742721 | 7742721 | | |
| | | | | 7115210 | 7115213 | 7115223 | 7115228 | | |
| | RC60 - 20T (TL Bushing) | Type TL Hub (2012) | | 7743918 | 7743918 | 7743918 | 7743918 | | |
| | | | | 7115235 | 7115228 | 7115227 | 7721059 | | |
| | RC60 - 21T (TL Bushing) | Type TL Hub (2012) | | 7120512 | 7120512 | 7120512 | 7120512 | 7120512 | |
| | | | | 7115235 | 7115228 | 7115227 | 7721059 | 7115234 | |
| RC60 - 22T (TL Bushing) | Type TL Hub (2012) | | 7000092 | 7000092 | 7000092 | 7000092 | | | |
| | | | 7115235 | 7115228 | 7115227 | 7721059 | | | |
| RC60 - 23T (TL Bushing) | Type TL Hub (2012) | | 7125294 | 7125294 | 7125294 | 7125294 | | | |
| | | | 7115235 | 7115228 | 7115227 | 7721059 | | | |
| RC60 - 25T (TL Bushing) | Type TL Hub (2012) | | 7730801 | 7730801 | 7730801 | 7730801 | 7730801 | | |
| | | | 7115235 | 7115228 | 7115227 | 7721059 | 7115234 | | |

| Key No. | Item | | Part Number | | | | | |
|----------------------------|--|--|-------------------------------|---------|---------|---------|---------|--|
| | Chain Sprocket (Power Unit - Driver) | | | | | | | |
| | Size - Teeth - Belt Width | Sprocket Hub Type (TL Bushing No.) | Reducer Output Shaft Diameter | | | | | |
| .875 | | | 1.000 | 1.125 | 1.250 | 1.500 | 1.875 | |
| 10A | Timing-Belt Sprocket (Power Unit - Driver) | | | | | | | |
| | 8mm-30T-21 (TL Bushing) | Type TL Hub (1108) | 7001533 | | | | | |
| | | | 7001513 | | | | | |
| | 8mm-32T-21 (TL Bushing) | Type TL Hub (1210) | 7001534 | 7001534 | | | | |
| | | | 7200560 | 7115208 | | | | |
| | 8mm-32T-36 (TL Bushing) | Type TL Hub (1210) | | | 7001551 | | | |
| | | | | | 7115207 | | | |
| | 8mm-34T-21 (TL Bushing) | Type TL Hub (1610) | 7001535 | 7001535 | 7001535 | | | |
| | | | 7115210 | 7115213 | 7115223 | | | |
| | 8mm-34T-36 (TL Bushing) | Type TL Hub (1210) | | | 7001552 | | | |
| | | | | | 7115207 | | | |
| | 8mm-36T-21 (TL Bushing) | Type TL Hub (1610) | 7001536 | 7001536 | | | | |
| | | | 7115210 | 7115213 | | | | |
| | 8mm-36T-36 (TL Bushing) | Type TL Hub (1610) | | 7001553 | | | | |
| | | | | 7115213 | | | | |
| | 8mm-38T-21 (TL Bushing) | Type TL Hub (1610) | 7001537 | 7001537 | 7001537 | | | |
| | | | 7115210 | 7115213 | 7115223 | | | |
| | 8mm-38T-36 (TL Bushing) | Type TL Hub (1610) | | 7001554 | 7001554 | 7001554 | | |
| | | | | 7115213 | 7115223 | 7732428 | | |
| | 8mm-40T-21 (TL Bushing) | Type TL Hub (2012) | 7001538 | 7001538 | 7001538 | | | |
| | | | 7115235 | 7115228 | 7115227 | | | |
| | 8mm-40T-36 (TL Bushing) | Type TL Hub (2012) | | | 7001555 | | 7001555 | |
| | | | | | 7115227 | | 7115234 | |
| | 8mm-42T-21 (TL Bushing) | Type TL Hub (2012) | 7001539 | 7001539 | 7001539 | | | |
| | | | 7115235 | 7115228 | 7115227 | | | |
| | 8mm-42T-36 (TL Bushing) | Type TL Hub (2012) | | 7001556 | | | | |
| | | | | 7115228 | | | | |
| | 8mm-45T-21 (TL Bushing) | Type TL Hub (2012) | 7001540 | 7001540 | 7001540 | | | |
| | | 7115235 | 7115228 | 7115227 | | | | |
| 8mm-48T-21 (TL Bushing) | Type TL Hub (2012) | 7001541 | 7001541 | 7001541 | | | | |
| | | 7115235 | 7115228 | 7115227 | | | | |
| 8mm-48T-36 (TL Bushing) | Type TL Hub (2012) | | | 7001558 | | | | |
| | | | | 7115227 | | | | |
| 8mm-50T-21 (TL Bushing) | Type TL Hub (2012) | 7001542 | 7001542 | 7001542 | | | | |
| | | 7115235 | 7115228 | 7115227 | | | | |

| Key No. | Item | | Part Number | | | | | |
|---------|--------------------------------------|--|-------------------------------|-------|-------|---------|---------|---------|
| | Chain Sprocket (Power Unit - Driver) | | | | | | | |
| | Size - Teeth - Belt Width | Sprocket Hub Type (TL Bushing No.) | Reducer Output Shaft Diameter | | | | | |
| .875 | | | 1.000 | 1.125 | 1.250 | 1.500 | 1.875 | |
| 10A | 14mm-28T-37 (TL Bushing) | Type TL Hub (2012) | | | | | 7001566 | 7001566 |
| | | | | | | | 7721059 | 7115234 |
| | 14mm-30T-37 (TL Bushing) | Type TL Hub (2517) | | | | 7001568 | 7001568 | 7001568 |
| | | | | | | 7001524 | 7756668 | 7174980 |
| | 14mm-32T-37 (TL Bushing) | Type TL Hub (2517) | | | | | 7001570 | 7001570 |
| | | | | | | | 7756668 | 7174980 |
| | 14mm-34T-37 (TL Bushing) | Type TL Hub (2517) | | | | | 7001572 | 7001572 |
| | | | | | | | 7756668 | 7174980 |
| | 14mm-36T-37 (TL Bushing) | Type TL Hub (2517) | | | | | 7001574 | 7001574 |
| | | | | | | | 7756668 | 7174980 |
| | 14mm-40T-37 (TL Bushing) | Type TL Hub (3020) | | | | 7001578 | | |
| | | | | | | 7001527 | | |

| Key No. | Item | Part Number | | | |
|--------------------------------|--|---------------------------------------|-------------------------------|---------|---------|
| 11 | Chain Sprocket (Pulley Driven) | | | | |
| | Size - Teeth - Belt Width | Sprocket Hub Type (TL Bushing No.) | Reducer Output Shaft Diameter | | |
| | | | 1.187" | 1.427" | 1.675" |
| | Series 600 and 800 - End Drive | | | | |
| | RC50 - 13T | Type B Hub | 745511 | | |
| | RC60 - 21T (TL Bushing) | Type B Hub | | 745207 | |
| | | Type TL Hub (2012) | | 745641 | |
| | RC60 - 27T (TL Bushing) | Type B Hub | | | 745270 |
| | | Type TL Hub (2012) | | | 745647 |
| | RC80 - 15T (TL Bushing) | Type B Hub | | 745350 | |
| | | Type TL Hub (1615) | | 745686 | |
| | RC80 - 19T (TL Bushing) | Type B Hub | | | 745392 |
| | | Type TL Hub (2012) | | | 745690 |
| | RC100 - 15T (TL Bushing) | Type TL Hub (2517) | | | 745725 |
| | | | | | 230782 |
| | SA2000 and 2001 - Intermediate / Low Profile | | | | |
| | RC60 - 26T (TL Bushing) | Type TL Hub (2012) | | | 7717361 |
| | | | | | 7115238 |
| RC60 - 32T (TL Bushing) | Type TL Hub (2012) | | | 7742328 | |
| | | | | 7115238 | |

| Key No. | Item | Part Number | | |
|---|--|-----------------------|---------|---------|
| 11A | Timing-Belt Sprocket (Pulley - Driven) | | | |
| | 8mm-71T-21 (TL Bushing) | Type TL Hub (2517) | | 7001548 |
| | 8mm-71T-36 (TL Bushing) | Type TL Hub (2517) | | 7115239 |
| | 8mm-75T-21 (TL Bushing) | Type TL Hub (2517) | | 7001563 |
| | 8mm-75T-36 (TL Bushing) | Type TL Hub (2517) | | 7115239 |
| | 8mm-80T-21 (TL Bushing) | Type TL Hub (2517) | | 7001549 |
| | 8mm-80T-36 (TL Bushing) | Type TL Hub (2517) | | 7115239 |
| | 8mm-80T-21 (TL Bushing) | Type TL Hub (3020) | | 7001564 |
| | 8mm-80T-36 (TL Bushing) | Type TL Hub (3020) | | 7115239 |
| | 8mm-80T-21 (TL Bushing) | Type TL Hub (3020) | | 7001565 |
| | 14mm-50T-37 (TL Bushing) | Type TL Hub (3020) | | 7001565 |
| | 14mm-50T-37 (TL Bushing) | Type TL Hub (3020) | | 7000084 |
| 14mm-53T-37 (TL Bushing) | Type TL Hub (3020) | | 7001582 | |
| 14mm-53T-37 (TL Bushing) | Type TL Hub (3020) | | 7000084 | |
| 14mm-56T-37 (TL Bushing) | Type TL Hub (3525) | | 7001583 | |
| 14mm-56T-37 (TL Bushing) | Type TL Hub (3525) | | 7000084 | |
| 14mm-56T-37 (TL Bushing) | Type TL Hub (3525) | | 7001584 | |
| 14mm-56T-37 (TL Bushing) | Type TL Hub (3525) | | 7000085 | |
| Note: "B" = Sprocket with finished bore. "TL" = Sprocket with taper-bore bushing. "H" = Sprocket with split taper bushing. | | | | |

Width Related Parts

| Key No. | Part Description | Conveyor Width "W" - Part Number | | | | | | |
|---------|---|----------------------------------|---------|---------|---------|---------|---------|---------|
| | | 15" | 21" | 27" | 33" | 39" | 45" | 51" |
| 20 | Pulley w/Shaft, Crown Face, Lagged, Single Shaft Extension (End/Center Drive-Power Unit) | | | | | | | |
| | Series 600 - 6.5" / 1-7/16" | 68-3202 | 68-3203 | 68-3204 | 68-3205 | 68-3206 | 68-3207 | 68-3208 |
| | Series 800 - 8.5" / 1-11/16" | 68-3302 | 68-3303 | 68-3304 | 68-3305 | 68-3306 | 68-3307 | 68-3308 |
| 20A | Pulley w/Shaft, Drive, Crown Face, Lagged (SA2000 Intermediate Drive) | | | | | | | |
| | 8-1/4" dia., 1-11/16" Shaft | | | | | | | |
| 20B | Pulley w/Shaft, Drive, Crown Face, Lagged (SA2001 Low Profile Intermediate Drive) | | | | | | | |
| | 6-1/4" dia., 1-11/16" Shaft | | | | | | | |
| 21 | Pulley / Axle, Crown Face (Series 600/800 Idler/Take-Up; Hor./Incl. Transition) | | | | | | | |
| | Pulley - 3.5" CF / 1-1/8" SQ. BR | 50-1216 | 50-1217 | 50-1218 | 50-1219 | 50-1220 | 50-1221 | 50-1222 |
| | Axle - 1-1/8" Square | 69-0912 | 69-0913 | 69-0914 | 69-0915 | 69-0916 | 69-0917 | 69-0918 |
| 22 | Pulley / Axle, Flat Face (Series 600/800 Idler/Take-Up; Aux. Air T.U.; Hor./Incl. Transition) | | | | | | | |
| | Pulley - 3.5" FF / 1-1/8" SQ. BR | 50-1216 | 50-1217 | 50-1218 | 50-1219 | 50-1220 | 50-1221 | 50-1222 |
| | Axle - 1-1/8" Square | 69-0912 | 69-0913 | 69-0914 | 69-0915 | 69-0916 | 69-0917 | 69-0918 |
| 22A | Pulley & Axle, Take-Up, Crown Face, (SA2000 / 2001 Intermediate / Low Profile) | | | | | | | |
| | 3-1/2" x 1-1/16" HX BR | | | | | | | |
| | Axle - 1-1/16" CRS Hex | | | | | | | |
| 23 | Pulley w/Shaft, Crown Face, No Shaft Extension (Series 1000 Tail End Idler; Aux. Air T.U.) | | | | | | | |
| | 6.0" CF / 1-15/16" | 68-3231 | 68-3232 | 68-3233 | 68-3234 | 68-3235 | 68-3236 | 68-3237 |
| 24 | Pulley w/Shaft, Flat Face, No Shaft Extension (Aux. Air T.U.) | | | | | | | |
| | 6.0" FF / 1-15/16" | 68-3238 | 68-3239 | 68-3240 | 68-3241 | 68-3242 | 68-3243 | 68-3244 |
| 25 | Roller / Axle, (Carrier - Nose-Over) | | | | | | | |
| | Roller - No. G251HS | 50-2474 | 50-2475 | 50-2476 | 50-2466 | 50-2467 | 50-2468 | 50-2470 |
| | Axle - 11/16" Hex | 50-1329 | 50-1330 | 50-1331 | 50-1332 | 50-1333 | 50-1334 | 50-1335 |
| 26 | Roller / Axle, (Snub) | | | | | | | |
| | Roller - No. G251GT | 50-1401 | 50-1405 | 50-1409 | 50-1413 | 50-1415 | 50-1417 | 50-1419 |
| | Roller - No. G251AB | 49-1831 | 49-1832 | 49-1833 | 49-1834 | 49-1835 | 49-1836 | 49-1837 |
| 26A | Roller - Adjustable / Fixed Snub SA2000 and SA2001 | | | | | | | |
| | 2-9/16" x 11/16 HX BR | | | | | | | |
| 26B | Shaft - Adjustable Snub SA2001 | | | | | | | |
| | 11/16' CRS Hex | | | | | | | |

| Key No. | Part Description | Conveyor Width "W" - Part Number | | | | | | |
|---------|--|----------------------------------|--------------|------------|--------------|-------------|--------------|-------------|
| | | 15" | 21" | 27" | 33" | 39" | 45" | 51" |
| 26C | Shaft - Fixed Snub SA2001 | | | | | | | |
| | 11/16' CRS Hex | | | | | | | |
| 28* | Roller w/Axle, (Belt Return) | | | | | | | |
| | RLR G196 GH P 01 14.81 NC | 7496307 | - | - | - | - | - | - |
| | RLR G196 GH P 01 20.81 NC | - | 7496409 | - | - | - | - | - |
| | RLR G196 GH P 01 26.81 NC | - | - | 7496506 | - | - | - | - |
| | RLR G196 GH P 01 32.81 NC | - | - | - | 7496585 | - | - | - |
| | RLR G196 GH P 01 38.81 NC | - | - | - | - | 7496643 | - | - |
| | RLR G196 GH P 01 44.81 NC | - | - | - | - | - | 7496670 | - |
| | RLR G196 GH P)1 50.81 NC | - | - | - | - | - | - | 7496674 |
| 29 | BELT __" PVC90 FS x FS | 190355 | 190491 | 190550 | 190582 | 190595 | 190597 | 190598 |
| 30 | BELT LACING - Clipper | | | | | | | |
| | No. 1A 6" long (FS x FS) (Qty. Req.) | 190701 (4) | 190701 (6) | 190701 (8) | 190701 (10) | 190701 (12) | 190701 (14) | 190701 (16) |
| | BELT LACING PIN - Clipper | | | | | | | |
| | No. 25 (for No. 1A Lacing) (Qty. Req.) | 190709 (1) | 190709 (1.5) | 190709 (2) | 190709 (2.5) | 190709 (3) | 190709 (3.5) | 190709 (4) |
| | BELT LACING ALLIG #7 | 190880 | 190892 | 190894 | 190896 | 190898 | 190901 | 190902 |

*Roller Description Explanation

(Example) RLR G196 GH P 01 14.81 NC

RLR = Roller
 G = Roller Tube Material/Finish) Galvanized Steel
 196 = (Roller Tube) 1.90" dia x 16 gage (.065" wall)
 GH = (Bearing Type) Greased, Commercial Bearing
 A1 = (Bearing Type) ABEC precision Bearing
 P = Plain Steel Axle
 01 = Spring-Loaded Axle; Fixed Roller w/o Grooves
 14.81 (Roller Width) = Conveyor Width "W" MINUS .19"
 NC = No Cover

Lubricants and Paints

| Part Description | Part Number |
|---------------------------------------|-----------------|
| Reducer Lubricant | |
| Grove, Above +20° F (1 Gallon) | Consult Factory |
| Grove, -20° F to +20° F (1 Gallon) | Consult Factory |
| Reliance, Above +20° F (1 Gallon) | Consult Factory |
| Reliance, -20° F to +20° F (1 Gallon) | Consult Factory |
| Paint | |
| Medium Gray - Spray Can | 959002 |
| FKI Logistex Satin Gray - Spray Can | 7900005 |