

ABAL

OWNERS MANUAL



CENTURION 100CH

V-GROOVE BELTS

THE LOVESHAW CORPORATION
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ANDOVER, HAMPSHIRE SP103SL
ENGLAND
44-264-3575-11

GENERAL SAFETY PRECAUTIONS

BEFORE USING OR PERFORMING SERVICE ON **ABAL** EQUIPMENT, PLEASE READ THE FOLLOWING SAFETY PRECAUTIONS CAREFULLY:

1. BE AWARE THAT THE TAPING UNIT HAS A VERY SHARP KNIFE. EXERCISE CAUTION WHEN WORKING WITH TAPING UNIT AND WHEN THREADING TAPE.
2. KEEP HANDS AWAY FROM MOVING BELTS. TO CLEAR A BOX JAM; POWER MACHINE OFF FIRST.
3. ALWAYS DISCONNECT POWER AND AIR BEFORE WORKING ON ANY ELECTRICAL COMPONENTS.
4. DO NOT WEAR JEWELRY WHEN OPERATING MACHINE.
5. DO NOT WEAR LOOSE CLOTHING SUCH AS TIES, SCARVES, WHEN OPERATING MACHINE.
6. LONG HAIR SHOULD BE PULLED BACK WHEN OPERATING MACHINE.
7. RANDOM MACHINES OPERATE AUTOMATICALLY. SO NOT PLACE HANDS OR BODY PARTS INSIDE THE CONFINES OF THE MACHINE, UNLESS AIR AND POWER ARE DISCONNECTED.
8. WHEN OPERATING SEMI-AUTOMATIC MACHINES, PLACE HANDS ON REAR OF CASE AND PUSH ONLY UNTIL BELTS GRAB CASE.
9. KEEP AWAY FROM FLAP FOLDING ARM ON FULLY AUTOMATIC MACHINES UNLESS AIR AND POWER ARE DISCONNECTED.
10. SAFETY GLASSES SHOULD BE WORN WHEN WORKING WITH OR AROUND THE MACHINE.

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WARRANTY

INTRODUCTION

THE MACHINE IS DESIGNED TO TAPE THE TOP AND BOTTOM FLAPS OF A WIDE VARIETY OF BOX SIZES. AFTER MANUALLY ADJUSTING MACHINE FOR THE BOX SIZE, THE OPERATION ONLY HAS TO FOLD THE FLAPS AND PUSH THE BOX INTO THE MACHINE AFTER WHICH THE MACHINE WILL TAPE THE TOP AND BOTTOM FLAPS AND DISCHARGE THE BOX.

IF REPAIRS BECOME NECESSARY, YOU WILL FIND SIMPLE INSTRUCTIONS OUTLINED IN THIS MANUAL. IF A PROBLEM OCCURS THAT IS NOT COVERED, PLEASE CONTACT OUR SERVICE DEPARTMENT AT THE ADDRESS SHOWN ON THE COVER OF THIS MANUAL.

INSTALLATION

WHEN UNCRATED, THE MACHINE IS READY FOR OPERATION AFTER PLUGGING IT INTO AN APPROPRIATE ELECTRICAL OUTLET AND TAPE UNITS ARE LOADED WITH TAPE. THE CONNECTION CABLE IS LOCATED ON THE FRONT OF THE MACHINE, CONNECT IT TO THE APPROPRIATE GROUNDED OUTLET.

THE MACHINE SHOULD BE PLACED ON A FLAT LEVEL FLOOR SO THAT IT DOES NOT ROCK. DUE TO ITS PORTABILITY AND EASY PLUG-IN CONNECTION, THE MACHINE MAY BE QUICKLY MOVED TO VARIOUS LOCATIONS AS THE NEED ARISES. OPTIONAL CASTERS ARE AVAILABLE, IF REQUIRED. LEG EXTENSIONS HAVE BEEN PROVIDED, SHOULD THE MACHINE HEIGHT NEED CHANGING.

AN OPTIONAL INFEED OR PACK TABLE CAN BE INSTALLED ON THE MACHINE WHERE THE PACKER CAN FILL THE BOXES AND CLOSE THE FLAPS PRIOR TO FEEDING THE BOXES INTO THE MACHINE. AN OPTIONAL EXIT TABLE CAN ALSO BE INSTALLED AT THE OUTFEED END OF THE MACHINE TO RECEIVE TE BOXES AS THEY ARE DISCHARGED FROM THE MACHINE.

OPERATION

AFTER THE TAPE UNITS ARE LOADED, THE MACHINE IS READY TO SEAL BOXES. PLACE A SAMPLE BOX OF THE SIZE TO BE SEALED ON THE BED OF THE MACHINE, AND FOLD THE FLAPS. CENTER THE BOX IN THE MACHINE AND MOVE BELT ARMS TO THE BOX AND LOCK. BRING UPPER TAPE UNIT BOX ON TOP OF THE BOX AND LOCK IN PLACE. DO NOT USE MORE PRESSURE THAN NECESSARY AS IT WILL PUT TOO MUCH STRAIN ON THE DRIVE MOTORS.

START MACHINE WITH START SWITCH LOCATED ON THE OPERATOR SIDE OF THE MACHINE. NOW THE SAMPLE BOX WILL BE TAPED AND DISCHARGED. ROTATE BOX 180° - DO NOT TURN UPSIDE DOWN. FEED BOX THROUGH MACHINE ONCE MORE. THE SECOND STRIP OF TAPE SHOULD BE APPLIED DIRECTLY OVER FIRST STRIP OF TAPE. THIS SHOWS THAT THE BELT ARMS ARE CENTERED TO THE TAPING UNITS. IF NOT, CORRECT BY SHIFTING THE BELT ARMS ONE-HALF THE AMOUNT OF THE MISALIGNED TAPE. (IF MACHINE IS SELF-CENTERING, THERE ARE ADJUSTMENT SLOTS WHERE THE LEAD SCREW MOUNTS TO THE BELT ARMS). THE UPPER TAPE UNIT MAY ALSO BE CENTERED BY ADJUSTING THE TAPE UNIT BOX THAT HOLDS THE UPPER TAPE UNIT IN THE NECESSARY DIRECTION. THE MACHINE IS NOW READY TO PROCESS BOXES.

THE PACKER SHOULD FOLD THE BOX FLAPS IN THE NORMAL MANNER AND **WHILE HOLDING THEM CLOSED ON THE REAR OF THE BOX**, HE SHOULD FEED THE BOX INTO THE MACHINE UNTIL THE BELTS TAKE IT FROM HIM. THE MACHINE WILL SEAL THE TOP AND BOTTOM FLAPS AND DISCHARGE THE BOX TO THE OUT FEED CONVEYOR AUTOMATICALLY.

MAIN FRAME

STARTER SWITCH:

THE STARTER SWITCH, MOUNTED ON THE OPERATOR SIDE OF THE MACHINE, INCORPORATES A HEATER COIL WHICH IS SET TO TRIP AT THE PROPER RATING OF THE MOTOR. TO REPLACE THIS SWITCH, FIRST DISCONNECT THE MACHINE FROM THE ELECTRICAL SUPPLY. REMOVE THE SWITCH BY LOOSENING THE TWO FASTENING SCREWS AND PULL THE SWITCH FROM THE ELECTRICAL BOX. REMOVE THE WIRES AFTER FIRST NOTING THEIR CONNECTIONS TO THE SWITCH.

TO REPLACE THE STARTER SWITCH, REVERSE THE ABOVE PROCEDURE.

BELT ARMS:

THIS SYSTEM CENTERS AND DRIVES THE BOX THROUGH THE MACHINE. THE BOX WIDTH IS SET MANUALLY BY TURNING THE HAND WHEELS LOCATED ON EACH BELT ARM ASSEMBLY. TO SET THEM, PLACE THE DESIRED BOX ON THE MACHINE BETWEEN THE BELTS, TURN THE HAND WHEELS AND MOVE THE BELT ARMS UNTIL THEY JUST TOUCH THE BOX SIDES. IF THE BOX FAILS TO DRIVE, MOVE THE BELTS SLIGHTLY CLOSER TO THE BOX. TOO MUCH PRESSURE ON THE BOX WILL PUT UNNECESSARY STRAIN ON THE DRIVE MOTORS.

EACH BELT IS POWERED BY ITS OWN MOTOR LOCATED AT THE EXIT END OF THE MACHINE. TO REPLACE THE BELTS, POWER OFF THE MACHINE AND REMOVE TWO SCREWS ON BELT GUARD; REMOVE BELT GUARD. LOOSEN NUT ON IDLER ROLLER. SLIDE IDLER ROLLER TOWARD EXIT END OF MACHINE AND REMOVE BELT BY SLIDING IDLER ROLLER TOWARD INFEED END OF MACHINE. REPLACE BELT GUARD. EACH BELT IS REPLACED SEPARATELY, HOWEVER, IT IS ADVISABLE TO REPLACE BOTH BELTS AT THE SAME TIME.

DRIVE MOTOR:

THE BELTS ARE DRIVEN BY TWO DRIVE MOTORS LOCATED AT THE EXIT END OF THE MACHINE. THE MOTORS ARE CONTROLLED BY THE STARTER SWITCH IN WHICH THE OVERLOAD IS FACTORY SET TO TRIP AT THE PROPER SETTING.

IF TROUBLE IS BEING EXPERIENCED WITH A DRIVE MOTOR, A QUALIFIED ELECTRICIAN SHOULD CHECK THE ELECTRICAL SYSTEM. STARTER SWITCH SHOULD BE CHECKED FIRST.

TO REPLACE A DRIVE MOTOR, FIRST DISCONNECT THE MACHINE FROM ELECTRICAL SUPPLY. REMOVE THE MOTOR GEAR HEAD FROM MOUNTING PLATE. REPLACE WITH NEW MOTOR USING THE WIRING DIAGRAM IN THE MOTOR JUNCTION BOX. CHECK MOTOR FOR PROPER ROTATION.

REMOVING AND REPLACING TAPE UNITS

THE TOP AND BOTTOM TAPE UNITS ARE IDENTICAL AND MAY BE INTERCHANGED. BOTH UNITS ARE REMOVABLE FROM THE MACHINE BUT ONLY THE LOWER TAPE UNIT MUST BE REMOVED TO LOAD THE TAPE. THE TOP TAPE UNIT MAY REMAIN IN PLACE WHEN LOADING TAPE.

REMOVING BOTTOM TAPE UNIT:

CAUTION: NEW HANDLING TAPE UNITS AVOID CONTACT WITH SERRATED BLADE.
IT IS VERY SHARP.

- RAISE UPPER TAPE UNIT BOX TO ITS UPPER POSITION.
- STANDING AT THE CONTROL SIDE OF THE MACHINE, GRASP TAPE UNIT AT POINTS "A" AND "B".
- LIFT TAPE UNIT CLEAR OF MACHINE.

REPLACING BOTTOM TAPE UNIT:

- REMOVE (4) SCREWS THAT ATTACH TAPE UNIT TO UPPER TAPE UNIT BOX.

REPLACING TOP TAPE UNIT:

- REVERSE ABOVE PROCEDURE.

LOADING TAPE UNITS

BOTTOM TAPE UNIT MUST BE REMOVED BEFORE PERFORMING THE FOLLOWING TASKS.

INITIAL LOADING OF TAPE:

- PUSH TAPE ROLL ONTO TAPE REEL WITH TAPE FEEDING COUNTERCLOCKWISE. TAPE ROLL SHOULD BE PUSHED TO THE BACK OF THE TAPE REEL.
- FOLD BACK ABOUT 12" (300 MM) OF TAPE, STICK IT TO ITSELF TO FORM A LEADER. THREAD TAPE AS SHOWN ON THE TAPE THREADING DIAGRAM. TAPE THREADING DIAGRAM DECAL IS LOCATED ON THE TOP AND BOTTOM TAPE UNIT FRAMES.

SPLICING PROCEDURE:

- WITH A PAIR OF SCISSORS, CUT TAPE ON EXPIRING ROLL WHERE TAPE FEEDS INTO TAPE UNIT. REMOVE BUTT ROLL OF TAPE FROM TAPE REEL.
- INSTALL A NEW ROLL OF TAPE ONTO TAPE REEL WITH TAPE FEEDING COUNTERCLOCKWISE.
- SPLICE A 1/2" LAP TO CUT END OF TAPE. PULL TAPE THROUGH TAPE UNTIL SPLICE IS OUT OF TAPE UNIT. CUT SPLICE OFF.

TAPE UNITS

TAPE REEL:

THE DRAG OF THE TAPE REEL IS ADJUSTED BY TURNING THE NUT LOCATED ON THE FRONT OF THE TAPE REEL. TURNING THE NUT CLOCKWISE OR COUNTERCLOCKWISE WILL INCREASE OR DECREASE THE DRAG. THIS ADJUSTMENT SHOULD ALWAYS BE THE MINIMUM NECESSARY TO PREVENT THE TAPE FROM OVERRUNNING. TOO MUCH DRAG, ESPECIALLY WITH STRETCHY TAPE, MAY RESULT IN POOR TAPING, BAD CUTOFFS, TAPE SNAP BACKS, OR JAMS.

WIPE DOWN ROLLERS:

THE RUBBER WIPE DOWN ROLLERS WIPE THE TAPE AS THE BOX PASSES THROUGH THE MACHINE. THE TENSION IS CONTROLLED BY THE LARGE TORSION SPRING. THIS IS FACTORY SET AND SHOULD NOT NEED ADJUSTMENT. HOWEVER, IF ADJUSTMENTS DO BECOME NECESSARY, REPOSITION THE THREADED SHAFT WHICH IS LOCATED AT ONE END OF THE SPRING.

BLADE:

IF THE BLADE SHOULD ACCUMULATE A DEPOSIT OF ADHESIVE, IT MAY BE CLEANED WITH AN OILY RAG. BE CAREFUL WHEN HANDLING THE BLADE, AS IT IS VERY SHARP. WHEN THE BLADE BECOMES DULL, IT SHOULD BE REPLACED.

FINGER AND FINGER HOLDER:

THE FINGER IS LOCATED ON THE FRONT WIPE DOWN ROLLER ARM. ITS FUNCTION IS TO KEEP THE TAPE ERECT. THE FINGER HOLDERS ARE MAINTAINED IN THE PROPER POSITION BY THE GUIDE SPRING. IF THE TAPE IS CURLING ONTO ITSELF, CHECK FITNESS OF GUIDE SPRING, AND REPLACE IF NECESSARY.

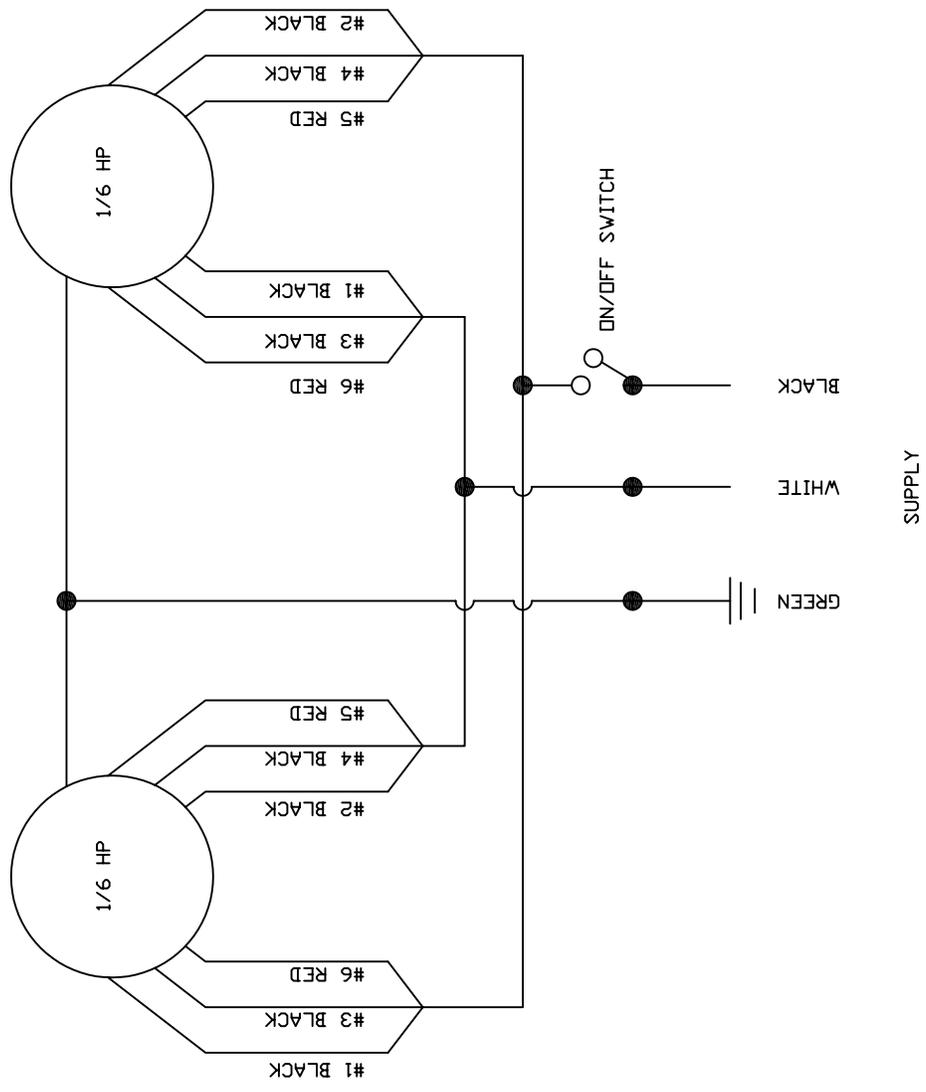
UPPER TAPE UNIT BOX

THE TAPE UNIT BOX IS SUPPORTED BY TWO SHAFTS THAT RIDE ALONG THE COLUMNS MOUNTED ON EACH SIDE OF THE MACHINE. THE HEIGHT IS ADJUSTED BY LOOSENING THE TWO HAND WHEELS AND RAISING OR LOWERING THE TAPE UNIT BOX TO THE DESIRED HEIGHT, TIGHTEN THE HAND WHEELS.

ELECTRICAL SYSTEM

THE ELECTRICAL SYSTEM CONSISTS OF TWO FRACTIONAL HP DRIVE MOTORS AND THE STARTER SWITCH. THE MOTORS AND FRAME ARE GROUNDED THROUGH THE ELECTRICAL CONNECTOR.

THE CIRCUIT BREAKER IS FACTORY SET. IF IT TRIPS, FIRST CHECK THE BELT ARM PRESSURE AND ADJUST IF NECESSARY. IF THE CIRCUIT BREAKER TRIPS AGAIN, A QUALIFIED TECHNICIAN SHOULD CHECK THE ELECTRICAL SYSTEM, THEN RESET THE CIRCUIT BREAKER.



MAINTENANCE SCHEDULE

- BELT ARM SHAFTS SHOULD BE CLEANED AND LIGHTLY OILED WEEKLY.
- BLADES SHOULD BE CLEANED DAILY WITH A CLEANING SOLUTION.
- COLUMNS SHOULD BE OILED WEEKLY.
- BELTS SHOULD BE CHECKED MONTHLY FOR WEAR, REPLACE WHEN NECESSARY.

TROUBLE - SHOOTING

TAPING DIFFICULTIES:

TAPE DOES NOT ADHERE WELL TO BOX:

1. CHECK THAT BOX IS NOT WAXY OR OILY.
2. CHECK THAT BOX IS PROPERLY CUT AND SCORED SO THAT FLAPS DO NOT OVERLAP. IF THE TAPE ADHERES TO THE TOP AND BOTTOM BUT NOT TO THE END PANELS, THE BOX MAY BE SKEWED FORMING A PARALLELOGRAM. IF THIS CONDITION EXISTS, BRING IT TO THE ATTENTION OF YOUR BOX SUPPLIER.
3. CHECK THE PRESSURE ON THE WIPE DOWN ROLLERS. INCREASE THE TENSION OF THE TORSION SPRING. CHECK THAT SPRING IS NOT BROKEN.
4. CHECK BOX FOR CLAY CONTENT. TOO MUCH RECYCLING WILL RAISE CLAY CONTENT TOO HIGH FOR TAPE TO ADHERE PROPERLY.

TAPE END STICKS TO ITSELF OR MECHANISM:

1. CHECK THAT THERE IS NO TOO MUCH DRAG ON THE TAPE CAUSING STRETCHING AND SNAPBACK AT CUTOFF. REDUCE THE TAPE REEL DRAG SETTING.
2. CHECK THE TAPE THREADING PATH. SEE TAPE THREADING DIAGRAM.
3. CHECK FOR DEFECTIVE TAPE ROLL BY PULLING OFF TAPE MANUALLY. THE PULL SHOULD BE EVEN AND SHOULD NOT VARY SUDDENLY.

TAPE BREAKS OR JAMS:

1. CHECK THE TAPE BY PULLING OFF MANUALLY. THE PULL SHOULD BE EVEN AND SHOULD NOT VARY SUDDENLY. CHECK THE TAPE REEL DRAG SETTING.
2. CHECK ONE-WAY CLUTCH ROLLER TENSION, ADJUST IF NECESSARY.
3. CHECK THE TAPE THREADING PATH. SEE TAPE THREADING DIAGRAM.
4. CHECK FOR NICKS IN EDGE OF TAPE ROLL. PULL OFF DAMAGED TAPE.

TAPE WRINKLES:

1. CHECK THE TAPE BY PULLING OFF MANUALLY. THE PULL SHOULD BE EVEN AND SHOULD NOT VARY SUDDENLY.
2. CHECK ONE-WAY CLUTCH ROLLER TENSION, ADJUST IF NECESSARY.

TROUBLE-SHOOTING, CONT'D

3. CHECK THE PRESSURE OF THE WIPE DOWN ROLLERS. TOO MUCH OR NOT ENOUGH PRESSURE MAY CAUSE WRINKLES. PRESSURE THAT IS TOO HIGH MAY DEPRESS THE FLAPS CAUSING PROBLEMS. ADJUST THE PRESSURE, IF NECESSARY.
4. CHECK THAT THE ROLLERS TURN FREELY ON THEIR SHAFTS.
5. CHECK THE CONTENTS OF THE BOX. PARTIALLY FULL BOXES OR VERY COMPRESSIBLE CONTENTS MAY ALLOW THE FLAPS TO DEPRESS EXCESSIVELY CAUSING WRINKLES.
6. CHECK THE DRAG OF THE TAPE. TOO MUCH DRAG MAY CAUSE PROBLEMS. TOO LITTLE DRAG MAY CAUSE OVERRUNNING OF THE TAPE ROLL. ADJUST THE TAPE REEL DRAG SETTING.
7. CHECK THAT THE TAPE IS PROPERLY THREADED AND THE TAPE CORE IS PROPERLY CENTERED.
8. CHECK THE PRESSURE OF THE UPPER TAPE UNIT BOX AGAINST THE BOX. IF THE PRESSURE IS INSUFFICIENT, THE BOX MAY SLIP AGAINST THE BELTS AND HESITATE AS IT IS BEING FED THROUGH THE MACHINE.
9. CHECK THAT THE BELTS ARE NOT SLIPPING.
10. CHECK ADJUSTMENT OF THE FINGER HOLDER.

BOX PROBLEMS:

BOXES JAMMING IN MACHINE:

1. STOP MACHINE.
2. OPEN BELT ARMS AND RAISE THE UPPER TAPE UNIT BOX.
3. REMOVE JAMMED BOX. CUT TAPE FLUSH WITH END OF ROLLERS.
4. RESET THE UPPER TAPE UNIT BOX HEIGHT AND BELT ARMS TO THE SIZE OF A SAMPLE BOX.
5. RESTART MACHINE. MACHINE IS NOW READY TO PROCESS THE NEXT BOX.

INCORRECT BOX SIZE OR SHAPE:

1. CHECK BOXES TO MAKE SURE THE SIZE FALLS WITHIN THE LIMITS OF THE MACHINE.
2. MACHINE WILL NOT PROCESS UNSTABLE BOXES.

TROUBLE-SHOOTING, CONT'D

CONTENTS BULGING THROUGH TOP OF BOX:

1. CHECK TO BE SURE THE BOX IS NOT OVERFILLED WITH CONTENTS. TALLER BOXES MAY REQUIRE SQUEEZERS, CONSULT FACTORY.

BOX SLIPPING AGAINST BELTS:

1. INCREASE BELT PRESSURE.

BOX BEING CLAMPED BY BELT ARMS:

1. OPEN BELT ARMS SLIGHTLY TO REDUCE PRESSURE ON BOX.

BOX BEING CRUSHED BY UPPER TAPE UNIT BOX:

1. RAISE UPPER TAPE UNIT BOX SLIGHTLY TO REDUCE PRESSURE ON BOX.
2. ROLLER TENSION MAY BE TOO HIGH, REDUCE TENSION WITH THREADED SCREW MOUNTED TO SPRING.

BELT DRIVE PROBLEMS:

BELTS DO NOT MOVE:

1. CHECK THAT MACHINE IS CONNECTED TO A LIVE ELECTRICAL SOURCE.

BELTS SLIP:

1. CHECK TENSION OF BELTS AND ADJUST IDLER ROLLERS.

**ILLUSTRATED REPLACEMENT PARTS
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MAIN FRAME ASSEMBLY

FRAME ASSEMBLY

HEAD ASSEMBLY

COLUMN ASSEMBLY

BELT ARM ASSEMBLY

SELF-CENTERING ASSEMBLY

TOP SQUEEZER ASSEMBLY

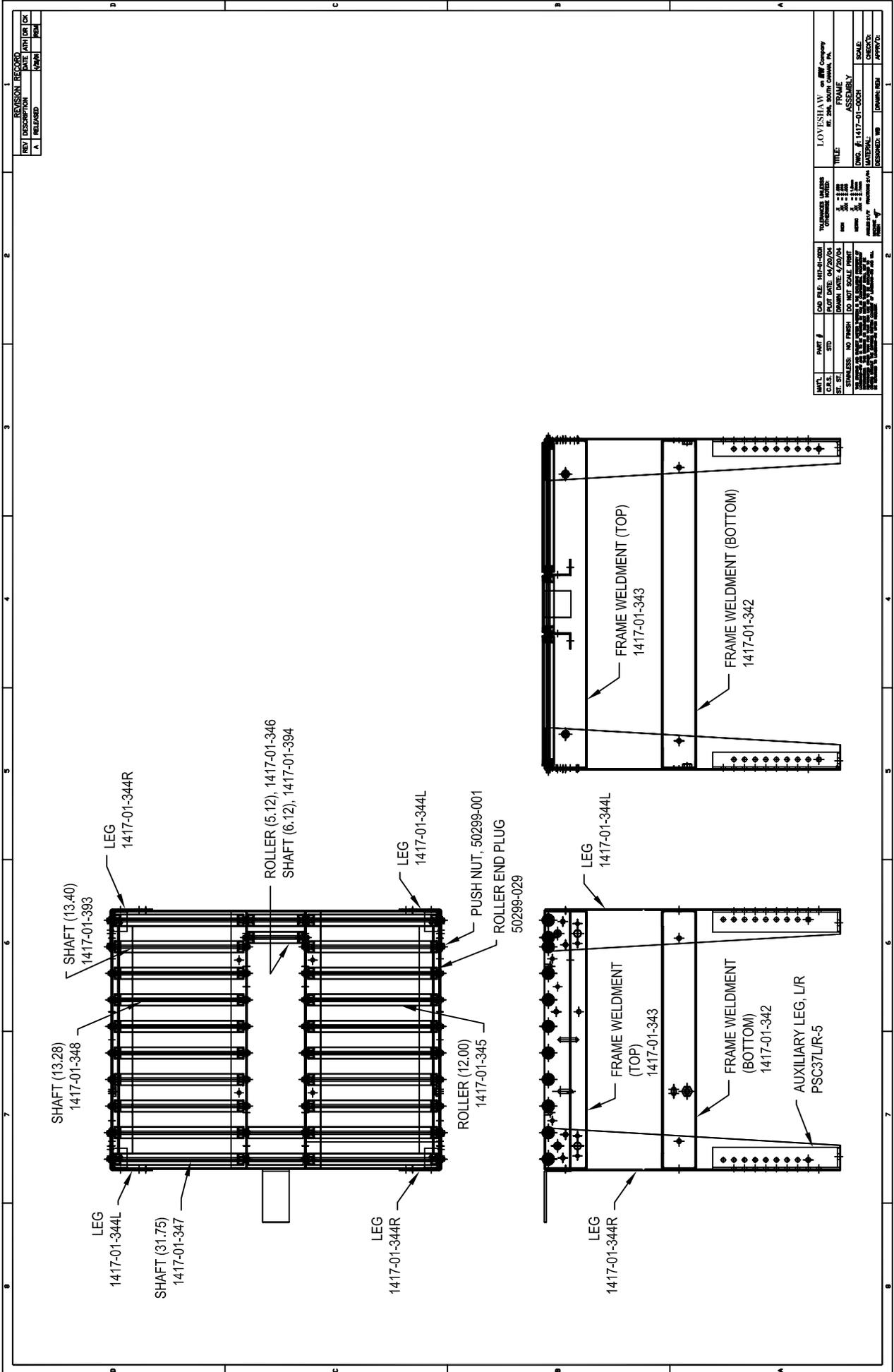
INFEEED TABLE ASSEMBLY

ABAL TAPE CARTRIDGE - 2"

OPTIONAL ASSEMBLIES

EXIT TABLE ASSEMBLY

FRAME ASSEMBLY



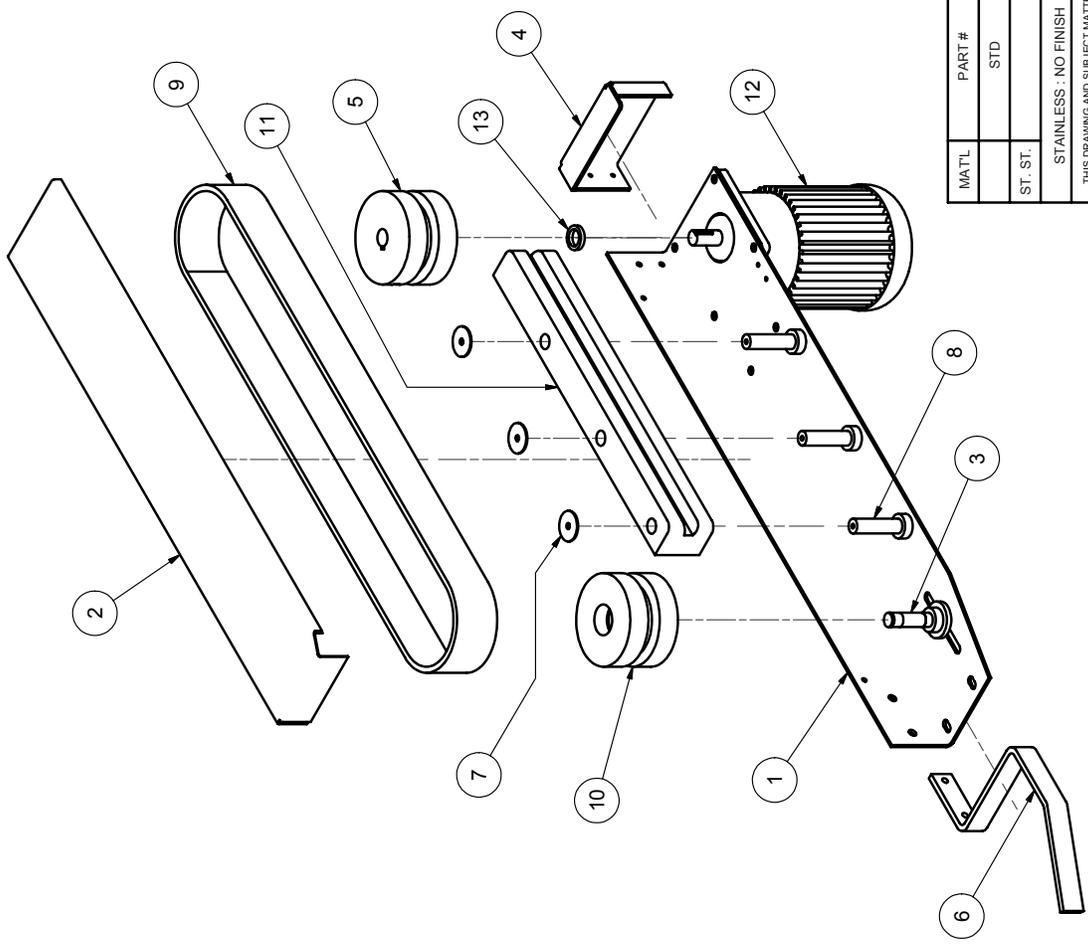
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A	RELEASED			

REV	DATE	BY	CHK	DESCRIPTION
1				ISSUED FOR FABRICATION

DESIGNED BY	LOVESHIA W.
CHECKED BY	LOVESHIA W.
DATE	01/17/2018
SCALE	ASSEMBLY
DWG. NO.	1417-01-0000
TITLE	FRAME ASSEMBLY
COMPANY	RFI COMPANY
ADDRESS	1000 W. 10TH ST. SUITE 100
CITY	ROCKY HILL, CT
STATE	CT
COUNTRY	USA

1 2 3 4

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	6/26/2006	AMJR



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	1417-04-331L	BELT ARM LEFT
N/S	1	1417-04-331R	BELT ARM RIGHT
2	1	1417-04-337-1	BELT GUARD
N/S	1	1417-04-337-2	BELT GUARD M.I.
3	2	1417-04-336	SHAFT (IDLER ROLLER)
4	1	1417-04-332L	BELT GUARD REAR LEFT
N/S	1	1417-04-332R	BELT GUARD REAR RIGHT
5	2	3SB2-2253-4	DRIVE ROLLER
6	2	1417-04-338	INFEED GUIDE
7	6	1417-04-341	WASHER (BELT ROLLER)
8	6	1417-04-340	SHAFT (BELT ROLLER)
9	2	LD3SB2-2004-4	BELT
10	2	3SB2-2254-4	IDLER ROLLER
11	2	3SB2-2255-4	BACKER BELT
12	1	MTR-1012L	GEAR MOTOR LEFT
N/S	1	MTR-1012R	GEAR MOTOR RIGHT
13	2	3SB2-2265-3	DRIVE ROLLER SPACER RING

LOVESHAW an <i>ITW</i> Company RT. 296, SOUTH CANAAN, PA.	
TOLERANCES UNLESS OTHERWISE NOTED:	TITLE
X = ±.050	BELT ARM ASSEMBLY (V-GROOVE)
INCH .XX = ±.015	ANGLES ±.12°
.XXX = ±.005	DWG NO
	MACH. FINISH
	MATERIAL
	DRAWN
	AMJR
	APPROVED
	SCALE
	CHECKED
	APPROVED

STAINLESS : NO FINISH

DO NOT SCALE PRINT

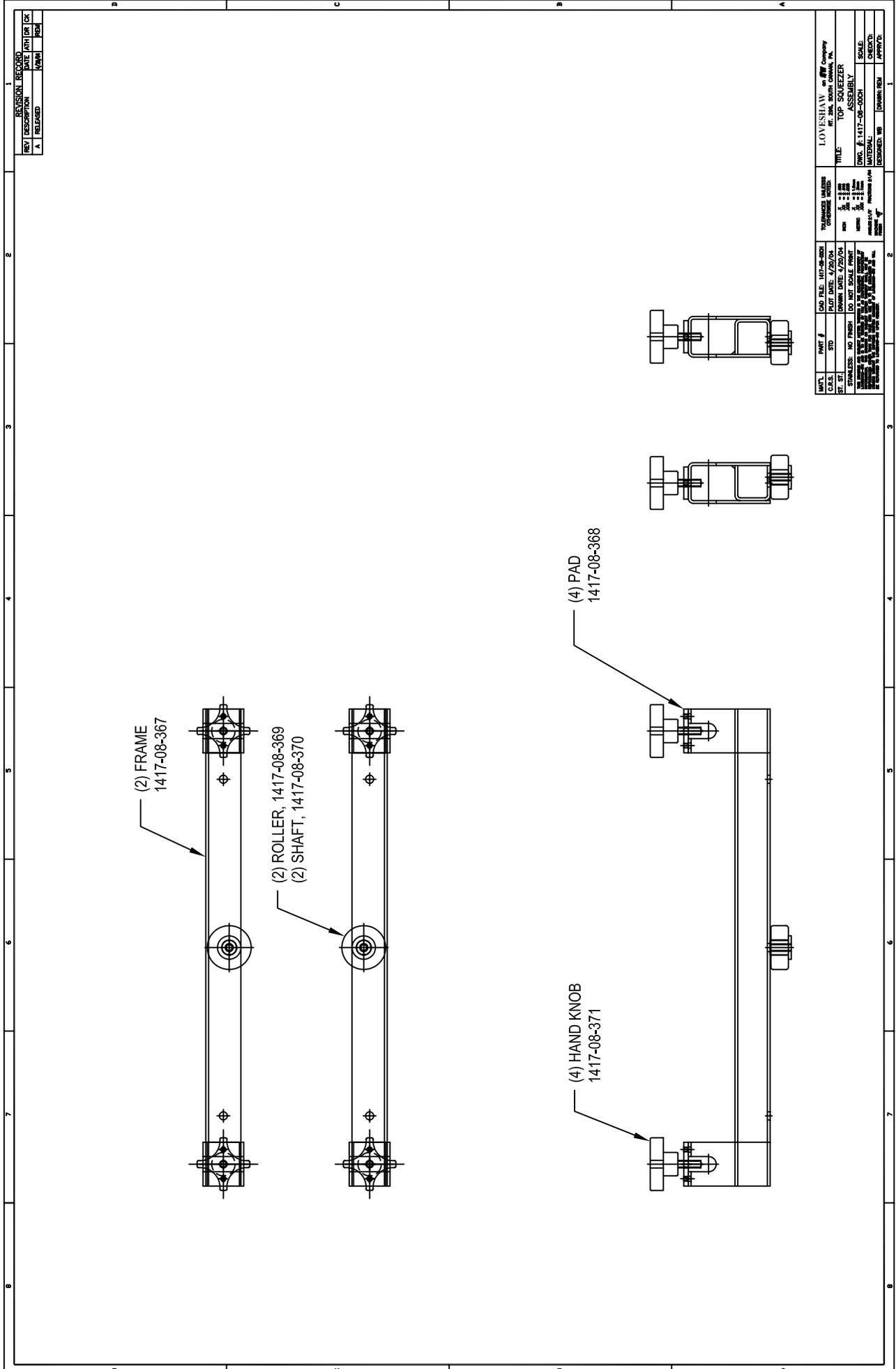
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1 2 3 4

B B

A A

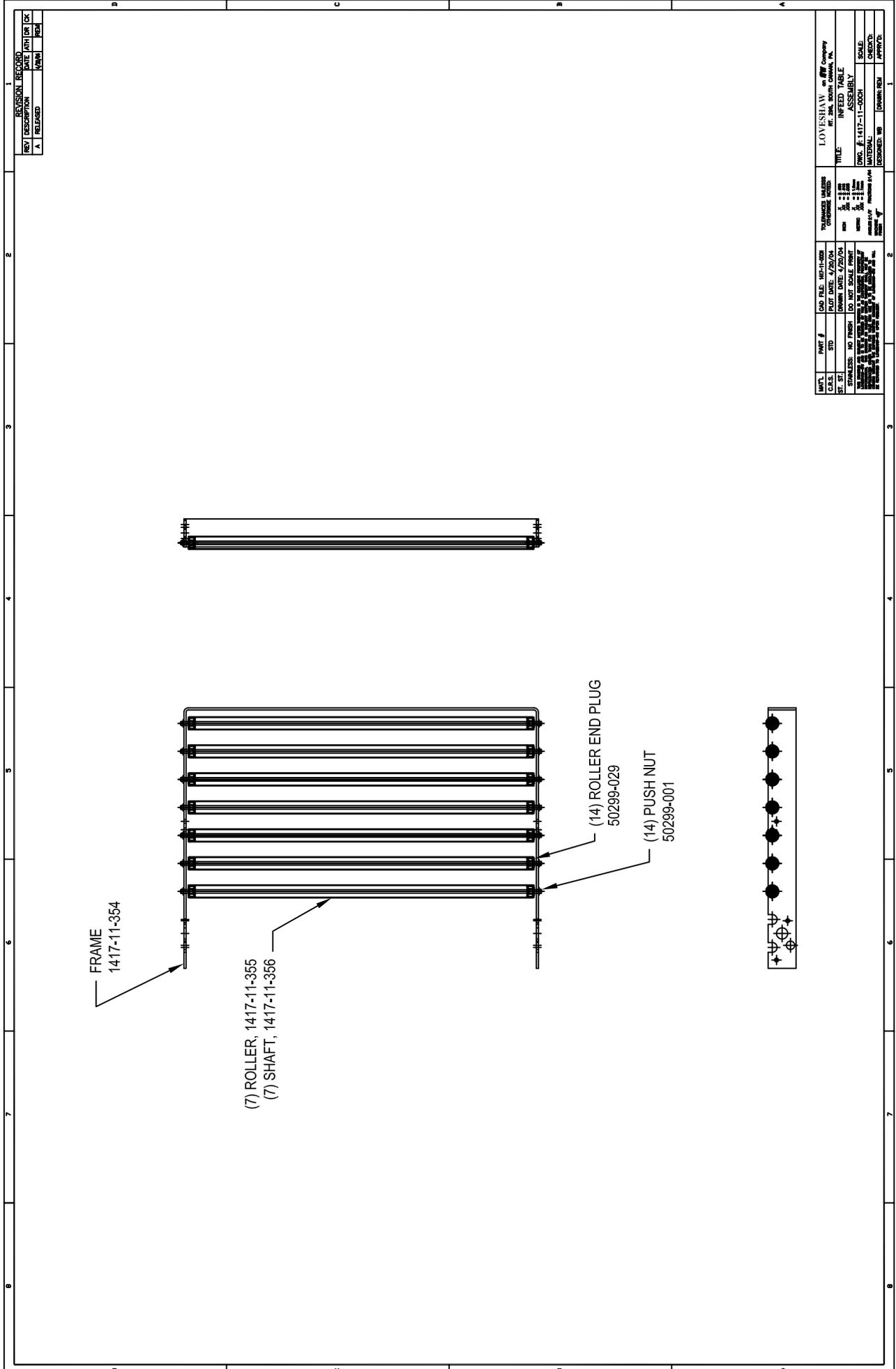
TOP SQUEEZER ASSEMBLY



REVISION RECORD		DATE	BY	CHK
REV	DESCRIPTION			
A	RELEASED			

UNTL	PART #	QTY	DATE FILED	DESIGNED BY	LOVESHAW	COMPANY
CALS	STD		PILOT DATE	CHANGED BY	ET. SAK. SOUTH OMAHA, IA	
BT	NO FINISH		ISSUE DATE			
STRAKES			DO NOT SCALE PRINT			
SCALE			DATE			
TITLE						
SUBTITLE						
DRAWN BY						
CHECKED BY						
APPROVED BY						

INFEED TABLE



REVISION RECORD		DATE	BY	CHK
REV	DESCRIPTION			
A	RELEASED			

UNTL	PART #	CAD FILE	1417-11-001	TOLERANCES UNLESS OTHERWISE NOTED	LOVESHAW on Company		
CALS	STD	PLOT DATE	4/29/04		BY: DSK, DSKM, DSKMM, PK		
BT	BT	DRAWN DATE	4/29/04		TITLE	INFEED TABLE	
STRAKES		DO NOT SCALE PRINT			ASSEMBLY		
DRAWN BY: DSK, DSKM, DSKMM, PK					DWG. #	1417-11-001	
CHECKED BY: DSK, DSKM, DSKMM, PK					MATERIAL	SEE PARTS	
APPROVED BY: DSK, DSKM, DSKMM, PK					ISSUED	DATE	
					ISSUED	NO	DATE
					ISSUED	NO	DATE

FRAME
1417-11-354

(7) ROLLER, 1417-11-355
(7) SHAFT, 1417-11-356

(14) ROLLER END PLUG
50299-029

(14) PUSH NUT
50299-001



ABAL

OWNERS MANUAL



1500-00-04CH

ABAL AUTO. TAPE UNIT 2"

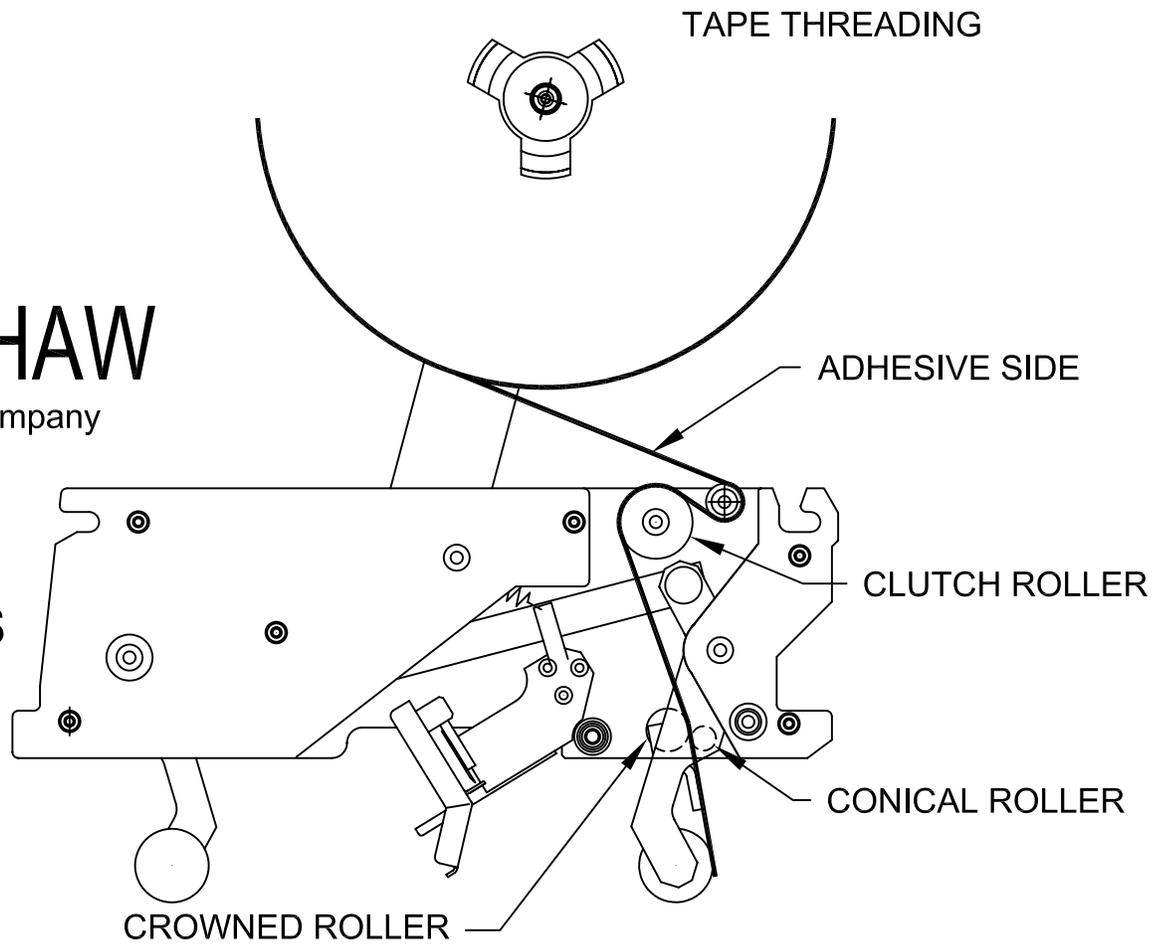
THE LOVESHAW CORPORATION
2206 EASTON TURNPIKE, BOX 83
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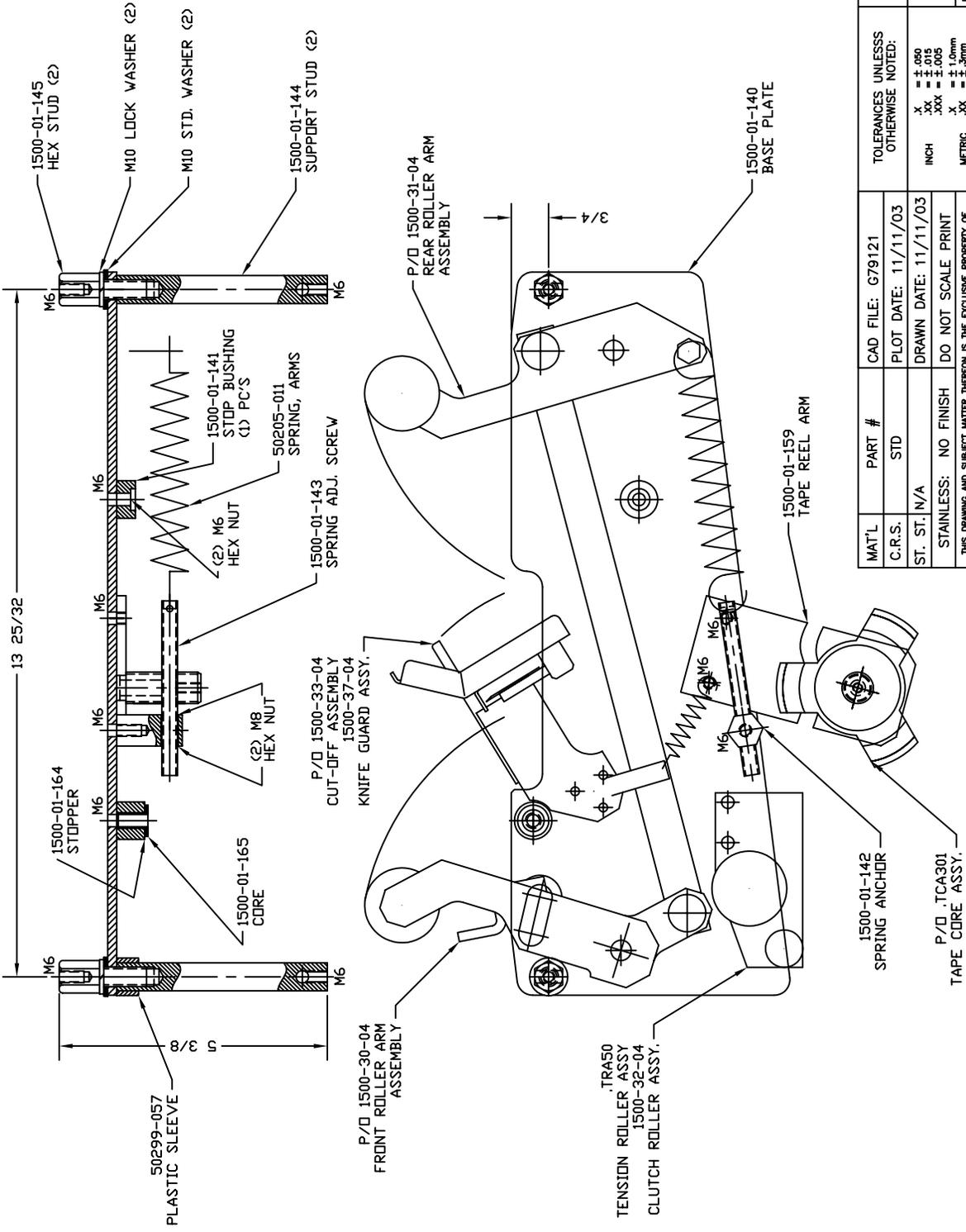
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ANDOVER, HAMPSHIRE SP103SL
ENGLAND
44-264-3575-11

LOVESHAW
an ITW Company

ABAL SERIES



REVISION RECORD			
REV	DESCRIPTION	DATE	ATH
A	RELEASED	11/11/03	WB



MAT'L	PART #	CAD FILE:	G79121
C.R.S.	STD	PLOT DATE:	11/11/03
ST. ST.	N/A	DRAWN DATE:	11/11/03
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TOLERANCES UNLESS OTHERWISE NOTED:		INCH .XX = ±.050 .XXX = ±.015 .XXX = ±.005 .X = ±.000 .X = ±.000 .XXX = ±.1mm .XXX = ±.1mm	
ANGLES ±1/2°		FRACTIONS ±1/64	
MACHINE FINISH		APPROV'D:	

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

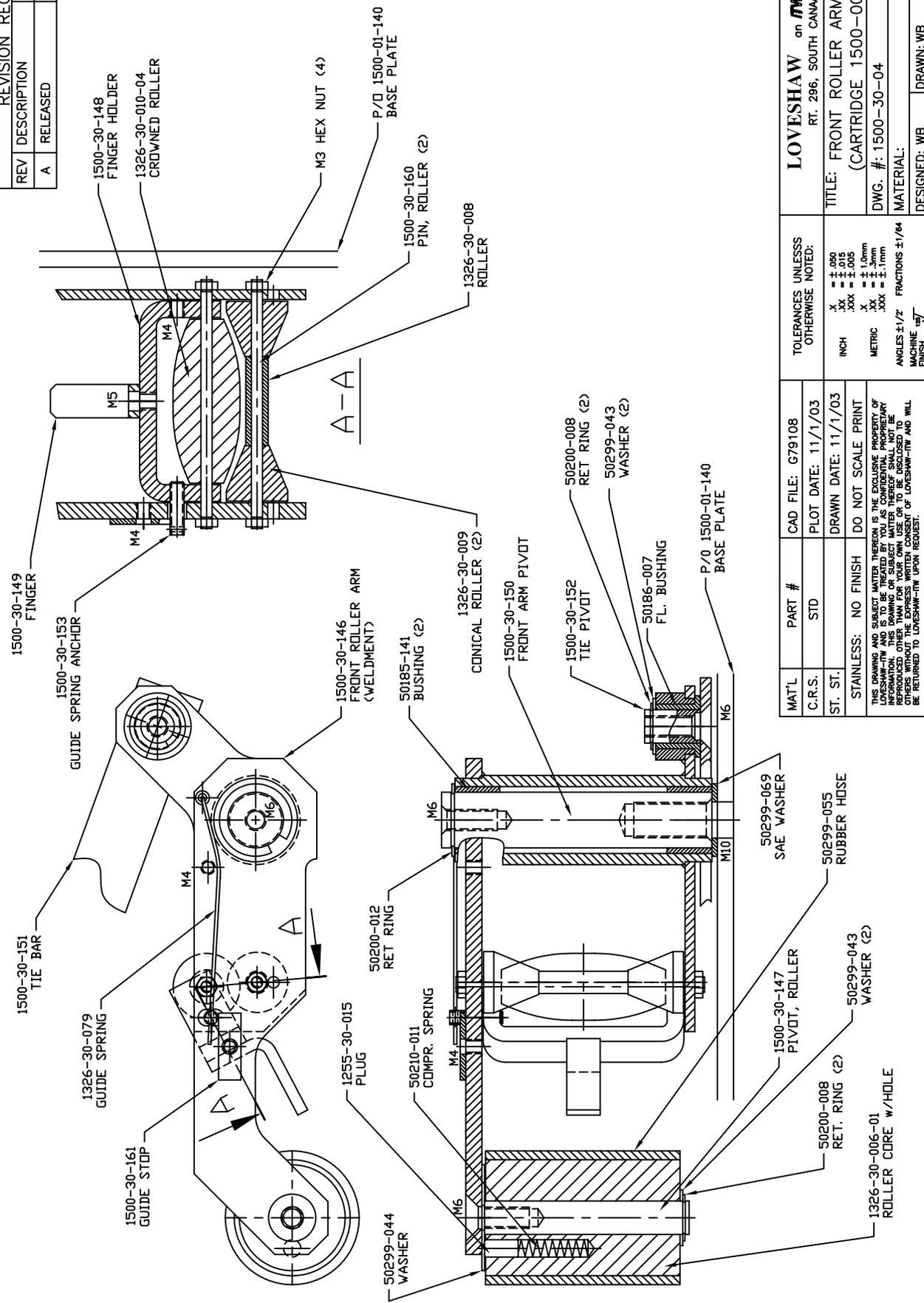
TITLE: BASE ASSEMBLY
 (CARTRIDGE 1500-00-04CH)

DWG. #: 1500-01-04

MATERIAL: SCALE: 1:2

DESIGNED: WB DRAWN: WB

REVISION RECORD			
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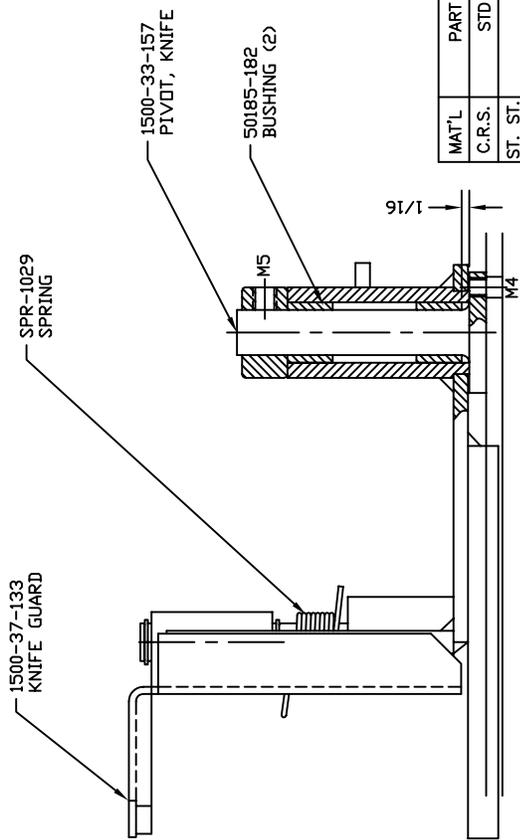
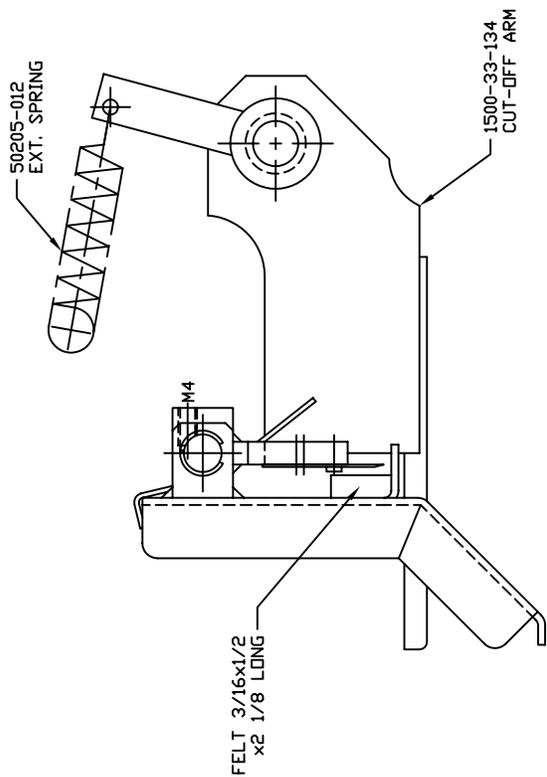
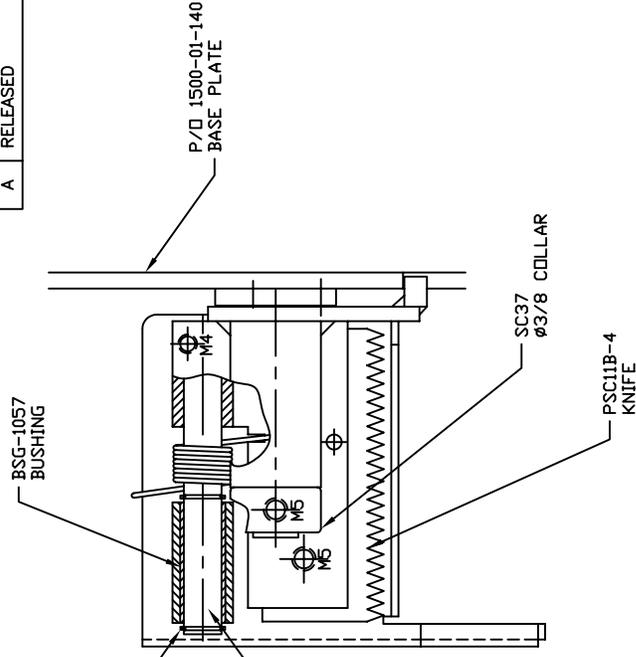


MAT'L	PART #	CAD FILE:	G79108
C.R.S.	STD	PLOT DATE:	11/1/03
ST. ST.		DRAWN DATE:	11/1/03
STAINLESS: NO FINISH		DO NOT SCALE PRINT	
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TOLERANCES UNLESS OTHERWISE NOTED:	
INCH	<ul style="list-style-type: none"> X = ± .050 XX = ± .015 XXX = ± .005 Ø = ± .00mm Ø = ± .01mm Ø = ± .1mm
METRIC	<ul style="list-style-type: none"> X = ± .050 XX = ± .015 XXX = ± .005 Ø = ± .00mm Ø = ± .01mm Ø = ± .1mm
ANGLES ± 1/2° FRACTIONS ± 1/64	
MACHINE FINISH	

LOVESHAW an ITW Company	
RT. 296, SOUTH CANAAN, PA.	
TITLE: FRONT ROLLER ARM ASSY. (CARTRIDGE 1500-00-04CH)	
DWG. #:	1500-30-04
MATERIAL:	
SCALE:	1:1
CHECK'D:	
DESIGNED:	WB
DRAWN:	WB
APPR'D:	

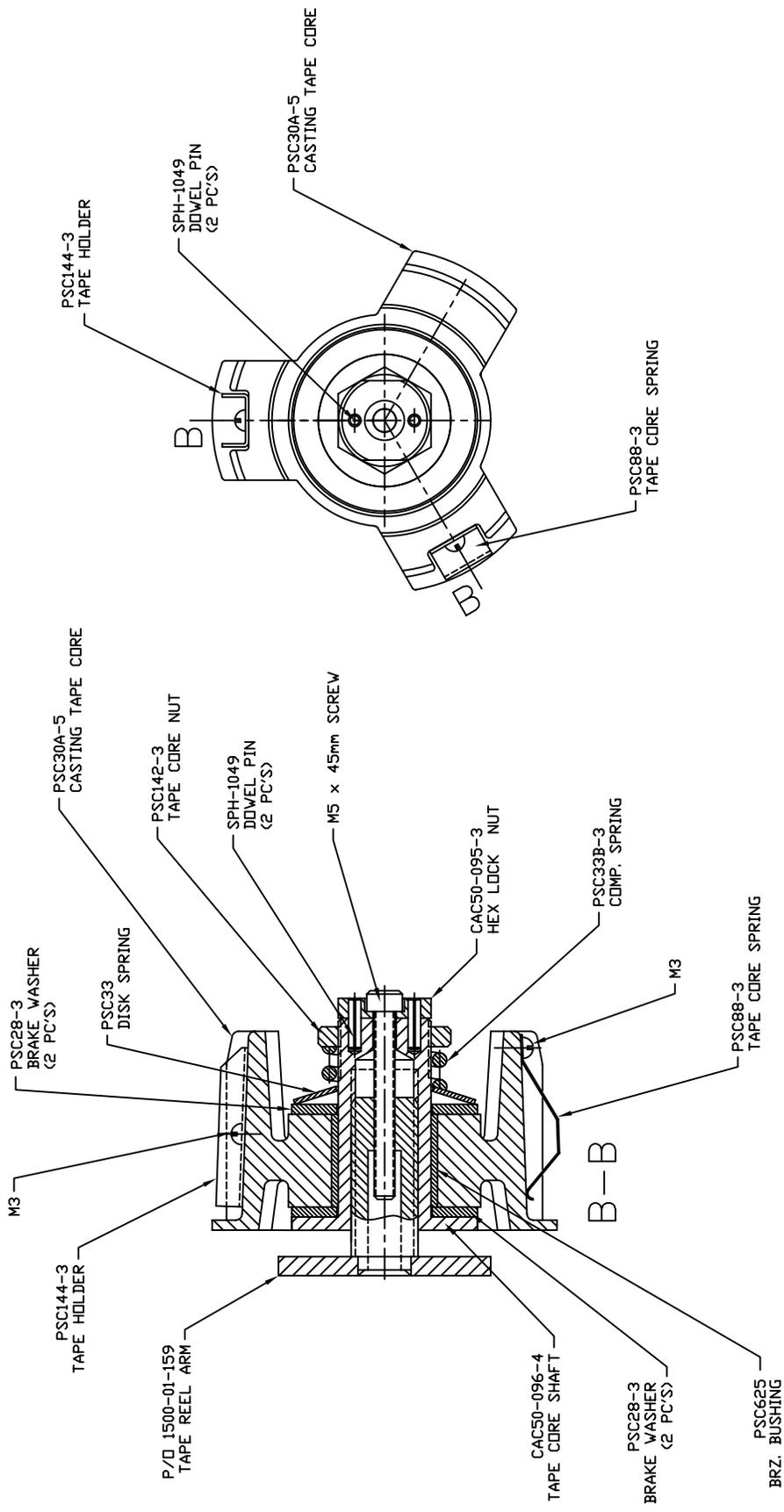
REVISION RECORD				
REV	DESCRIPTION	DATE	ATH	DR CK
A	RELEASED	10/20/03		WB



THIS ASSEMBLY INCLUDES KNIFE GUARD
SUBASSEMBLY - 1500-37-04.

MAT'L	PART #	CAD FILE:	G79099
C.R.S.	STD	PLOT DATE:	10/20/03
ST. ST.		DRAWN DATE:	10/20/03
STAINLESS: NO FINISH			
DO NOT SCALE PRINT			
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LOVESHAW an ITW Company		RT. 296, SOUTH CANAAN, PA.	
TOLERANCES UNLESS OTHERWISE NOTED:		TITLE: CUT-OFF ASSEMBLY (CARTRIDGE 1500-00-04CH)	
INCH		DWG. #: 1500-33-04	
METRIC		SCALE: 1:1	
ANGLES ±1/2°		MATERIAL:	
MACHINE FINISH		DESIGNED: WB	
		DRAWN: WB	
		APPRVD:	

REVISION RECORD			
REV	DESCRIPTION	DATE	ATH
A	RELEASED	12/12/03	WB



MAT'L	PART #	CAD FILE:	G79300
C.R.S.	STD	PLOT DATE:	12/12/03
ST. ST.	.TCA301SS	DRAWN DATE:	12/12/03
STAINLESS: NO FINISH			
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TOLERANCES UNLESS OTHERWISE NOTED:		DO NOT SCALE PRINT	
INCH		X .000 = ±.000	
XX .000 = ±.005		X .000 = ±.005	
XXX .000 = ±.010		X .000 = ±.010	
METRIC		X .000 = ±.000	
XX .000 = ±.005		X .000 = ±.005	
XXX .000 = ±.010		X .000 = ±.010	
ANGLES ±1/2°		FRACTIONS ±1/64	
MACHINE FINISH		APPROV'D:	

LOVESHAW an ITW Company		RT. 296, SOUTH CANAAN, PA.	
TITLE:		TAPE CORE ASSY 2" (2" CARTRIDGE)	
DWG. #:		.TCA301	
MATERIAL:		SCALE: 1:1	
DESIGNED: WB		DRAWN: WB	
CHECK'D:		APPRV'D:	

----- OPTIONAL ASSEMBLIES -----

WARRANTY

THIS WARRANTY IS MADE EXCLUSIVE OF ALL OTHER WARRANTIES AND GUARANTEES, WRITTEN, OR ORAL, EXPRESSED OR IMPLIED.

THE ONLY OBLIGATION OF THE MANUFACTURER AND SELLER OF

THE ABAL CENTURION 100CH

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