

Field Manual
High-Speed V-Belt Live Roller 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.

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SECTION G: INSTALLATION PROCEDURES

Introduction

Accepting Shipment

Immediately upon delivery, check that all equipment received agrees with the bill of lading or carrier's freight bill.

Note: Do not sign the freight bill before checking the equipment for completeness and for damage.

Lost Shipments

Report lost shipments to the Manufacturer's Customer Service Department.

Shortages or Errors

Before signing the freight bill, note any shortages or errors clearly on the freight bill. Report any shortages or errors to the Manufacturer's Customer Service Department in writing within ten (10) days after receipt of shipment.

Damaged Shipments

If shipping damage is evident upon receipt of the shipment, proceed as follows:

- Before signing the freight bill, note the extent of the damage clearly on the freight bill. Immediately contact the transportation carrier to request an inspection.
- Do not destroy the crating or packing materials until the carrier's agent has inspected them.
- If possible, take photographs of the damage in order to document negligence on the part of the carrier.

Unless otherwise agreed by the Manufacturer, the Purchaser (User) shall be responsible for filing claims with the transportation carrier. A copy of the inspection report and 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 where authorized in writing by the Manufacturer. Notification of return must be made to the Manufacturer's Customer Service Department, and if approved, a Return Goods Authorization will be sent to the Purchaser (User). If the product to be returned is boxed, affix the authorization (sealed in the Return Authorization Envelope) to the exterior surface on any side of the shipping carton (not top or bottom). If the product is not boxed, affix the authorization to any smooth, flat surface on the equipment.

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

Codes and Standards

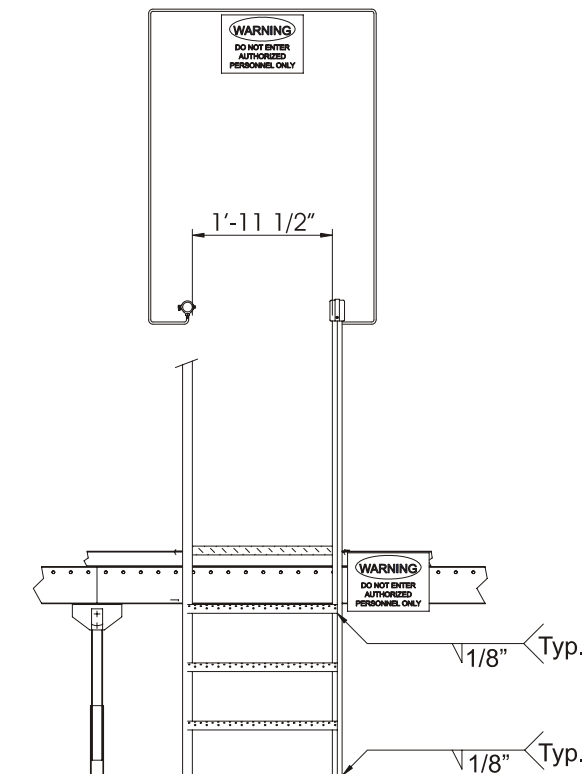
The conveyor equipment is designed and manufactured to comply with the American National Standard Institute's Safety Standards for Conveyors and Related Equipment (ANSI/ASME B20.1) and with the National Electrical Code (ANSI/NFPA70). The Purchaser/Operator shall be familiar with, and responsible for, compliance with all codes and regulations

having jurisdiction regarding the installation, use, and maintenance of this equipment. Appropriate lock-out and tag-out policies 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 are to be posted on or near the conveyor equipment and 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) of bill(s)-of-materials for replacement part numbers.

WARNING: For conveyors installed at floor level in an “**Authorized Personnel Access Area Only**”, fixed rollers (3” centers) may be used in conjunction with an emergency pull cord. The area must be apart from normal working areas and access must be marked with a sign, “**Warning - Do Not Enter - Authorized Personnel Only**”. Part Number for ordering Warning Sign is 957305. The illustration below shows the location for installation of the sign.



TO ORDER LADDER SUPPORTS PER CROSSOVER:		
QNTY:	PART DESCRIPTION:	PART DESCRIPTION:
1	957173	X-OVER SIGN FRAME
2	957174	3/8" DIA NYLON LOOP CLAMP (TO ATTACH SIGN TO FRAME)
4	957175	1 1/4" DIA PIPE RING W/BOLT (TO ATTACH SIGN TO LADDERS)
4	957305	SIGN,WARN BY-WS10 SETON M2540

Safety Instructions

- Turn off conveyor power source(s) and affix appropriate lock-out and tag-out 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.
- 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.
- Use extreme caution near moving conveyor parts to avoid the hazard of hands, hair, or clothing being caught.
- Do not sit on, stand on, walk on, ride, or cross (over or under) the conveyor at any time except where suitable catwalks, gate, 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 lock-out and tag-out device(s).

CAUTION: There is a risk of injury with the roller conveyors with trapped rollers. Turn off conveyors before handling product or servicing. Limit access to maintenance personnel.

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 this manual (see Section I).

Factory Assistance

Contact Customer Service for installation, operation, or maintenance assistance, or replacement parts.

Pre-Installation Check

General Preparations

Review the conveyor layout drawings to determine the proper location, orientation, and elevations of the conveyor sections. Read all instructions provided in this manual. Make sure that all equipment, hardware, and tools are present to complete the job.

Large Conveyors

Some High-Speed V-Belt Live Roller (HVR) conveyors are too large to ship in one piece. If conveyors exceed certain size limitations they are shipped in sections that must be assembled. The factory uses tables and calculations to determine how the unit can be shipped. However, as a general guide, the unit must be shipped in sections if either of the following is true:

- The length of a unit, as shown in the following layout figures, exceeds 150".
- The width of a unit, as shown in the following layout, exceeds 90".

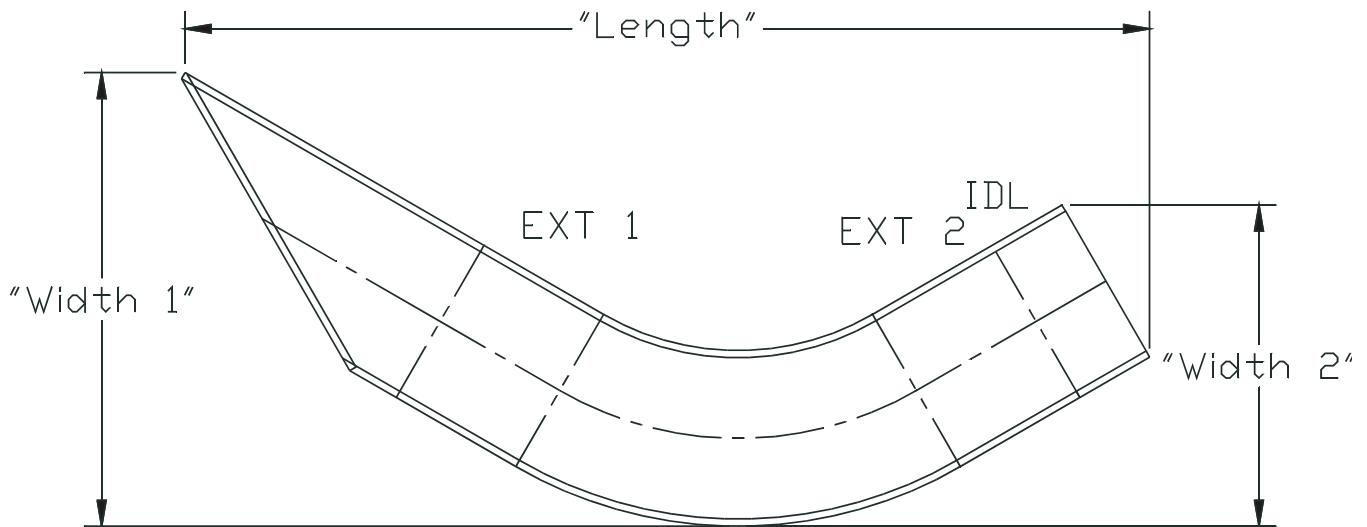


Figure G - 8 Example Shipping Layout

Popout Roller Retainer

The orange popout retainer is installed during shipment of the HVR conveyor. The orange popout retainer must be removed if the conveyor will be operated at an elevation under 8'-0".

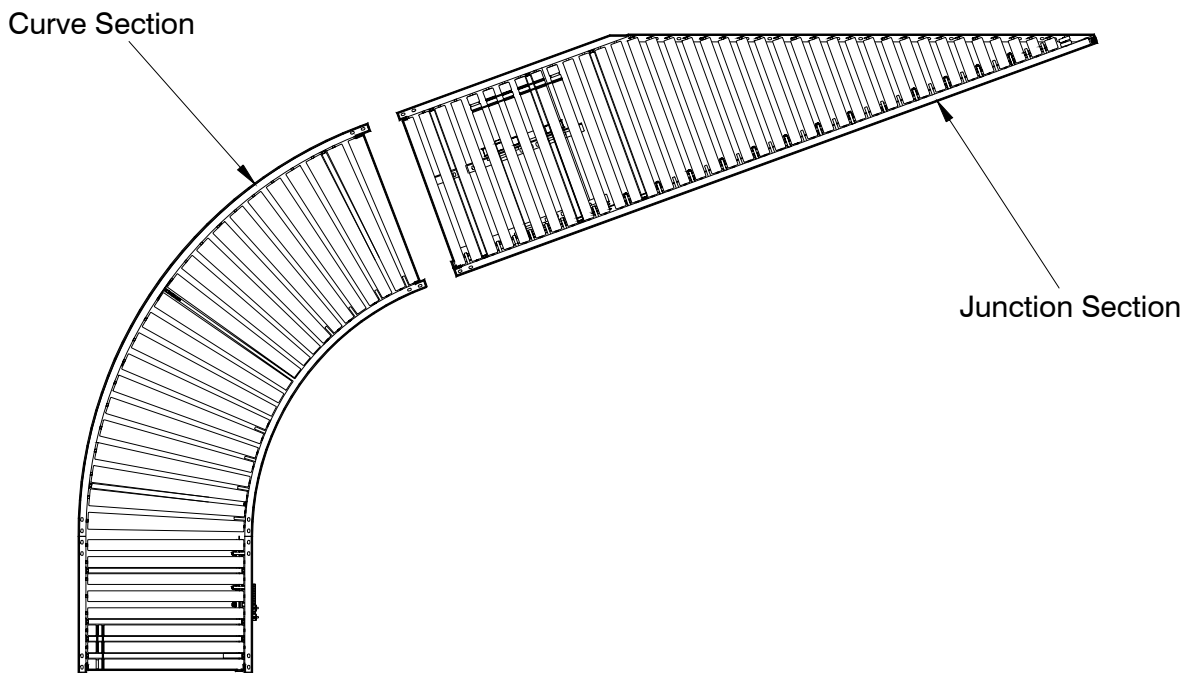
Installing the High Speed V-Belt Conveyor (HVR)

Checking Component Dimensions

The HVR Conveyor may be shipped in two or three pieces, as required by the application. The dimensions of the unit vary accordingly (see Figure G - 9, Figure G - 10 and Figure G - 11).

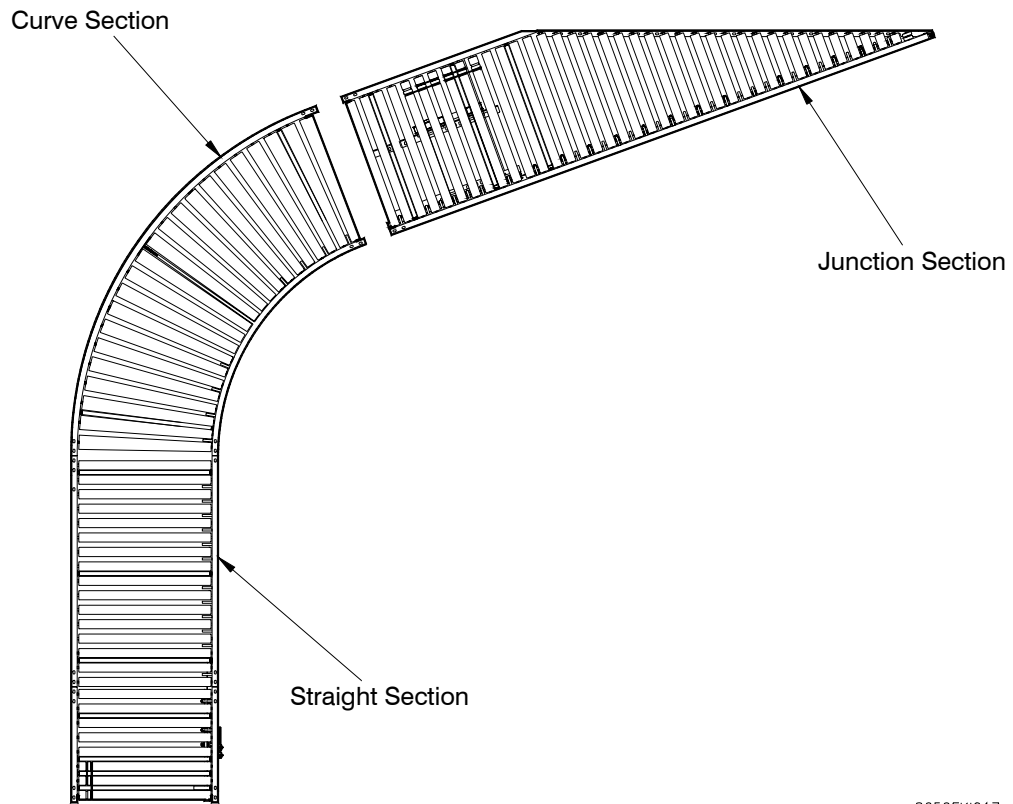
- The junction section, which includes an underhung power unit, is shipped as one piece.
- The curved section may be furnished with or without a straight section, either at the infeed end or at the discharge end or at both ends.
- If the application requires a long straight section at the discharge end of the curve, this section may be furnished as a third piece.
- The end take-up is furnished mounted either to the curve assembly or to the straight section if shipped separately.

Assembly hardware is shipped loose. After uncrating, take measurements of all sections to confirm that the dimensions are correct. Make certain that both diagonal dimensions of each rectangular section are equal.



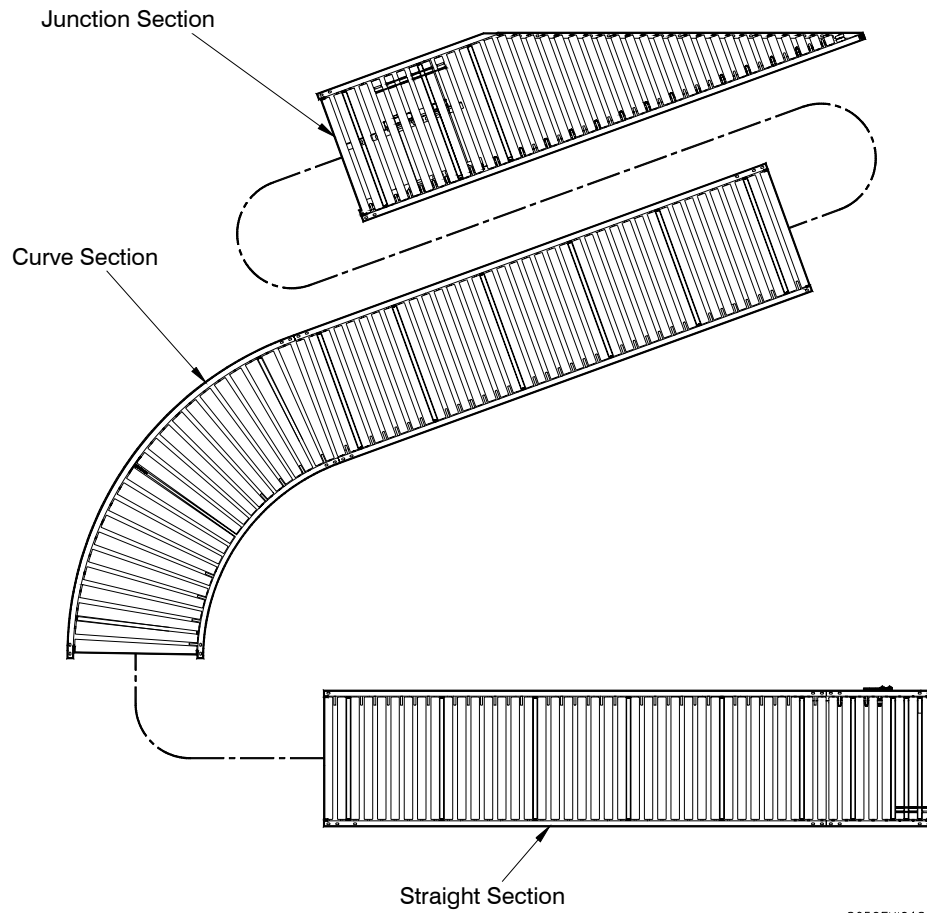
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Figure G - 9 Dimensions - 2-Piece Configuration Without Straight Sections



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Figure G - 10 2-Piece Configuration with Straight Section at Discharge End



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Figure G - 11 3-Piece Configuration

Locating Mounting Struts

Before installing the HVR, make certain that the sorter (or other equipment) is mounted securely in its proper position according to the job layout drawing. In order to save time, junctions may be installed before chains, tubes and pushers are installed. If chains, tubes, and pushers are installed before the junction, refer to the heading “Check Junction Alignment” later in this section.

For each junction location, make certain that the conveyor number on the unit label matches the conveyor number designated on the project layout drawing. Locate the centerline for the conveyor spur by making a chalk line on the floor or using a similar method.

Connecting the Junction Section to the Sorter

Mount the junction section to the sorter before assembling the junction and curved sections together. Before mounting the junction section to the sorter, attach either floor supports or ceiling hangers (depending on application requirements) to the bottom of the side rails at the discharge end. For additional information, refer to the Product Manual #5310 *Floor Supports and Ceiling Hangers*.

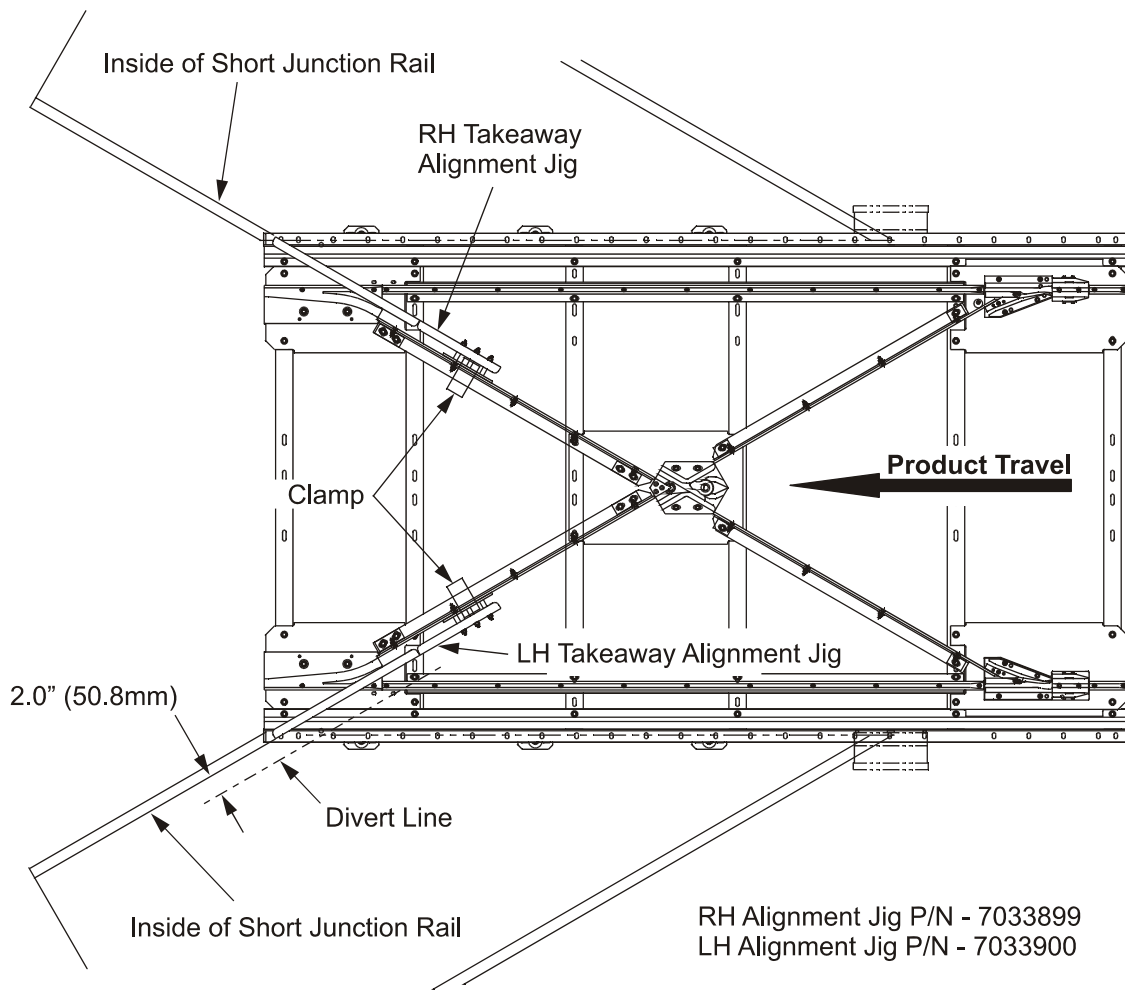
Position the angled edge of the junction section against the side rail of the sorter. Support the junction section as necessary while attaching it to the sorter. Attach the junction section to the sorter from underneath the unit.

Insert a bolt through the top leg of the mounting clip and through the flange of the junction end angle. Fasten the bolt with a washer, lock washer and nut, but do not tighten it.

Align the “elevation” of the HVR’s Carrier Roller(s) with the elevation of the Sorter’s Slats/Tubes. Adjust the height of the junction section by raising or lowering the positions of the junction mounting clips in the sorter frame, and tighten the nuts

If the junction section is supported by ceiling hangers, connect the hangers to the overhead structure as required, but leave enough adjustment allowance to position the junction section properly.

To position the junction along the length of the sorter, use a junction-alignment tool (see Figure G - 12). Note that there are two versions of the junction-alignment tool, left-hand and right-hand. Clamp the small plate of the junction-alignment tool to the junction end of the divert angle of the sorter, with the free end of the tool extending over the side rail of the sorter. Shift the position of the junction along the length of the sorter until the inside surface of the short junction side rail is aligned with the free end of the junction-alignment tool. Use a straight edge between the tool and the side rail to confirm positioning. Tighten the fasteners securing the junction end angle to the junction mounting clip. Remove the junction-alignment tool from the sorter.



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Figure G - 12 Junction Alignment

If the junction section is supported by hangers, make adjustments in the hanger assemblies as necessary, and then tighten all fasteners. Make certain that support members are positioned to provide required clearances. For example, the specifications for the job may stipulate that a certain clearance be provided to accommodate open carton flaps.

If the junction section is floor-supported, make any necessary adjustments in the floor support assembly. Drill through the floor-mounting flanges and install fasteners or anchors as appropriate for the floor material.

Attaching Curved Section to Junction Section

Attach supports to the curved section as required to accommodate equipment to be installed at the discharge end. Position the infeed end of the curved section on the supports extending from the junction section.

If the curved section is supported by ceiling hangers, connect the hangers to the overhead structure as required, but leave enough adjustment allowance to position the curved section properly. If the curved section is floor-supported, do not secure the supports to the floor until the curved section is positioned properly. Refer to the Product Manual 5310 *Floor Supports and Ceiling Hangers*.

Complete the connection of the curved section and the junction section using the splices provided. Make certain that the side rails of the curved section are aligned with those of the junction section. Check the alignment of the curved section with the centerline. Adjust the position of the curved section as necessary.

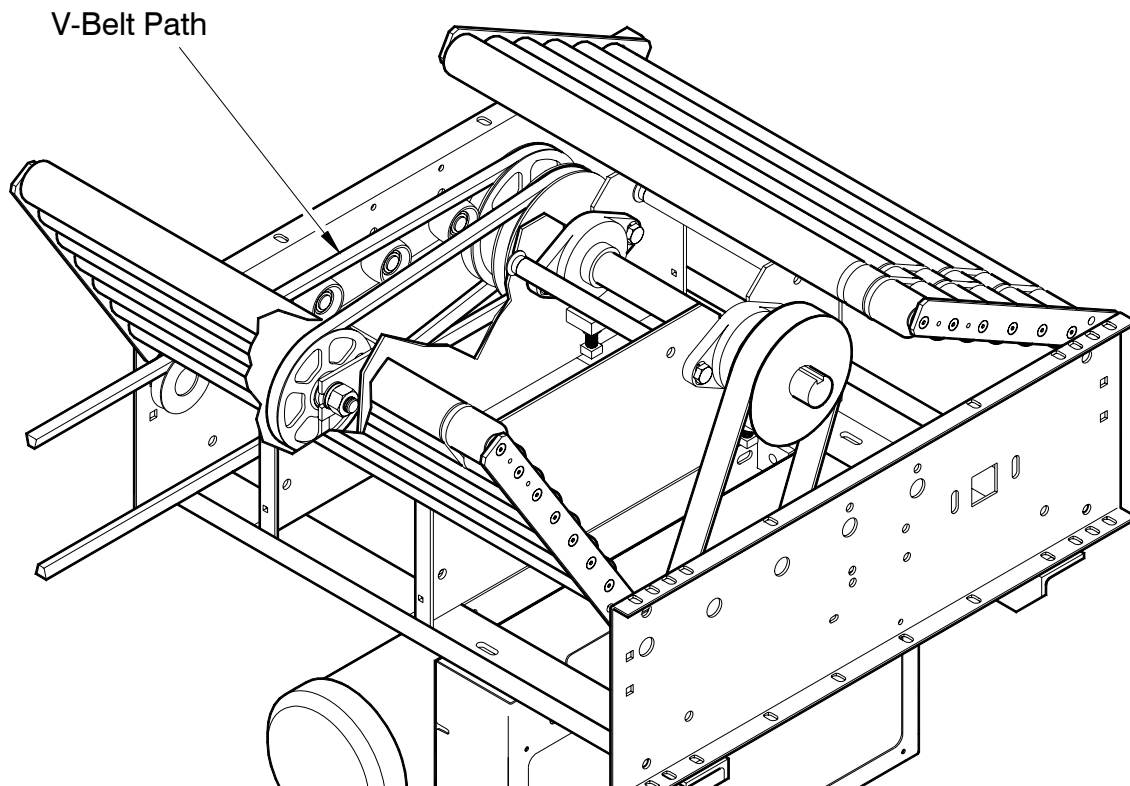
If the curved section is supported by hangers, make adjustments in the hanger assembly as necessary, and then tighten all fasteners. Make certain that support members are positioned to provide required clearances.

Installing the V-Belt

Proper V-belt routing is essential for proper operation of the drive unit and dually take-up assembly. The following figures show proper routing of the V-belts for the single, dual, and dual transfer drives.

Single Drive Unit Belt Routing

Route the top side of the V-belt over the plastic V-belt pulley located next to the side frame of the drive unit. Route the lower side of the V-belt under the steel drive pulley which is mounted to the drive shaft of the drive unit. Take some excess belt and twist in such a manner so the belt can be wrapped on the tensioning idler pulley of the Dually take-up unit. Make certain all V-belts are properly aligned into the corresponding pulleys. Refer to Figure G - 13 for routing diagram.

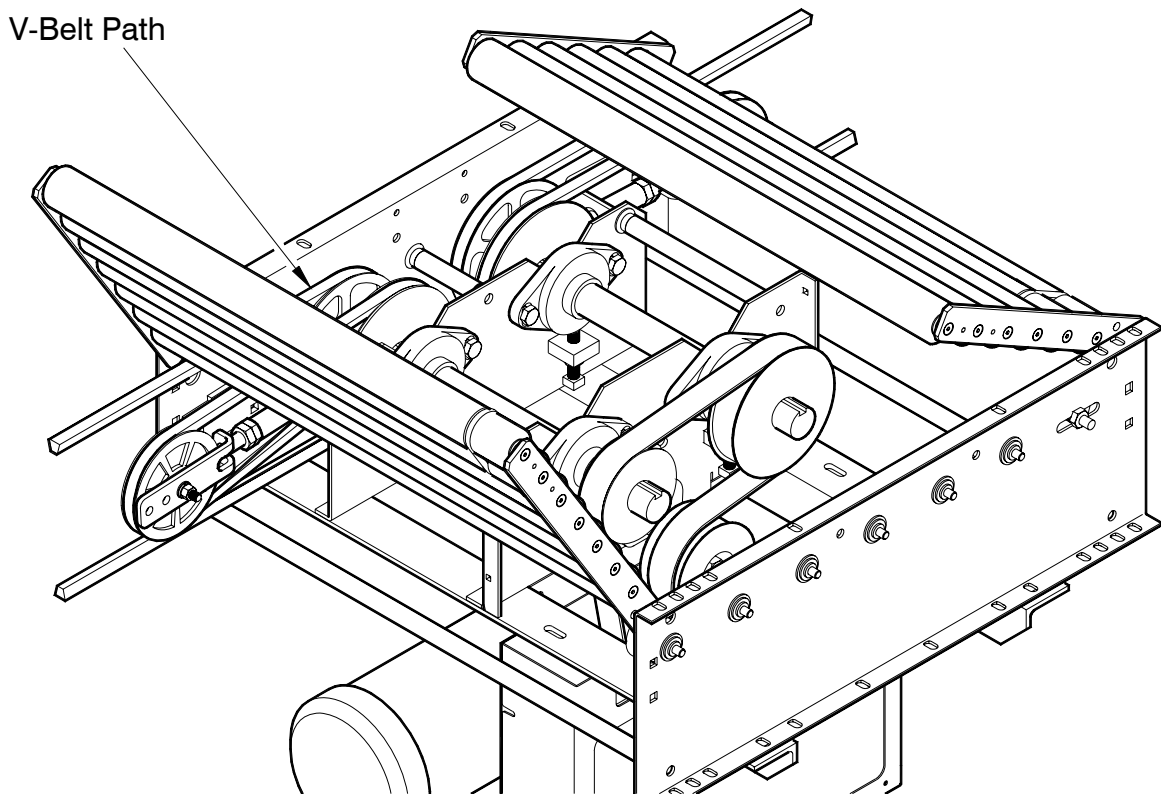


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Figure G - 13 Typical V-Belt Routing for Single Drive

Dual Drive Unit Belt Routing

The dual drive units have two drive and take-up systems on one side of the unit. Route the top side of the V-belts over the plastic V-belt pulleys located next to the side frame of the drive unit. Route the lower side of the V-belts under the steel drive pulleys which are mounted to the drive shaft of the drive unit. Take some excess belt and twist in such a manner so the belt can be wrapped on the tensioning idler pulleys of the Dually take-up units. Make certain all V-belts are properly aligned into the corresponding pulleys. Refer to Figure G - 14 for routing diagram.

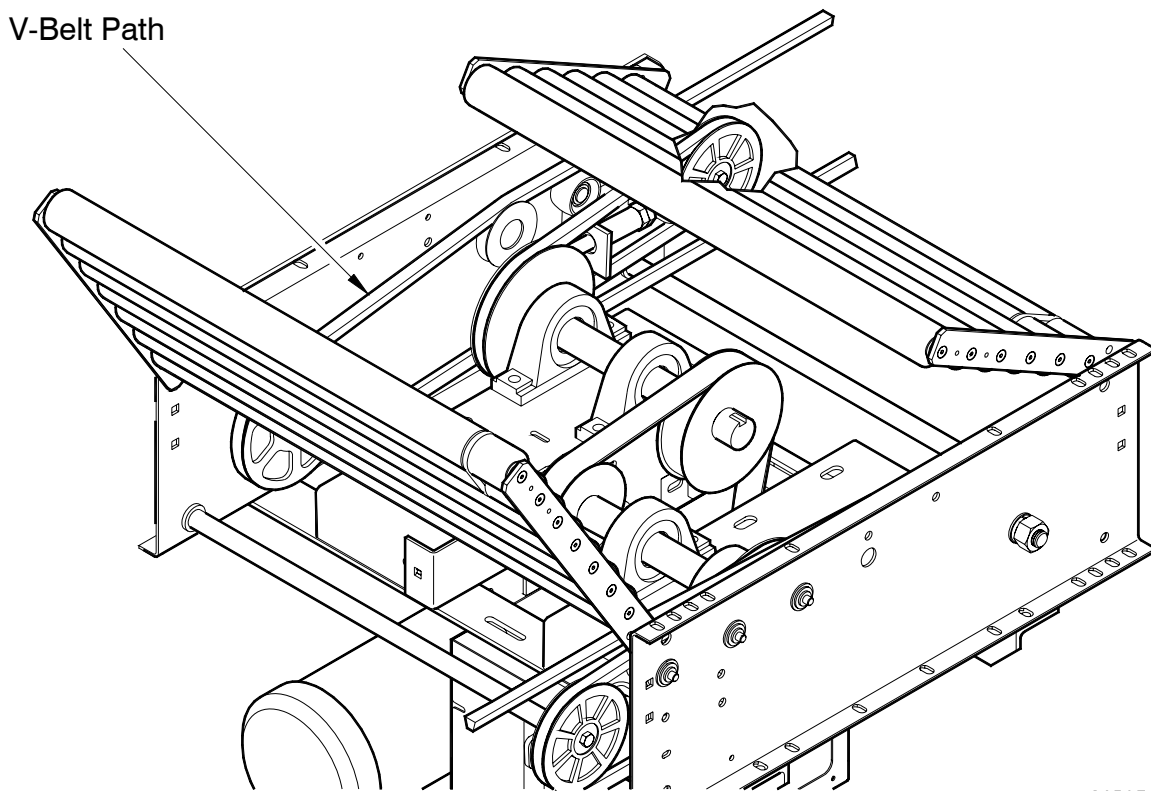


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Figure G - 14 Typical V-Belt Routing for Dual Drive

Dual Transfer Drive Unit Belt Routing

The dual transfer drive units have two drive and take-up systems on both sides of the drive. Route the top side of the V-belts over the plastic V-belt pulleys which are mounted to the side frame of the drive unit. These are located at the far side from where the V-belts enter into the drive unit. Route the lower side of the V-belts under the steel drive pulleys which are mounted to the drive shaft of the drive unit. Take some excess belt and twist in such a manner so the belt can be wrapped on the tensioning idler pulleys of the Dually take-up unit. Make certain all V-belts are properly aligned into the corresponding pulleys. Refer to Figure G - 15 for routing diagram.



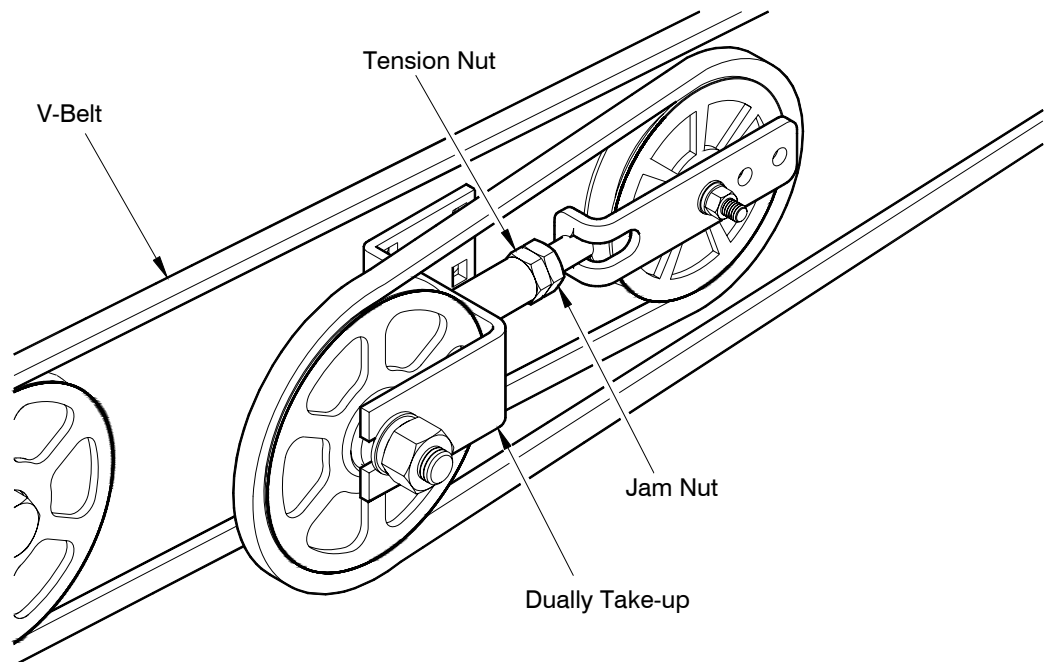
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Figure G - 15 Typical V-Belt Routing for Dual Transfer

Dually Take-Up Tension Adjustment

Each unit is equipped with dually take-ups, one at each end of the belt to adjust the belt tension (see Figure G - 16). The belt tension can be adjusted at either or both ends of the V-belt. Locate the jam nut (outer nut) and loosen. Adjust the tension nut until there is about four-to-six inches of deflection in the longest section of the belt span when moderate hand pressure is applied.

The proper V-belt tension level will allow approximately four-to-six inches of deflection from moderate hand pressure applied against the longest belt span. V-belts longer than 305 inches will have deflection on the high side of the range.



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Figure G - 16 Adjustment for Dually Take-up

Making Electrical Connections

Make electrical and control connections as necessary. Be certain to include emergency stop devices. Incorporate a lock-out switch in the power line supplying the junction-curve unit. Make certain that cables and conduit locations do not interfere with access to or with the functioning of the spur.

Checking Gear Reducer Oil Level

Before energizing the motor, make certain that the oil level in the gear reducer is full (refer to the manufacturer's literature).

Soft Start Requirements

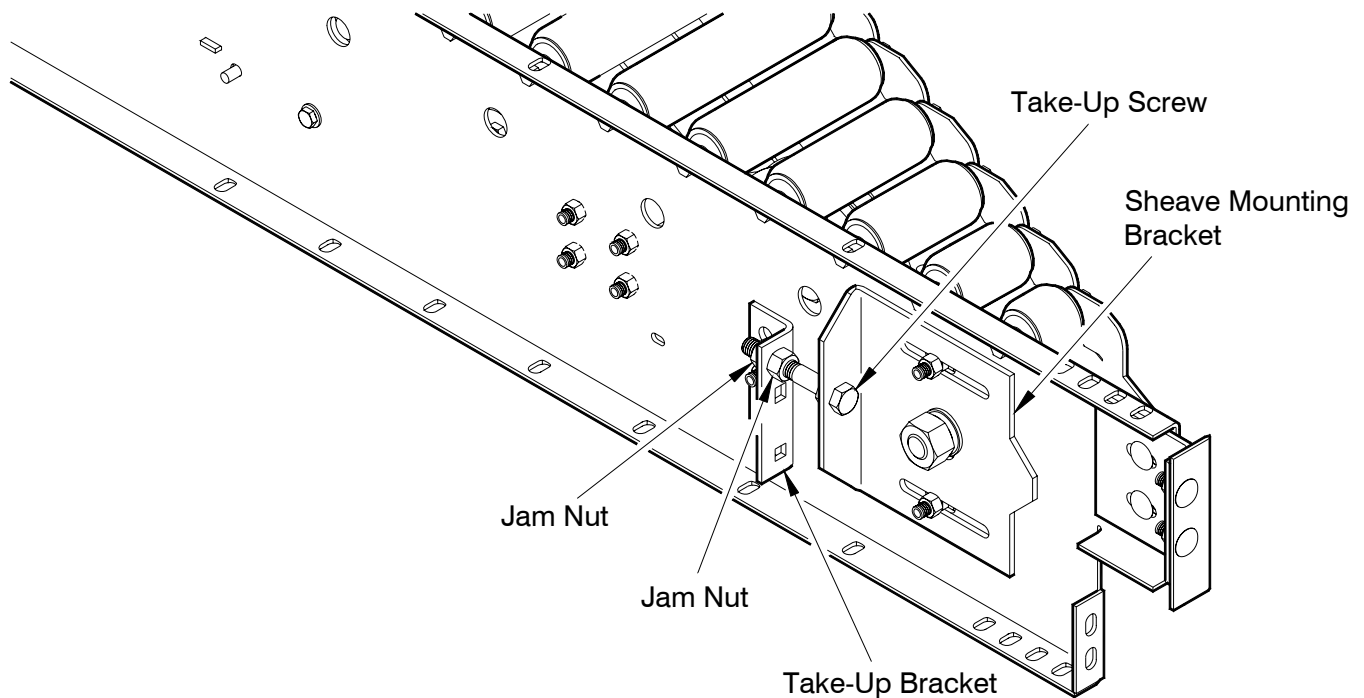
Soft starts are always required with the HVR product line. Acceleration ramp up time should be set to 10 seconds or greater.

Adjusting End Take-Up V-belt Take-up Sheave

Proper location of the end take-up sheave is essential for proper power transfer to all of the rollers located at the end of the spur section.

The sheave is properly adjusted when the V-belt is in contact with the idler rollers located at the end of the spur unit. It may not be possible to get the last few rollers in contact with the V-belt. This is normal. To adjust the take-up sheave, loosen both jam nuts on either side of the take-up bracket. Loosen the sheave mounting bracket bolts to allow the mounting bracket to move freely. Tighten the jam nuts as required to move the sheave mounting bracket in the desired direction.

The end idler sheave may be used to provide additional tension to the V-belt. The Dually take-up should be employed as the primary source of belt tensioning. The end idler sheave should only be used as a fine tuning adjustment for belt tension.



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Figure G - 17 Adjusting the End Take-Up Sheave

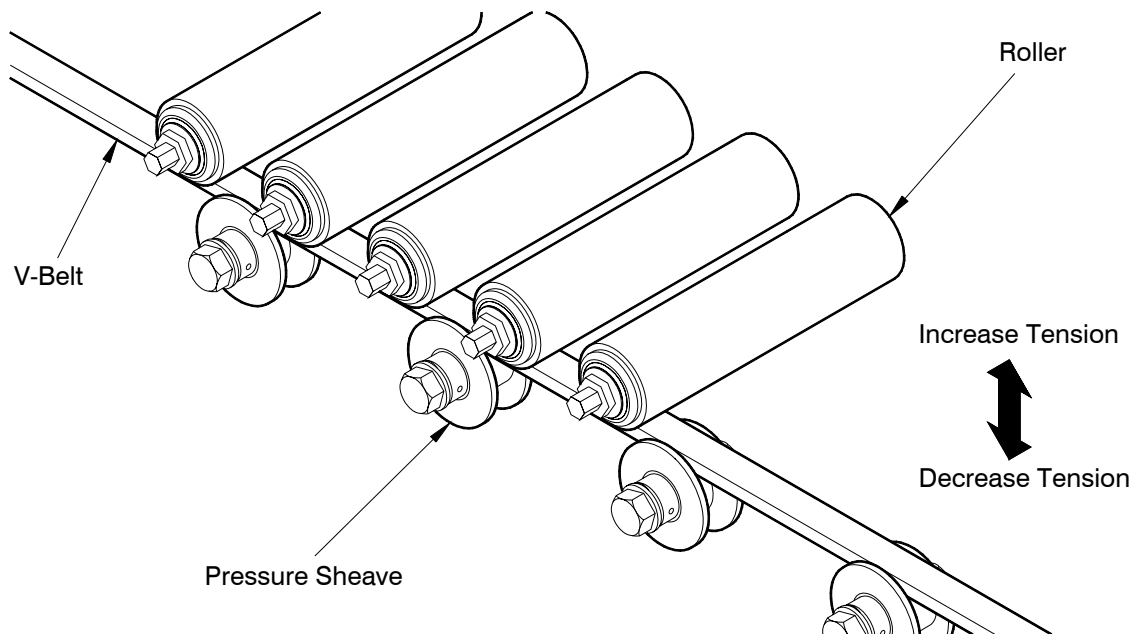
Adjusting V-Belt Tension at Pressure Sheaves

A pressure sheave is located below and between every pair of rollers (see Figure G - 18). Pressure sheaves control the degree of contact between the V-belt and the adjacent rollers. Each pressure sheave is mounted with a bolt that passes through an eccentric washer, which is set in the side rail of the conveyor. The bolt has flats that fit the hole in the washer, and one of the flats has a notch to indicate adjustment position (see Figure G - 18). Adjust the pressure sheave by loosening the nut, rotating the bolt to raise or lower the pressure sheave as necessary, and retightening the nut and bolt. Make certain that the belt makes light contact with the pressure sheave below and the rollers above.

CAUTION: Adjusting pressure sheaves may require handling parts while they are moving. Be extremely careful to avoid getting fingers, tools, or loose clothing caught between rollers or sheaves and the V-belt.

The following conditions indicate the need to adjust pressure sheaves:

- When the conveyor is running, if an individual roller (or a pair of adjacent rollers) is not turning, the adjacent pressure sheave is set too low.
- When the conveyor is running, if a roller fails to stop turning under light-to medium pressure from the palm of the hand, the adjacent pressure sheave is set too high.
- When the conveyor is stopped, if a roller fails to turn from running the palm of the hand lightly over the rollers, the pressure sheave is set too high.
- The V-belt should be straight where it passes between the pressure sheaves and the rollers. If the belt arches over a pressure sheave between a pair of rollers, the pressure sheave is set too high (see Figure G - 20).
- If fibers from the V-belt collect on the inside of the side rail or if a thick, black residue line is left on the pressure sheave, the adjacent pressure sheaves are set too high.



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Figure G - 18 Adjusting Pressure Sheaves

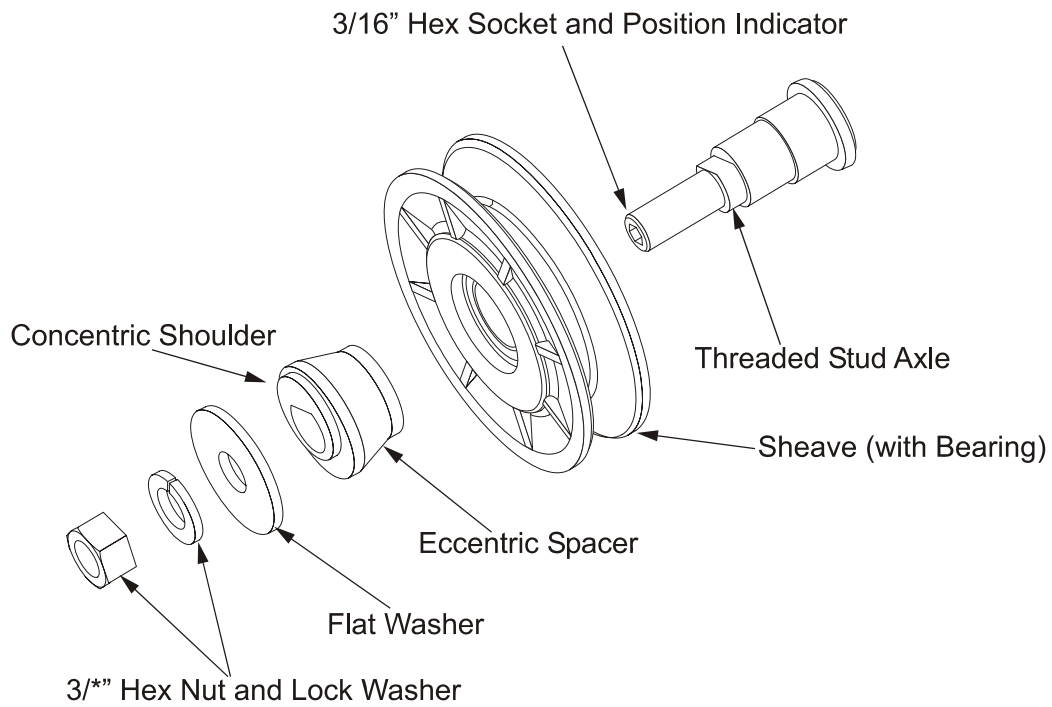


Figure G - 19 Pressure Sheave Assembly

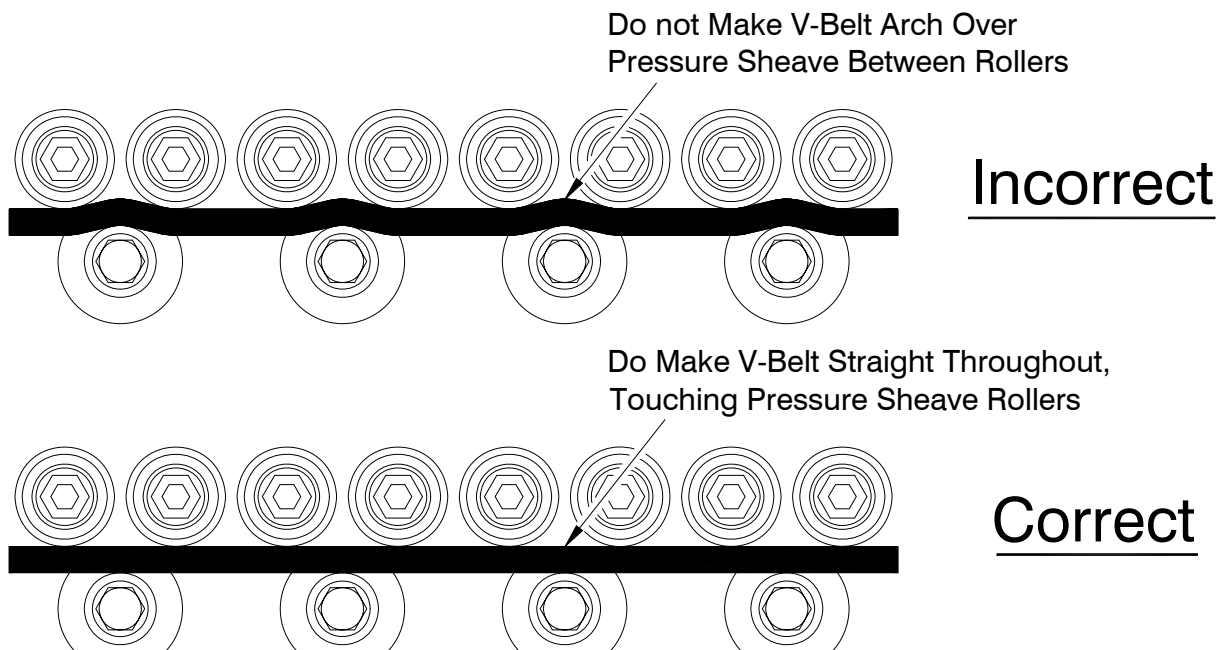


Figure G - 20 Pressure Sheaves - Proper Adjustment

Installing Side Guides

Install side guides according to the job specifications. At the corners of the side guide where the sorter meets the junction-curve unit, the following side guide sections are recommended, provided that the installation permits:

- At the infeed side, use side guide.
- At the discharge side, use a section of side guide rolled with a radius.

For additional information, refer to Product Manual 5320 *Side Guides*.

Final Installation Check

Double-check the HVR units to ensure that it is assembled completely. Make certain that the V-belts are adjusted to the proper tension. Make certain that all fasteners are tight, especially those used to secure adjustable parts.

Make certain that all electrical and control connections are made properly and that all lock-outs function properly. Make certain that emergency stops and other safety devices function properly.

SECTION H: MAINTENANCE PROCEDURES

Introduction

Recommended service checks and equipment maintenance are outlined in this section for typical and intermittent-duty conveyor applications. Additional maintenance and servicing schedule adjustments may be required for continuous-duty operation or extreme environmental conditions.

CAUTION: Before performing maintenance on a conveyor, make certain that the conveyor's power disconnect is locked in the "Open" position and tagged to prevent the accidental or unexpected application of power.
Do not perform maintenance while the conveyor is running unless specifically instructed to do so in this manual.
Maintenance must be performed only by qualified personnel who are trained in normal and emergency operations of the conveyor, and who are knowledgeable about all safety devices, their locations and functions.

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.

Safety Instructions

- Turn off conveyor power sources and affix appropriate lock-out and tag-out devices 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.
- Observe all warning signs, lights, and alarms associated with the conveyor operation and maintenance, and be alert at all times to automatic operations of adjacent equipment.
- Exercise 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 sources and affixing appropriate lock-out and tag-out devices.

CAUTION: There is a risk of injury with live roller conveyors with trapped rollers. Turn off conveyor(s) before handling product or servicing. Limit access to maintenance personnel.

Factory Assistance

Contact Customer Service for installation, operation, or maintenance assistance, or replacement parts.

Preventive Maintenance

Table H-1: Scheduled Maintenance Summary

Interval	Components	Unusual Noises	Lubrication	Oil Level	Tension	Wear	Alignment	Fasteners	Set Screw	Proper Position	Physical Condition	Operation
Weekly (40 Hours)	Belt Return Sheaves										X	X
	Electrical Devices									X	X	X
	General Structure							X			X	
	Power Unit - Reducer			X								
	Safety Guards and Devices									X	X	X
	V-Belt				X	X	X			X	X	
Monthly (160 Hours)	Bearings - External							X	X		X	
	Drive Belts/Chains and Sprockets		X		X	X	X	X	X		X	
	Drive Motor							X			X	
	Gear Reducer							X			X	
	Supports and Hangers										X	
	Take-Up/Idler Sheaves						X				X	X
Semiannually (1040 Hours)	Bearings - External		X									
	Drive Motor		X									
	Gear- Reducer		X	X								

Scheduled Maintenance

All newly installed equipment should be frequently inspected and serviced as needed during the first 40 hours of operation. An application may subject the equipment to conditions that would necessitate more frequent maintenance. This may be determined by performing maintenance more frequently when the conveyor is first put into operation, and then lengthening the intervals based on experience.

Initial Start-Up and Run-In Period

Timing Belt

Timing belts must be properly tensioned. If the belt is too loose, it may slip when heavier loads are applied. If the belt is too tight, belt life will suffer, and bearings will be unnecessarily overloaded. Improper belt tension can also cause excessive drive noise.

Gear Reducers

Gear reducers are furnished with “lifetime” synthetic lubricants that do not need to be changed after the unit is put into service. Note that all reducers tend to run hot when first put into operation, and continue to run hot until the maximum break-in efficiency is achieved (approximately 120 hours).

Daily Inspections

General walk-through inspections of the conveyor equipment (listening for unusual noises and carefully observing the system) during daily plant operation is recommended. 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. Any unusual conveyor noise, oil leaks, and operational problems should be immediately reported and promptly corrected.

Weekly Inspections (Every 40 hours of operation)

Belting

Check that the V-belts are tracking properly along the entire conveyor length. Make appropriate adjustments of pressure sheaves, etc. If required, check that the belt tension is sufficient to prevent the belt from slipping on the drive sheave under the maximum required load. Remove any buildup of product slippage.

Check the drive belt and the power take-off (PTO) belts for signs of wear, and replace if necessary. Excessive wear along the edges of the belt indicates misalignment of the sheaves.

Belt Return Sheaves

Check that all sheaves are in place and tensioned properly against the V-belt. Remove any buildup of dirt and/or product spillage.

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, belts 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 leakage on the floor and/or in the drip pan. If leakage persists, or the amount of leakage is significant, repair or replace the unit. Closely monitor the unit's oil level until corrections are made.

Safety Guards and Devices

Check that the safety guards, warning signs, lights and alarms are securely in place and in proper working condition. Check that all emergency-stop pull cords, and/or push buttons are functioning properly.

Electrical Devices

Inspect photocells, proximity sensors, limit switches, etc., periodically, and adjust as needed. Wipe clean the lenses and reflectors on photoelectric devices weekly. For additional maintenance information, refer to the instructions provided by the manufacturer.

Monthly Inspections (Every 160 hours of operation)

Flange Bearings and Pillow Blocks

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 Roller 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. If identifying a noisy roller is difficult, apply sufficient gripping force to each suspect roller to stop it from turning.

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.

Drive 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. Refer to the motor lubrication plate or to the manufacturer's instruction tags.

Gear 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.

Drive Belt

Check the tension of the drive belt. Apply 3 1/2 pounds of force against the center of the longest span of the drive belt. Belt deflection should be 1/4 inch. If adjustment is necessary, loosen the drive-belt tensioner arm, rotate the arm as necessary, and retighten the arm. Remove any dirt or dried oil with a kerosene-soaked rag.

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.

Belt Tension Adjustment

See “Belt Tension Adjustment” in Section G.

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.

Maintenance Every Four Months

Flange Bearings and Pillow Blocks

Flange bearings and pillow blocks are lubricated for life and require relubrication only in certain applications. Normal greasing intervals for most flange bearing and pillow blocks is between two and six months, depending on the running speed and ambient conditions.

Selected Procedures

Take-Up Sheave Misalignment

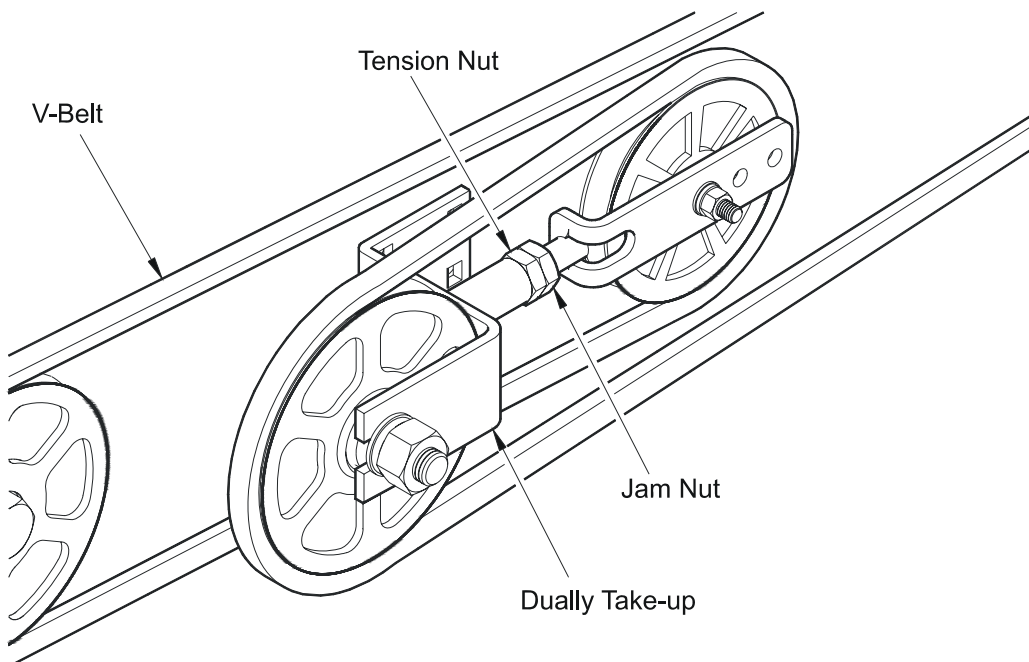
Excessive wear or braking of the V-belt may indicate that the take-up sheave is misaligned. One possible cause of misalignment is incorrect assembly of the take-up sheave washers.

The take-up sheave may be incorrectly assembled with the 3/4 inch split lock washer mounted outside the take-up assembly. Reposition the 3/4 inch split lock washer between the sheave spacer and the take-up plate.

Adjusting V-Belt Tension Dually Take-Up

If all or many of the rollers are not turning, V-belt tension needs adjusting, the adjustment starts with the dually take-up adjustment, and can be fine tuned with the end idler adjustment. Each unit is equipped with dually take-ups, one at each end of the belt to adjust the belt tension (see Figure H - 9). The belt tension can be adjusted at either or both ends of the V-belt. Locate the jam nut (outer nut) and loosen. Adjust the tension nut until there is about four-to-six inches of deflection in the longest section of the belt span when moderate hand pressure is applied.

The proper V-belt tension level will allow approximately four-to-six inches of deflection from moderate hand pressure applied against the longest belt span. V-belts longer than 305 inches will have deflection on the high side of the range.



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Figure H - 9 Dually Take-up

Adjusting End Take-up Sheave

Proper location of the end take-up sheave is essential for proper power transfer to all of the rollers located at the end of the spur section.

The sheave is properly adjusted when the V-belt is in contact with the idler rollers located at the end of the spur unit. It may not be possible to get the last few rollers in contact with the V-belt. This is normal. To adjust the take-up sheave, loosen both jam nuts on either side of the take-up bracket. Loosen the sheave mounting bracket bolts to allow the mounting bracket to move freely. Tighten the jam nuts as required to move the sheave mounting bracket in the desired direction.

The end idler sheave may be used to provide additional tension to the V-belt. The Dually take-up should be employed as the primary source of belt tensioning. The end idler sheave should only be used as a fine tuning adjustment for belt tension (see Figure H - 10).

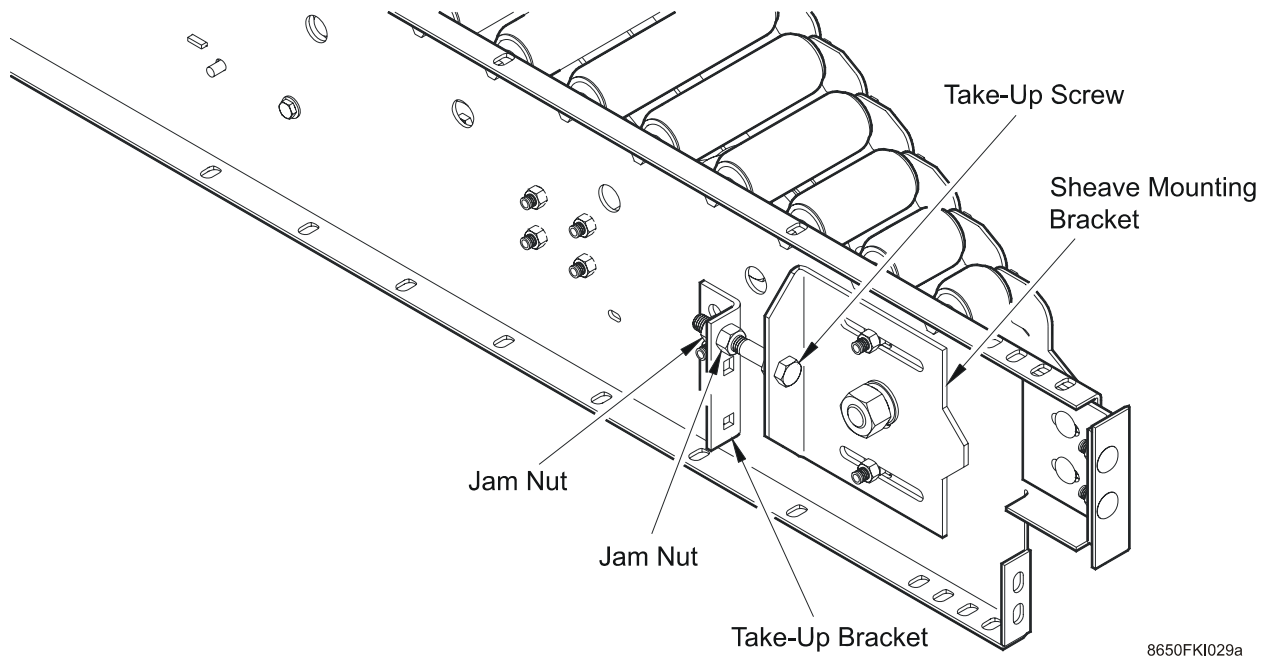


Figure H - 10 Adjusting End Take-up Sheave

Note: The take-up mounting plate is fastened to the side rail through slots. To adjust sheave location, use the take-up screw. Do not loosen the fasteners securing the mounting plate to the side rail.

Adjusting V-Belt Tension at Individual Rollers

A pressure sheave is located below and between every pair of rollers (see Figure H - 11). Pressure sheaves control the degree to which the V-belt comes into contact with the adjacent rollers. Each pressure sheave is mounted with a bolt that passes through an eccentric washer, which is set in the side rail of the conveyor. The bolt has flats that fit the hole in the washer, and one of the flats has a notch to indicate adjustment position (see Figure H - 12). Adjust the pressure sheave by loosening the nut, rotating the bolt to raise or lower the pressure sheave as necessary, and retightening the nut and bolt. Make certain that the belt just makes contact with the pressure sheave below and the rollers above.

CAUTION: Adjusting pressure sheaves requires handling parts while they are moving. Be extremely careful to avoid getting fingers, tools, or loose clothing caught between rollers or sheaves and the V-belt.

The following conditions indicate the need to adjust pressure sheaves:

- If an individual roller (or a pair of adjacent rollers) is not turning, the adjacent pressure sheave is positioned too low. Raise the pressure sheave until the roller or rollers do turn.
- The V-belt should be straight where it passes between the pressure sheaves and the rollers (see Figure H - 13). If the belt arches over a pressure sheave between a pair of rollers, the pressure sheave is positioned too high. Lower the pressure sheave.
- If a roller fails to stop turning when a slight gripping force is applied, the adjacent pressure sheave is positioned too high. Lower the pressure sheave as necessary.
- If fibers from the V-belt collect on the inside of the side rail, the adjacent pressure sheaves are positioned too high. Lower the pressure sheave.

After the position of a pressure sheave is properly adjusted, make certain that the nut and bolt are tight.

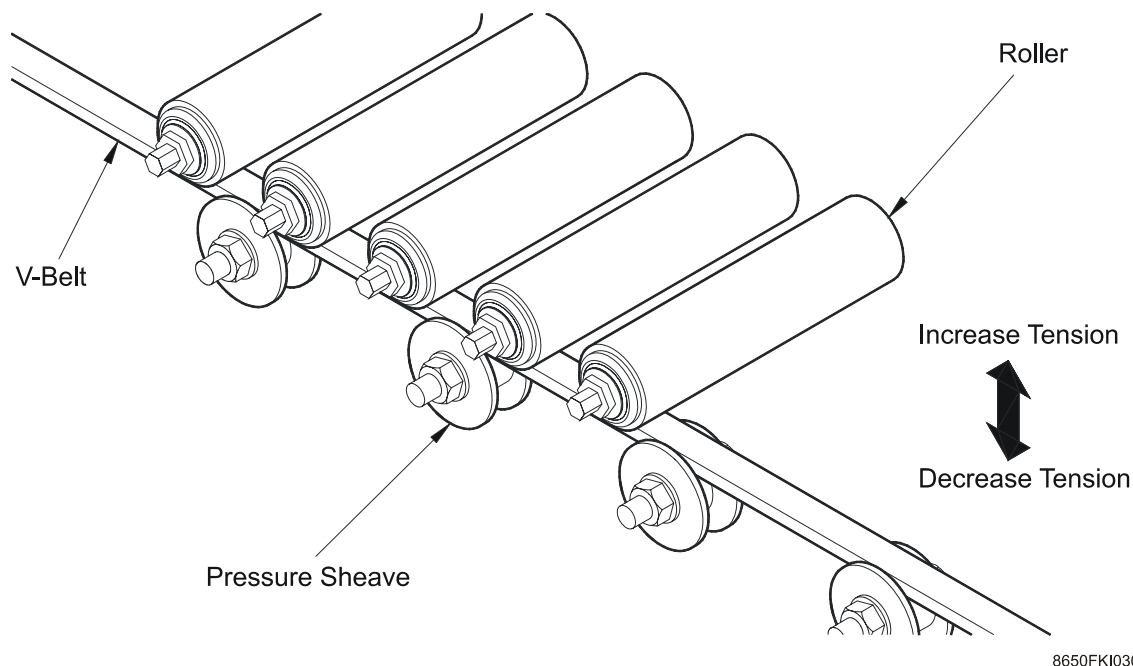


Figure H - 11 Adjusting Pressure Sheaves

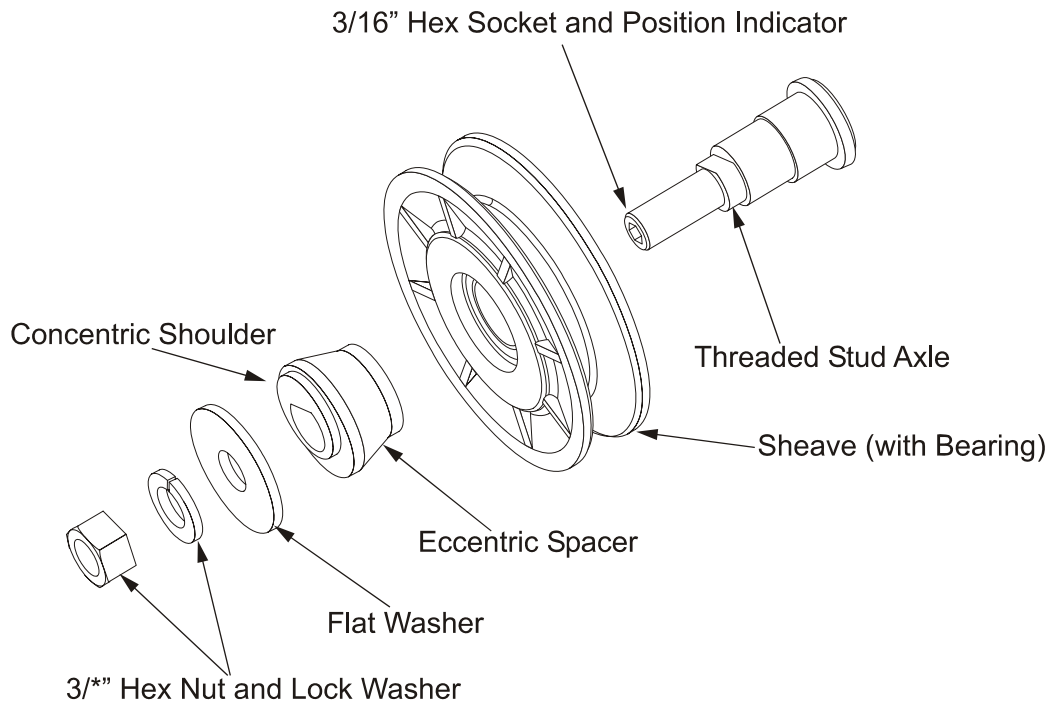
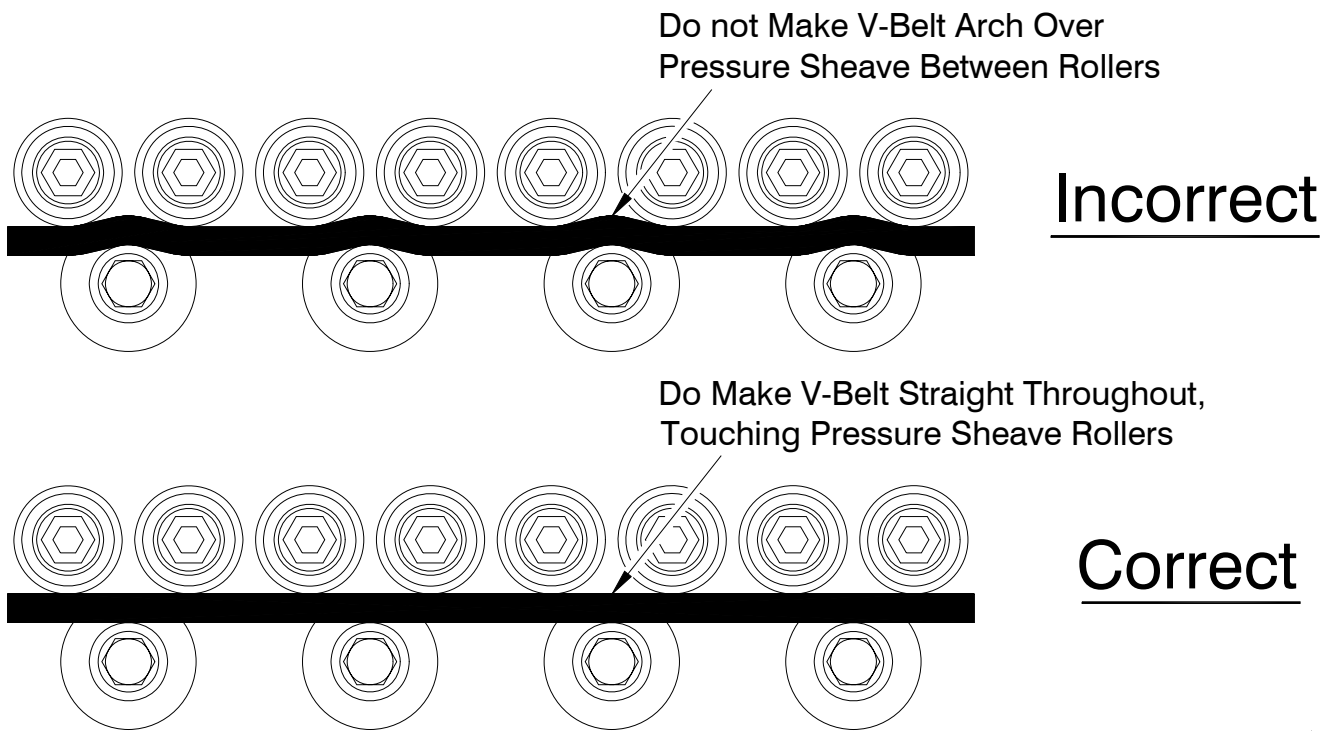


Figure H - 12 Pressure Sheave Assembly



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Figure H - 13 Pressure Sheaves - Proper Adjustment

Aligning Idler Sheaves

Alignment of the idler sheaves mounted to the conveyor side rail is crucial for proper operation of the conveyor.

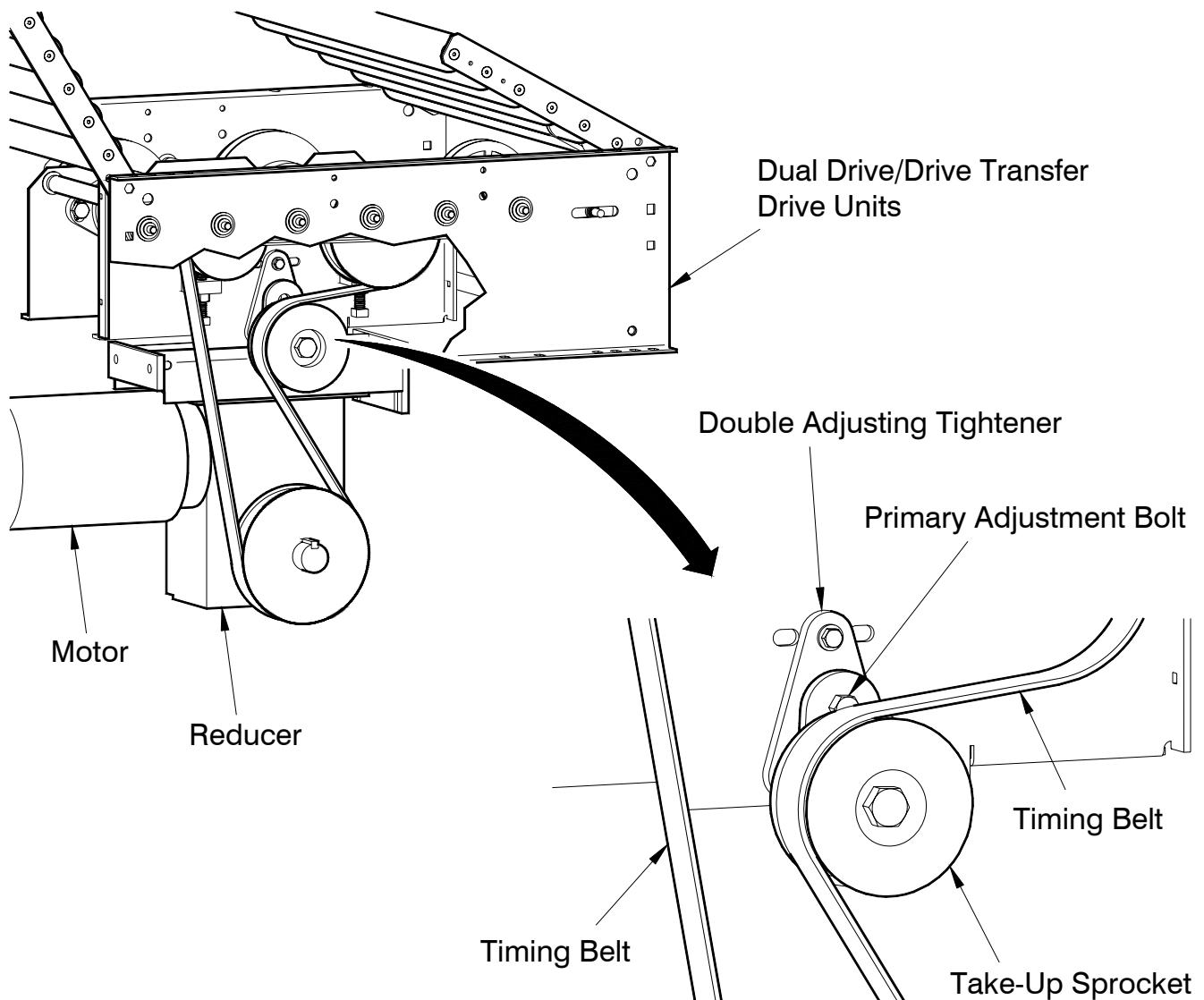
- All idler sheaves mounted to the conveyor side rail must be aligned with the center of the sheave 1 inch from the inside surface of the side rail.
- Snub idler sheaves must be aligned vertically so that the V-belt path between the top of the snub idler sheave and the backbend idler sheave is level.

Adjusting Drive Belt Tension

Check the tension of the drive belt by applying 3 1/2 pounds of force against the center of the longest span (see Figure H - 14, Figure H - 15, and Figure H - 16). Belt deflection should be 1/4 inch.

For primary adjustment on dual drive units, loosen the bolt securing the drive belt idler arm, and rotate the arm as necessary. When proper tension is achieved, tighten the bolt. Additional tension can be achieved by loosening the screws that hold the double adjusting tightener in place, and rotating the entire tensioner assembly.

For adjustment on single drive units, loosen the the jam nut holding the take-up jack bolt in position. Turn the take-up jack bolt until the desired tension is achieved. Tighten the jam nut to lock the take-up jack bolt into position.



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Figure H - 14 Adjusting Drive Belt Tension - Dual Drive/Drive Transfer

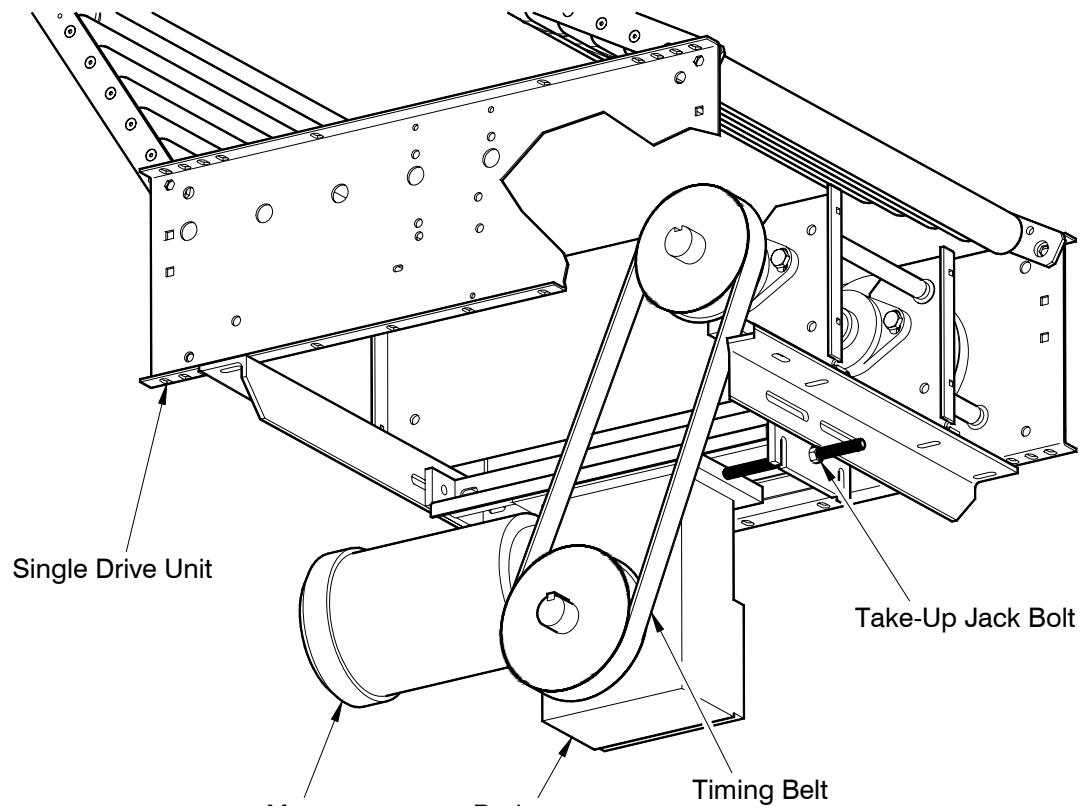


Figure H - 15 Adjusting Drive Belt Tension Single Drive

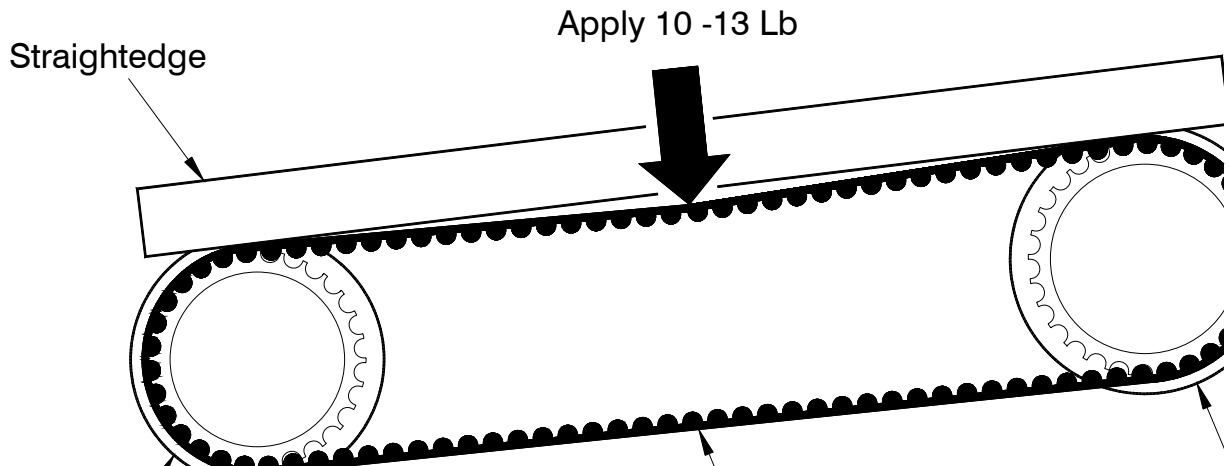


Figure H - 16 Check Drive Belt Tensions

Troubleshooting

Basic troubleshooting provisions are outlined in below. For troubleshooting the specific conveyor system installed, always check the maintenance information

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 equipment damage, lock-out and tag-out the conveyor operation control(s) before attempting to correct any malfunction.

Table H-2: Basic Troubleshooting Problems and Solutions

Problem	Cause	Solution
Conveyor does not start.	Electrical power shut off or control circuit not energized.	Check that the system control panels are energized.
	System control devices out of adjustment or defective.	Adjust or replace.
	Emergency stop devices activated.	Reset the emergency stop devices.
	Motor overload block open.	Check the conveyor drive system and overload sizing before resetting.
Conveyor shuts off.	Photo or other control device actuated or defective.	Conveyor accumulated or control device obstructed.
	Power or component failure at system control center.	Consult vendor manuals.
	Emergency stop actuated.	Correct condition and reset according to control logic.
	Motor overloaded.	Check for cause; also check motor and overload sizes.
Conveyor rollers not turning.	Roller obstruction.	Remove obstruction and inspect roller for damage.
	Pressure sheaves not adjusted.	Adjust.
Gear reducer unusually noisy	Mounting bolts loose.	Retighten mounting bolts.
	Unit misaligned or defective.	Realign or replace.
Motor runs hot or overheats.	Overload.	Check for binding or jams.
	High or lower power voltage.	Check motor nameplate for proper voltage and test line voltage.

Problem	Cause	Solution
Excessive wear or breaking of V-belt.	Shock loads or heavy starting loads.	Correct V-belt tension and verify drive components are working properly.
	Frozen sheave or obstruction.	Replace or remove.
	V-belt slips.	Adjust take-up to increase belt tension.
	Sheave out of alignment	Realign.
Package hesitates or stops.	Insufficient drive on rollers.	Adjust pressure sheaves.
	V-belt slipping on drive sheaves.	Adjust take-up to increase belt tension.

SECTION I: PARTS IDENTIFICATION

General Information

The purpose of this section is to identify the critical replacement parts required for a solid preventive maintenance program and to minimize the chances for extended down time.

The following pages illustrate the location of these recommended spare parts as they apply to each particular unit. Keep in mind that these illustrations only apply to the standard product line.

Note: “O” rings are used on the last three rollers on each end of all curves and spurs. The “O” rings are listed in the spare parts list and are not shown on each drawing.

Styles	Description
14P	Straight 30° Junction, Infeed Single Drive
15P	Combination 30° Junction/15° Curve, Infeed Single Drive
16P	Parallel 30° Junction/30° Curve, Dual Drive Transfer
18P	Straight 45° Junction, Infeed Single Drive
23	Straight 20° Junction, Discharge Single Drive
24	Combination 20° Junction/70° Curve, Dual Drive
25	Parallel 20° Junction/20° Curve, Dual Drive Transfer
26	70° Curve, Infeed Single Drive

Key No.	Speed	Description	Part Number
100	373	Drive Sprocket - P40-8M-30-2012	740418
	447	Drive Sprocket - P40-8M-30-2012	740418
	474	Drive Sprocket - P44-8M-30-2012	740419
	522	Drive Sprocket - P40-8M-30-2012	740418
	596	Drive Sprocket - P40-8M-30-2012	740418
	393	Drive Sprocket - P36-8M-30-1610	740416
	414	Drive Sprocket - P36-8M-30-1610	740416
	455	Drive Sprocket - P36-8M-30-1610	740416
	549	Drive Sprocket - P38-8M-30-1610	740417
	580	Drive Sprocket - P36-8M-30-1610	740416
101	373	Reducer Driven Sprocket - P40-8M-30-2012	740418
	447	Reducer Driven Sprocket - P48-8M-30-2012	740421
	474	Reducer Driven Sprocket - P56-8M-30-2012	740423
	522	Reducer Driven Sprocket - P56-8M-30-2012	740423
	596	Reducer Driven Sprocket - P64-8M-30-2517	740426
	393	Reducer Driven Sprocket - P38-8M-30-1610	740417
	414	Reducer Driven Sprocket - P40-8M-30-2012	740418
	455	Reducer Driven Sprocket - P44-8M-30-2012	740419
	549	Reducer Driven Sprocket - P56-8M-30-2012	740423
	580	Reducer Driven Sprocket - P56-8M-30-2012	740423
102	373	Timing Belt Length - 1200-8M-30	190305
	447	Timing Belt Length - 1280-8M-30	190302
	474	Timing Belt Length - 1280-8M-30	190302
	522	Timing Belt Length - 1280-8M-30	190302
	596	Timing Belt Length - 1280-8M-30	190302
	393	Timing Belt Length - 1200-8M-30	190309
	414	Timing Belt Length - 1200-8M-30	190309
	455	Timing Belt Length - 1280-8M-30	190302
	549	Timing Belt Length - 1280-8M-30	190302
	580	Timing Belt Length - 1280-8M-30	190302

Key No.	Description	Part Number
103	V/B Flat SHV Assy.	540782
104	V/B IDL SHV	540086
105	HVR Shaft	699556
106	Flange Bearing	400987
107	V/B Sheave Assy	540784
108	Sheave	540211
109	Bushing	239510
110	O-Ring 3/16 x 8 3/4" 83A	000042
111*	RLR G196 A1 N 03 21.50 NC G1 (for 22" Conveyor Width)	7498370
	RLR G196 A1 N 13 27.50 NC G1 (for 28" Conveyor Width)	7498364
	RLR G196 A1 N 13 33.50 NC G1 (for 34" Conveyor Width)	7498367
112*	RLR G196 A1 N 03 21.50 NC (for 22" Conveyor Width)	7498369
	RLR G196 A1 N 03 27.50 NC (for 28" Conveyor Width)	7498363
	RLR G196 A1 N 03 33.50 NC (for 34" Conveyor Width)	7489366
113*	AXLE HX 7/16 21.5 TAP 1/4-20 (for 22" Conveyor Width)	691120
	AXLE HX 7/16 27.5 TAP 1/4-20 (for 28" Conveyor Width)	691116
	AXLE HX 7/16 33.5 TAP 1/4-20 (for 34" Conveyor Width)	691117

*Roller Description Explanation

(Example) RLR G196 GH P 01 21.50 NC G2

RLR = Roller
 G = (Roller Tube Material/Finish) Galvanized Steel
 196 = (Roller Tube) 1.90" dia x 16 gage (.065" wall)
 A1 = (Bearing Type) ABEC Precision Bearing
 N = NO Axle
 P = Plain Steel Axle
 13 = NO Axle, Roller w/2 Grooves
 03 = NO Axle, Roller w/o Grooves
 21.50 = Conveyor Width "W"
 NC = No Cover
 G2 = Two (2) Grooves (A=3", B=2")

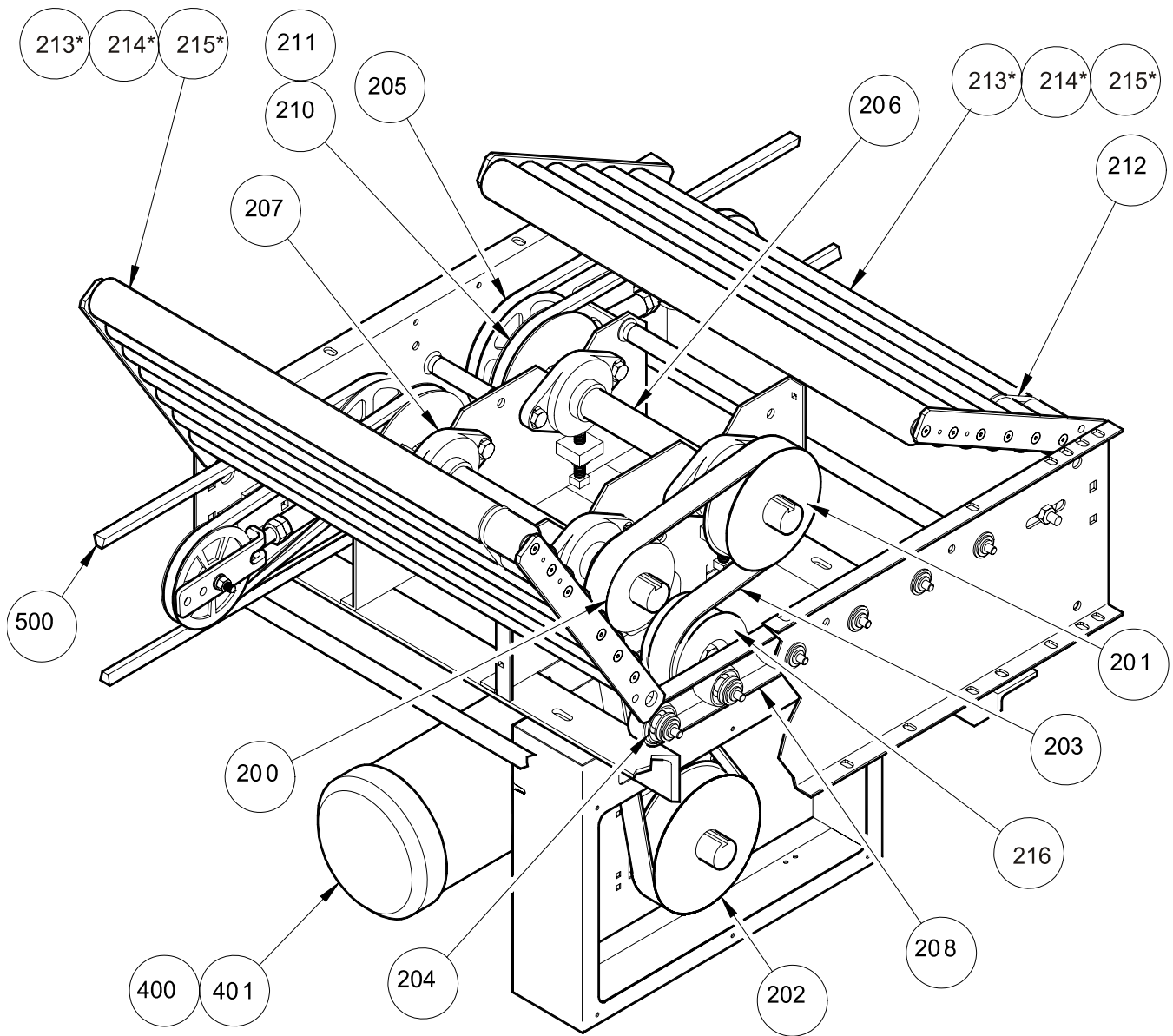


Figure I - 11 Dual Drive

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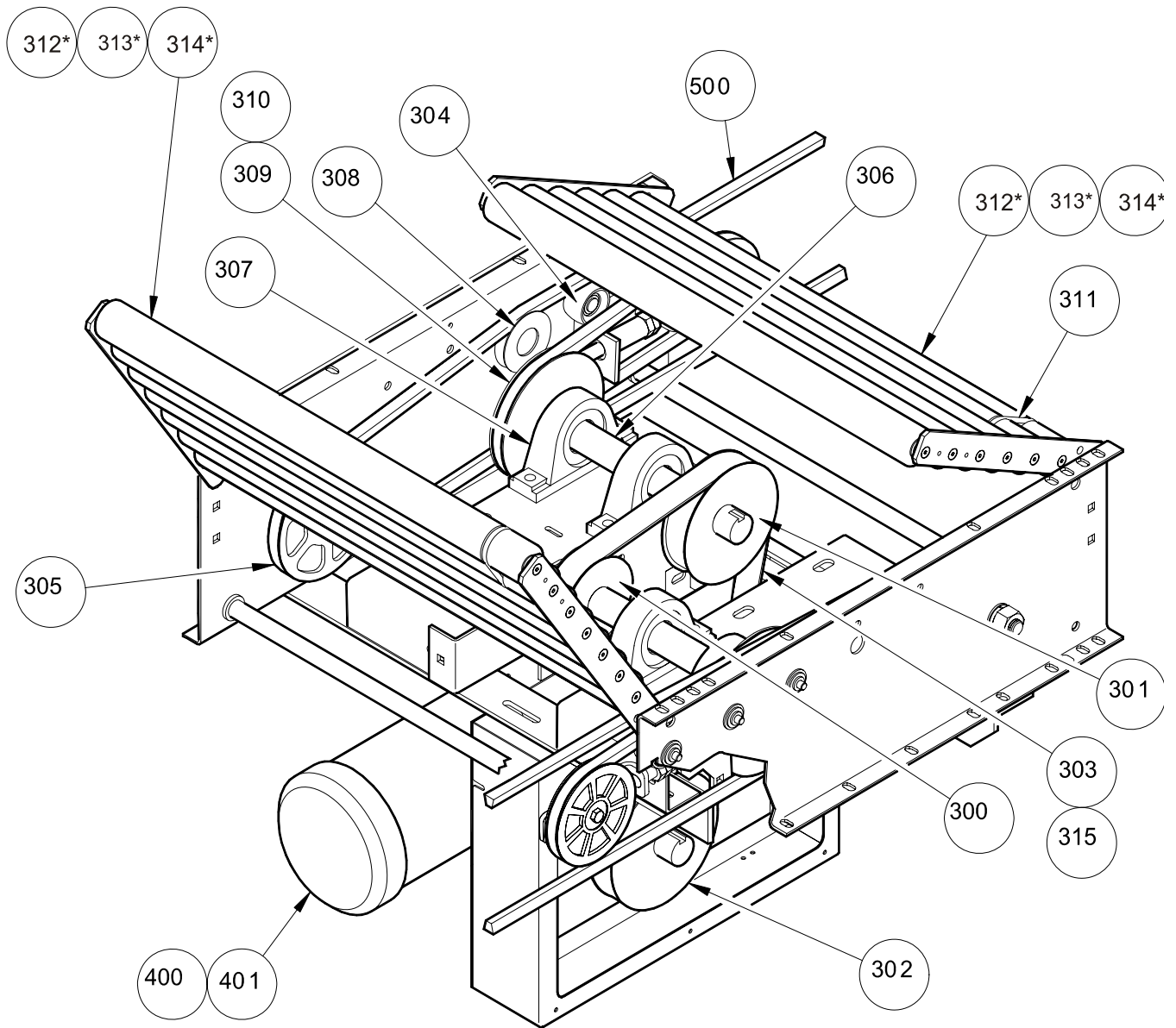
Key No.	Speed JCT	Speed CRV	Description	Part Number
200	373	266	Junction Drive Sprocket - P40-8M-30-2012	740418
	447	320	Junction Drive Sprocket - P40-8M-30-2012	
	474	373	Junction Drive Sprocket - P44-8M-30-2012	
	522	373	Junction Drive Sprocket - P40-8M-30-2012	
	596	426	Junction Drive Sprocket - P40-8M-30-2012	
	393	253	Junction Drive Sprocket - P36-8M-30-1610	
	414	266	Junction Drive Sprocket - P36-8M-30-1610	
	455	293	Junction Drive Sprocket - P36-8M-30-1610	
	549	373	Junction Drive Sprocket - P38-8M-30-1610	
	580	373	Junction Drive Sprocket - P36-8M-30-1610	
201	373	266	Curve Drive Sprocket - P56-8M-30-2012	740423
	447	320	Curve Drive Sprocket - P56-8M-30-2012	
	474	373	Curve Drive Sprocket - P56-8M-30-2012	
	522	373	Curve Drive Sprocket - P56-8M-30-2012	
	596	426	Curve Drive Sprocket - P56-8M-30-2012	
	393	253	Curve Drive Sprocket - P56-8M-30-2012	
	414	266	Curve Drive Sprocket - P56-8M-30-2012	
	455	293	Curve Drive Sprocket - P56-8M-30-2012	
	549	373	Curve Drive Sprocket - P56-8M-30-2012	
	580	373	Curve Drive Sprocket - P56-8M-30-2012	
202	373	266	Reducer Driven Sprocket - P40-8M-30-2012	740418
	447	320	Reducer Driven Sprocket - P48-8M-30-2012	740421
	474	373	Reducer Driven Sprocket - P56-8M-30-2012	740423
	522	373	Reducer Driven Sprocket - P56-8M-30-2012	740423
	596	426	Reducer Driven Sprocket - P64-8M-30-2517	740426
	393	253	Reducer Driven Sprocket - P38-8M-30-1610	740417
	414	266	Reducer Driven Sprocket - P40-8M-30-2012	740418
	455	293	Reducer Driven Sprocket - P44-8M-30-2012	740419
	549	373	Reducer Driven Sprocket - P56-8M-30-2012	740423
	580	373	Reducer Driven Sprocket - P56-8M-30-2012	740423
203	373	266	Timing Belt/ 200 Reducer - 1440-8M-30	190303
	447	320	Timing Belt/ 200 Reducer - 1440-8M-30	
	474	373	Timing Belt/ 200 Reducer - 1440-8M-30	
	522	373	Timing Belt/ 200 Reducer - 1440-8M-30	
	596	426	Timing Belt/ 200 Reducer - 1440-8M-30	
	393	253	Timing Belt/ 200 Reducer - 1440-8M-30	
	414	266	Timing Belt/ 200 Reducer - 1440-8M-30	
	455	293	Timing Belt/ 200 Reducer - 1400-8M-30	
	549	373	Timing Belt/ 200 Reducer - 1440-8M-30	
	580	373	Timing Belt/ 200 Reducer - 1440-8M-30	

Key No.	Description	Part Number
204	V/B Flat SHV Assy.	540782
205	V/B IDL SHV	540086
206	HVR Shaft	699556
207	Flange Bearing	400987
208	Flat Belt	190062
210	Sheave	540211
211	Bushing	239510
212	O-Ring 3/16 x 8 3/4" 83A	000042
213*	RLR G196 A1 N 13 21.50 NC G2 (for 22" Conveyor Width)	7498370
	RLR G196 A1 N 13 27.50 NC G2 (for 28" Conveyor Width)	7498364
	RLR G196 A1 N 13 33.50 NC G2 (For 34" Conveyor Width)	7498367
214*	RLR G196 A1 N 03 21.50 NC (for 22" Conveyor Width)	7498369
	RLR G196 A1 N 03 27.50 NC (for 28" Conveyor Width)	7498363
	RLR G196 A1 N 03 33.50 NC (for 34" Conveyor Width)	7489366
215*	AXLE HX 7/16 21.5 TAP 1/4-20 (for 22" Conveyor Width)	691120
	AXLE HX 7/16 27.5 TAP 1/4-20 (for 28" Conveyor Width)	691116
	AXLE HX 7/16 33.5 TAP 1/4-20 (for 34" Conveyor Width)	691117
216	Tensioner	7014057

*Roller Description Explanation

(Example) RLR G196 GH P 01 21.50 NC G2

G2 = Two (2) Grooves (A=3", B=2")
 NC = No Cover
 21.50 = Conveyor Width "W"
 03 = NO Axle, Roller w/o Grooves
 13 = NO Axle, Roller w/2 Grooves
 P = Plain Steel Axle
 N = NO Axle
 A1 = (Bearing Type) ABEC Precision Bearing
 196 = (Roller Tube) 1.90" dia x 16 gage (.065" wall)
 G = (Roller Tube Material/Finish) Galvanized Steel
 RLR = Roller



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Figure I - 12 Dual Transfer

Key No.	Speed JCT	Speed CRV	Description	Part Number
300	373	266	Junction Drive Sprocket - P40-8M-50-2012	740433
	447	320	Junction Drive Sprocket - P40-8M-50-2012	740433
	474	373	Junction Drive Sprocket - P44-8M-50-2012	740434
	522	373	Junction Drive Sprocket - P40-8M-50-2012	740433
	596	426	Junction Drive Sprocket - P40-8M-50-2012	740433
	393	253	Junction Drive Sprocket - P36-8M-50-1610	740431
	414	266	Junction Drive Sprocket - P36-8M-50-1610	740431
	455	293	Junction Drive Sprocket - P36-8M-50-1610	740431
	549	373	Junction Drive Sprocket - P38-8M-50-1610	740432
	580	373	Junction Drive Sprocket - P36-8M-50-1610	740431
301	373	266	Curve Drive Sprocket - P56-8M-50-2517	740436
	447	320	Curve Drive Sprocket - P56-8M-50-2517	
	474	373	Curve Drive Sprocket - P56-8M-50-2517	
	522	373	Curve Drive Sprocket - P56-8M-50-2517	
	596	426	Curve Drive Sprocket - P56-8M-50-2517	
	393	253	Curve Drive Sprocket - P56-8M-50-2517	
	414	266	Curve Drive Sprocket - P56-8M-50-2517	
	455	293	Curve Drive Sprocket - P56-8M-50-2517	
	549	373	Curve Drive Sprocket - P56-8M-50-2517	
	580	373	Curve Drive Sprocket - P56-8M-50-2517	
302	373	266	Reducer Driven Sprocket - P40-8M-50-2012	740433
	447	320	Reducer Driven Sprocket - P48-8M-50-2012	740435
	474	373	Reducer Driven Sprocket - P56-8M-50-2517	740436
	522	373	Reducer Driven Sprocket - P56-8M-50-2517	740437
	596	426	Reducer Driven Sprocket - P64-8M-50-2517	
	393	253	Reducer Driven Sprocket - P38-8M-50-1610	740432
	414	266	Reducer Driven Sprocket - P40-8M-50-2012	740433
	455	293	Reducer Driven Sprocket - P44-8M-50-2012	740434
	549	373	Reducer Driven Sprocket - P56-8M-50-2517	740436
	580	373	Reducer Driven Sprocket - P56-8M-50-2012	
303	373	266	Timing Belt/200 Reducer - 1600-8M-50	190310
	447	320	Timing Belt/200 Reducer - 1600-8M-50	
	474	373	Timing Belt/200 Reducer - 1600-8M-50	
	522	373	Timing Belt/200 Reducer - 1600-8M-50	
	596	426	Timing Belt/200 Reducer - 1600-8M-50	
	393	253	Timing Belt/200 Reducer - 1600-8M-50	
	414	266	Timing Belt/200 Reducer - 1600-8M-50	
	455	293	Timing Belt/200 Reducer - 1600-8M-50	
	549	373	Timing Belt/200 Reducer - 1600-8M-50	
	580	373	Timing Belt/200 Reducer - 1600-8M-50	

Key No.	Description	Part Number
304	V/B Flat SHV Assy	540782
305	V/B IDLR SHV	540086
306	Shaft - W22	699575
	Shaft - W28	69957
	Shaft - W35	699558
307	Bearing Pillow Block	400360
308	V/B Sheave Assy	540784
309	Sheave	540211
310	Bushing	239510
311	O-Ring 3/16" x 8-3/4" 83A	000042
312*	RLR G196 A1 N 13 21.50 NC G2 (for 22" Conveyor Width)	7498370
	RLR G196 A1 N 13 27.50 NC G2 (for 28" Conveyor Width)	7498364
	RLR G106 A1 N 13 33.50 NC G2 (for 34" Conveyor Width)	7498367
313*	RLR G196 A1 N 03 21.50 NC (for 22" Conveyor Width)	7498369
	RLR G196 A1 N 03 27.50 NC (for 28" Conveyor Width)	7498363
	RLR G196 A1 N 03 33.50 NC (for 34" Conveyor Width)	7489366
314*	AXLE HX 7/16 21.5 TAP 1/4-20 (for 22" Conveyor Width)	691120
	AXLE HX 7/16 27.5 TAP 1/4-20 (for 28" Conveyor Width)	691116
	AXLE HX 7/16 33.5 TAP 1/4-20 (for 34" Conveyor Width)	691117
315	Tensioner	7014057

*Roller Description Explanation

(Example) RLR G196 GH P 01 21.50 NC G2

G2 = Two (2) Grooves (A=3", B=2")
 NC = No Cover
 21.50 = Conveyor Width "W"
 03 = NO Axle, Roller w/o Grooves
 13 = NO Axle, Roller w/2 Grooves
 P = Plain Steel Axle
 N = NO Axle
 A1 = (Bearing Type) ABEC Precision Bearing
 196 = (Roller Tube) 1.90" dia x 16 gage (.065" wall)
 G = (Roller Tube Material/Finish) Galvanized Steel
 RLR = Roller

 Common Spare Parts for all Styles

Key No.	Description	Part Number
Motors		
400	Reliance - Standard - MRRC - .5 - 56C 460-60-3	330601
	Reliance - Standard - MRRC - 1.5 - 145TC 460-60-3	330607
	Reliance - Standard - MRRC - .75 - 56C 460-60-3	330774
	Reliance - Standard - MRRC - 1 - 56C 460-3-60	330775
	Reliance - Standard - MRRC - 2 - 145TC 460-60-3	330613
	Reliance - Standard - MRRC - 3 - 182TC 460-60-3	330617
	Reliance - E-Master - MRRC - .5 - 56C 460-60-3	331255
	Reliance - E-Master - MRRC - .75 - 56C 460-60-3	331256
	Reliance - E-Master - MRRC - 1 - 56C 460-60-3	331257
	Reliance - E-Master - MRRC - 1.5 - 145TC 460-60-3	331258
	Reliance - E-Master - MRRC - 2 - 145TC 460-60-3	331259
	Reliance - E-Master - MRRC - 3 - 182TC 460-60-3	331260
	Reliance - Premium - MRRC - .5 - 56C460-60-3	331264
	Reliance - Premium - MRRC - .75 - 56C 460-60-3	331265
	Reliance - Premium - MRRC - 1 - 56C 460-60-3	331266
	Reliance - Premium - MRRC - 1.5 - 145TC 460-60-3	331267
	Reliance - Premium - MRRC - 2 - 145TC 460-60-3	331268
	Reliance - Premium - MRRC - 3 - 182TC 460-60-3	331269
	Reliance - E-Master - MRRC - .5 - 56C 575-60-3	331273
	Reliance - E-Master - MRRC - .75 - 56C 575-60-3	331274
	Reliance - E-Master - MRRC - 1 - 56C 575-60-3	331275
	Reliance - E-Master - MRRC - 1.5 - 145TC 575-60-3	331276
	Reliance - E-Master - MRRC - 2 - 145TC 575-60-3	331277
	Reliance - E-Master - MRRC - 3 - 182TC 575-60-3	331278
	Reliance - Premium - MRRC - .5 - 56C 575-60-3	331282
	Reliance - Premium - MRRC - .75 - 56C 575-60-3	331283
	Reliance - Premium - MRRC - 1 - 56C 575-60-3	331284
	Reliance - Premium - MRRC - 1.5 - 145TC 575-60-3	331285
	Reliance - Premium - MRRC - 2 - 145TC 575-60-3	331286
	Reliance - Premium - MRRC - 3 - 182TC 575-60-3	331287
	Baldor - Standard - MRBC - .5 - 56C 460-60-3	331331
	Baldor - Standard - MRBC - .75 - 56C 460-60-3	331332
Baldor - Standard - MRBC - 1 - 56C 460-60-3	331333	

Key No.	Description	Part Number
	Baldor - Standard - MRBC - 1.5 - 145TC 460-60-3	331334
400	Baldor - Standard - MRBC - 2 - 145TC 460-60-3	331335
	Baldor - Standard - MRBC - 3 - 182TC 460-60-3	331336
	Baldor - Premium - MRBC - .5 - 56C 460-60-3	331340
	Baldor - Premium - MRBC - .75 - 56C 460-60-3	331341
	Baldor - Premium - MRBC - 1 - 56C 460-60-3	331342
	Baldor - Premium - MRBC - 1.5 - 145TC 460-60-3	331343
	Baldor - Premium - MRBC - 2 - 145TC 460-60-3	331344
	Baldor - Premium - MRBC - 3 - 182TC 460-60-3	331345
	Baldor - Premium - MRBC - .5 - 56C 575-60-3	331349
	Baldor - Premium - MRBC - .75 - 56C 575-60-3	331350
	Baldor - Premium - MRBC - 1 - 56C 575-60-3	331351
	Baldor - Premium - MRBC - 1.5 - 145TC 575-60-3	331352
	Baldor - Premium - MRBC - 2 - 145TC 575-60-3	331353
	Baldor - Premium - MRBC - 3 - 182TC 575-60-3	331354
Gear Reducers		
401	Reducer Reliance 200ES 7.5:1 140TC L1	812255
	Reducer Reliance 200ES 7.5:1 140TC K1	812256
	Reducer Reliance 262 7.5:1 180TC K1	812355
	Reducer Reliance 262 7.5:1 180TC L1	812356
	Reducer Reliance 200ES 7.5:1 56C K1	2003633
	Reducer Reliance 200ES 7.5:1 56C L1	2004633
	Reducer Reliance 262 7.5:1 140TC K1	2003737
	Reducer Reliance 262 7.5:1 140TC L1	2004737

V-Belts for all Styles

Note: See available extension lengths in the back of Section J.

Key No.	Description	Part Number
500	V-Belt BP-173 - 174.8" PD	2403173
	V-Belt BP-180 - 181.8" PD	2403174
	V-Belt BP-190 - 191.8" PD	2403190
	V-Belt BP-195 - 196.8" PD	2403195
	V-Belt BP-205 - 206.9" PD	2403205
	V-Belt BP-210 - 211.8" PD	2403210
	V-Belt BP-225 - 225.3" PD	2412225
	V-Belt BP-240 - 240.3" PD	2412240
	V-Belt BP-255 - 255.3" PD	2412248
	V-Belt BP-270 - 270.3" PD	2403270
	V-Belt BP-285 - 285.3" PD	2403275
	V-Belt BP-300 - 300.3" PD	2412249
	V-Belt BP-315 - 315.3" PD	2402315
	V-Belt BP-330 - 330.8" PD	2403330
	V-Belt BP-345 - 345.8" PD	2403345
	V-Belt BP-360 - 360.3" PD	2403360
	V-Belt BP-375 - 375" PD	2403375
	V-Belt BP-390 - 390" PD	2403390
	V-Belt BP-405 - 405" PD	2403405
	V-Belt BP-420 - 420" PD	2403420
	V-Belt BP-430 - 430" PD	2403430
	V-Belt BP-445 - 445" PD	2403445
	V-Belt BP-460 - 460" PD	2403460
V-Belt BP-470 - 470" PD	2403470	
V-Belt BP-480 - 480" PD	2403480	
V-Belt BP-490 - 490" PD	2403490	
V-Belt BP-500 - 500" PD	2403500	

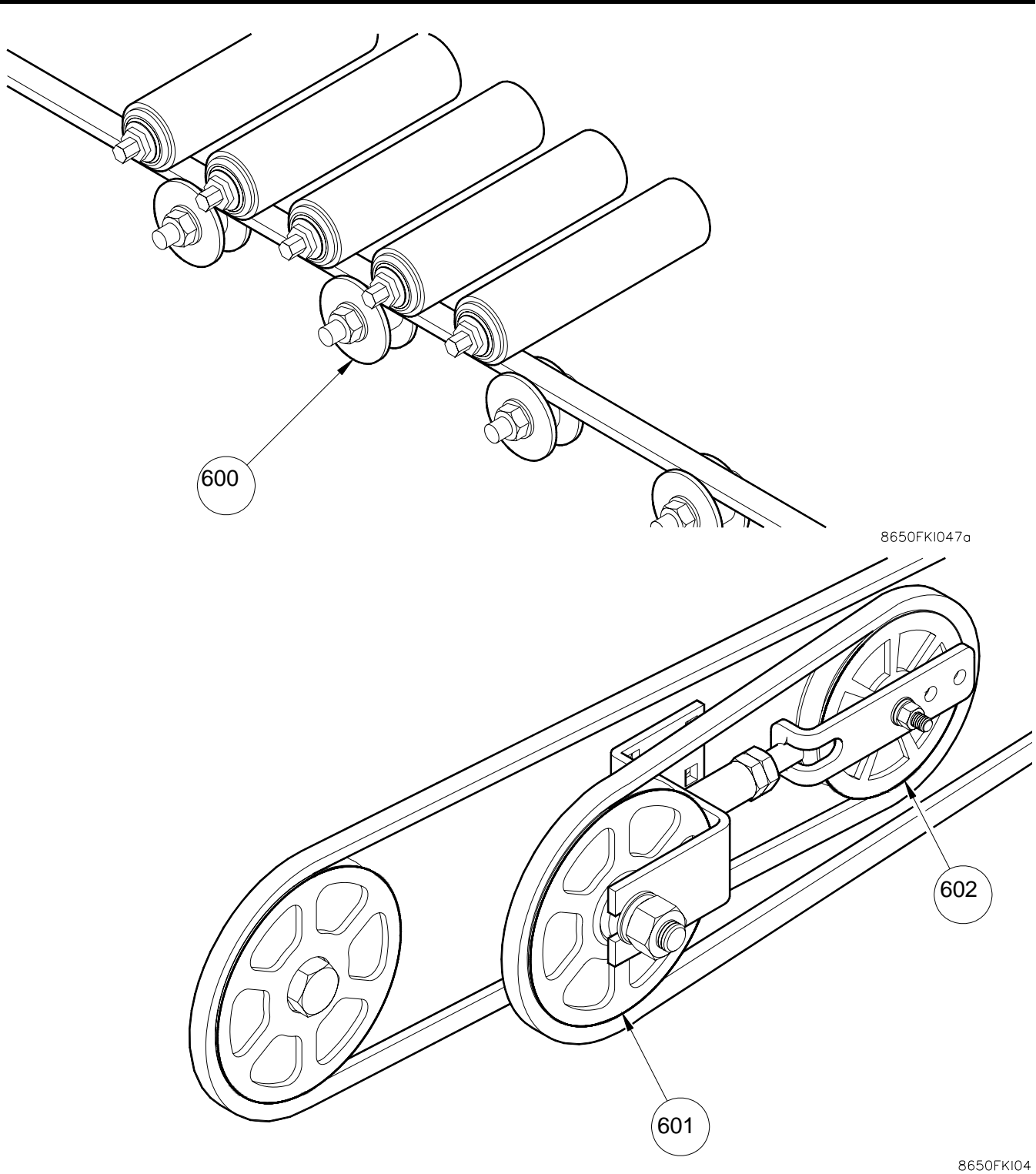
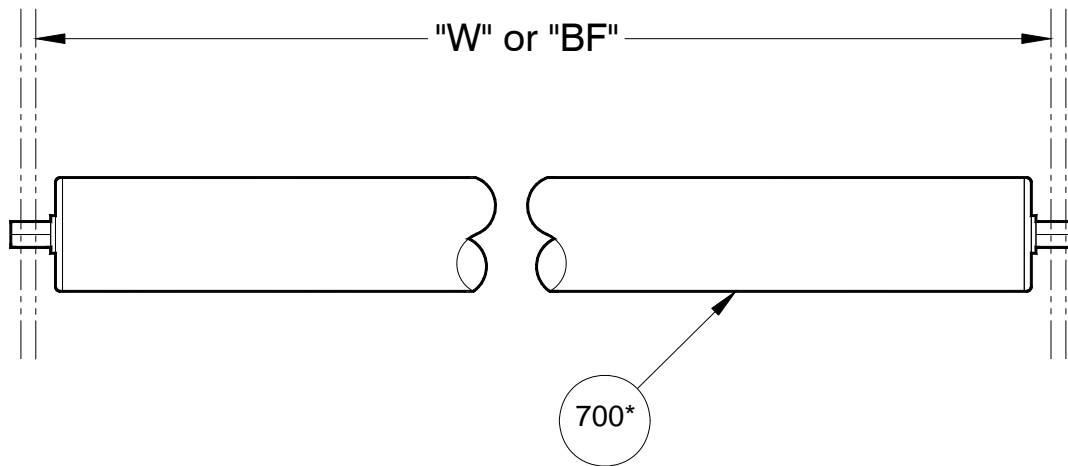


Figure I - 13 Pressure Sheave and Dually Take-Up

Common Parts for Pressure Sheaves and Dually Take-Up

Key No.	Description	Part Number
600	V-Belt Sheave Assembly	568697
601	V-Belt Sheave	230905
602	V-Belt Sheave	540733



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Figure I - 14 Common Rollers for all Styles

Note: Measure the between frame distance commonly designated “W” and refer to the common roller spare parts list to determine the length of the roller in need of replacement. Rollers designated NO AX are rollers without axles.

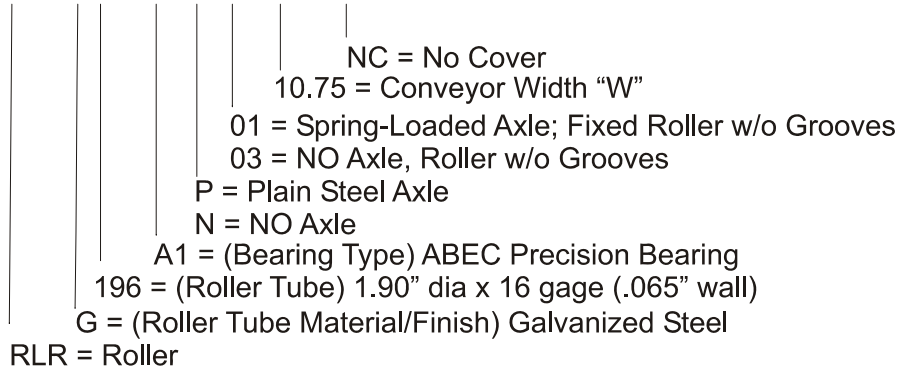
Common Rollers for all Styles

Key No.	Description	Part Number
700*	RLR G196 A1 N 03 03.13 NC (Includes Axle w/Hog Rings)	7498335
	RLR G196 A1 N 03 03.88 NC (Includes Axle w/Hog Rings)	7506928
	RLR G196 A1 N 03 04.56 NC (Includes Axle w/Hog Rings)	7498344
	RLR G196 A1 N 03 04.75 NC (Includes Axle w/Hog Rings)	7514865
	RLR G196 A1 N 03 05.00 NC (Includes Axle w/Hog Rings)	7507143
	RLR G196 A1 N 03 05.31 NC (Includes Axle w/Hog Rings)	7498345
	RLR G196 A 1 N 03 05.63 NC (Includes Axle w/Hog Rings)	7506929
	RLR G196 A1 P 01 06.00 NC	7504806
	RLR G196 A1 P 01 06.75 NC	7504784
	RLR G196 A1 P 01 07.31 NC	7506930
	RLR G196 A1 P 01 07.50 NC	7504809
	RLR G196 A1 P 01 08.94 NC	7498346
	RLR G196 A1 P 01 09.06 NC	7502100
	RLR G196 A1 P 01 09.63 NC	7498348
	RLR G196 A1 P 01 10.38 NC	7504889
RLR G196 A1 P 01 10.50 NC	7504787	
	RLR G196 A1 P 01 10.75 NC	7506969

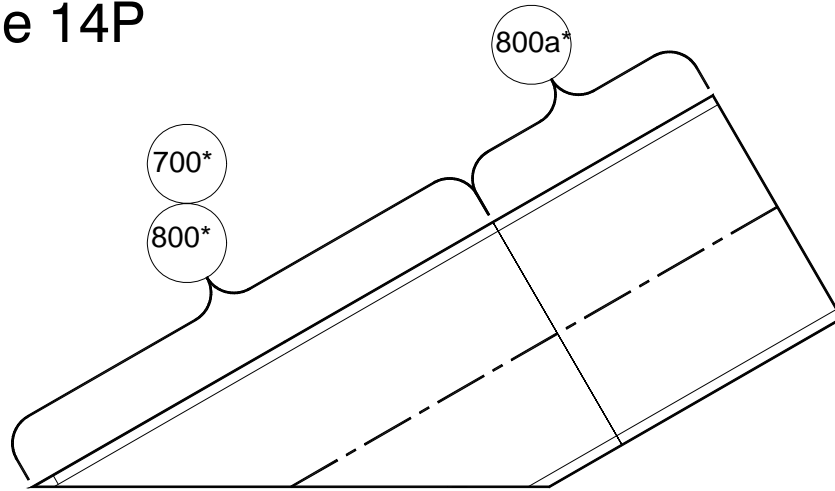
Key No.	Description	Part Number
700*	RLR G196 A1 P 01 11.13 NC	7498303
	RLR G196 A1 P 01 11.88 NC	7498305
	RLR G196 A1 P 01 12.50 NC	7506970
	RLR G196 A1 P 01 12.56 NC	7498307
	RLR G196 A1 P 01 13.31 NC	7042395
	RLR G196 A1 P 01 14.00 NC	7504819
	RLR G196 A1 P 01 14.25 NC	7042276
	RLR G196 A1 P 01 14.50 NC	7504820
	RLR G196 A1 P 01 14.75 NC	7502206
	RLR G196 A1 P 01 15.13 NC	7504823
	RLR G196 A1 P 01 15.50 NC	7504905
	RLR G196 A1 P 01 16.19 NC	7498311
	RLR G196 A1 P 01 16.50 NC	7504791
	RLR G196 A1 P 01 16.94 NC	7498312
	RLR G196 A1 P 01 17.44 NC	7504792
	RLR G196 A1 P 01 17.69 NC	7498313
	RLR G196 A1 P 01 18.38 NC	7498314
	RLR G196 A1 P 01 19.13 NC	7498316
	RLR G196 A1 P 01 19.44 NC	7502102
	RLR G196 A1 P 01 19.75 NC	7504896
	RLR G196 A1 P 01 19.88 NC	7491748
	RLR G196 A1 P 01 20.50 NC	7504828
	RLR G196 A1 P 01 20.56 NC	7498318
	RLR G196 A1 P 01 20.94 NC	7504794
RLR G196 A1 P 01 21.19 NC	7502103	
RLR G196 A1 P 01 21.31 NC	7498319	

*Roller Description Explanation

(Example) RLR G196 A1 P 01 10.75 NC



Style 14P



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Figure I - 15 Style 14P - Straight 30° Junction, Infeed Single Drive

Width Related Spare Parts for Style 14P Straight 30° Junction - Infeed Single Drive

Key No.	Description	2" Roller Centers		
		22" W	28" W	34" W
800*	RLR G196 A1 N 03 04.75 NC (Includes Axle w/Hog Rings)	7504865		
	RLR G196 A1 P 01 19.75 NC	7504896		
	RLR G196 A1 P 01 22.00 NC	7504585	-	-
	RLR G196 A1 N 03 22.00 NC (Tapped Axle Not Included)	7507136	-	-
	RLR G196 A1 P 01 22.06 NC	-	7501544	-
	RLR G196 A1 P 01 28.00 NC	-	7504915	-
	RLR G196 A1 N 03 28.00 NC (Tapped Axle Not Included)	=	7507137	-
	RLR G196 A1 P 01 22.06 NC	-	-	7501544
	RLR G196 A1 P 01 24.38 NC	-	-	7504796
	RLR G196 A1 P 01 27.81 NC	-	-	7491818
	RLR G196 A1 P 01 29.00 NC	-	-	7501552
	RLR G196 A1 P 01 34.00 NC	-	-	7015690
	RLR G196 A1 N 03 34.00 NC (Tapped Axle Not Included)	-	-	7040073

Key No.	Description	2" Roller Centers		
		22" W	28" W	34" W
800a*	RLR G196 A1 N 03 21.50 NC (Tapped Axle Not Included)	7498369	-	-
	RLR G196 A1 N 03 21.50 NC G1 (Tapped Axle Not Included)	7498370	-	-
	RLR G196 A1 N 03 27.50 NC (Tapped Axle Not Included)	-	7498363	-
	RLR G196 A1 N 03 27.50 NC G1 (Tapped Axle Not Included)	-	7498364	-
	RLR G196 A1 N 03 33.50 NC (Tapped Axle Not Included)	-	-	7498366
	RLR G196 A1 N 03 33.50 NC G1 (Tapped Axle Not Included)	-	-	7498367

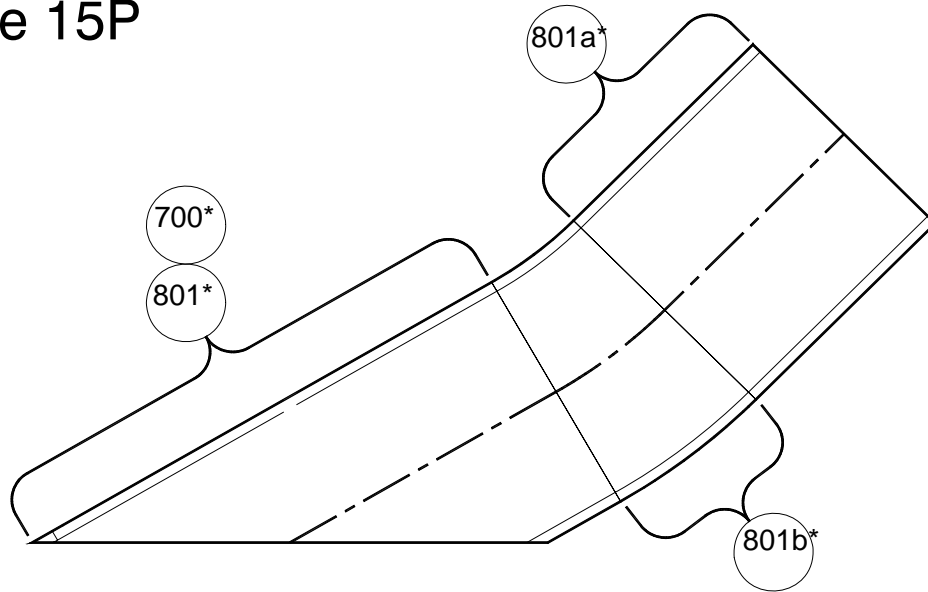
Key No.	Description	3" Roller Centers		
		22" W	28" W	34" W
800*	RLR G196 A1 P 01 22.00 NC	7015688	-	-
	RLR G196 A1 P 01 22.63 NC	-	7504795	-
	RLR G196 A1 P 01 22.94 NC	-	7502104	-
	RLR G196 A1 P 01 26.38 NC	-	7042388	-
	RLR G196 A1 N 03 27.50 NC (Tapped Axle Not Included)	-	7498363	-
	RLR G196 A1 P 01 28.00 NC	-	7015689	-
800a*	RLR G196 A1 N 03 21.50 NC (Tapped Axle Not Included)	7498369	-	-
	RLR G196 A1 N 03 21.50 NC G1 (Tapped Axle Not Included)	7498370	-	-
	RLR G196 A1 N 03 27.50 NC G1 (Tapped Axle Not Included)	-	7498364	-
	RLR G196 A1 N 03 27.50 NC G2 (Tapped Axle Not Included)	-	7498365	-

*Roller Description Explanation

(Example) RLR G 196 A1 N 03 27.50 NC G1

G1 = One (1) Groove (A=3") VB & AG
 G2 = Two (2) Grooves (A=3", B=2") VB & AG
 NC = No Cover
 27.50 = Conveyor Width "W"
 01 = Spring-Loaded Axle; Fixed Roller w/o Grooves
 03 = NO Axle, Roller w/o Grooves
 11 = Spring-Loaded Axle; Roller w/Grooves
 13 = NO Axle, Roller w/Grooves
 P = Plain Steel Axle
 N = NO Axle
 A1 = (Bearing Type) ABEC Precision Bearing
 196 = (Roller Tube) 1.90" dia x 16 gage (.065" wall)
 G = (Roller Tube Material/Finish) Galvanized Steel
 RLR = Roller

Style 15P



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Figure I - 16 Style 15P - Combination 30° Junction/15° Curve, Infeed Single Drive

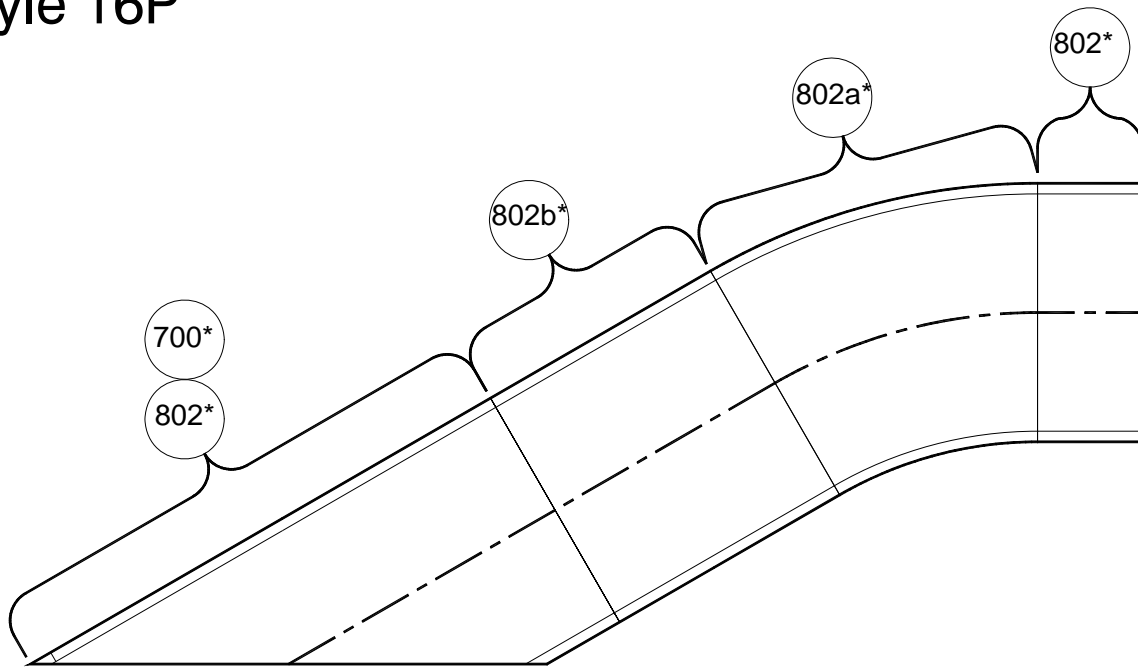
Width Related Spare Parts for Style 15P Combination 30° Junction 15° Curve, Infeed Single Drive

Key No.	Description	2" Roller Centers		
		22" W	28" W	34" W
801*	RLR G196 A1 N 03 21.50 NC (Tapped Axle Not Included)	7498369	-	-
	RLR G196 A1 N 03 21.50 NC G1 (Tapped Axle Not Included)	7498370	-	-
	RLR G196 A1 P 01 22.00 NC	7504585	-	-
	RLR G196 A1 N 03 22.00 NC (Tapped Axle Not Included)	7027723	-	-
	RLR G296 A1 P 01 22.94 NC	-	7502104	
	RLR G196 A1 P 01 24.63 NC	-	7502105	
	RLR G196 A1 P 01 26.38 NC	-	7502106	
	RLR G196 A1 P 01 28.00 NC	7504915	-	-
	RLR G196 A1 N 03 28.00 NC (Tapped Axle Not Included)	7040072	-	-
	RLR G196 A1 P 01 28.13 NC	-	-	7504797
	RLR G196 A1 P 01 29.81 NC	-	-	7502107
	RLR G196 A1 P 01 31.56 NC	-	-	7042390
	RLR G196 A1 P 01 33.31 NC	-	-	7502109
	RLR G196 A1 P 01 34.00 NC	-	-	7015690
	RLR G196 A1 N 03 34.00 NC (Tapped Axle Not Included)	-	-	7040073
801a*	Roller G254AB 22.00 BU	502061	-	-
	Roller G254AB 28.00 BU	-	502062	-
	Roller G254AB 34.00 BU	-	-	502063
801b*	RLR G196 A1 N 03 27.50 NC (Tapped Axle Not Included)	-	7498363	-
	RLR G196 A1 N 03 27.50 NC G1 (Tapped Axle Not Included)	-	7498364	-
	RLR G196 A1 N 03 27.50 NC G2 (Tapped Axle Not Included)	-	7498365	-
	RLR G196 A1 N 03 33.50 NC (Tapped Axle Not Included)	-	-	7498366
	RLR G196 A1 N 03 33.50 NC G1 (Tapped Axle Not Included)	-	-	7498367
	RLR G196 A1 N 03 33.50 NC G2 (Tapped Axle Not Included)	-	-	7498368

Key No.	Description	3" Roller Centers		
		22"W	28"W	34"W
801*	RLR G196 A1 P 01 22.94 NC	-	7502104	
	RLR G196 A1 P 01 24.63 NC	-	7502105	
	RLR G196 A1 P 01 26.38 NC	-	7042388	
	RLR G196 A1 P 01 28.00 NC	-	7015689	-
	RLR G196 A1 P 01 28.13 NC	-	-	7504797
	RLR G196 A1 P 01 29.81 NC	-	-	7042389
	RLR G196 A1 P 01 31.56 NC	-	-	7042390
	RLR G196 A1 P 01 33.31 NC	-	-	7502109
	RLR G196 A1 P 01 34.00 NC	-	-	7015690
	RLR G196 A1 N 03 34.00 NC (Tapped Axle Not Included)	-	-	7040073
801a*	RLR G196 A1 P 01 22.00 NC	7015688	-	-
	Roller G254AB 22.000 BU	502061	-	-
	Roller G254AB 28.00 BU	-	502062	-
	Roller G254AB 34.00 BU	-	-	502063
801b*	RLR G196 A1 N 03 21.50 NC (Tapped Axle Not Included)	7498369	-	-
	RLR G196 A1 N 13. 21.50 NC G1 (Tapped Axle Not Included)	7498370	-	-
	RLR G196 A1 N 03 27.50 NC (Tapped Axle Not Included)	-	7498363	-
	RLR G196 A1 N 13 27.50 NC G1 (Tapped Axle Not Included)	-	7498364	-
	RLR G196 A1 N 13 27.50 NC G2 (Tapped Axle Not Included)	-	7498365	-
	RLR G196 A1 N 03 33.50 NC (Tapped Axle Not Included)	-	-	7498366
	RLR G196 A1 N 13 33.50 NC G1 (Tapped Axle Not Included)	-	-	7498367
	RLR G196 A1 N 13 33.50 NC G2 (Tapped Axle Not Included)	-	-	7498368

*Roller Description Explanation on page I-20

Style 16P



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Figure I - 17 Style 16P - Parallel 30° Junction/30° Curve, Dual Drive Transfer

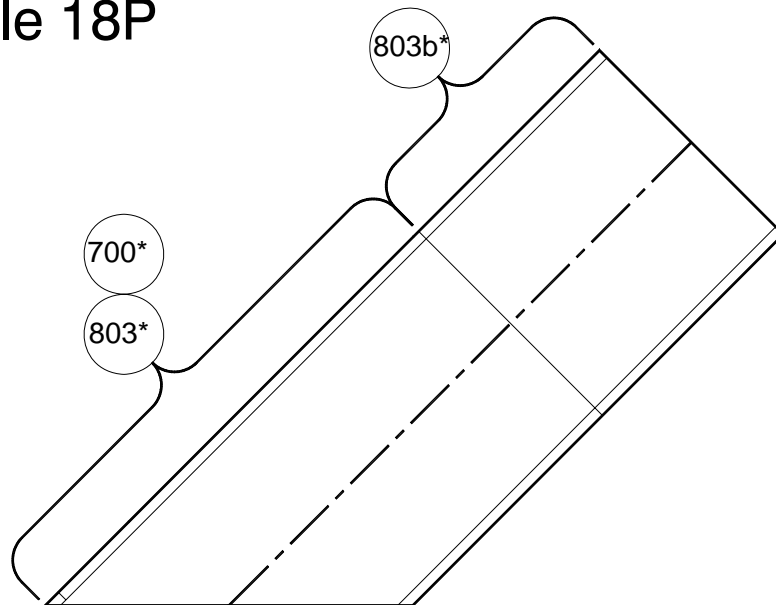
Width Related Spare Parts for Style 16P Parallel 30° Junction/30° Curve - Dual Drive Transfer

Key No.	Description	2" Roller Centers		
		22" W	28" W	34" W
802*	RLR G196 A1 P 01 22.00 NC	7015688	-	-
	RLR G196 A1 P 01 22.00 NC G2	7026849	-	-
	RLR G196 A1 N 03 22.00 NC (Tapped Axle Not Included)	7027723	-	-
	RLR G196 A1 P 01 28.00 NC	-	7015689	-
	RLR G196 A1 P 01 28.00 NC G2 (Tapped Axle Not Included)	-	7040072	-
	RLR G196 A1 P 03 28.00 NC G2	-	7026850	-
	RLR G196 A1 P 03 28.00 NC G2 (Tapped Axle Not Included)	-	7007753	
	RLR G196 A1 P 01 34.00 NC G2	-	-	7026851
	RLR G196 A1 P 01 34.00 NC	-	-	7015690
	RLR G196 A1 P 01 34 NC (Tapped Axle Not Included)	-	-	7040073
802a*	Roller G254AB 28.00 BU	502061	-	-
	Roller G254AB 28.00 BU	-	502062	-
	Roller G254AB 34.00 BU'	-	-	502063
802b*	RLR G196 A1 N 03 21.50 NC (Tapped Axle Not Included)	7498369	-	-
	RLR G196 A1 N 03 21.50 NC G1 (Tapped Axle Not Included)	7498370	-	-
	RLR G196 A1 N 03 27.50 NC (Tapped Axle Not Included)	-	7498363	-
	RLR G196 A1 N 03 27.50 NC G1 (Tapped Axle Not Included)	-	7498364	-
	RLR G196 A1 N 03 33.50 NC (Tapped Axle Not Included)	-	-	7498366
	RLR G196 A1 N 03 33.50 NC G1 (Tapped Axle Not Included)	-	-	7498367

Key No.	Description	3" Roller Centers		
		22" W	28" W	34" W
802*	RLR G196 A1 P 01 22.00 NC	7015688	-	-
	RLR G196 A1 P 01 22.00 NC G2	7026849	-	-
	RLR G196 A1 P 01 28.00 NC	-	7015689	-
	RLR G196 A1 P 01 28.00 NC G2	-	7026850	-
	RLR G196 A1 N 03 33.50 NC (Tapped Axle Not Included)	-	-	7498366
	RLR G196 A1 N 03 33.50 NC G1 (Tapped Axle Not Included)	-	-	7498367
	RLR G196 A1 P 01 34.00 NC	-	-	7015690
	RLR G196 A1 P 01 34.00 NC G2	-	-	7026851
802a*	RLR G196 A1 N 03 21.50 NC (Tapped Axle Not Included)	7498369	-	-
	RLR G196 A1 N 03 21.50 NC G1 (Tapped Axle Not Included)	7498370	-	-
	RLR G196 A1 N 03 27.50 NC (Tapped Axle Not Included)	-	7498363	-
	RLR G196 A1 N 03 27.50 NC G1 (Tapped Axle Not Included)	-	7498364	-
802b*	Roller G254AB 22.00 BU	502061	-	-
	Roller G254AB 28.00 BU	-	502062	-
	Roller G254AB 34.00 BU	-	-	502063

*Roller Description Explanation see page I-20

Style 18P



8650FKI041a

Figure I - 18 Style 18P - Straight 45° Junction, Infeed Single Drive

Width Related Spare Parts for Style 18P Straight 45° Junction, Infeed Single Drive

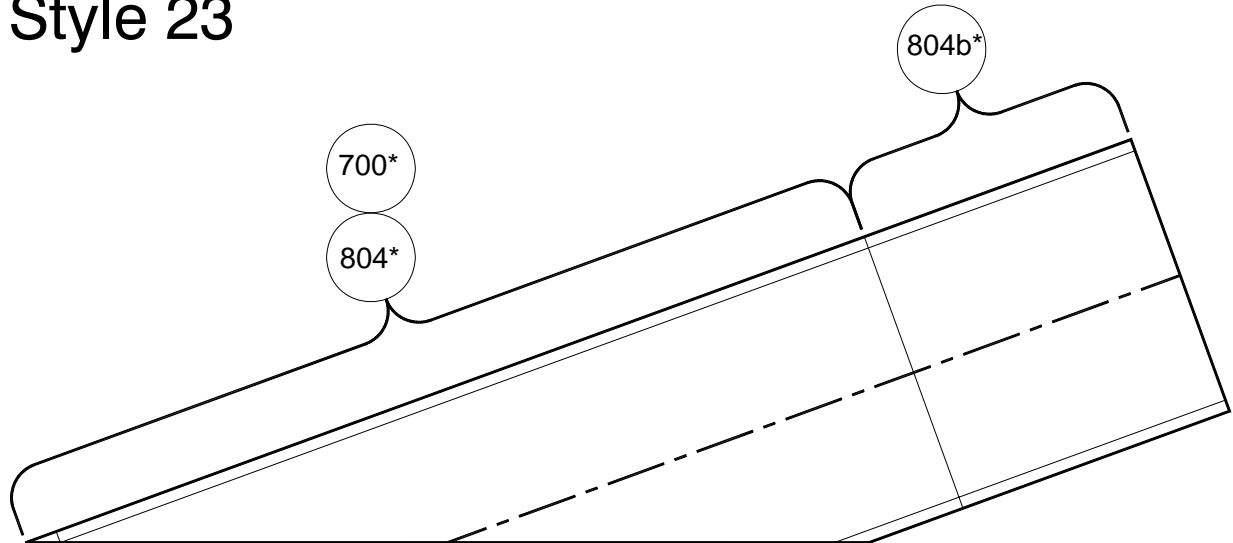
Key No.	Description	2" Roller Centers		
		22" W	28" W	34" W
803*	RLR G196 A1 P 01 22.00 NC	7015688	-	-
	RLR G196 A1 N 03 22.00 NC (Tapped Axle Not Included)	7027723	-	-
	RLR G196 A1 P 01 22.50 NC	-	7504999	
	RLR G196 A1 P 01 24.50 NC		7504912	
	RLR G196 A1 P 01 28.00 NC	-	7015689	-
	RLR G196 A1 N 03 28.00 NC (Tapped Axle Not Included)	-	7040072	-
	RLR G196 A1 P 01 28.50 NC	-	-	7501581
	RLR G196 A1 P 01 30.50 NC	-	-	7504917
	RLR G196 A1 N 03 34.00 NC (Tapped Axle Not Included)	-	-	7040073

*Roller Description Explanation on page I-20

Key No.	Description	3" Roller Centers		
		22" W	28" W	34" W
803*	RLR G196 A1 P 01 19.00 NC	7506972	-	-
	RLR G196 A1 P 01 31.00 NC	-	-	7506973
	RLR G196 A1 P 01 34.00 NC	-	-	7015690
803a*	RLR G196 A1 N 03 21.50 NC (Tapped Axle Not Included)	7498369	-	-
	RLR G196 A1 N 03 21.50 NC G1 (Tapped Axle Not Included)	7498370	-	-
803b*	RLR G196 A1 N 03 27.50 NC (Tapped Axle Not Included)	-	7498363	-
	RLR G196 A1 N 03 27.50 NC G1 (Tapped Axle Not Included)	-	7498364	-
	RLR G196 A1 N 03 27.50 NC G2 (Tapped Axle Not Included)	-	7498365	-
	RLR G196 A1 N 03 33.50 NC (Tapped Axle Not Included)	-	-	7498366
	RLR G196 A1 N 03 33.50 NC G1 (Tapped Axle Not Included)	-	-	7498367
	RLR G196 A1 N 03 33.50 NC G2	-	-	7498368

*Roller Description Explanation on page I-20

Style 23



8650FKI042a

Figure I - 19 Style 23 - 20° Junction, Discharge Single Drive

Width Related Spare Parts for Style 23 Straight 20° Junction, Discharge Single Drive

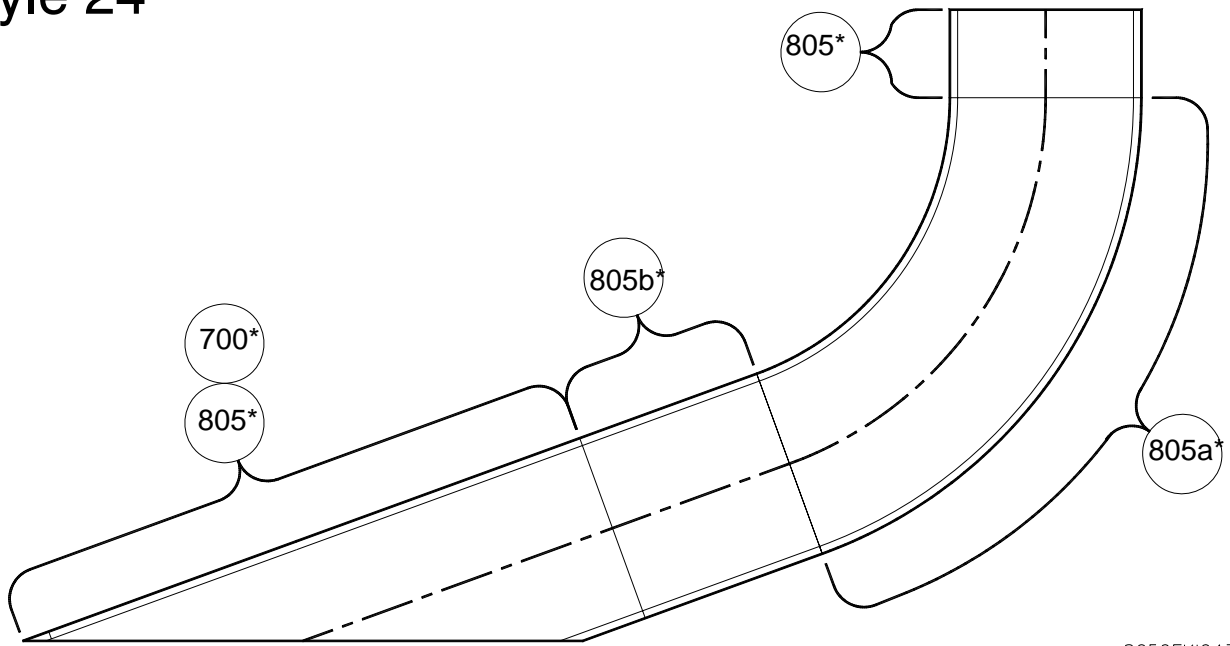
Key No.	Description	2" Roller Centers		
		22" W	28" W	34" W
804*	RLR G196 A1 P 01 22.00 NC	7015688	-	-
	RLR G196 A1 N 03 22.00 NC (Tapped Axle Not Included)	7027723	-	-
	RLR G196 A1 P 01 22.06 NC	-	7501544	
	RLR G196 A1 P 01 22.75 NC	-	7504911	
	RLR G196 A1 P 01 28.00 NC	-	7015689	-
	RLR G196 A1 N 03 28.00 NC (Tapped Axle Not Included)	-	7040072	-
	RLR G196 A1 P 01 31.50 NC	-	-	7504918
	RLR G196 A1 P 01 33.00 NC	-	-	7504849
	RLR G196 A1 P 01 34.00 NC	-	-	7015690
	RLR G196 A1 N 03 34.00 NC (Tapped Axle Not Included)	-	-	7040073
804b*	RLR G196 A1 N 03 21.50 NC (Tapped Axle Not Included)	7498369	-	-
	RLR G196 A1 N 03 21.50 NC G1 (Tapped Axle Not Included)	7498370	-	-

*Roller Description Explanation on page I-20

Key No.	Description	3" Roller Centers		
		22" W	28" W	34" W
804*	RLR G196 A1 P 01 15.69 NC	7498310		-
	RLR G196 A1 P 01 16.19 NC	-	-	7498311
	RLR G196 A P 01 22.00 NC	7015688	-	-
	RLR G196 A1 N 03 22.00 NC (Tapped Axle Not Included)	7015688	-	-
	RLR G196 A1 N 03 22.25 NC (Tapped Axle Not Included)	-	7498320	
	RLR G196 A1 P 01 23.31 NC	-	7498321	
	RLR G196 A1 P 01 24.38 NC	-	7504796	
	RLR G196 A1 P 01 26.63 NC	-	7498327	
	RLR G196 A1 P 01 27.69 NC	-	7498330	
	RLR G196 A1 P 01 28.00 NC	-	7015689	-
	RLR G196 A1 N 03 28.00 NC (Tapped Axle Not Included)	-	7040072	-
	RLR G196 A1 P 01 28.75 NC	-	-	7504841
	RLR G196 A1 P 01 29.88 NC	-	-	7498334
	RLR G196 A1 N 03 31.00 NC (Tapped Axle Not Included)	-	-	7498339
	RLR G196 A1 P 01 32.06 NC	-	-	7498340
	RLR G196 A1 P 01 33.13 NC	-	-	7498342
	RLR G196 A1 P 01 34.00 NC	-	-	7015690
	RLR G196 A1 N 03 34.00 NC (Tapped Axle Not Included)	-	-	7040073
804b*	RLR G196 A1 N 03 21.50 NC (Tapped Axle Not Included)	7498369	-	-
	RLR G196 A1 N 03 21.50 NC G1 (Tapped Axle Not Included)	7498370	-	-
	RLR G196 A1 N 03 27.50 NC (Tapped Axle Not Included)	-	7498363	-
	RLR G196 A1 N 03 27.50 NC G1 (Tapped Axle Not Included)	-	7498364	-
	RLR G196 A1 N 03 27.50 NC G2 (Tapped Axle Not Included)	-	7498365	-
	RLR G196 A1 N 03 33.50 NC (Tapped Axle Not Included)	-	-	7498366
	RLR G196 A1 N 03 33.50 G1 (Tapped Axle Not Included)	-	-	7498367
	RLR G196 A1 N 03 33.50 G2 (Tapped Axle Not Included)	-	-	7498368

*Roller Description Explanation on page I-20

Style 24



8650FKI04-3a

Figure I - 20 Style 24 - Combination 20° Junction/70° Curve, Dual Drive

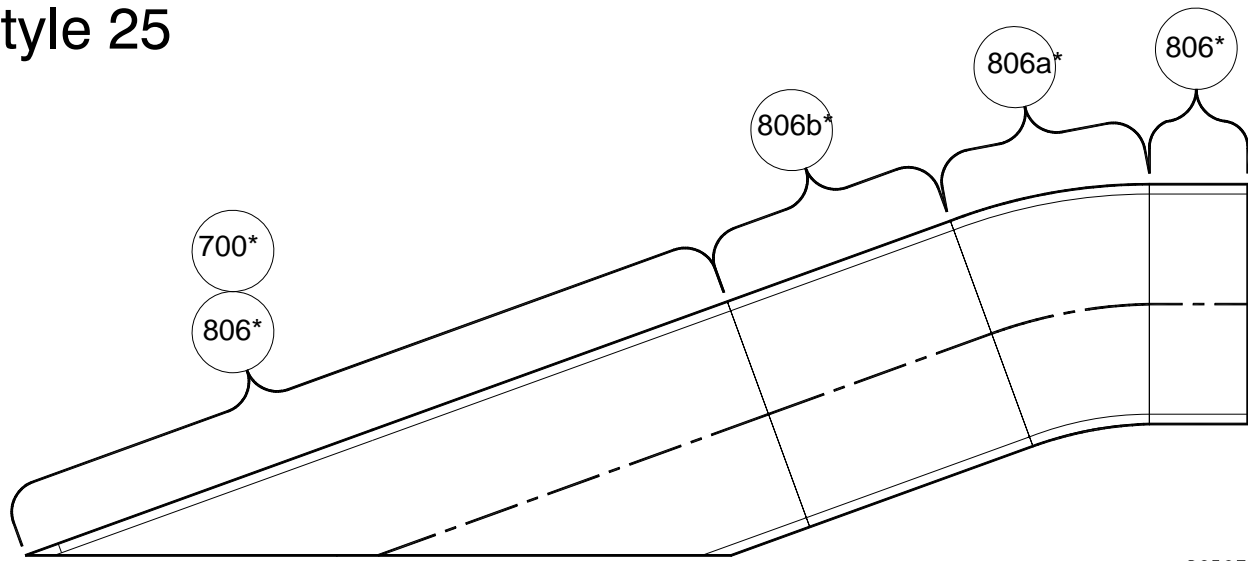
Width Related Spare Parts for Style 24 - Combination 20° Junction/70° Curve, Dual Drive

Key No.	Description	2" Roller Centers		
		22" W	28" W	34" W
805*	RLR G196 A1 P 01 22.00 NC	7015688	-	-
	RLR G196 A1 N 03 22.00 NC (Tapped Axle Not Included)	7027723	-	-
	RLR G196 A1 P 01 22.06 NC	-	7501544	
	RLR G196 A1 P 01 22.75 NC	-	7504911	
	RLR G196 A1 P 01 23.50 NC (Tapped Axle Not Included)	-	7498322	
	RLR G196 A1 P 01 24.25 NC	-	7498323	
	RLR G196 A1 P 01 24.94 NC	-	7498324	
	RLR G196 A1 P 01 25.69 NC	-	7498325	
	RLR G196 A1 P 01 26.44 NC	-	7498326	
	RLR G196 A1 P 01 27.13 NC	-	7498329	
	RLR G196 A1 P 01 27.88 NC	-	7498328	
	RLR G196 A1 P 01 28.00 NC	-	7015689	-
	RLR G196 A1 N 03 28.00 NC (Tapped Axle Not Included)	-	7040072	-
	RLR G196 A1 P 01 28.56 NC	-	-	7498332
	RLR G196 A1 P 01 29.31 NC	-	-	7498333
	RLR G196 A1 P 01 30.06 NC	-	-	7498337
	RLR G196 A1 P 01 30.75 NC	-	-	7498338
	RLR G196 A1 P 01 31.50 NC	-	-	7504918
	RLR G196 A1 N 03 32.25 NC (Tapped Axle Not Included)	-	-	7498341
	RLR G196 A1 P 01 33.00 NC	-	-	7504849
RLR G196 A1 P 01 33.69 NC	-	-	7598343	
RLR G196 A1 P 01 34.00 NC	-	-	7015690	
RLR G196 A1 N 03 34.00 NC (Tapped Axle Not Included)	-	-	7040073	
805a*	Roller G254AB 22.00 BU	7502061	-	-
	Roller G254AB 28.00 BU	-	502062	-
	Roller G254AB 34.00 BU	-	-	7502063
	RLR G196 A1 N03 21.50 NC (Tapped Axle Not Included)	7498369	-	-
	RLR G196 A1 N 03 21.50 NC G1 (Tapped Axle Not Included)	7498370	-	-
805b*	RLR G196 A N 03 27.50 NC (Tapped Axle Not Included)	-	7498363	-
	RLR G196 A1 N03 27.50 NC G1 (Tapped Axle Not Included)	-	7498364	-
	RLR G196 A1 N 03 33.50 NC (Tapped Axle Not Included)	-	-	7498366
	RLR G196 A1 N 03 33.50 NC G1 (Tapped Axle Not Included)	-	-	7498367

Key No.	Description	3" Roller Centers		
		22" W	28" W	34" W
805*	RLR G196 A1 P 01 15.69 NC	7498310		-
	RLR G196 A1 P 01 16.19 NC	-	-	7498311
	RLR G196 A1 P 01 22.00 NC	7015688	-	-
	RLR G196 A1 N 03 22.00 NC	7027723	-	-
	RLR G196 A1 P 01 24.38 NC	-	7504796	
	RLR G196 A1 P 01 28.00 NC	-	7015689	-
	RLR G196 A1 N 03 28.00 NC (Tapped Axle Not Included)	-	7040072	-
	RLR G196 A1 P 01 28.75 NC	-	-	7504841
	RLR G196 A1 P 01 29.88 NC	-	-	7498334
	RLR G196 A1 N 03 34.00 NC (Tapped Axle Not Included)	-	-	7040073
805a*	Roller G254AB 22.00 BU	7502061	-	-
	Roller G254AB 28.00 BU	-	502062	-
	Roller G254AB 34.00 BU	-	-	7502063
805b*	RLR G196 A1 N 03 21.50 NC (Tapped Axle Not Included)	7498369	-	-
	RLR G196 A1 N 03 21.50 NC G1 (Tapped Axle Not Included)	7498370	-	-
	RLR G196 A1 N 03 27.50 NC (Tapped Axle Not Included)	-	7498363	-
	RLR G196 A1 N 03 27.50 NC G1 (Tapped Axle Not Included)	-	7498364	-
	RLR G196 A1 N 03 33.50 NC (Tapped Axle Not Included)	-	-	7498366
	RLR G196 A1 N 03 33.50 NC G1 (Tapped Axle Not Included)	-	-	7498367

*Roller Description Explanation on page I-20

Style 25



8650FKI044c

Figure I - 21 Style 25 - Parallel 20° Junction/20° Curve, Dual Drive Transfer

Width Related Spare Parts for Style 25 - Parallel 20° Junction/20° Curve, Dual Drive Transfer

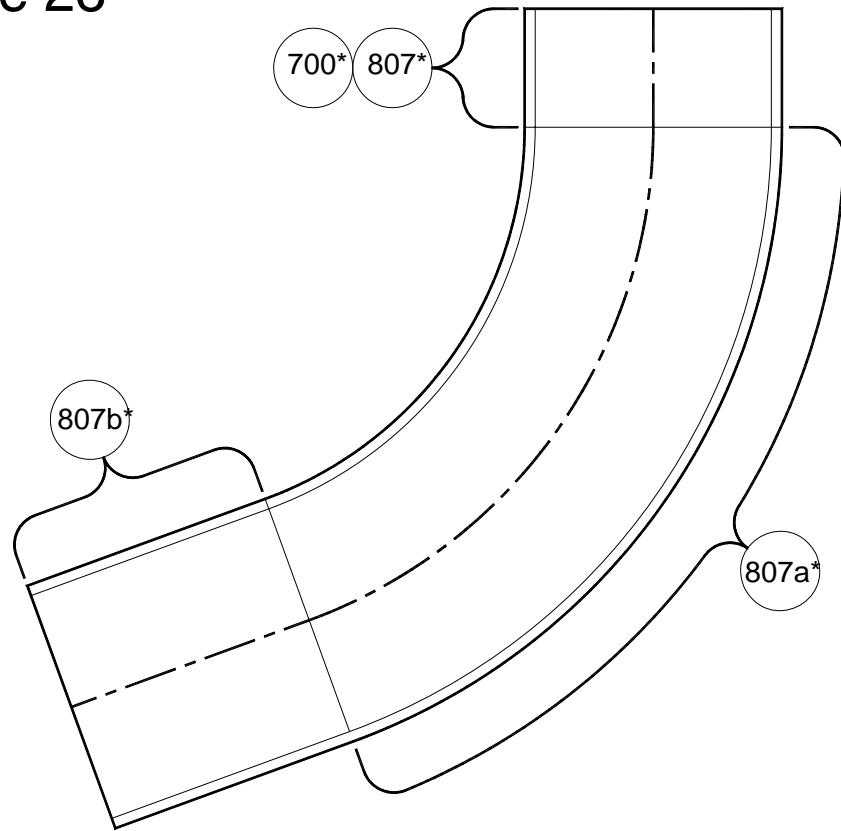
Key No.	Description	2" Roller Centers		
		22" W	28" W	34" W
806*	RLR G196 A1 N 03 03.13 NC (Includes Axle w/ Hog Rings)	7498335		
	RLR G196 A1 P 01 22.00 NC	7015688	-	-
	RLR G196 A1 N 03 22.00 NC (Tapped Axle Not Included)	7027723	-	-
	RLR G196 A1 P 01 22.06 NC	-	7501544	
	RLR G196 A1 P 01 27.13 NC	-	7498329	
	RLR G196 A1 P 01 27.88 NC	-	7498328	
	RLR G196 A1 N 03 28.00 NC (Tapped Axle Not Included)	-	7040072	
	RLR G196 A1 P 01 28.56 NC	-	-	7498332
	RLR G196 A1 P 01 29.31 NC	-	-	7498333
	RLR G196 A1 P 01 30.06 NC	-	-	7498337
	RLR G196 A1 P 01 30.75 NC	-	-	7498338
	RLR G196 A1 P 01 31.50 NC	-	-	7504918
	RLR G196 N 03 32.25 NC (Tapped Axle Not Included)	-	-	7498341
	RLR G196 A1 P 01 33.00 NC	-	-	7504849
	RLR G196 A1 P 01 33.69 NC	-	-	7498343
	RLR G196 A1 P 01 34.00 NC	-	-	7015690
	RLR G196 A1 N 03 34.00 NC (Tapped Axle Not Included)	-	-	7040073
	806a*	Roller G254AB 22.00 BU	7502061	-
Roller G254AB 28.00 BU		-	502062	-
Roller G254AB 34.00 BU		-	-	7502063
806b*	RLR G196 A1 N 03 21.50 NC (Tapped Axle Not Included)	7498369	-	-
	RLR G196 A1 N 03 21.50 G1 (Tapped Axle Not Included)	7498370	-	-
	RLR G196 A1 N 03 27.50 NC (Tapped Axle Not Included)	-	7498363	-
	RLR G196 A1 N 03 27.50 NC G1 (Tapped Axle Not Included)	-	7498364	-
	RLR G196 A1 N 03 33.50 NC (Tapped Axle Not Included)	-	-	7498366
	RLR G196 A1 N 03 33.50 NC G1 (Tapped Axle Not Included)	-	-	7498367

*Roller Description Explanation on page I-20

Key No.	Description	3" Roller Centers		
		22" W	28" W	34" W
806*	RLR G196 A1 P 01 15.69 NC	7498310		-
	RLR G196 A1 P 01 16.19 NC	-	-	7498311
	RLR G196 A1 P 01 22.00 NC	7015688	-	-
	RLR G196 A1 P 01 22.00 NC (Tapped Axle Not Included)	7027723	-	-
	RLR G196 A1 P 01 22.25 NC (Tapped Axle Not Included)	-	7498320	
	RLR G196 A1 P 01 23.31 NC	-	7498321	
	RLR G196 A1 P 01 24.38 NC	-	7504796	
	RLR G196 A1 P 01 26.63 NC	-	7498327	
	RLR G196 A1 P 01 27.69 NC	-	7498330	
	RLR G196 A1 P 01 28.00 NC	-	7015689	-
	RLR G196 A1 P 01 28.00 NC (Tapped Axle Not Included)	-	7040072	-
	RLR G196 A1 P 01 28.75 NC	-	-	7504841
	RLR G196 A1 P 01 29.88 NC	-	-	7498334
	RLR G196 A1 P 01 34.00 NC	-	-	7015690
	RLR G196 A1 N 03 34.00 NC (Tapped Axle Not Included)	-	-	7040073
806a*	Roller G254AB 22.00 BU	7502061	-	-
	Roller G254AB 28.00 BU	-	502062	-
	Roller G254AB 34.00 BU	-	-	7502063
806b*	RLR G196 A1 N 03 21.50 NC (Tapped Axle Not Included)	7498369	-	-
	RLR G196 A1 N 03 21.50 NC G1 (Tapped Axle Not Included)	7498370	-	-
	RLR G196 A1 N 03 27.50 NC (Tapped Axle Not Included)	-	7498363	-
	RLR G196 A1 N 03 27.50 NC G1 (Tapped Axle Not Included)	-	7498364	-
	RLR G196 A1 N 03 33.50 NC (Tapped Axle Not Included)	-	-	7498366
	RLR B196 A1 N 03 33.50 NC G1 (Tapped Axle Not Included)	-	-	7498367

*Roller Description Explanation on page I-20

Style 26



8650FKI045a

Figure I - 22 Style 26 - 70° Curve, Infeed Single Drive

Width Related Spare Parts for Style 26 - 70° Curve, Infeed Single Drive

Key No.	Description	2" Roller Centers		
		22" W	28" W	34" W
807*	RLR G196 A1 P 01 15.69 NC	7498310		
	RLR G196 A1 P 01 22.00 NC	7015688	-	-
	RLR G196 A1 N 03 22.00 NC	7027723	-	-
	RLR G196 A1 P 01 22.00 NC G2	7026849	-	-
	RLR G196 A1 P 01 28.00 NC	-	7015689	-
	RLR G196 A1 P 01 28.00 NC (Tapped Axle Not Included)	-	7040072	-
	RLR G196 A1 P 01 28.00 NC G2	-	7026850	-
807a*	Roller G254AB 22.00 BU	7502061	-	-
	Roller G254AB 28.00 BU	-	502062	-
	Roller G254AB 28.00 BU	-	-	7502063
807b*	RLR G196 A1 N 03 21.50 NC (Tapped Axle Not Included)	7498369	-	-
	RLR G196 A1 N 03 21.50 NC G1 (Tapped Axle Not Included)	7498370	-	-
	RLR G196 A1 N 03 27.50 NC (Tapped Axle Not Included)	-	7498363	-
	RLR G196 A1 N 03 27.50 NC G1 (Tapped Axle Not Included)	-	7498364	-
	RLR G196 A1 N 03 27.50 NC G2 (Tapped Axle Not Included)	-	7498365	-
	RLR G196 A1 N 03 33.50 NC (Tapped Axle Not Included)	-	-	7498366
	RLR G196 A1 N 13 33.50 NC G1 (Tapped Axle Not Included)	-	-	7498367
	RLR G196 A1 N 13 33.50 NC G2 (Tapped Axle Not Included)	-	-	7498368

*Roller Description Explanation on page I-20

Key No.	Description	3" Roller Centers		
		22" W	28" W	34" W
807*	RLR G196 A1 P 01 22.00 NC	7015688	-	-
	RLR G196 A1 P 01 22.00 NC G2	7026849	-	-
	RLR G196 A1 P 01 28.00 NC	-	7015689	-
	RLR G196 A1 P 01 28.00 NC G2	-	7026850	-
807a*	Roller G254AB 22.00 BU	7502061	-	-
	Roller G254AB 28.00 BU	-	502062	-
	Roller G254AB 34.00 BU	-	-	7502063
807b*	RLR G196 A1 N 03 21.50 NC (Tapped Axle Not Included)	7498369	-	-
	RLR G196 A1 N 03 21.50 NC G1 (Tapped Axle Not Included)	7948370	-	-
	RLR G196 A1 N 03 27.50 NC (Tapped Axle Not Included)	-	7498363	-
	RLR G196 A1 N 13 27.50 NC G1 (Tapped Axle Not Included)	-	7498364	-
	RLR G196 A1 N 13 27.50 NC G2 (Tapped Axle Not Included)	-	7498365	-
	RLR G196 A1 N 13 33.50 NC G2 (Tapped Axle Not Included)	-	7498368	-
	RLR G196 A1 N 03 33.50 NC (Tapped Axle Not Included)	-	-	7498366
	RLR G196 A1 N 13 33.50 NC G1 (Tapped Axle Not Included)	-	-	7498367

*Roller Description Explanation on page I-20

