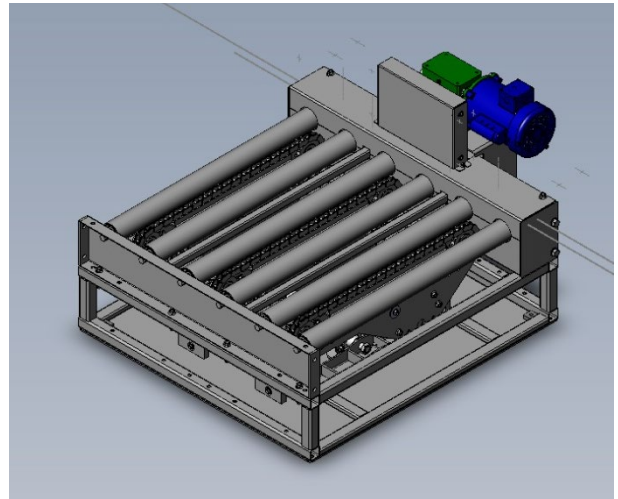
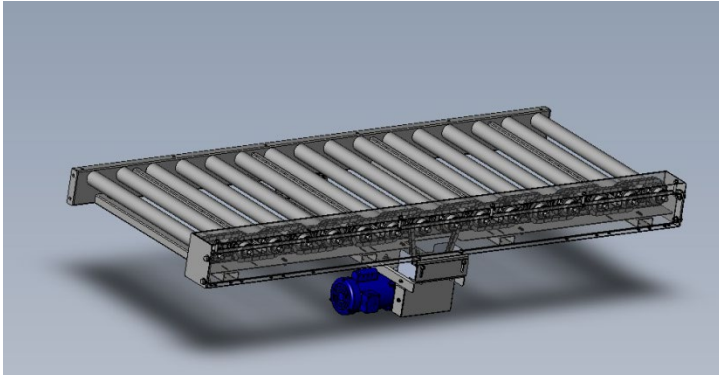


Chain Driven Live Roller Owner's Manual



Thank you for purchasing our product



SUPPORT INSTALLATION

- Bolts for attaching the supports to the bed sections are shipped in a bag attached to the supports or in a separate box.
- Set the support height using the adjustable jack bolt – see *Figure 1*. To adjust, either screw or unscrew the jack bolt. This will raise or lower the support.
- Supports should be located at ends of conveyor and centered under each splice on multi-piece conveyors (nominal 10' centers).
- If supports are located on nominal 5' centers, center additional supports midway between supports at splices.

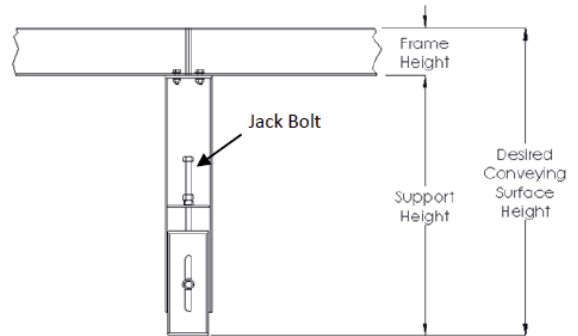


Figure 1 – Support Height Adjustment

CHAIN INSTALLATION – MULTIPLE SECTION CONVEYORS

- On multiple section conveyors, remove the chain box covers by removing the bolts and nuts securing the cover to the frame rail. A correct length loop of chain to connect the two sections together is supplied.
- Open the master link of this chain loop, and pass the chain around the adjacent empty sprocket. Reinstall the master link. Note that this chain loop will have very little slack, and the use of a chain tensioning tool may be required to install the master link.
- Reinstall the chain box tops in their original locations.
- Prior to starting the conveyor, again ensure that all rollers are square and level.
- Start the conveyor.

ELECTRICAL INSTALLATION & CONTROLS

Electrical connections should be made by a qualified electrician in accordance with NFPA 70, “National Electric Code.” The installation must also meet the requirements of any applicable state and local codes.

- Control stations should be installed in a place where operation of equipment can be clearly seen.
- All controls must be labeled to indicate function.
- Any conveyor which could cause hazard or injury shall not be started until personnel in the conveying area are alerted by a warning signal or by a designated person that the conveyor is about to start. Further, when a conveyor automatically runs, or is controlled from a remote location, an audible warning signal that can be heard at all points along the conveyor must sound. The warning signal shall be initiated by the controller starting device and shall sound for a certain period of time before conveyor starts. In some cases, a flashing light or similar visual warning indicator may be used in conjunction with audible warning signal if it is deemed more effective.

PRE-START CHECKS

- MOST speed reducers are shipped with oil, however, ALWAYS check for proper oil level before operating the conveyor.
- CHECK FOR REDUCER VENT PLUG AND INSTALL IF NECESSARY. See *Figure 4.1*. To install, remove the solid plug and replace with vent plug.
- Remove drive chain guard and inspect drive chain and sprockets.
- Chain should have sag on the slack side per *Figure 4.2*. Measure the sag half way between the two sprockets.
- Sag should be $\frac{1}{2}$ " or 2% of the sprocket center distance.
- Inspect drive sprocket and pulley set screws. These should be tight against the reducer and pulley shafts. Using a straight edge check to assure the sprockets are aligned by placing the straight edge flush against the sprocket flanges.
- Re-install chain guard after inspection.

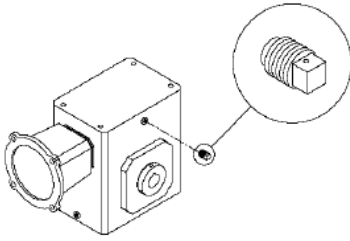
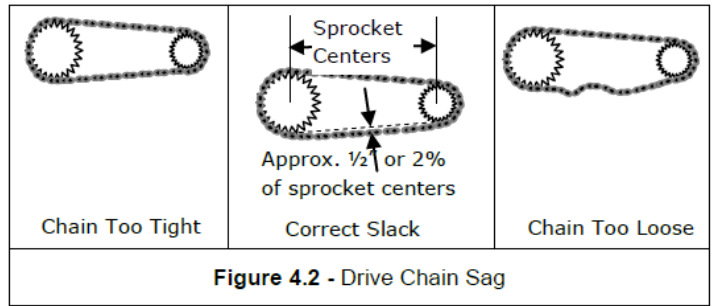


Figure 4.1 –
Reducer Vent Plug Installation



Maintenance Items:

Conveyor Frames and Supports

- Check conveyor frame, couplers, supports, and bearings for loose or missing hardware. Replace hardware as required.

Motor and Reducer

- Make sure the reducer is filled to the proper level with oil. Make sure breather hole is clean and the orifice is open.
- Inspect reducer for leaks.
- Use only oil recommended by the reducer manufacturer when lubricating bearings.

Rollers and Bearings

- Check drive pulley lagging for rips, tears, and missing areas. Replace pulley as required.
- Check all rollers and pulleys for tightness. All rollers must rotate freely. If roller does not turn freely check for dirt accumulation in bearing area and clean.
- Lubricate all flange type bearings that have grease fittings. Use NLGI Grade 2 Lithium base grease, Shell Alvania EP2, or equal. Snub roller and return roller bearings are not regreasable.
- Listen to bearing for excessive noise. Replace as required.

Sprocket and Chain Maintenance

- Remove drive chain guard and inspect drive chain and sprockets.
- Chain should have $\frac{1}{4}$ " or 2% sag when measured on the lower run of chain half way between the two sprockets. See "Pre-Startup Checks".
- A loose chain can jump the drive sprockets and can cause sprocket wear and failure. A tight chain requires excessive motor power, and can cause chain and sprocket failure.
- Inspect drive sprocket and pulley set screws for tightness against the reducer.
- Check sprocket alignment. Misalignment causes wear on one side of the sprocket. Check for a misaligned shaft or a sprocket off center.
- Check shaft bearing set screws.
- Lubricate the drive chain with SAE-30 oil approximately every 40 hours of operation. Lubricate more frequently under extreme ambient conditions. Rinse chain in solvent before lubricating.
- Re-install chain guard after inspection and maintenance.

Cleaning

- Periodically remove drive chains and clean by immersing in solvent and scrubbing with a wire brush. Rinse thoroughly and re-lubricate. Verify proper chain tension.
- Clean chain box and keep free of all debris.

Maintenance Interval:

Component	ACTION	SCHEDULE		
		WEEKLY	MONTHLY	QUARTERLY
MOTOR	Listen for irregular noise.	✓		
	Check for overheat.	✓		
	Check mounting bolts are secure.		✓	
REDUCER	Listen for irregular noise.	✓		
	Check for overheat.		✓	
	Check oil level.			✓
DRIVE CHAIN	Check for tension.			✓
	Lubricate.	✓		
	Inspect for wear.			✓
SPROCKETS	Inspect for wear.			✓
	Check set screws and keys.			✓
BEARINGS (Pulleys & Rollers)	Listen for irregular noise.	✓		
	Check mounting bolts are secure.			✓
STRUCTURAL	General check: Loose nuts, bolts, etc. Tighten as necessary.		✓	
ELECTRICAL	Inspect all wiring for secure connection. Ensure there are no loose or cut wires.		✓	
	Test Emergency Stop switches for proper function.		✓	

Trouble shooting Guide

TROUBLE	CAUSE	SOLUTION
Conveyor does not start or motor stalls.	No power	Verify main disconnect switch is on.
	Motor overloaded	Check conveyor loading against design parameters.
	Motor drawing excessive current.	Check circuit breaker.
	Emergency Stop button is engaged.	Verify the initial reason for the emergency stop. If reason has been corrected, release the Emergency Stop.
Excessive wear on drive chain and/or sprockets.	Lack of lubrication.	Lubricate chain.
	Sprockets out of alignment.	Align sprockets.
	Loose drive chain.	Correct chain slack (See "Pre Startup Checks").
Loud popping and/or grinding noise.	Defective bearing.	Replace bearing.
	Loose drive sprocket set screw.	Tighten sprocket set screws and check key.
	Loose drive chain.	Correct chain slack (See "Pre Startup Checks").
Motor or reducer overheating. <i>Note: Many motors and reducers can be hot to the touch and still be operating within normal parameters</i>	Conveyor overloaded.	Check conveyor loading against design parameters.
	Low voltage to motor.	Correct voltage level as stated on motor name plate.
	Reducer lubricant level low.	Fill reducer reservoir.