

LITTLE DAVID

OWNERS MANUAL



LD7D/3

CAC51 / CAC61 CARTRIDGES

THE LOVESHAW CORPORATION
2206 EASTON TURNPIKE, BOX 83
SOUTH CANAAN, PA 18459
ESTATE

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LOVESHAW - EUROPE
UNIT 9, BRUNEL GATE
W. PORTWAY INDUSTRIAL

ANDOVER, HAMPSHIRE SP103SL
ENGLAND
44-264-3575-11

Part and Instruction Manual

Loveshaw Pressure Sensitive Taping Machine

Semi – Automatic - Uniform

Model: LD7D/3

Theory of Operation:

The LD7 with the Loveshaw patented design tape cartridges apply pressure sensitive tape to the top and bottom center seam of regular slotted containers. The standard model machine applies the tape in a “C” clip configuration. The LD7 is manually adjustable in width and height to accommodate a large range of boxes.

Starting the machine is accomplished by switching on the manual motor starter. The manual motor starter is a toggle design with an integral overload heater to protect the drive motor. By switching, the motor starter to it’s “on” position the dual bottom belts will begin to move. The drive belts are high quality rubber rough top belting. With the box height and width adjustments, set the machine is ready for operation. The operator presents the box to the machine will all flaps folded and held down. The box is then move to the entrance of the machine and the dual bottom drive belts pull it forward towards the tape cartridges. As the box reaches the tape cartridges optional top flap squeezers push the major flaps together prior to tape being applied. This insures a quality-sealed box will exit the machine. After tape is applied to the top and bottom of the box, it will exit the machine. A minimum distance of 14” is required between boxes for the machine to operate properly.

The simple but sophisticated design insures a minimum of maintenance problems and the machine is easily operated by general labor with minimum training. Due to its small size and simple electrical connection, it can be moved quickly to an area where it is needed. It can also be used for standalone operation, or incorporated into a conveyor system.

The finest materials and workmanship have been employed to insure satisfaction. If adjustments or repairs become necessary, you will find simple instructions outlined in this manual. If a problem occurs, which is not covered in the manual please contact our service department.

Loveshaw Corporation

2206 Easton Turnpike

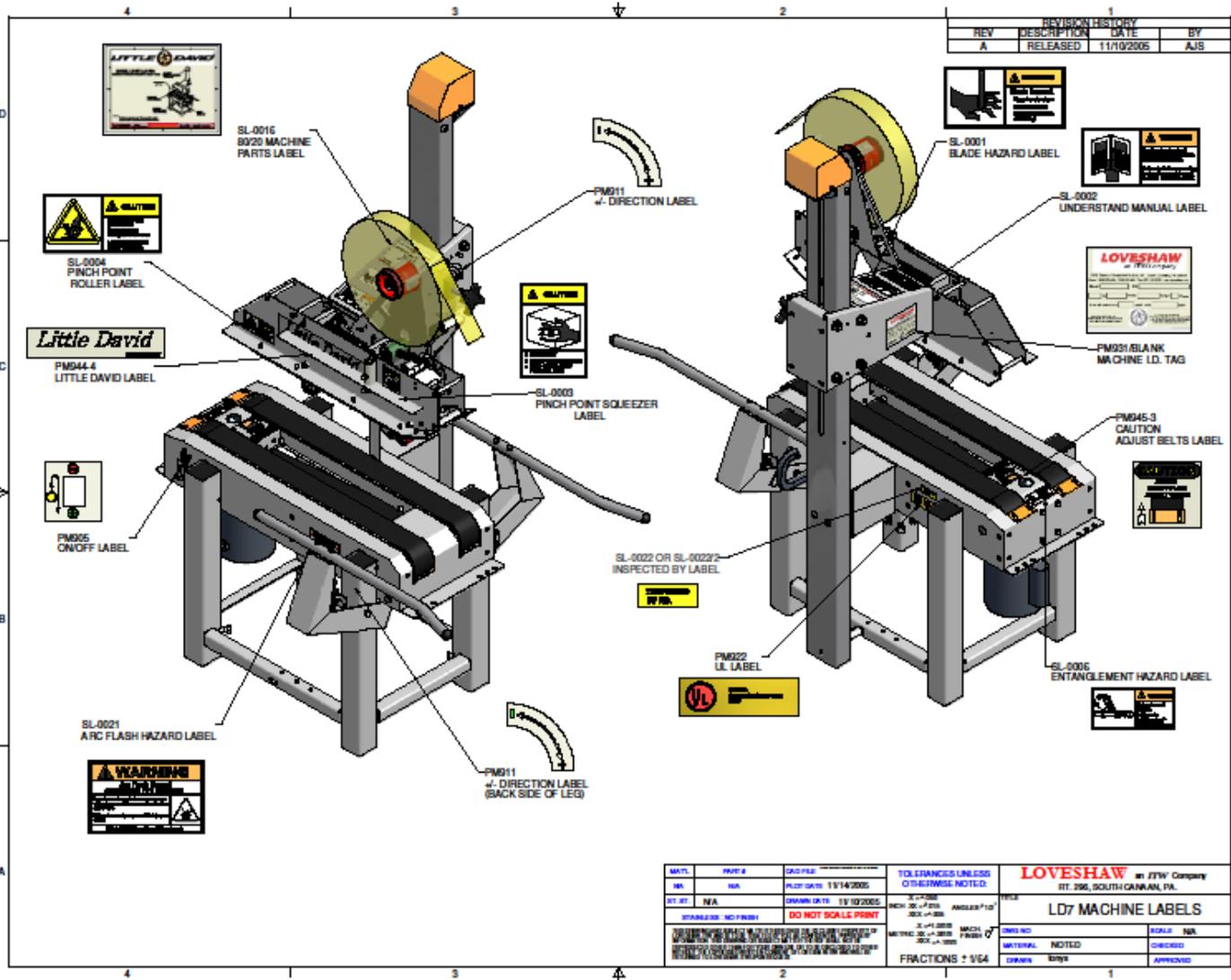
South Canaan, PA 18459

Phone: 1.800.962.2633

Important Safety Notices:

Before installing operating or servicing this equipment read carefully and understand the following precautions:

- **Never service the machine without completely removing all power sources first. Refer to your company's Lock out / Tag out procedures.**
- **Do not bypass or remove safety guards on the machine or tape cartridges.**
- **Do not override safety devices such as interlock safety switches if applicable.**
- **Never adjust the tape cartridges or machine when the machine is operating.**
- **Do not place hands or body inside confines of machine unless the top head assembly is locked in position and all power sources are locked out.**
- **Do not wear jewelry, loose clothing, such as ties scarves, etc and long hair should be pulled backed when operating this machine.**
- **Never pull jammed boxes out of an operating machine. Always remove all power sources first.**
- **When feeding boxes into a semi automatic machine always hold top flaps down at rear of box. Never place hands near the top head assembly of the machine.**



REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	11/10/2005	AJS

MATL. PART #	DATE	TO: FRANCIS LINESS OTHERWISE NOTED.	LOVESHAW an FFW Company 871 296 SOUTH GRANMAN, PA.
DR. NO.	PLANT DATE: 11/14/2005	3" X 7 1/2"	SIZE
DR. BY: MA	DRAWN DATE: 11/10/2005	INCH 32 ± .025 ANGLE 90° ± 10°	
APPROVED: MCF/MSH	DO NOT SCALE PRINT	32 ± .025	
<small>UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES AND DECIMALS THEREOF. DIMENSIONS IN METRIC ARE APPROXIMATE. FRACTIONS = 1/64</small>		3 ± .015	
		METRIC 32 ± .025	
		32 ± .025	
		SCALE	SCALE
		NOTED	CHECKED
		DATE	DATE
		APPROVED	APPROVED

Machine Specifications:

Machine dimensions:

- Height: 57 ½”
- Length of frame: 33 5/8”
- Width of frame: 17 ¼”
- Maximum width of machine measured at side rails: 31 ¼”
- Conveyor height: 22 ¼” minimum (leg extensions allows for 8” of adjustment)

Electrical Requirements:

- Standard Voltage: 120/1/60 with 10 amps dedicated service.
- Optional voltages are available consult factory.

Machine box capacity:

- Length: 4 ½” minimum to infinite maximum
- Width: 5 ½” minimum to 22” maximum
- Height: 4 ½” minimum to 24” maximum standard (34” maximum optional)
Box that are 1 ½ times taller than longer are at risk of tipping over in this machine. Loveshaw considers these boxes not in the specifications of this machine.

Operating speed:

- Belt speed: 80ft/min
- Throughput (based on 12” long box): 34 cpm

Closure material: Pressure sensitive tape

- Tape width: 2.5” to 3” - 38mm to 50mm
- Max Roll Diameter: 15” - 380mm
- Weight (uncrated): 180 lbs - 81 kg

Installation:

For domestic customer only – The Little David is shipped completely assembled.

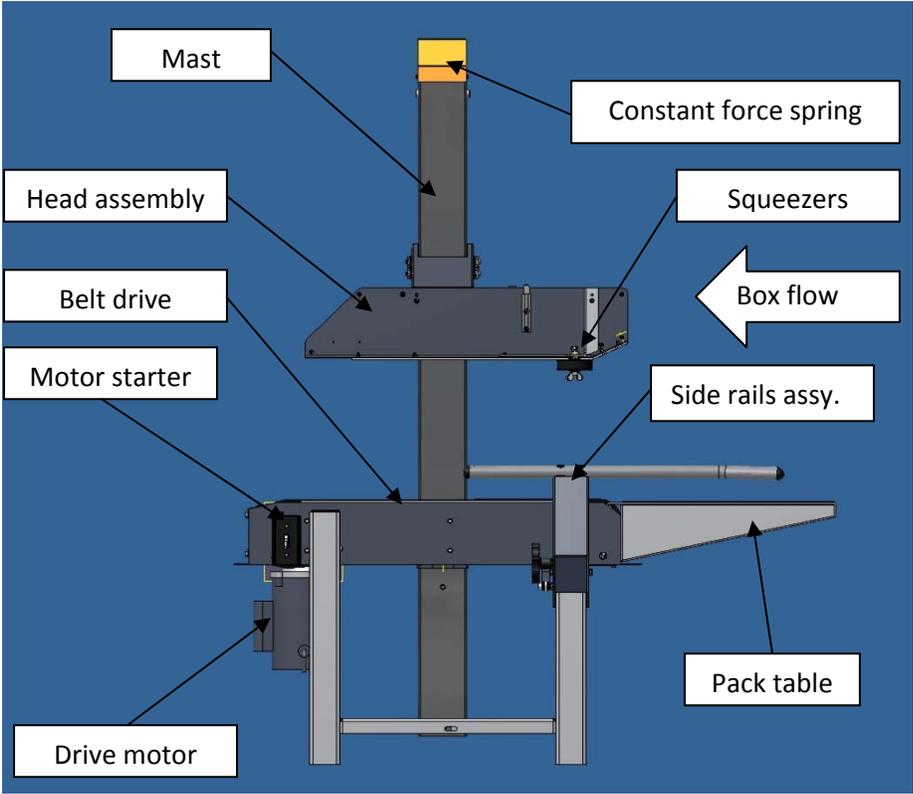
The Little David is ready for operation after plugging it into an appropriately grounded electrical outlet. The line cord is located on the operator side of the machine.

The conveyor height of the machine can be manually adjusted from 22 ¼” to 30 ¼” in one inch increments. The extension legs have a series of holes that allow for different heights depending on which holes are selected. There are mounting holes located in the bottom of the leg extension to anchor the machine to the floor. It is important that the machine be located on a flat level surface; so that it does not rock. Optional casters are available to aid in moving the machine from one location to another as needed.

The machine can be fed either by a conveyor or a packing table. It is important that either the conveyor or the table be ¼” lower than the tops of the rough top belting. This makes for the easiest transition into the machine. It is recommended that a power conveyor be used at the discharge end of the machine to take away sealed containers.

An optional packing table can be mounted on either the infeed, exit or both ends of the machine. Refer to figure 1 for an overall view of the machine.

Figure 1



Operation:

With the tape cartridges loaded and installed in the machine it is ready to be set up. Place a sample box with all of its flaps folded at the infeed of the machine. Loosen the side rails locking knob by turning counter clockwise and adjust the rails to the width of the box. Move the rails by hand until the desired width adjustment is made. And then turn the locking knob clockwise until the rails are locked in position. Now loosen the upper taping head assembly lock knob. The lock knob is located on the side of the head assembly near the mast assembly. With the lock knob loosened the head can be moved up or down by pushing or pulling on the head assembly. Now take the sample box and move it under the entrance of the head assembly. Push down on the head assembly until the box hold down rails firmly contact the top of the box and fully pushes the top box flaps down. Lock the head assembly in position by turning the locking knob clockwise. The head assembly is balanced by a constant force spring which makes head height adjustments easy.

Test the box set up by turning on the machine. This is accomplished by lifting the toggle switch on the motor starter. Place the sample box at the infeed of the machine and while holding the top flaps down push it into the machine onto the rough top belts. The box should come out of the discharge end of the machine sealed with tape.

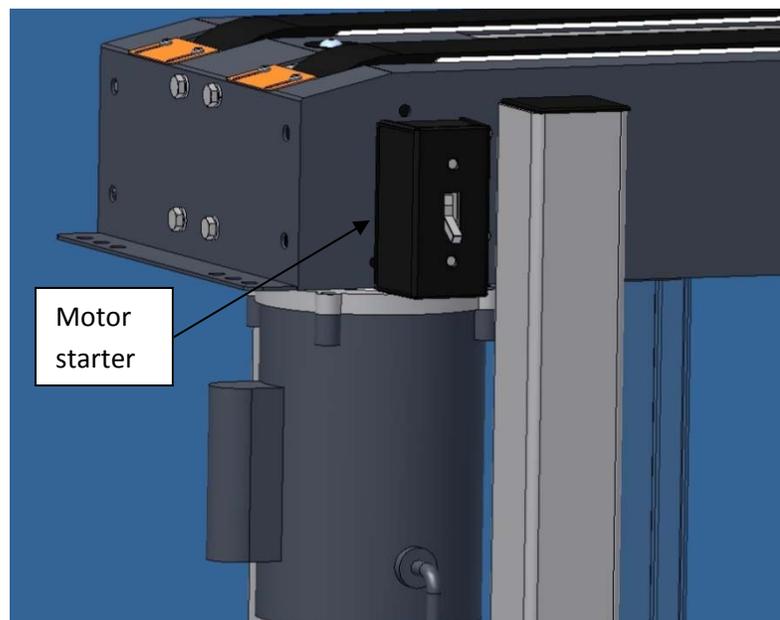
If the box hesitates going through the machine it may be necessary to check the head height adjustment made previously. It is important to have enough hold down force on the rough top belts to make sure that the boxes will travel smoothly through the machine.

Machine components:

Starter Switch:

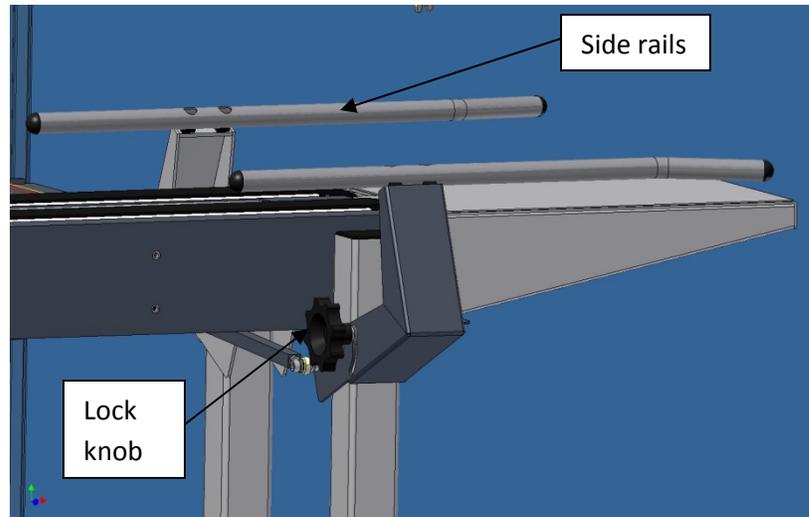
The starter switch is mounted on the operator side of the machine. The device is a manual motor starter with integral overload protection. The device starts and stops the drive motor while protecting the motor from over current conditions such as a box jam. When the motor starter detects an overload condition the machine is automatically shut down.

If the motor starter needs to be replaced, incoming electrical power must first be disconnected. Follow your company's lock out / tag out procedures. The front cover must first be removed allowing access to the starter itself. The starter is either removed by removing mounting screws or lifting the starter off of din rail. This depends on the machine voltage and the type of stater being used. All 120/1/60 VAC and 230/1/60 VAC models require mounting screws to be removed. These starters also have a non-adjustable heater element in them which needs to be replaced. The starters mounted on din rail have a dial adjustable overload relay.



Side Rails:

The side rails center and align the box as it is being processed. The side rails are manually adjustable and are held in position by a manual lock knob. The side rails should never be used to drag or move the machine. The side rails can also be used to hold a box in position on the pack table while being filled.



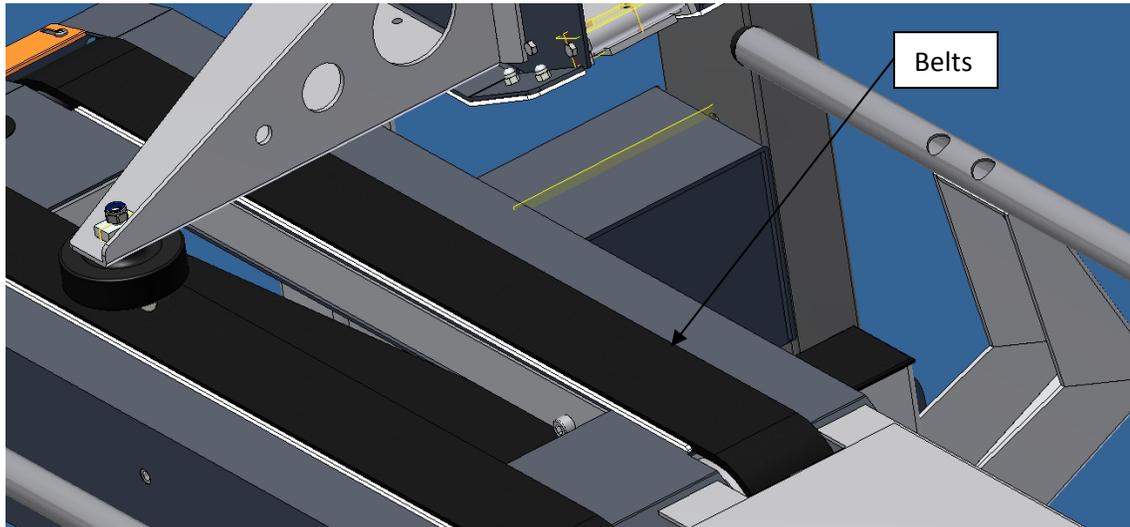
Belts:

Two laced rough top belts located on the bed frame of the machine drive the box through the machine. The rough top belts are driven via two drive rollers at the exit end of the machine. The drive rollers are directly coupled to a dual output shaft reducer which in turn is connected to the main drive motor. The drive rollers have lagging attached to the face of them which increases the drive to the belt surface.

To replace the belts first jog the motor via the motor starter until the lacing of the belt is on top of bed frame of the machine. Pull the lacing pin out of the belt to be replaced. Connect one end of the old belt to one end of the new belt with the lacing pin. Now pull the old belt out of the machine. This will thread the new belt through the machine. With the new belt completely threaded through the machine, disconnect the old belt.

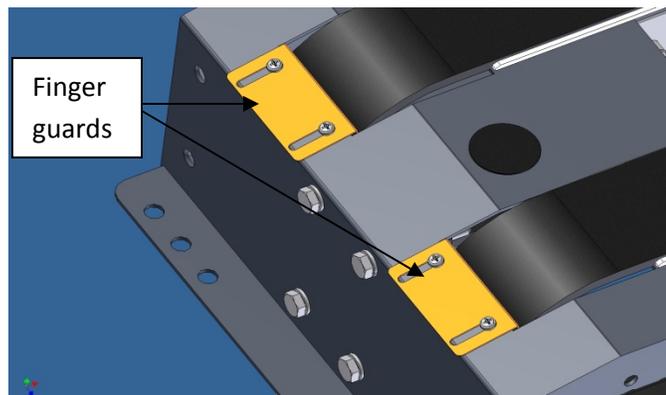
Connect the new belt ends together. The belt is spring tensioned, and the tensioner has to be overcome in order to connect the belt ends.

It is recommended that both belts be replaced at the same time. It is important to replace the belts with genuine Little David belts, since they are engineered specifically for the application.



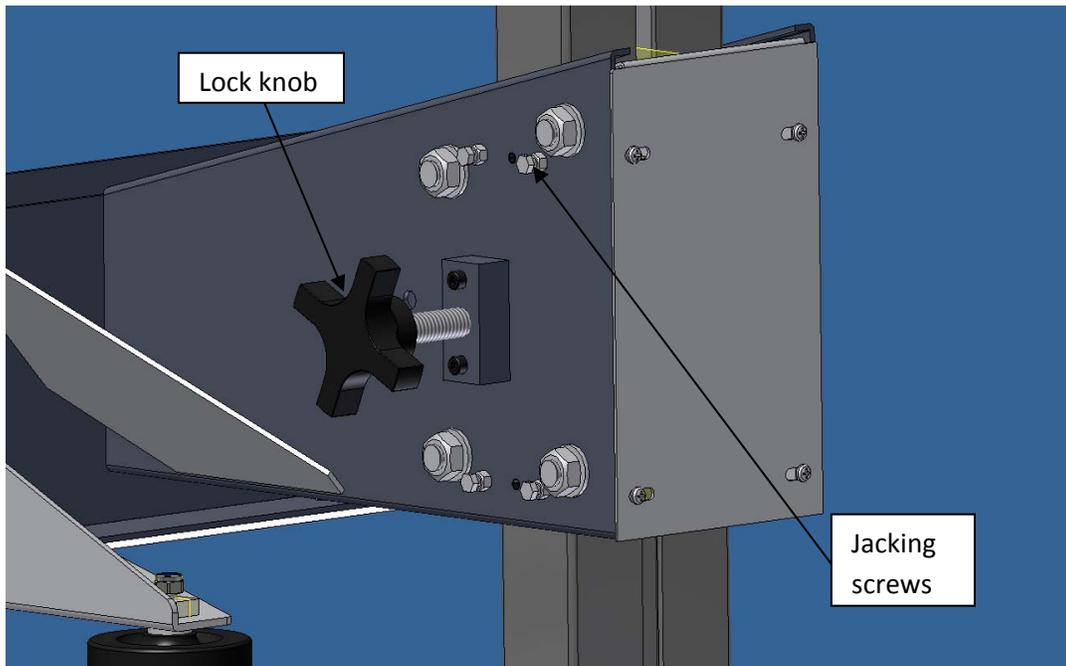
Belt finger guard:

The rough top belts have finger guards that prevent the entanglement or pinch hazards. The finger guard is adjustable and needs to be adjusted as the rough top beltings rears down. The gap from the guard to the belt must be set to 1/32". Failure to set this distance may result in injury.



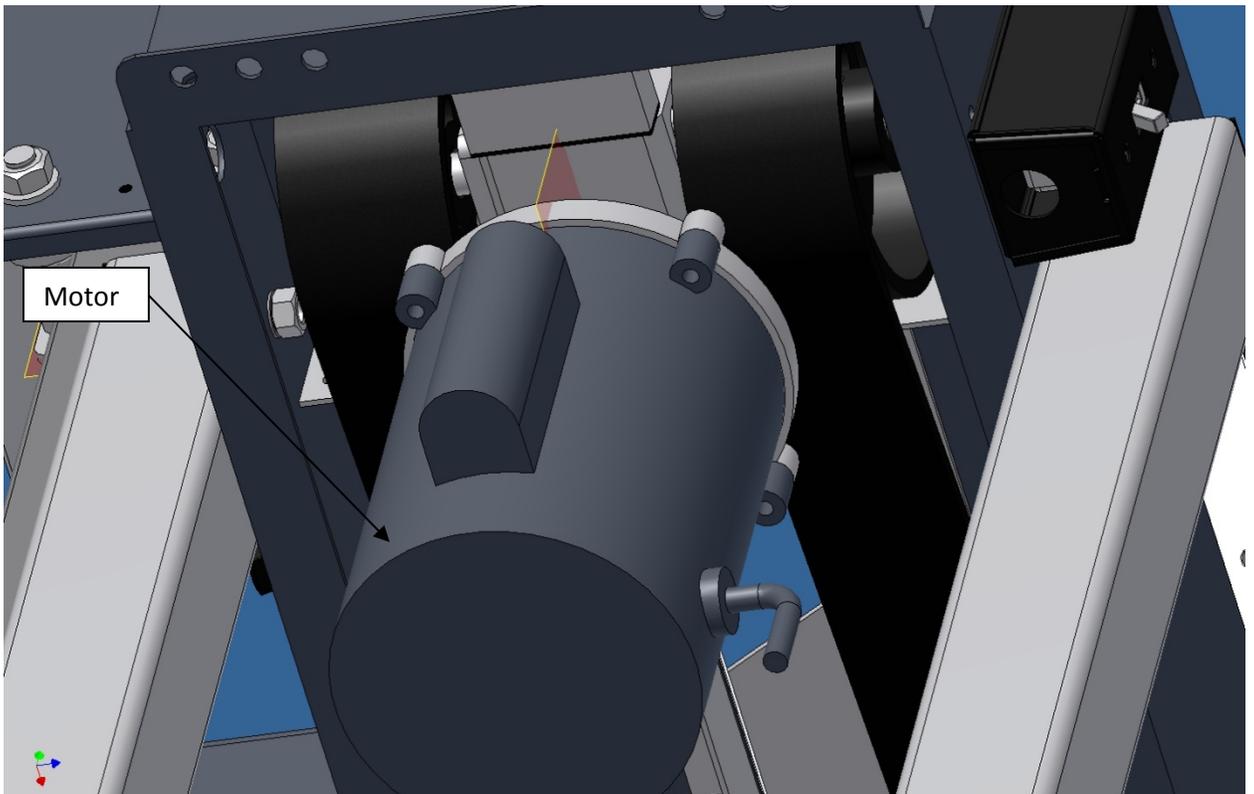
Head Assembly:

The head assembly rides along the mast via ball bearings and high density polyethylene pads. The head height is adjust by turning the lock knob counter clockwise to unlock head travel. The head can be manually adjusted by simply pushing or pulling the head assembly. The head assembly is counter balanced by a constant force spring to make head travel easy. The high density polyethylene pads are used to adjust the head assembly level from front to rear. The pads are adjustable via jacking screws on both sides of the mast. By repositioning the screws the horizontal position of the head can be adjusted. The mast requires routine cleaning and lubrication to insure easy movement. Wipe the mast with a clean cloth and then spray it down with silicone lubricant.



Drive Motor:

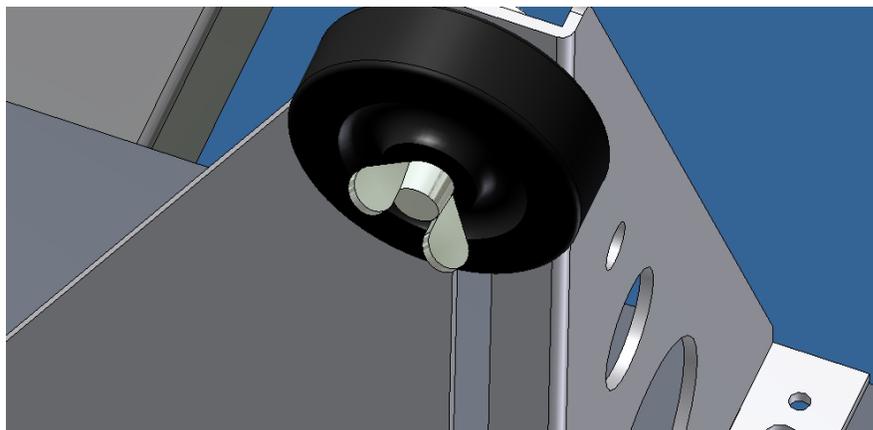
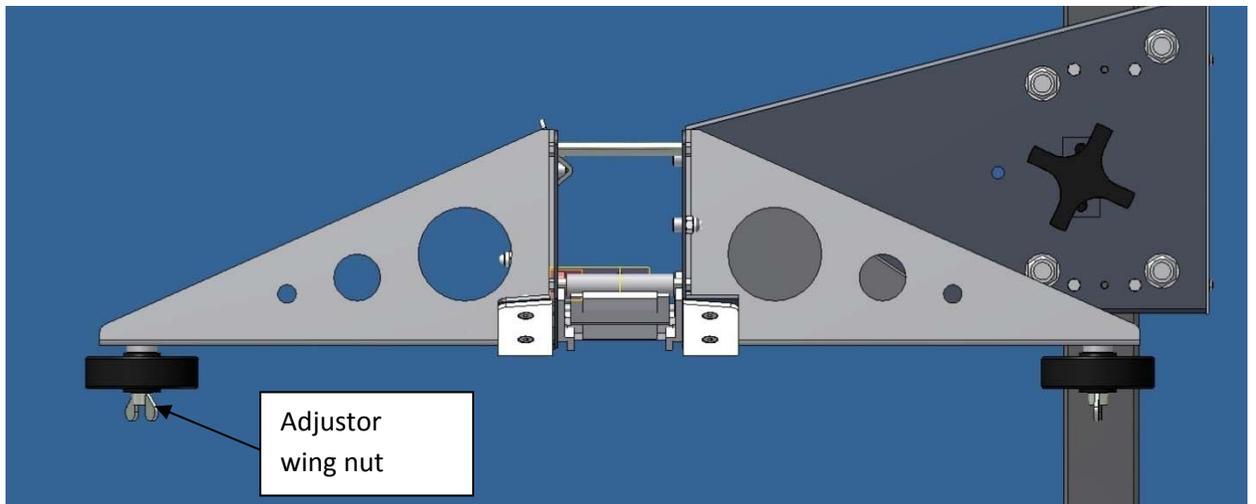
The standard drive motor is 1/3 hp open drip proof motor. The motor is dual rated at 120 or 230 vac single phase 60hz. The motor is open drip proof design. The motor is coupled to a dual output sealed gear box. The gear box requires no maintenance.



Top Flap Squeezer:

The top flap squeezers are used to butt the major flaps together before tape is applied. The squeezers are independently set to the width of the box. The squeezers can help close boxes that are not severely overstuffed with product.

The squeezers are adjusted by loosening the wing nut and sliding the individual squeezer in or out. Caution must be observed not to adjust the squeezer wheel to far into the path of the box being processed. This will cause box jams and may damaged the box and/or product.



Machine Maintenance:

Daily----- Clean machine (as required)

Inspect bottom belt drives.

Weekly----- Check belt tensioner

Inspect area around motor & gearbox

Inspect belt idlers

Adjust finger guards for belts (as required)

Monthly---- Check / Adjust head wear pads

Check drive roller belt lagging.

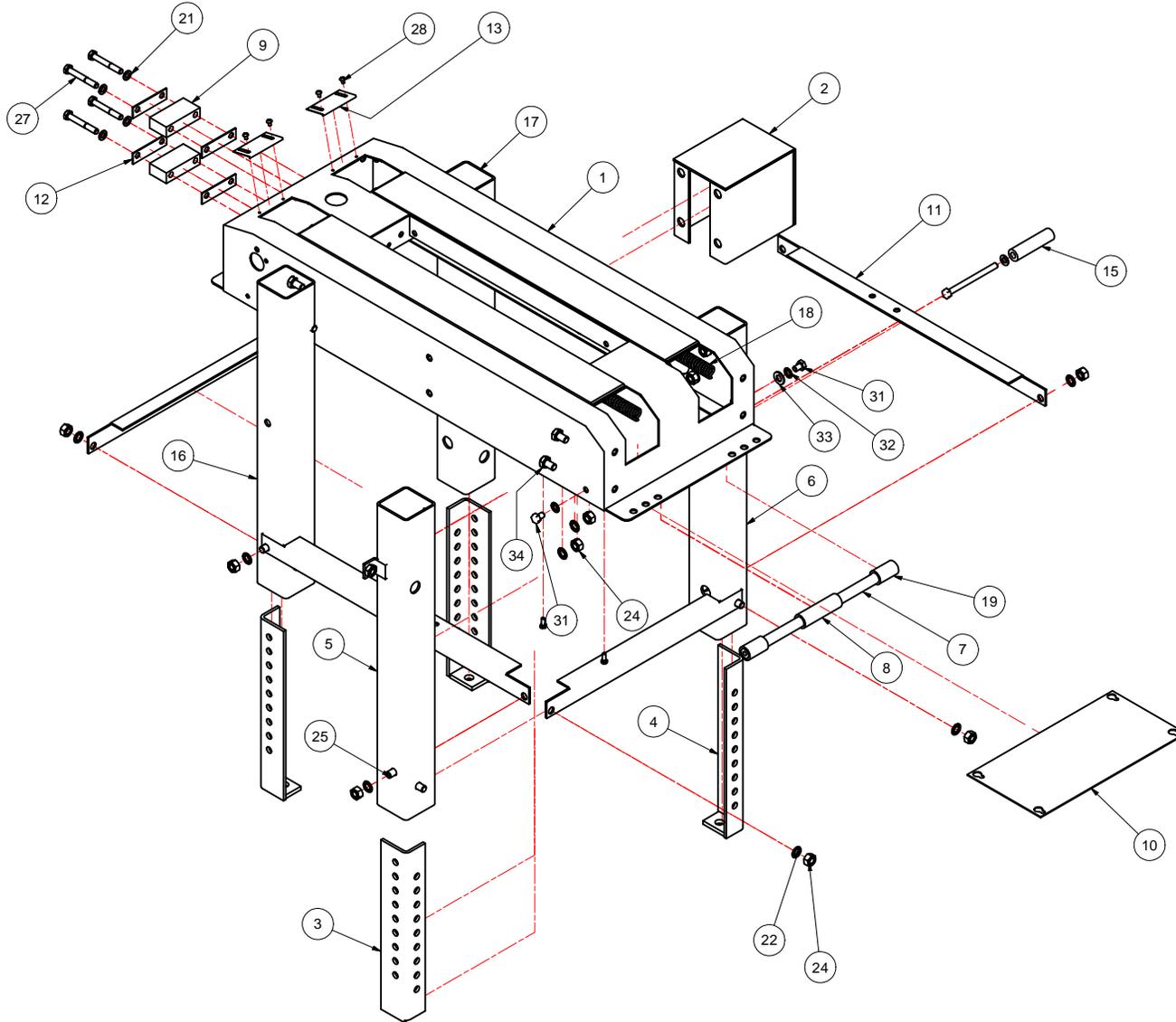
Cartridge Maintenance: Refer to cartridge area of manual

Troubleshooting:

Problem	Cause	Corrective Action
Box jamming in machine.	<p>Make sure box is in operating range of machine.</p> <p>Product bulging through top of box.</p> <p>Tape cartridge problems.</p> <p>Head assembly set to low.</p> <p>Side rails set too tight.</p> <p>Belts rough top worn.</p>	<p>Do not run box on machine.</p> <p>Insure product is not above score line of box.</p> <p>Check tape cartridge troubleshooting.</p> <p>Check height adjustment of top taping head assembly.</p> <p>Relieve side rail pressure.</p> <p>Replace belts.</p>
Belts slipping.	<p>Tension springs broken or worn.</p> <p>Lagging worn on drive rollers.</p> <p>Belts stretched from age or use.</p>	<p>Replace springs.</p> <p>Replace lagging.</p> <p>Replace belts.</p>
Head assembly hard to move.	<p>Bearing(s) frozen on trolley.</p> <p>Stabilizing pads on side of head assembly too tight.</p> <p>Mast needs lubrication.</p> <p>Constant force mast spring broken or worn.</p>	<p>Replace ball bearings.</p> <p>Adjust pad(s) pressure.</p> <p>Lubricate mast with silicone spray. (lubricate mast weekly)</p> <p>Replace spring, special instructions in back of manual.</p>
Motor will not start.	<p>Overload tripped.</p> <p>No incoming power.</p> <p>Gearbox jammed.</p> <p>Motor failure.</p>	<p>Reset starter.</p> <p>Check infeed power.</p> <p>Replace gearbox.</p> <p>Replace motor.</p>

- **When moving a machine with the caster option, always make sure that the top head assembly is lowered completely. Never push the machine width ways first. Always push the machine from the front or rear side of the machine.**
- **Never remove any safety labels from the machine. If any label are worn, damaged, peeling or illegible replace immediately. Refer to the following page for label identification and location.**
- **Wear proper PPE when servicing this machine electrically. Follow your company's Arc Flash Protection procedures.**

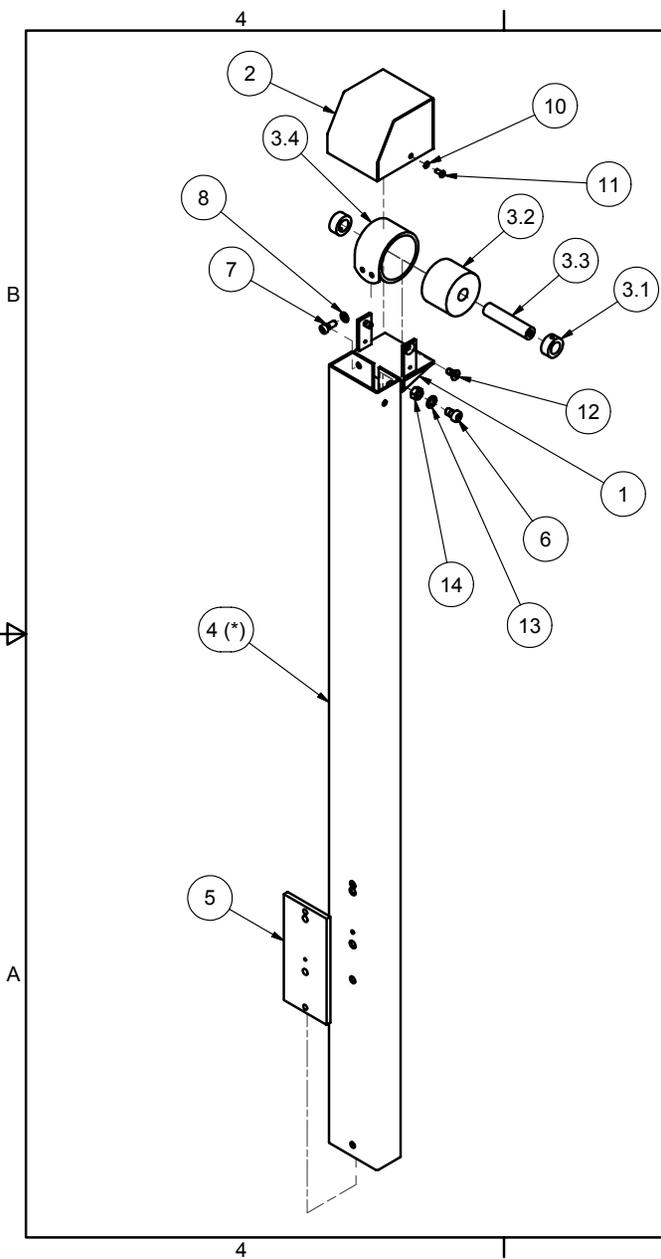
REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	7/2/2003	AMYR



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	LD3DW-1007-7	MAIN FRAME WELDMENT
2	1	PSC301282-4	MAST ADAPTER
3	2	PSC37L-5	AUXILIARY LEG LEFT
4	2	PSC37R-5	AUXILIARY LEG RIGHT
5	1	PSC7A203-6	LEG FRONT OPER. SIDE
6	1	PSC7A204-6	LEG FRONT MAST SIDE
7	1	LD3DW-1006-4	SHAFT - INFEEED ROLLER BRKT.
8	1	LD3DW-1005-3	SPACER - INFEEED ROLLER BRKT.
9	2	PSC301233-4	SPACER - REDUCER
10	1	LD3DW-1007-4	SAFETY PLATE
11	2	PSC301263-5	TIE BAR
12	4	PSC301265-3	RUBBER PAD - REDUCER SPACER
13	2	PSC301273-3	DRIVE BELT GUARD
14	2	LD3DW-1010-5	TIE BAR FRONT & REAR
15	1	PSC301281-3	SPACER - MAST ADAPTER
16	1	PSC7A216-6	LEG REAR OPER. SIDE
17	1	PSC7A217-6	LEG REAR MAST SIDE
18	4	PSC301232A	SPRING
19	2	PSC301226-3	SPACER - TENSION ROLLER
21	4	FLWMHP	LOCK WASHER M8
22	20	FITLWMIP	STAR WASHER M10
24	16	FHFNMIP	HEX NUT M10
25	8	FBHMI020P88	BUT HD M10x20
26	4	FHHMF012910	HEX HEAD SCREW M5 X 12
27	4	FHHSH225P08	HEX HEAD 5/16-18 X 2 1/4 LG.
28	4	FBHME006P10	BUTT. HEAD SCREW M4 X 6
29	1	FHHMH100P10	HEX HEAD SCREW M8 X 100
30	1	FFWMHP	FLAT WASHER M8
31	2	FHHMH012P10	HEX HEAD M8 X 12
32	2	FITLWMHP	INT'L TOOTH LOCK WASHER M8
33	1	FFWMIP	FLAT WASHER M10
34	12	FHHMI016P10	HHCS M10 X 16
N/S	2	PSC301244-4	BELT

MATL	PART #	CAD FILE	FRAME ASSEMBLY	D79	TOLERANCES UNLESS OTHERWISE NOTED:
C.R.S.	STD	PLOT DATE	1/15/2007		
ST. ST.	N/A	DRAWN DATE	7/1/2003		
	STAINLESS : NO FINISH		DO NOT SCALE PRINT		
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					X = ±0.050 INCH .XX = ±0.015 .XXX = ±0.005 ANGLES ±1/2° X = ±1.0mm MACH. FINISH METRIC .XX = ±.3mm .XXX = ±.1mm
FRACTIONS ± 1/64					

LOVESHAW an ITW Company			
RT. 296, SOUTH CANAAN, PA.			
TITLE			
FRAME ASSEMBLY LD7D/3			
DWG NO	FRAME ASSY 3*	SCALE	N/A
MATERIAL	N/A	CHECKED	
DRAWN	AMYR	APPROVED	



REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	12/8/2004	AMYR

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	PSC102286-4	SPRING BRACKET
2	1	PSC102285-4	SPRING COVER
3	1	CBAL301F	COUNTER BALANCE ASSY.
3.1	2	SC75	SET COLLAR
3.2	1	LD12B-2002B-4	DRUM SPRING
3.3	1	PSC302222A-3	SHAFT SPRING
3.4	1	LD12B-2008-3	CONSTANT FORCE SPRING
4 (*)	1	PSC102305-5	MAST
5	1	PSC302213-4	MAST STRAP - FRAME
6	2	FSHMI016P88	SOC. HD. CAP SCREW M10 X 16
7	2	FSHMH020P10	SOC. HD. CAP SCREW M8 X 20
8	2	FLWMHP	LOCK WASHER M8
10	2	FLWMFP	LOCK WASHER M5
11	2	FBHMF012P10	HEX SOC. BUTT. HD. SCREW
12	2	FFHMH016P10	FLAT HD. M8 X 16 LG.
13	2	FLWMIP	SPRING WASHER M10
14	2	FHFNMIP	HEX NUT M10
15	2	FHFNMHP	HEX NUT, M8
(*)	1	PSC102305A-4	MAST (HIGH MAST OPTION ONLY)

NOTE:
THIS NOTE IS NOT TO BE APPLIED TO LD7 2" MACHINES.
 WHEN APPLYING THREE FLAP FOLDER ASSY. AND TOP SQUEEZER ASSY., REPLACE COUNTER BALANCE ASSY. .CBAL301F WITH .CBAL301G

REPLACE	QTY	PART NUMBER
3.1	2	LDU-1134A-3
3.2	1	LDU-1027-4
3.4	1	LDU-1026-4

MATL	PART #	CAD FILE	MST301F with CBAL301F	TOLERANCES UNLESS OTHERWISE NOTED: X = ±.050 INCH .XX = ±.015 ANGLES ± 1/2° .XXX = ±.005	LOVESHAW an ITW Company RT. 296, SOUTH CANAAN, PA. TITLE MAST ASSY W/ COUNTER BALANCE				
C.R.S.	STD	PLOT DATE	12/8/2004						
ST. ST.	N/A	DRAWN DATE	12/8/2004	X = ±1.0mm MACH. FINISH METRIC .XX = ±.3mm .XXX = ±.1mm	DWG NO	.MST301F / .CBAL301F	SCALE	N/A	
STAINLESS : NO FINISH		DO NOT SCALE PRINT			FRACTIONS	± 1/64	MATERIAL	N/A	CHECKED
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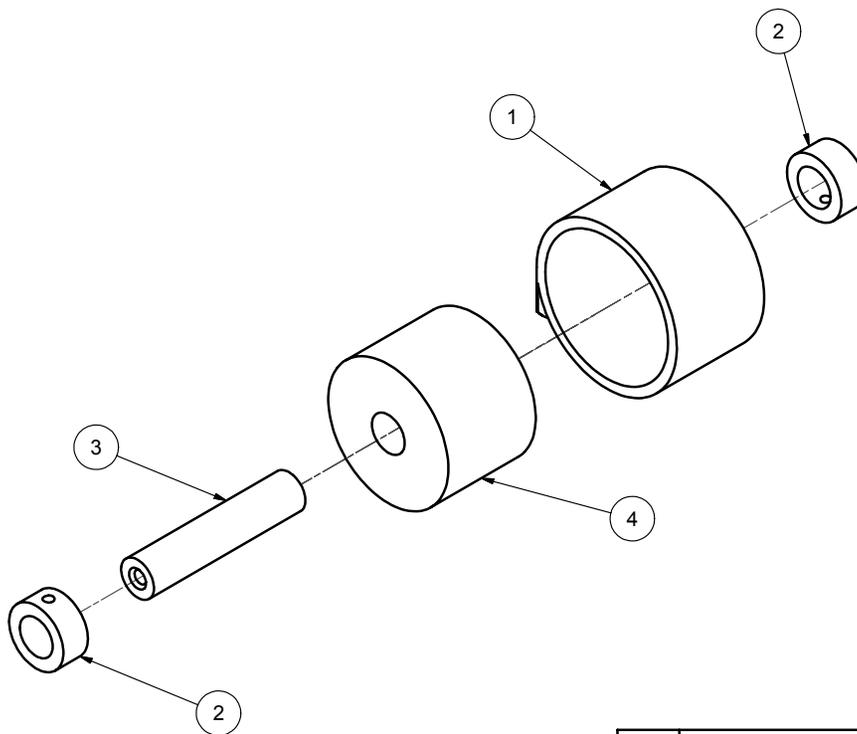
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REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	9/16/2004	AMYR



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	LD12B-2008-3	CONSTANT FORCE SPRING
2	2	SC75	SET COLLAR
3	1	PSC302222A-3	SHAFT SPRING
4	1	LD12B-2002B-4	DRUM SPRING

MATL	PART #	CAD FILE	CBAL301F	TOLERANCES UNLESS OTHERWISE NOTED: X = ±.050 INCH .XX = ±.015 ANGLES ± 1/2° .XXX = ±.005	TITLE LOVESHAW an <i>ITW</i> Company RT. 296, SOUTH CANAAN, PA. HEAD COUNTER BALANCE ASSY.				
C.R.S.	STD	PLOT DATE	9/16/2004						
ST. ST.	N/A	DRAWN DATE	9/16/2004	X = ±1.0mm MACH. FINISH ✓ METRIC .XX = ±.3mm .XXX = ±.1mm	DWG NO	.CBAL301F	SCALE	N/A	
STAINLESS : NO FINISH		DO NOT SCALE PRINT			FRACTIONS	± 1/64	MATERIAL	N/A	CHECKED
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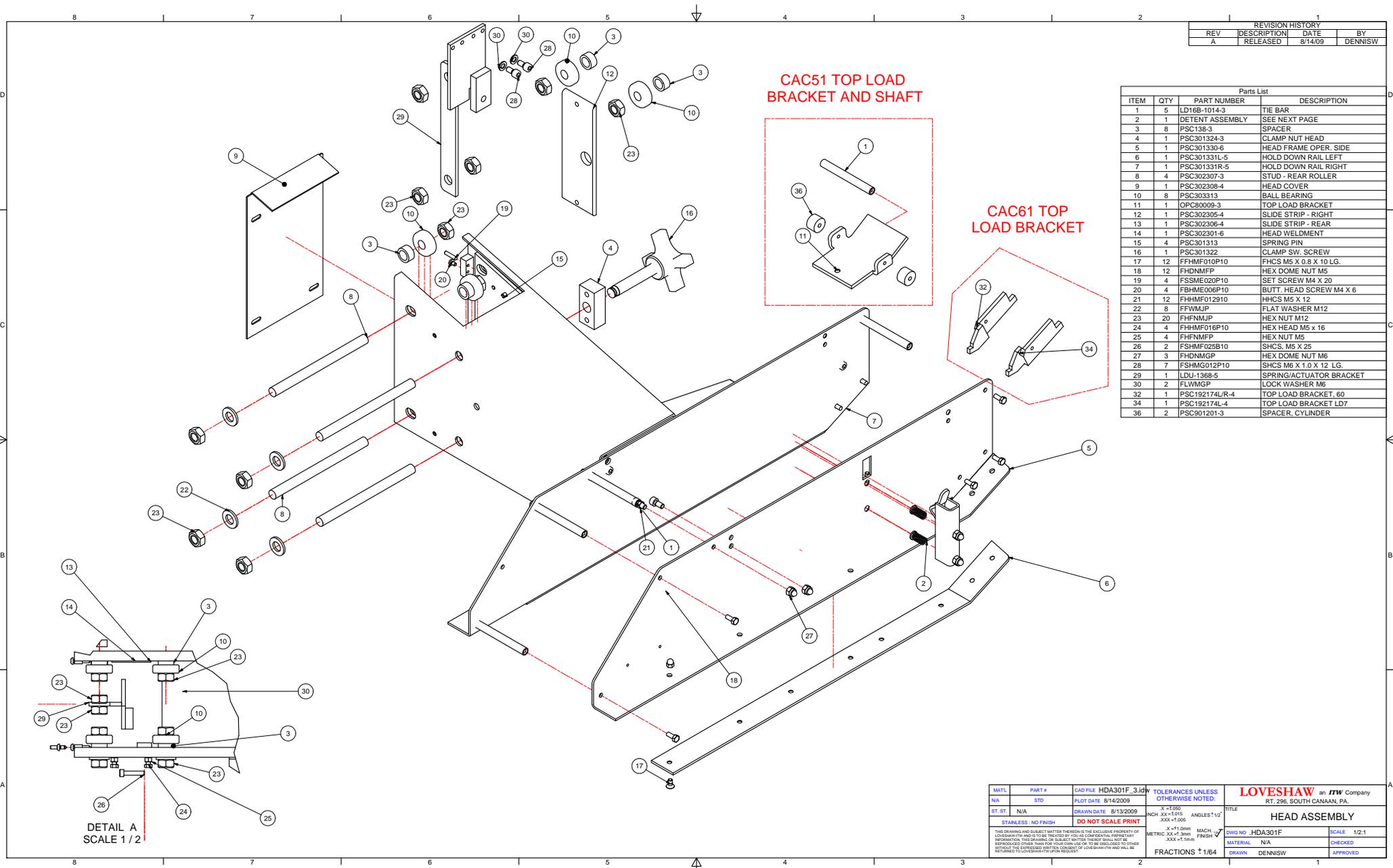
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REVISION HISTORY			
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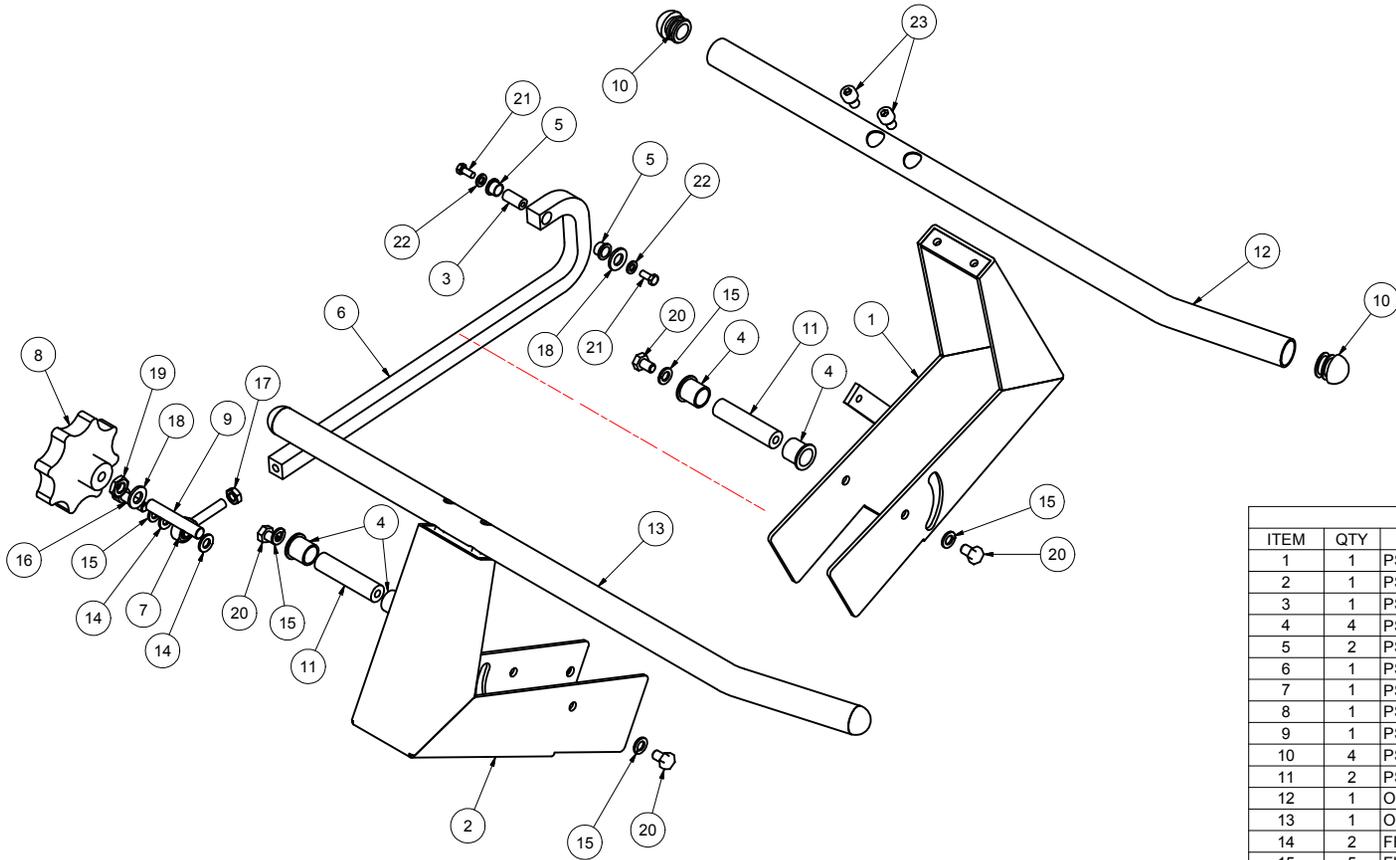


Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	5	LD16B-1014-3	TIE BAR
2	1	DETENT ASSEMBLY	SEE NEXT PAGE
3	8	PSC138-3	SPACER
4	1	PSC301324-3	CLAMP NUT HEAD
5	1	PSC301330-6	HEAD FRAME OPER. SIDE
6	1	PSC301331L-5	HOLD DOWN RAIL LEFT
7	1	PSC301331R-5	HOLD DOWN RAIL RIGHT
8	4	PSC302307-3	STUD - REAR ROLLER
9	1	PSC302308-4	HEAD COVER
10	8	PSC303313	BALL BEARING
11	1	OPC80009-3	TOP LOAD BRACKET
12	1	PSC302305-4	SLIDE STRIP - RIGHT
13	1	PSC302306-4	SLIDE STRIP - REAR
14	1	PSC302301-6	HEAD WELDMENT
15	4	PSC301313	SPRING PIN
16	1	PSC301322	CLAMP SW. SCREW
17	12	FHHMF010P10	FHCS M5 X 0.8 X 10 LG.
18	12	FHDNMFP	HEX DOME NUT M5
19	4	FSSME020P10	SET SCREW M4 X 20
20	4	FHME009P10	BUTT. HEAD SCREW M4 X 6
21	12	FHHMF012910	FHCS M5 X 12
22	8	FFWMJIP	FLAT WASHER M12
23	20	FHFNJIP	HEX NUT M12
24	4	FHHMF016P10	HEX HEAD M5 x 16
25	4	FHFNMP	HEX NUT M5
26	2	FSHMF025B10	SHCS. M5 X 25
27	3	FHDNMG	HEX DOME NUT M6
28	7	FSHMG012P10	SHCS M6 X 1.0 X 12 LG.
29	1	LDU-1368-5	SPRINGACTUATOR BRACKET
30	2	FLWMGP	LOCK WASHER M6
32	1	PSC192174L/R-4	TOP LOAD BRACKET. 60
34	1	PSC192174L-4	TOP LOAD BRACKET LD7
36	2	PSC901201-3	SPACER, CYLINDER

DETAIL A
SCALE 1/2

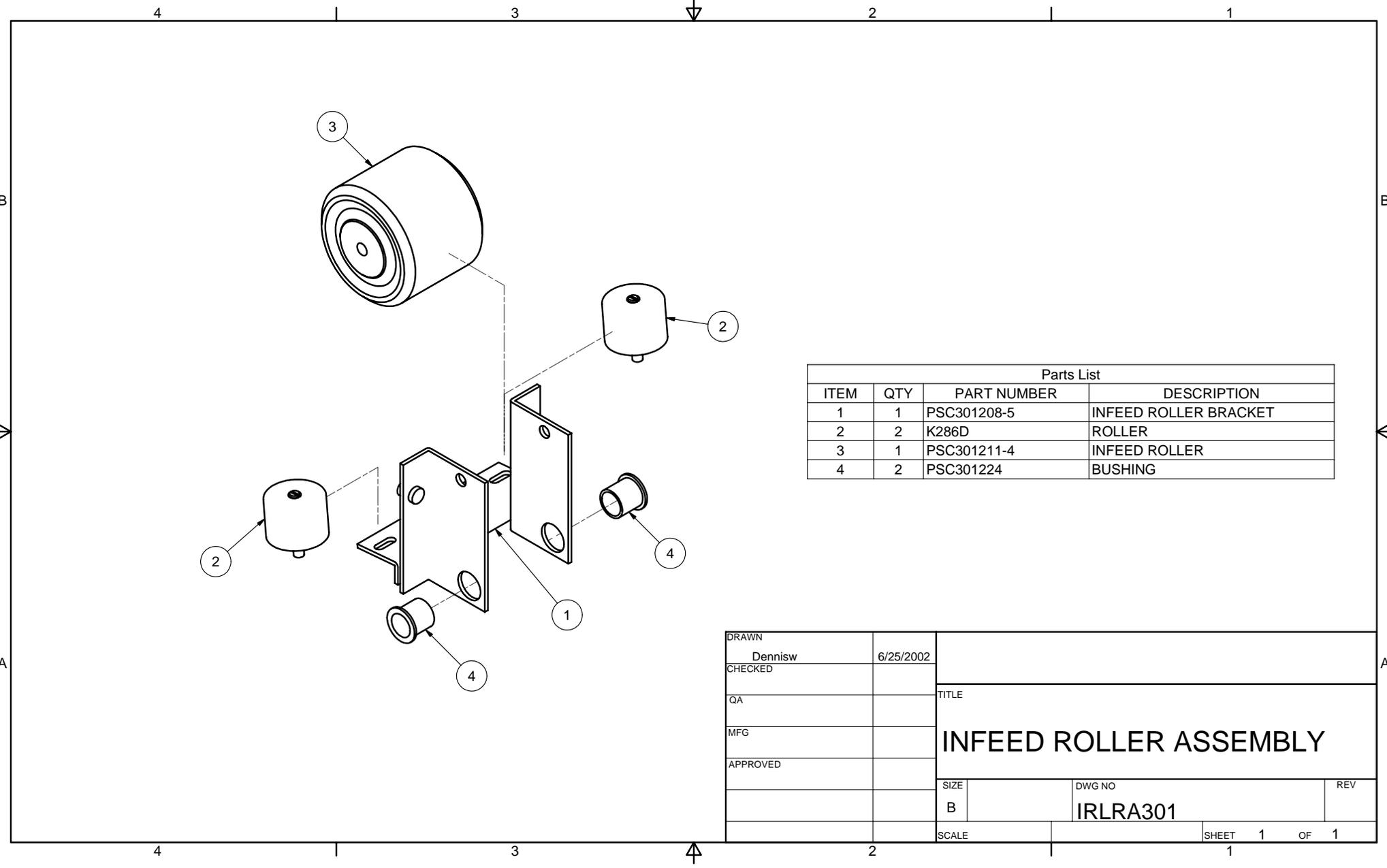
MATL	PART#	CAD FILE	HDA301F_3.idw	TOLERANCES UNLESS OTHERWISE NOTED:	LOVESHAW an JTW Company RT. 296, SOUTH CANAAN, PA.	
NA	STD	PLOT DATE	8/14/2009	X=.0005 .XXX+.0015 .XXX+.0005		
BT ST	N/A	DRAWN DATE	8/13/2009	.X+.0008 .XXX+.0015 .XXX+.0005	TITLE	
STAINLESS: NO FINISH				DO NOT SCALE PRINT	4-.013mm MACH FRESH .XXX+.01mm .XXX+.01mm	HEAD ASSEMBLY RT. 296, SOUTH CANAAN, PA.
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REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	4/14/2005	AJS
B	M.C.R. #08-006	5/27/2008	AMYR



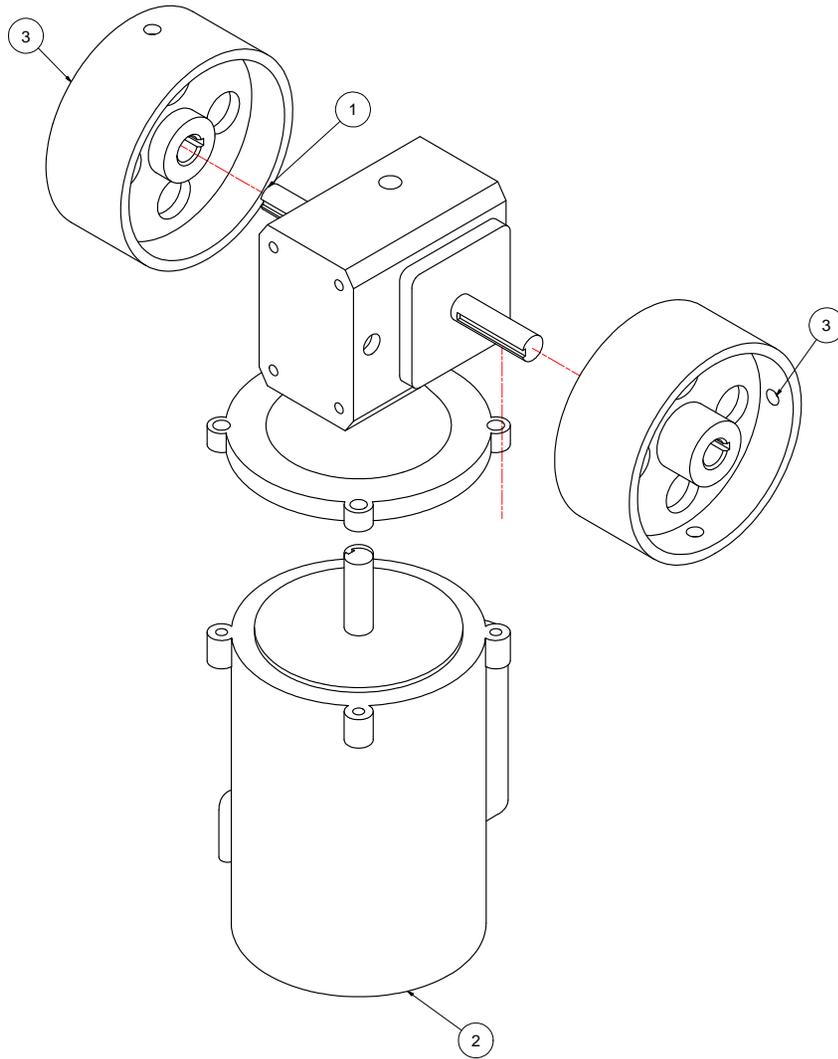
Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	PSC301917/MI-6	SIDE RAIL ARM (MAST SIDE) M.I.
2	1	PSC301917L-6	SIDE RAIL ARM (OPER. SIDE)
3	1	PSC301222-3	SHAFT CONNECTING ARM
4	4	PSC301224	BUSHING
5	2	PSC301230-3	BUSHING (S.R. CONN ARM)
6	1	PSC301271-5	SIDE RAIL CONNECTING ARM
7	1	PSC552/M	SPHERICAL ALIGN BEARING
8	1	PSU166-4	SIDE RAIL HAND KNOB
9	1	PSC7A211-3	THREADED ROD
10	4	PSC511A	SIDE RAIL CAP
11	2	PSC7A202-3	SIDE RAIL PIVOT SHAFT
12	1	OPC301918R-5 (*)	SIDE RAIL RH
13	1	OPC301918L-5 (*)	SIDE RAIL LH
14	2	FFWMHP	FLAT WASHER M8
15	5	FLWMHP	LOCK WASHER M8
16	1	FSHMH025P10	SHCS M8x25
17	1	FHJNSIP	HEX JAM NUT, 5/16-24
18	2	FFWMIP	FLAT WASHER M10
19	1	FHJNMIP	M10 HJN
20	4	FHHMH012P10	HEX HEAD M8 X 12
21	2	FHHMF012910	HHCS M5 X 12
22	2	FFWMGP	FLAT WASHER M6
23	4	FSHMH012P10	M8 X 12 SHCS
(*)	1	PSC301918R-5	SIDE RAIL RIGHT (SHORT OPTION ONLY)
(*)	1	PSC301918L-5	SIDE RAIL LEFT (SHORT OPTION ONLY)

MATL	PART #	CAD FILE	SRA7D EXT10.IDW	TOLERANCES UNLESS OTHERWISE NOTED:	LOVESHAW an ITW Company RT. 296, SOUTH CANAAN, PA.
C.R.S.	STD	PLOT DATE	5/27/2008	X ±.050 INCH .XX ±.015 .XXX ±.005 ANGLES ±.1/2°	
ST. ST.		DRAWN DATE	3/17/2005	X ±1.0mm METRIC .XX ±.3mm .XXX ±.1mm MACH. FINISH ✓	TITLE
STAINLESS : NO FINISH DO NOT SCALE PRINT				SIDE RAIL ASSY.	
<small>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 OTHERS WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW/ITW AND WILL BE RETURNED TO LOVESHAW/ITW UPON REQUEST.</small>				FRACTIONS	DWG NO SRA7D EXT10 SCALE N/A MATERIAL NOTED CHECKED DRAWN tonys APPROVED
				± 1/64	



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	PSC301208-5	INFEEED ROLLER BRACKET
2	2	K286D	ROLLER
3	1	PSC301211-4	INFEEED ROLLER
4	2	PSC301224	BUSHING

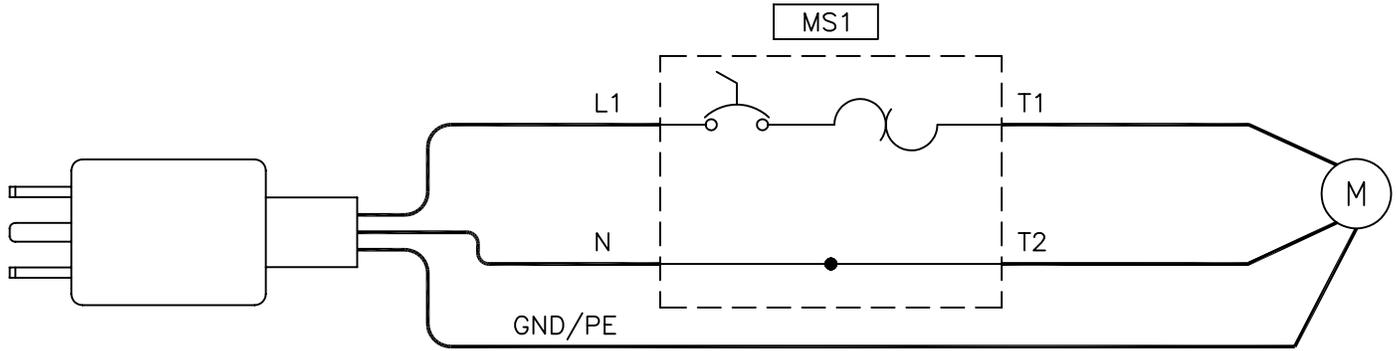
DRAWN	Dennisw	6/25/2002		
CHECKED				
QA			TITLE	
MFG			INFEEED ROLLER ASSEMBLY	
APPROVED				
SIZE	B	DWG NO	IRLRA301	REV
SCALE		SHEET	1	OF 1



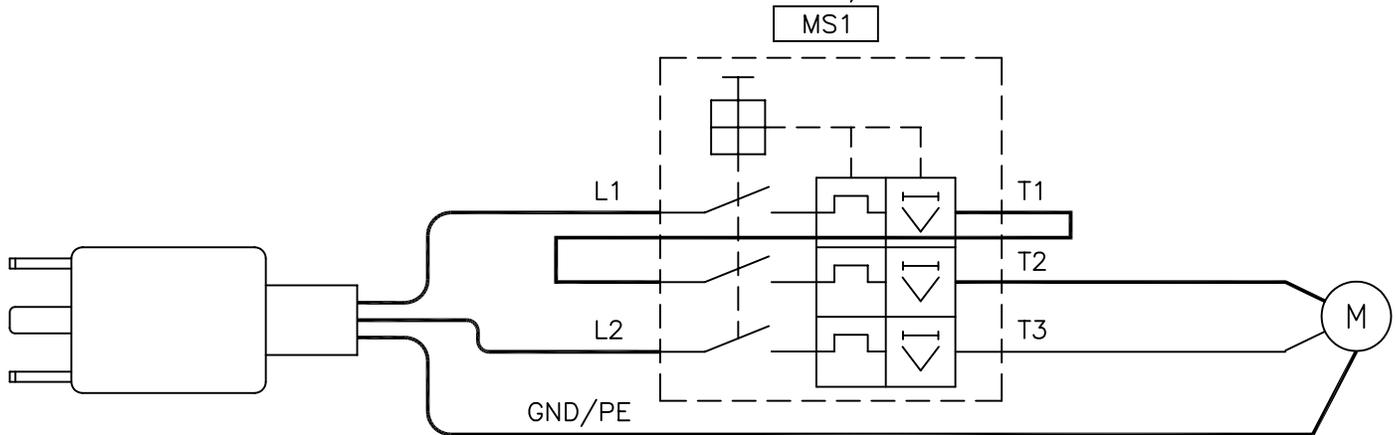
Parts List			
ITEM	QT	PART NUMBER	DESCRIPTION
1	1	PSC301238L	REDUCER
2	1	LD16B-2033A/LES	MOTOR
3	2	PSC301217-4	DRIVE ROLLER
4	1	PSC647	RING TERM. (NOT SHOWN)
5	1	PSC611	STRAIN RELIEF (NOT SHOWN)
6	1	PSC505A-115-4	LINE CABLE (NOT SHOWN)
7	1	PSC301235-GE	MOTOR STARTER (NOT SHOWN)
8	1	PSC301241-4	MOTOR CABLE (NOT SHOWN)
9	1	PSC614	BELT LAGGING (NOT SHOWN)
10	1	A204	CONNECTOR (NOT SHOWN)
2	1	LP07-001-L	MOTOR
9	1	PSC636-AB-K	HEATER OVERLOAD

DRAWN	Dennisw	6/25/2002	
CHECKED			
QA			TITLE
DFG			ELECTRICAL COMPONENT
APPROVED			ASSEMBLY
			LDCA100-LD7D
		SIZE	REV
		D	1_3HP-LES
		SCALE	SHEET 1 OF 1

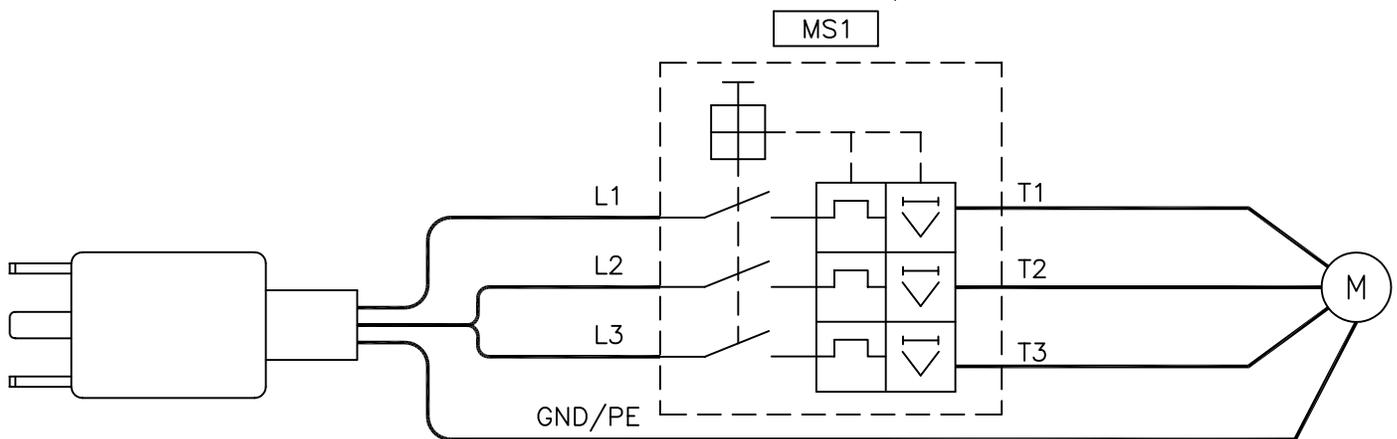
ELECTRICAL SCHEMATIC
LEGEND, LD7 AND LD3
120 VAC 60HZ



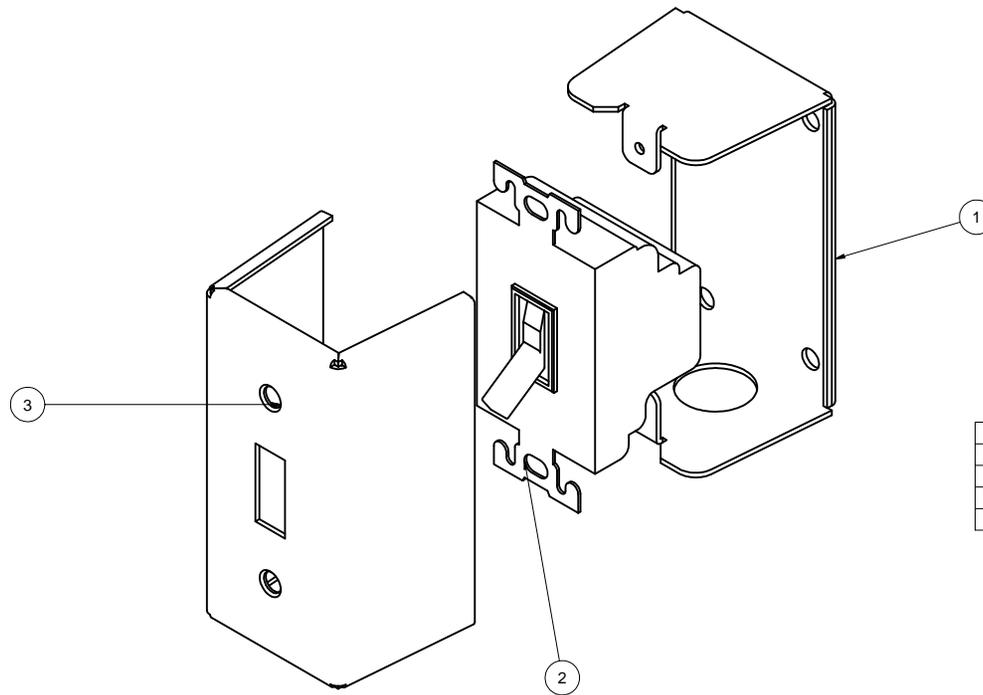
SINGLE PHASE 50/60 HZ MODELS



THREE PHASE 50/60 HZ MODELS



REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	11/10/09	DENNISW



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	PSC301235-GE/B	ENCLOSURE SURFACE MOUNT BASE
2	1	PSC301235-GE/A	MOTOR STARTER MANUAL
3	1	PSC301235-GE/C	ENCLOSURE SURFACE MOUNT COVER

MATL	PART #	CAD FILE	CIRCUIT BREAKER ASSY.dwg	UNLESS OTHERWISE NOTED:	LOVESHAW an ITW Company RT. 296, SOUTH CANAAN, PA.
	STD	PLOT DATE	11/10/2009		
ST. ST.		DRAWN DATE	11/10/2009	.X =±.050 INCH .XX =±.015 ANGLS ±.1/2° .XXX =±.005	TITLE
	STAINLESS : NO FINISH	DO NOT SCALE PRINT		.X =±1.0mm MACH. FINISH ✓ METRIC .XX =±.3mm .XXX =±.1mm	CIRCUIT BREAKER ASSY
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					SCALE 1:1
					MATERIAL
					CHECKED
					DRAWN DENNISW
					APPROVED