

BELT DRIVEN LIVE ROLLER CURVES/SPURS

TECH HANDBOOK

MODEL • 138LRC • 196LRC • 138LRCS • 196LRCS

**Installing and
Maintaining Your
Roach Conveyor**



**DO NOT
OPERATE BEFORE
READING THIS HANDBOOK**
Important Safety Information Enclosed

KEEP IN SAFE PLACE--DO NOT DISCARD

TECH HANDBOOK FOR LIVE ROLLER CURVES/SPURS

TABLE OF CONTENTS

| | | | |
|---|----|--|----|
| TECH HANDBOOK FOR BELT DRIVEN LIVE ROLLERS | 2 | MAINTENANCE SAFETY PRECAUTIONS | 12 |
| - Caution Labels | 2 | - Before Performing Maintenance | 12 |
| CAUTIONS, WARNINGS AND HAZARDS | 3 | - Maintenance and Follow-Up Details | 12 |
| - Introduction | 3 | MAINTENANCE AND LUBRICATION | 13 |
| - Cautions, Warnings and Hazards | 3 | - Periodic Maintenance Schedules | 13 |
| SAFETY INFORMATION / RECEIVING & INSPECTION | 4 | - Recommended Lubricants | 14 |
| - Important Safety Guidelines | 4 | - Report on Miscellaneous Maintenance Performed, Chart 1 | 15 |
| - Shortages, Damages and Return Authorizations | 4 | - Report on Miscellaneous Maintenance Performed, Chart 2 | 16 |
| GENERAL INSTALLATION INFORMATION | 5 | TROUBLE SHOOTING AND REPLACEMENT PARTS | 17 |
| - Slave Drive / Mating to Other Conveyors | 5 | - Trouble Shooting / Serial Plate | 17 |
| - Identifying / Installing Permanent Floor Supports | 5 | MODEL 138LRC | 18 |
| CEILING HANGERS AND POLYTIER SUPPORTS | 6 | - Parts List for Unit With End Drive / Side Mount End Drive | 18 |
| - Installation of Ceiling Hangers | 6 | - Illustrations for Unit With End Drive / Side Mount End Drive | 19 |
| - Installation of Polytier Supports | 6 | MODEL 196LRC | 20 |
| INSTALLATION OF BELTING | 7 | - Parts List for Unit With End Drive / Side Mount End Drive | 20 |
| - V-Belt Connections | 7 | - Illustrations for Unit With End Drive / Side Mount End Drive | 21 |
| - Adjusting V-Belt Tension | 7 | MODEL 138LRCS | 22 |
| - V-Belt Drive Pressure Adjustment | 8 | - Parts List for Unit With End Drive / Side Mount End Drive | 22 |
| - Replacing V-Belt And Sheaves | 8 | - Illustrations for Unit With End Drive / Side Mount End Drive | 23 |
| V-BELT PATH | 9 | MODEL 196LRCS | 24 |
| - V-Belt Path for Spurs And Curves | 9 | - Parts List for Unit With End Drive / Side Mount End Drive | 24 |
| START-UP PROCEDURES | 10 | - Illustrations for Unit With End Drive / Side Mount End Drive | 25 |
| - Drive Chain and Sprocket Alignment | 10 | NOTES | 26 |
| - Drive Chain and Sprocket Tension | 10 | WARRANTY | 27 |
| - Gear Reducer Vent Plug | 11 | | |
| - Preparing for Initial Start-Up | 11 | | |

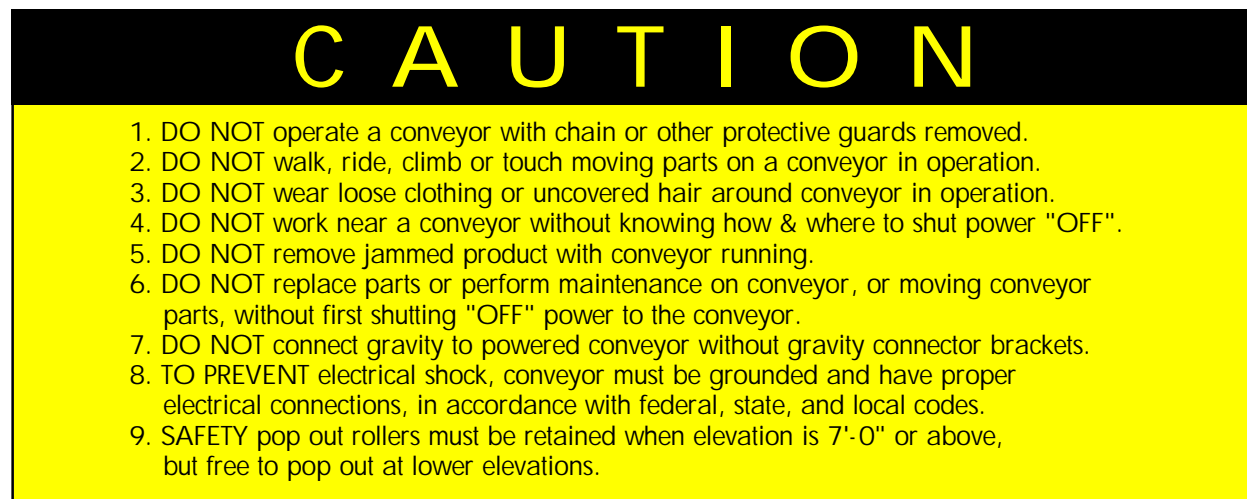
CAUTION LABELS



ABOVE: Label attached to all protective guards (drives, roller guards, etc.)



ABOVE: Label placed near all pulleys (center drives, end drives, tail pulleys)



ABOVE: Label placed near all drive assemblies

CAUTIONS, WARNINGS AND HAZARDS

INTRODUCTION

This manual was prepared as a "how-to-guide" for installers, end-users and maintenance personnel. It is also intended to educate both owner (purchaser) and all individuals working around the unit, of potential hazards.

With proper installation and maintenance, conveyors are essential for achieving a variety of functions essential in today's industrial marketplace. By following a simple, periodic maintenance schedule, the life of a typical conveyor (or, most any type of machinery- including our automobiles!) will increase when compared to a similar

unit in an application receiving little or no maintenance. You may find that a conveyor can become your best workplace friend by following simple safety guidelines. **Failure to follow even the most basic safety suggestions can result in serious personal injury.**

Conveyors contain many moving parts- pulleys, belting, chains, sprockets, shafts, rollers, etc. Therefore, it is imperative to become familiar with basic unit operation and know all points of potential hazards.

Remember, when working around or near

conveyors (and any industrial machinery) it is **your** responsibility to become familiar with the unit, to know potential hazards (many are noted with caution labels) and to operate unit in strict accordance with the safety guidelines in this manual.

Keep this manual in a safe place for future reference. It should be placed where appropriate personnel may maintain proper maintenance and records.

This manual must be read by all new users before operating or working near this unit.

WARNING:
DO NOT OPERATE BEFORE READING THIS MANUAL
KEEP IN SAFE PLACE--DO NOT DISCARD

CAUTIONS, WARNINGS AND HAZARDS

- **Always** anchor permanent supports to floor (or mounting surface). Use 3/8" x 2-1/2" (or longer) wedge anchors for permanent installation in concrete flooring.
- It is the responsibility of the customer and installation personnel to supply and install net or mesh guarding on overhead mounted conveyors to prevent product and/or debris from falling to floor in areas where required.
- Safety finger guards must NOT be removed from V-belt driven live roller curves or spurs. If guard is removed for maintenance or other purposes, conveyor must NOT be placed into operation until ALL finger guards have been replaced.
- Belt must be kept in good condition for safe work environment.
- Drive chain guards MUST be replaced after installation or maintenance before unit start-up. Also, chain guards used to cover slave drive connections for slave driven curves or spurs must be replaced prior to start-up after installation or maintenance.
- To check drive sprocket alignment, shut "OFF" and lock out power source before attempting **any** adjustments.
- To check drive sprocket tension, shut "OFF" and lock out power source before any adjustments are attempted.
- Electrical controls must be designed by a qualified electrical engineer to ensure that appropriate safety features (emergency stops, pull cords, switches, etc.) are installed on unit for safe operation. Before conveyor start-up, all operators and other personnel coming in contact with unit must be properly trained and must have read accompanying Tech Handbook.
- Only trained personnel shall perform maintenance functions. Before maintenance operations are performed, shut conveyor "OFF" and lock out power source to prevent unauthorized start-up. When maintenance is completed, only authorized personnel shall be permitted to start conveyor following maintenance or other emergency shut-off.

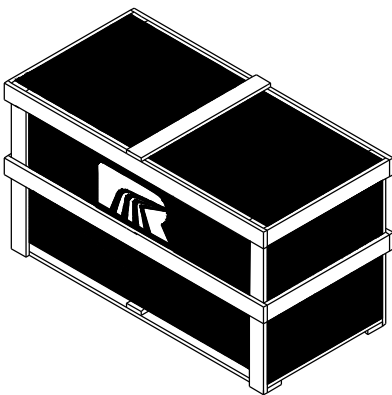
SAFETY INFORMATION / RECEIVING & INSPECTION

IMPORTANT SAFETY GUIDELINES

WARNING: ALL PERSONNEL COMING IN CONTACT WITH THIS CONVEYOR SHOULD BE AWARE OF THE FOLLOWING SAFETY GUIDELINES BEFORE USING OR WORKING AROUND CONVEYOR. NOTE: ALWAYS NOTIFY ROACH MANUFACTURING WHENEVER ANY CONVEYOR IS USED IN AN APPLICATION OR CONDITION OTHER THAN WAS ORIGINALLY INTENDED. FAILURE TO NOTIFY ROACH MAY ALLOW CONVEYOR TO BE OPERATED IN A HAZARDOUS OPERATING CONDITION. INJURIES RESULTING FROM NEGLIGENCE OR VIOLATION OF SAFETY INSTRUCTIONS HEREBY REMOVES RESPONSIBILITY OF PRODUCT LIABILITY CLAIMS FROM ROACH.

- Do not operate conveyor with protective guards removed. This includes chain guards, belt guards, snub roller guards, center drive guards and any other safety guard.
 - Do not walk, ride, climb, or touch moving parts on a conveyor in operation.
 - Do not wear loose clothing or uncovered hair around conveyor.
 - Do not work near conveyor without knowing how & where to shut power "OFF" and lock out power source.
 - Do not remove jammed product with conveyor running.
 - Do not replace parts or perform maintenance on conveyor, or moving conveyor parts, without first shutting "OFF" power to conveyor and locking out power source.
 - Do not connect gravity to powered conveyor without safety gravity connector brackets (see illustration below).
 - To prevent electrical shock, conveyor must be grounded, and have proper electrical connections in accordance with federal, state, and local codes.
 - Safety pop out rollers in conveyors installed above 7'-0" elevation must be retained by guard rail, clips, etc. Safety pop out rollers must be allowed to pop out when conveyors are installed at or below 7'-0" elevation.
 - It is the responsibility of conveyor end-user to comply with all safety standards including OSHA and other federal, state, and local codes or regulations. Install protective guarding and other related safety precautionary equipment to eliminate hazardous operating conditions which may exist when two or more vendors supply machinery for related use.
- Any violation of above safety instructions hereby removes all product liability claims from Roach Manufacturing Corporation.**

SHORTAGES, DAMAGES AND RETURN AUTHORIZATIONS



NOTE: Do not return goods to factory without prior, written return authorization. Unauthorized returns are subject to refusal at factory. Also, some items (electric motors, gearbox, etc.) may be shipped direct from their manufacturer. Thus, two or more separate shipments may be required to receive all equipment.

Before uncrating, check quantity of items received against bill of lading to confirm that all equipment has been received. Next, determine if any damage has occurred. Damage and/or shortage in shipment should be reported immediately to both Roach and carrier. Obtain signed damage report from carrier agent and send copy to Roach. **Do not repair any**

damage before obtaining this report.

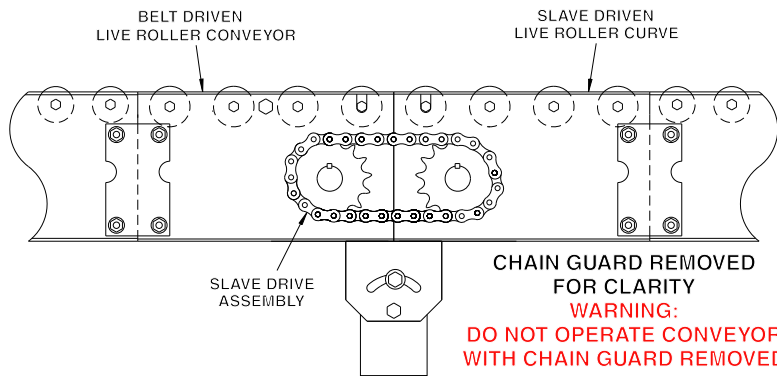
Finally, consult factory to determine if entire shipment must be returned to factory for repair **or** if a replacement order should be entered for replacement equipment.

Therefore, it is imperative that the bill of lading (or, accompanying freight documentation) be checked to ensure receipt of ALL units ordered including ALL accessories.

After receipt and initial inspection, carefully remove crating and look for essential components and specific accessories that may have been boxed and attached (or 'band-ed') to crating material such as guard rails and hardware which may be packaged and shipped in this manner. Save all hardware for subsequent use by installation personnel.

GENERAL INSTALLATION INFORMATION

SLAVE DRIVE / MATING TO OTHER CONVEYORS



NOTE: There are two primary methods of installation for a curve-driven by its own gear motor or SLAVE driven from another conveyor.

Once conveyor is uncrated, installation of curve or spur may begin (note that in following text we will use "curve" for reference to both curves and curve spurs). Locate unit in the actual installation area.

There are two primary methods of installation for a curve-driven by its own gear motor or SLAVE driven from another conveyor. Most often, curves are SLAVE driven

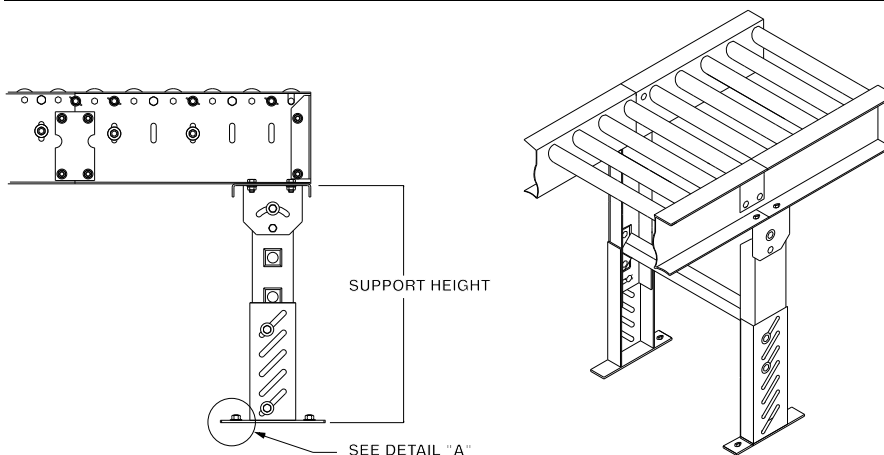
by belt driven live rollers or slider bed belt conveyors, which eliminates gear motor drive assembly for curve.

Locate actual bed section of conveyor which is to slave drive curve to begin installation. Note that this conveyor is usually set up before curve is installed. Bed section labels are located on bed of driving conveyor showing where slave driven

curve will be installed (see illustration above). For curves not slave driven, location of installation in most usually noted by conveyor "mark numbers".

Use mechanical hoist (fork truck or other available means) to raise bed sections to approximate installed elevation. Locate supports, attach to curve and mate curve with butt couplings.

IDENTIFYING/INSTALLING PERMANENT FLOOR SUPPORTS



| *MINIMUM SUPPORT HEIGHT | | | |
|-------------------------|---------------|--------------|---------------|
| MEDIUM DUTY | | HEAVY DUTY | |
| SM-1 7-1/4" | SM-7 34-1/4" | SH-1 6-1/4" | SH-7 25-3/4" |
| SM-2 10-1/4" | SM-8 46-1/4" | SH-2 7-3/4" | SH-8 31-3/4" |
| SM-3 13-1/4" | SM-9 58-1/4" | SH-3 10-3/4" | SH-9 43-3/4" |
| SM-4 16-1/4" | SM-10 70-1/4" | SH-4 13-3/4" | SH-10 55-3/4" |
| SM-5 20-1/4" | SM-11 80-1/4" | SH-5 16-3/4" | SH-11 67-3/4" |
| SM-6 24-1/4" | SM-12 92-1/4" | SH-6 19-3/4" | SH-12 79-3/4" |

CAUTION: Always anchor permanent supports to floor (or mounting surface). Use 3/8" x 2-1/2" (or longer) wedge anchors for permanent installation in concrete flooring.

It is most common to use single tier permanent floor supports at each end of a curve, for models 138LRC and 196LRC. In the center of the curve, a single leg support is required underneath the outside frame rail. If the frame rail consists of two or more frame rails and is joined together in the center of the curve, a full support is required.

For model 138LRCS and 196LRCS curve spurs, two supports are generally required, one support at the junction between the spur and the curve and one support at the tangent end of the curve.

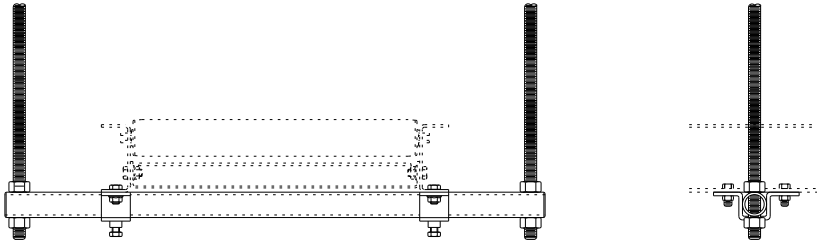
Adjust elevation to top of conveyor by loosening bolts in support uprights, raising or lowering conveyor and fully tightening bolts at desired elevation. Tighten all bolts

in supports before unit operation. Complete support installation by lagging support attachment plates to floor with two lag bolts in a diagonal pattern in support foot plate mounting holes. Conveyor must be level across width of unit before completing final support height adj.

*Supports are normally shipped at minimum support height. See chart above.

CEILING HANGERS AND POLYTIER SUPPORTS

INSTALLATION OF CEILING HANGERS



Ceiling hangers are frequently used in high-elevation applications for suspension from ceiling. The 5/8" diameter (#11 UNC) all threaded rod is supplied to allow infinite vertical adjustment along the length of the suspension rod (see illustration above).

Attach and firmly tighten U-shaped retainer ("hat") bracket to underneath side of lower

conveyor flange with hardware provided to hold cross pipe (1" inside diameter) against underneath side of conveyor.

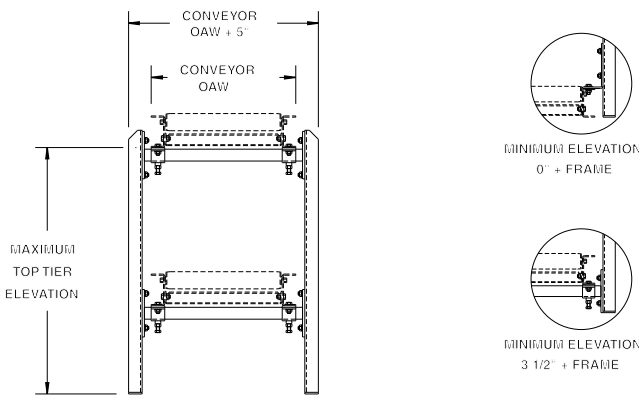
Do not tighten cross pipe locking bolts (these attach in the bottom of the U-shaped retainer bracket) until threaded suspension rods have been firmly secured to ceiling structure.

WARNING: It is the responsibility of the customer and installation personnel to supply and install net or mesh guarding on conveyors mounted overhead to prevent product and/or debris from falling to floor in areas where required.

To adjust conveyor elevation, tighten or loosen lower nut and jam nut on threaded suspension rods to desired elevation. A lock washer must be used on suspension rods to maintain unit at desired elevation.

When unit is at operating elevation and unit has been levelled across bed width, tighten locking bolts in U-shaped bracket to secure position of cross pipe.

INSTALLATION OF POLYTIER SUPPORTS



| POLYTIER SUPPORT CHANNEL HEIGHT | | |
|---------------------------------|----------------|-----------------|
| PSM-1.....23" | PSM-6.....53" | PSM-11.....83" |
| PSM-2.....29" | PSM-7.....59" | PSM-12.....89" |
| PSM-3.....35" | PSM-8.....65" | PSM-13.....95" |
| PSM-4.....41" | PSM-9.....71" | PSM-14.....101" |
| PSM-5.....47" | PSM-10.....77" | PSM-15.....107" |

NOTE: To install, raise conveyor to desired elevation, place cross pipe underneath lower conveyor flange, attach cross pipe to upright legs and use U-shaped retainer ("hat") bracket to connect cross pipe to lower conveyor flange.

Polytier supports provide convenient installation method for two or more tiers of conveyor. To install, raise conveyor to desired elevation (approximate). Place 1" inside diameter cross pipe underneath lower conveyor flange. Attach cross pipe to upright legs. Use U-shaped retainer ("hat") bracket to connect cross pipe to lower conveyor flange. Do not tighten

fully at this time.

There are two styles of attachment brackets available for use with polytier supports. Minimum elevation style (see illustration above) offers lowest unit elevation, 0" + depth of frame utilizing L-shaped mounting bracket. Standard elevation style offers unit elevation of 3-1/2" + depth of frame and includes bracket welded to cross pipe

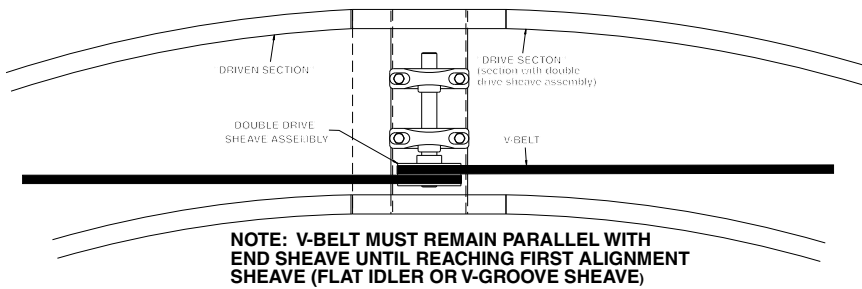
which is bolted to upright legs during installation.

When unit is at operating elevation and unit has been checked across width for level, tighten locking bolts in U-shaped bracket. Add knee braces for unit rigidity.

***NOTE:** Overall conveyor height is dictated by type of drive assembly used--i.e. underneath, center drive, side mount, etc.

INSTALLATION OF BELTING

V-BELT CONNECTIONS



WARNING: Safety finger guards are located above V-belt on all live roller curves and spurs. Removal of finger guard assemblies may result in serious injury to personnel stationed near or coming in contact with conveyor. V-belt must be kept in good condition and belt tension must be properly adjusted for safe work environment. **BEFORE ANY ADJUSTMENTS ARE ATTEMPTED, SHUT "OFF" AND LOCK OUT POWER SOURCE.**

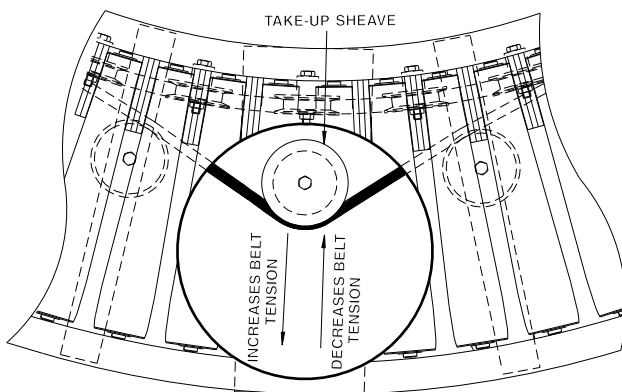
In some applications (180 degree, long straight tangents, etc.), curves are manufactured in two or more sections requiring the use of more than a single drive belt. Although set up and test run (and, subject to quality control inspection) at the factory, unit may require disassembly for shipping. In such cases, V-belt must be re-connected before operation.

To reconnect belts, determine curve section containing double sheave drive assembly, or "drive section" in illustration above. This drive section features drive V-belt shipped mounted as required. The V-belt on the adjoining curve section, or "driven section", must be attached to double sheave drive assembly. To install, loosen V-belt take-up sheave on driven section to

allow adequate slack in V-belt for attachment to double sheave. Then, complete V-belt assembly by properly adjusting take-up sheave in center of driven section as outlined in following section.

NOTE: Depending on the model or BF of curve or spur, there are several take-up configurations available. See page 9 of manual for more information.

ADJUSTING V-BELT TENSION



WARNING: Safety finger guards are located above V-belt on all live roller curves and spurs. Removal of finger guard assemblies may result in serious injury to personnel stationed near or coming in contact with conveyor. V-belt must be kept in good condition and belt tension must be properly adjusted for safe work environment. **BEFORE ANY ADJUSTMENTS ARE ATTEMPTED, SHUT "OFF" AND LOCK OUT POWER SOURCE.**

Maintaining proper belt tension is vital to proper unit operation and long V-belt life. Over-tensioning drive belt requires more horsepower, decreases belt life and may harm unit drive and take-up sheaves.

To increase drive belt tension (or, to take up slack in V-belt), move take-up sheave toward outside of curve (or spur) by adjusting take-up rod on take-up sheave (see

illustration above). Be careful not to over-tension belt.

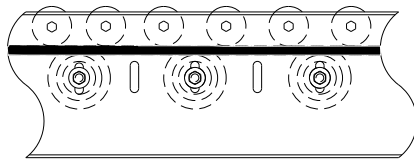
To "decrease" belt tension, move take-up sheave toward inside of curve (or spur) by adjusting take-up rod on take-up sheave. When adjustment is complete, tighten jam nut to complete tensioning procedure. Make adjustments to drive belt in small increments.

For adjusting drive pressure applied to V-belt from drive sheaves, see next section.

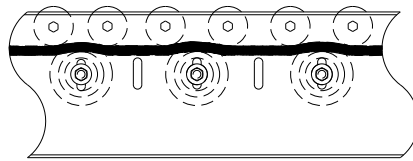
NOTE: When adjusting V-belt tension, V-belt must remain parallel with end sheave until reaching first alignment sheave (sheave may be flat idler or V-grooved).

INSTALLATION OF BELTING

V-BELT DRIVE PRESSURE ADJUSTMENT



CORRECT V-BELT
DRIVE PRESSURE



INCORRECT V-BELT
DRIVE PRESSURE

Maintaining proper drive belt pressure is vital to proper unit operation and long V-belt life. Over-applying drive belt pressure requires more horsepower and may harm unit drive and take-up components. Belt life is drastically reduced when unit is operated with incorrect drive belt pressure.

Belt driven live roller curves and spurs require adequate drive pressure on the

drive belt to convey the **heaviest** unit load. Therefore, if curve or spur does not properly convey the heaviest unit load, adjust the drive belt pressure as outlined below.

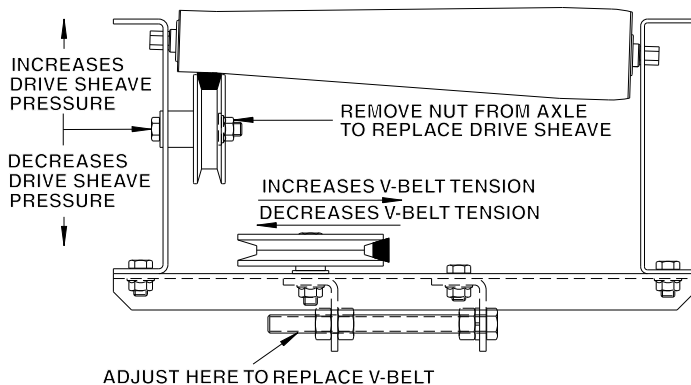
To increase drive belt pressure, move sheave "up" (see above illustration) toward roller. To decrease drive belt pressure, lower sheave away from roller. Make

WARNING: Safety finger guards are located above V-belt on all live roller curves and spurs. Removal of finger guard assemblies may result in serious injury to personnel stationed near or coming in contact with conveyor. V-belt must be kept in good condition and belt tension must be properly adjusted for safe work environment. **BEFORE ANY ADJUSTMENTS ARE ATTEMPTED, SHUT "OFF" AND LOCK OUT POWER SOURCE.**

adjustments in small increments. **DO NOT** place too much drive pressure on sheaves.

In worst conditions, conveyor may stall, thus causing motor to overheat and untimely unit shut down, when drive sheaves have been raised too high.

REPLACING V-BELT AND SHEAVES



As outlined in previous sections, the importance of properly setting drive tension and drive pressure on V-belts simply cannot be overstated. When V-belt or drive sheaves are out of adjustment, life of sheaves and V-belting may be drastically reduced, thus requiring untimely replacement(s).

Before ANY maintenance operations are performed on belt driven live roller curves

or spurs, it is VITAL that ALL conveyors be shut "OFF" and power source is locked out. Confirm that power source has been locked out before beginning maintenance.

For replacing V-belt, remove conveyor tread rollers, loosen take-up assembly as previously noted and remove belt. Use old belt to identify replacement, which is readily available from Roach or may be

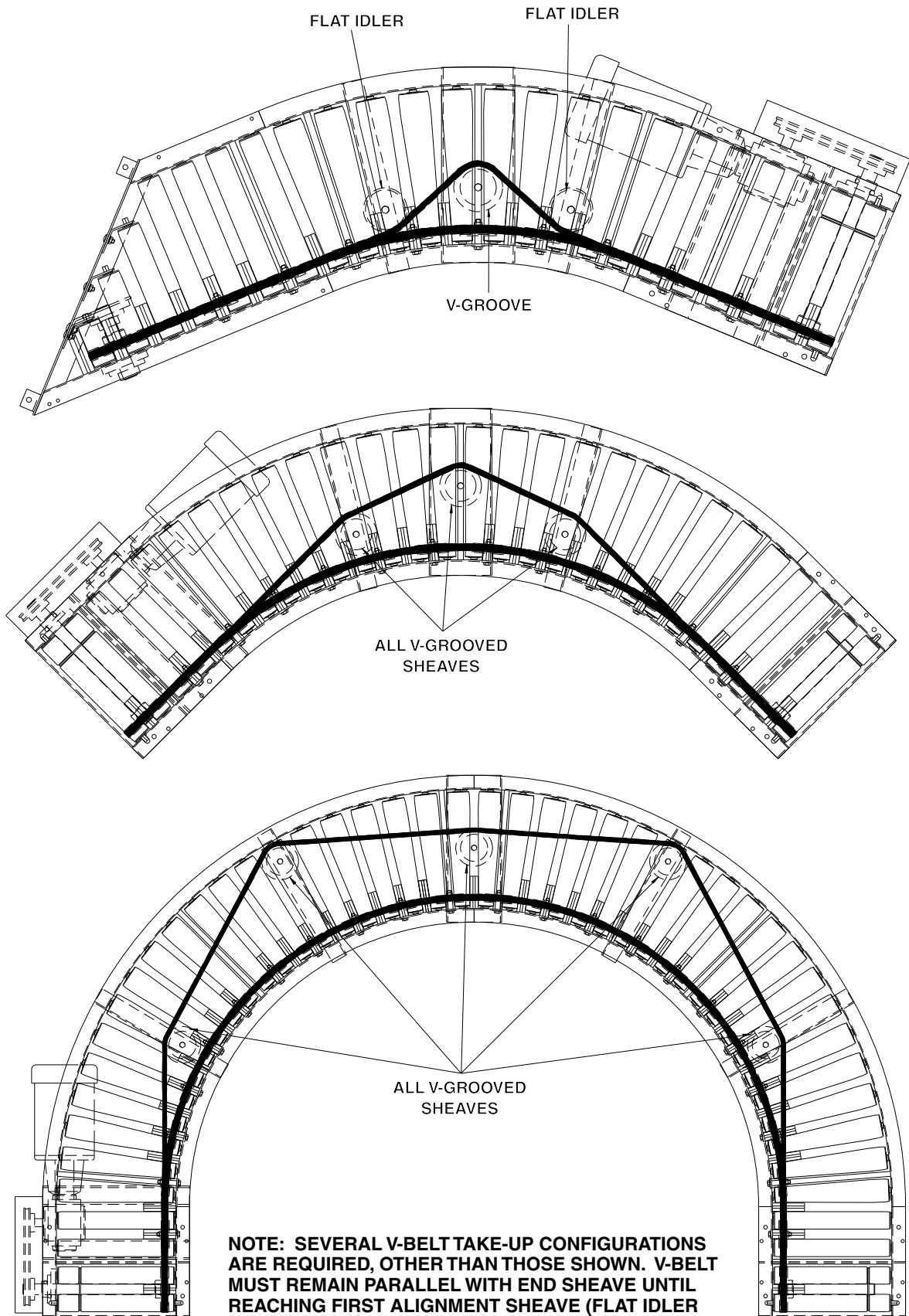
WARNING: Safety finger guards are located above V-belt on all live roller curves and spurs. Removal of finger guard assemblies may result in serious injury to personnel stationed near or coming in contact with conveyor. V-belt must be kept in good condition and belt tension must be properly adjusted for safe work environment. **BEFORE ANY ADJUSTMENTS ARE ATTEMPTED, SHUT "OFF" AND LOCK OUT POWER SOURCE.**

purchased locally to expedite replacement procedure. Install new belt, tread rollers and re-set belt tension.

Should any drive sheaves require replacement, consult Roach distributor for new sheaves. Remove nut from drive sheave axle, remove worn sheave and replace with new unit. Replace nut and set drive sheave pressure as previously outlined.

V-BELT PATHS

V-BELT PATH FOR SPURS AND CURVES



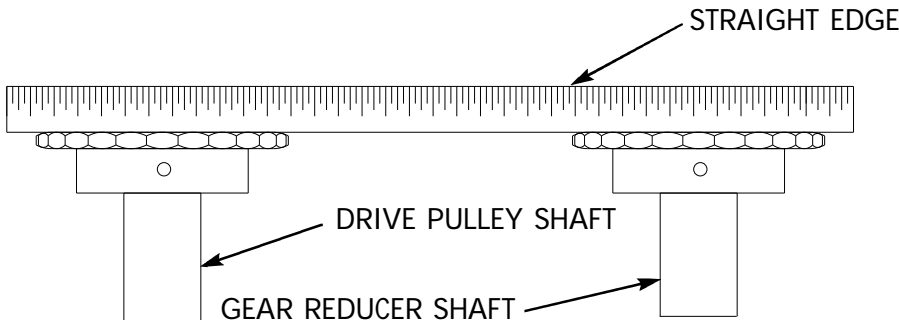
NOTE: SEVERAL V-BELT TAKE-UP CONFIGURATIONS ARE REQUIRED, OTHER THAN THOSE SHOWN. V-BELT MUST REMAIN PARALLEL WITH END SHEAVE UNTIL REACHING FIRST ALIGNMENT SHEAVE (FLAT IDLER OR V-GROOVE SHEAVE).

START-UP PROCEDURES

DRIVE CHAIN AND SPROCKET ALIGNMENT

CHAIN GUARD REMOVED FOR CLARITY

WARNING: DO NOT OPERATE CONVEYOR WITH CHAIN GUARD REMOVED



Set up and maintenance of drive sprocket and drive chain alignment is critical (on curves or spurs with drive assembly). A periodic visual inspection is recommended to confirm alignment of drive components (which includes both drive sprockets and drive chain). Should set screws become loose, drive sprockets are subject to excessive wear and ultimately, to untimely

replacement.

To check drive sprocket alignment, it is imperative that conveyor is shut "OFF" and power source is locked out before any adjustments are attempted. Remove chain guard cover and place straight-edge (see illustration above) across face of both drive sprockets. If re-alignment is

WARNING: To check drive sprocket alignment, it is imperative that conveyor is shut "OFF" and power source is locked out before any adjustments are attempted.

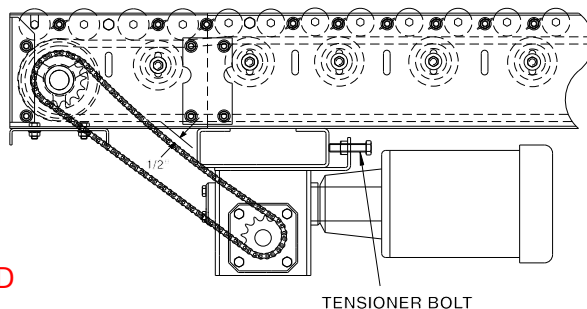
necessary, loosen set screws and adjust drive sprockets as required. **Remember to securely tighten set screws when alignment is complete.**

Before replacing chain guard cover, check drive chain tension as described in following section, "Drive Chain and Sprocket Tension."

DRIVE CHAIN AND SPROCKET TENSION

CHAIN GUARD REMOVED FOR CLARITY

WARNING: DO NOT OPERATE CONVEYOR WITH CHAIN GUARD REMOVED



Maintaining proper chain tension is especially important. Again, a periodic visual inspection is recommended to ensure chain tension within a pre-determined operating range.

Remember, before any adjustments are attempted, conveyor must be shut "OFF" and power source locked out.

Before replacing chain guard cover, check

to see if drive chain is operating within 1/2" range (see above illustration). If unit is out of tolerance, adjustment is necessary.

To adjust drive chain tension, tensioner bolt located on reducer push plate should be tightened (rotate clockwise) if chain tension is loose. Tighten until proper operating range is achieved. If chain tension is too

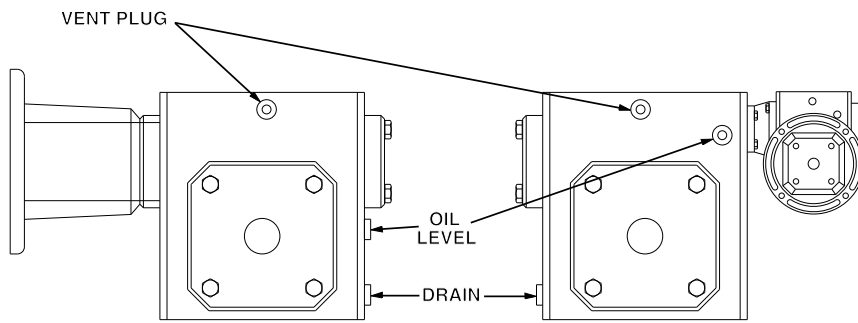
WARNING: To check drive sprocket tension, shut "OFF" and lock out power source before **any** adjustments are attempted.

tight, loosen tensioner bolt (rotate counter-clockwise) as required. When adjustment is complete replace chain guard cover.

WARNING: Do not operate unit until chain guard cover is replaced. Serious operator or other personal injury could result if protective guarding is not replaced.

START-UP PROCEDURES

GEAR REDUCER VENT PLUG



SINGLE REDUCTION MODELS

DOUBLE REDUCTION MODELS

CAUTION: Before conveyor is operated, replace steel plug with vent plug (or "breather plug") supplied. Do not operate conveyor until vent plug has been installed.

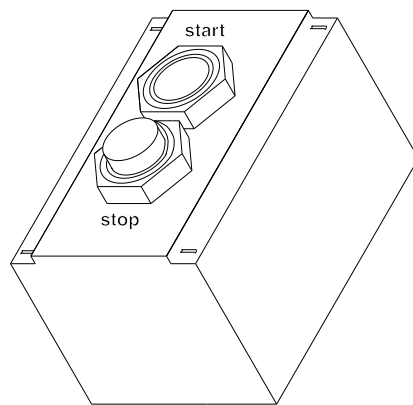
To expedite installation and start-up process, all gear reducers are shipped filled with oil. Initially, levels are checked at factory before unit is set up and test run. Upon field installation and before operating, again check oil level. See "Recommended Lubricants" section later in handbook for appropriate lubricants if gear reducer oil level is low.

Gear reducer is shipped from factory with a steel plug placed in gear reducer to prevent oil from spilling during shipment. Before conveyor is operated, replace steel plug with vent plug (or "breather plug") supplied. The small hole in the end of the vent plug must be placed "up" to prevent oil from escaping unit. Do not operate conveyor until vent plug has been installed.

Failure to replace steel plug with vent plug will void gear reducer manufacturer warranty. Install vent plug in uppermost hole in gear box upon unit installation when motor is in working position.

PREPARING FOR INITIAL START-UP

WARNING: WARN ALL PERSONNEL TO KEEP CLEAR OF CONVEYOR DURING UNIT START-UP



WARNING: Electrical controls must be designed by a qualified electrical engineer to ensure that appropriate safety features (emergency stops, pull cords, switches, etc.) are installed on unit for safe operation. Before conveyor start-up, all operators and other personnel coming in contact with unit must be properly trained and must have read accompanying Tech Handbook.

Before conveyor start-up, all operators and other personnel coming in contact with unit must be properly trained and must have read accompanying Tech Handbook. Provisions must be in order to instruct all personnel coming in contact with conveyor on the location of emergency stops, pull cords, etc.

A routine maintenance program should be implemented before unit is placed into operation so that fundamental unit components are attended to. This maintenance program should include an inspection to ensure that any dangerous or hazardous operating conditions are noted and IMMEDIATELY corrected, as well as including

electrical and mechanical unit inspections and corrections. Finally, when conveyor is initially started, an immediate visual inspection should include motor, gear reducer, V-belt and related adjustments noted in handbook for unit/component corrections.

MAINTENANCE SAFETY PRECAUTIONS BEFORE PERFORMING MAINTENANCE

CAUTION: Only trained personnel shall perform maintenance functions. Before maintenance operations are performed, conveyor must be shut "OFF" and disconnects locked in the "OFF" position to prevent unit from unauthorized start-up.

One of the most important guidelines for maximizing conveyor operation and personnel safety is to implement a regular maintenance schedule and train personnel on the appropriate needs of the specific unit.

Only trained personnel shall perform maintenance functions. Before maintenance operations are performed, conveyor must be shut "OFF" and disconnects locked in the "OFF" position to prevent unit from unauthorized start-up during maintenance. All personnel should be informed of the safety procedures associated with unit maintenance and performance.

Do not perform any work on conveyors or conveyor system while in operation unless it is impossible to otherwise conduct adjustment, lubrication or other maintenance function. Only experienced, trained personnel possessing advanced hazards-training should attempt such critical operations.

MAINTENANCE AND FOLLOW-UP DETAILS

CAUTION: Only trained personnel shall perform maintenance functions. When maintenance is completed, only authorized personnel shall be permitted to start conveyor following maintenance or other emergency shut-off.

While performing maintenance do not wear loose clothing. Immediately report any hazardous conditions--sharp edges, pinch (or nip) points or other conditions that may result when several manufacturers supply machinery which may create operating hazards.

When using mechanical aids such as hoists, cables, or cranes exercise extreme caution to prevent damage to conveyors or other integrated machinery which may create a working hazard when maintenance is completed and units are in operation.

Clean up any spilled lubricants or other materials used in the maintenance process or those which may be deposited during unit operation. Eliminating poor housekeeping practices increases unit efficiency while creating safer personnel working conditions.

After maintenance, conduct visual inspection to ensure that all safety devices and guards have been replaced. Confirm that all units are clear of tools, debris or other items. Before starting

conveyor, check condition of unit caution labels (see "CAUTION LABELS" at front of handbook). If labels have been destroyed or are not clearly legible, call 870.483.7631 to receive replacement labels. Placement of caution labels is critical to avoid unauthorized unit operation which may result in hazardous working conditions for all related personnel coming in contact with conveyor.

Warn personnel that conveyor is being prepared for start-up and to stay clear of unit. Do not start conveyor until all personnel are clear. When maintenance is completed, only authorized personnel shall be permitted to start conveyor following maintenance or other emergency shut-off.

MAINTENANCE AND LUBRICATION

PERIODIC MAINTENANCE SCHEDULE

MODEL NO. _____

| WEEKLY RECOMMENDED MAINTENANCE SCHEDULE* | |
|--|---|
| COMPONENT | DETAIL OF MAINTENANCE |
| V-BELT | Inspect belt tension and sheave drive pressure applied to V-belt |
| V-BELT PRESSURE SHEAVES | Check & re-tighten axles & check for overall wear |
| PILLOW BLOCK/ FLANGE BEARINGS | Lubricate in dirty, dusty or moist/wet conditions |
| UNIT SAFETY CHECK | Confirm placement of all guards including safety finger guards, pop out rollers, warning labels & check for loose bolts, nip points & other hazards |

| MONTHLY RECOMMENDED MAINTENANCE SCHEDULE* | |
|---|--|
| COMPONENT | DETAIL OF MAINTENANCE |
| GEAR REDUCER | Check oil level (After first 100 operating hours-monthly thereafter) & add if necessary Check misc. operating conditions (normal heat & noise) & confirm use of vent plug |
| CONVEYOR DRIVE CHAIN | Check for proper operating tension & for overall wear & lubricate |
| CONVEYOR DRIVE SPROCKETS | Check for overall wear & re-tighten set screws |
| CONVEYOR V-BELT DRIVE BELT | Check for proper operating tension & overall wear |
| CONVEYOR DRIVE SHEAVES | Check & re-tighten set screws & check for overall wear |
| PILLOW BLOCK/ FLANGE BEARINGS | Lubricate (normal conditions) |

| PERIODIC RECOMMENDED MAINTENANCE SCHEDULE* | |
|--|---|
| COMPONENT | DETAIL OF MAINTENANCE |
| GEAR REDUCER | Change oil every 2500 hours or 6 months (whichever comes first) Change oil more often in severe environment (dusty, humid) |
| DRIVE CHAIN | Clean (brush in solvent) & re-Lubricate by applying lubricant to inside of chain with brush or spout can at 2000 hour intervals |
| MOTOR | Check & clear motor ventilation openings at 500 hour intervals Check misc. operating conditions (normal heat & noise) |

*All charts are for guidelines in normal operating or 'as noted' conditions. Severe applications may warrant additional maintenance.

MAINTENANCE AND LUBRICATION

RECOMMENDED LUBRICANTS

| GEARMOTOR LUBRICANTS | | |
|-----------------------------|--|---|
| MANUFACTURER | 15-60°F AMBIENT TEMPERATURE AGMA COMPOUNDED NO. 7 | 50-125°F AMBIENT TEMPERATURE AGMA COMPOUNDED NO. 8 |
| Amoco Oil Company | Worm Gear Oil | Cylinder Oil #680 |
| Chevron USA, Inc. | Cylinder Oil #460X | Cylinder Oil #680X |
| Exxon Co. USA | Cylesstic TK-460 | Cylesstic TK-680 |
| Gulf Oil Co. | Senate 460 | Senate 680D |
| Mobil Oil Corp. | 600W Super | Extra Hecla Super or Mobilgear 636 |
| Shell Oil Co. | Valvata Oil J460 | Valvata Oil J680 |
| Sun Oil Co. | Gear Oil 7C | Gear Oil 8C |
| Texaco | Meropa 460 | Meropa 680 |
| Union Oil Co. of California | Steaval A | Worm Gear Lube 140 |

NOTE: Frequently check gearbox oil level. Add oil to gearbox through filler plug (or, vent plug, see page 13) until oil comes out the oil level plug. Inspect vent plug often to ensure it is clean and that vented holes are open for continued unit operation. Also, some gear lubricants contain E.P. additives that can be corrosive to gear bronze. Avoid lubricants that are compounded with sulphur and/or chlorine. For temperature ranges not shown, consult factory.

CAUTION: Do not mix types and/or brands of oil. Thoroughly drain gearbox while unit is warm prior to changing lubricant.


| MISC. LUBRICANTS | |
|---|---|
| LUBRICANT | BRAND/DESCRIPTION |
| General Purpose Grease (For -30°F to 300°F operation)* | Shell Dolium R (Shell Oil Co.) (or suitable equivalent) |
| For Extreme Temperature Operation (-90°F to 350°F operation)* | Mobiltemp SHC-32 (Mobil Oil Corp.) (or suitable equivalent) |
| Washdown Application* (-30°F to 225°F operation) (May require special consideration--consult factory) | Shell Alvania No. 3 (Shell Oil Co.) (or suitable equivalent) |
| General Purpose Oil | SAE 10; SAE 20 OR SAE 30 |

*NOTE: Temperatures listed indicate the nominal operational temperature for the specific lubricant listed. This does not imply that the bearing housing, seals or any other conveyor unit component is rated to operate in this specific temperature range or environment. 250°F is the maximum operating temperature for standard bearing lubricants and bearing components. Although various lubricants may enhance bearing operation, special-order bearings may be required to achieve optimal bearing performance. For additional information, consult factory.

TROUBLE SHOOTING AND REPLACEMENT PARTS

TROUBLE SHOOTING / SERIAL PLATE

| TROUBLE SHOOTING | | |
|--|--|--|
| TROUBLE | PROBABLE CAUSE | REMEDY |
| Motor & gear reducer running excessively hot, repeated stalling or hard to start | A. Drag on conveyor B. Lack of lubricant C. Frozen sprocket D. Frozen roller E. Overload F. Electrical | A. Inspect entire conveyor for obstruction causing drag on chain. B. Check oil level in gear case. Be sure vent plug is open. C. Check and inspect all sprockets and bearings. Replace sprockets failing to rotate or that are difficult to rotate. D. Check all rollers for rotation. E. Reduce cause and/or increase motor horsepower. F. Check wiring and circuits, take ampere reading, replace motor if nec. |
| Motor & gear reducer makes excessive noise | A. Lack of Lubrication B. Damaged Gears C. Faulty Bearing | A. Check oil level in gear reducer. B. Replace Unit. C. Replace Bearing. |
| Drive chain, conveying chain or sprockets experience excessive wear | A. Excessive chain tension B. Sprockets misaligned C. Chain not lubricated D. Damaged sprocket or chain E. Misalignment of chain gd. F. Dirty Chain | A. Reduce chain tension. B. Realign with straight edge across sprocket faces. C. Lubricate chain with approved lubricant, wipe away excess lubricant. D. Replace damaged component E. Adjust chain guard assembly as necessary. F. Clean thoroughly and lubricate with approved lubricant. |
| Drive chain, conveying chain or sprockets make excessive noise | A. Insufficient chain tension B. Chain not adequately lubricated C. Sprockets misaligned | A. Adjust chain tension. B. Lubricate chain with approved lubricant, wipe away excess lubricant. C. Realign sprockets with straight edge across sprocket faces. |
| Pulsating chain | A. Insufficient chain tension B. Misalignment of chain gd. C. Overload | A. Adjust chain tension. B. Adjust chain guard assembly as necessary. C. Inspect for obstruction to or drag on conveyor. |
| Broken Chain | A. Frozen bearing or sprocket shaft B. Worn or damaged chain C. Obstructed or jam | A. Inspect for damaged bearings, replace if necessary. Replace links as required. B. Replace chain as required. C. Remove obstruction to clear jam. |
| Sprocket loose on shaft | A. Loose set screws B. Worn or damaged key | A. Realign sprockets with straight edge and tighten set screws. B. Replace with new key. |
| Excessive slack in chain | A. Normal Wear | A. Expect rapid chain growth in first two weeks of operation. Adjust chain tension. |



ROACH CONVEYORS
 808 HIGHWAY 463
 TRUMANN, AR 72472
 TEL 870-483-7631

SERIAL NO. 123456

Shown at actual size, this aluminum plate is placed on the conveyor frame near the location of the drive assembly.

To order replacement parts or add-on components, contact the Roach distributor who originally furnished the unit if possible. If this is not possible, contact the National Sales Office at 870-483-7631 for the name of the authorized Roach distributor in your area. Have unit

model number and serial number **BEFORE** calling. Refer to unit drawings (in rear section of handbook) for part numbers if ordering replacement parts.

ORDERING REPLACEMENT PARTS

To order any replacement parts or when calling for assistance with any powered conveyor, **ALWAYS** provide unit serial number.

MODEL 138LRC

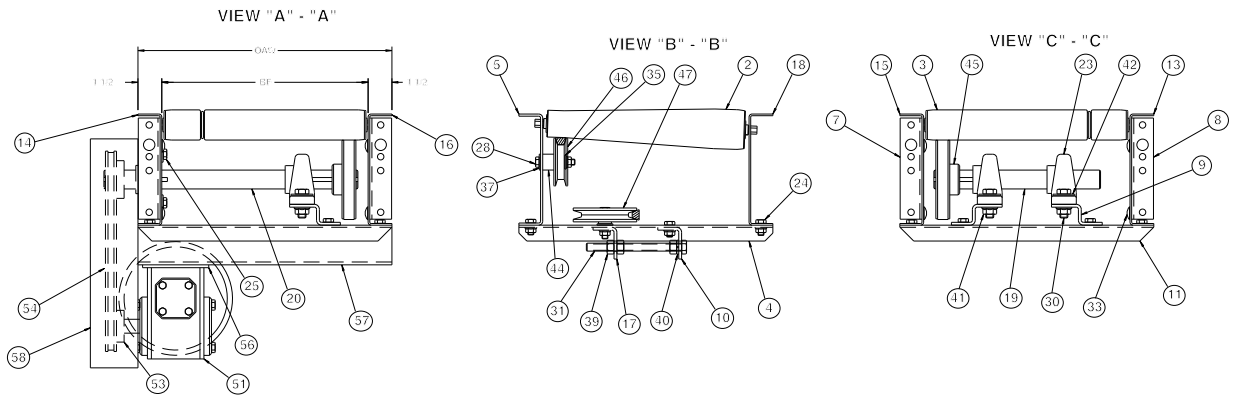
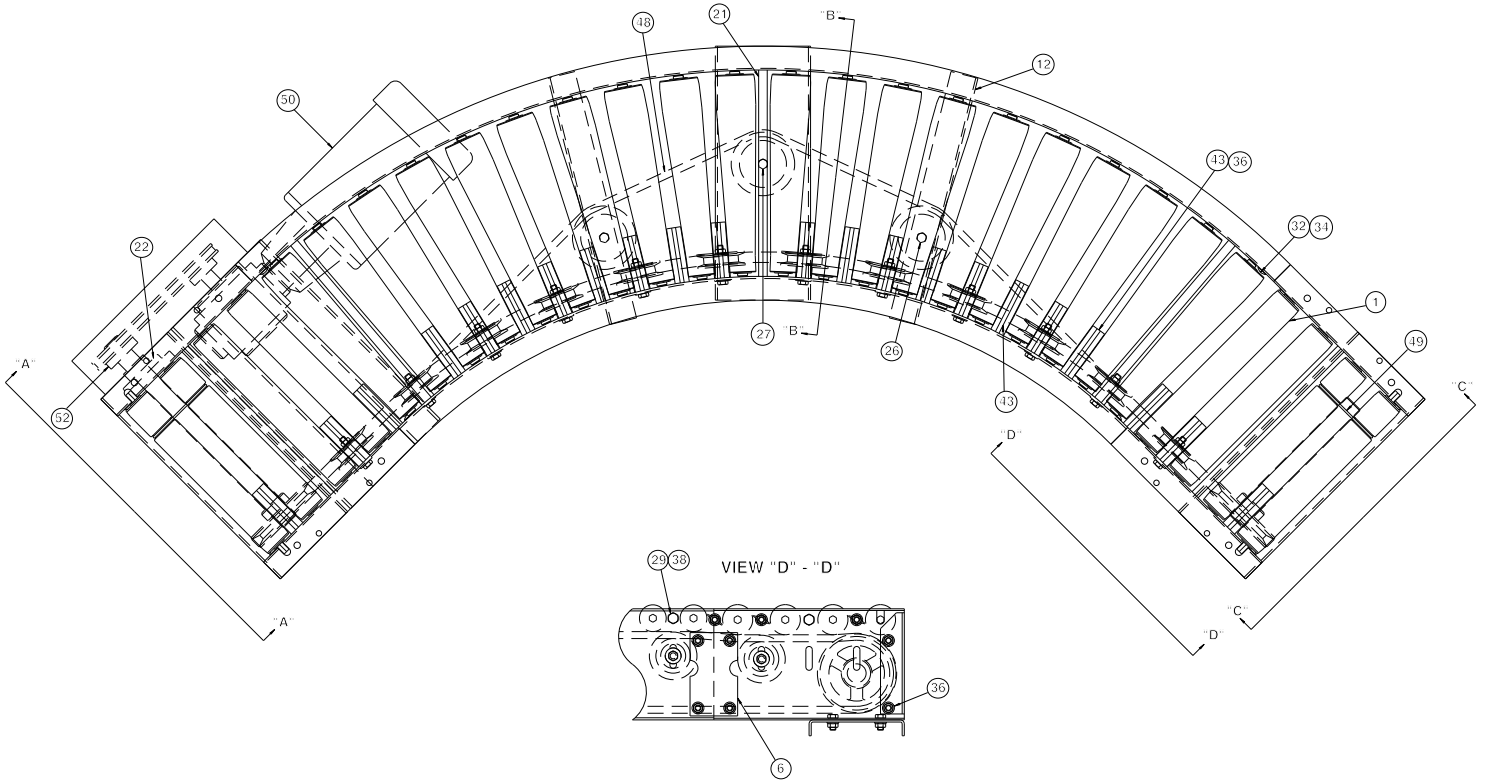
PARTS LIST FOR UNIT WITH END DRIVE / SIDE MOUNT END DRIVE

| ITEM NO. | PART NO. | DESCRIPTION | ITEM NO. | PART NO. | DESCRIPTION |
|----------|--------------|---|----------|-------------|--|
| 1 | SN | 138G Roller w/ 5/16" hex shaft | 34 | FSW09204 | 5/16" Flange Nut |
| 2 | SN | 138T Tapered Roller | 35 | FSW09205 | 5/16" Flat Washer |
| 3 | SN | 138G Grooved Roller w/ 5/16" hex shaft | 36 | FSW09304 | 3/8" Flange Nut |
| 4 | M00132-BF-SN | Take-Up Sheave Mounting Channel | 37 | FSW09305 | 3/8" Flat Washer |
| 5 | SN | 90° Inside Curve Channel | 38 | FSW09407 | 7/16" Lock Washer |
| 5 | SN | 45° Inside Curve Channel | 39 | FSW09500 | 1/2" Hex Nut |
| 6 | M00634-SN | Splice Plate | 40 | FSW09507 | 1/2" Lock Washer |
| 7 | M00650L-SN | Bolt-In Butt Coupling, Left Hand | 41 | FSW09514 | 1/2" Flange Nut |
| 8 | M00650R-SN | Bolt-In Butt Coupling, Right Hand | 42 | FSW09960 | 1/2" Flat Washer |
| 9 | M00654-SN | Pillow Block Mounting Bracket | 43 | MCW06449-SN | Orange Nylon Finger Guard |
| 10 | M00656-SN | Take-Up Rod Support Angle | 44 | MCW06456-SN | Black Nylon Sheave Spacer/Adapter |
| 11 | M00683-BF-SN | Sheave Mounting Channel | 45 | SHW71946 | V-Belt Sheave w/ 1-3/16" Bore |
| 12 | M02097-BF-SN | Idler Sheave Angle | 46 | SHW76244 | Nylon 3" O.D. V-Groove Sheave |
| 13 | SN | Left Hand Outside Tangent Drive Side Channel | 47 | SHW76240 | Steel 4" O.D. V-Groove Take-Up Sheave |
| 14 | SN | Right Hand Outside Tangent Drive Side Channel | 48 | SN | V-Belt |
| 15 | SN | Left Hand Inside Tangent Side Channel | 49 | SN | Drive Band |
| 16 | SN | Right Hand Inside Tangent Side Channel | 50 | SN | Motor |
| 17 | M03736-SN | Take-Up Mounting Angle | 51 | SN | Gear Reducer |
| 18 | SN | 90° Outside Curve Channel | 52 | SN | Drive Sprocket |
| 18 | SN | 45° Outside Curve Channel | 53 | SN | Gear Reducer Drive Sprocket |
| 19 | S10397-SN | Tail Sheave Shaft | 54 | SN | #50 (thru 1-1/2 HP) or #60 Roller Chain |
| 20 | S10398-BF-SN | Drive Sheave Shaft | 55 | SN | Chain Guard Angle Mount (Not Shown) |
| 21 | S11388-BF-SN | Bed Spacer Rod | 56 | SN | Reducer Push Plate Assembly |
| 22 | BRW04040 | 3 Hole Flange Bearing w/ 1-3/16" Bore | 57 | SN | Underneath Motor Base Plate |
| 23 | BRW04115 | Pillow Block Bearing w/ 1-3/16" Bore | 58 | SN | End Drive Chain Guard Assembly |
| 24 | FSW00355 | 3/8" x 3/4" HHCS | - | - | OPTIONAL SIDE MOUNT END DRIVE PARTS LIST |
| 25 | FSW00358 | 3/8" x 1-1/4" HHCS | 50 | SN | Motor |
| 26 | FSW00359 | 3/8" x 1-1/2" HHCS | 51 | SN | Gear Reducer |
| 27 | FSW00360 | 3/8" x 1-3/4" HHCS | 52 | SN | Drive Sprocket |
| 28 | FSW00362 | 3/8" x 2-1/4" HHCS | 53 | SN | Gear Reducer Drive Sprocket |
| 29 | FSW00457 | 7/16" x 1" HHCS | 54 | SN | #50 (thru 1-1/2 HP) or #60 Roller Chain |
| 30 | FSW00559 | 1/2" x 1-1/2" HHCS | 55 | SN | Reducer Push Plate Assembly |
| 31 | FSW00584 | 1/2" x 6" HHTB | 56 | SN | Side Mount Motor Base Plate |
| 32 | FSW04259 | 5/16" x 3/4" Carriage Bolt | 57 | SN | Side Mount Chain Guard Assembly |
| 33 | FSW04355 | 3/8" x 3/4" Carriage Bolt | | | |

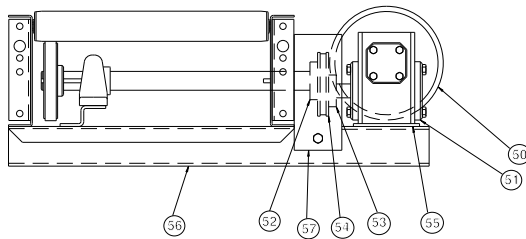
BF = Between Frames. SN = Unit Serial Number. Specify unit serial number when ordering replacement parts to ensure proper allocation of components. Recommended Spare Parts are shown in red.

MODEL 138LRC

ILLUSTRATIONS FOR UNIT WITH END DRIVE / SIDE MOUNT END DRIVE 19



OPTIONAL SIDE MOUNT END DRIVE



MODEL 196LRC

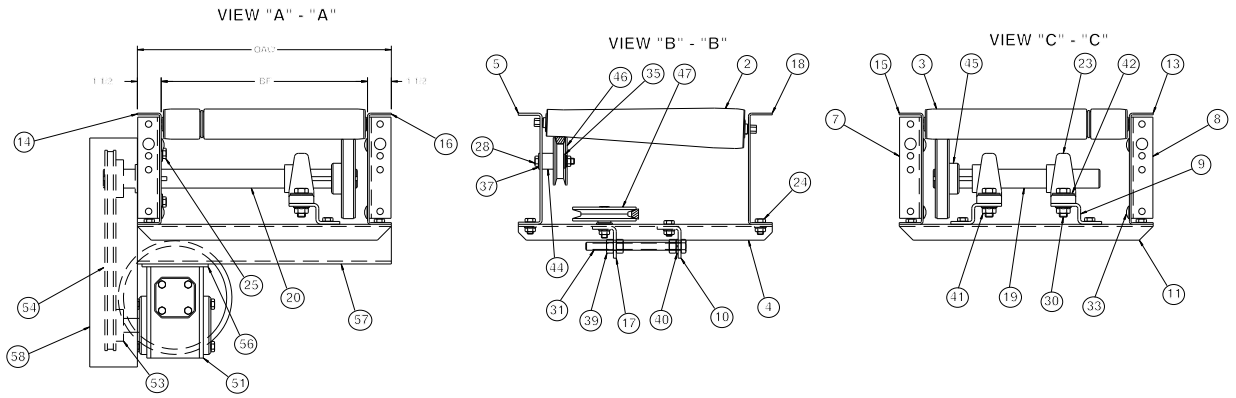
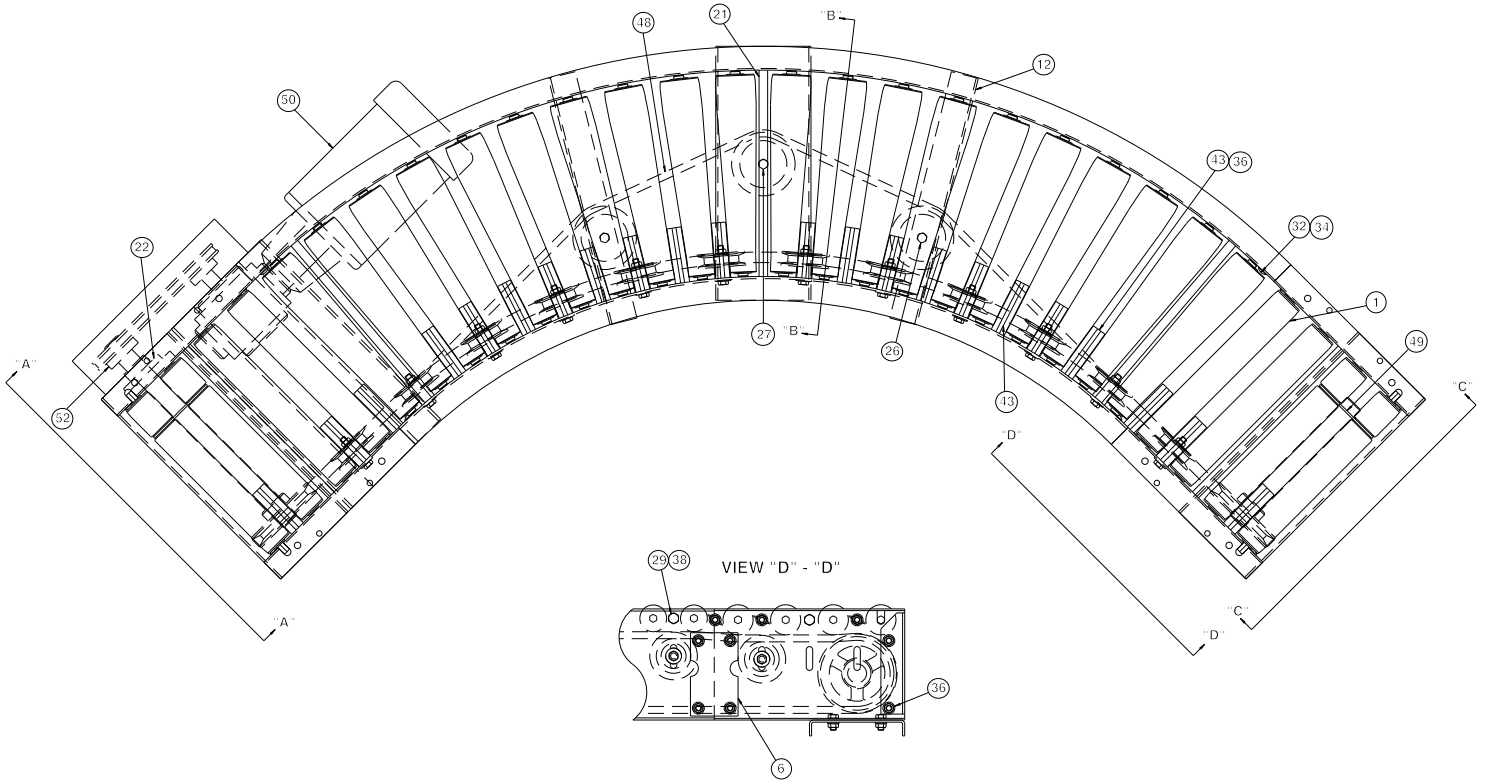
PARTS LIST FOR UNIT WITH END DRIVE / SIDE MOUNT END DRIVE

| ITEM NO. | PART NO. | DESCRIPTION | ITEM NO. | PART NO. | DESCRIPTION |
|----------|---------------------|---|----------|-------------|--|
| 1 | A20340-BF-SN | 196S Roller | 34 | FSW09204 | 5/16" Flange Nut |
| 2 | A20353-BF-SN | 254T Tapered Roller | 35 | FSW09205 | 5/16" Flat Washer |
| 3 | A37089-BF-SN | 196S Grooved Roller | 36 | FSW09304 | 3/8" Flange Nut |
| 4 | M00132-BF-SN | Take-Up Sheave Mounting Channel | 37 | FSW09305 | 3/8" Flat Washer |
| 5 | M00505V01-SN | 90° Inside Curve Channel | 38 | FSW09407 | 7/16" Lock Washer |
| 5 | M00077V01-SN | 45° Inside Curve Channel | 39 | FSW09500 | 1/2" Hex Nut |
| 6 | M00634-SN | Splice Plate | 40 | FSW09507 | 1/2" Lock Washer |
| 7 | M00650L-SN | Bolt-In Butt Coupling, Left Hand | 41 | FSW09514 | 1/2" Flange Nut |
| 8 | M00650R-SN | Bolt-In Butt Coupling, Right Hand | 42 | FSW09960 | 1/2" Flat Washer |
| 9 | M00654-SN | Pillow Block Mounting Bracket | 43 | MCW06449-SN | Orange Nylon Finger Guard |
| 10 | M00656-SN | Take-Up Rod Support Angle | 44 | MCW06456-SN | Black Nylon Sheave Spacer/Adapter |
| 11 | M00683-BF-SN | Sheave Mounting Channel | 45 | SHW71946 | V-Belt Sheave w/ 1-3/16" Bore |
| 12 | M02097-BF-SN | Idler Sheave Angle | 46 | SHW76244 | Nylon 3" O.D. V-Groove Sheave |
| 13 | M02148L-TL-SN | Left Hand Outside Tangent Drive Side Channel | 47 | SHW76240 | Steel 4" O.D. V-Groove Take-Up Sheave |
| 14 | M02148R-TL-SN | Right Hand Outside Tangent Drive Side Channel | 48 | SN | V-Belt |
| 15 | M02166L-TLV01-BF-SN | Left Hand Inside Tangent Side Channel | 49 | VBW71373 | 1/8" Dia. x 9-1/2" Lg. Drive Band |
| 16 | M02166R-TLV01-BF-SN | Right Hand Inside Tangent Side Channel | 50 | SN | Motor |
| 17 | M03736-SN | Take-Up Mounting Angle | 51 | SN | Gear Reducer |
| 18 | M03739-BF-SN | 90° Outside Curve Channel | 52 | SN | Drive Sprocket |
| 18 | M03755-BF-SN | 45° Outside Curve Channel | 53 | SN | Gear Reducer Drive Sprocket |
| 19 | S10397-SN | Tail Sheave Shaft | 54 | SN | #50 (thru 1-1/2 HP) or #60 Roller Chain |
| 20 | S10398-BF-SN | Drive Sheave Shaft | 55 | SN | Chain Guard Angle Mount (Not Shown) |
| 21 | S11388-BF-SN | Bed Spacer Rod | 56 | SN | Reducer Push Plate Assembly |
| 22 | BRW04040 | 3 Hole Flange Bearing w/ 1-3/16" Bore | 57 | SN | Underneath Motor Base Plate |
| 23 | BRW04115 | Pillow Block Bearing w/ 1-3/16" Bore | 58 | SN | End Drive Chain Guard Assembly |
| 24 | FSW00355 | 3/8" x 3/4" HHCS | - | - | OPTIONAL SIDE MOUNT END DRIVE PARTS LIST |
| 25 | FSW00358 | 3/8" x 1-1/4" HHCS | 50 | SN | Motor |
| 26 | FSW00359 | 3/8" x 1-1/2" HHCS | 51 | SN | Gear Reducer |
| 27 | FSW00360 | 3/8" x 1-3/4" HHCS | 52 | SN | Drive Sprocket |
| 28 | FSW00362 | 3/8" x 2-1/4" HHCS | 53 | SN | Gear Reducer Drive Sprocket |
| 29 | FSW00457 | 7/16" x 1" HHCS | 54 | SN | #50 (thru 1-1/2 HP) or #60 Roller Chain |
| 30 | FSW00559 | 1/2" x 1-1/2" HHCS | 55 | SN | Reducer Push Plate Assembly |
| 31 | FSW00584 | 1/2" x 6" HHTB | 56 | SN | Side Mount Motor Base Plate |
| 32 | FSW04259 | 5/16" x 3/4" Carriage Bolt | 57 | SN | Side Mount Chain Guard Assembly |
| 33 | FSW04355 | 3/8" x 3/4" Carriage Bolt | | | |

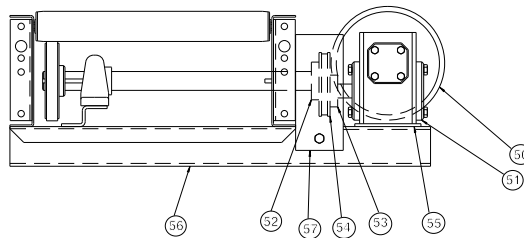
BF = Between Frames. SN = Unit Serial Number. Specify unit serial number when ordering replacement parts to ensure proper allocation of components. Recommended Spare Parts are shown in red.

MODEL 196LRC

ILLUSTRATIONS FOR UNIT WITH END DRIVE / SIDE MOUNT END DRIVE 21



OPTIONAL SIDE MOUNT END DRIVE



MODEL 138LRCS

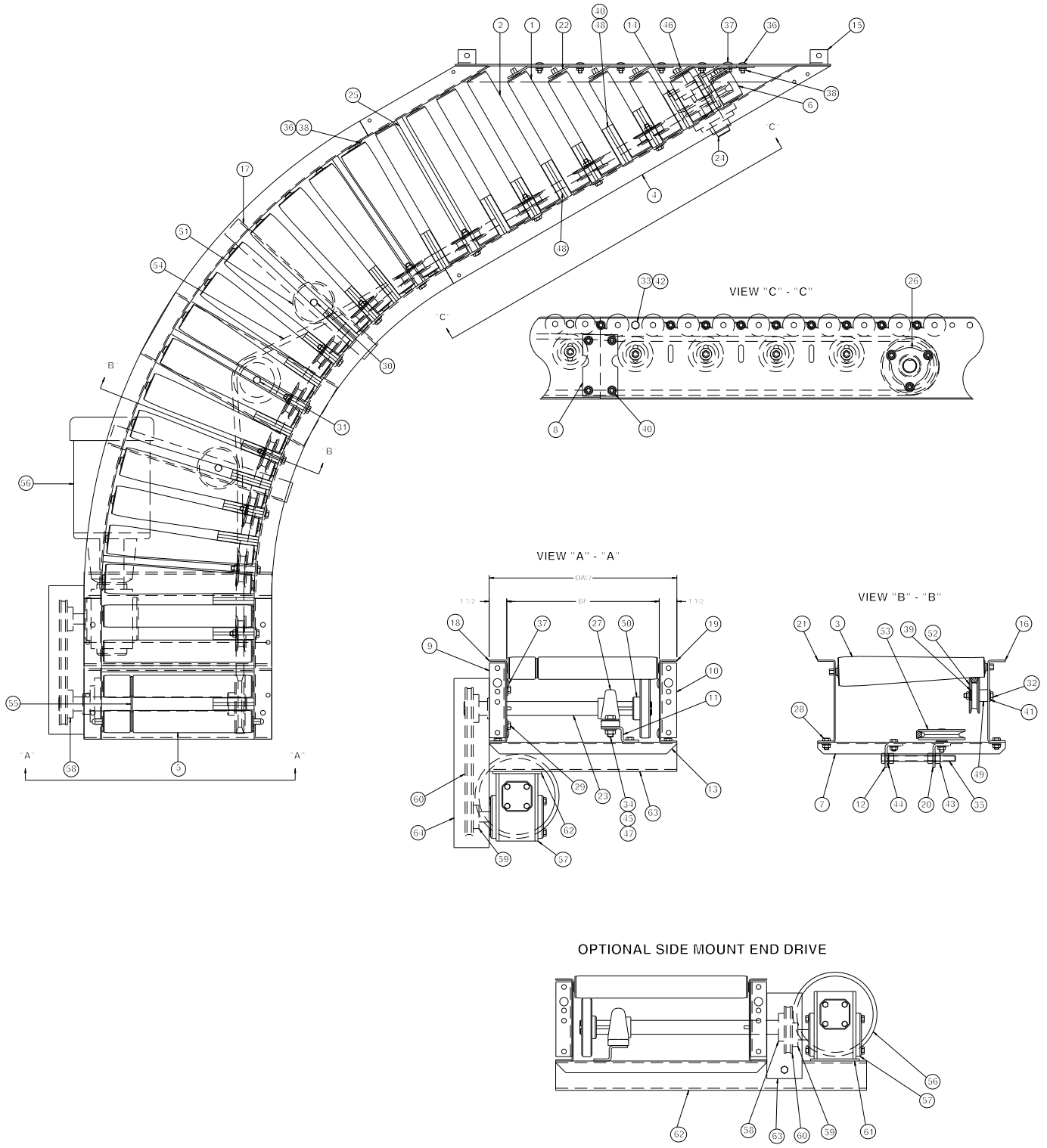
PARTS LIST FOR UNIT WITH END DRIVE / SIDE MOUNT END DRIVE

| ITEM NO. | PART NO. | DESCRIPTION | ITEM NO. | PART NO. | DESCRIPTION |
|----------|--------------|--|----------|-------------|--|
| 1 | SN | 138G Roller w/ 5/16" Hex (Shortened for Spur) | 37 | FSW04355 | 3/8" x 3/4" Carriage Bolt |
| 2 | SN | 138G Roller w/ 5/16" Hex | 38 | FSW09204 | 5/16" Flange Nut |
| 3 | SN | 138T Tapered Roller | 39 | FSW09205 | 5/16" Flat Washer |
| 4 | SN | Spur Assembly (Specify 30° or 45°) | 40 | FSW09304 | 3/8" Flange Nut |
| 5 | SN | 138G Grooved Roller | 41 | FSW09305 | 3/8" Flat Washer |
| 6 | SN | 138G Pinned Roller w/ 5/16" Hex (Shortened for Spur) | 42 | FSW09407 | 7/16" Lock Washer |
| 7 | M00132-BF-SN | Take-Up Sheave Mounting Channel | 43 | FSW09500 | 1/2" Hex Nut |
| 8 | SN | Splice Plate | 44 | FSW09507 | 1/2" Lock Washer |
| 9 | SN | Bolt-In Butt Coupling, Left Hand | 45 | FSW09514 | 1/2" Flange Nut |
| 10 | SN | Bolt-In Butt Coupling, Right Hand | 46 | FSW09957-01 | 1/8" x 1" Cotter Pin |
| 11 | M00654-SN | Pillow Block Mounting Bracket | 47 | FSW09960 | 1/2" Flat Washer |
| 12 | M00656-SN | Take-Up Rod Support Angle | 48 | MCW06449-SN | Orange Nylon Finger Guard |
| 13 | M00683-BF-SN | Sheave Mounting Channel | 49 | MCW06456-SN | Black Nylon Sheave Spacer/Adapter |
| 14 | SN | Flange Bearing Mount | 50 | SHW71946 | V-Belt Sheave w/ 1-3/16" Bore |
| 15 | M02053-SN | Spur Mounting Bracket | 51 | SHW75229 | Flat Idler Sheave |
| 16 | SN | 32-1/2" IR Inside Curve Channel, 45° | 52 | SHW76244 | Nylon 3" O.D. V-Groove Sheave |
| 16 | SN | 32-1/2" IR Inside Curve Channel, 60° | 53 | SHW76240 | Steel 4" O.D. V-Groove Take-Up Sheave |
| 17 | M02097-BF-SN | Idler Sheave Angle | 54 | SN | V-Belt |
| 18 | SN | Outside Tangent Drive Side Channel | 55 | SN | Drive Band |
| 19 | SN | Inside Tangent Side Channel | 56 | SN | Motor |
| 20 | M03736-SN | Take-Up Mounting Angle | 57 | SN | Gear Reducer |
| 21 | SN | 32-1/2" IR Outside Curve Channel, 45° | 58 | SN | Drive Sprocket |
| 21 | SN | 32-1/2" IR Outside Curve Channel, 60° | 59 | SN | Gear Reducer Drive Sprocket |
| 22 | SN | Roller Mounting Clip | 60 | SN | #50 (thru 1-1/2 HP) or #60 Roller Chain |
| 23 | S10398-BF-SN | Drive Sheave Shaft | 61 | SN | Chain Guard Angle Mount (Not Shown) |
| 24 | S10425-SN | Tail Sheave Shaft | 62 | SN | Reducer Push Plate Assembly |
| 25 | S11388-BF-SN | Bed Spacer Rod | 63 | SN | Underneath Motor Base Plate |
| 26 | BRW04040 | 3 Hole Flange Bearing w/ 1-3/16" Bore | 64 | SN | End Drive Chain Guard Assembly |
| 27 | BRW04115 | Pillow Block Bearing w/ 1-3/16" Bore | | | |
| 28 | FSW00355 | 3/8" x 3/4" HHCS | - | - | OPTIONAL SIDE MOUNT END DRIVE PARTS LIST |
| 29 | FSW00358 | 3/8" x 1-1/4" HHCS | 56 | SN | Motor |
| 30 | FSW00359 | 3/8" x 1-1/2" HHCS | 57 | SN | Gear Reducer |
| 31 | FSW00360 | 3/8" x 1-3/4" HHCS | 58 | SN | Drive Sprocket |
| 32 | FSW00362 | 3/8" x 2-1/4" HHCS | 59 | SN | Gear Reducer Drive Sprocket |
| 33 | FSW00457 | 7/16" x 1" HHCS | 60 | SN | #50 (thru 1-1/2 HP) or #60 Roller Chain |
| 34 | FSW00559 | 1/2" x 1-1/2" HHCS | 61 | SN | Reducer Push Plate Assembly |
| 35 | FSW00584 | 1/2" x 6" HHTB | 62 | SN | Side Mount Motor Base Plate |
| 36 | FSW04259 | 5/16" x 3/4" Carriage Bolt | 63 | SN | Side Mount Chain Guard Assembly |

BF = Between Frames. SN = Unit Serial Number. Specify unit serial number when ordering replacement parts to ensure proper allocation of components. Recommended Spare Parts are shown in red.

MODEL 138LRCS

ILLUSTRATIONS FOR UNIT WITH END DRIVE / SIDE MOUNT END DRIVE 23



MODEL 196LRCS

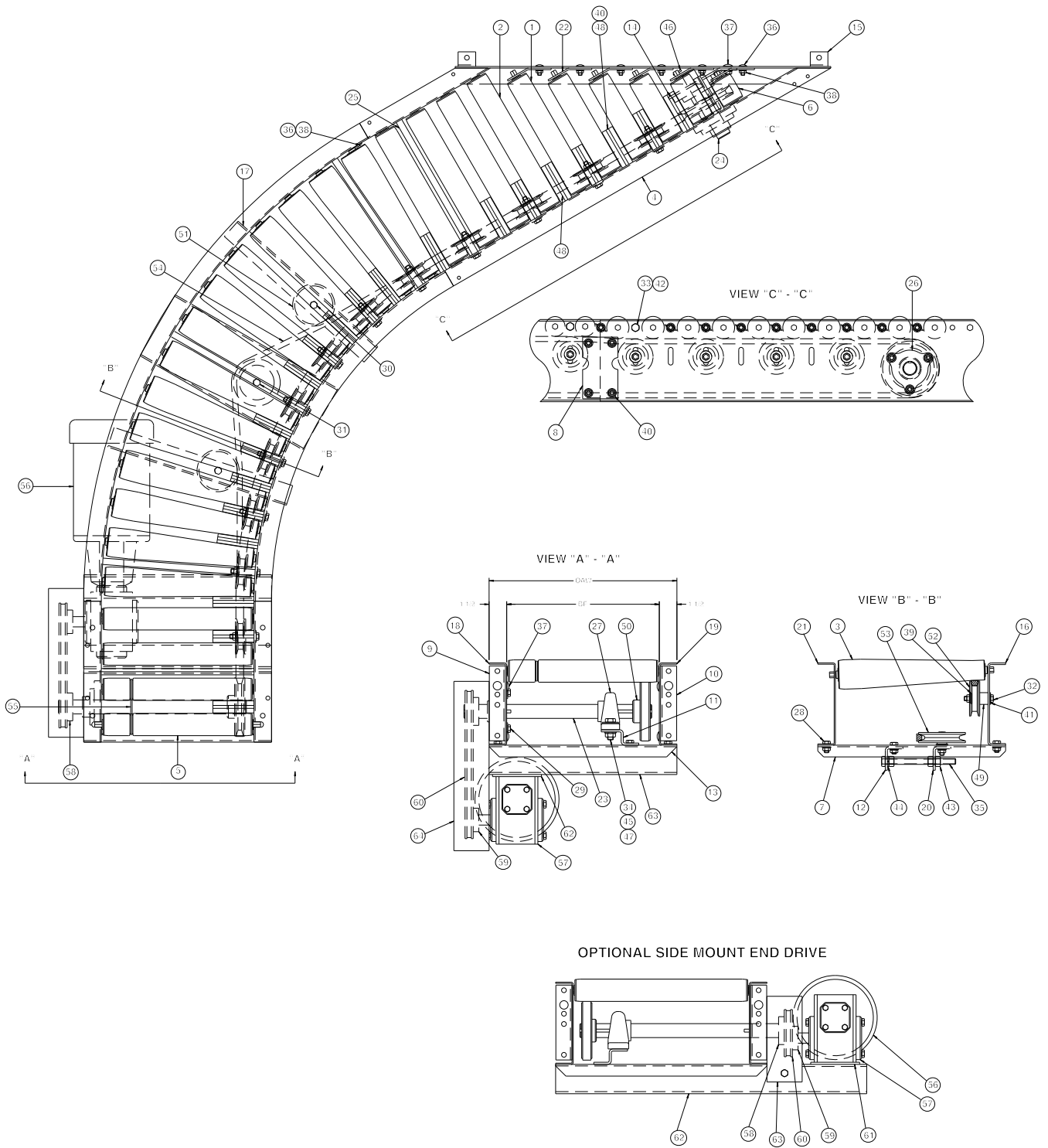
PARTS LIST FOR UNIT WITH END DRIVE / SIDE MOUNT END DRIVE

| ITEM NO. | PART NO. | DESCRIPTION | ITEM NO. | PART NO. | DESCRIPTION |
|----------|---------------------|---|----------|-------------|--|
| 1 | SN | 196S Roller (Shortened for Spur Assembly) | 35 | FSW00584 | 1/2" x 6" HHTB |
| 2 | A20340-BF-SN | 196S Roller | 36 | FSW04259 | 5/16" x 3/4" Carriage Bolt |
| 3 | A20353-BF-SN | 254T Tapered Roller | 37 | FSW04355 | 3/8" x 3/4" Carriage Bolt |
| 4 | SN | Spur Assembly (Specify 30° or 45°) | 38 | FSW09204 | 5/16" Flange Nut |
| 5 | A37089-BF-SN | 196S Grooved Roller | 39 | FSW09205 | 5/16" Flat Washer |
| 6 | SN | 196S Pinned Roller (Shortened for Spur Ass'y) | 40 | FSW09304 | 3/8" Flange Nut |
| 7 | M00132-BF-SN | Take-Up Sheave Mounting Channel | 41 | FSW09305 | 3/8" Flat Washer |
| 8 | M00634-SN | Splice Plate | 42 | FSW09407 | 7/16" Lock Washer |
| 9 | M00650L-SN | Bolt-In Butt Coupling, Left Hand | 43 | FSW09500 | 1/2" Hex Nut |
| 10 | M00650R-SN | Bolt-In Butt Coupling, Right Hand | 44 | FSW09507 | 1/2" Lock Washer |
| 11 | M00654-SN | Pillow Block Mounting Bracket | 45 | FSW09514 | 1/2" Flange Nut |
| 12 | M00656-SN | Take-Up Rod Support Angle | 46 | FSW09957-01 | 1/8" x 1" Cotter Pin |
| 13 | M00683-BF-SN | Sheave Mounting Channel | 47 | FSW09960 | 1/2" Flat Washer |
| 14 | SN | Flange Bearing Mount | 48 | MCW06449-SN | Orange Nylon Finger Guard |
| 15 | M02053-SN | Spur Mounting Bracket | 49 | MCW06456-SN | Black Nylon Sheave Spacer/Adapter |
| 16 | M02224V01-SN | 32-1/2" IR Inside Curve Channel, 45° | 50 | SHW71946 | V-Belt Sheave w/ 1-3/16" Bore |
| 16 | M00077V01-SN | 48" IR Inside Curve Channel, 45° | 51 | SHW75229 | Flat Idler Sheave |
| 16 | M02066V01-SN | 32-1/2" IR Inside Curve Channel, 60° | 52 | SHW76244 | Nylon 3" O.D. V-Groove Sheave |
| 16 | M02067V01-SN | 48" IR Inside Curve Channel, 60° | 53 | SHW76240 | Steel 4" O.D. V-Groove Take-Up Sheave |
| 17 | M02097-BF-SN | Idler Sheave Angle | 54 | SN | V-Belt |
| 18 | M02148-L/R-TL-SN | Outside Tangent Drive Side Channel | 55 | VBW71373 | 1/8" Dia. x 9-1/2" Lg. Drive Band |
| 19 | M02166-L/R-TLV01-SN | Inside Tangent Side Channel | 56 | SN | Motor |
| 20 | M03736-SN | Take-Up Mounting Angle | 57 | SN | Gear Reducer |
| 21 | M03763-BF-SN | 32-1/2" IR Outside Curve Channel, 45° | 58 | SN | Drive Sprocket |
| 21 | M03755-BF-SN | 48" IR Outside Curve Channel, 45° | 59 | SN | Gear Reducer Drive Sprocket |
| 21 | M03747-BF-SN | 32-1/2" IR Outside Curve Channel, 60° | 60 | SN | #50 (thru 1-1/2 HP) or #60 Roller Chain |
| 21 | M03759-BF-SN | 48" IR Outside Curve Channel, 60° | 61 | SN | Chain Guard Angle Mount (Not Shown) |
| 22 | SN | Roller Mounting Clip | 62 | SN | Reducer Push Plate Assembly |
| 23 | S10398-BF-SN | Drive Sheave Shaft | 63 | SN | Underneath Motor Base Plate |
| 24 | S10425-SN | Tail Sheave Shaft | 64 | SN | End Drive Chain Guard Assembly |
| 25 | S11388-BF-SN | Bed Spacer Rod | - | - | OPTIONAL SIDE MOUNT END DRIVE PARTS LIST |
| 26 | BRW04040 | 3 Hole Flange Bearing w/ 1-3/16" Bore | 56 | SN | Motor |
| 27 | BRW04115 | Pillow Block Bearing w/ 1-3/16" Bore | 57 | SN | Gear Reducer |
| 28 | FSW00355 | 3/8" x 3/4" HHCS | 58 | SN | Drive Sprocket |
| 29 | FSW00358 | 3/8" x 1-1/4" HHCS | 59 | SN | Gear Reducer Drive Sprocket |
| 30 | FSW00359 | 3/8" x 1-1/2" HHCS | 60 | SN | #50 (thru 1-1/2 HP) or #60 Roller Chain |
| 31 | FSW00360 | 3/8" x 1-3/4" HHCS | 61 | SN | Reducer Push Plate Assembly |
| 32 | FSW00362 | 3/8" x 2-1/4" HHCS | 62 | SN | Side Mount Motor Base Plate |
| 33 | FSW00457 | 7/16" x 1" HHCS | 63 | SN | Side Mount Chain Guard Assembly |
| 34 | FSW00559 | 1/2" x 1-1/2" HHCS | | | |

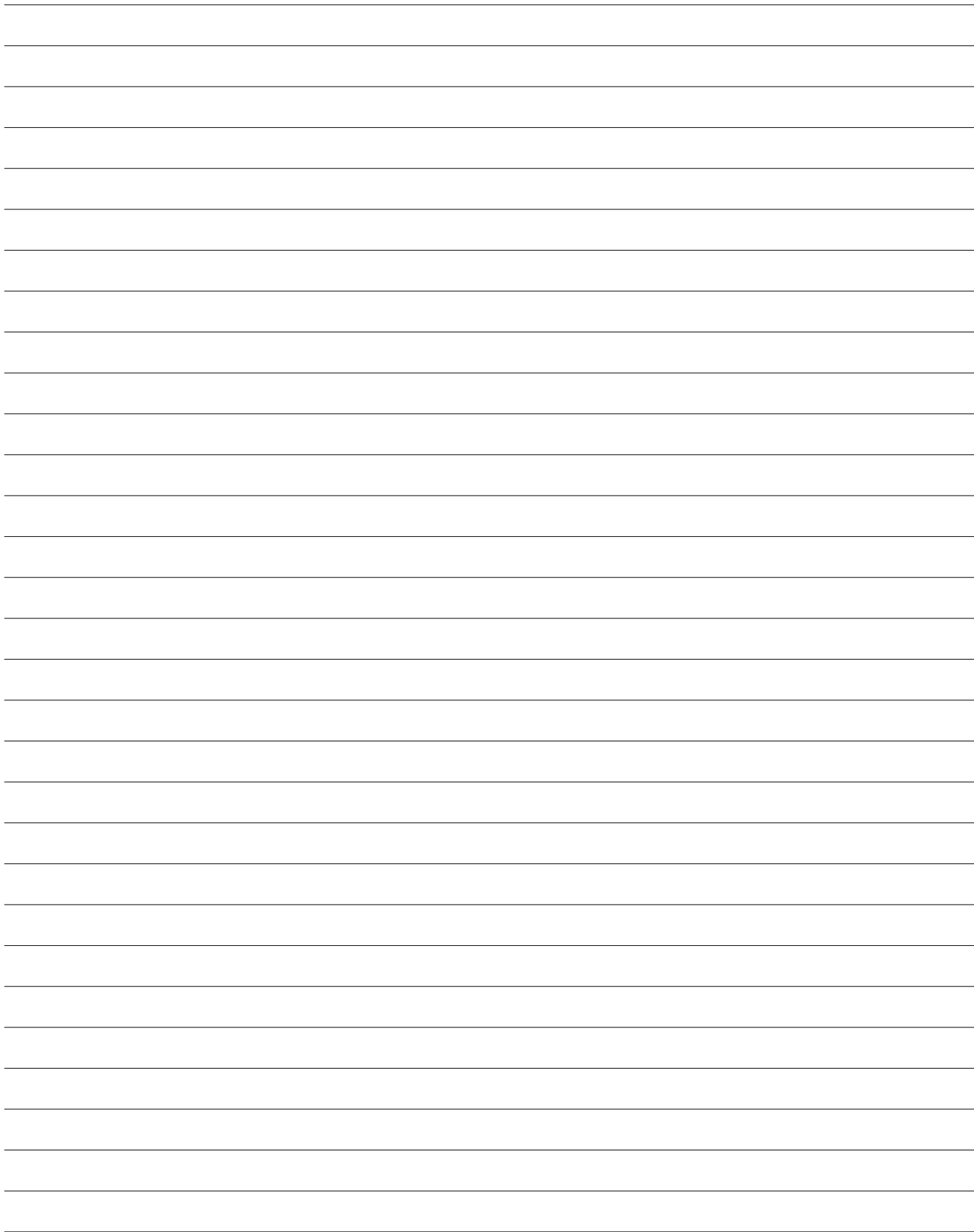
BF = Between Frames. SN = Unit Serial Number. Specify unit serial number when ordering replacement parts to ensure proper allocation of components. Recommended Spare Parts are shown in red.

MODEL 196LRCS

ILLUSTRATIONS FOR UNIT WITH END DRIVE / SIDE MOUNT END DRIVE 25



NOTES



WARRANTY

- Materials used by Roach Conveyors is of good quality.
- Any part proving to be defective in materials or workmanship upon Roach inspection, will be replaced at NO cost, FOB, Trumann, Arkansas, for one year. Installation expense will be paid by others. Roach liability includes only furnishing said part or parts.
- Roach is not liable for consequential damages, such as loss of profit, delays or expenses incurred by failure of said part or parts.
- Failure due to abuse, incorrect adjustments, exposure to corrosive or abrasive environment or operation under damp conditions does not constitute failure due to defects in workmanship or materials.
- Component parts not manufactured by Roach (motors, gear reducers, etc.) will be repaired or replaced at the option of their manufacturer. Contact nearest authorized service center for all warranty claims.
- NOTE: Motors or gear reducers tampered with before inspection shall be considered free of ALL warranty claims.



--All specifications are subject to change without notice--
--Drawings are intended for illustration ONLY and are not to scale--



808 HIGHWAY 463
TRUMANN, ARKANSAS 72472-1310
Tel 870-483-7631 Fax 870-483-7049
info@roachconveyors.com
www.roachconveyors.com