Little David ${ }^{\text {TM }}$ Case Sealer

## LDXRTB 2.0 Series Random Top and Bottom Drive Semi Automatic Case Sealer



# LDXRTB 2.0 Operation 

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## Table of Contents

## Chapter 1: Introduction

Chapter 2: Operating Safety ..... 2
Chapter 3: Overview ..... 5
Chapter 4: Installation ..... 8
Chapter 5: Theory of Operation ..... 10
Chapter 6: Machine Components ..... 13
Chapter 7: Maintenance ..... 21Chapter 8: Troubleshooting28
Chapter 9: Warranty ..... 30
Chapter 10: Assembly Drawings and Schematic ..... 32

## Chapter 11:Machine Available Special Options

## Introduction

Thank you for purchasing the Little David ${ }^{\text {TM }}$ case sealer, the LDXRTB 2.0. The LDXRTB 2.0 is semi-automatic top and bottom drive case sealer. The LDXRTB 2.0 is a robust built 24/7 case sealer constructed of quality materials, linear bearing, pneumatic and electrical components.. All employees who will be required to operate and maintain the case sealer must read this manual to ensure safe operation as well as proper set-up and maintenance throughout the life of the machine . After reading this manual, you will know how to perform the following functions,

- How to operate the machine safely.
- How to set the conveyor height of the machine
- How to set the head height limiter.
- How to set the machine to operate in uniform mode.
- How to adjust the head balance regulator.
- How to adjust the side rail trigger sensor
- Troubleshooting and replacing of worn or defective parts.

Throughout this manual there are several illustrations designed to help you perform the variety of tasks described.

## Operating Safety

Observe the warnings and cautions below when using the Little David LDXRTB case sealer. Within this manual on page 4 , all safety labels are depicted with location and part number. If a safety, label is missing or not legible it must be replaced immediately. Failure to follow safety labels can lead to injury or damage to the machine.

## Instruction: Requirement to System Operation

Instruction: An electrical receptacle must be located near the machine. The line cord connection to the receptacle is the disconnect means for the machine. The receptacle must be located in an area that is easily accessible to all personnel.

## Waming: Potential Bodily Injury

Warning:Always disconnect all sources of energy to the machine before performing maintenance. Sources of energy include electrical and pneumatic. Refer to your company's lock out tag out procedures.

Warning:Never bypass or remove safety guards from the machine or tape cartridge.
Warning:Never override safety devices such as Emergency Stop switches.
Warning: Never adjust the machine or tape cartridges when the machine is operating.
Warning:Never place hands or body inside confines of the machine unless top head assembly is locked in place and all power sources are locked out.

Warning: Never wear jewelry, loose clothing, such as ties, scarves etc and long hair must be pulled back when operating this machine.

Warning:Never pull a jammed box out of the machine while it is in operation. Stop machine and raise head with bypass switch.

Warning: When feeding a semi automatic case sealer always hold the top flaps down a rear of box, to avoid accidental entrapment in the machine

This manual contains operator information for Little David Application Equipment. It is directed toward the person who operates and maintains the machine. Read through the manual completely before operating the machine. Thereafter, refer to it as necessary.

Take special note of all warnings, cautions, and maintenance instructions. Like any other piece of equipment, the Little David Case Sealer functions best when maintained and used correctly.

## Caution: Potential Machine Damage:

Caution:Never push or drag machine across the floor with the top head assembly fully raised. Makes sure it is completely lowered.

Caution:Never pull the machine by its pack table or side rails.
Caution:Provide and use proper electrical power.
Caution:Do not operate, maintain, or otherwise use this machine, except as described in this manual.

## Special instruction:

The top drive assembly incorporates adjustable belt guards. The guards are made adjustable to maintain $1 / 32^{\prime \prime}$ gap between the top of the belt and the guard itself. This eliminates a pinch point between the guard and the belt. The guards are located at the rear of the machine where the belt wraps around the drive pulleys. The guards must be adjusted inward as the belts wear. It is mandatory the gap be adjusted to no more than $1 / 32^{\prime \prime}$ clearance between the top of the belt and the guard itself. The guard is simply adjusted by loosening two 6 mm panel head machine screws and sliding the guard inward to maintain the $1 / 32$ " gap. Failure to adjust the guards may cause injury.



## Chapter

## Case Sealer Sections

## Overview

This manual covers several parts of the machine. The following diagram identifies the key sections of the machine.


## Machine Specifications

## Machine dimensions:

- Height: 59.875" @ 22" conveyor height
- Length including pack table:
- 46.25" overall - ( base machine)
- 50.25" overall - ( w/ .ITA/LDXRTB/4)
- 55.50" overall - (w/ .ITA/LDXRTB/9)
- 60.25" overall - (w/ .ITA/LDXRTB/14)
- 64.25" overall - (w/ .ITA/LDXRTB/18)
- Width: 33.5625"
- Conveyor height: 22" to 27.75" - Standard


## Electrical Requirements:

- Standard Voltage: 120/1/60 with 15 amp dedicated service.
- Optional voltages are available consult factory.


## Operating speed:

- Standard belt speed: $115 \mathrm{ft} / \mathrm{min}$
- Optional high belt speed: $155 \mathrm{ft} / \mathrm{min}$


## Air Requirement:

- $10 \mathrm{scfm} @ 95 \mathrm{psi}$ - maximum throughput based on maximum box range.

Machine box capacity:

- Length: - 6 " to infinite
- Width: - $\mathbf{5}^{1 / 2 "}$ " 26"
- Height: $31 / 2^{\prime \prime}$ to 24 " - Low box option of $21 / 2$ " tall , tape tab length will be reduced by $1 / 2$ ".



## Installation

A
lways check for any signs that the machine may have been damaged before fully removing it from the shipping skid. If machine arrives damaged contact Loveshaw immediately to help in filing a claim with shipping company.

## Section 1: Placing the Machine

The case sealer is fully assembled and ready for operation.
Step One: Carefully remove the machine from the shipping skid. Remove all fasteners and brackets holding the machine to the skid. Remove head assembly shipping brackets.

Step Two: Take care removing the machine from the skid as it weighs 550 pounds! Use a forklift or similar device to complete this task.

Step Three: Move machine to designate location. It may be necessary to adjust the conveyor height of the machine. The legs on the machine are adjustable by loosening the leg clamping hardware and sliding the leg to its proper position. The use of a jack or forklift is required. (Refer to figure on page 7)

Step Four: Connect compressed air and electricity to the machine.


Leg retracted


Leg extended

## Chapter

## Theory of Operation

## LDXRTB

The LDXRTB 2.0 will automatically adjust itself for the width and height of the box to be sealed.

With the machine started, a box is placed on the infeed pack table. The box is moved forward until photoelectric sensor "PE1" is triggered. The triggering of "PE1" will energize solenoid valve "SV2" which will cause the side rails to travel inward centering the box on the pack table and holding it in place. The operator is able to fill the box with product and fold the top flaps of the box down. While holding the top flaps down the operator pushes the box forward until the leading panel of the box contacts the sensing paddle. When the sensing paddle is depress it triggers a prox. switch "PROX 1" which in turns supplies energy to solenoid valve "SV3". When valve "SV3" is energized, the top head assembly will begin to travel upward until the front sensing paddle is no longer being held in by the front panel of the box. Now the operator can push the box into the machine under the top drive assembly. (Note: always hold the top flaps of the box down at the rear of the box to avoid accidental entrapment with the top drive assembly) The top drive assembly will lower down on top of the box and will propel it through the machine. As the box moves off photoelectric sensor "PE1 \& PE1A" the side rail solenoid valve, "SV2" will deenergize and the side rails will open to their home position. The box will travel through the tape cartridges and tape will be applied to the box. The box will exit the machine and the top head assembly will lower down to its home position.

## Key design features:

The LDXRTB 2.0 incorporates an adjustable bracket for photoelectric sensor "PE1". The bracket allows various positions to trigger the side rails inward. By mounting the bracket closer to the infeed of the machine, the side rails will close on to a greater amount of the side panels of the box. This position is optimal if the operator is loading product into the box before sealing it. By mounting the photoelectric sensor at the beginning of the pack table the side rails will close in sooner as the box is moved toward the infeed of the machine. This position is optimal if the box is already filled and the flaps are folded. The operator can advance the box and the side rails will center it, as the box is moving.

The LDXRTB 2.0 incorporates a box overstuffed switch. This switch is located in the bottom of the frame assembly. As a box is fed into the machine, the top head drive assembly lowers down on top of it. The overstuff switch is triggered. This action eliminates any chances of the sensing paddle retriggering causing the head to rise while the box is being processed. Typically, an overstuffed box can retrigger the sensing paddle and the head will raise causing poor tape application or a box jam. The overstuff switch nulls out the sensing paddle while it is activated.

The LDXRTB 2.0 incorporates an adjustable top head assembly limiter. The head limiter controls the minimum height of the top head assembly at rest. (The starting point) The head limiter allows for more through put speed by limiting how far the top head assembly travels before it clears the height of the box to be processed. For example if the minimum box height to be processed is 10 inches, the head limiter can be set at $9.5 "$. By setting the limiter, the head only travel downward to the 9.5 " position after each box.

The LDXRTB 2.0 incorporates an adjustable siderail limiter. The siderail limiter controls the maximum width of the siderails at rest. (The starting point) This allows for more through put speed by
limiting how far the siderails run out to. For example if the maximum box width is 15 inches, the siderail limiter can be set at 16 inches. This will increase through put by not letting the siderails return to the max. width of 26 inches.

The LDXRTB 2.0 incorporates a movable control station. The control station can be placed to any metal surface of the machine. This versatility allows the operator to place the controls of the machine at the best position for them

The LDXRTB 2.0 incorporates uniform lock capability on the head and side rails assembly on the machine. The top head and side rail assemblies can be locked at a specific position to process a batch of same size boxes. The assemblies can be locked in either tandem or individually dependant on need. This increases the throughput of the machine since it does not have to wait for the machine to adjust to the box.

The LDXRTB 2.0 incorporates a maintained manual head raising toggle switch. This switch allows the head to be raised without the machine running. With the machine stopped and the emergency stop switches extended, the head can be raised. This is convenient when re-filling the bottom tape cartridge or box jam clearing. (Note: never enter under the machines top head assembly, without locking the upper head assembly with the lock knob.)

## Chapter



## Machine Components

## Control Station

The control station consist of an electrical enclosure, push pull mushroom head emergency stop switch and a momentary start pushbutton. The control station has two magnets on the back side of it which allows the operator to locate the machine controls to best fit their position at the machine.


## Pneumatic regulators

The regulators optimize the machine for the customers' specific needs. Regulators "R1" and "R3" control the top head lifting movement while "R2" controls the side rails.

Regulator "R1" controls the head lifting pressure and is normally set to 80 psi. Lowering the air pressure will make the top head assembly move upward sluggishly. Increasing the pressure will make the head travel upwards quickly. However; by increasing the pressure the head over travel will increase and actually decrease through put.

Regulator "R3" controls the downward force the top head assembly will exert on to the top of the box when it contacts it. By decreasing the pressure, the head will have more downward force on the box, which is desirable for overfilled conditions. Increasing the pressure will lessen the top head assembly downward force, which is desirable for voided boxes. Note: too much pressure may inhibit the top assembly from lowering downward or may cause box staling due to the top belts from not contacting the box with enough drive.

Regulator "R2" controls the pressure that the side rails center and hold the box. By increasing the pressure the side rails can center heavier boxes on the pack table. By increasing the pressure the side rails have more clamping force which makes it more difficult to advance a box into the machine. Lowering the pressure is desirable when processing light boxes. Be careful not to lower the pressure too much, this will cause the side rails not to fully travel inward.


## Top drive assembly

The top drive assembly consist of a $1 / 5 \mathrm{hp}$ gear motor, sprockets, chain and endless, guided, rough top belting. The top drive assembly, assist in conveying the box forward through the machine. The top drive assembly insures that tall unstable boxes will not topple over as they process through the machine. The endless rough top belt has an integral guide rib on the back of it. This guide eliminates any sophisticated apparatus to track the belt. The endless belt feature has increased longevity over conventional laced belting.


## Bottom drive assembly

The bottom drive assembly consist of a $1 / 3 \mathrm{hp}$ gear motor, sprockets, chain and endless, guided, rough top belting. The bottom drive assembly is the main driver in conveying the box forward through the machine. The bottom drive assembly insures that boxes will travel through the machine without stalling The endless rough top belt has an integral guide rib on the back of it. This guide eliminates any sophisticated apparatus to track the belt. The endless belt feature has increased longevity over conventional laced belting.


## Sensing paddle assembly

The sensing paddle assembly, consist of a proximity switch "PROX1" and a single air switch "AS3". The sensing paddle primary function is to measure the height of the box as it at the infeed of the machine. When the sensing paddle is depressed inward by the leading panel of the box, proximity switch "PROX1" is triggered and then triggers valve "SV3". "SV3" in turn fills the head lifting cylinders which causes the top head assembly to travel upward. When the top head assembly raises higher than the box to be processed, switch "PROX1" releases and the head will start to travel downward on top of the box to be processed. When a box is travelling under the top head assembly into the machine, it is passing under the head-sensing paddle. If the top of the box inadvertently contacts the sensing paddle without blocking "PE1A" the head would raise up again and cause taping or jamming issues in the machine. Photo eye "PE1A" nulls proximity switch "PROX1" when it is blocked. machine front idler rollers. Air switch "AS3" is the manual head raise switch located on the top drive weldment.


## Electrical enclosure assembly

The electrical enclosure assembly is located inside the frame of the machine behind side panel. The enclosure is located next to the air pressure regulator. Inside the electrical enclosure are fuses, contactors, overload relays and terminal blocks. The devices selected protect the machine from short circuit and overload conditions.


## Pack table assembly

The pack table assembly consists of conveyor rollers, photoelectric sensor and works in conjunction with the side rails. The pack table design allows it to be used as a platform to fill a box on and then be able to convey it to the infeed of the machine. The photoelectric sensor "PE1" is mounted under the pack table with is sensing area pointed up through the rollers of
the table. The photoelectric sensor is triggered when the box is rolled over the top of it. The side rails will travel inward and center and hold the box in place. With the box being held in position an operator can fill it without the box moving around. When the box is filled the top flaps must be folded down and pushed up against the sensing paddle. Once the box enters the machine the photoelectric sensor will be cleared and the side rails will open completely. The position of the sensor can be changed to allow the side rails to be triggered either earlier or later.


## Chapter

## Maintenance

## Safety: NEVER perform any maintenance on the LDXRTB 2.0 without first following your companys LOCK OUT / TAG OUT procedures

## Replacing Top Drive Gear motor

1. Disconnect motor cable from the motor conduit box.
2. Remove top drive guard. (guard with integral manual head raise switch)
3. Loosen two set screws which hold sprocket on motor shaft. (measure distance from face of sprocket to end of motor shaft and record)
4. Loosen four mounting screws which secure motor to mounting bracket.
5. Slide motor to release drive chain tension.
6. Slide sprocket off of motor shaft.
7. Remove motor mounting screws completely and remove motor.
8. Mount replacement motor on to mounting bracket and replace the four mounting screws.
9. Slide sprocket on to motor shaft with the drive chain on the sprocket. Position sprocket on the motor shaft as recorded in step 3. Tighten sprocket set screws when proper position is obtained.
10. Slide motors until drive chain is tensioned properly and tighten the four mounting screws. The drive chain should have approximately $1 / 2$ inch deflection when pressed. Over tightening the chain can cause premature wear.
11. Replace top drive guard.
12. Re-connect motor cable in the motor conduit box.


## Replacing Bottom Drive Gear motor

1. Disconnect motor cable from the motor conduit box.
2. Remove bottom drive top, side and rear guards from the machine.
3. Remove guard form bottom drive motor drive guard.
4. Disconnect motor cable from the motor conduit box.
5. Loosen two set screws which hold sprocket on motor shaft. (measure distance from face of sprocket to end of motor shaft and record)
6. Loosen four mounting screws which secure motor to mounting bracket.
7. Slide motor to release drive chain tension.
8. Slide sprocket off of motor shaft.
9. Remove motor mounting screws completely and remove motor.
10. Mount replacement motor on to mounting bracket and replace the four mounting screws.
11. Slide sprocket on to motor shaft with the drive chain on the sprocket. Position sprocket on the motor shaft as recorded in step 5. Tighten sprocket set screws when proper position is obtained.
12. Slide motors until drive chain is tensioned properly and tighten the four mounting screws. The drive chain should have approximately $1 / 2$ inch deflection when pressed. Over tightening the chain can cause premature wear.
13. Replace all guards removed in earlier steps.
14. Re-connect motor cable in the motor conduit box.



## Replacing Top Drive Belt

1. Remove top drive belt covers.
2. Relieve belt tensioning spring.
3. Slide belt over pulleys to get center guide of belt out of the center grooves of the pulleys.
4. Install new belt by first putting belt over one of the pulleys and then sliding it over the other pulley while pulling the belt.
5. Re-tension spring until it is fully compressed.
6. Replace top drive belt cover.


## Replacing Bottom Drive Belt

1. Remove bottom drive belt covers.
2. Relieve belt tensioning spring.
3. Slide belt over pulleys to get center guide of belt out of the center grooves of the pulleys.
4. Install new belt by first putting belt over one of the pulleys and then sliding it over the other pulley while pulling the belt.
5. Re-tension spring until it is fully compressed.
6. Replace top drive belt cover.


## Troubleshooting:

| PROBLEM | CAUSE | CORRECTIVE ACTION |
| :--- | :--- | :--- |
| Machine will not start. | Emergency stop switch(s) activated either <br> control box or top head assembly. <br> No incoming power. <br> Defective start pushbutton | Check that both E-stop switches are not <br> engaged. <br> Check machine fuses and plant receptacle. <br> Re-place pushbutton. |
| Box jamming in machine. | Box is out of range of machine. <br> Box is voided and head is crushing it. <br> Tape cartridge problems. <br> Drive belting worn. | Do not run out of spec box. <br> Adjust head balance regulator. <br> Check tape cartridge troubleshooting. <br> Replace drive belts. |
| Top head assy. won't move. | Machine E-stopped. <br> Air not present at machine. <br> Photo eye PE1A is not working. <br> Proximity switch PROX1 is not working. <br> Head lift cylinders blocking valve failure. | Readjust or replace prox. switch. <br> Replace blocking valves. |
| Check that E-stops are not engaged. |  |  |
| Side rails will not move. | Machine E-stopped. machine airline. <br> Side rail lock knob engaged. <br> Photo eye PE1 is not working. <br> Solenoid SV2 is not working. | Check that E-stops are not engaged. <br> Release side rail lock knob. <br> Replace photo eye. |
| Replace solenoid valve. |  |  |


| Drive belts are slipping. | Belts are not tensioned. | Adjust tensioner until spring is collapsed. |
| :--- | :--- | :--- |
| Belts are worn. | Replace drive belts. |  |

## Chapter

## Warranty:

# CASE SEALER, CUSTOM \& SPECIAL APPLICATIONS 

## Little David $®_{\text {Warranty }}$

For: All Standard Little David ${ }^{\circledR}$ Semi-Automatic Case Sealers. All Standard LD-16 Series Fully Automatic Case Sealers.

## All Special Application Case Sealers (Fully \& Semi Automatic).

## 2 YEAR WARRANTY ON DRIVE MOTOR

2 YEAR WARRANTY ON GEAR MOTOR
2 YEAR WARRANTY ON GEAR REDUCER
3 YEAR WARRANTY ON TAPE CARTRIDGE
(EXCEPT FOR MOVING PARTS THAT ARE SUBJECT TO NORMAL WEAR, TEAR AND REPLACEMENT WHICH ARE WARRANTED ONLY TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP.)

## 1 YEAR ON PLC

1 YEAR ON SERVO DRIVE
1 YEAR ALL OTHER PARTS
Except for wear and moving parts.
*LIMITED WARRANTY - LOVESHAW, an ITW COMPANY (HEREIN AFTER "LOVESHAW')
WARRANTS ONLY THAT THE GOODS SOLD BY IT SHALL BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP, UNDER PROPER AND NORMAL USE AND MAINTENANCE,

AS FOLLOWS:
DRIVE MOTOR - 2 YEARS
GEAR REDUCER - 2 YEARS
GEAR MOTOR - 2 YEARS (THIS APPLIES TO SIDE BELTS ONLY)
TAPE CARTRIDGE - 3 YEARS (EXCEPT FOR MOVING PARTS AND PARTS WHICH
ARE SUBJECT TO NORMAL WEAR, TEAR AND REPLACEMENT WHICH ARE
WARRANTED ONLY TO BE FREE FROM DEFECTS IN MATERIAL AND
WORKMANSHIP);
PLC- 1 YEAR
SERVO DRIVE -
1 YEAR
ALL OTHER PARTS - 1 YEAR (EXCEPT FOR MOVING PARTS AND PARTS, WHICH ARE
SUBJECT TO NORMAL WEAR, TEAR AND REPLACEMENT WHICH ARE WARRANTED
ONLY TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP).
the warranty period shall commence as of the date of delivery to the purchaser. the
OBLIGATION OF LOVESHAW UNDER THIS WARRANTY IS STRICTLY LIMITED TO THE COST OF REPAIRING OR REPLACING, AS LOVESHAW MAY ELECT, ANY PART OR PARTS THAT PROVE IN LOVESHAW'S JUDGMENT TO HAVE BEEN DEFECTIVE IN MATERIAL OR WORKMANSHIP at the time the goods were shipped from loveshaw's plant. any warranty claim not made in writing to loveshaw at ITS HOME OFFICE WITHIN THE APPLICABLE WARRANTY PERIOD AND WITHIN 10 DAYS OF FAILURE WILL NOT BE VALID. THIS IS THE SOLE AND EXCLUSIVE REMEDY AVAILABLE UNDER THIS WARRANTY. UNDER NO CIRCUMSTANCES WILL LOVESHAW BE LIABLE FOR INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES.

IF REQUESTED BY LOVESHAW, PURCHASER SHALL RETURN ANY DEFECTIVE PART OR PARTS TO LOVESHAW'S PLANT, FREIGHT PREPAID. ALL WARRANTY PART REPLACEMENT AND REPAIRS MUST BE MADE BY LOVESHAW OR A LOVESHAW DEALER AUTHORIZED TO HANDLE THE GOODS COVERED BY THIS WARRANTY. ANY OUTSIDE WORK OR ALTERATIONS DONE WITHOUT LOVESHAW'S PRIOR WRITTEN APPROVAL WILL RENDER THIS WARRANTY VOID. LOVESHAW an ITW COMPANY WILL NOT ASSUME ANY EXPENSE OR LIABILITY FOR ANY REPAIRS MADE TO ITS GOODS OUTSIDE ITS WORKS WITHOUT ITS PRIOR WRITTEN CONSENT. THIS WARRANTY SHALL NOT APPLY TO ANY ITEM THAT HAS NOT BEEN USED, OPERATED, AND MAINTAINED IN ACCORDANCE WITH LOVESHAW'S RECOMMENDED PROCEDURES. LOVESHAW SHALL HAVE NO LIABILITY WHATSOEVER WHERE THE GOODS HAVE BEEN ALTERED, MISUSED, ABUSED OR INVOLVED IN AN ACCIDENT.

NO PERSON IS AUTHORIZED TO MAKE ANY WARRANTY OR TO CREATE ANY LIABILITY BINDING UPON LOVESHAW, WHICH IS NOT STATED IN THIS WARRANTY. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES OF ANY KIND, EXPRESSED OR IMPLIED, WHICH ARE HEREBY EXCLUDED. IN PARTICULAR, THE IMPLIED WARRANTY OF MERCHANTABILITY, AS WELL AS THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY EXCLUDED.

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## Chapter

## ASSEMBL Y DRAWINGS AND SCHEMATICS











# DRIVE MOTOR - SPROCKET OPTIONS 

Note: Refer to drawing previous page

## Motor Selection:

| Part number | Description | Position |
| :--- | :--- | :--- |
| $50100-054$ | $1 / 6 \mathrm{hp}$ gear motor $120 \mathrm{~V}-240 \mathrm{~V} / 50-60 \mathrm{~Hz}$ | Top drive |
| $50100-053$ | $1 / 3 \mathrm{hp}$ gear motor $120 \mathrm{~V}-240 \mathrm{~V} / 50-60 \mathrm{~Hz}$ | Bottom drive |


| Part number | Description | Position |
| :--- | :--- | :--- |
| $50100-057$ | $1 / 6$ hp gear motor $380 \mathrm{~V}-440 \mathrm{~V} / 50-60 \mathrm{~Hz} 3 \mathrm{PH}$ | Top drive |
| $50100-056$ | $1 / 3 \mathrm{hp}$ gear motor $380 \mathrm{~V}-440 \mathrm{~V} / 50-60 \mathrm{~Hz} 3 \mathrm{PH}$ | Bottom drive |

## Drive Motor Sprocket Selection:

| Part number | Belt Speed - Feet per minute | Electrical frequency -Hz |
| :--- | :--- | :--- |
| SPK-0119 | $115 \mathrm{ft} / \mathrm{min}$ | 60 Hz |
| SPK-0130 | $155 \mathrm{ft} / \mathrm{min}$ | 60 Hz |


| Part number | Belt Speed - Feet per minute | Electrical frequency -Hz |
| :--- | :--- | :--- |
| SPK-0128 | $115 \mathrm{ft} / \mathrm{min}$ | 50 Hz |
| SPK-0133 | $155 \mathrm{ft} / \mathrm{min}$ | 50 Hz |

Note: When changing sprockets to modify belt speed it is necessary to change the overall length of the drive chain.

| Belt speed | Bottom Drive | Top drive |
| :--- | :--- | :--- |
| $115 \mathrm{ft} / \mathrm{min}$ | Full links -21, Master link - 1 | Full links - 25, Half links - 1 Master link - 1 |
| $155 \mathrm{ft} / \mathrm{min}$ | Full links -22, Master link - 1 | Full links - 25, Master link - 1 |

Part numbers: \#40 Chain - HC102 Half link - HC302 Master Link - HC202




| KEY | PART NUMBER | DESCRIPTIDN |
| :---: | :---: | :---: |
| 1 | A149-HAM-2-22MM | PUSH BUTTUN ENCLISURE |
| 2 | SS8-C-D7 | E-STIP UPERATUR |
| 3 | SS8-E-D7 | CQUPLING PLATE |
| 4 | SS8-F-D7 | E-STDP LEGEND PLATE |
| 5 | SS8-B-D7 | CDNTACT BLICK - N.C. |
| 6 | SS8-D-D7 | MIMENTARY PUSHBUTTEN |
| 7 | SS8-A-D7 | CINTACT BLDCK - N.D. |
| 8 | SS8-G-D7 | START PRESS PLATE |
| 9 | A18-4/TC | 4 CDNDUCTDR CABLE (7 FT) |
| 10 | AH119D | STRAIN RELEIF |
| 11 | AH119D-N | LDCK NUT |
| N/S | SPH-1393 | ENCASED RIUND MAGNETS |
| N/S | FPHSB050P08 | PAN HEAD SCREW 8/32X1/2" |
| N/S | FLWSBP | LDCK WASHER \#8 |
| N/S | FHFNSBP | HEX NUT 8/32 |




TOLERACEES THE LOVESHAW CORPORATION



## Chapter

## MACHINE A VAIABLE SPECIAL OPTIONS

| Parts List |  |  |  |
| :---: | :---: | :--- | :--- |
| ITEM | QTY | PART NUMBER | DESCRIPTION |
| 1 | 2 | CR-1010 | ROLLER |
| 2 | 6 | FLWMGP | LOCK WASHER M6 |
| 3 | 6 | FSHMG016P10 | SHCS M6x16 LG. |
| 4 | 12 | FNLNMHP | NYLOCK NUT M8 |
| 5 | 1 | LDX-0194-4 | PACK TABLE EXT. |
| 6 | 2 | LDX-0195-4 | CAP, ROLLER SHORT |
| 7 | 2 | LDX-0196-3 | ANGLE, ROLLER <br> SUPPORT SHORT |
| 8 | 12 | FHHMH016P10 | HHCS M8 X 16 |
| 9 | 2 | LDX-0278-3 | SUPPORT PLATE, <br> PACK TABLE |











