

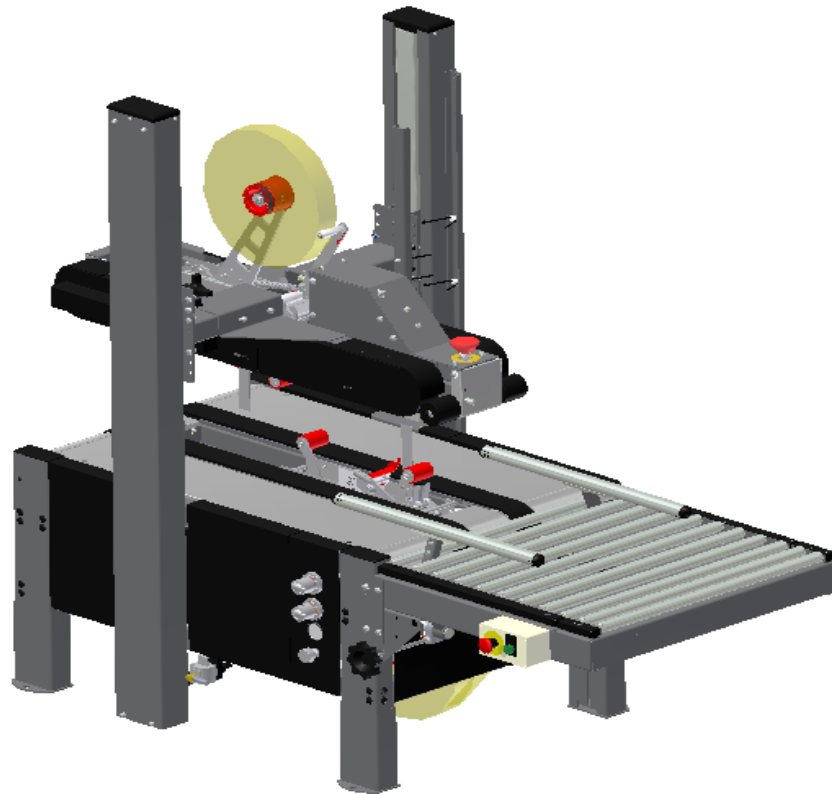
# LOVESHAW

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Little David™ Case Sealer

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



Version: Z 5/19/2016

Operator's Manual

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LITTLE DAVID™ CASE SEALER

# **LDXRTB 2.0 Operation**

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Thursday, April 07, 2011



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## **Introduction**

**T**hank you for purchasing the Little David™ 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.

### **Warning: 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.

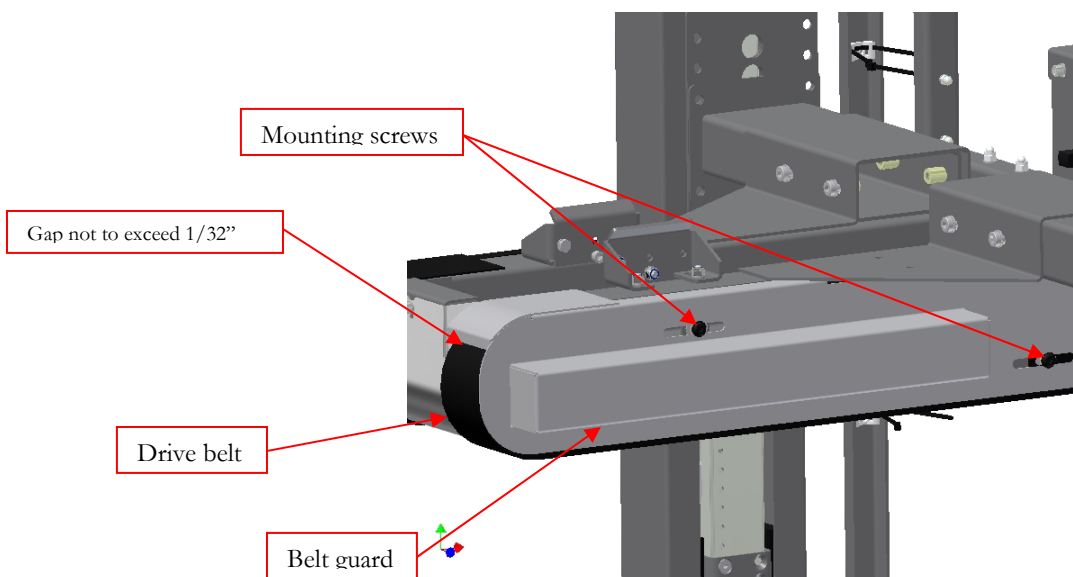
**Caution:** Never pull the machine by its pack table or side rails.

**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" 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" clearance between the top of the belt and the guard itself. The guard is simply adjusted by loosening two 6mm panel head machine screws and sliding the guard inward to maintain the 1/32" gap. Failure to adjust the guards may cause injury.



## Safety Devices Functional Testing:

It is necessary to test the functionality of the safety devices at regular time intervals. The safety emergency stop function must be tested daily before each and every shift of operation. The procedure for testing the emergency stop function is as follows:

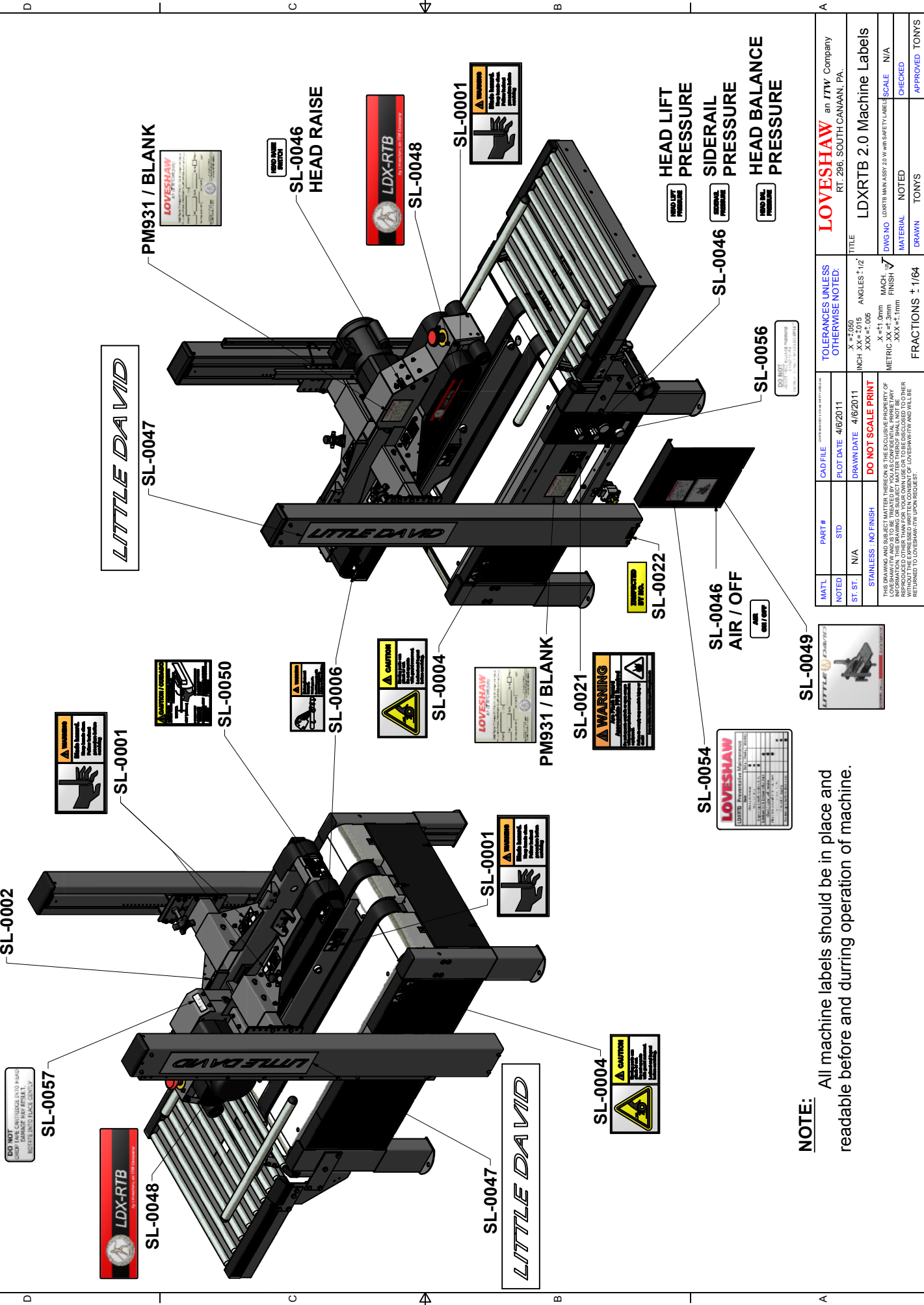
1. Connect the machine to the main electrical power source.
2. De-press the emergency stop pushbutton the main electrical enclosure.
3. Press the start pushbutton on the main enclosure. If the machine does not start proceed to the next step. If the machine does start unplug it from the main electrical power source and report it to your supervisor. This machine cannot be used until a qualified technician corrects the issue.
4. Reset the estop pushbutton to its extended state. Push the start pushbutton the machine should start. With the machine running de-press the emergency stop pushbutton, the machine should now stop. This confirms that the emergency stop function is working correctly.

The overload motor relay must be tested every three months to confirm its operation. This test can only be performed by a qualify technician since it requires the enclosure door to be opened.

1. Connect the machine to the main electrical power source.
2. Insure that the emergency stop pushbutton is fully extended.
3. De-press the machine start pushbutton. The machine drive motor should start at this time.
4. Open the main electrical enclosure. Use extreme caution not to contact any live conductors.
5. Locate the overload relay and de-press the red test button on the front of the unit. The machine should stop. If the machine does not stop the overloads relay is defective and needs to be changed out. If the machine stops the overload relay passes the functionality test.
6. Close the main enclosure door and lock using the turn latch.

Never operate a machine that does not pass the safety functional testing! Report it to management and have the machine taken out of service until the deficiency is corrected.

| REVISION HISTORY |             |          |
|------------------|-------------|----------|
| REV              | DESCRIPTION | DATE     |
| A                | RELEASED    | 4/6/2011 |
|                  |             | APPROVED |
|                  |             | TONYS    |



**NOTE:** All machine labels should be in place and readable before and during operation of machine.

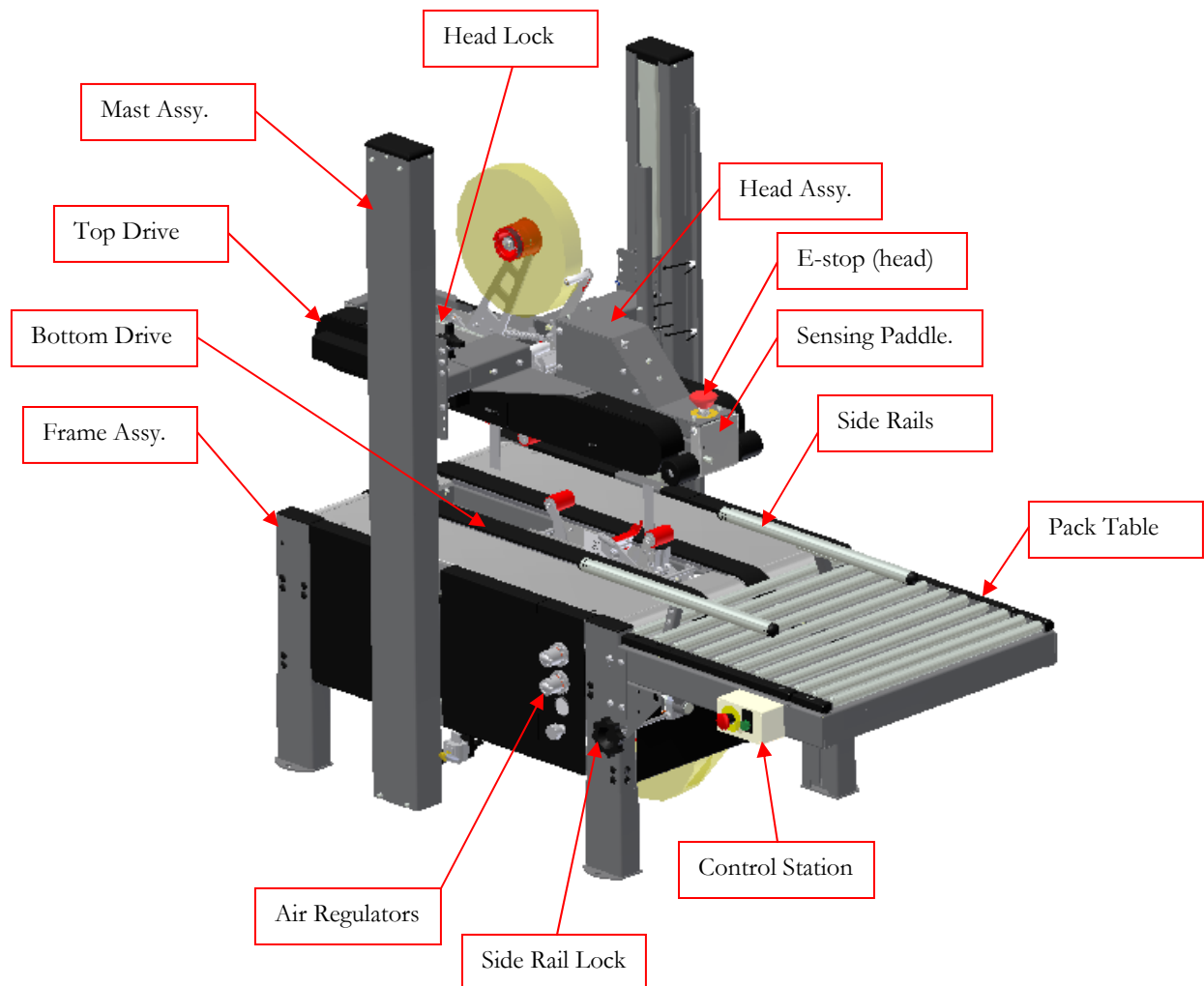
| MATERIAL   |     | PART # |     | CAD FILE           |          | TOLERANCES UNLESS OTHERWISE NOTED: |              |
|--|-----|--------|-----|--------------------|----------|------------------------------------|--------------|
| NOTED  | STD | STD    | STD | PLOT DATE          | 4/6/2011 | X ±.050                            | ANGLES ±1/2° |
| ST. ST.  | N/A | N/A    | N/A | DRAWN DATE         | 4/6/2011 | INCH .XX ±.015                     | MACH. FINISH |
| STAINLESS: NO FINISH   |     |        |     | DO NOT SCALE PRINT |          |                                    |              |
| <small>THIS DRAWING IS THE PROPERTY OF LOVESHAW. IT IS TO BE USED ONLY FOR THE PROJECT AND QUANTITY SPECIFIED. LOVESHAW AND ITS AFFILIATES ASSUME NO LIABILITY FOR ANY DAMAGE TO PERSONS OR PROPERTY OF ANY KIND. LOVESHAW AND ITS AFFILIATES ASSUME NO LIABILITY FOR ANY DAMAGE TO PERSONS OR PROPERTY OF ANY KIND. LOVESHAW AND ITS AFFILIATES ASSUME NO LIABILITY FOR ANY DAMAGE TO PERSONS OR PROPERTY OF ANY KIND. WITHOUT THE EXPRESS WRITTEN CONSENT OF LOVESHAW AND ITS AFFILIATES, THIS DRAWING IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.</small> |     |        |     |                    |          |                                    |              |
| TITLE  |     | DRAWN  |     | CHECKED            |          | APPROVED                           |              |
| LDXRTB 2.0 Machine Labels  |     | TONYS  |     | TONYS              |          | TONYS                              |              |
| DWG NO. LDXRTB 2.0 MACH LABELS   |     | SCALE  |     | N/A                |          | CHECKED                            |              |
| MATERIAL   |     | NOTED  |     | DRAWN              |          | APPROVED                           |              |
| TONYS  |     | TONYS  |     | TONYS              |          | TONYS                              |              |
| FRACTIONS ± 1/64   |     |        |     |                    |          |                                    |              |

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|----------------------------|--|----------------|--|
| RT. 286, SOUTH CANAAN, PA. |  |                |  |

## **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 ft/min
- Optional high belt speed: 155 ft/min

### **Air Requirement:**

- 10 scfm @ 95 psi – maximum throughput based on maximum box range.

### **Machine box capacity:**

- Length: - 6" to infinite
- Width: - 5 ½" to 26"
- Height: 3 ½" to 24" - Low box option of 2 ½" tall , tape tab length will be reduced by ½" .

## **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**

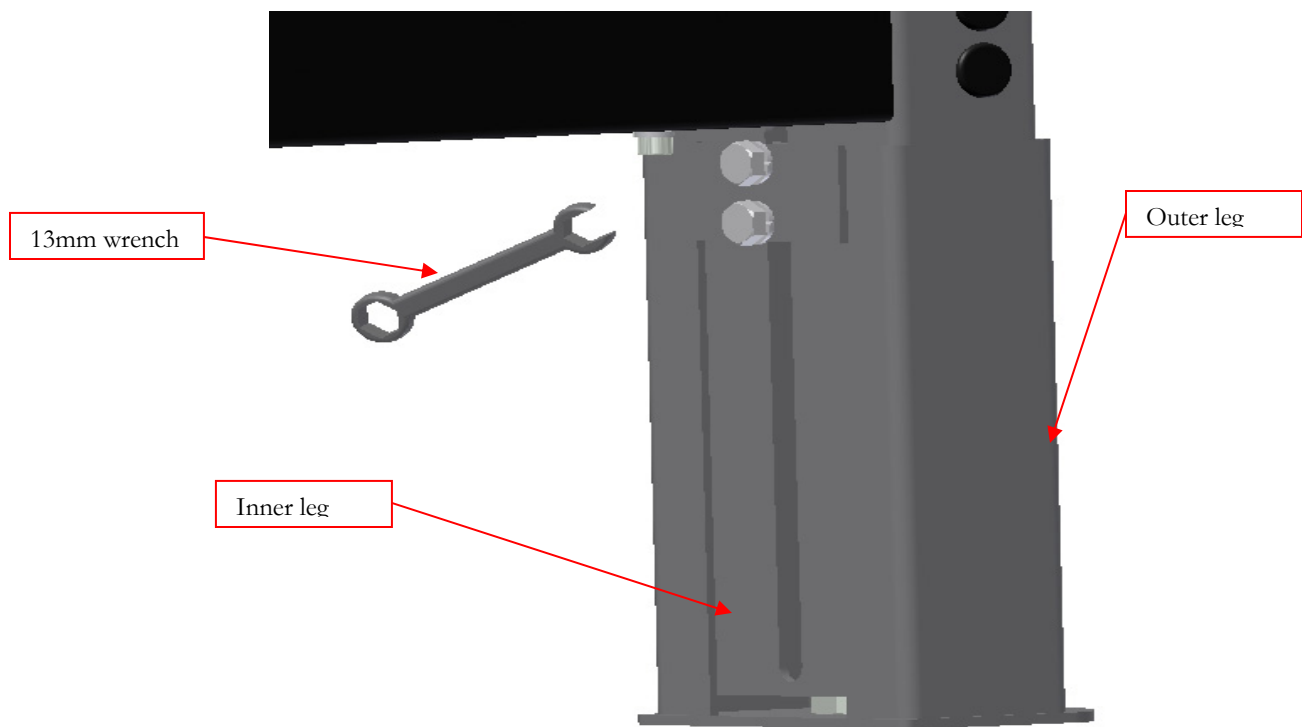
The case sealer is fully assembled and ready for operation.

**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.

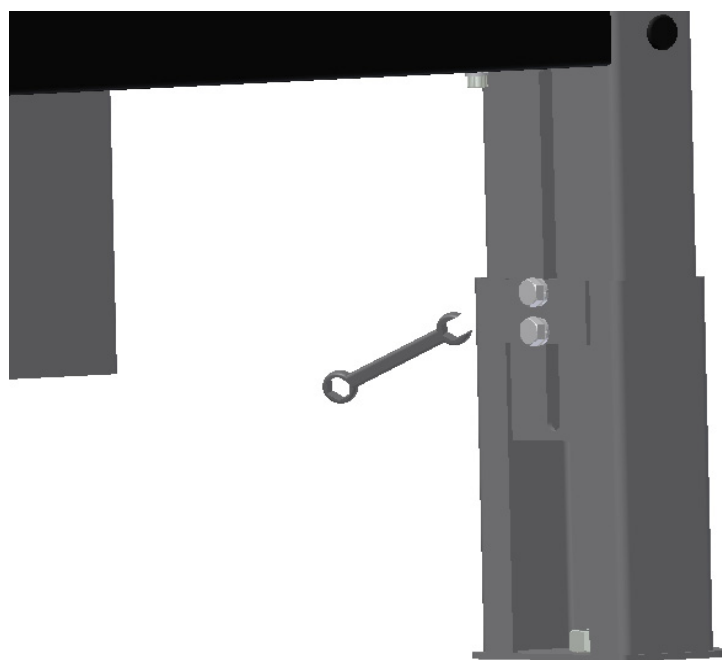
**Step Two:** *Take care removing the machine from the skid as it weighs 550 pounds! Use a forklift or similar device to complete this task*

**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

## **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 depressed 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 de-energize 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

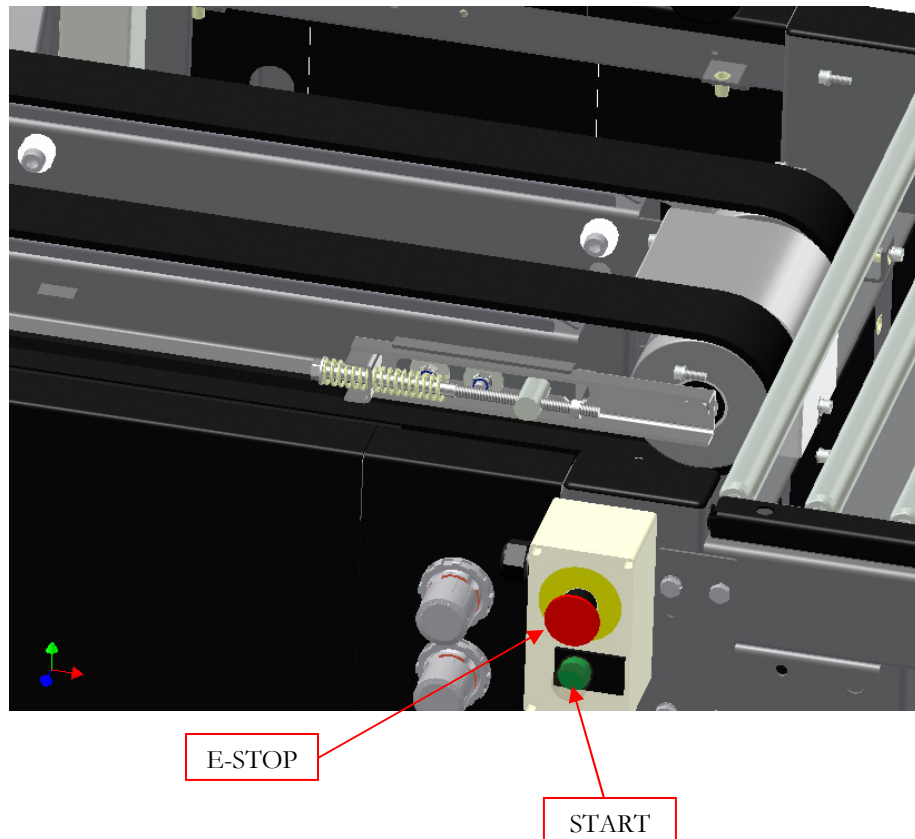
The LDXRTB 2.0 incorporates uniform lock capability on the head and side rails assembly on the machine. The top head and side rail assemblies can be locked at a specific position to process a batch of same size boxes. The assemblies can be locked in either tandem or individually dependant on need. This 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.)**

## 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.



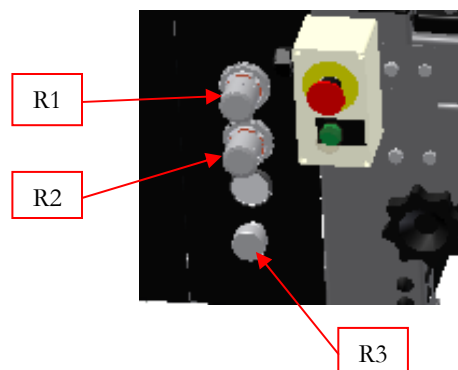
## Pneumatic regulators

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.

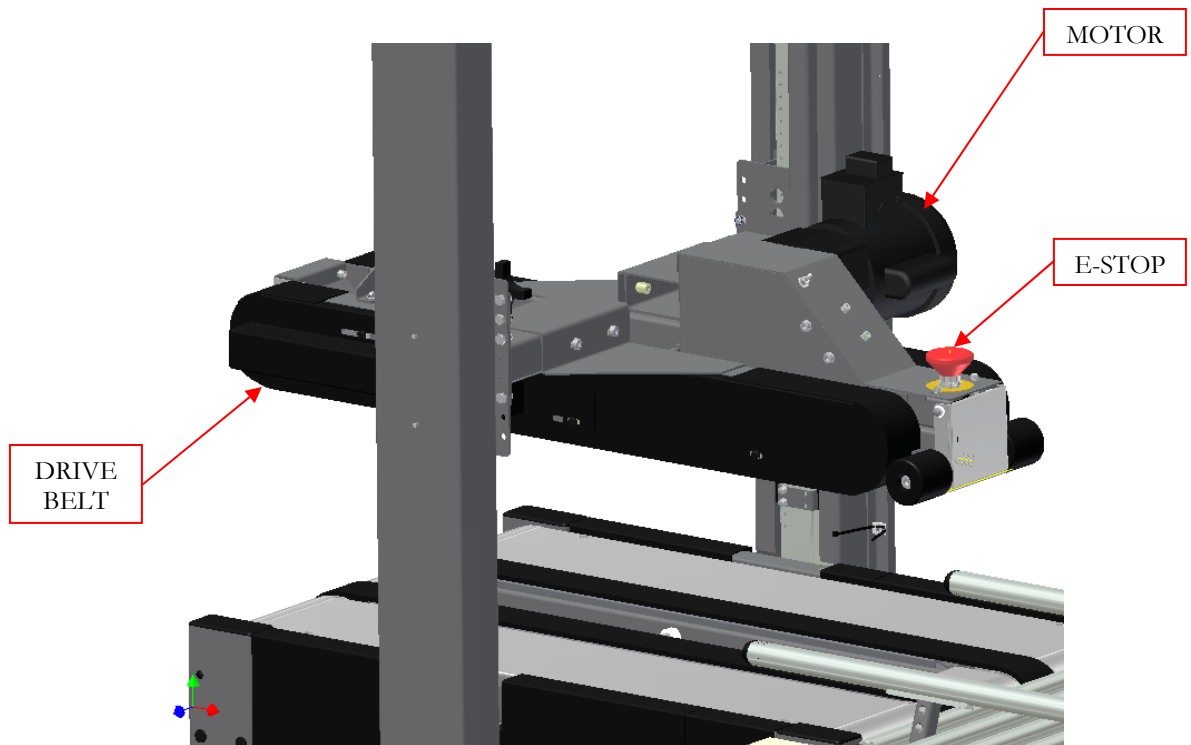
Regulator "R2" controls the pressure that the side rails center and hold the box. By increasing the pressure the side rails can center heavier boxes on the pack table. By increasing the pressure the side rails have more clamping force which makes it more difficult to advance a box into the machine. Lowering 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.





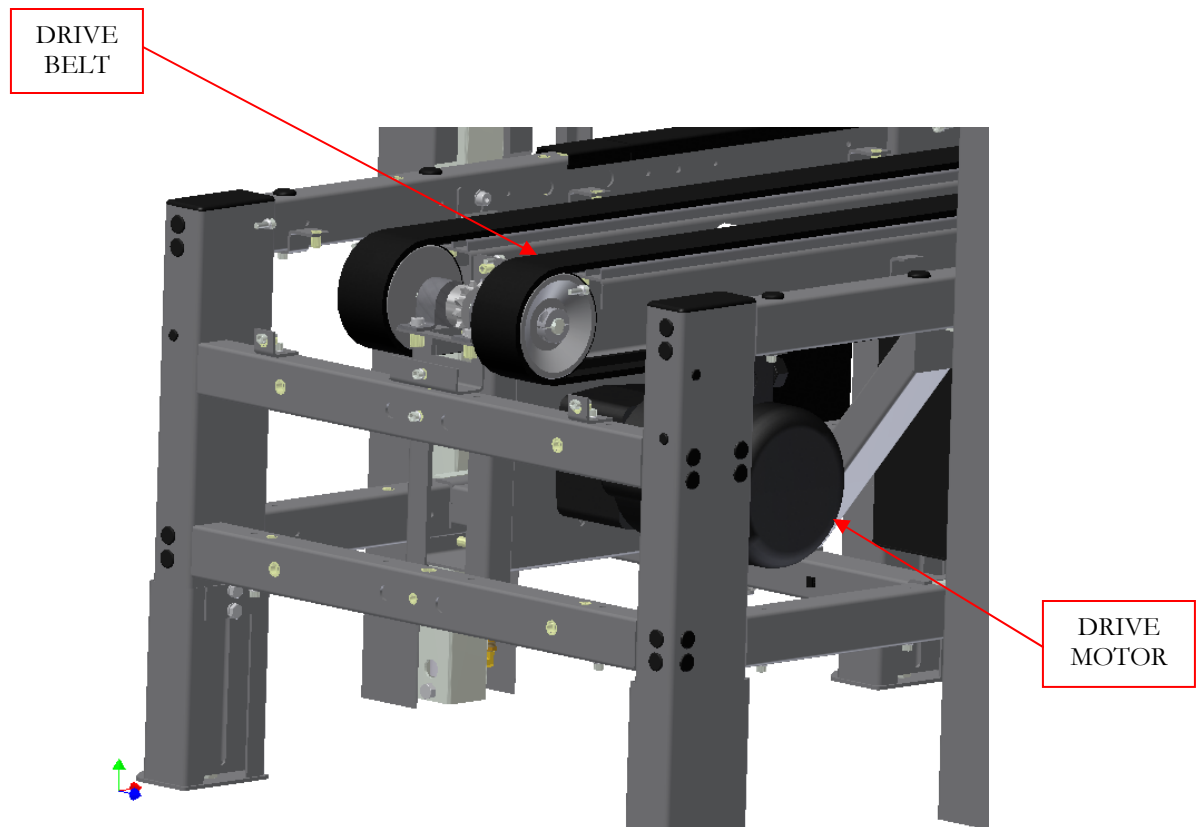
## Top drive assembly

The top drive assembly consist of a 1/5 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.



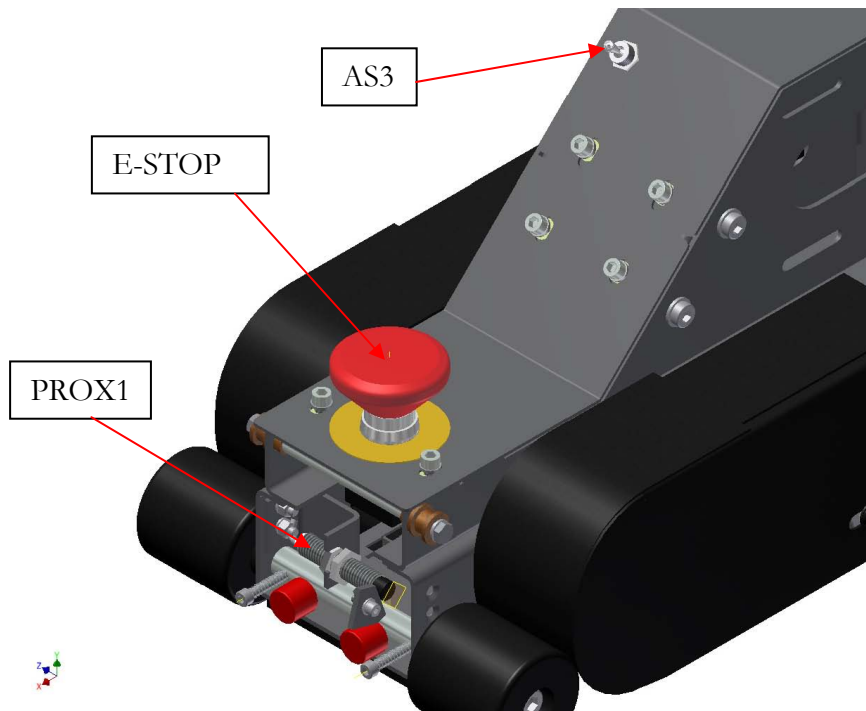
## Bottom drive assembly

The bottom drive assembly consist of a 1/3 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.



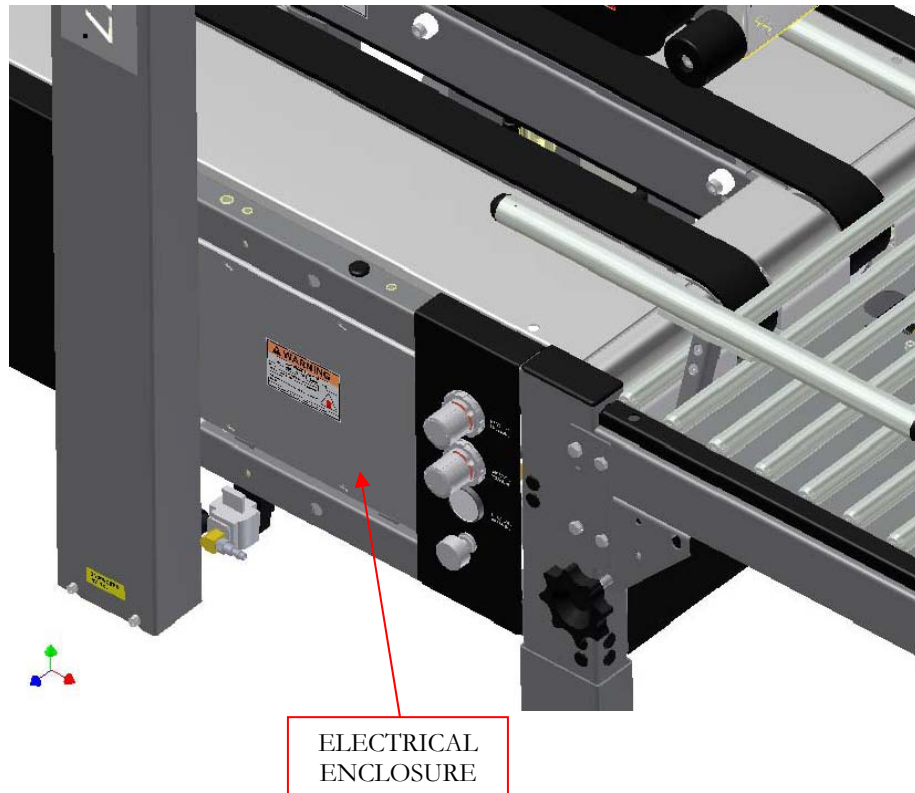
## Sensing paddle assembly

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

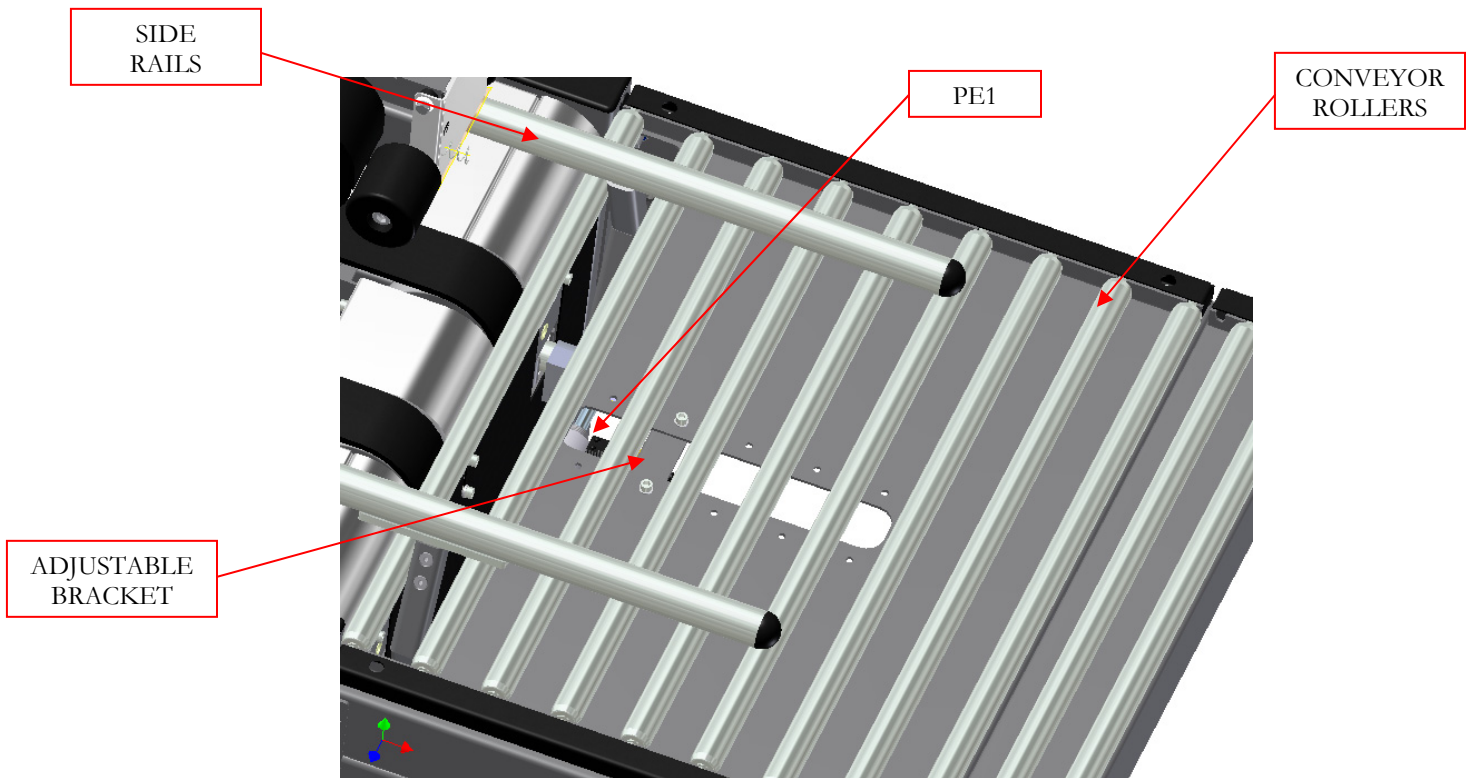
The electrical enclosure assembly is located inside the frame of the machine behind side panel. The enclosure is located next to the air pressure regulator. Inside the electrical enclosure are fuses, contactors, overload relays and terminal blocks. The devices selected protect the machine from short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



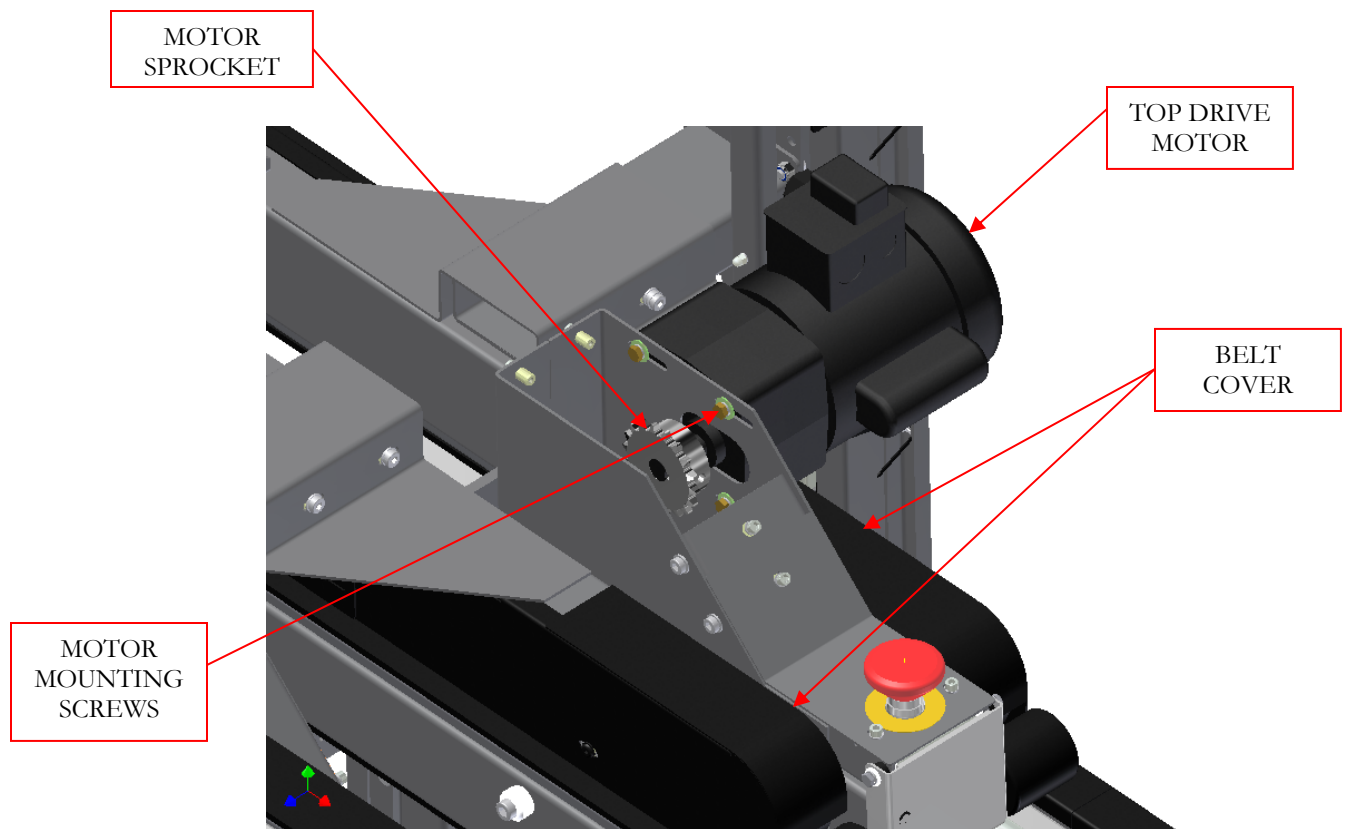
## Maintenance

**Safety:** NEVER perform any maintenance on the LDXRTB 20 without first following your company's **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.

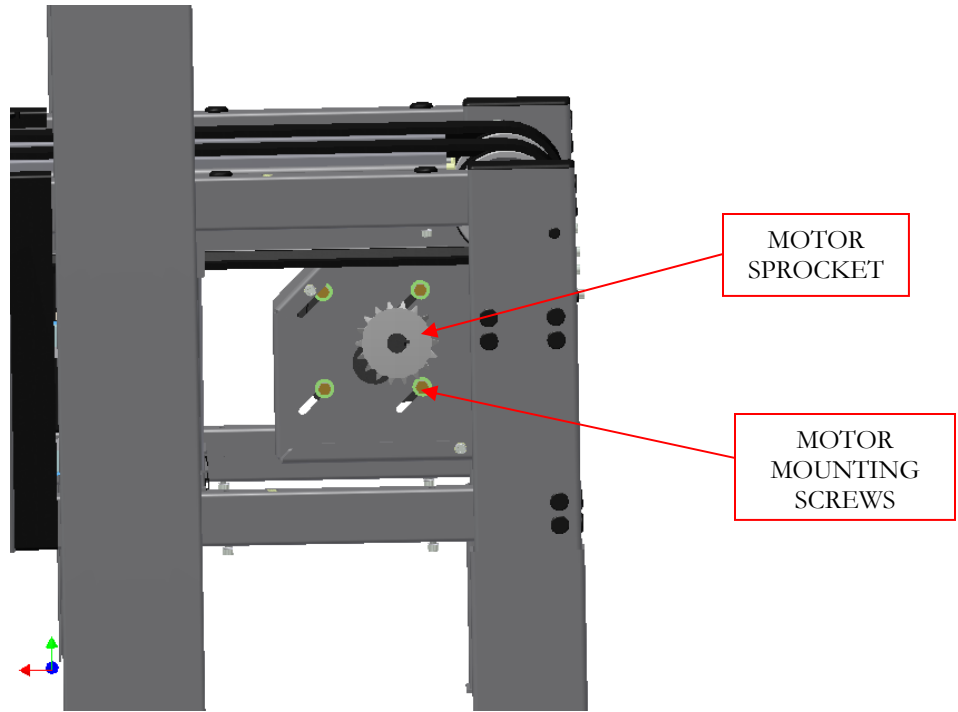
9. Slide sprocket on to motor shaft with the drive chain on the sprocket. Position sprocket on the motor shaft as recorded in step 3. Tighten sprocket set screws when proper position is obtained.
10. Slide motors until drive chain is tensioned properly and tighten the four mounting screws. The drive chain should have approximately  $\frac{1}{2}$  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.

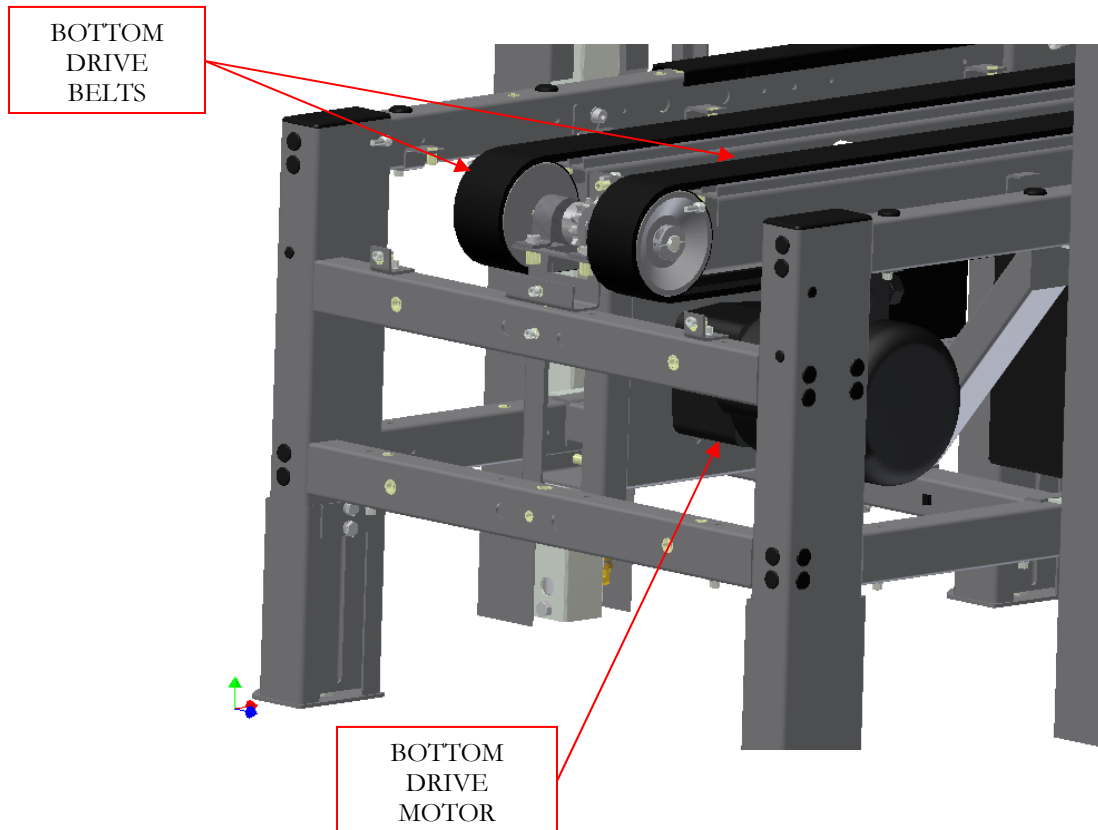


## **Replacing Bottom Drive Gear motor**

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 ½ 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.



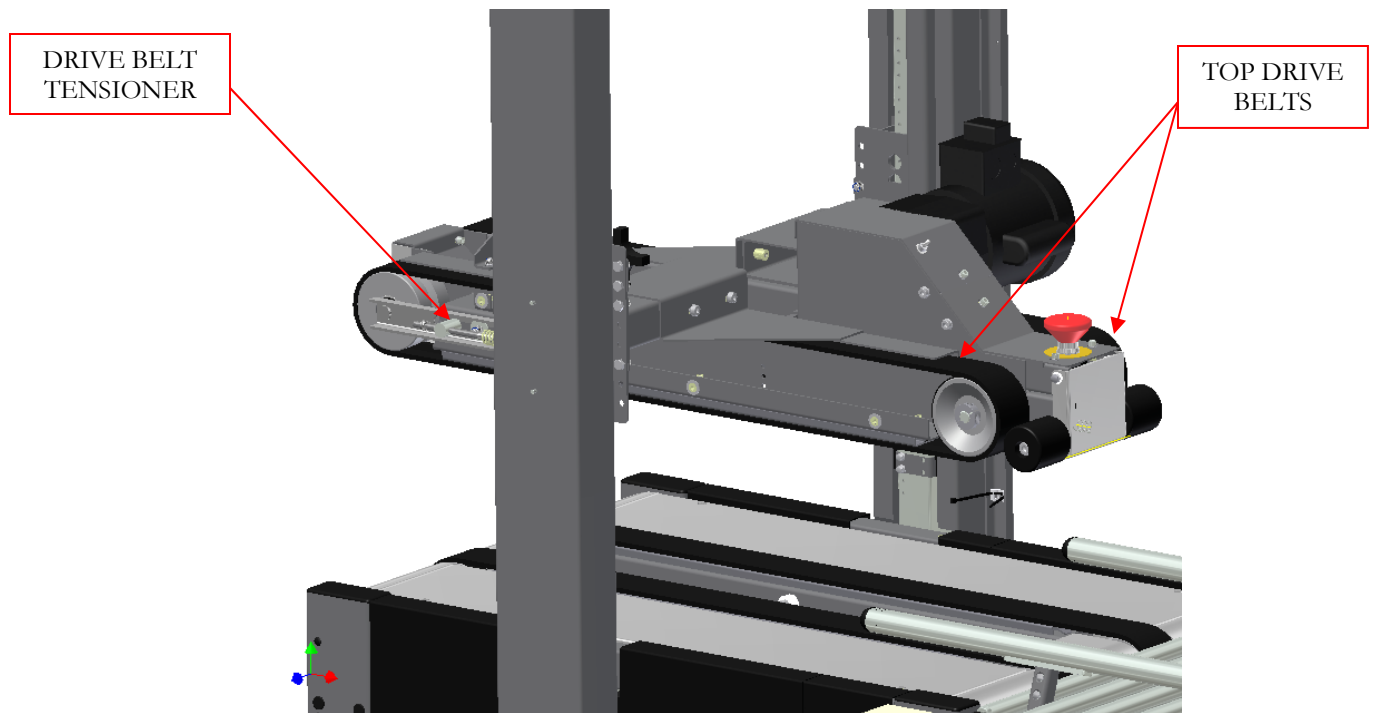




## Replacing Top Drive Belt

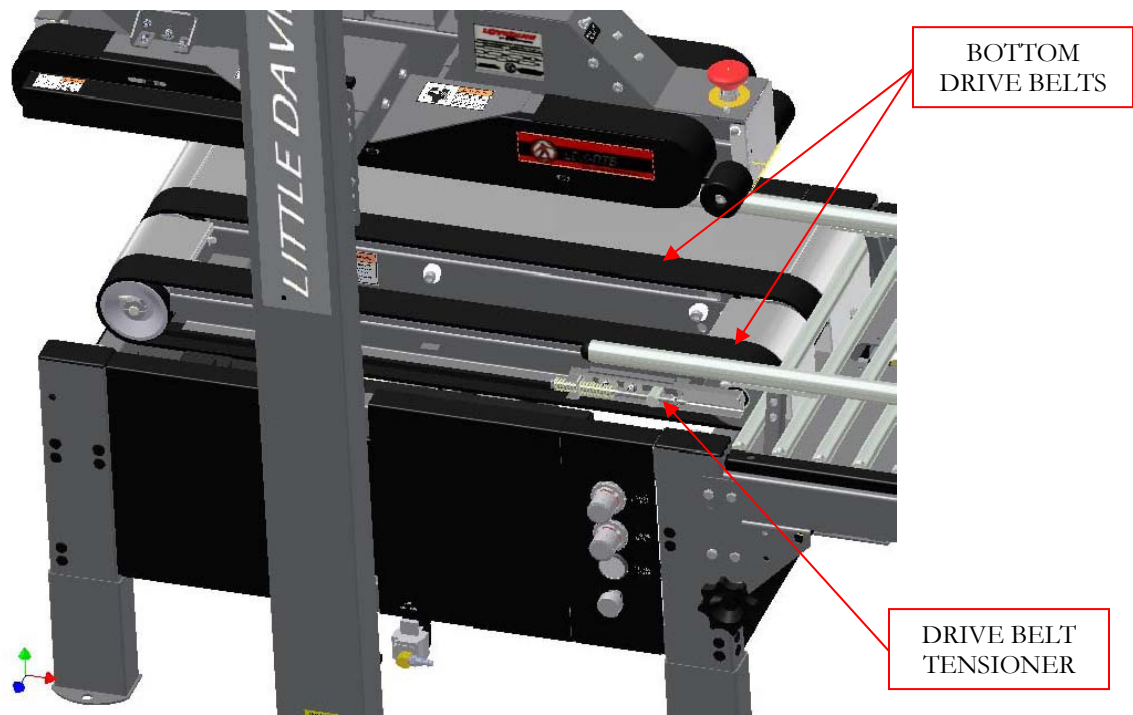
1. Remove top drive belt covers.
2. Relieve belt tensioning spring.
3. Slide belt over pulleys to get center guide of belt out of the center grooves of the pulleys.
4. Install new belt by first putting belt over one of the pulleys and then sliding it over the other pulley while pulling the belt.

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.



# LDXRTB Preventative Maintenance Schedule

## 170 Machine Run Hours

### Pneumatic Components

Inspect, empty air filter

### Photo eyes

Clean face

### Drive Belts

Inspect

## 720 Machine Run Hours

### Drive Train Components

Clean  
Inspect chains, sprockets &  
screws - tighten if necessary.  
Lubricate chain.

### Mast V Tracks

Inspect tracks & wheels  
Lubricate tracks & wheels

### Electrical Drive Motors

Clean area.

### Drive Belts

Inspect, tighten if needed.

## 2200 Machine Run Hours

### Top Drive Assembly

Inspect neck bolts, tighten if  
necessary.  
Inspect nose paddle bushings.  
Inspect nose paddle bumpers.

### Mast Assembly

Inspect mast bumpers

**Drive Train Lubricant** = Misty Slip Shot 2 #A00727 ( Fastenal number 10502-05810)

**Mast V Track Lubricant** = CRC Dry Graphite Lubricant #03094 (Fastenal number 0682345)

## Troubleshooting:

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

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

# Warranty:

## **CASE SEALER, CUSTOM & SPECIAL APPLICATIONS**

**Little David®** Warranty

**For:** All Standard Little David® 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:

|                          |  |
|--------------------------|--|
| <u>DRIVE MOTOR</u> -     | 2 YEARS  |
| <u>GEAR REDUCER</u> -    | 2 YEARS  |
| <u>GEAR MOTOR</u> -      | 2 YEARS (THIS APPLIES TO SIDE BELTS ONLY)  |
| <u>TAPE CARTRIDGE</u> -  | 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); |
| <u>PLC</u> -             | 1 YEAR   |
| <u>SERVO DRIVE</u> -     | 1 YEAR   |
| <u>ALL OTHER PARTS</u> - | 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.

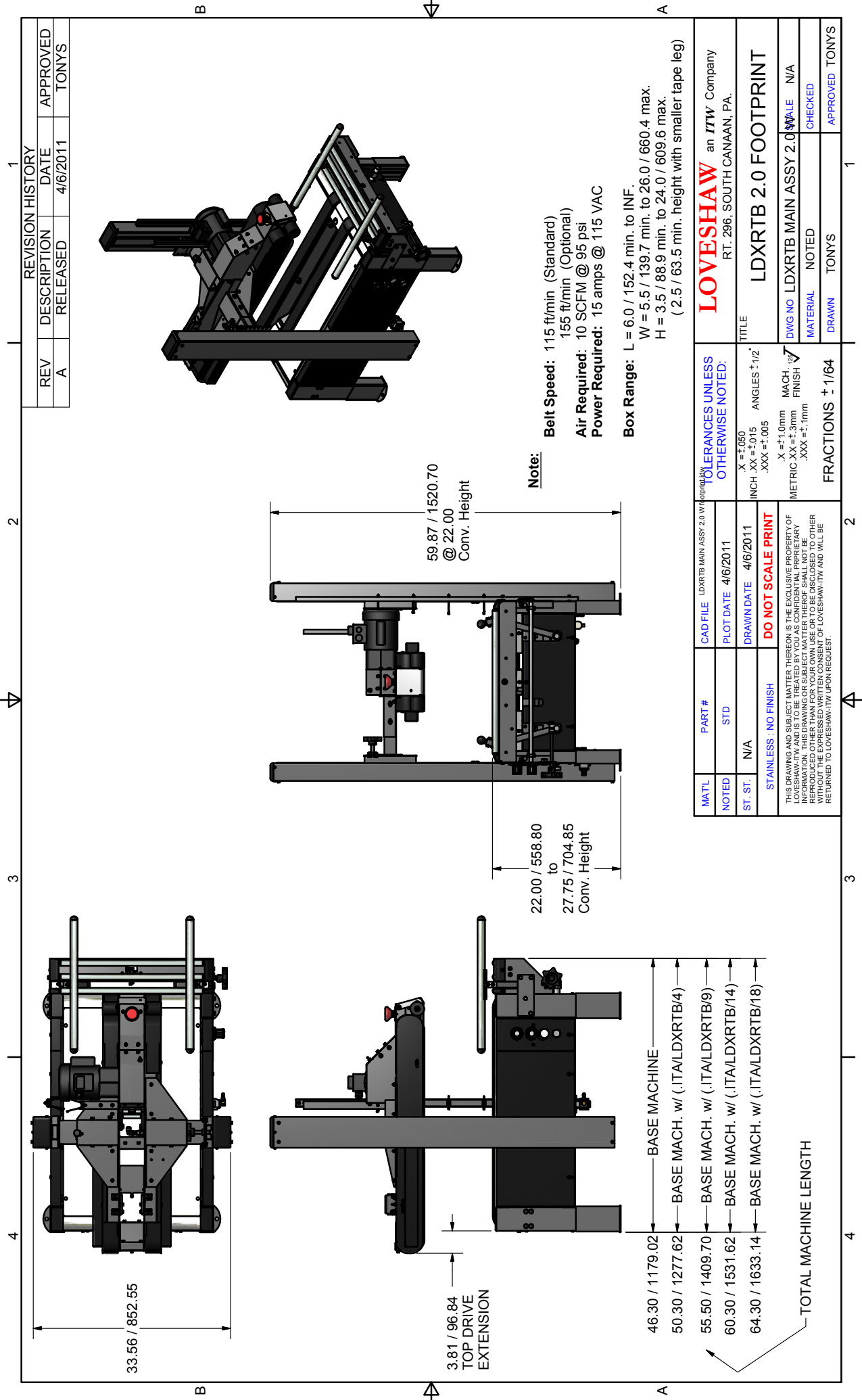
NO PERSON IS AUTHORIZED TO MAKE ANY WARRANTY OR TO CREATE ANY LIABILITY BINDING UPON **LOVESHAW**, WHICH IS NOT STATED IN THIS WARRANTY. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES OF ANY KIND, EXPRESSED OR IMPLIED, WHICH ARE HEREBY EXCLUDED. IN PARTICULAR, THE IMPLIED WARRANTY OF MERCHANTABILITY,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

## **LOVESHAW**

an **ITW** Company  
2206 Easton Turnpike, South Canaan,, PA 18459  
570.937.4921 - 800.572.3434 - FAX 570.937.3229

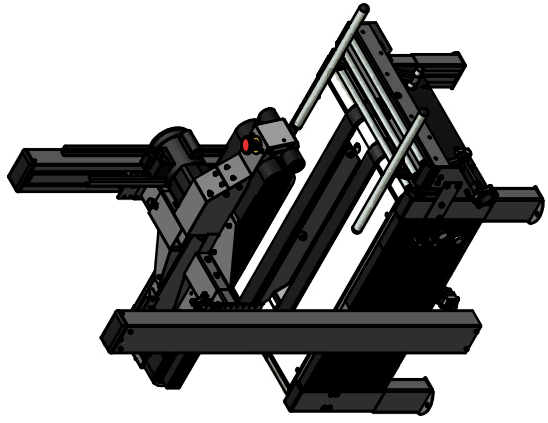


***ASSEMBLY DRAWINGS AND SCHEMATICS***



1 2 3 4

| REVISION HISTORY |             |          |          |
|------------------|-------------|----------|----------|
| REV              | DESCRIPTION | DATE     | APPROVED |
| A                | RELEASED    | 4/6/2011 | TONYS    |



59.87 / 1520.70  
@ 22.00  
Conv. Height

**Note:**

**Belt Speed:** 115 ft/min (Standard)  
155 ft/min (Optional)  
**Air Required:** 10 SCFM @ 95 psi  
**Power Required:** 15 amps @ 115 VAC

**Box Range:** L = 6.0 / 152.4 min. to INF.  
W = 5.5 / 139.7 min. to 26.0 / 660.4 max.  
H = 3.5 / 88.9 min. to 24.0 / 609.6 max.  
(2.5 / 63.5 min. height with smaller tape leg)

**TOLERANCES UNLESS OTHERWISE NOTED:**

X = ±.050  
INCH .XX = ±.015 ANGLES ±.1/2°  
.XXX = ±.005  
X = ±1.0mm MACH. ✓  
METRIC .XX = ±.3mm FINISH  
.XXX = ±.1mm

|         |        |            |   |
|---------|--------|------------|---|
| MATL    | PART # | CAD FILE   | LDXRTB MAIN ASSY 2.0 w/ TOP DRIVE EXTENSION |
| NOTED   | STD    | PLOT DATE  | 4/6/2011                                    |
| ST. ST. | N/A    | DRAWN DATE | 4/6/2011                                    |

**DO NOT SCALE PRINT**

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FRACTIONS ± 1/64

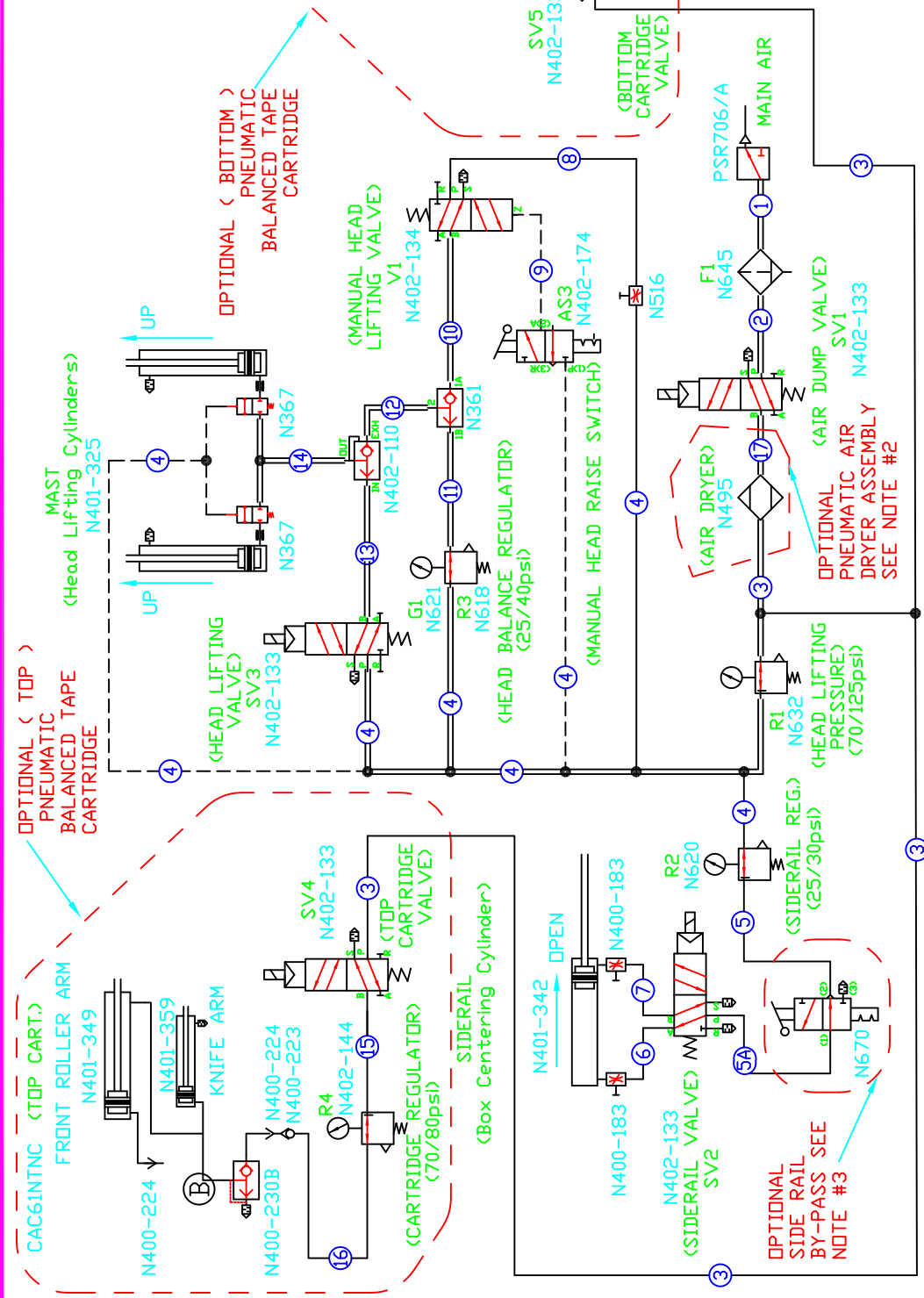
|          |                      |      |
|----------|----------------------|------|
| DRAWN    | TONYS                | 1    |
| NOTED    | TONYS                | 1    |
| MATERIAL | NOTED                | 1    |
| DWG NO   | LDXRTB MAIN ASSY 2.0 | MALE |
| CHECKED  | TONYS                | 1    |
| APPROVED | TONYS                | 1    |

- 46.30 / 1179.02 — BASE MACHINE
- 50.30 / 1277.62 — BASE MACH. w/ (.ITA/LDXRTB/4)
- 55.50 / 1409.70 — BASE MACH. w/ (.ITA/LDXRTB/9)
- 60.30 / 1531.62 — BASE MACH. w/ (.ITA/LDXRTB/14)
- 64.30 / 1633.14 — BASE MACH. w/ (.ITA/LDXRTB/18)

TOTAL MACHINE LENGTH

A B

| REVISION RECORD |             |            |     |       |
|-----------------|-------------|------------|-----|-------|
| REV             | DESCRIPTION | DATE       | ATH | DR CK |
| A               | RELEASED    | 2/4/2011   |     | AJS   |
| B               | ECO 11-206  | 10/29/2011 |     | AJS   |
| C               | ECO 13-002  | 1/16/2013  |     | AJS   |
| D               | ECO 15-087  | 10/29/2015 |     | AJS   |
| E               | ECO 16-007  | 2/1/2016   |     | AJS   |



**NOTE:**

- N622 ----- = 5/32 AIR LINE
- PSR700 ----- = 1/4 AIR LINE
- N580 ===== = 3/8 AIR LINE

ASSY DWG, PNEU/LDXRTBrevB.IDW

- ONLY USE HOSE MARKER #17 IF INSTALLING N495.
- ONLY USE HOSE MARKER #5A IF INSTALLING N670.

**LOVESHAW** an **ITW** Company  
 RT. 296, SOUTH CANAAN, PA.

**TOLERANCES UNLESS OTHERWISE NOTED:**

|       |        |
|-------|--------|
| ±.000 | ±.005  |
| .XXX  | ±.005  |
| .XX   | ±.10mm |
| .XXX  | ±.1mm  |

**ANGLES ±1/2° FRACTIONS ±1/64**

**FINISH**

|         |        |             |          |
|---------|--------|-------------|----------|
| MAT'L   | PART # | CAD FILE:   | GB3855   |
| NOTED   | STD    | PLOT DATE:  | 2/4/2011 |
| ST. ST. |        | DRAWN DATE: | 2/4/2011 |

**STAINLESS: NO FINISH DO NOT SCALE PRINT**

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**TITLE:** PNEU. SCH. LDXRTB 2.0

**DWG. #:** PNEU-0233-4

**MATERIAL:** NOTED

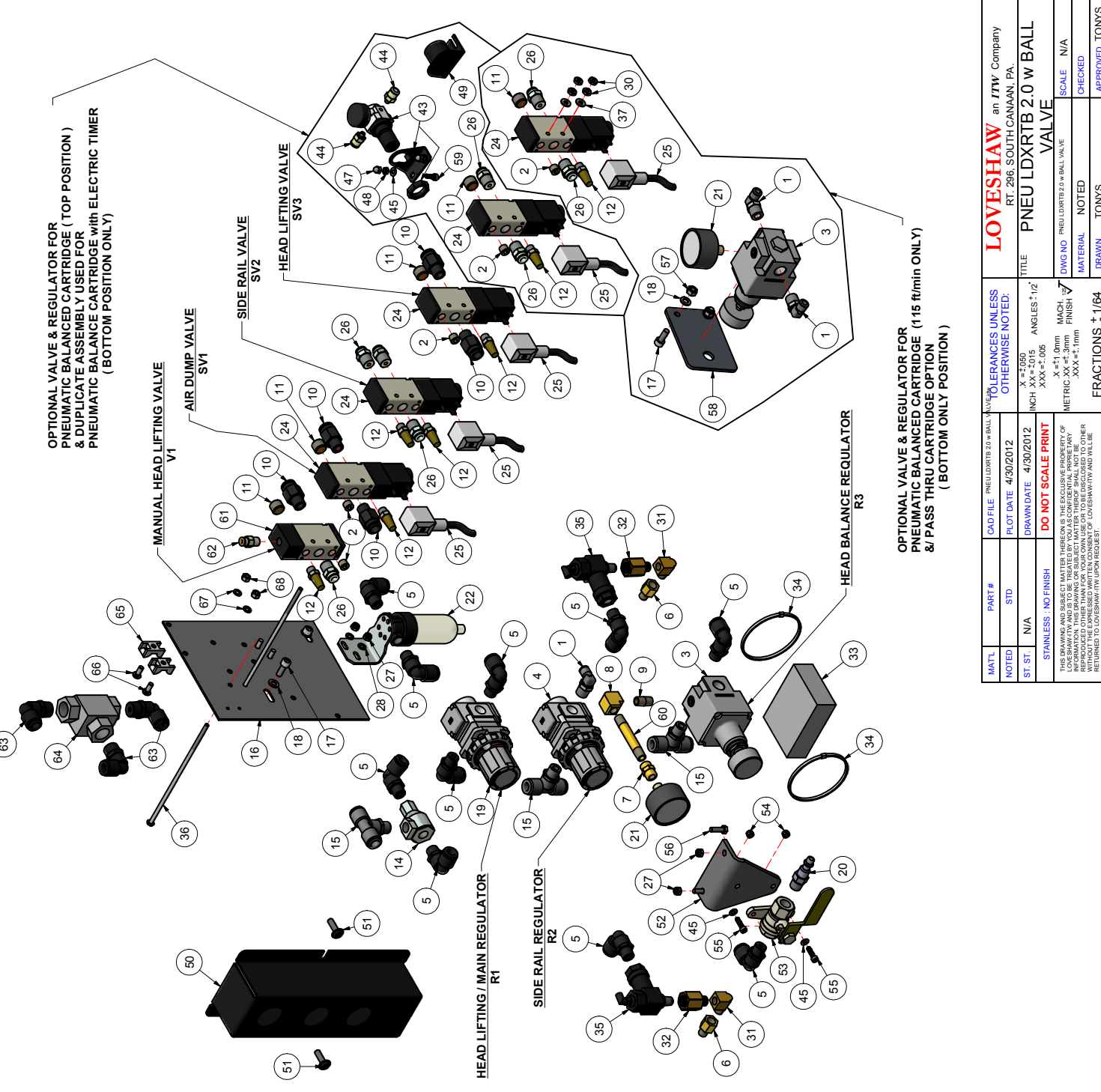
**SCALE:** N/A

**DESIGNED:** DRAWN: AJS

**CHECK'D:**

**APPRV'D:**

| REV | DESCRIPTION | DATE      | APPROVED |
|-----|-------------|-----------|----------|
| A   | RELEASED    | 4/30/2012 | TONYS    |



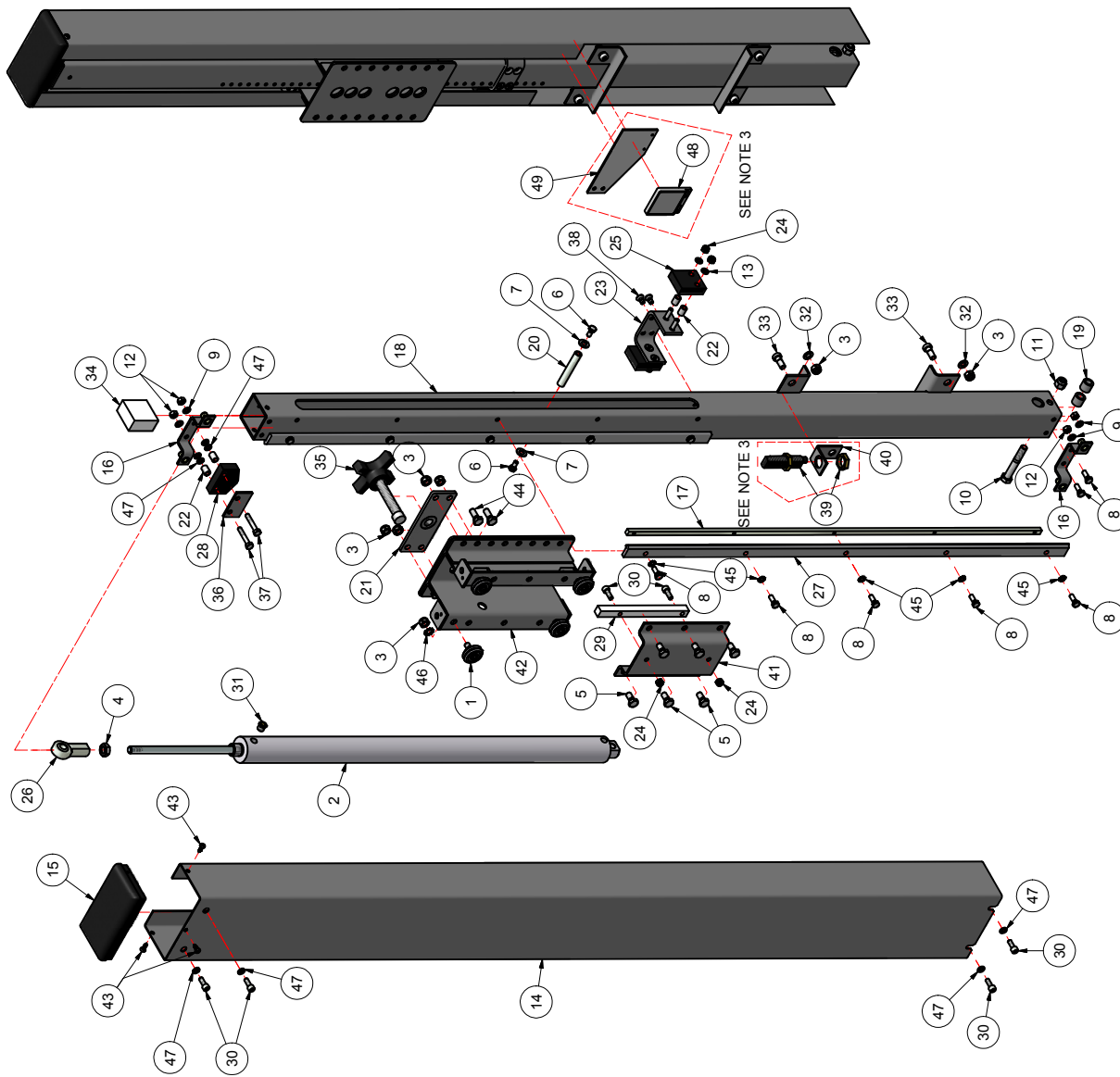
| ITEM | QTY | PART NUMBER | DESCRIPTION                             |
|------|-----|-------------|---|
| 1    | 3   | N400-26     | ELBOW, 1/4 NPT X 1/4 PUSH LOC           |
| 2    | 5   | H109B       | PLUG, HEX, 1/8 NPT                      |
| 3    | 2   | N618        | REG. PRECISION MOD.                     |
| 4    | 1   | N620        | REGULATOR, GAUGE- HANDLE                |
| 5    | 10  | PF-18       | ELBOW, 1/4NPT X 3/8 PUSHLOC             |
| 6    | 2   | PSR622      | FITTING                                 |
| 7    | 1   | N400-204    | coupling 1/8 npt                        |
| 8    | 1   | N400-206    | ELBOW 90 DEG FEM                        |
| 9    | 1   | H126C       | NIPPLE                                  |
| 10   | 5   | PF-17       | 1/4 Tube to 3/8 NPT                     |
| 11   | 5   | PF-9        | PLUG, HEX SOC PIPE, 1/4 NPT             |
| 12   | 7   | N400-17     | MUFFLER, 1/8 NPT                        |
| 14   | 1   | N402-110    | QUICK EXHAUST                           |
| 15   | 3   | PF-20       | TEE, 1/4 NPT X 3/8 PUSHLOC              |
| 16   | 1   | LDX-0208-4  | PLATE, PNEU. ASSY.                      |
| 17   | 4   | FSHMG016P10 | SHCS M6x16 LG.                          |
| 18   | 4   | FLWMGP      | LOCK WASHER M6                          |
| 19   | 1   | N632        | REGULATOR, GAUGE- HANDLE                |
| 20   | 1   | PF-22       | QUICK DISCONNECT PLUG, 1/4 NPT          |
| 21   | 2   | N621        | GAUGE 0 to 60 psi                       |
| 22   | 1   | N645        | AIR FILTER w/ BRKT                      |
| 24   | 5   | N402-133    | VALVE SOL 5/2                           |
| 25   | 5   | N646        | VALVE CABLE                             |
| 26   | 8   | N400-3      | CONNECTOR, STRAIGHT, 1/4 NPT X 1/4 TUBE |
| 27   | 4   | FNLNMF5     | M5 NYLON LOCKING NUT S.S.               |
| 28   | 2   | FFWMFP      | FLAT WASHER M5                          |
| 29   | 2   | FHHMF012P10 | HHCS M5 X 12                            |
| 30   | 4   | FHFN5BP     | #8-32 HEX NUT                           |
| 31   | 2   | H146        | ELBOW                                   |
| 32   | 2   | PF-27       | PIPE ADAPTER, 1/4 X 1/8                 |
| 33   | 1   | LDX-0288-3  | MUFFLER, FOAM                           |
| 34   | 2   | CPJ10-035-0 | CABEL TIE                               |
| 35   | 2   | N367        | BLOCKING VALVE                          |
| 36   | 2   | FFHSB600P08 | SCREW 8-32 x 6" LG                      |
| 37   | 2   | FFWSBP      | Type A Plain Washer                     |
| 43   | 1   | N402-144    | REG. MINI, BRKT, NUT & GAUGE            |
| 44   | 2   | N400-229    | FITTING 1/4 TUBE to M5                  |
| 45   | 4   | FFWMEP      | FW M4                                   |
| 47   | 2   | FHDNMEP     | DOME NUT M4                             |
| 48   | 2   | FHFNMEP     | M4 HEX NUT                              |
| 49   | 1   | LDX-0403-3  | GUARD, MINI REG.                        |
| 50   | 2   | LDX-0341-4  | COVER PNEU KNOBS (METAL)                |
| 51   | 2   | SPH-1404    | screw M6x20mm LG.                       |
| 52   | 1   | LDX-0422-3  | SUPPORT ANGLE, AIR VALVE                |
| 53   | 1   | psr706-a    | 1/4 NPT Ball Valve                      |
| 54   | 2   | FNLNMEP     | NLN M4                                  |
| 55   | 2   | FSHME016P10 | SOC HD CAP SCREW M4 x 16mm LG.          |
| 56   | 2   | FHHMF016P10 | HEX HEAD M5 x 16                        |
| 57   | 2   | FHFNMGP     | HEX NUT M6                              |
| 58   | 1   | LDU-1320-4  | BRACKET PREC. REG.                      |
| 59   | 2   | FSHME012P10 | SOC HD M4x12 mm LG.                     |
| 60   | 1   | H126F       | NIPPLE 1/8 NPT x 2 1/2 LG.              |
| 61   | 1   | N402-134    | VALVE 5/2 AIR PILOT                     |
| 62   | 1   | n623        | fitting 1/8 npt -5/32 tube              |
| 63   | 3   | PF-40       | Fitting 90 deg. 3/8 Tube to 3/8 NPT     |
| 64   | 1   | N361        | SHUTTLE VALVE                           |
| 65   | 2   | AH206       | WIRE / HOSE CRADLE                      |
| 66   | 2   | FHHMF012P10 | HEX SOC. BUTT. HD. SCREW                |
| 67   | 2   | FLWMFP      | LOCK WASHER M5                          |
| 68   | 2   | FHFNMFPP    | HEX NUT M5                              |

| MATL | PART # | CAD FILE                     | PLT DATE  | NOTED | ST. ST. | FINISH               | TOLERANCES UNLESS OTHERWISE NOTED:  | TITLE                        | DWG NO   | MATERIAL | SCALE | CHECKED | APPROVED |
|------|--------|------------------------------|-----------|-------|---------|----------------------|---|------------------------------|--|----------|-------|---------|----------|
|      |        | PNEU LDXRTB 2.0 w BALL VALVE | 4/30/2012 |       | N/A     | STAINLESS, NO FINISH | X = ±.050<br>INCH XX = ±.015<br>ANGLES ±.1/2<br>X = ±1.0mm<br>MACH<br>METRIC XX = ±.3mm<br>FINISH<br>.XXX = ±.1mm | PNEU LDXRTB 2.0 w BALL VALVE | LOVESHAW an ITW Company<br>RT. 296, SOUTH CANAAN, PA |          | N/A   |         | TONYS    |
|      |        |                              |           |       |         |                      |   |                              |  |          |       |         |          |

| REV | DESCRIPTION | DATE      | APPROVED |
|-----|-------------|-----------|----------|
| A   | RELEASED    | 1/25/2011 | TONYS    |
| B   |             | 4/10/2012 | TONYS    |

| REV | DESCRIPTION | DATE      | APPROVED |
|-----|-------------|-----------|----------|
| A   | RELEASED    | 1/25/2011 | TONYS    |
| B   |             | 4/10/2012 | TONYS    |

| ITEM | QTY | PART NUMBER  | DESCRIPTION                  |
|------|-----|--------------|------------------------------|
| 1    | 8   | RL-1006      | STUDDED VEE WHEEL, ECCENTRIC |
| 2    | 2   | N401-325     | CYLINDER 24" stroke          |
| 3    | 32  | FNLNMHP      | NYLOCK NUT M8                |
| 4    | 2   | FHJNSMP      | 7/16-20 HEX JAM NUT          |
| 5    | 12  | FHHMH016P10  | FHCS M8 X 16                 |
| 6    | 4   | FHHMG012P10  | FHCS M8 X 12                 |
| 7    | 4   | FRWMHP       | FLAT WASHER M8               |
| 8    | 24  | FHHMG016P10  | FHCS M8 X 16                 |
| 9    | 8   | FLWMGP       | LOCK WASHER M6               |
| 10   | 2   | FHHSJ250P05  | HEX BOLT 3/8-16 X 2 1/2      |
| 11   | 2   | FNLNSJP      | 3/8 Std NC N/lock Nut        |
| 12   | 8   | FRWNMGP      | FLAT WASHER M6               |
| 13   | 8   | FRWMP        | FLAT WASHER M6               |
| 14   | 2   | LDX-0067-5   | GUARD, MAST                  |
| 15   | 2   | LDX-0068-4   | CAP, MAST                    |
| 16   | 4   | LDX-0069-4   | GUARD SUPPORT                |
| 17   | 4   | LDX-0070-4   | NUT PLATE, V TRACK           |
| 18   | 2   | LDX-0267-4   | MAST WELDMENT                |
| 19   | 4   | LDX-0072-3   | SPACER, CYL.                 |
| 20   | 2   | LDX-0073-3   | PIN, MAST CYL                |
| 21   | 1   | LDX-0137-4   | HEAD LOCK PLATE              |
| 22   | 12  | LDX-0140-3   | BUMPER CRUSH SLEEVE          |
| 23   | 2   | LDX-0323-4   | BRKT, BUMPER                 |
| 24   | 12  | FNLNMGP      | NYLOCK NUT M6                |
| 25   | 4   | LDX-0159-3   | BUMPER, MAST BOTTOM          |
| 26   | 2   | SPH-1394     | ROD END                      |
| 27   | 4   | LDX-0164-4   | VEE TRACK                    |
| 28   | 2   | LDX-0165-3   | BUMPER, HEAD                 |
| 29   | 2   | LDX-0166-3   | BUMPER STOP                  |
| 30   | 12  | FSHMG016P10  | SHCS M6x16 LG.               |
| 31   | 2   | PSR659       | BREATHER                     |
| 32   | 8   | FLWMHP       | LOCK WASHER M8               |
| 33   | 8   | FSHMH020P10  | SHCS M8 X 20                 |
| 34   | 2   | LDX-0209-3   | MAST CRUSH BLOCK             |
| 35   | 1   | PSC301322    | CLAMP SW. SCREW              |
| 36   | 2   | LDX-0213-3   | BUMPER, PLATE                |
| 37   | 4   | FHHMG035P10  | FHCS M6 X 35                 |
| 38   | 4   | FHHMG012P10  | FHCS M6x12 LG.               |
| 39   | 1   | A219-CH-7    | PHOTOEYE                     |
| 40   | 1   | LDX-0275-3   | PHOTOEYE BRKT. BAL. CART.    |
| 41   | 2   | LDX-0386-4   | NECK PLATE, REAR             |
| 42   | 2   | LDX-0387-4   | NECK SUPPORT                 |
| 43   | 6   | SPH-1488     | SCREW                        |
| 44   | 4   | FHHMH020P10  | FHCS M8 X 20                 |
| 45   | 20  | FETLWMGP     | LOCK WASHER EXT. M6          |
| 46   | 8   | FETLWMHP     | Lock Washer Ext. M8          |
| 47   | 16  | FRWMPGS      | FLAT WASHER M6               |
| 48   | 1   | A219BA-REF-1 | REFLECTOR                    |
| 49   | 1   | LDX-0606-4   | REFLECTOR BRACKET            |



- NOTE:
- PSR656 to be installed after N401-325 (cylinder) is placed on to LDX-0125-4 (mast).
  - LDX-0077-4 is installed inside LDX-0125-4 (mast) before bolting to LDX-0164-4.
  - Photoeye #53 and bracket #54 are for pneumatic cartridge if applicable.

| MATL  | PART # | CAD FILE                    | LDXRTB MAST ASSY 2.0 |
|---|--------|-----------------------------|----------------------|
| NOTED   | STD    | PLT DATE                    | 6/6/2014             |
| ST. ST.   | N/A    | DRAWN DATE                  | 1/25/2011            |
| <p><b>DO NOT SCALE PRINT</b></p> <p>STAINLESS, NO FINISH</p> <p>THIS DRAWING IS THE PROPERTY OF LOVESHAW. IT IS TO BE USED ONLY FOR THE PROJECT AND FOR THE INFORMATION OF THE CUSTOMER. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE EXPRESS WRITTEN CONSENT OF LOVESHAW. ITY AND VALUE RETURNED TO LOVESHAW-ITY UPON REQUEST.</p> |        |                             |                      |
| TOLERANCES UNLESS OTHERWISE NOTED:  |        | TITLE                       |                      |
| X = ±.050   |        | .M/LDXRTB/B                 |                      |
| INCH XX = ±.015   |        | DWG NO LDXRTB MAST ASSY 2.0 |                      |
| X = ±1.0mm  |        | SCALE N/A                   |                      |
| MACH. FINISH  |        | CHECKED                     |                      |
| METRIC XXX = ±.3mm  |        | DRAWN TONY                  |                      |
| .XXX = ±.1mm  |        | APPROVED TONY               |                      |
| FRACTIONS ± 1/64  |        |                             |                      |

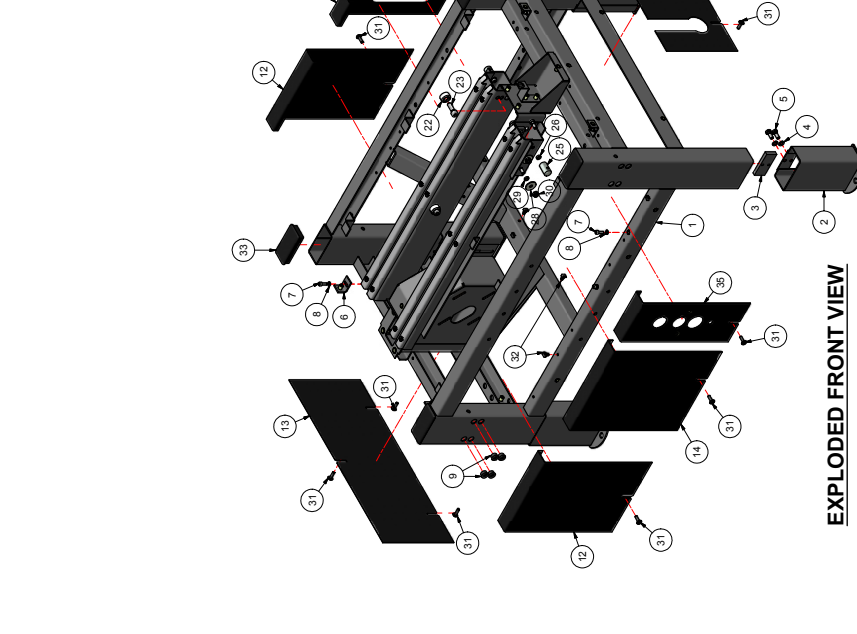
| REV | DESCRIPTION | DATE      | APPROVED |
|-----|-------------|-----------|----------|
| A   | RELEASED    | 1/25/2011 | TONYS    |
| B   |             | 4/10/2012 | TONYS    |

| REVISION HISTORY |             |           |
|------------------|-------------|-----------|
| REV.             | DESCRIPTION | DATE      |
| A                | RELEASED    | 12/1/2010 |

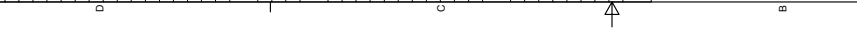
| APPROVED |      |    |
|----------|------|----|
| TOWNS    | DATE | BY |
|          |      |    |

| PARTS LIST |     |  |
|------------|-----|--|
| ITEM       | QTY | DESCRIPTION                            |
| 1          | 1   | LDX-0312-S FRAME, BASE BOTTOM          |
| 2          | 4   | LDX-0025-S LEG EXTENSION               |
| 3          | 4   | LDX-0036-S EXTENSION LOCK              |
| 4          | 1   | SPH-1389 HOSE GUARD MAST               |
| 5          | 9   | FHNM020P10 HCS M8 X 20                 |
| 6          | 4   | LDX-0028-S GUARD ANGLE                 |
| 7          | 12  | FSHM016P10 SHCS M8 16 LG.              |
| 8          | 14  | FFWNGP FLAT WASHER M6                  |
| 9          | 8   | SPH-1389 HOLE PLUG                     |
| 10         | 1   | LDX-0142-A HOSE GUARD MAST             |
| 11         | 4   | AC2008 WIRE / HOSE CRADLE              |
| 12         | 6   | LDX-0124-G GUARD, REAR PANEL E         |
| 13         | 2   | LDX-0202-A GUARD, REAR PANEL E         |
| 14         | 1   | LDX-0316-A GUARD, ELECT BOX            |
| 15         | 1   | LDX-0318-A GUARD MAIN LONG             |
| 16         | 1   | LDX-0317-A-4 GUARD, PNEU PANEL (BLANK) |
| 17         | 1   | LDX-0316-A GUARD, HOSE GUARD           |
| 18         | 2   | SPH-1389 HOLE PLUG                     |
| 19         | 1   | FHNM020P10 HCS M8 X 20                 |
| 20         | 12  | FFWNGP FLAT WASHER M6 X 25             |
| 21         | 1   | LDX-0019-A GUARD, DRIVE                |
| 22         | 4   | LDU-1163-3 CARTRIDGE STAND OFF         |
| 23         | 4   | FHNM020P10 HCS M8 X 20                 |
| 24         | 1   | LDX-0028-S STUD, JACKING               |
| 25         | 2   | LDX-0044-3SS STUD, JACKING             |
| 26         | 2   | SPH-1400 WASHER LARGE OD               |
| 27         | 4   | LDX-0045-S STUD, RING                  |
| 28         | 4   | LDX-0045-S NYLOCK NUT M8               |
| 29         | 4   | FNLMMHP CABLE TIE HOLDER (PUSH STYLE)  |
| 30         | 4   | FNLMMHP CABLE TIE HOLDER               |
| 31         | 12  | SPH-1420 screw M6x20mm LG.             |
| 32         | 8   | SPH-1420 screw M6x20mm LG.             |
| 33         | 4   | SPH-1408 screw M6x20mm LG.             |
| 34         | 1   | LDX-0020-A GUARD, PNEU PANEL E         |
| 35         | 1   | LDX-0317-A-4 GUARD, PNEU PANEL         |
| 36         | 2   | FNLMMGP NYLOCK NUT M6                  |
| 37         | 2   | FSHM040P10 HCS M8 X 1.0 X 40 LG.       |
| 38         | 4   | FHDMMFP HEX DOME NUT M5                |
| 39         | 4   | FLWMFP LOCK WASHER M5                  |
| 40         | 4   | AL2028 CABLE TIE, 5.6" LONG            |
| 41         | 4   | F8HMF02P10 HEX SOCK, BUTT, HD. SCREW   |

### EXPLODED FRONT VIEW



### EXPLODED BACK VIEW



### ASSEMBLED VIEW



| MATL.     | PART # | QTY                | DESCRIPTION |
|-----------|--------|--------------------|-------------|
| STAINLESS | N/A    | DO NOT SCALE PRINT |             |

TOLERANCES UNLESS OTHERWISE NOTED:  
 OTHERWISE NOTED:  
 XXX±.005 ANGLES±1/2°  
 XXX±.005  
 XXX±.010  
 XXX±.015  
 XXX±.020  
 XXX±.030  
 XXX±.040  
 XXX±.050  
 XXX±.060  
 XXX±.070  
 XXX±.080  
 XXX±.090  
 XXX±.100  
 XXX±.125  
 XXX±.150  
 XXX±.175  
 XXX±.200  
 XXX±.250  
 XXX±.300  
 XXX±.375  
 XXX±.450  
 XXX±.500

| SCALE    | N/A       |
|----------|-----------|
| DATE     | 12/1/2010 |
| DRAWN    | NOTED     |
| CHECKED  | N/A       |
| APPROVED | TOWNS     |

LOVESHAW an RTW Company  
 RT.208, SOUTH CANAN, PA.

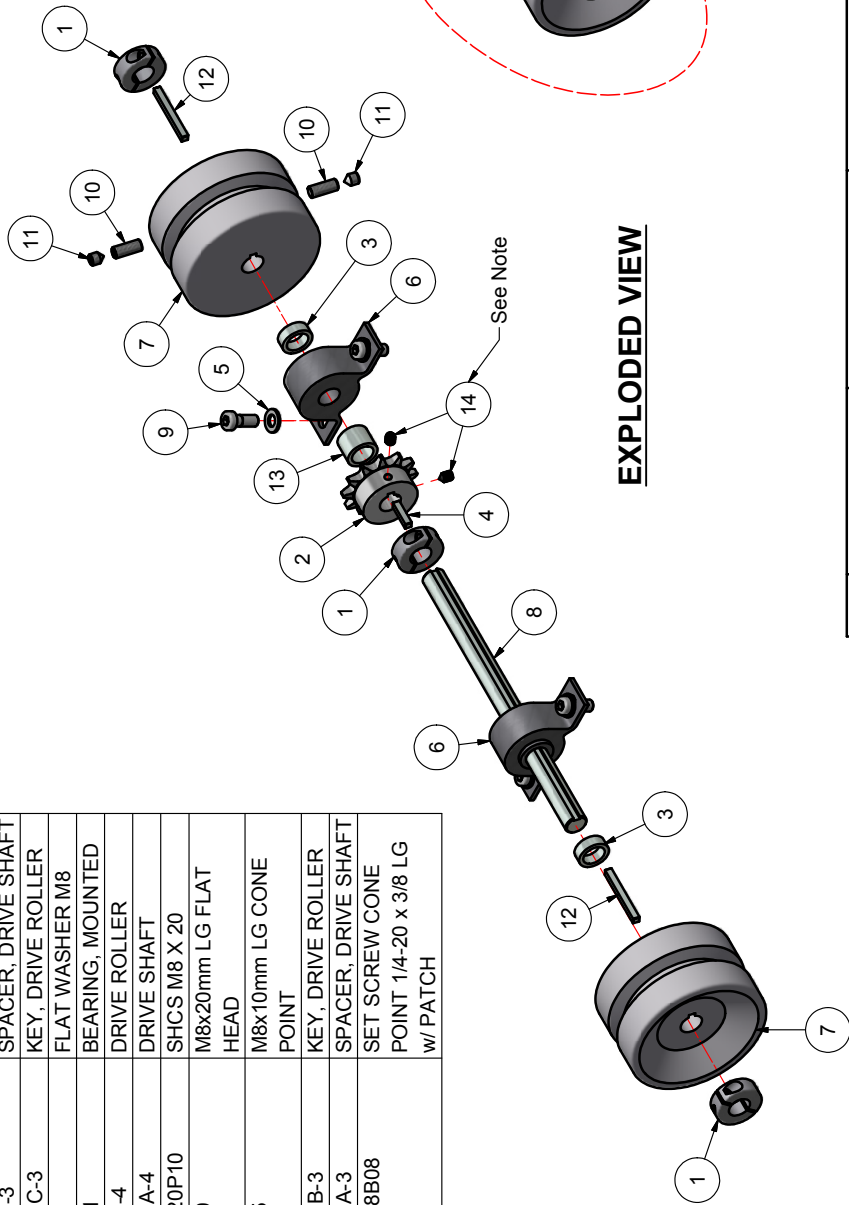
LDXRTB FRAME WELDMENT



4 3 2 1

| Parts List |     |   |
|------------|-----|---|
| ITEM       | QTY | DESCRIPTION   |
| 1          | 3   | PSX9999 SPLIT COLLAR 5/8"                                 |
| 2          | 1   | SPK-0023 SPROCKET 40P/ 12T/ 5/8"B                         |
| 3          | 2   | LDX-0043-3 SPACER, DRIVE SHAFT                            |
| 4          | 1   | LDX-0042C-3 KEY, DRIVE ROLLER                             |
| 5          | 4   | FFWMHP FLAT WASHER M8                                     |
| 6          | 2   | BRG-2001 BEARING, MOUNTED                                 |
| 7          | 2   | LDX-0182-4 DRIVE ROLLER                                   |
| 8          | 1   | LDX-0041A-4 DRIVE SHAFT                                   |
| 9          | 4   | FSHMH020P-10 SHCS M8 X 20                                 |
| 10         | 4   | SPH-1419 M8x20mm LG FLAT HEAD                             |
| 11         | 4   | SPH-1395 M8x10mm LG CONE POINT                            |
| 12         | 2   | LDX-0042B-3 KEY, DRIVE ROLLER                             |
| 13         | 1   | LDX-0043A-3 SPACER, DRIVE SHAFT                           |
| 14         | 2   | FCSSE038B08 SET SCREW CONE POINT 1/4-20 x 3/8 LG w/ PATCH |

| REVISION HISTORY |             |           |          |
|------------------|-------------|-----------|----------|
| REV              | DESCRIPTION | DATE      | APPROVED |
| A                | RELEASED    | 1/25/2011 | TONYS    |
| B                | Add note    | 1/24/2011 | TONYS    |



**EXPLODED VIEW**

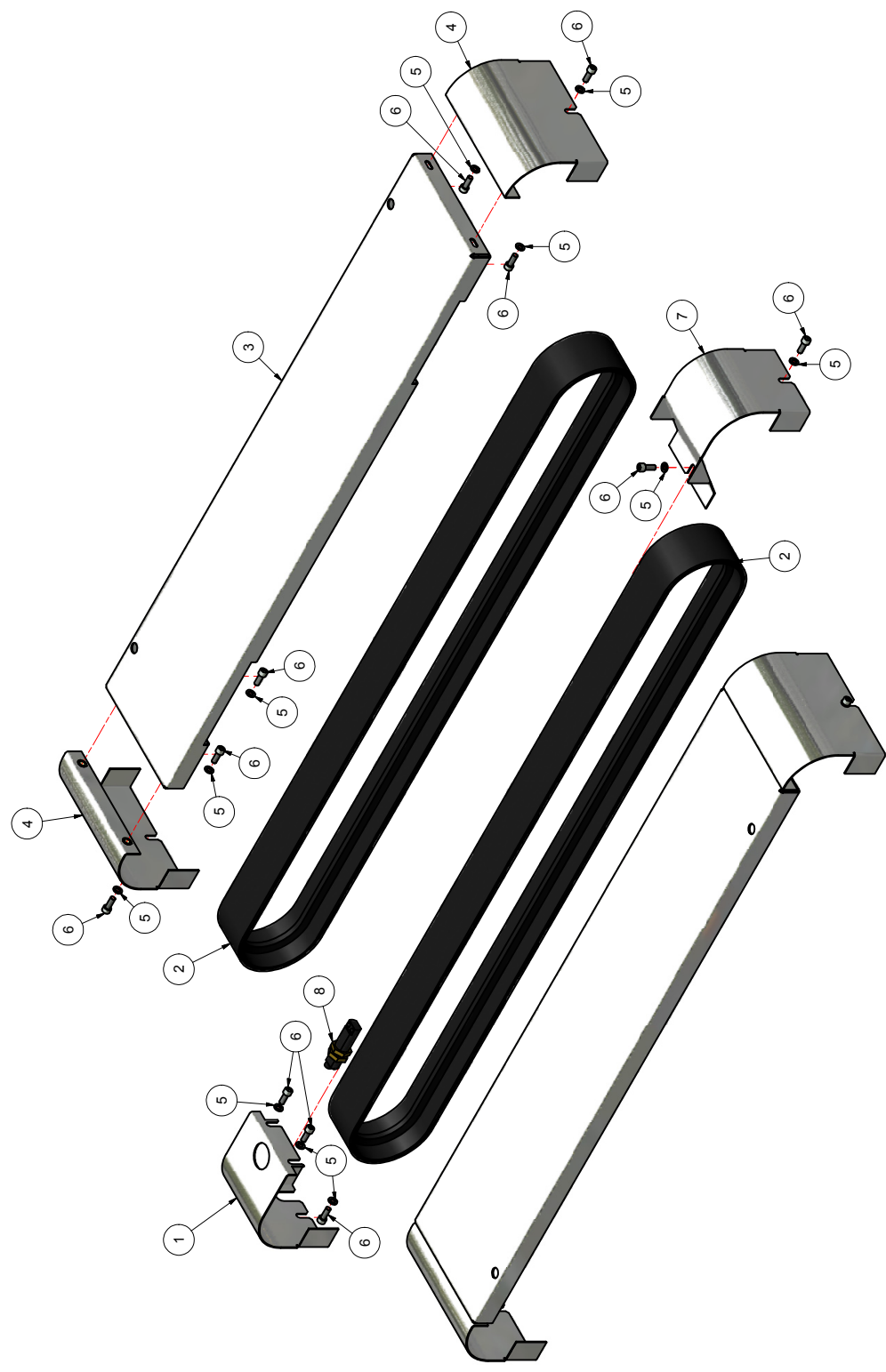
**ASSEMBLED VIEW**

**NOTE:** Set screws and sprocket must be cleaned and free of dirt and grease. Clean and dry with Loctite prep or alcohol. When dry apply Loctite 277 and tighten.

|  |        |   |                                  |
|--|--------|---|----------------------------------|
| MATL   | PART # | CAD FILE  | LDXRTB DRIVE ROLLER ASSY 2.0.DWG |
| NOTED  | STD    | PLOT DATE   | 1/25/2011                        |
| ST. ST.  | N/A    | DRAWN DATE  | 1/24/2011                        |
| STAINLESS : NO FINISH  |        |   |                                  |
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| TOLERANCES UNLESS OTHERWISE NOTED:   |        | X = ±.050 ANGLES ±.1/2°<br>INCH .XX = ±.015<br>.XXX = ±.005 |                                  |
| TITLE  |        | LOVESHAW an ITW Company<br>RT. 296, SOUTH CANAAN, PA.       |                                  |
| DWG NO   |        | LDXRTB DRIVE ROLLER ASSY 2.0                                |                                  |
| MATERIAL   |        | NOTED   |                                  |
| DRAWN  |        | TONYS   |                                  |
| CHECKED  |        | N/A   |                                  |
| APPROVED   |        | TONYS   |                                  |
| FRACTIONS  |        | ± 1/64  |                                  |
| SCALE  |        | 2.0   |                                  |



| REVISION HISTORY |             |           |
|------------------|-------------|-----------|
| REV              | DESCRIPTION | DATE      |
| A                | RELEASED    | 12/7/2010 |
|                  |             | APPROVED  |
|                  |             | TONYS     |



| Parts List |     |                                   |
|------------|-----|-----------------------------------|
| ITEM       | QTY | DESCRIPTION                       |
| 1          | 1   | GUARD DRIVE BOTTOM FRT            |
| 2          | 2   | LDX-0048B-4 BELT                  |
| 3          | 2   | LDX-0036-5 BOX GUIDE FILL (TOP)   |
| 4          | 4   | LDX-0034-4 BOX GUIDE FILL (END)   |
| 5          | 17  | FFWMGP FLAT WASHER M6             |
| 6          | 17  | FSHMG016P10 SHCS M6x16 LG.        |
| 7          | 1   | LDX-0230-4 GUARD, BOTTOM DRIVE LB |
| 8          | 1   | A219-CH-2 PHOTOEYE                |

| MATL  | PART # | CAD FILE | PLOT DATE | DRAWN DATE | TITLE   |
|---|--------|----------|-----------|------------|---|
| NOTED   | STD    |          | 12/7/2010 | 12/7/2010  | LOVESHAW an ITW Company<br>RT. 296, SOUTH CANAAN, PA. |
| ST. ST.   | N/A    |          |           |            | .BDA/LDXRTBW  |
| <p><b>TOLERANCES UNLESS OTHERWISE NOTED:</b></p> <p>X = ±.050 ANGLES ±1/2°</p> <p>INCH .XX = ±.015</p> <p>MACH. FINISH</p> <p>METRIC .XX = ±.3mm</p> <p>.XXX = ±.1mm</p>  |        |          |           |            |   |
| <p><b>DO NOT SCALE PRINT</b></p> <p>STAINLESS: NO FINISH</p> <p>THIS DRAWING IS THE PROPERTY OF LOVESHAW AND IS TO BE TREATED AS CONFIDENTIAL. ANY REPRODUCTION OR USE OF THIS DRAWING WITHOUT THE EXPRESS WRITTEN CONSENT OF LOVESHAW ITW AND WILL BE RETURNED TO LOVESHAW ITW UPON REQUEST.</p> |        |          |           |            |   |
|   |        | DRAWN    |           | TONYS      | APPROVED  |
|   |        | MATERIAL |           | NOTED      | CHECKED   |
|   |        | SCALE    |           | N/A        |   |

| REVISION HISTORY |             |            |          |
|------------------|-------------|------------|----------|
| REV              | DESCRIPTION | DATE       | APPROVED |
| A                | RELEASED    | 10/22/2012 | TONYS    |

| PARTS LIST |     |               |                               |
|------------|-----|---------------|-------------------------------|
| ITEM       | QTY | PART NUMBER   | DESCRIPTION                   |
| 1          | 4   | LDX-0037-4    | BELT GUIDE                    |
| 2          | 2   | BDALDXRTB     | LDXRTB BELT TENSIONER ASSY    |
| 3          | 2   | LDX-0045B-4   | BELT                          |
| 4          | 2   | LDX-0045C-4   | WASHER                        |
| 5          | 4   | LDX-0045-3    | STUD RING                     |
| 6          | 2   | F5HM012P10    | SHCS M8 X 1.0 X 12 LG.        |
| 7          | 23  | FLMNGP        | LOCK WASHER M8                |
| 8          | 12  | FNLNMGF       | NYLOCK NUT M8                 |
| 9          | 27  | FFWNGP        | FLAT WASHER M8                |
| 10         | 2   | FHHM016P10    | HHCS M8 X 16                  |
| 11         | 1   | LDX-0035-4    | GUARD DRIVE TOP               |
| 12         | 1   | LDX-0035-4    | GUARD DRIVE BOT               |
| 13         | 2   | F5HM016P8     | SOC HD CAPS SCREW M10 X 16    |
| 14         | 1   | LDX-0098-4    | GUARD TD FRT                  |
| 15         | 1   | LDX-0094-4    | SPACER MOTOR BASE             |
| 16         | 2   | LDX-0097-4    | BRKT CART MOUNT TD REAR       |
| 17         | 1   | LDX-0098-4    | GUARD TD REAR TOP             |
| 18         | 1   | LDX-0102A-3   | SHAFT PADDLE                  |
| 19         | 1   | LDX-0102-3    | SHAFT NOSE ROLLER             |
| 20         | 1   | LDX-0102-3    | SHAFT NOSE ROLLER             |
| 21         | 1   | LDX-0124-4    | FRAME TD WELDMENT             |
| 22         | 2   | LDX-0164A-3   | ROLLER NOSE                   |
| 23         | 1   | LDU-0164-4    | WIRE GUARD (HEAD)             |
| 24         | 1   | LDX-0351-4    | NOSE PADDLE NC                |
| 25         | 1   | LDX-0355-4    | FILL PLATE HEAD FRT           |
| 26         | 4   | FFWNGP        | FLAT WASHER M8                |
| 27         | 1   | LDX-0377-3    | TOP LOAD BLOCK                |
| 28         | 1   | LDX-0377-3    | TOP LOAD BLOCK                |
| 29         | 1   | LDX-0377-3    | TOP LOAD BLOCK                |
| 30         | 3   | FLMNGP        | LOCK WASHER M4                |
| 31         | 1   | LDX-0391L/R-4 | GUARD REAR TD                 |
| 32         | 1   | LDX-0391L/R-4 | GUARD FRONT TD                |
| 33         | 10  | SPH-1404      | screw M6x20mm LG.             |
| 34         | 21  | F5HM016P10    | HHCS M8 X 10                  |
| 35         | 2   | FHHM010P10    | HHCS M8 X 10                  |
| 36         | 2   | F5HM016P10    | FLAT HEAD SCREW M6 X 25       |
| 37         | 1   | LDX-0391L/R-4 | GUARD REAR TD                 |
| 38         | 12  | FNLNMGF       | NYLOCK NUT M8                 |
| 39         | 2   | AH208         | WIRE / HOSE CRADLE            |
| 40         | 4   | FLMNGP        | LOCK WASHER M5                |
| 41         | 4   | FHDNMP        | HEX DOME NUT M5               |
| 42         | 17  | FHDNMGF       | HEX DOME NUT M8               |
| 43         | 10  | FLMNGP        | LOCK WASHER M8                |
| 44         | 2   | LDX-0458A-3   | STUD RING                     |
| 45         | 2   | LDX-0458A-3   | STUD RING                     |
| 46         | 2   | FHHM039P10    | FHSC M8x31LG                  |
| 47         | 2   | AH208         | CABLE TIE 5/8" LONG           |
| 48         | 3   | SPH-1420      | CABLE TIE HOLDER (PUSH STYLE) |
| 49         | 6   | F5HM012P10    | HEX SOC BUTT HD SCREW         |
| 50         | 1   | LDX-0077-4    | NECK MAST                     |
| 51         | 1   | LDX-0397-4    | GUARD TD TOP                  |
| 52         | 1   | LDX-0397-4    | GUARD TD TOP                  |
| 53         | 1   | LDX-0397-4    | SLIDE SPACER SUPPORT LB       |
| 54         | 1   | LDX-0234-4    | ROLLER ASSY 2.0               |
| 55         | 2   | LDX-0343-4    | GUARD TD BOTTOM LB            |
| 56         | 1   | A219-CH-3     | CART FILL PLATE               |
| 57         | 1   | LDX-0347-3    | PROX 12mm AC                  |
| 58         | 2   | FHNMP         | BRKT FRONT PROX               |
| 59         | 2   | FHHM016P10    | HEX NUT M5                    |
| 60         | 2   | SPH-1458      | FLAT HEAD CAP SCREW M5 X 16   |
| 61         | 2   | FHHMGP        | BUMPER                        |
| 62         | 1   | LDX-0352-3    | M8 HEX JAM NUT                |
| 63         | 1   | FFWNGP        | TARGET NC PADDLE              |
| 64         | 1   | LDX-0355-4    | FW M4                         |
| 65         | 2   | LDX-0098-4    | FILL PLATE HEAD               |
| 66         | 1   | F5HM02P10     | GUARD SUPPORT                 |
| 67         | 1   | LDX-0124-4    | M4.07 X 12mm SHCS             |
| 68         | 2   | LDX-0124-4    | GUARD TOP DRIVE               |
| 69         | 2   | LDX-0145-3    | BUSHING                       |
| 70         | 8   | FHHM02P10     | SPACER NOSE PADDLE            |
| 71         | 1   | LDX-0391R-4   | HHCS M8 X 20                  |
| 72         | 1   | LDX-0391R-4   | GUARD FRONT TD                |
| 73         | 8   | FHHM012P10    | GUARD REAR TD                 |
| 74         | 2   | LDX-0411-4    | HHCS M8 X 12                  |
| 75         | 1   | LDX-0411-4    | PADDLE ARM                    |
| 76         | 1   | LDX-0411-4    | NOSE WELLET                   |
| 77         | 1   | LDX-0411-4    | LEGEND PLATE EM STOP ROUND    |
| 78         | 1   | A213-AB-RD-F  | TOGGLE VALVE                  |
| 79         | 1   | SSB-C1A-LD7   | E-STOP ASSY                   |
| 80         | 2   | N717          | TOGGLE VALVE                  |
| 81         | 1   | LDX-0637-3    | FITTING 90 DEG ELBOW          |
| 82         | 2   | FHNMP         | TOGGLE SWITCH GUARD           |
| 83         | 2   | F5HM08P10     | M4 HEX NUT                    |
| 84         | 2   | F5HM08P10     | SOC HD HEX M6 X 16 LG.        |

| TOLERANCES UNLESS OTHERWISE NOTED: |             |          |       |
|------------------------------------|-------------|----------|-------|
| MATL                               | FINISH      | SCALE    | UNITS |
| STAINLESS                          | NO FINISH   | 1:1      | MM    |
| STEEL                              | BLACK OXIDE | 1:1      | MM    |
| ALUMINUM                           | ANODIZED    | 1:1      | MM    |
| COPPER                             | AS SUPPLIED | 1:1      | MM    |
| BRASS                              | AS SUPPLIED | 1:1      | MM    |
| INCH                               | AS SUPPLIED | 1:1      | INCH  |
| METRIC                             | AS SUPPLIED | 1:1      | MM    |
| FRACCTIONS                         | 1/16        |          | INCH  |
| APPROVED                           | TONYS       | APPROVED | TONYS |

| LOVESHAW an ITW Company      |  |  |  |
|------------------------------|--|--|--|
| RT 298 SOUTH CAMDEN, PA.     |  |  |  |
| TITLE: LDXRTB TOP DRIVE ASSY |  |  |  |
| 2.0WP                        |  |  |  |
| DRAWN: [Signature]           |  |  |  |
| CHECKED: [Signature]         |  |  |  |

| DO NOT SCALE PRINT   |  |  |  |
|--|--|--|--|
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| EXPLODED VIEW |  |  |  |
|---------------|--|--|--|
|---------------|--|--|--|

| ASSEMBLED VIEW |  |  |  |
|----------------|--|--|--|
|----------------|--|--|--|

| PARTS LIST |     |               |                               |
|------------|-----|---------------|-------------------------------|
| ITEM       | QTY | PART NUMBER   | DESCRIPTION                   |
| 1          | 4   | LDX-0037-4    | BELT GUIDE                    |
| 2          | 2   | BDALDXRTB     | LDXRTB BELT TENSIONER ASSY    |
| 3          | 2   | LDX-0045B-4   | BELT                          |
| 4          | 2   | LDX-0045C-4   | WASHER                        |
| 5          | 4   | LDX-0045-3    | STUD RING                     |
| 6          | 2   | F5HM012P10    | SHCS M8 X 1.0 X 12 LG.        |
| 7          | 23  | FLMNGP        | LOCK WASHER M8                |
| 8          | 12  | FNLNMGF       | NYLOCK NUT M8                 |
| 9          | 27  | FFWNGP        | FLAT WASHER M8                |
| 10         | 2   | FHHM016P10    | HHCS M8 X 16                  |
| 11         | 1   | LDX-0035-4    | GUARD DRIVE TOP               |
| 12         | 1   | LDX-0035-4    | GUARD DRIVE BOT               |
| 13         | 2   | F5HM016P8     | SOC HD CAPS SCREW M10 X 16    |
| 14         | 1   | LDX-0098-4    | GUARD TD FRT                  |
| 15         | 1   | LDX-0094-4    | SPACER MOTOR BASE             |
| 16         | 2   | LDX-0097-4    | BRKT CART MOUNT TD REAR       |
| 17         | 1   | LDX-0098-4    | GUARD TD REAR TOP             |
| 18         | 1   | LDX-0102A-3   | SHAFT PADDLE                  |
| 19         | 1   | LDX-0102-3    | SHAFT NOSE ROLLER             |
| 20         | 1   | LDX-0102-3    | SHAFT NOSE ROLLER             |
| 21         | 1   | LDX-0124-4    | FRAME TD WELDMENT             |
| 22         | 2   | LDX-0164A-3   | ROLLER NOSE                   |
| 23         | 1   | LDU-0164-4    | WIRE GUARD (HEAD)             |
| 24         | 1   | LDX-0351-4    | NOSE PADDLE NC                |
| 25         | 1   | LDX-0355-4    | FILL PLATE HEAD FRT           |
| 26         | 4   | FFWNGP        | FLAT WASHER M8                |
| 27         | 1   | LDX-0377-3    | TOP LOAD BLOCK                |
| 28         | 1   | LDX-0377-3    | TOP LOAD BLOCK                |
| 29         | 1   | LDX-0377-3    | TOP LOAD BLOCK                |
| 30         | 3   | FLMNGP        | LOCK WASHER M4                |
| 31         | 1   | LDX-0391L/R-4 | GUARD REAR TD                 |
| 32         | 1   | LDX-0391L/R-4 | GUARD FRONT TD                |
| 33         | 10  | SPH-1404      | screw M6x20mm LG.             |
| 34         | 21  | F5HM016P10    | HHCS M8 X 10                  |
| 35         | 2   | FHHM010P10    | HHCS M8 X 10                  |
| 36         | 2   | F5HM016P10    | FLAT HEAD SCREW M6 X 25       |
| 37         | 1   | LDX-0391L/R-4 | GUARD REAR TD                 |
| 38         | 12  | FNLNMGF       | NYLOCK NUT M8                 |
| 39         | 2   | AH208         | WIRE / HOSE CRADLE            |
| 40         | 4   | FLMNGP        | LOCK WASHER M5                |
| 41         | 4   | FHDNMP        | HEX DOME NUT M5               |
| 42         | 17  | FHDNMGF       | HEX DOME NUT M8               |
| 43         | 10  | FLMNGP        | LOCK WASHER M8                |
| 44         | 2   | LDX-0458A-3   | STUD RING                     |
| 45         | 2   | LDX-0458A-3   | STUD RING                     |
| 46         | 2   | FHHM039P10    | FHSC M8x31LG                  |
| 47         | 2   | AH208         | CABLE TIE 5/8" LONG           |
| 48         | 3   | SPH-1420      | CABLE TIE HOLDER (PUSH STYLE) |
| 49         | 6   | F5HM012P10    | HEX SOC BUTT HD SCREW         |
| 50         | 1   | LDX-0077-4    | NECK MAST                     |
| 51         | 1   | LDX-0397-4    | GUARD TD TOP                  |
| 52         | 1   | LDX-0397-4    | GUARD TD TOP                  |
| 53         | 1   | LDX-0397-4    | SLIDE SPACER SUPPORT LB       |
| 54         | 1   | LDX-0234-4    | ROLLER ASSY 2.0               |
| 55         | 2   | LDX-0343-4    | GUARD TD BOTTOM LB            |
| 56         | 1   | A219-CH-3     | CART FILL PLATE               |
| 57         | 1   | LDX-0347-3    | PROX 12mm AC                  |
| 58         | 2   | FHNMP         | BRKT FRONT PROX               |
| 59         | 2   | FHHM016P10    | HEX NUT M5                    |
| 60         | 2   | SPH-1458      | FLAT HEAD CAP SCREW M5 X 16   |
| 61         | 2   | FHHMGP        | BUMPER                        |
| 62         | 1   | LDX-0352-3    | M8 HEX JAM NUT                |
| 63         | 1   | FFWNGP        | TARGET NC PADDLE              |
| 64         | 1   | LDX-0355-4    | FW M4                         |
| 65         | 2   | LDX-0098-4    | FILL PLATE HEAD               |
| 66         | 1   | F5HM02P10     | GUARD SUPPORT                 |
| 67         | 1   | LDX-0124-4    | M4.07 X 12mm SHCS             |
| 68         | 2   | LDX-0124-4    | GUARD TOP DRIVE               |
| 69         | 2   | LDX-0145-3    | BUSHING                       |
| 70         | 8   | FHHM02P10     | SPACER NOSE PADDLE            |
| 71         | 1   | LDX-0391R-4   | HHCS M8 X 20                  |
| 72         | 1   | LDX-0391R-4   | GUARD FRONT TD                |
| 73         | 8   | FHHM012P10    | GUARD REAR TD                 |
| 74         | 2   | LDX-0411-4    | HHCS M8 X 12                  |
| 75         | 1   | LDX-0411-4    | PADDLE ARM                    |
| 76         | 1   | LDX-0411-4    | NOSE WELLET                   |
| 77         | 1   | LDX-0411-4    | LEGEND PLATE EM STOP ROUND    |
| 78         | 1   | A213-AB-RD-F  | TOGGLE VALVE                  |
| 79         | 1   | SSB-C1A-LD7   | E-STOP ASSY                   |
| 80         | 2   | N717          | TOGGLE VALVE                  |
| 81         | 1   | LDX-0637-3    | FITTING 90 DEG ELBOW          |
| 82         | 2   | FHNMP         | TOGGLE SWITCH GUARD           |
| 83         | 2   | F5HM08P10     | M4 HEX NUT                    |
| 84         | 2   | F5HM08P10     | SOC HD HEX M6 X 16 LG.        |

| TOLERANCES UNLESS OTHERWISE NOTED: |             |          |       |
|------------------------------------|-------------|----------|-------|
| MATL                               | FINISH      | SCALE    | UNITS |
| STAINLESS                          | NO FINISH   | 1:1      | MM    |
| STEEL                              | BLACK OXIDE | 1:1      | MM    |
| ALUMINUM                           | ANODIZED    | 1:1      | MM    |
| COPPER                             | AS SUPPLIED | 1:1      | MM    |
| BRASS                              | AS SUPPLIED | 1:1      | MM    |
| INCH                               | AS SUPPLIED | 1:1      | INCH  |
| METRIC                             | AS SUPPLIED | 1:1      | MM    |
| FRACCTIONS                         | 1/16        |          | INCH  |
| APPROVED                           | TONYS       | APPROVED | TONYS |

| LOVESHAW an ITW Company      |  |  |  |
|------------------------------|--|--|--|
| RT 298 SOUTH CAMDEN, PA.     |  |  |  |
| TITLE: LDXRTB TOP DRIVE ASSY |  |  |  |
| 2.0WP                        |  |  |  |
| DRAWN: [Signature]           |  |  |  |
| CHECKED: [Signature]         |  |  |  |

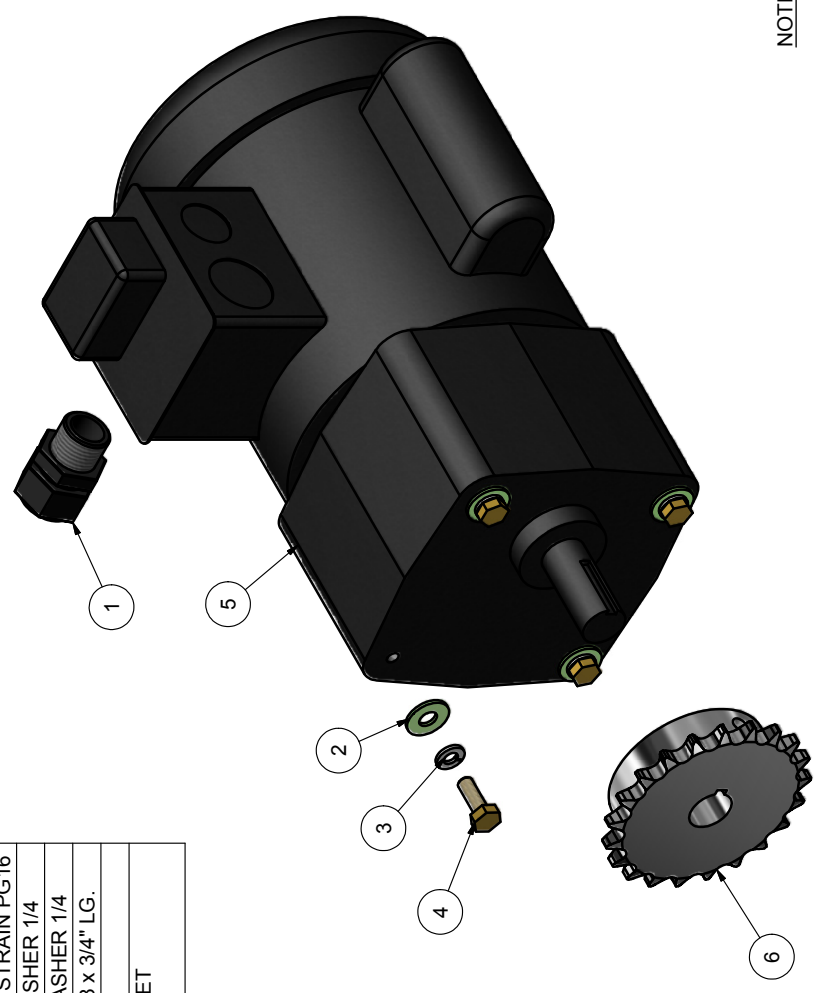
| DO NOT SCALE PRINT   |  |  |  |
|--|--|--|--|
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| EXPLODED VIEW |  |  |  |
|---------------|--|--|--|
|---------------|--|--|--|

| ASSEMBLED VIEW |  |  |  |
|----------------|--|--|--|
|----------------|--|--|--|

1 2 3 4

| Parts List |     |                                 |
|------------|-----|---------------------------------|
| ITEM       | QTY | PART NUMBER DESCRIPTION         |
| 1          | 1   | AH199G FITTING, STRAIN PG.16    |
| 2          | 4   | FWSDP FLAT WASHER 1/4           |
| 3          | 4   | FLWSDP LOCK WASHER 1/4          |
| 4          | 4   | FHSG075P08 HH 1/4-28 x 3/4" LG. |
| 5          | 1   | SEE MOTOR CHART                 |
| 6          | 1   | SEE SPROCKET CHART              |



| REVISION HISTORY |             |           |          |
|------------------|-------------|-----------|----------|
| REV              | DESCRIPTION | DATE      | APPROVED |
| A                | RELEASED    | 3/15/2010 | TONYS    |

**NOTE:**  
See motor chart for motor part number.  
See sprocket chart for sprocket part number.

| MATERIAL   |     | PART #             |  | CAD FILE  |            | LDRXRTB MOTOR ASSY       |  | LOVE SHAW                    |                            |
|--|-----|--------------------|--|---|------------|--------------------------|--|------------------------------|----------------------------|
| NOTED  | STD | STD                |  |   | PLOT DATE  | 3/15/2010                | OTHERWISE NOTED:                             | an ITW Company               | RT. 296, SOUTH CANAAN, PA. |
| ST. ST.  | N/A | N/A                |  |   | DRAWN DATE | 3/15/2010                | X = ±.050<br>INCH XX = ±.015<br>.XXX = ±.005 | LDXRTB                       |                            |
| STAINLESS : NO FINISH  |     | DO NOT SCALE PRINT |  | MACH. FINISH                                    |            | ANGLES ±.12°             |  | motor & sprocket information |                            |
| THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVE SHAW-ITW AND IS TO BE TREATED BY YOU AS CONFIDENTIAL PROPRIETARY INFORMATION. THIS DRAWING OR SUBJECT MATTER THEREOF SHALL NOT BE REPRODUCED OTHER THAN FOR YOUR OWN USE OR TO BE DISCLOSED TO OTHER PERSONS WITHOUT THE WRITTEN PERMISSION OF LOVE SHAW-ITW AND WILL BE RETURNED TO LOVE SHAW-ITW UPON REQUEST. |     |                    |  |   |            |                          |  |                              |                            |
| FRACTIONS ± 1/64   |     | MACH. FINISH       |  | X = ±1.0mm<br>METRIC XX = ±.3mm<br>.XXX = ±.1mm |            | DWG NO LDXRTB MOTOR ASSY |  | CHECKED                      |                            |
|  |     |                    |  |   |            | DRAWN                    |  | tonys                        |                            |
|  |     |                    |  |   |            |                          |  | APPROVED TONY S              |                            |

1 2 3 4

## DRIVE MOTOR – SPROCKET OPTIONS

Note: Refer to drawing previous page

### Motor Selection:

| Part number | Description                         | Position     |
|-------------|-------------------------------------|--------------|
| 50100-054   | 1/6 hp gear motor 120V-240V/50-60Hz | Top drive    |
| 50100-053   | 1/3 hp gear motor 120V-240V/50-60Hz | Bottom drive |

| Part number | Description                             | Position     |
|-------------|---|--------------|
| 50100-057   | 1/6 hp gear motor 380V-440V/50-60Hz 3PH | Top drive    |
| 50100-056   | 1/3 hp gear motor 380V-440V/50-60Hz 3PH | Bottom drive |

### Drive Motor Sprocket Selection:

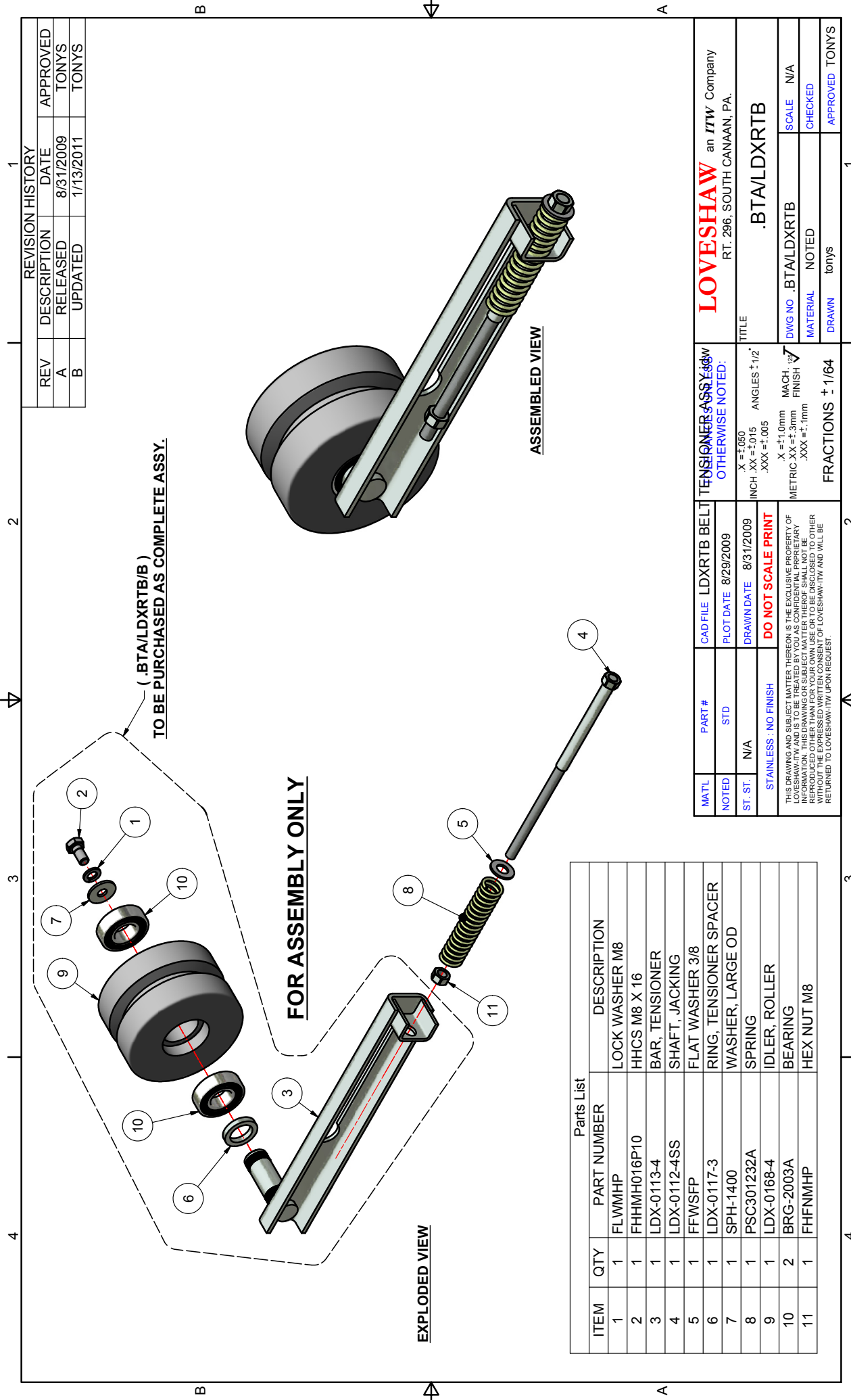
| Part number | Belt Speed – Feet per minute | Electrical frequency - Hz |
|-------------|------------------------------|---------------------------|
| SPK-0119    | 115 ft/min                   | 60 Hz                     |
| SPK-0130    | 155 ft/min                   | 60 Hz                     |

| Part number | Belt Speed – Feet per minute | Electrical frequency - Hz |
|-------------|------------------------------|---------------------------|
| SPK-0128    | 115 ft/min                   | 50 Hz                     |
| SPK-0133    | 155 ft/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 ft/min | Full links – 21, Master link – 1 | Full links – 25, Half links - 1 Master link – 1 |
| 155 ft/min | Full links – 22, Master link – 1 | Full links – 25, Master link – 1                |

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



| REVISION HISTORY |             |           |          |
|------------------|-------------|-----------|----------|
| REV              | DESCRIPTION | DATE      | APPROVED |
| A                | RELEASED    | 8/31/2009 | TONYS    |
| B                | UPDATED     | 1/13/2011 | TONYS    |

Parts List

| ITEM | QTY | PART NUMBER  | DESCRIPTION            |
|------|-----|--------------|------------------------|
| 1    | 1   | FLWMHP       | LOCK WASHER M8         |
| 2    | 1   | FHHMH016P10  | HHCS M8 X 16           |
| 3    | 1   | LDX-0113-4   | BAR, TENSIONER         |
| 4    | 1   | LDX-0112-4SS | SHAFT, JACKING         |
| 5    | 1   | FFWSFP       | FLAT WASHER 3/8        |
| 6    | 1   | LDX-0117-3   | RING, TENSIONER SPACER |
| 7    | 1   | SPH-1400     | WASHER, LARGE OD       |
| 8    | 1   | PSC301232A   | SPRING                 |
| 9    | 1   | LDX-0168-4   | IDLER, ROLLER          |
| 10   | 2   | BRG-2003A    | BEARING                |
| 11   | 1   | FHFNMHP      | HEX NUT M8             |

|         |        |            |             |                    |              |
|---------|--------|------------|-------------|--------------------|--------------|
| MATL    | PART # | CAD FILE   | LDXRTB BELT | TENSIONER ASSY     | LOVESHAW     |
| NOTED   | STD    | PLOT DATE  | 8/29/2009   | OTHERWISE NOTED:   |              |
| ST. ST. | N/A    | DRAWN DATE | 8/31/2009   | X = ±.050          |              |
|         |        |            |             | INCH .XX = ±.015   | ANGLES ±.12° |
|         |        |            |             | .XXX = ±.005       |              |
|         |        |            |             | X = ±1.0mm         | MACH. ✓      |
|         |        |            |             | METRIC .XX = ±.3mm | FINISH       |
|         |        |            |             | .XXX = ±.1mm       | CHECKED      |
|         |        |            |             | FRACTIONS ± 1/64   | DRAWN        |
|         |        |            |             |                    | tonys        |
|         |        |            |             |                    | APPROVED     |
|         |        |            |             |                    | TONYS        |

**LOVESHAW** an ITW Company  
 RT. 296, SOUTH CANAAN, PA.  
 TITLE: .BTA/LDXRTB  
 DWG NO: .BTA/LDXRTB  
 MATERIAL: NOTED  
 SCALE: N/A  
 CHECKED: TONY  
 DRAWN: TONY

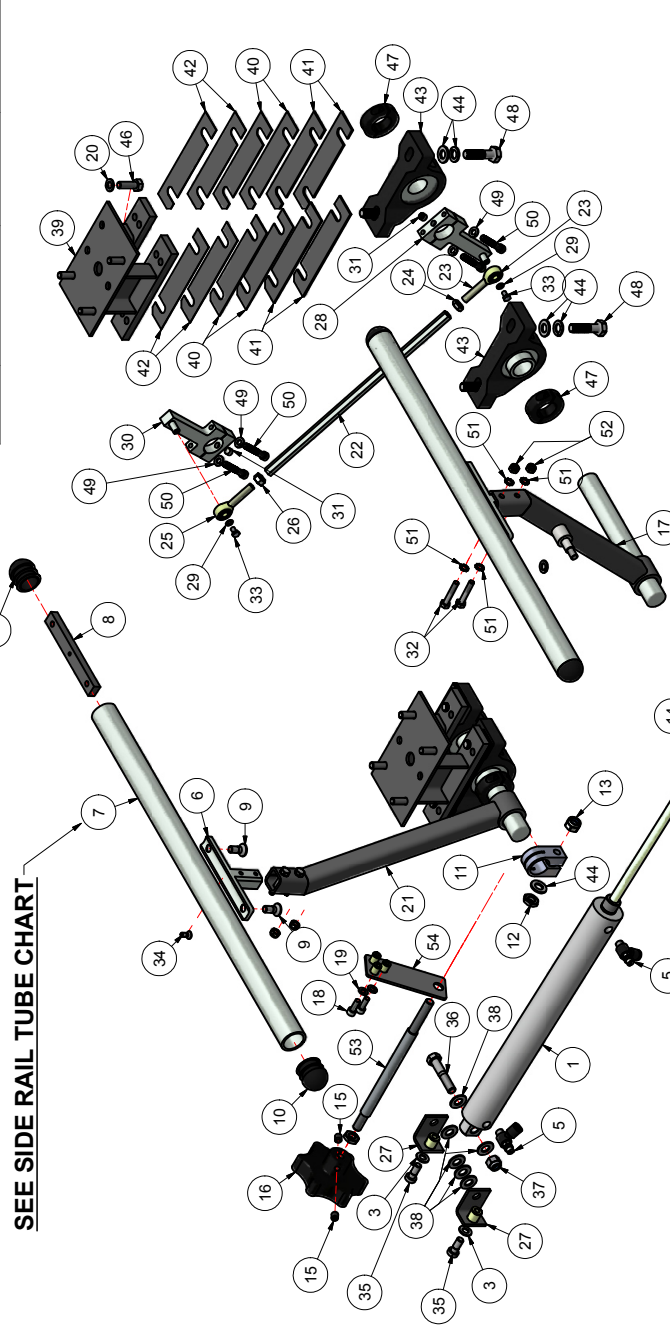
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STAINLESS : NO FINISH  
 DO NOT SCALE PRINT  
 DRAWN DATE 8/31/2009  
 PLOT DATE 8/29/2009  
 CAD FILE LDXRTB BELT

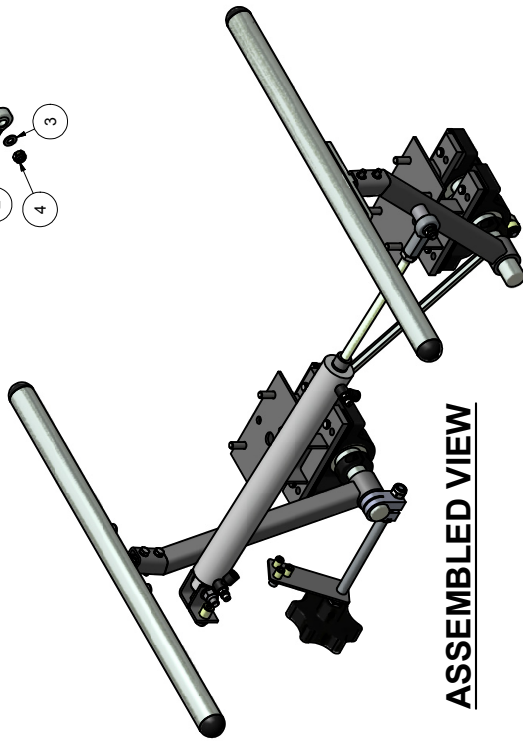
MACH. ✓  
 FINISH  
 TENSIONER ASSY  
 LOVESHAW

| ITEM | QTY | PART NUMBER  | DESCRIPTION                     |
|------|-----|--------------|---------------------------------|
| 1    | 1   | N401-342     | CYLINDER                        |
| 2    | 1   | FJUNSP       | 7/16-20 HEX JAM NUT             |
| 3    | 3   | FFWMHP       | FLAT WASHER M8                  |
| 4    | 1   | FNLNMP       | NYLOCK NUT M8                   |
| 5    | 2   | N400-183     | SPEED CONTROL 90 DEG            |
| 6    | 2   | LDX-0049-4   | SIDERAIL TUBE TEE               |
| 7    | 2   | SEE CHART    | SIDE RAIL TUBE                  |
| 8    | 2   | LDX-0065-3   | NUT PLATE, SR                   |
| 9    | 4   | FFHMH020P10  | FLAT HEAD CAP SCREW M8 X 20 LG. |
| 10   | 4   | SPH-1409     | PLUG, BALL HEAD                 |
| 11   | 1   | LDX-0210-4   | BLOCK, LOCK                     |
| 12   | 2   | FJUNMIP      | HEX JAM NUT, M10, PLATED        |
| 13   | 1   | FNLNMP       | NYLOCK NUT M10                  |
| 14   | 1   | SPH-1394     | ROD END                         |
| 15   | 2   | FSSMH010B88  | SS M8 x 10mm LG.                |
| 16   | 1   | PSU166-4     | HAND KNOB                       |
| 17   | 1   | LDX-0398-5   | SR ARM WELDMENT RH (M)          |
| 18   | 2   | FSHMG016P10  | SHCS M6x16 LG.                  |
| 19   | 2   | FLWMGP       | LOCK WASHER M6                  |
| 20   | 8   | FLWMHP       | LOCK WASHER M8                  |
| 21   | 1   | LDX-0399-5   | SR ARM WELDMENT LH (M)          |
| 22   | 1   | LDX-0322-4   | LINK BAR RH/LH                  |
| 23   | 1   | PSC552       | SPHERICAL ALIGN BEARING         |
| 24   | 1   | FJUNSP       | HEX JAM NUT, 5/16-24            |
| 25   | 1   | PSC552LH     | SPHERICAL ALIGN BEARING (LH)    |
| 26   | 1   | SPH-1445     | NUT LH 5/16-24                  |
| 27   | 2   | LDX-0261-3   | SR CYL MOUNT ANGLE              |
| 28   | 1   | LDX-0359-4   | CLAMP LINK BAR                  |
| 29   | 2   | FFWMFP       | FLAT WASHER M5                  |
| 30   | 1   | LDX-0360-4   | CLAMP LINK BAR                  |
| 31   | 2   | SPH-1395     | M8x10mm LG CONE POINT           |
| 32   | 4   | FFHMG035P10  | HHCS M6 X 35                    |
| 33   | 2   | FFHMF008P10  | HH M5x8 mm LG.                  |
| 34   | 2   | FFHMF012P10  | FHCS M5 X 0.8 X 12 LG.          |
| 35   | 2   | FSHMH020P10  | SHCS M8 X 20                    |
| 36   | 1   | FFHSLJ200P05 | HEX BOLT 3/8-16 X 2             |
| 37   | 1   | FNLNSJP      | 3/8" NYLOCK NUT                 |
| 38   | 6   | FFWSFP       | FLAT WASHER 3/8                 |
| 39   | 2   | LDX-0384-4   | SR BEARING SUPPORT BASE         |
| 40   | 8   | LDX-0383A-3  | SHIM, BEARING                   |
| 41   | 8   | LDX-0383B-3  | SHIM, BEARING                   |
| 42   | 8   | LDX-0383-3   | SHIM, BEARING                   |
| 43   | 4   | BRG-2014M    | BEARING 25mm PILLOW BLOCK       |
| 44   | 9   | FFWMIP       | FLAT WASHER M10                 |
| 45   | 8   | FLWMIP       | LOCK WASHER M10                 |
| 46   | 8   | FFHMH025P10  | HHCS M8 X 25                    |
| 47   | 4   | SPC-1004     | COLLAR FULL SPLIT 1" BORE       |
| 48   | 8   | FFHMH040P88  | HEX HD M10-1.25 x 40mm LG.      |
| 49   | 4   | FLWSDP       | LOCK WASHER 1/4                 |
| 50   | 4   | FSHSG150B08  | SOC HD 1/4-28 x 1.12 lg.        |
| 51   | 8   | FETLWMGP     | LOCK WASHER EXT. M6             |
| 52   | 4   | FNLNMG       | NYLOCK NUT M6                   |
| 53   | 1   | LDX-0407-3   | LOCK ROD SR                     |
| 54   | 1   | LDX-0421-4   | SR LOCK SUPPORT LONG            |

| REV | DESCRIPTION | DATE      | APPROVED |
|-----|-------------|-----------|----------|
| A   | RELEASED    | 6/27/2011 | TONYS    |
| B   | Updated     | 7/22/2013 | TONYS    |



**EXPLODED VIEW**



**ASSEMBLED VIEW**

| SIDE RAIL TUBE CHART | PART NO.    | LENGTH |
|----------------------|-------------|--------|
|                      | LDX-0047-4  | 22.0   |
|                      | LDX-0047A-4 | 32.75  |
|                      | LDX-0047B-4 | 29.0   |
|                      | LDX-0047C-4 | 27.0   |
|                      | LDX-0047D-4 | 14.5   |
|                      | LDX-0047E-4 | 21.5   |
|                      | LDX-0047F-4 | 16.5   |

| MATL    | PART # | CAD FILE | PLOT DATE | DRAWN DATE | TITLE |
|---------|--------|----------|-----------|------------|-------|
| NOTED   | STD    |          | 6/27/2011 |            |       |
| ST. ST. | N/A    |          |           |            |       |

| TOLERANCES UNLESS OTHERWISE NOTED: | ANGLES ±1/2° |
|------------------------------------|--------------|
| X ±.050                            |              |
| INCH .XX ±.005                     |              |
| X ±1.0mm                           |              |
| METRIC .XX ±.3mm                   |              |
| .XXX ±.1mm                         |              |

| DWG NO. | MATERIAL | NOTED | DRAWN | TONYS | APPROVED | TONYS |
|---------|----------|-------|-------|-------|----------|-------|
|         |          |       |       |       |          |       |

| SCALE | CHECKED |
|-------|---------|
| N/A   |         |

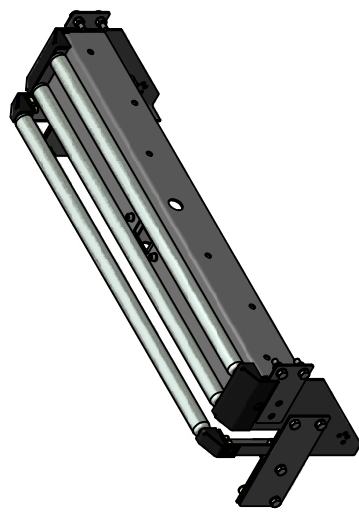
  

| FRACTIONS | ± 1/64 |
|-----------|--------|
|           |        |

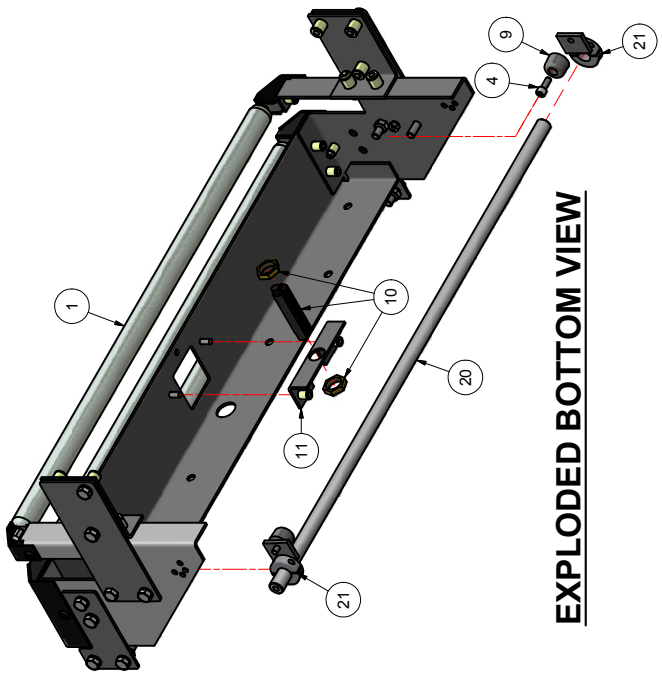
**LOVESHAW** an ITW Company  
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 .SRALDXRTB/M/M



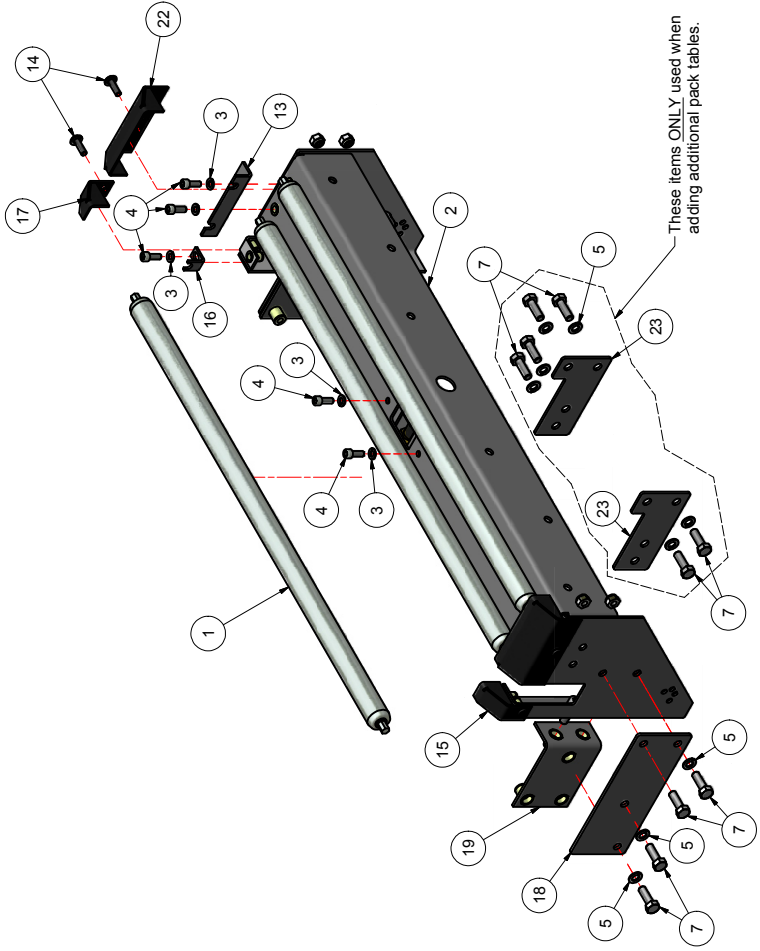
|     |             |            |          |
|-----|-------------|------------|----------|
| 1   | 2           | 3          | 4        |
| REV | DESCRIPTION | DATE       | APPROVED |
| A   | RELEASED    | 11/22/2010 | TONYS    |



**ASSEMBLED VIEW**



**EXPLODED BOTTOM VIEW**

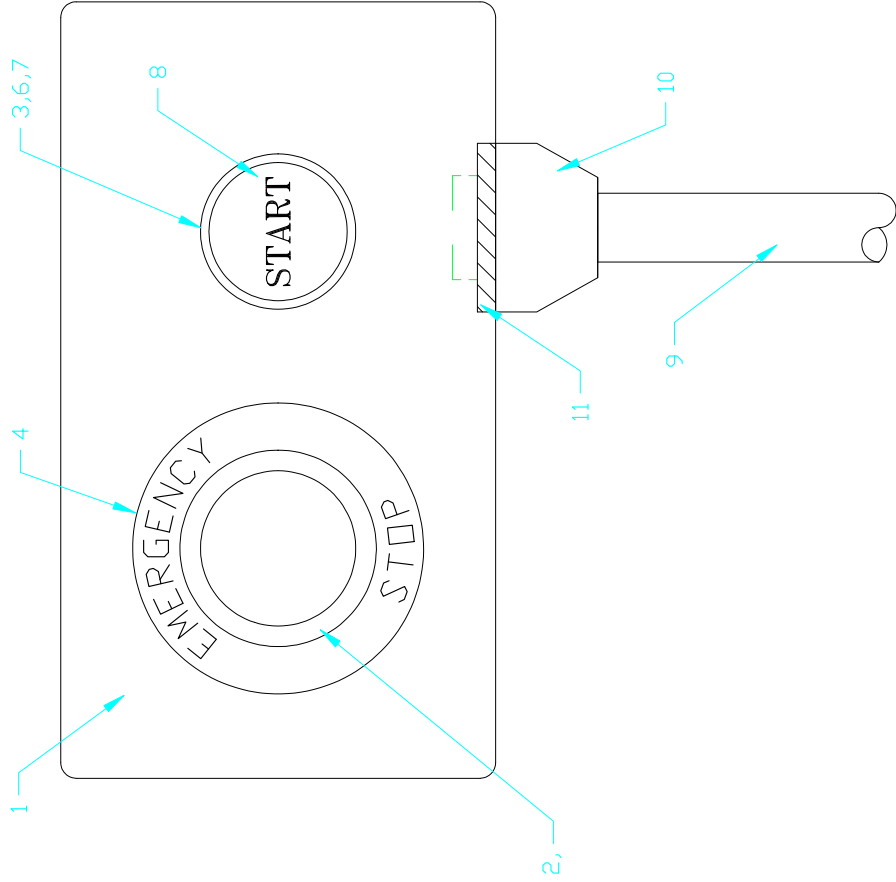
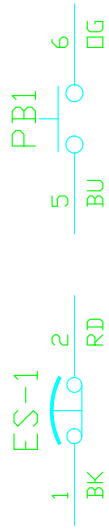


**EXPLODED TOP VIEW**

These items ONLY used when adding additional pack tables.

| ITEM | QTY | PART NUMBER | DESCRIPTION               |
|------|-----|-------------|---------------------------|
| 1    | 3   | CR-1010A    | ROLLER                    |
| 2    | 1   | LDX-0245-5  | BASE, INFEED ROLLER ASSY. |
| 3    | 8   | FLWMGP      | LOCK WASHER M6            |
| 4    | 10  | FSHM016P10  | SHCS M6x16 LG.            |
| 5    | 12  | FLWMHP      | LOCK WASHER M8            |
| 6    | 8   | FNLNHP      | M8 Nylock Nut Zinc Plated |
| 7    | 14  | FHHM025P10  | HHCS M8 X 25              |
| 8    | 2   | FSHM025P10  | SHCS M8x25                |
| 9    | 2   | F3MB        | RUBBER BUMPER             |
| 10   | 1   | A219-CH-2   | PHOTOEYE                  |
| 11   | 1   | LDX-0203-3  | BRACKET, PE ANGLE         |
| 13   | 2   | LDX-0253-3  | ANGLE, ROLLER SUPPORT MED |
| 14   | 4   | SPH-1404    | screw M6x20mm LG.         |
| 15   | 1   | LDX-0251L-3 | CAP, ROLLER FLANGED SM    |
| 16   | 2   | LDX-0252-3  | ANGLE, ROLLER SUPPORT SM  |
| 17   | 1   | LDX-0251R-3 | CAP, ROLLER FLANGED SM    |
| 18   | 2   | LDX-0248-3  | TIE PLATE                 |
| 19   | 2   | LDX-0249-3  | NUT PLATE                 |
| 20   | 1   | LDX-0254-3  | ROD, SR ADJ. STOP         |
| 21   | 2   | LDX-0255-4  | STOP, SR ADJ COLLAR       |
| 22   | 2   | LDX-0250-3  | CAP, ROLLER FLANGED       |
| 23   | 2   | LDX-0390-4  | SUPPORT PLATE, PACK TABLE |
| 41   | 2   | FNLNHP      | M8 NYLOCK NUT             |

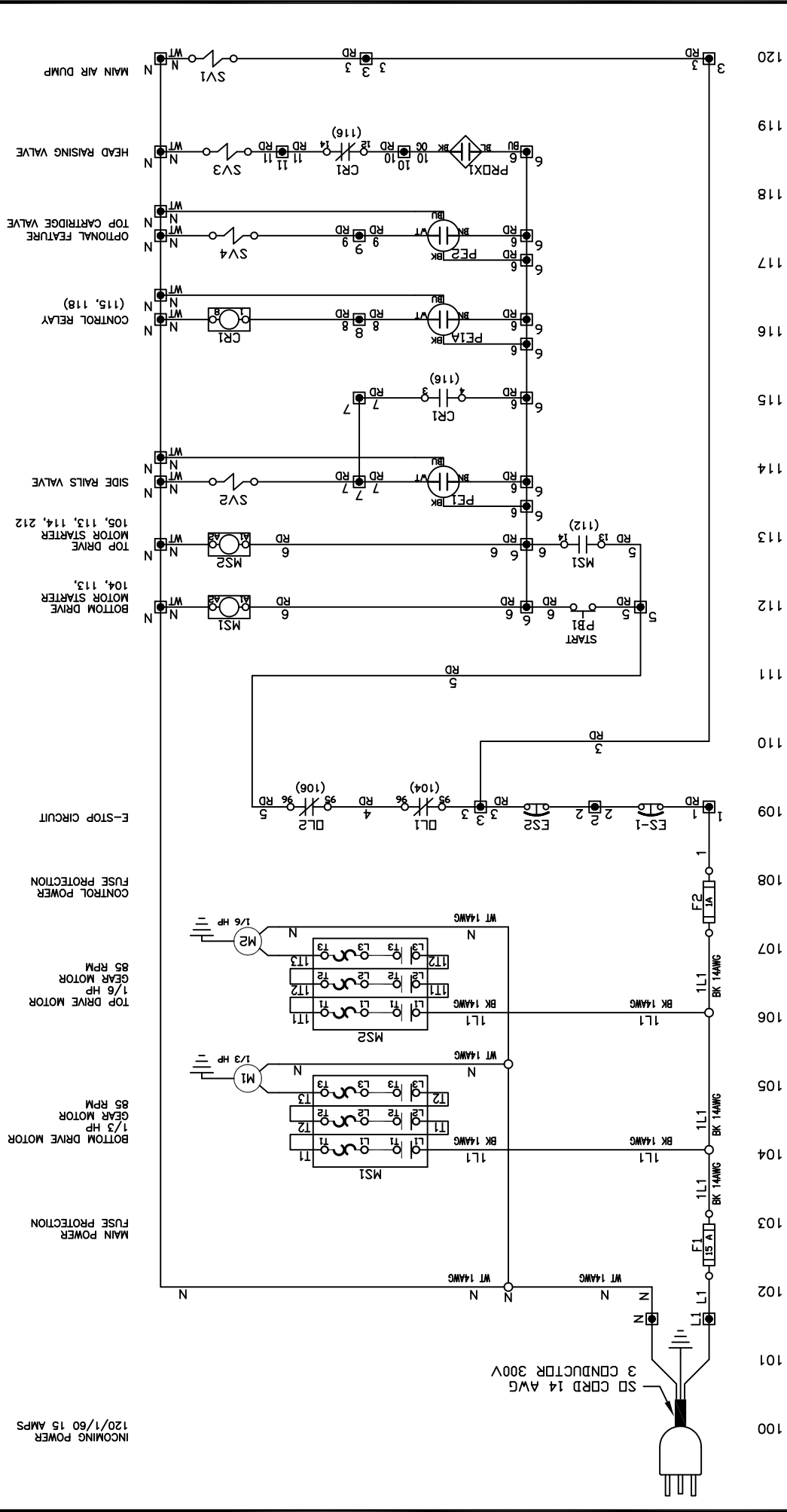
|   |        |                    |      |          |            |
|---|--------|--------------------|------|----------|------------|
| MATL  | PART # | CAD FILE           | DATE | PLT DATE | 11/23/2010 |
| NOTED   | STD    |                    |      |          |            |
| ST. ST.   | N/A    | DO NOT SCALE PRINT |      |          |            |
| <p>STAINLESS: NO FINISH</p> <p>THIS DRAWING IS THE PROPERTY OF LOVESHAW. IT IS TO BE USED ONLY FOR THE PROJECT AND TO BE TREATED AS A CONFIDENTIAL PROPERTY OF LOVESHAW. IT IS TO BE RETURNED TO LOVESHAW UPON REQUEST.</p> |        |                    |      |          |            |
| <p>TOLERANCES UNLESS OTHERWISE NOTED:</p> <p>X = ±.050 INCH XX = ±.015 INCH XXX = ±.005 INCH</p> <p>Y = ±1.0mm MACH. FINISH</p> <p>METRIC XX = ±.3mm</p> <p>.XXX = ±.1mm</p>  |        |                    |      |          |            |
| <p>LOVESHAW an ITW Company</p> <p>RT. 266 SOUTH CANNON, PA</p> <p>TITLE LDXRTB PACK TABLE ASSY</p> <p>SHORT</p> <p>DWG NO. SCALE N/A</p> <p>MATERIAL NOTED CHECKED</p> <p>DRAWN TONY'S APPROVED TONY'S</p>                  |        |                    |      |          |            |



| KEY | PART NUMBER     | DESCRIPTION                |
|-----|-----------------|----------------------------|
| 1   | A149-HAM-2-22MM | PUSH BUTTON ENCLOSURE      |
| 2   | SS8-C-1A-D7     | E-STOP & CONTACT BLK. N.C. |
| 3   | N/A             | N/A                        |
| 4   | SS8-F-D7        | E-STOP LEGEND PLATE        |
| 5   | N/A             | N/A                        |
| 6   | SS8-D-D7        | MOMENTARY PUSHBUTTON       |
| 7   | SS8-A-D7        | CONTACT BLOCK - N.O.       |
| 8   | SS8-G-D7        | START PRESS PLATE          |
| 9   | A18-4/TC        | 4 CONDUCTOR CABLE (7 FT)   |
| 10  | AH119D          | STRAIN RELIEF              |
| 11  | AH119D-N        | LOCK NUT                   |
| N/S | SPH-1393        | ENCASED ROUND MAGNETS      |
| N/S | FPHSB050P08     | PAN HEAD SCREW 8/32X1/2"   |
| N/S | FLWSBP          | LOCK WASHER #8             |
| N/S | FHFNSBP         | HEX NUT 8/32               |

|                                   |  |
|-----------------------------------|--|
| <b>TOLERANCES EXCEPT AS NOTED</b> |  |
| DECIMAL (3 PLC)<br>+/- .005       | <b>THE LOVESHAW CORPORATION</b><br>RT 296, SOUTH CANAAN, PA. |
| FRACTIONAL<br>+/- 1/64            | TITLE: PUSH BUTTON STATION ASSY.<br>LDXR1B                   |
| ANG. - 1/2°                       | DWG. NO. ED2092<br>SCALE: 1 : 1                              |
| MATERIAL: COMMERCIAL              | DATE: 08/20/09   |
| DESIGNED: MENTA<br>DRAWN: WM      | APPROVD: ---   |





|                            |  |  |  |
|----------------------------|--|--|--|
| TOLERANCES EXCEPT AS NOTED | <b>THE LOVESHAW CORPORATION</b><br>RT 296, SOUTH CANAAN, PA. |  |  |
| DECIMAL (3 PLC) +/- .005   | TITLE: ELECTRICAL SCHEMATIC                                  |  |  |
| FRACTIONAL +/- 1/64        | LDXRTB -120/1/60 NON CONTACT                                 |  |  |
| ANG. - 1/2°                | DWG. NO. ED2238  |  |  |
| DESIGNED: MENTA            | MATERIAL: N/A  |  |  |
| DRAWN: WM                  | DATE: 01/14/11   |  |  |
| APPRVD: --                 |  |  |  |

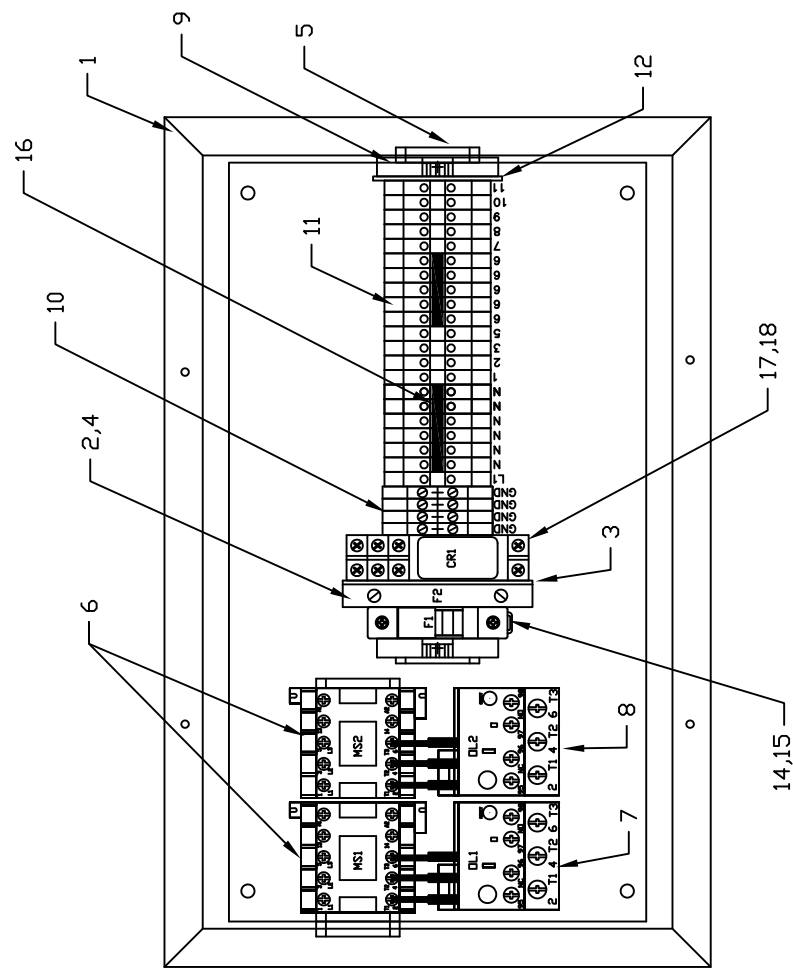
- WIRING NOTES:
1. WIRE COLORS ARE AS NOTED.
  2. AC CONTROL WIRE RED 18AWG.
  3. MOTOR CABLE IS 18AWG 3 COND.

WIRE CONNECTION KEY

|     |   |
|-----|---|
| 100 | TERMINAL BLOCK LOCATED ON TERMINAL STRIP. |
| 100 | WIRE CONNECTION ON ELECTRICAL COMPONENT.  |

| REVISION RECORD |             |       |           |
|-----------------|-------------|-------|-----------|
| REV             | DESCRIPTION | DATE  | ATH DR CK |
| A               | RELEASED    | 03/11 |           |

| KEY | PART NUMBER  | PART DESCRIPTION        |
|-----|--------------|-------------------------|
| 1   | ED2062       | ENCLOSURE & PANEL       |
| 2   | SS6-FUSE     | FUSE HOLDER             |
| 3   | SS6-FUSE-EB  | FUSE HOLDER BARRIER     |
| 4   | A125SB-1-326 | FUSE 1 AMP SLOW BLO     |
| 5   | SS6-L-1      | DIN RAIL                |
| 6   | SS2-A-1      | CONTACTOR               |
| 7   | SS3-J-1      | OVERLOAD 5.5-7.5A       |
| 8   | SS3-C-1      | OVERLOAD 3.5 - 4.8A     |
| 9   | SS6-C        | TERMINAL ANCHOR         |
| 10  | SS6-B        | GROUND TERMINAL         |
| 11  | SS6-TB1      | TERMINAL BLOCK SINGLE   |
| 12  | SS6-A1       | SINGLE TERM. SEPARATOR  |
| 13  | SS6-MC       | TERM. MARKING CARD      |
| 14  | SS6-FUSE-1   | FUSE HOLDER             |
| 15  | A125SB-15    | FUSE, 15 AMPS           |
| 16  | SS6-D-5      | TERMINAL JUMPER 10 POLE |
| 17  | A183-ID-3    | RELAY                   |
| 18  | A184-ID-3    | RELAY BASE              |



|                             |  |
|-----------------------------|--|
| TOLERANCES EXCEPT AS NOTED  | <b>THE LOVESHAW CORPORATION</b><br>RT 296, SOUTH CANAAN, PA. |
| DECIMAL (3 PLC)<br>+/- .005 | TITLE: ELECTRICAL PANEL ASSEMBLY<br>LDXTB - 120/1/60         |
| FRACTIONAL<br>+/- 1/64      | DWG. NO. ED2262  |
| ANG. - 1/2°                 | MATERIAL: COMMERCIAL   |
|                             | DESIGNED: WM   |
|                             | DRAWN: MENTA   |
|                             | APPRVD: --   |
|                             | SCALE: 1 : 2   |
|                             | DATE: 03/23/11   |

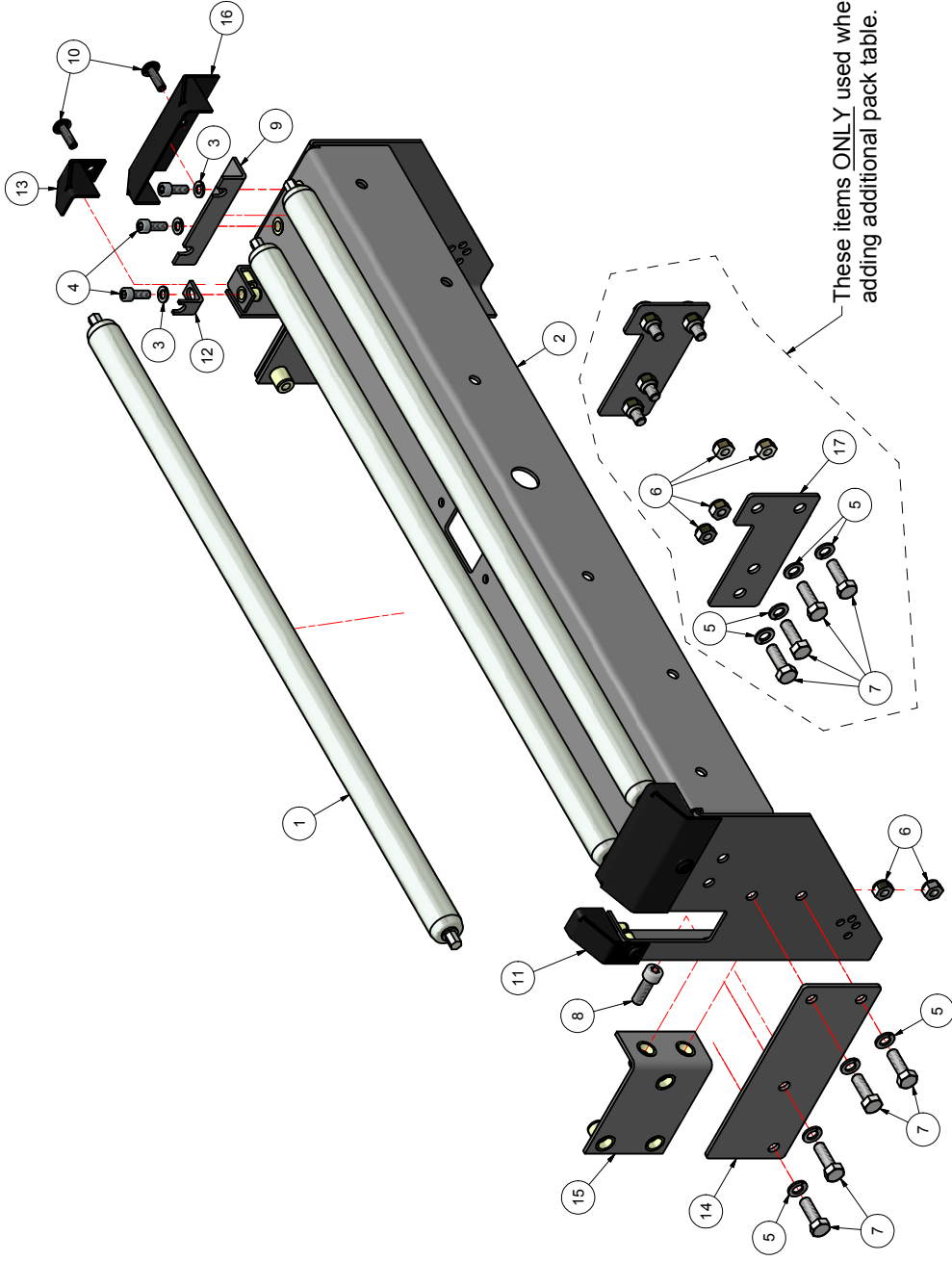
**Chapter**

**11**

***MACHINE AVAIABLE SPECIAL OPTIONS***

---

|     |             |          |          |
|-----|-------------|----------|----------|
| 1   | 2           | 3        | 4        |
| REV | DESCRIPTION | DATE     | APPROVED |
| A   | RELEASED    | 9/9/2014 | TONYS    |



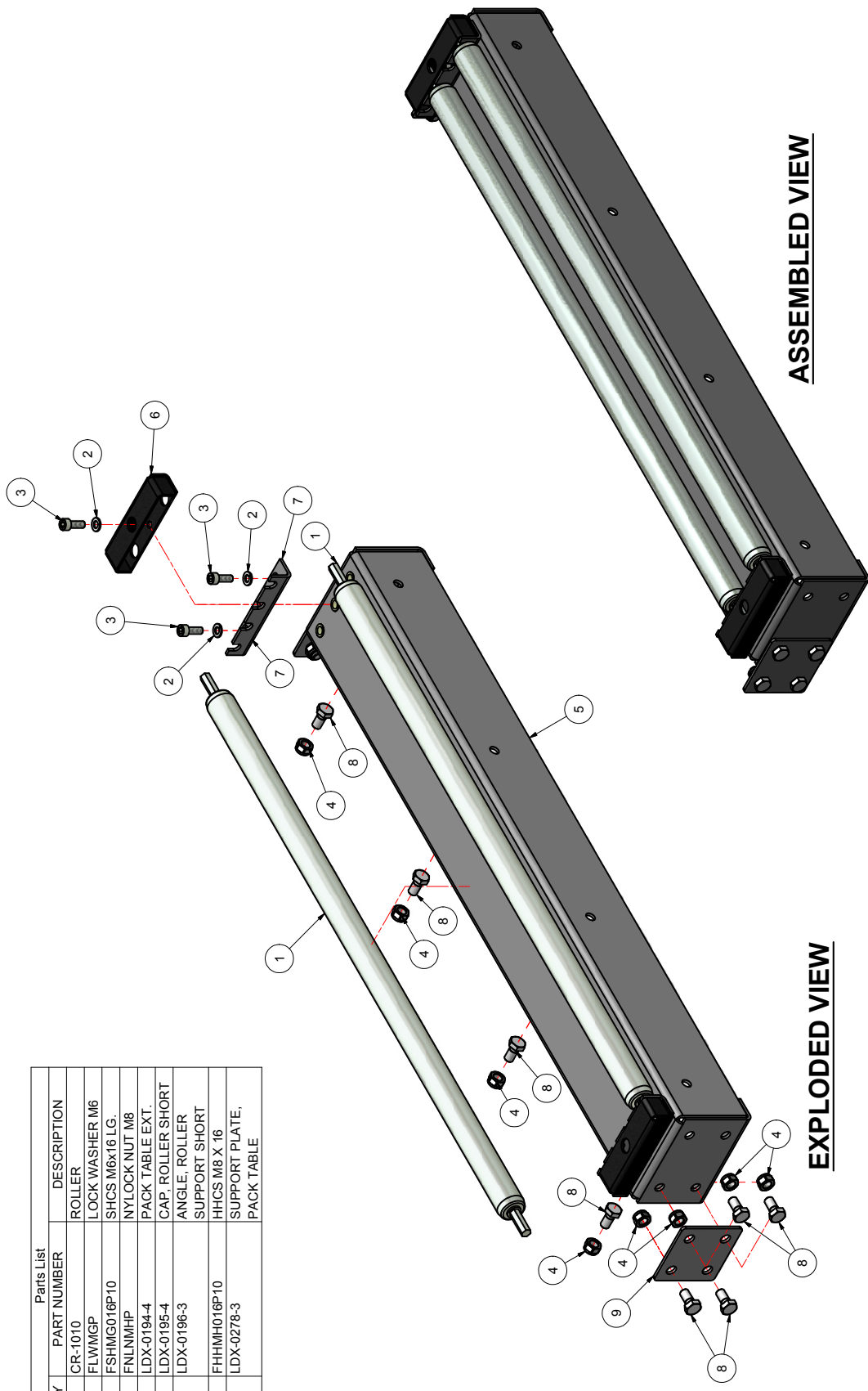
| Parts List |     |             |                           |
|------------|-----|-------------|---------------------------|
| ITEM       | QTY | PART NUMBER | DESCRIPTION               |
| 1          | 3   | CR-1010A    | ROLLER                    |
| 2          | 1   | LDX-0245-5  | BASE, INFEED ROLLER ASSY. |
| 3          | 6   | FLWMGP      | LOCK WASHER M6            |
| 4          | 6   | FSHMG016P10 | SHCS M6x16 LG.            |
| 5          | 16  | FLWMHP      | LOCK WASHER M8            |
| 6          | 12  | FNLNMHP     | M8 Nylock Nut Zinc Plated |
| 7          | 16  | FHHMH025P10 | HHCS M8 X 25              |
| 8          | 2   | FSHMH025P10 | SHCS M8x25                |
| 9          | 2   | LDX-0253-3  | ANGLE, ROLLER SUPPORT MED |
| 10         | 4   | SPH-1404    | screw M6x20mm LG.         |
| 11         | 1   | LDX-0251L-3 | CAP, ROLLER FLANGED SM    |
| 12         | 2   | LDX-0252-3  | ANGLE, ROLLER SUPPORT SM  |
| 13         | 1   | LDX-0251R-3 | CAP, ROLLER FLANGED SM    |
| 14         | 2   | LDX-0248-3  | TIE PLATE                 |
| 15         | 2   | LDX-0249-3  | NUT PLATE                 |
| 16         | 2   | LDX-0250-3  | CAP, ROLLER FLANGED       |
| 17         | 2   | LDX-0390-4  | SUPPORT PLATE, PACK TABLE |

|   |        |  |           |          |
|---|--------|--|-----------|----------|
| MATL  | PART # | CAD FILE   | PLOT DATE | 9/9/2014 |
| NOTED   | STD    |  |           |          |
| ST. ST.   | N/A    | DO NOT SCALE PRINT   |           |          |
| <small>THIS DRAWING IS THE PROPERTY OF LOVESHAW. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED. IT IS TO BE RETURNED TO LOVESHAW UPON REQUEST. WITHOUT THE EXPRESS WRITTEN CONSENT OF LOVESHAW, AND WILL BE RETURNED TO LOVESHAW UPON REQUEST.</small> |        |  |           |          |
| TOLERANCES UNLESS OTHERWISE NOTED:  |        | X = ±.050 ANGLS ±1/2°<br>INCH XX = ±.015 MACH.<br>METRIC XX = ±.3mm FINISH<br>.XXX = ±.1mm |           |          |
| FRACTIONS ± 1/64  |        | DRAWN TONY S   |           |          |
| MATERIAL NOTED  |        | CHECKED TONY S   |           |          |
| SCALE N/A   |        | APPROVED TONY S  |           |          |

**LOVESHAW**  
 2206 EASTON TPK, SOUTH CANAAN, PA  
**LDXR TB EXIT PACK TABLE**  
**ASSY SHORT**

|     |             |           |          |
|-----|-------------|-----------|----------|
| REV | DESCRIPTION | DATE      | APPROVED |
| A   | RELEASED    | 6/29/2010 | TONYS    |

| 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 SUPPORT SHORT |
| 8          | 12  | FHHM1016P10 HHCS M8 X 16               |
| 9          | 2   | LDX-0278-3 SUPPORT PLATE, PACK TABLE   |

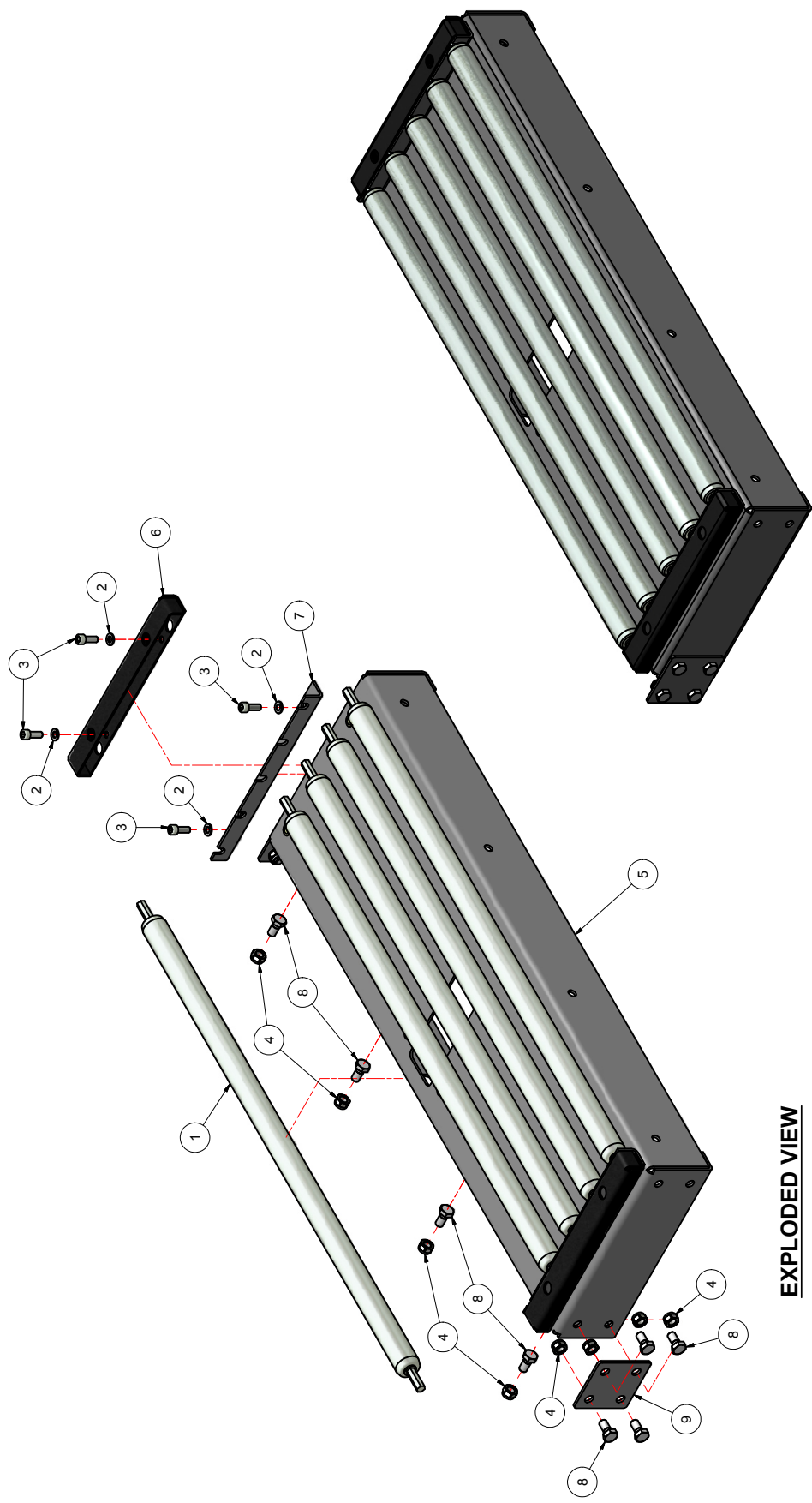


**EXPLODED VIEW**

**ASSEMBLED VIEW**

|  |        |            |             |                         |                            |                                      |
|--|--------|------------|-------------|-------------------------|----------------------------|--------------------------------------|
| MATL   | PART # | CAD FILE   | LDXRTB PACK | TABLE ASSY 4 INCH I.D.W | LOVESHAW                   | an ITW Company                       |
| NOTED  | STD    | PLOT DATE  | 6/29/2010   | OTHERWISE NOTED:        | RT. 286, SOUTH CANAAN, PA. |                                      |
| ST. ST.  | N/A    | DRAWN DATE | 6/29/2010   | X = ±.050               | TITLE                      | .ITALDXRTB/4                         |
|  |        |            |             | INCH XX = ±.015         | ANGLES ±.12°               |                                      |
|  |        |            |             | STAINLESS, NO FINISH    |                            |                                      |
| <small>THIS DRAWING IS THE PROPERTY OF LOVESHAW. IT IS TO BE USED FOR THE MANUFACTURE OF THE PARTS IDENTIFIED HEREIN ONLY. ANY REUSE OR REPRODUCTION OF THIS DRAWING OR SUBJECT MATTER THEREOF SHALL NOT BE PERMITTED WITHOUT THE EXPRESS WRITTEN CONSENT OF LOVESHAW. ITW AND WILL BE RETURNED TO LOVESHAW. ITW UPON REQUEST.</small> |        |            |             |                         |                            |                                      |
|  |        |            |             | X = ±1.0mm              | MACH. FINISH               | DWG NO LDXRTB PACK TABLE ASSY 4 INCH |
|  |        |            |             | METRIC XX = ±.3mm       |                            | CHECKED                              |
|  |        |            |             | .XXX = ±.1mm            |                            | DRAWN                                |
|  |        |            |             | FRACTIONS ± 1/64        |                            | TONYS                                |
|  |        |            |             |                         |                            | APPROVED                             |
|  |        |            |             |                         |                            | TONYS                                |

| REV | DESCRIPTION | DATE      | APPROVED |
|-----|-------------|-----------|----------|
| A   | RELEASED    | 6/30/2010 | TONYS    |



**EXPLODED VIEW**

**ASSEMBLED VIEW**

| Parts List |     |  |
|------------|-----|--|
| ITEM       | QTY | DESCRIPTION                                |
| 1          | 5   | CR-1010 ROLLER                             |
| 2          | 8   | FLVMGP LOCK WASHER M6                      |
| 3          | 8   | FSHMG016P10 SHCS M6X16 LG.                 |
| 4          | 12  | FNLMMHP NYLOCK NUT M8                      |
| 5          | 1   | LDX-0279-4 PACK TABLE EXT. 9.25"           |
| 6          | 2   | LDX-0280-4 CAP. ROLLER 9.25" ANGLE, ROLLER |
| 7          | 2   | LDX-0281-4 SUPPORT 9.25" ANGLE, ROLLER     |
| 8          | 12  | FHHM016P10 HHCS M8 X 16                    |
| 9          | 2   | LDX-0278-3 SUPPORT PLATE, PACK TABLE       |

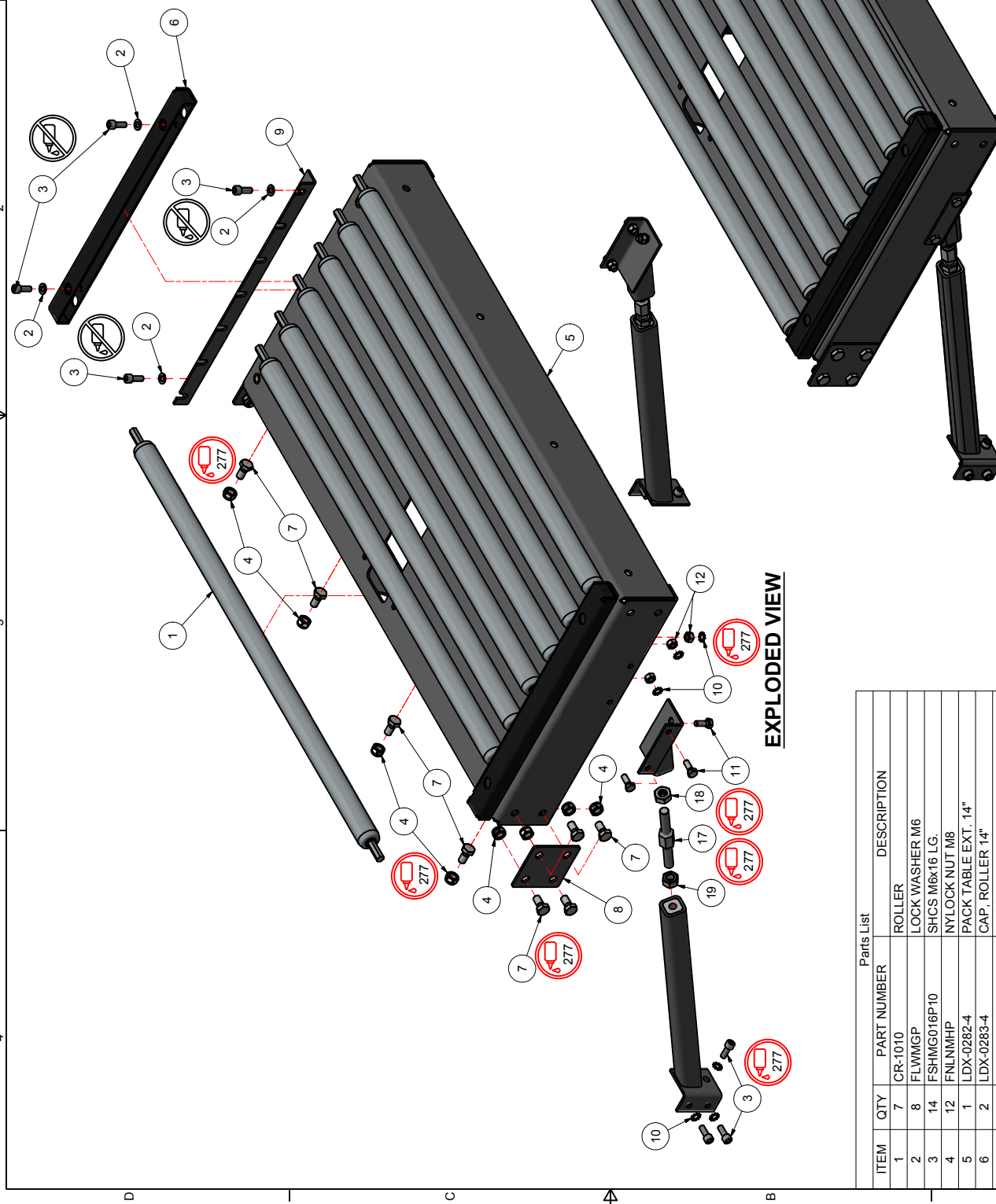
| MATL    | PART # | CAD FILE             | LDXRTB PACK TABLE ASSY | DATE      | PLT | OTHERWISE NOTED | TITLE                  |
|---------|--------|----------------------|------------------------|-----------|-----|-----------------|------------------------|
| NOTED   | STD    | 6/30/2010            | LDXRTB PACK TABLE ASSY | 6/30/2010 |     |                 | LDXRTB PACK TABLE ASSY |
| ST. ST. | N/A    | FINISH               | DO NOT SCALE PRINT     |           |     |                 |                        |
|         |        | STAINLESS, NO FINISH |                        |           |     |                 |                        |

| LOVESHAW                   | an ITW Company         |
|----------------------------|------------------------|
| RT. 286, SOUTH CANAAN, PA. |                        |
| TITLE                      |                        |
| .ITALDXRTB/9.25            |                        |
| DWG NO                     | LDXRTB PACK TABLE ASSY |
| MATERIAL                   | NOTED                  |
| DRAWN                      | TONYS                  |
| CHECKED                    | TONYS                  |
| FRACTIONS ± 1/64           |                        |

X = ±.050 ANGLES ±1/2°  
 INCH XX = ±.015 MACH.  
 X = ±1.0mm  
 METRIC XX = ±.3mm FINISH  
 .XXX = ±.1mm

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| REV | DESCRIPTION | DATE     | APPROVED |
|-----|-------------|----------|----------|
| A   | RELEASED    | 7/1/2010 | TONYS    |



**EXPLODED VIEW**

**ASSEMBLED VIEW**

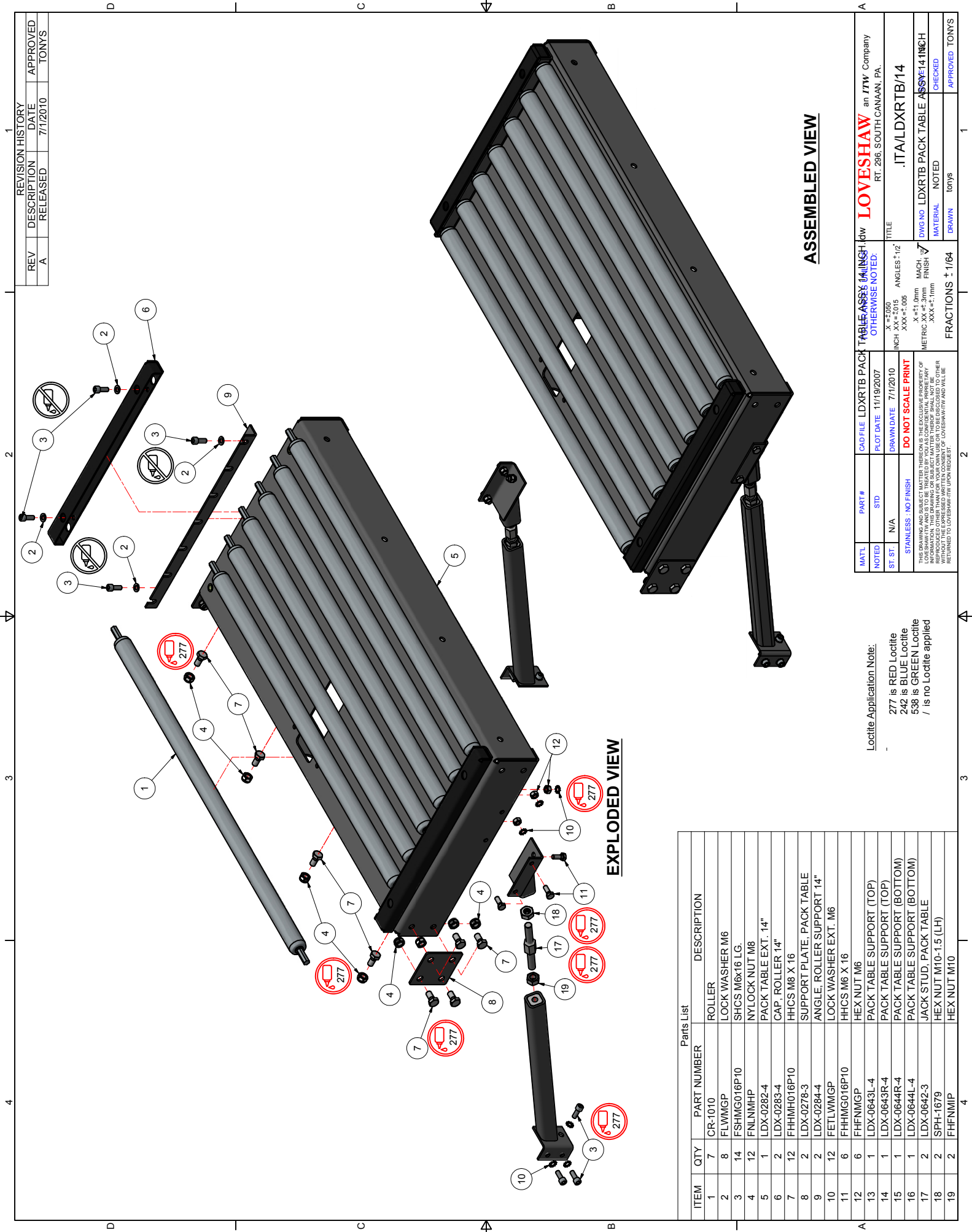
| ITEM |    | QTY         | PART NUMBER                 | DESCRIPTION |
|------|----|-------------|-----------------------------|-------------|
| 1    | 7  | CR-1010     | ROLLER                      |             |
| 2    | 8  | FLWMGP      | LOCK WASHER M6              |             |
| 3    | 14 | FHMG016P10  | SHCS M6x16 LG.              |             |
| 4    | 12 | FNLNMHP     | NYLOCK NUT M8               |             |
| 5    | 1  | LDX-0282-4  | PACK TABLE EXT. 14"         |             |
| 6    | 2  | LDX-0283-4  | CAP. ROLLER 14"             |             |
| 7    | 12 | FHMH016P10  | HHCS M6 X 16                |             |
| 8    | 2  | LDX-0278-3  | SUPPORT PLATE, PACK TABLE   |             |
| 9    | 2  | LDX-0284-4  | ANGLE ROLLER SUPPORT 14"    |             |
| 10   | 12 | FEILLMGP    | LOCK WASHER EXT. M6         |             |
| 11   | 6  | FHMG016P10  | HHCS M6 X 16                |             |
| 12   | 6  | FHNMGP      | HEX NUT M6                  |             |
| 13   | 1  | LDX-0643L-4 | PACK TABLE SUPPORT (TOP)    |             |
| 14   | 1  | LDX-0643R-4 | PACK TABLE SUPPORT (TOP)    |             |
| 15   | 1  | LDX-0644R-4 | PACK TABLE SUPPORT (BOTTOM) |             |
| 16   | 1  | LDX-0644L-4 | PACK TABLE SUPPORT (BOTTOM) |             |
| 17   | 2  | LDX-0642-3  | JACK STUD, PACK TABLE       |             |
| 18   | 2  | SPH-1679    | HEX NUT M10-1.5 (LH)        |             |
| 19   | 2  | FHFNMIP     | HEX NUT M10                 |             |

Loctite Application Note:  
 277 is RED Loctite  
 242 is BLUE Loctite  
 538 is GREEN Loctite  
 / is no Loctite applied

| MATL    | PART # | CAD FILE | LDXRTB PACK TABLE ASSY | INCH | DATE       | PLT | DATE | TABLE ASSY | INCH | DATE | PLT | DATE | TABLE ASSY | INCH | DATE | PLT | DATE |
|---------|--------|----------|------------------------|------|------------|-----|------|------------|------|------|-----|------|------------|------|------|-----|------|
| NOTED   | STD    |          |                        |      | 11/19/2007 |     |      |            |      |      |     |      |            |      |      |     |      |
| ST. ST. | N/A    |          |                        |      | 7/1/2010   |     |      |            |      |      |     |      |            |      |      |     |      |

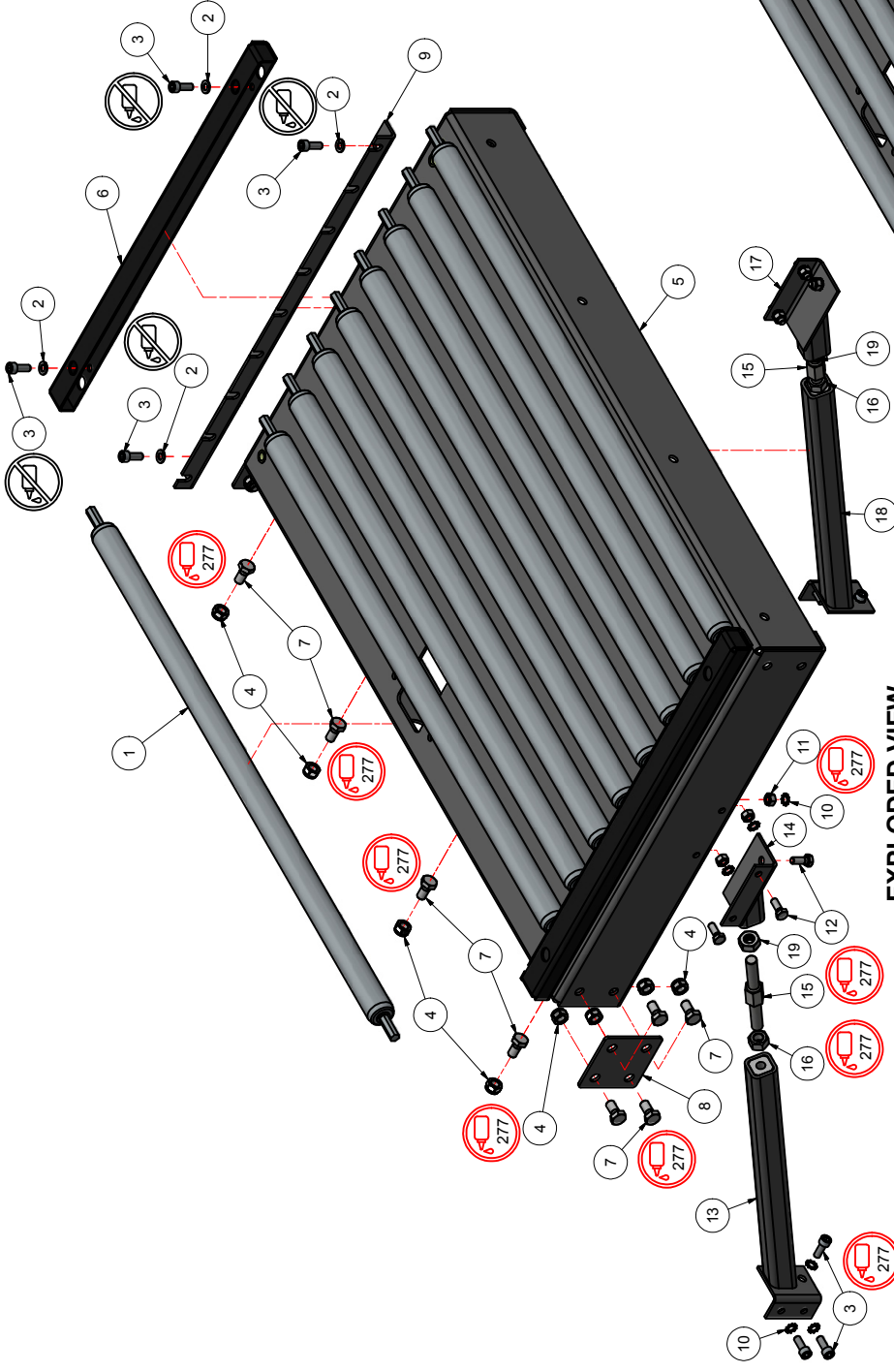
OTHERWISE NOTED:  
 X = ±.050 ANGLS ±.1/2°  
 INCH XX = ±.015 MACH.  
 .XX = ±.1, 0mm  
 METRIC XX = ±.3mm MACH.  
 .XXX = ±.1mm FINISH

DWG NO. LDXRTB PACK TABLE ASSY 14 INCH  
 MATERIAL NOTED  
 DRAWN: tonys  
 CHECKED: TONYs  
 APPROVED: TONYs





| REVISION HISTORY |             |          |
|------------------|-------------|----------|
| REV              | DESCRIPTION | DATE     |
| A                | RELEASED    | 7/1/2010 |
|                  |             | APPROVED |
|                  |             | TONYS    |



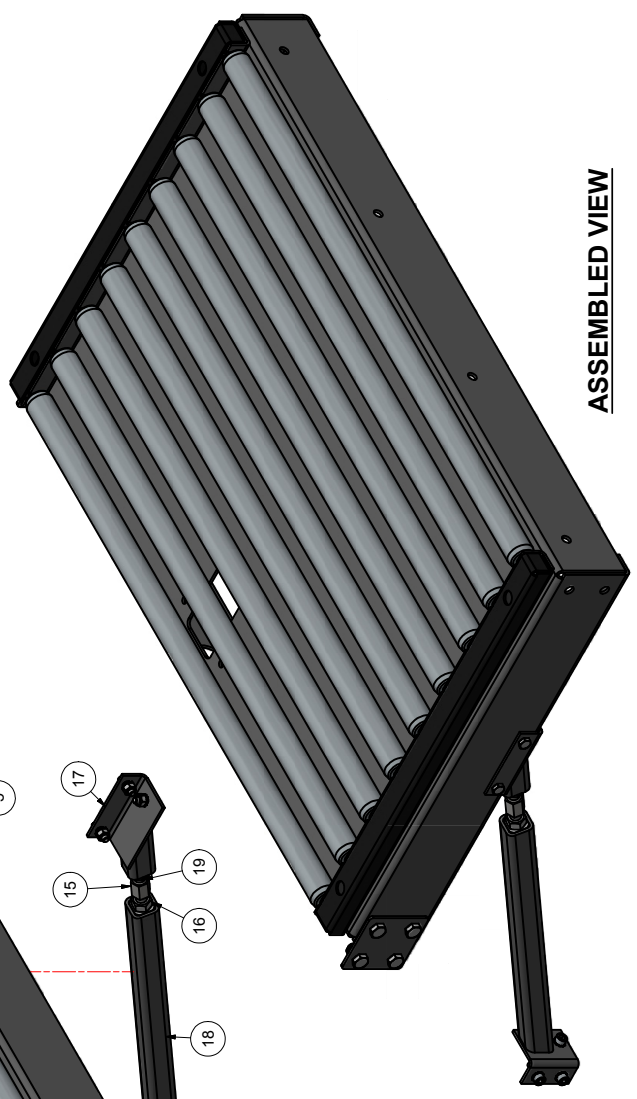
**EXPLODED VIEW**

Parts List

| ITEM | QTY | PART NUMBER | DESCRIPTION                 |
|------|-----|-------------|-----------------------------|
| 1    | 9   | CR-1010     | ROLLER                      |
| 2    | 8   | FLWMGP      | LOCK WASHER M6              |
| 3    | 14  | FSHM016P10  | SHCS M6x16 LG.              |
| 4    | 12  | FNLMHP      | NYLOCK NUT M8               |
| 5    | 1   | LDX-0287-4  | PACK TABLE EXT. 18"         |
| 6    | 2   | LDX-0286-4  | CAP. ROLLER 18"             |
| 7    | 12  | FHHM016P10  | HHCS M6 X 16                |
| 8    | 2   | LDX-0278-3  | SUPPORT PLATE, PACK TABLE   |
| 9    | 2   | LDX-0285-4  | ANGLE ROLLER SUPPORT 18"    |
| 10   | 12  | FETLWMGP    | LOCK WASHER EXT. M6         |
| 11   | 6   | FHFNMGP     | HEX NUT M6                  |
| 12   | 6   | FHHM016P10  | HHCS M6 X 16                |
| 13   | 1   | LDX-0644L-4 | PACK TABLE SUPPORT (BOTTOM) |
| 14   | 1   | LDX-0643L-4 | PACK TABLE SUPPORT (TOP)    |
| 15   | 2   | LDX-0642-3  | JACK STUD, PACK TABLE       |
| 16   | 2   | FHFNMGP     | HEX NUT M10                 |
| 17   | 1   | LDX-0643R-4 | PACK TABLE SUPPORT (TOP)    |
| 18   | 1   | LDX-0644R-4 | PACK TABLE SUPPORT (BOTTOM) |
| 19   | 2   | SPH-1679    | HEX NUT M10-1.5 (LH)        |

Loctite Application Note:  
 277 is RED Loctite  
 242 is BLUE Loctite  
 538 is GREEN Loctite  
 / is no Loctite applied

**ASSEMBLED VIEW**



| MATL   | PART # | CAD FILE           | LDXRTB PACK   | TABLE ASSY       | INCH  | LOVESHAW                   | an ITW Company |
|--|--------|--------------------|---------------|------------------|-------|----------------------------|----------------|
| NOTED  | STD    | DRAWN DATE         | 7/1/2010      | OTHERWISE NOTED: | TITLE | RT. 296, SOUTH CANAAN, PA. |                |
| ST. ST.  | N/A    | DO NOT SCALE PRINT |               |                  |       |                            |                |
| <small>STAINLESS: NO FINISH<br/>         INFORMATION: THIS DRAWING OR SUBJECT MATTER THEREOF SHALL NOT BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, WITHOUT THE EXPRESS WRITTEN CONSENT OF LOVESHAW/ITW AND WILL BE RETURNED TO LOVESHAW/ITW UPON REQUEST.</small> |        |                    |               |                  |       |                            |                |
|  |        | X = ±.050          | ANGLES ±.1/2° |                  |       |                            |                |
|  |        | INCH XXX ±.015     | MACH.         |                  |       |                            |                |
|  |        | X = ±1.0mm         | FINISH        |                  |       |                            |                |
|  |        | METRIC XXX ±.3mm   | .XXX ±.1mm    |                  |       |                            |                |
|  |        | FRACTIONS ± 1/64   |               |                  |       |                            |                |
|  |        | DRAWN              |               | NOTED            |       | CHECKED                    |                |
|  |        | TONYS              |               |                  |       | APPROVED                   |                |
|  |        | TONYS              |               |                  |       | TONYS                      |                |



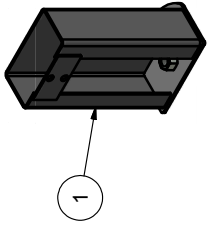
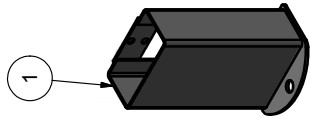
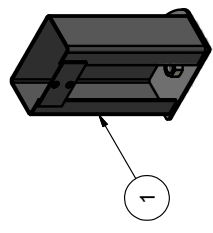
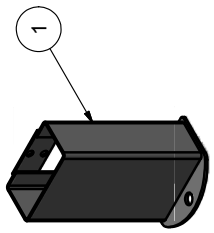
1 2 3 4

| REVISION HISTORY |             |          |          |
|------------------|-------------|----------|----------|
| REV              | DESCRIPTION | DATE     | APPROVED |
| A                | RELEASED    | 8/5/2011 | TONYS    |

| Parts List |     |             |               |
|------------|-----|-------------|---------------|
| ITEM       | QTY | PART NUMBER | DESCRIPTION   |
| 1          | 4   | NOTED       | LEG EXTENSION |

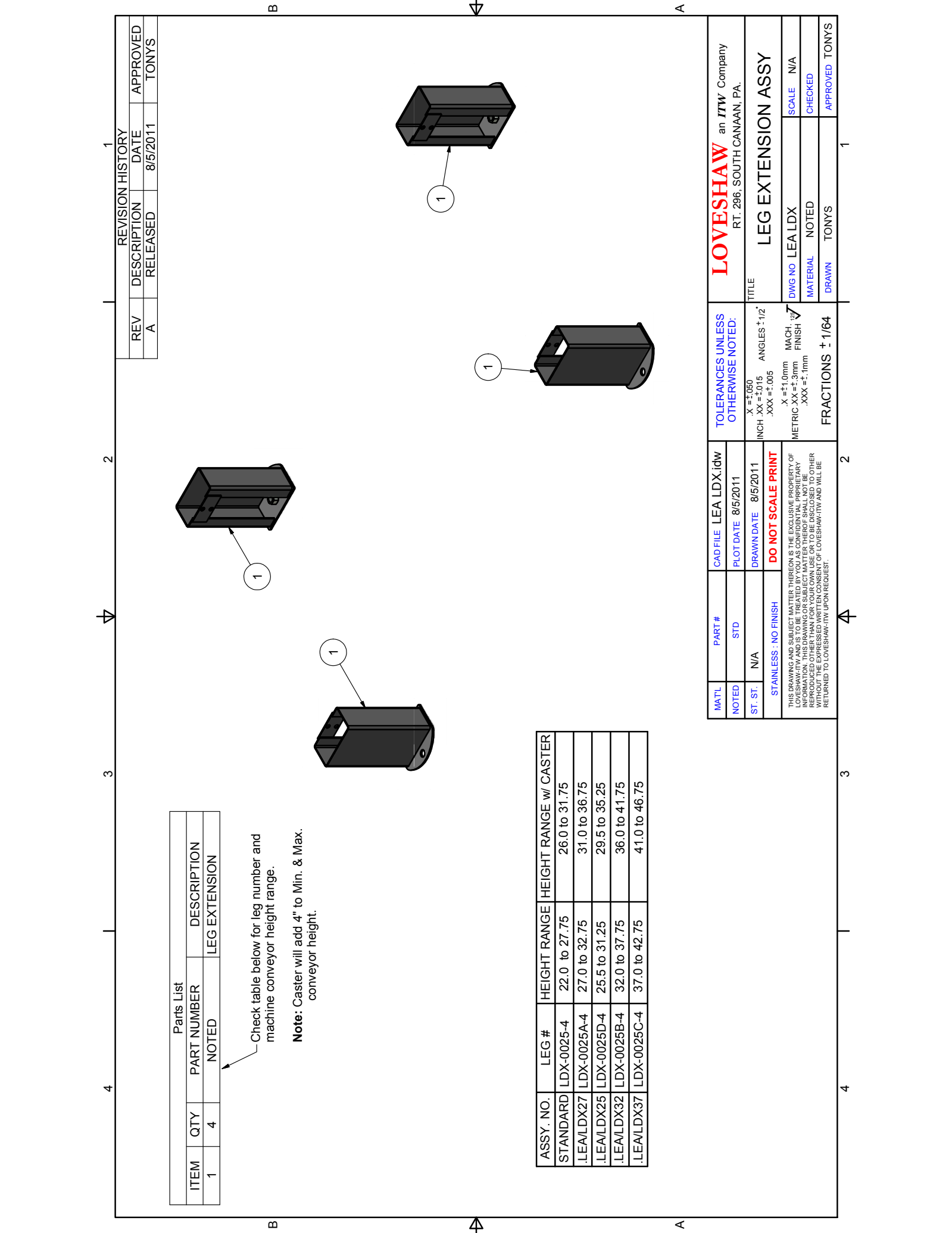
Check table below for leg number and machine conveyor height range.

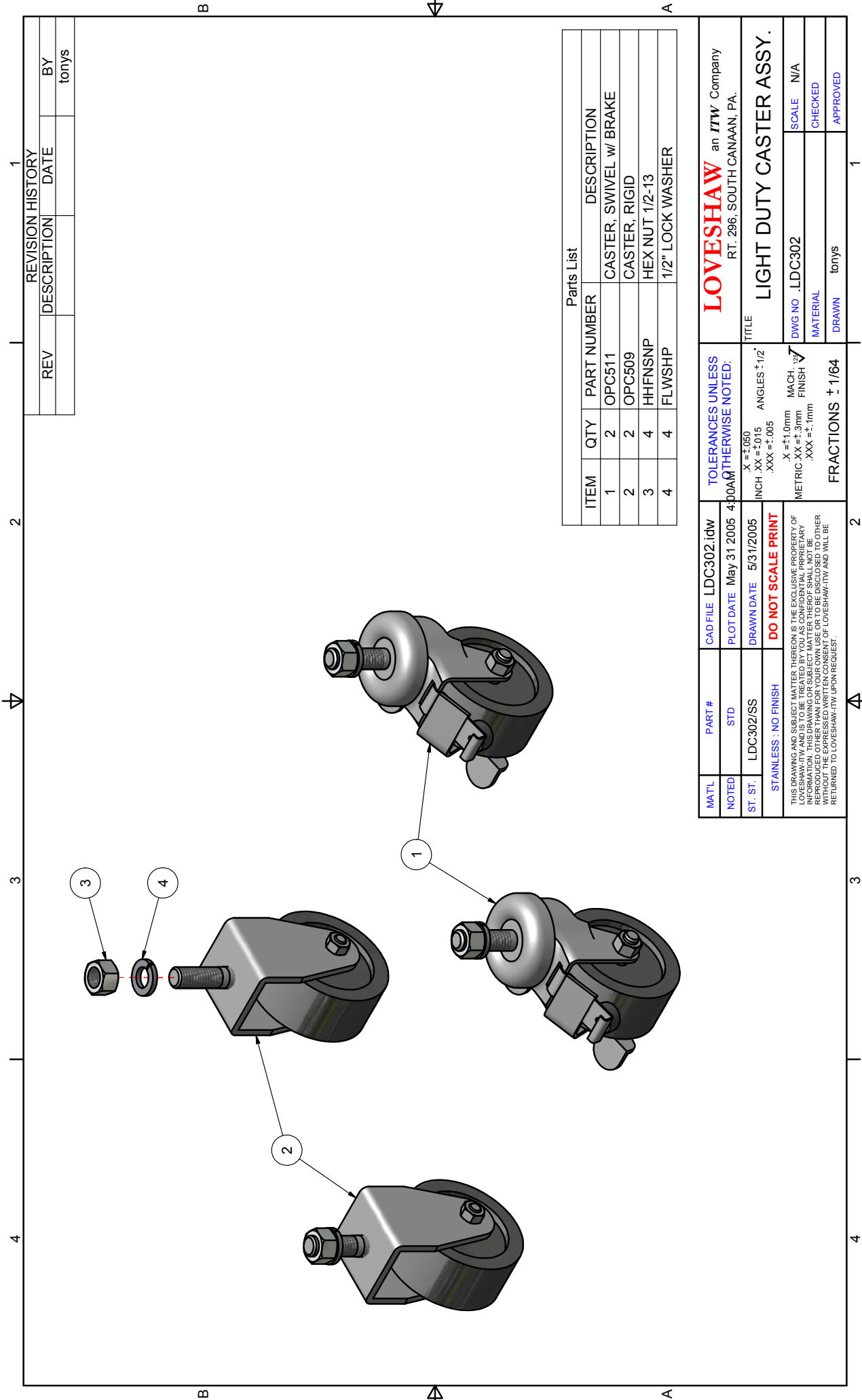
**Note:** Caster will add 4" to Min. & Max. conveyor height.



| ASSY. NO.  | LEG #       | HEIGHT RANGE  | HEIGHT RANGE w/ CASTER |
|------------|-------------|---------------|------------------------|
| STANDARD   | LDX-0025-4  | 22.0 to 27.75 | 26.0 to 31.75          |
| .LEA/LDX27 | LDX-0025A-4 | 27.0 to 32.75 | 31.0 to 36.75          |
| .LEA/LDX25 | LDX-0025D-4 | 25.5 to 31.25 | 29.5 to 35.25          |
| .LEA/LDX32 | LDX-0025B-4 | 32.0 to 37.75 | 36.0 to 41.75          |
| .LEA/LDX37 | LDX-0025C-4 | 37.0 to 42.75 | 41.0 to 46.75          |

| MATL   | PART # | CAD FILE   | LEA LDX.iDW | TOLERANCES UNLESS OTHERWISE NOTED:  | LOVESHAW                                     |
|--|--------|------------|-------------|---|--|
| NOTED  | STD    | PLOT DATE  | 8/5/2011    | X = ±.050<br>INCH .XX = ±.015<br>.XXX = ±.005                                     | an ITW Company<br>RT. 296, SOUTH CANAAN, PA. |
| ST. ST.  | N/A    | DRAWN DATE | 8/5/2011    | ANGLES ±.12°<br>.X = ±1.0mm<br>MACH. FINISH<br>METRIC .XX = ±.3mm<br>.XXX = ±.1mm | LEG EXTENSION ASSY                           |
| STAINLESS : NO FINISH  |        |            |             | FRACTIONS ± 1/64  | DWG NO LEA LDX                               |
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|  |        |            |             |   | NOTED  |
|  |        |            |             |   | CHECKED                                      |
|  |        |            |             |   | APPROVED TONY S                              |





| REVISION HISTORY |             |      |
|------------------|-------------|------|
| REV              | DESCRIPTION | DATE |
|                  |             |      |
|                  |             |      |

tonys

DATE

BY

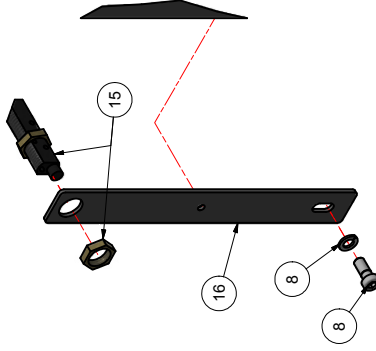
tonys

Parts List

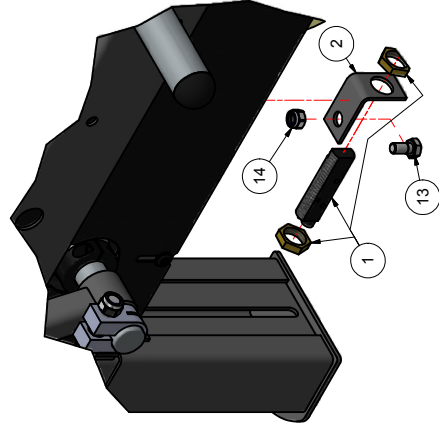
| ITEM | QTY | PART NUMBER | DESCRIPTION             |
|------|-----|-------------|-------------------------|
| 1    | 2   | OPC511      | CASTER, SWIVEL w/ BRAKE |
| 2    | 2   | OPC509      | CASTER, RIGID           |
| 3    | 4   | HHFNSNP     | HEX NUT 1/2-13          |
| 4    | 4   | FLWSHP      | 1/2" LOCK WASHER        |

|   |            |            |                    |                                    |  |
|---|------------|------------|--------------------|------------------------------------|--|
| MATL  | PART #     | CAD FILE   | LDC302:ldw         | TOLERANCES UNLESS OTHERWISE NOTED: | <b>LOVESHAW</b> an ITW Company<br>RT. 296, SOUTH CANAAN, PA. |
| NOTED   | STD        | PLOT DATE  | May 31 2005 4:00AM | X = ±.050                          | TITLE  |
| ST. ST.   | LDC302/ISS | DRAWN DATE | 5/31/2005          | INCH .XX = ±.015                   | LIGHT DUTY CASTER ASSY.                                      |
| STAINLESS : NO FINISH   |            |            | DO NOT SCALE PRINT | .XXX = ±.005                       | DWG NO . LDC302  |
| THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVESHAW-ITW AND IS TO BE TREATED BY YOU AS CONFIDENTIAL PROPRIETARY INFORMATION. THIS DRAWING OR SUBJECT MATTER THEREOF SHALL NOT BE REPRODUCED OTHER THAN FOR YOUR OWN USE OR TO BE DISCLOSED TO OTHER PERSONS WITHOUT THE WRITTEN PERMISSION OF LOVESHAW-ITW AND WILL BE RETURNED TO LOVESHAW-ITW UPON REQUEST. |            |            | MACH. FINISH       | .X = ±1.0mm                        | MATERIAL   |
|   |            |            |                    | METRIC .XX = ±.3mm                 | DRAWN tonys  |
|   |            |            |                    | .XXX = ±.1mm                       | CHECKED  |
|   |            |            |                    | FRACTIONS ± 1/64                   | APPROVED   |

| Part List |   | QTY | PART NUMBER    | DESCRIPTION            |
|-----------|---|-----|----------------|------------------------|
| 1         | 1 | 1   | A219-CH-2      | PHOTOEYE               |
| 2         | 1 | 1   | LDX-0275-3     | PHOTOEYE BRKT.         |
|           |   |     |                | BAL. CART.             |
| 3         | 1 | 1   | LDX-0348-3     | BRKT LOW TAPE LITE     |
| 4         | 1 | 1   | A219BA-BRKT-4  | BRACKET RIGHT          |
|           |   |     |                | ANGLE 30mm             |
| 5         | 1 | 1   | A219-BA-EZL-AC | EZ LIGHT INDICATOR     |
|           |   |     |                | 85-130VAC              |
| 6         | 2 | 2   | FHMG016P10     | FHCS M6 X 1.0 X 16 LG. |
| 7         | 2 | 2   | FLWMGP         | LOCK WASHER M6         |
| 8         | 2 | 2   | FHDNMG         | HEX WASH NUT M6        |
| 9         | 2 | 2   | FWWMP          | FLAT WASHER M6         |
| 10        | 2 | 2   | FNLNMG         | NYLOCK NUT M6          |
| 11        | 2 | 2   | FHMG016P10     | HHCS M6 X 16           |
| 12        | 1 | 1   | FSHM020P10     | SHCS M6 X 20           |
| 13        | 1 | 1   | FHHM016P10     | HHCS M8 X 16           |
| 14        | 1 | 1   | FNLNMHP        | NYLOCK NUT M8          |
| 15        | 1 | 1   | A219-CH-5      | PHOTOEYE               |
| 16        | 1 | 1   | LDX-0446-4     | BRKT PHOTOEYE HEAD     |

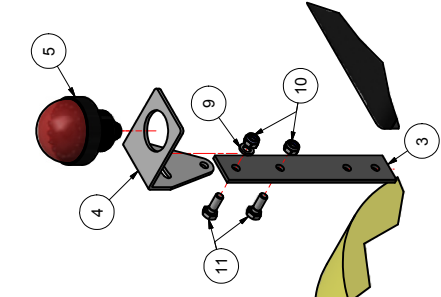
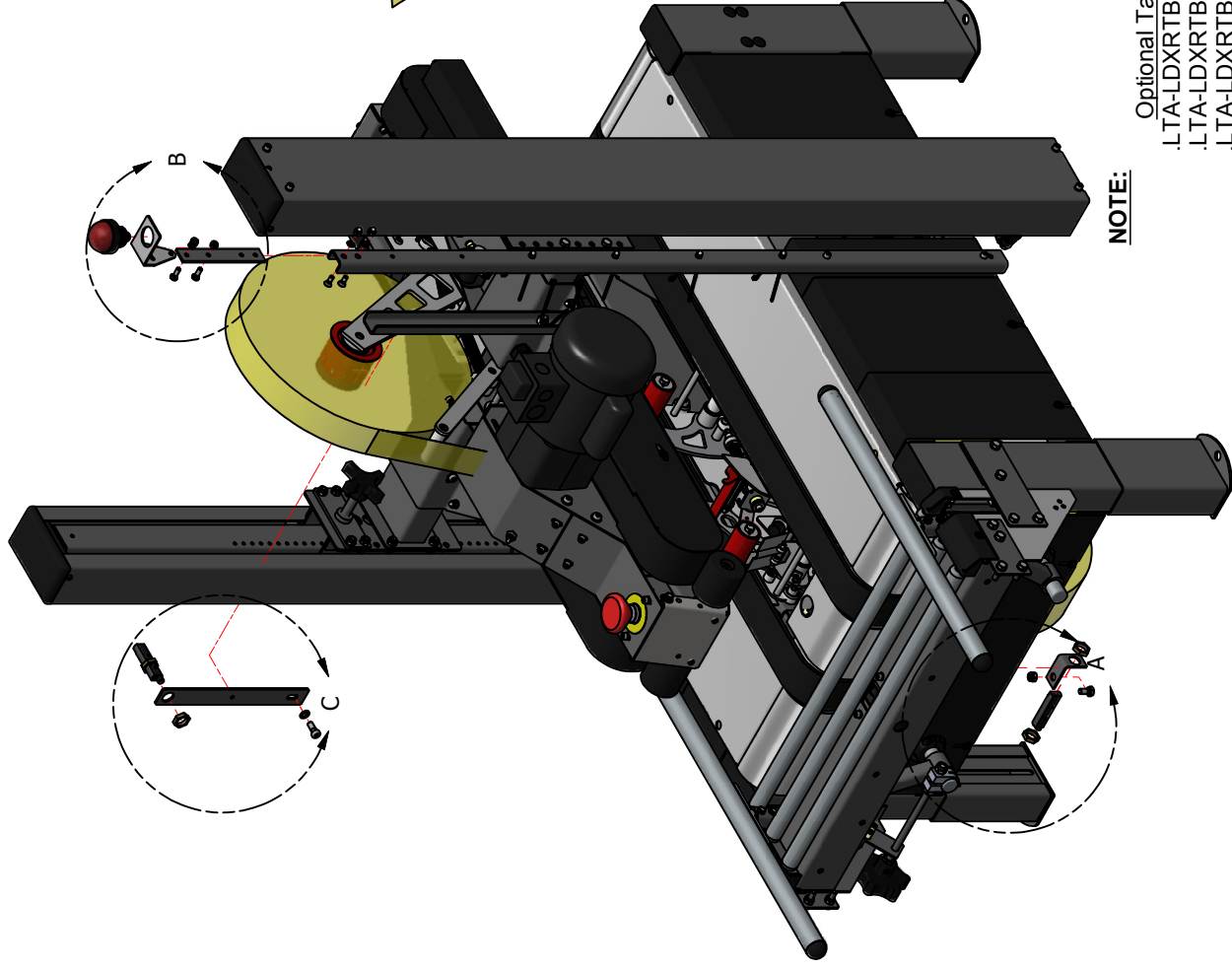


DETAIL C  
These items for Top Only Low Tape Alarm



DETAIL A

These items for Bottom Only Low Tape Alarm



DETAIL B

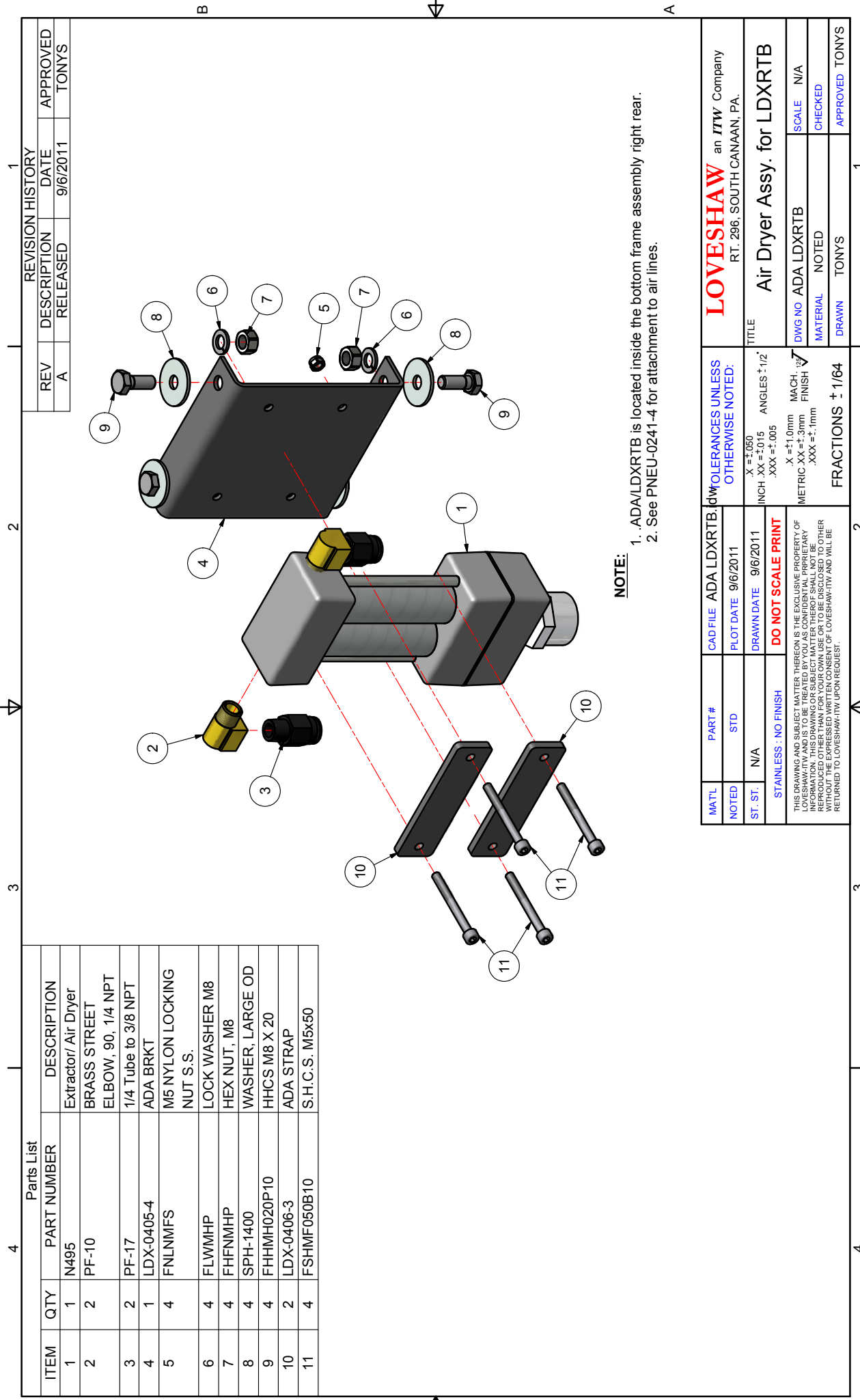
**NOTE:**

- Optional Tape Alarm Assemblies
- .LTA-LDXRTB-TO (Low Tape Alarm Top Only)
- .LTA-LDXRTB-BO (Low Tape Alarm Bottom Only)
- .LTA-LDXRTB-TB (Low Tape Alarm Top & Bottom)

| REV | DESCRIPTION | DATE      | APPROVED |
|-----|-------------|-----------|----------|
| A   | RELEASED    | 8/25/2011 | TONYS    |

| MATL    | PART # | CAD FILE   | LDXRTB MAN ASSY 2-DWG | LDXRTB MAN ASSY 2-DWG   | TOLERANCES UNLESS OTHERWISE NOTED:                                 | TITLE                 |   |
|---------|--------|------------|-----------------------|---|--|-----------------------|---|
| NOTED   | STD    | PLOT DATE  | 8/25/2011             |   | X = ±.050<br>INCH XX = ±.015<br>ANGLES ±.1/2°                      | Low Tape Alarm Assy's |   |
| ST. ST. | N/A    | DRAWN DATE | 8/25/2011             |   | X = ±1.0mm<br>MACH.<br>METRIC XX = ±.3mm<br>FINISH<br>.XXX = ±.1mm | Low Tape Alarm Assy's |   |
|         |        |            |                       | STAINLESS: NO FINISH  |  | DWG NO.               | LDXRTB MAN ASSY 2-DWG WITH LOW TAPE ALARM SCALE |
|         |        |            |                       | DO NOT SCALE PRINT  |  | MATERIAL              | NOTED   |
|         |        |            |                       | THIS DRAWING IS THE PROPERTY OF LOVESHAW AND IS TO BE TREATED AS CONFIDENTIAL. ANY REPRODUCTION OR USE OF THIS DRAWING WITHOUT THE EXPRESS WRITTEN CONSENT OF LOVESHAW WILL BE RETURNED TO LOVESHAW UPON REQUEST. |  | DRAWN                 | TONYS   |
|         |        |            |                       | FRACTIONS ± 1/64  |  | CHECKED               | TONYS   |
|         |        |            |                       |   |  | APPROVED              | TONYS   |

**LOVESHAW** an *ITTW* Company  
RT. 286, SOUTH CANAAN, PA.

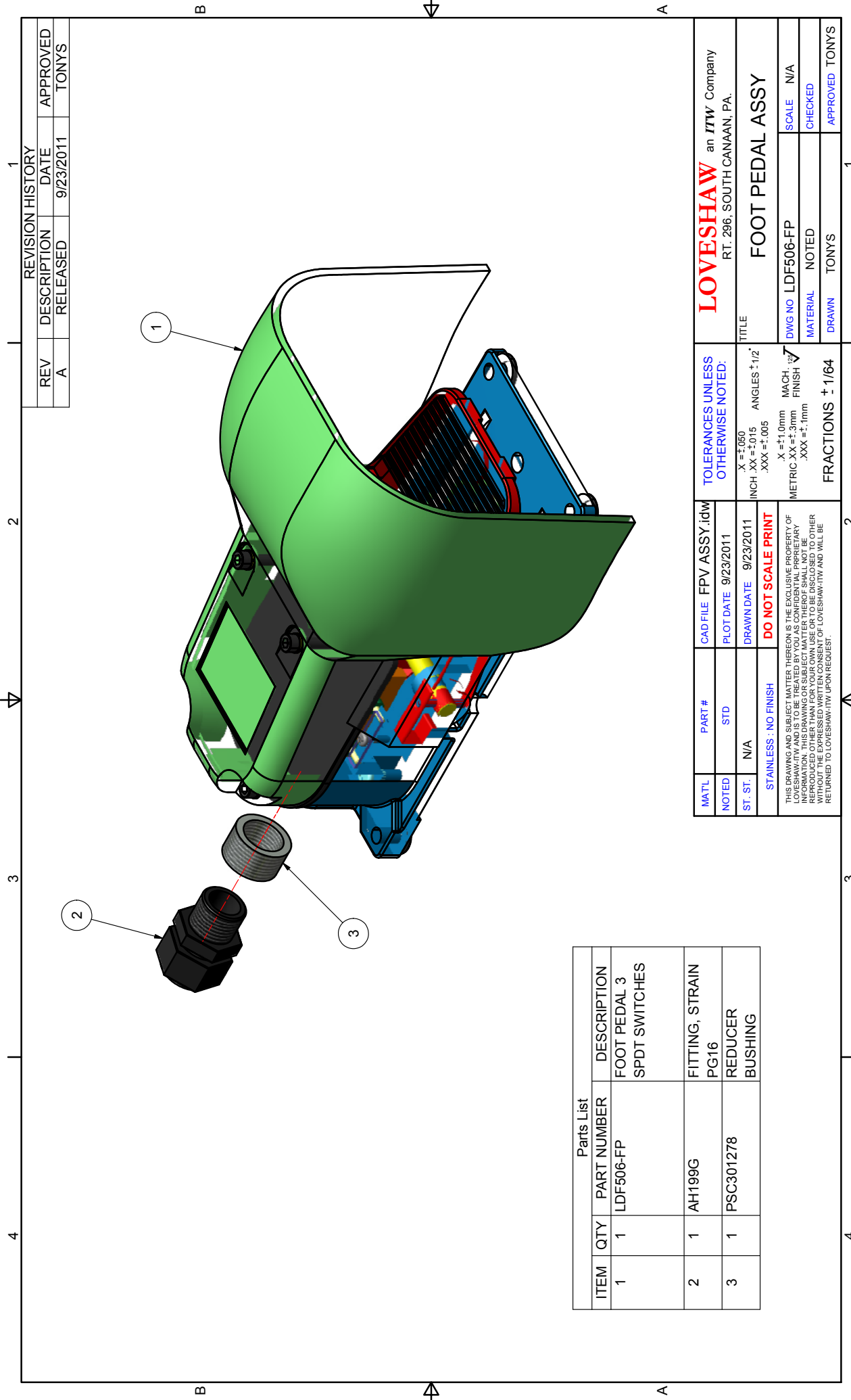


| REVISION HISTORY |             |          |          |
|------------------|-------------|----------|----------|
| REV              | DESCRIPTION | DATE     | APPROVED |
| A                | RELEASED    | 9/6/2011 | TONYS    |

| Parts List |     |                                       |
|------------|-----|---------------------------------------|
| ITEM       | QTY | DESCRIPTION                           |
| 1          | 1   | N495 Extractor/ Air Dryer             |
| 2          | 2   | PF-10 BRASS STREET ELBOW, 90, 1/4 NPT |
| 3          | 2   | PF-17 1/4 Tube to 3/8 NPT             |
| 4          | 1   | LDX-0405-4 ADA BRKT                   |
| 5          | 4   | FNLNMF5 M5 NYLON LOCKING NUT S.S.     |
| 6          | 4   | FLWMHP LOCK WASHER M8                 |
| 7          | 4   | FHFNMHP HEX NUT, M8                   |
| 8          | 4   | SPH-1400 WASHER, LARGE OD             |
| 9          | 4   | FHHMH020P10 HHCS M8 X 20              |
| 10         | 2   | LDX-0406-3 ADA STRAP                  |
| 11         | 4   | FSHMF050B10 S.H.C.S. M5x50            |

**NOTE:**  
 1. ADA/LDXRTB is located inside the bottom frame assembly right rear.  
 2. See PNEU-0241-4 for attachment to air lines.

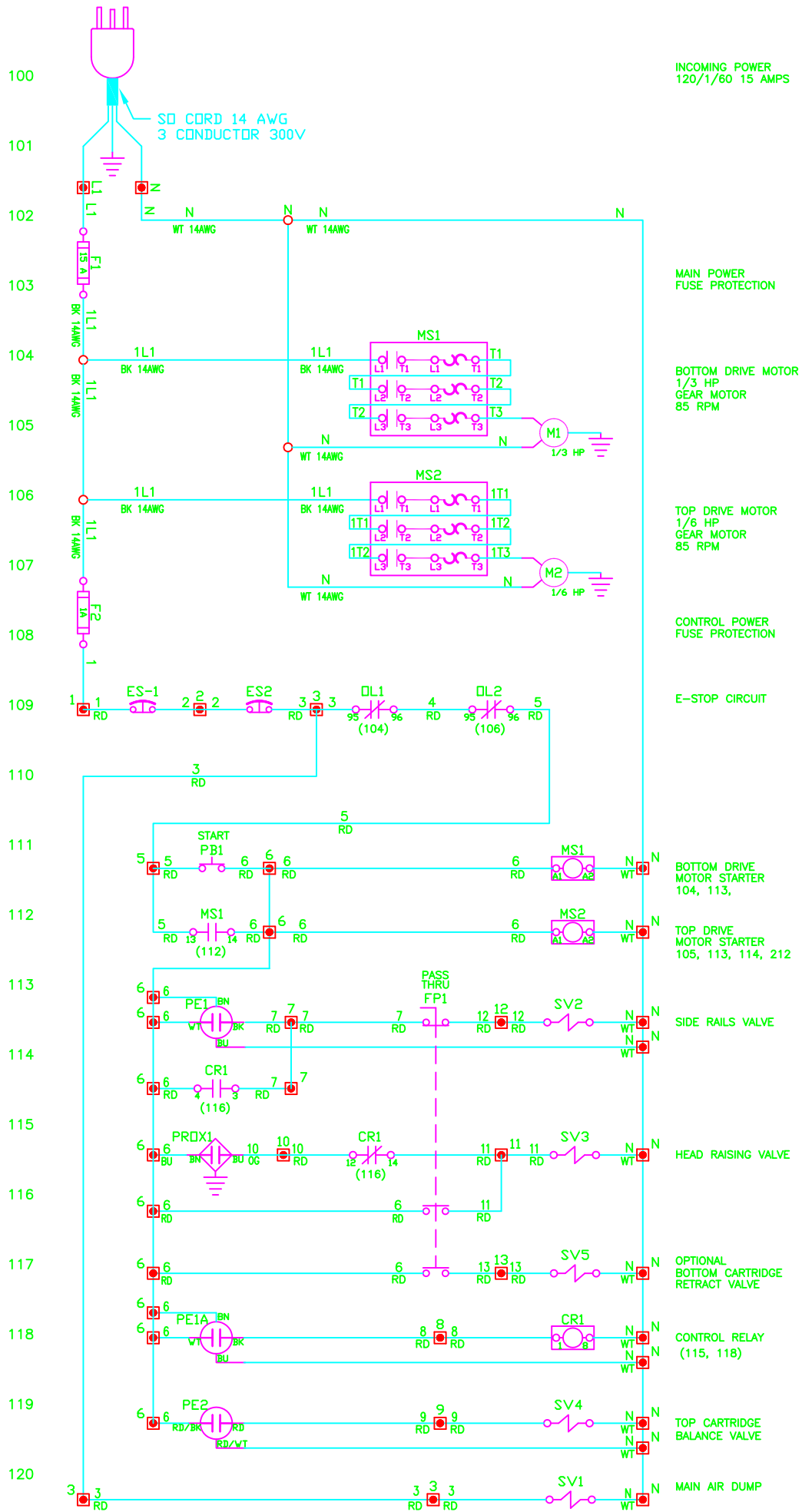
|  |        |                           |                |  |  |
|--|--------|---------------------------|----------------|--|--|
| MATL   | PART # | CAD FILE                  | ADA LDXRTB.dwg | TOLERANCES UNLESS OTHERWISE NOTED:                               | <b>LOVESHAW</b> an ITW Company<br>RT. 296, SOUTH CANAAN, PA. |
| NOTED  | STD    | PLOT DATE                 | 9/6/2011       | X = ±.050<br>INCH .XX = ±.015<br>.XXX = ±.005                    | TITLE  |
| ST. ST.  | N/A    | DRAWN DATE                | 9/6/2011       | ANGLES ±.12°<br>.XXX = ±.005                                     | Air Dryer Assy. for LDXRTB                                   |
| STAINLESS : NO FINISH  |        | <b>DO NOT SCALE PRINT</b> |                | MACH. FINISH<br>X = ±1.0mm<br>METRIC .XX = ±.3mm<br>.XXX = ±.1mm | DWG NO ADA LDXRTB  |
| THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVESHAW-ITW AND IS TO BE TREATED BY YOU AS CONFIDENTIAL PROPRIETARY INFORMATION. THIS DRAWING OR SUBJECT MATTER THEREOF SHALL NOT BE REPRODUCED OTHER THAN FOR YOUR OWN USE OR TO BE DISCLOSED TO OTHER PERSONS WITHOUT THE WRITTEN CONSENT OF LOVESHAW-ITW AND WILL BE RETURNED TO LOVESHAW-ITW UPON REQUEST. |        |                           |                |  |  |
| FRACTIONS ± 1/64   |        | SCALE N/A                 |                | MATERIAL NOTED   | CHECKED  |
|  |        |                           |                | DRAWN TONY S   | APPROVED TONY S  |



| REVISION HISTORY |             |           |          |
|------------------|-------------|-----------|----------|
| REV              | DESCRIPTION | DATE      | APPROVED |
| A                | RELEASED    | 9/23/2011 | TONYS    |

| Parts List |     |  |
|------------|-----|--|
| ITEM       | QTY | DESCRIPTION                                |
| 1          | 1   | LDf506-FP<br>FOOT PEDAL 3<br>SPDT SWITCHES |
| 2          | 1   | AH199G<br>FITTING, STRAIN<br>PG16          |
| 3          | 1   | PSC301278<br>REDUCER<br>BUSHING            |

|   |        |                            |              |
|---|--------|----------------------------|--------------|
| MATL  | PART # | CAD FILE                   | FPV ASSY.iDW |
| NOTED   | STD    | PLOT DATE                  | 9/23/2011    |
| ST. ST.   | N/A    | DRAWN DATE                 | 9/23/2011    |
| <p>STAINLESS : NO FINISH</p> <p><b>DO NOT SCALE PRINT</b></p> <p>THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVESHAW-ITW AND IS TO BE TREATED BY YOU AS CONFIDENTIAL PROPRIETARY INFORMATION. THIS DRAWING OR SUBJECT MATTER THEREOF SHALL NOT BE REPRODUCED OTHER THAN FOR YOUR OWN USE OR TO BE DISCLOSED TO OTHER PARTIES WITHOUT THE WRITTEN CONSENT OF LOVESHAW-ITW AND WILL BE RETURNED TO LOVESHAW-ITW UPON REQUEST.</p> |        |                            |              |
| TOLERANCES UNLESS OTHERWISE NOTED:  |        | TITLE                      |              |
| X = ±.050   |        | LOVESHAW an ITW Company    |              |
| INCH .XX = ±.015  |        | RT. 296, SOUTH CANAAN, PA. |              |
| .XXX = ±.005  |        | FOOT PEDAL ASSY            |              |
| ANGLES ±.12°  |        | DWG NO LDF506-FP           |              |
| X = ±1.0mm  |        | MACH. FINISH               |              |
| METRIC .XX = ±.3mm  |        | SCALE N/A                  |              |
| .XXX = ±.1mm  |        | MATERIAL NOTED             |              |
| FRACTIONS ± 1/64  |        | DRAWN TONY S               |              |
|   |        | CHECKED                    |              |
|   |        | APPROVED TONY S            |              |



WIRE CONNECTION KEY

100 TERMINAL BLOCK LOCATED ON TERMINAL STRIP.

100 WIRE CONNECTION ON ELECTRICAL COMPONENT.

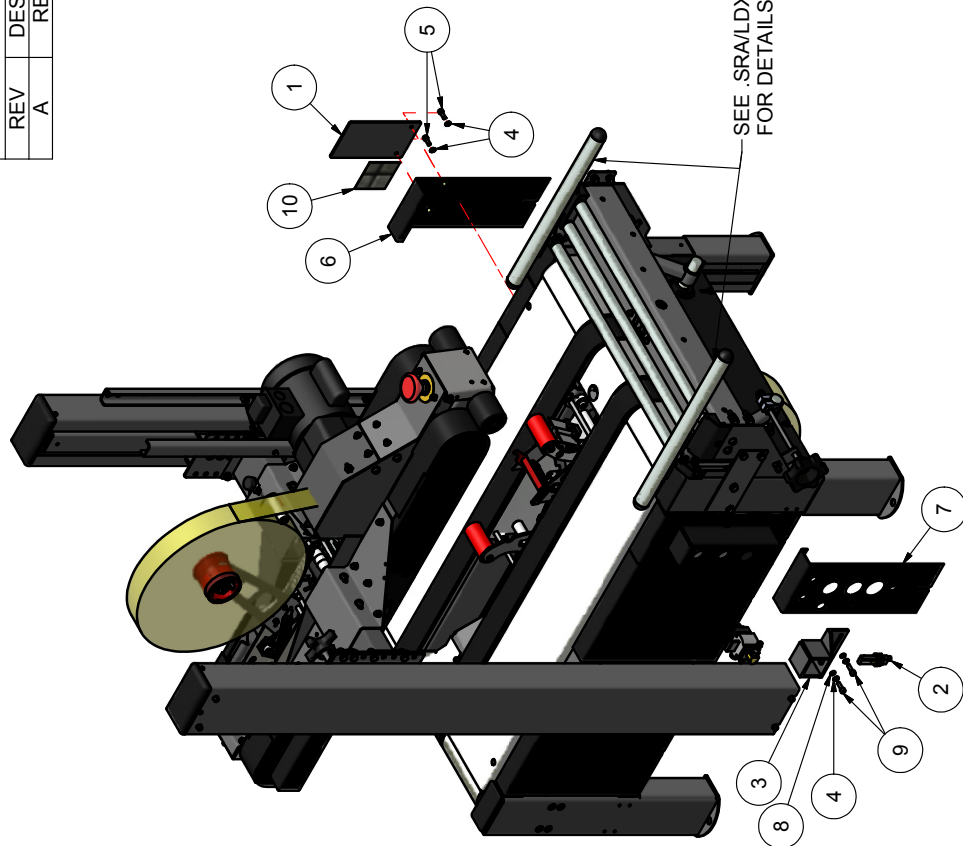
- WIRING NOTES:
1. WIRE COLORS ARE AS NOTED.
  2. AC CONTROL WIRE RED 18AWG.
  3. MOTOR CABLE IS 18AWG 3 COND.

|             |                            |  |
|-------------|----------------------------|--|
| ANG. - 1/2" | TOLERANCES EXCEPT AS NOTED | THE LOYESHAW CORPORATION<br>RT 2966, SOUTH CANAAN, PA. |
|             | DECIMAL (3 PLC) +/- .005   | TITLE: ELECTRICAL SCHEMATIC - LDXRTB                   |
|             | FRACTIONAL +/- 1/64        | DWG. NO. ED2319  |
|             |                            | MATERIAL: N/A  |
|             |                            | SCALE: N/A   |
|             |                            | DATE: 06/23/11   |
|             |                            | DESIGNED: MENTA  |
|             |                            | DRAWN: WM  |
|             |                            | APPRVD: --   |

4 3 2 1

| Parts List |     |                                   |
|------------|-----|-----------------------------------|
| ITEM       | QTY | DESCRIPTION                       |
| 1          | 1   | LDX-0628-4 REFLECTOR PLATE        |
| 2          | 1   | A219-CH-7 PHOTOEYE                |
| 3          | 1   | LDX-0629-4 PHOTOEYE MOUNT         |
| 4          | 4   | FETLWMGP LOCK WASHER EXT. M6      |
| 5          | 2   | FSHMG016P10 SHCS M6x16 LG.        |
| 6          | 1   | LDX-0632-4 GUARD, BLANK PANEL     |
| 7          | 1   | LDX-0633-4 GUARD, PNEU PANEL      |
| 8          | 2   | FWMMGP FLAT WASHER M6             |
| 9          | 2   | FSHMG020P10 SHCS M6 X 20          |
| 10         | 1   | A219A LT 3 REFLECTOR TAPE 3" WIDE |

| REVISION HISTORY |             |          |
|------------------|-------------|----------|
| REV              | DESCRIPTION | DATE     |
| A                | RELEASED    | 9/2/2015 |



REGULATOR MOUNTED ON BOTTOM CENTER CROSS BRACE

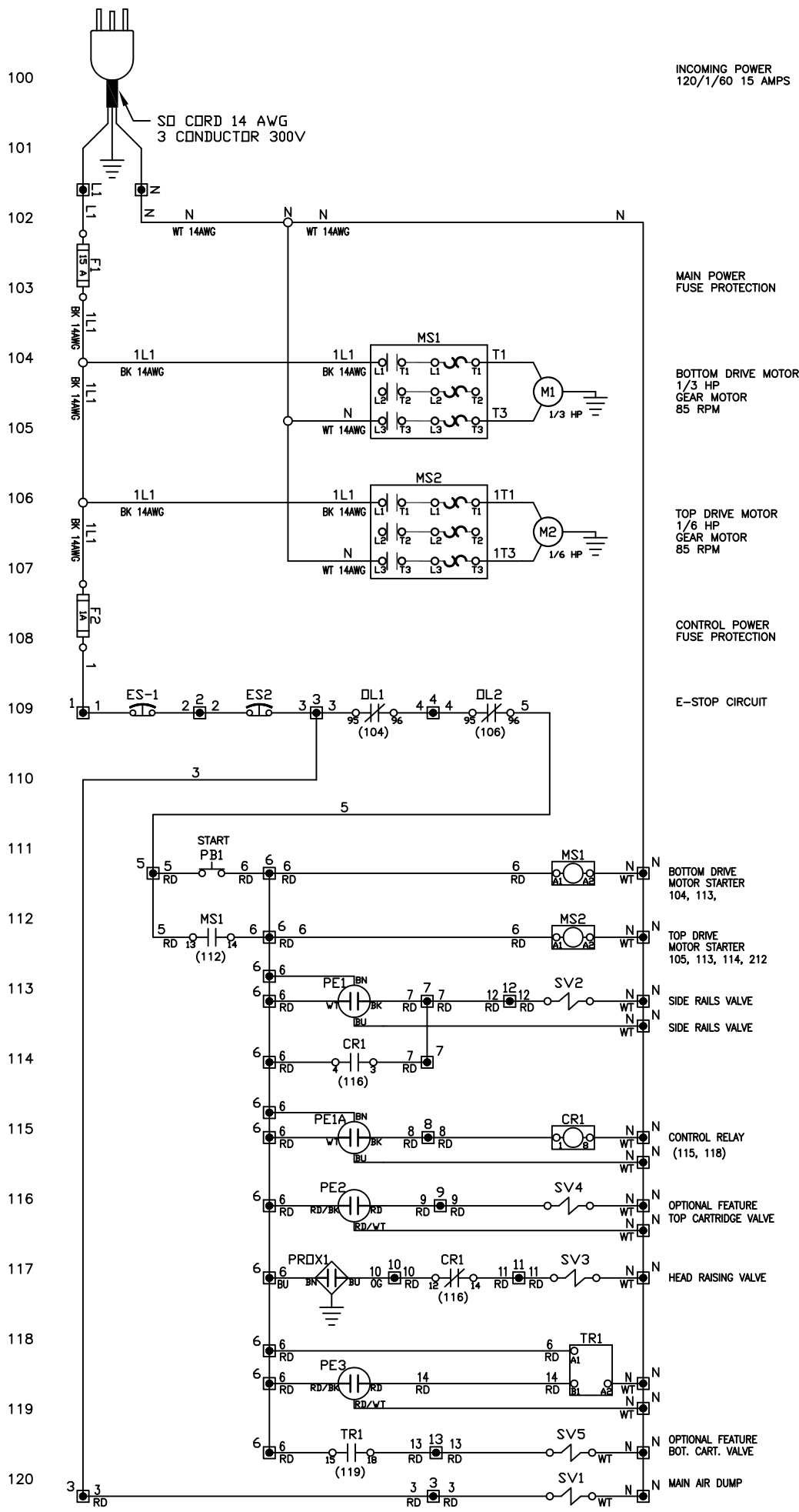
SEE PNEU LDXETB 2.0 W/ BALL VALVE FOR DETAILS

VALVE LOCATED ON PNEUMATIC PANEL

SEE .SRA/LDXRTB/MM FOR DETAILS

| MATL  | PART # | CAD FILE                  | LDXRTB MAIN ASSY 2.0 W/ PHOTOEYE UNLESS OTHERWISE NOTED: | LOVESHAW  |
|---|--------|---------------------------|--|---|
| NOTED   | STD    | PLOT DATE                 | 9/2/2015   | 2206 EASTON TPK., SOUTH CANAAN, PA.                             |
| ST. ST.   | N/A    | DRAWN DATE                | 9/2/2015   | <b>BOTTOM PNEUMATIC CARTRIDGE OPTION</b>                        |
| STAINLESS : NO FINISH   |        | <b>DO NOT SCALE PRINT</b> |  | DWG NO. LDXRTB MAIN ASSY 2.0 W/ PHOTOEYE UNLESS OTHERWISE NOTED |
| THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVESHAW AND IS TO BE TREATED BY YOU AS CONFIDENTIAL PROPRIETARY INFORMATION. THIS DRAWING OR SUBJECT MATTER THEREOF SHALL NOT BE REPRODUCED OTHER THAN FOR YOUR OWN USE OR TO BE DISCLOSED TO OTHERS WITHOUT THE WRITTEN CONSENT OF LOVESHAW AND WILL BE RETURNED TO LOVESHAW UPON REQUEST. |        |                           |  |   |
| FRACTIONS ± 1/64  |        | MACH. FINISH              |  | MATERIAL  |
| FRACTIONS ± 1/64  |        | MACH. FINISH              |  | NOTED   |
| FRACTIONS ± 1/64  |        | MACH. FINISH              |  | DRAWN   |
| FRACTIONS ± 1/64  |        | MACH. FINISH              |  | tonys   |
| FRACTIONS ± 1/64  |        | MACH. FINISH              |  | CHECKED   |
| FRACTIONS ± 1/64  |        | MACH. FINISH              |  | APPROVED  |
| FRACTIONS ± 1/64  |        | MACH. FINISH              |  | TONYS   |

4 3 2 1



**WIRE CONNECTION KEY**

100 TERMINAL BLOCK LOCATED ON TERMINAL STRIP.  
 100 WIRE CONNECTION ON ELECTRICAL COMPONENT.

**WIRING NOTES:**

1. WIRE COLORS ARE AS NOTED.
2. AC CONTROL WIRE RED 18AWG.
3. MOTOR CABLE IS 18AWG 3 COND.

|                                  |  |                   |                |
|----------------------------------|--|-------------------|----------------|
| ANG. - 1/2"                      | DESIGNED: MENTA  | DRAWN: WM         | APPRD: ---     |
| FRACTIONAL<br>+/- 1/64           | MATERIAL: N/A  | DWG. NO. ED2877   | SCALE: N/A     |
| DECIMAL<br>(3 PLD)<br>+/- .005   | TITLE:<br>ELECTRICAL SCHEMATIC                               | LDXRTB - 120/1/60 | DATE: 07/07/15 |
| TOLERANCES<br>EXCEPT<br>AS NOTED | <b>THE LOVESHAW CORPORATION</b><br>RT 296, SOUTH CANNAN, PA. |                   |                |