

LITTLE DAVID

OWNERS MANUAL



CAC60 / CAC61series

(Standard & High Speed)

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Part and Instruction Manual

Loveshaw Pressure Sensitive Tape Cartridge

CAC60 series – 2” wide tape

CAC61 series – 3” wide tape

This is a combined manual for the CAC60 series – 2” wide tape and the CAC61 series – 3” wide tape. Take care when ordering parts. Make sure it is for the correct width cartridge.

For stainless steel cartridge parts add the suffix “SS” to the part numbers depicted in the assembly drawings.

Theory of Operation: (Standard)

Pressure sensitive tape is applied to the corrugated box as it passes by the cartridge. The box will contact the front arm roller which has pressure sensitive tape adhesive side facing outward towards the oncoming box. The front leading side of the box will contact the front roller arm and the tape will adhere to the box. As the box continues to move forward the front roller arm and knife arm will be rotated into the frame of the cartridge. The amount of force exerted on the box as tape is being applied is adjustable by changing the position of the main spring. The front arm initial application force can be set to accommodate the strength of the box as well as the sturdiness of the contents in the box.

As the front arm application roller transitions from the leading panel of the box to the top major flaps the knife arm is retracted into the cartridge and the knife blade guard is fully retracted uncovering the blade. As the knife arm rotated into the cartridge the knife activation spring extends, generating cut force.

As the box proceeds pass the cartridge the front arm roller will no longer contact the major flaps of the box, but the rear wipe roller will still contact the major flaps. Eventually as the box travels the knife arm will completely stop contacting the major flaps of the box. This will allow the knife arm to travel back towards its home position allowing the knife blade to puncture and cut through the tape. As the box continues move the rear wipe arm roller will no longer contact the major flaps of the box. This will allow the wipe arm roller to spring out of the cartridge and contact the rear tab length of tape and press against the trailing panel of the box.

The box travelling pass the cartridge is the vehicle which pulls the tape through the cartridge. The cartridge is design to run most pressure sensitive tapes with no required adjustments. However in some cases it may be necessary to adjust tape tensions. The cartridge will operate at speeds up to 80 feet/minute.

Theory of Operation: (High Speed)

Pressure sensitive tape is applied to the corrugated box as it passes by the cartridge. The box will contact the front arm roller which has pressure sensitive tape adhesive side facing outward towards the oncoming box. The front leading side of the box will contact the front roller arm and the tape will adhere to the box. As the box continues to move forward the front roller arm and knife arm will be rotated into the frame of the cartridge. The amount of force exerted on the box as tape is being applied is adjustable by changing the position of the main spring. The front arm initial application force can be set to accommodate the strength of the box as well as the sturdiness of the contents in the box.

As the front arm application roller transitions from the leading panel of the box to the top major flaps a separate wipe down spring is engaged. The sole purpose of this spring is to add speed to the rear wipe roller actuation to insure the rear tape tab is completely wiped to the rear trailing panel of the box. At this time the knife arm is retracted into the cartridge and the knife blade guard is fully retracted uncovering the blade. As the knife arm rotated into the cartridge the knife activation spring extends, generating cut force.

As the box proceeds pass the cartridge the front arm roller will no longer contact the major flaps of the box, but the rear wipe roller will still contact the major flaps. Eventually as the box travels the knife arm will completely stop contacting the major flaps of the box. This will allow the knife arm to travel back towards its home position allowing the knife blade to puncture and cut through the tape. As the box continues move the rear wipe arm roller will no longer contact the major flaps of the box. This will allow the wipe arm roller to spring out of the cartridge and contact the rear tab length of tape and press against the trailing panel of the box. The rear wipe arm roller booster spring starts the wipe and the main cartridge spring finishes the wipe sequence.

The box travelling pass the cartridge is the vehicle which pulls the tape through the cartridge. The cartridge is design to run most pressure sensitive tapes with no required adjustments. However in some cases it may be necessary to adjust tape tensions. The cartridge will operate at speeds up to 170 feet/minute.

Theory of Operation: (Pneumatic Cartridge)

Pressure sensitive tape is applied to the corrugated box as it passes by the cartridge. The box will contact the front arm roller which has pressure sensitive tape adhesive side facing outward towards the oncoming box. The front leading side of the box will contact the front roller arm and the tape will adhere to the box. As the box continues to move forward the front roller arm and knife arm will be rotated into the frame of the cartridge. At this box position the leading edge of the box will trigger a photo eye. The photo eye will energize a solenoid valve which will switch air pressure to the two cylinders in the tape cartridge. One cylinder acts against or balance out the knife arm spring the other acts against or balances out the main spring that biases the front roller arms. The amount of force the biased arms place on top of the box can be adjust with and air regulator. The front arm initial application force can be set to accommodate the strength of the box as well as the sturdiness of the contents in the box.

As the front arm application roller transitions from the leading panel of the box to the top major flaps a separate wipe down spring is engaged. The sole purpose of this spring is to add speed to the rear wipe roller actuation to insure the rear tape tab is completely wiped to the rear trailing panel of the box. At this time the knife arm is retracted into the cartridge and the knife blade guard is fully retracted uncovering the blade. As the knife arm rotated into the cartridge the knife activation spring extends, generating cut force.

As the box proceeds pass the cartridge the front arm roller will no longer contact the major flaps of the box, but the rear wipe roller will still contact the major flaps. At this point the box will move past the photo eye the engaged the pneumatic balance. The solenoid valve will de-energize and all of the air pressure will be evacuated and the normal spring biasing will apply pressure to the box. Eventually as the box travels the knife arm will completely stop contacting the major flaps of the box. This will allow the knife arm to travel back towards its home position allowing the knife blade to puncture and cut through the tape. As the box continues to move the rear wipe arm roller will no longer contact the major flaps of the box. This will allow the wipe arm roller to spring out of the cartridge and contact the rear tab length of tape and press against the trailing panel of the box. The rear wipe arm roller booster spring starts the wipe and the main cartridge spring finishes the wipe sequence.

The box travelling pass the cartridge is the vehicle which pulls the tape through the cartridge. The cartridge is design to run most pressure sensitive tapes with

no required adjustments. However in some cases it may be necessary to adjust tape tensions. The cartridge will operate at speeds up to 170 feet/minute.

Important Safety Notices:

Before installing operating or servicing the tape cartridges read carefully and understand the following precautions:

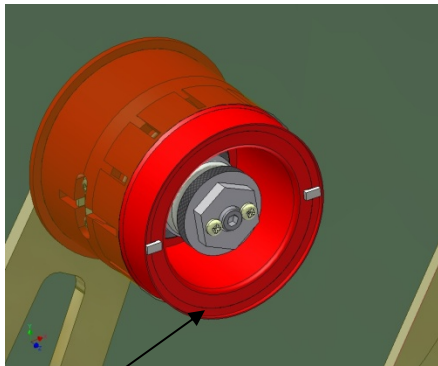
- **Never service the tape cartridges when installed in an operating machine.**
- **Use lock out / tag out protocols before installing or removing cartridges from machinery.**
- **Do not bypass or remove safety guard on knife blade.**
- **Observe caution when near tape cartridge knife. The knife blade is protected by a locking cover which is held closed by the link bar.**
- **Never make any adjustments to the tape cartridges when installed in an operating machine.**

Tape Threading:

The first step is to place the tape roll, on the cartridge expandable tape core. The tape core diameter is adjustable by turning the adjustor nut. Turning the adjustor nut c.w. the core diameter increases and turning it c.c.w. the tape core diameter decreases. Decrease the tape core enough in order to place the tape roll on the core. Now turn the adjustor nut clockwise until the tape roll is snugly held. (refer to figure1)

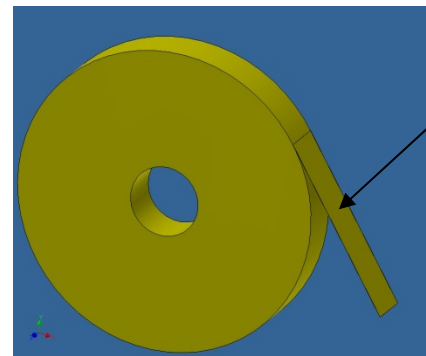
Tape roll must be placed on tape core with adhesive side of tape facing to the right. Refer to figure 2 for proper orientation.

Figure 1



Adjustor
nut

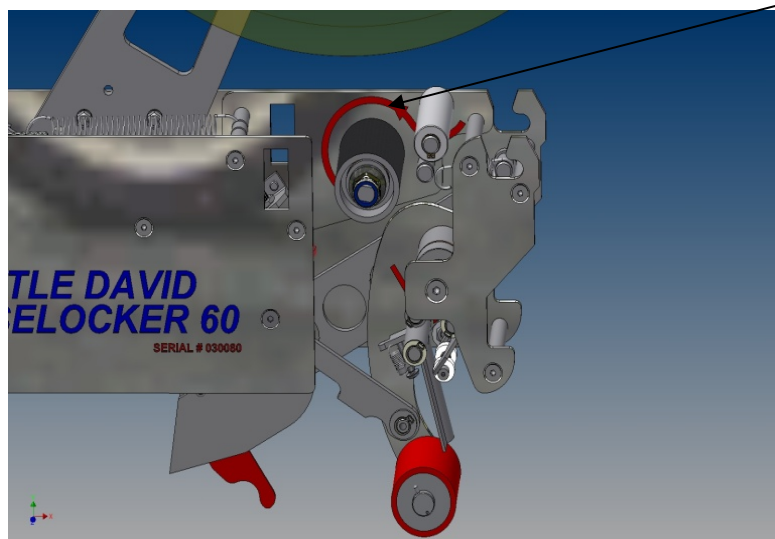
Figure 2



Adhesive
side

Thread the tape over white roller. Threading arrows are installed throughout the tape path of the cartridge to aid in threading. The back of the tape, the non adhesive side rides against the surface of the white roller. (refer to figure 3)

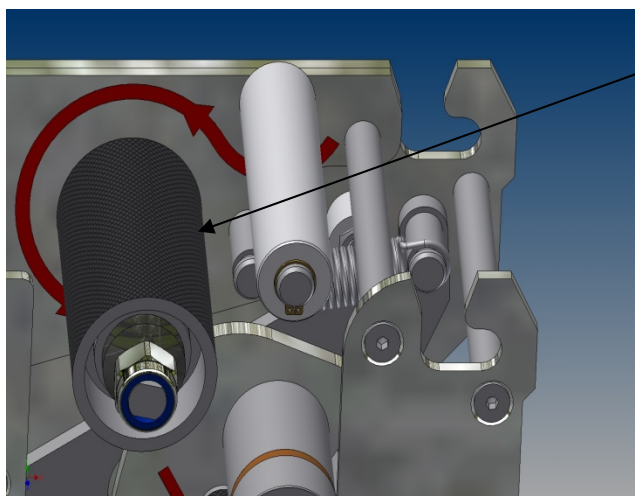
Figure 3



White tape
roller

The tape is then threaded around the knurled tape tension roller. The adhesive side of the tape contacts the knurled roller. Refer to figure 4.

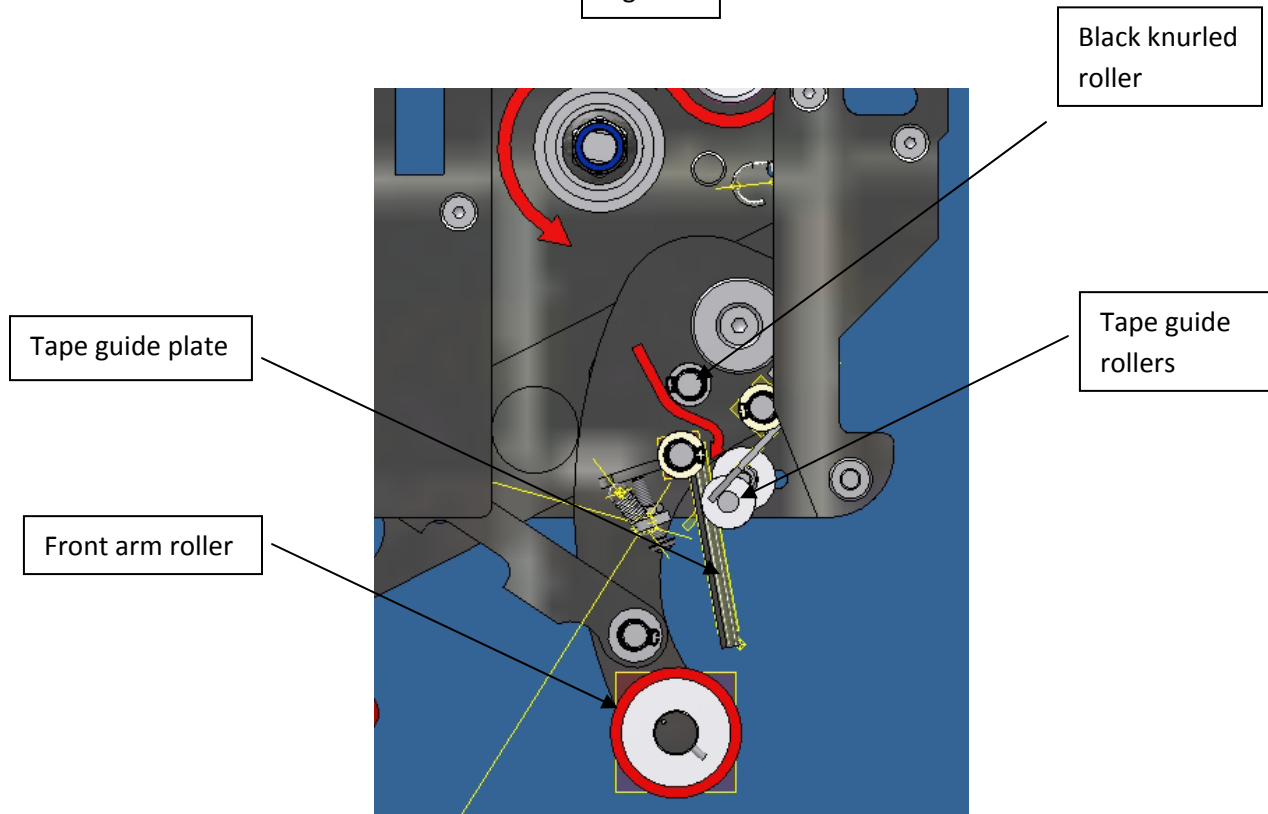
Figure 4



Knurled tension roller

The tape is then threaded between the black knurled roll and the tape guide plate. The adhesive side of the tape will contact the two tape guide rollers as it is pulled through the guide plate assembly until it is at rest on the front arm roller. The adhesive side of the tape will be facing away from the front arm roller. Refer to figure 5.

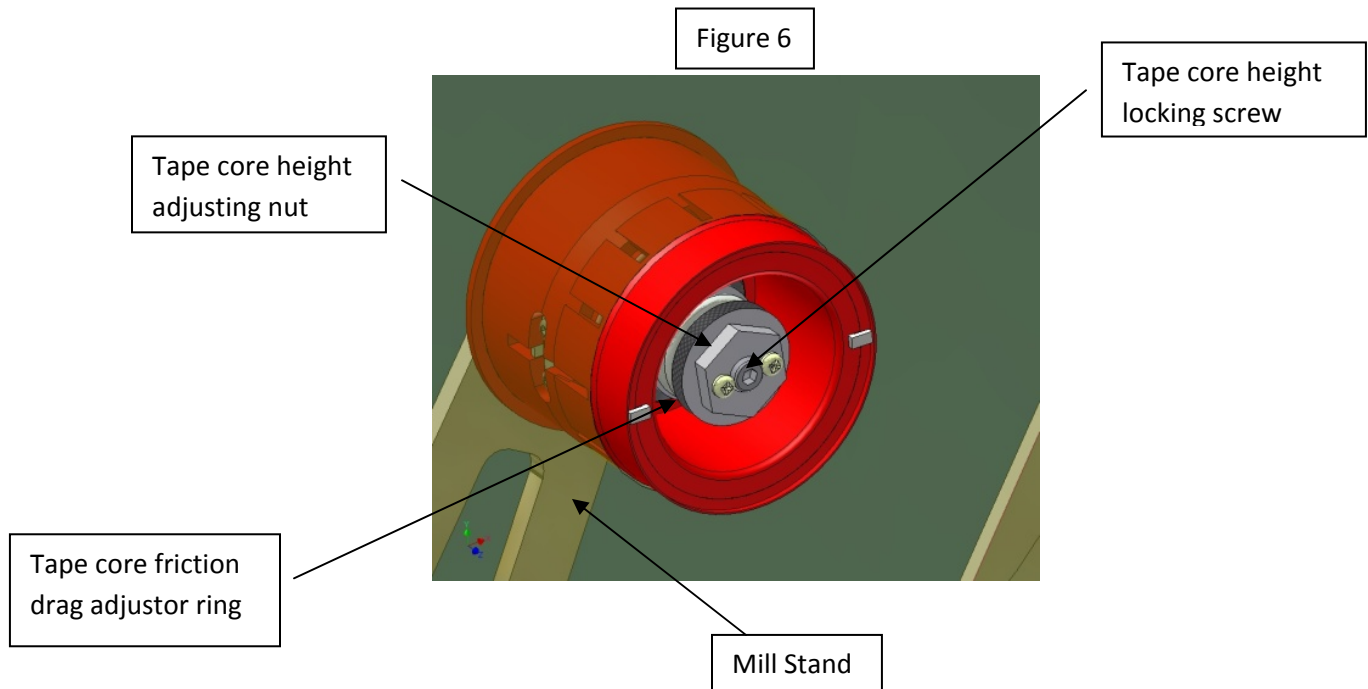
Figure 5



Adjustments:

- Aligning tape :

Aligning tape side to side within the cartridge frame is done by changing the position of the tape core. This is done by first loosening the tape core locking screw with a 3mm hex key. Turn the tape core locking screw counter clockwise allowing for the desired amount of adjustment to be made. Now turn the tape core height adjusting nut until the desired result is obtained. By turning the tape core height adjusting nut clockwise the tape core height position will decrease moving the tape closer to the mill stand side of the cartridge. By turning the tape core height adjusting nut counter clockwise the tape core height position will increase. This will make the tape track further away from the mill stand. After each adjustment always tighten the tape core locking screw. Failure to do so will allow the tape core position to change as tape is being pulled off the tape roll. Refer to figure 6



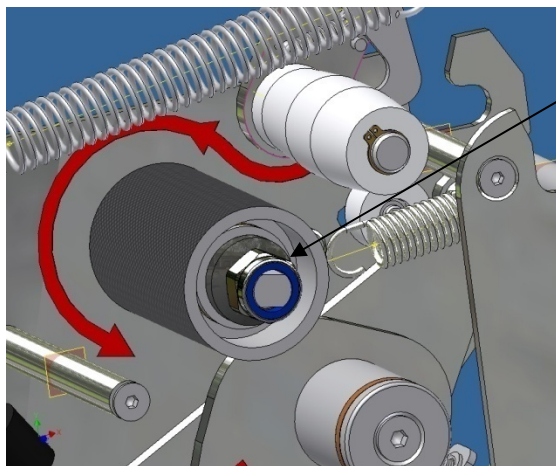
- **Setting tape core drag:**

The tape core drag setting is factory set to not allow a full roll of tape to free wheel as tape is being pulled off it. The drag setting may need to be adjusted if the tape cartridge is being operated at high speed or if the tape adhesive is causing the roll to over rotate as the tape it is being pulled of the roll. Refer to figure 6.

- **Setting the knurled tension roller:**

The knurled tension roller is factory set to its minimum resistance setting. This setting works for all standard tape applications. The tension roller setting may need to be adjusted if a thick mill tape is being used. By increasing the tension it aids in cutting the tape. To increase the tension turn the adjustment nut clockwise. To decrease the tension turn the adjustment nut counterclockwise Refer to figure7.

Figure 7

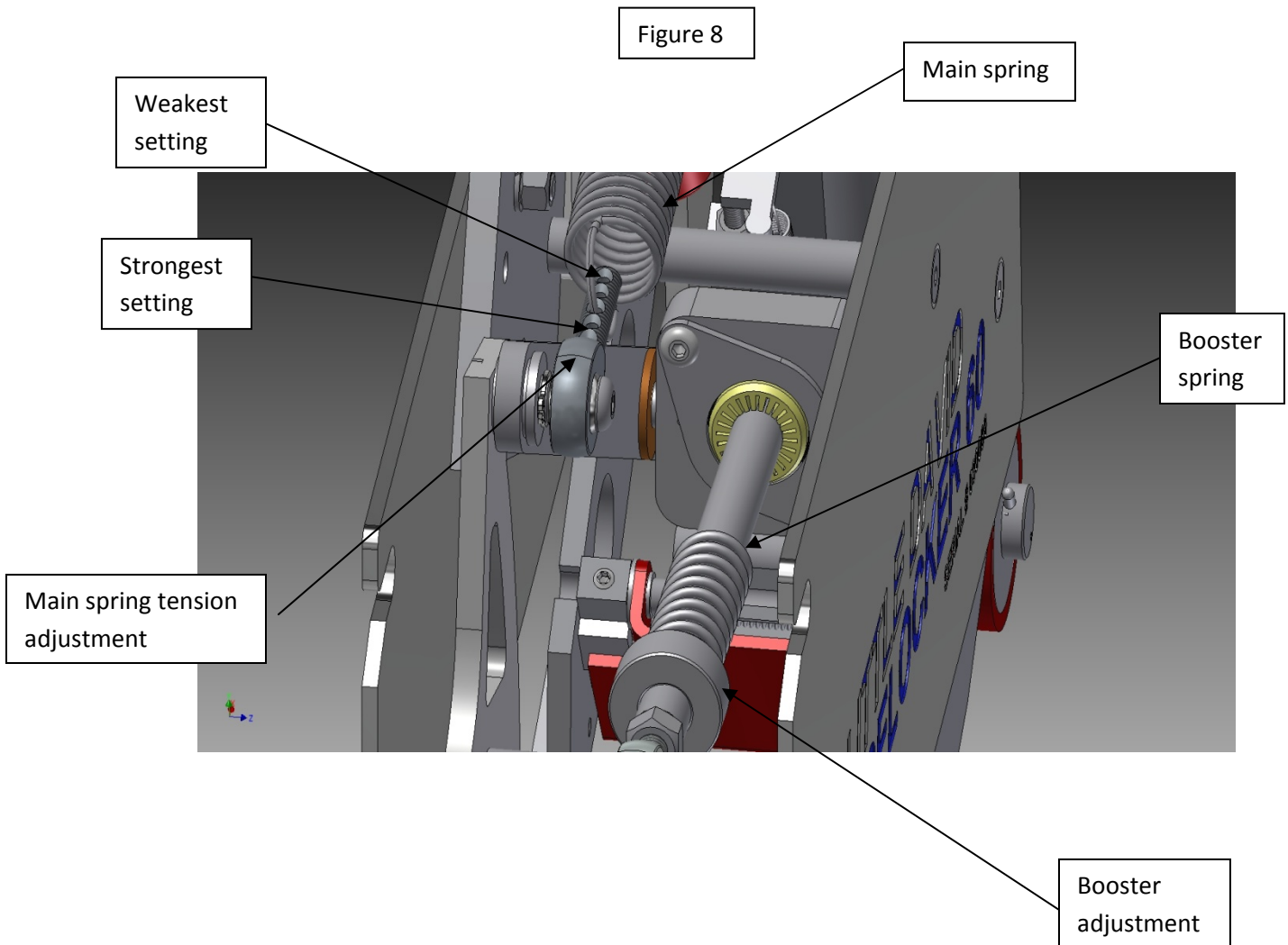


Tension roller
adjustor nut

- **Setting main spring tension:**

Setting the main spring tension is done by moving the end of the spring to a different preset position. The main spring tension is factory set to a mid position. The spring is set from lightest to stoutest dependant on the strength of the corrugated box and the fill of the contents. Void filled, weak corrugated boxes would be set to the lightest setting while strong corrugated box with overfill would process better with the main spring set

stronger. The main spring only effects the application and wipe rollers. Refer to figure 8.



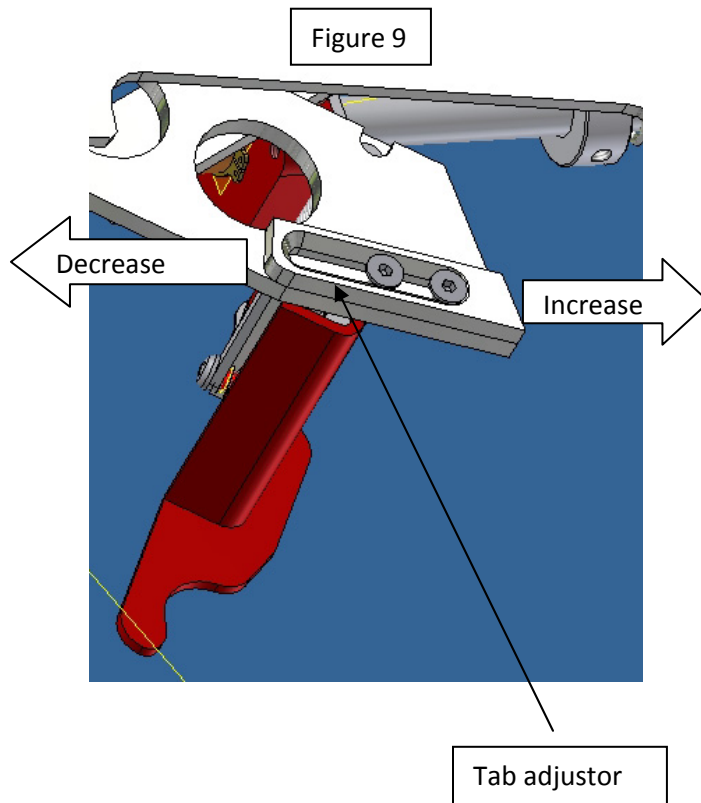
- **Setting booster spring compression**

The booster spring aids in rear tab wipe. The booster spring preloads the wipe roller arm so when the trailing edge of the box releases the wipe roller the arm can travel out at a higher rate of speed and contact the rear tab and secure it to the back panel of the box. The booster adjuster is factory set to lightly engage when the front roller arm is completely

retracted. The booster setting is adjusted stronger when the cartridge is operated at higher application speeds. Refer to figure 8.

- **Setting the rear tab cut adjustor:**

The rear tab cut adjustor is factory set to operate at 60 to 80ft/min belt speed. If the cartridge is operating at higher speeds the adjustor would need to move in order to shorten the rear tab length. The adjustor only alters the rear tab length. The front tab length is fixed and cannot be adjusted. Refer to figure 9.



- **Front arm stopper adjustment:**

The front arm stop adjustment is factory set to insure that the front arm roller stays in contact with major flaps of the box. This allows for a tight tape seal across the horizontal length of the box. The adjustor does not need to be adjusted for normal applications. In some cases it may be

necessary to adjust the stop depending on the type of machine that the cartridge is being used in. If the cartridge is placed in a machine and the tape is not being applied to the major flaps with enough pressure an adjustment will be necessary. This will be evident by inspecting the box as it exits the machine. Normal symptoms include the tape bridging across the major flaps, or the tape bunching up on the major flaps after the tape was cut. Refer to figure 10A & 10B.

Figure 10A

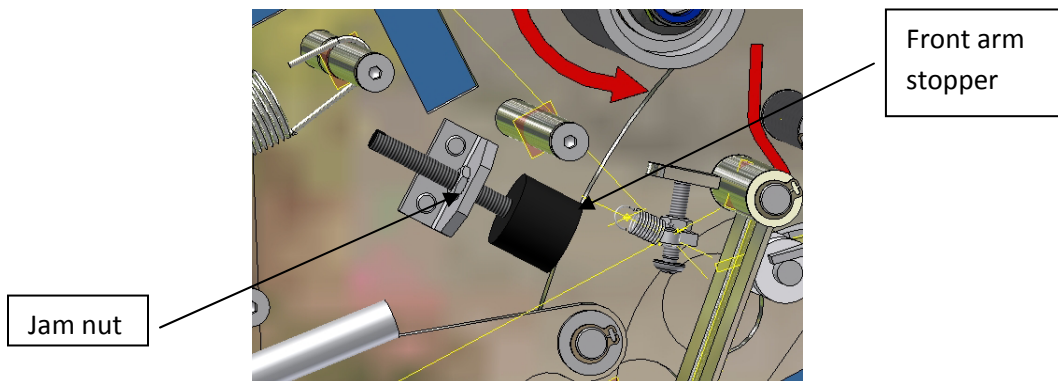
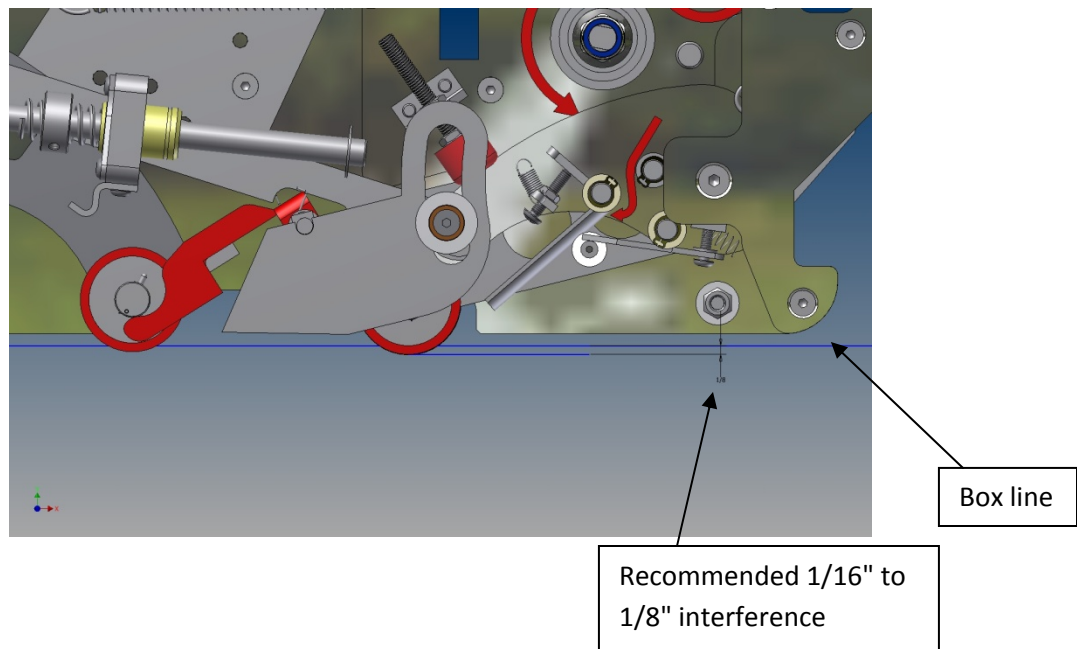


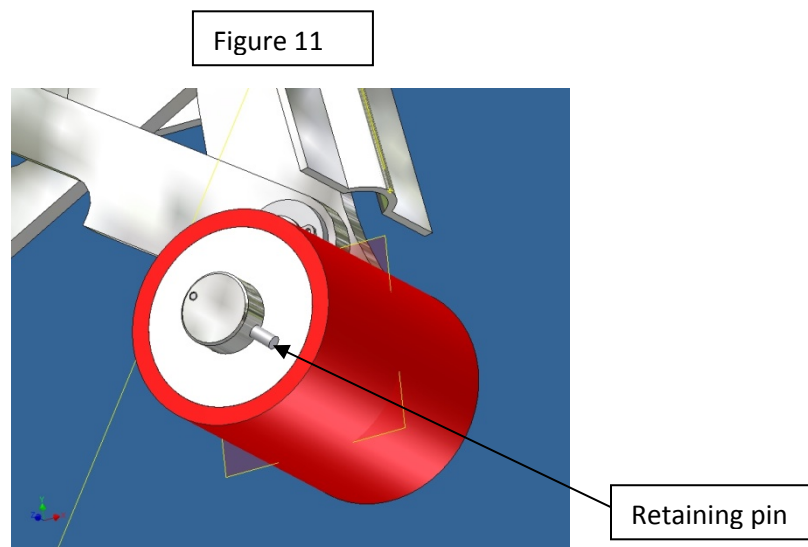
Figure 10B



Maintenance:

- Application / Wipe roller replacement:

Roller replacement is a tool less procedure. Simply push down on retaining pin and slide roller off the shaft. Install new roller by lining the angular pin notch on the undercut side of the roller with the retaining pin. Then push the roller onto the shaft all the way until the retaining pin protrudes through other side of the roller and extends out to hold the roller in place. Take caution to install replacement roller with undercut facing toward arm away from retaining pin. Refer to figure 11.



- Knife blade replacement:

Knife blade replacement is a tool less procedure. Simply push down on release bar and pull knife blade out. Fold back the knife guard by first rotating the front roller arm inward towards the rear wipe arm. Then

rotate the knife guard back until the knife blade is fully exposed. While holding the knife guard open slowly release the front roller arm and allow it to extend outward. This will allow the knife guard locking mechanism to hold the knife guard open for easy blade replacement. The knife blades have open slots to allow for easy slide on / off replacements. The knife blade is notch for proper orientation of the blade. Refer to figure 12A and 12B.

- **Oil Pad:**

Regularly lubricate oil pad with SAE #30 non-detergent oil. Never use penetrating type oil; this will dissolve the adhesive which secures the pad to the knife guard. Refer to figure 12A.

Warning: – Use extreme care when working near the knife blade. The blade is extremely sharp. If care is not taken severe personal injury can occur.

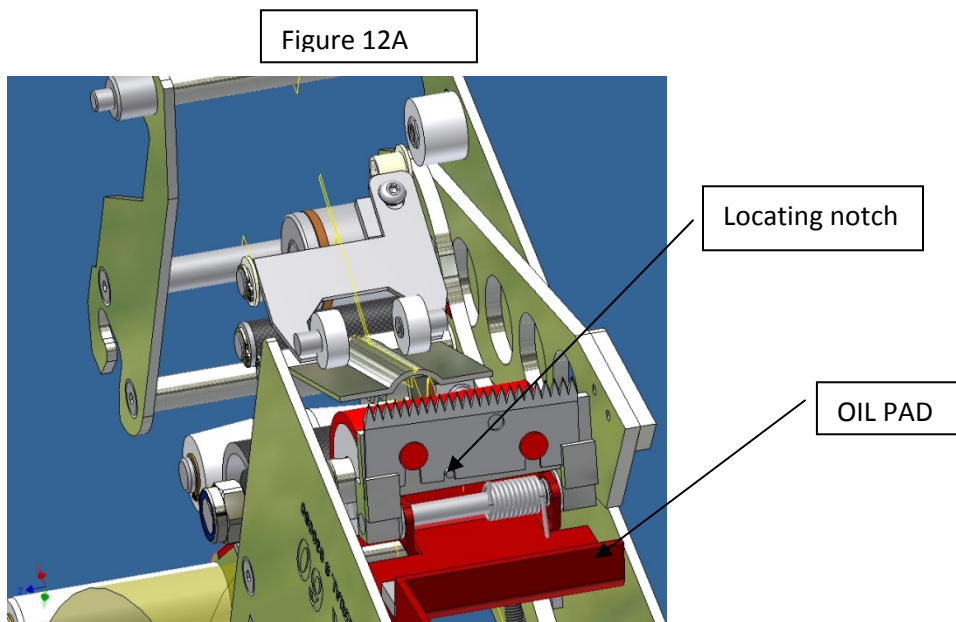
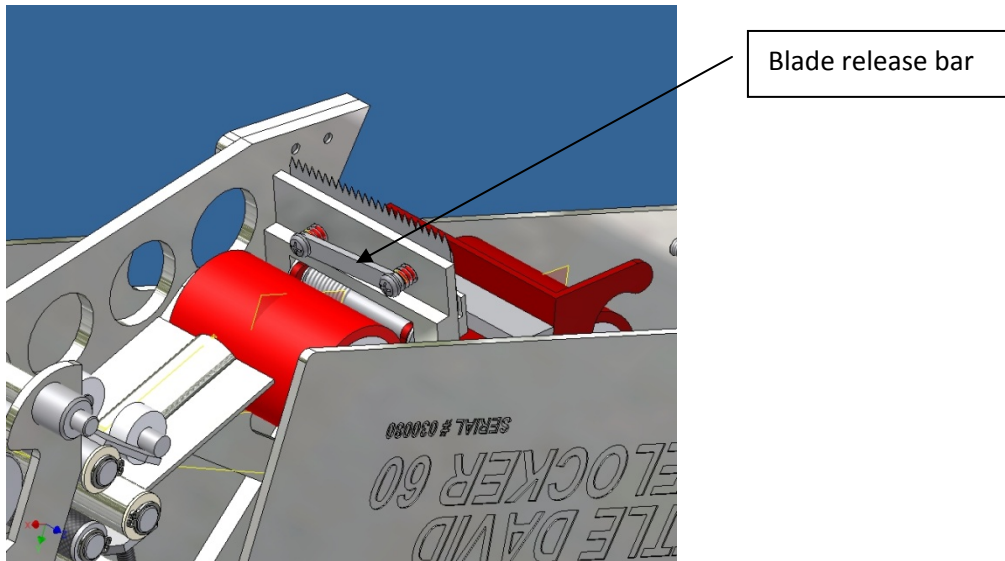


Figure 12B



Knife guard is shown open in both figures.

TROUBLESHOOTING:

Problem	Cause	Corrective Action
The tape is not cut, or the cut is not clean.	<p>Knife blade is damaged or needs to be cleaned.</p> <p>Tape tension needs to be increased.</p> <p>Tape is not centered on rollers.</p> <p>Knife spring missing or worn.</p> <p>Adhesive build-up on blade.</p>	<p>Replace knife blade.</p> <p>Increase drag on knurled tension roller.</p> <p>Adjust tape core height.</p> <p>Replace spring.</p> <p>Clean blade - Oil the felt pad on knife guard</p>
Front tape tab length too long.	<p>Cartridge threaded incorrectly.</p> <p>Tape tension needs to be increased.</p> <p>Tape is not centered on rollers.</p>	<p>Follow threading arrows on cartridge.</p> <p>Increase drag on knurled tension roller.</p> <p>Adjust tape core height.</p>
Rear tape tab not fully wiped down.	<p>Rear tab length too long.</p> <p>Main spring tension too weak.</p> <p>Booster spring not engaged.</p>	<p>Adjust rear tab adjuster.</p> <p>Adjust main spring tension.</p> <p>Adjust booster spring compression.</p>
Rear tape tab too long.	<p>Tab adjuster not set properly.</p> <p>Knife spring worn.</p> <p>Not enough tape tension.</p>	<p>Adjust rear tab adjuster.</p> <p>Replace knife spring.</p> <p>Increase drag on knurled tension roller.</p>
Tape core does not fit into machine opening. (bottom)	Tape tension arm either misaligned or bent.	Straighten arm so it is parallel with the mill stand. Then re-adjust tape core height.
Tape bridging or poor seal on box.	<p>Main spring tension too weak.</p> <p>Front arm stop not adjusted correctly.</p>	<p>Increase main spring tension.</p> <p>Adjust stop to allow wipe rollers to contact box major flaps.</p>
"L" clipping (premature tape cutting)	Front arm stop not adjusted correctly.	Adjust stop so the wipe rollers aren't allowed to retract too far into cartridge body.

	Balance air pressure set too high. (Pneumatic cartridge only)	Reduce air pressure; GREEN hose. (Pneumatic cartridge only)
Problem	Cause	Corrective Action
Major flaps being damaged on box. (weak voided box)	Main spring tension too strong. Booster spring engaged to aggressive. Air pressure for balance too low. (Pneumatic cartridge only)	Reduce main spring tension. Reduce compression on boost spring. Increase air pressure on balance (GREEN), (Pneumatic cartridge only)
Tape is being adhered to front of box. Tape getting wrapped around rear wipe roller.	Front roller arm doesn't have enough tension. Tape broken in cartridge. Tape adhesive not aggressive enough.	Increase main spring pressure. See "Tape breaking in cartridge" below. Inquire about different tape adhesives.
Tape breaking in cartridge.	Cut in tape roll. Tape not threaded correctly. Tape path roller(s) bound up. Too much drag on tension roller.	Change roll of tape. Follow threading arrows on cartridge. Check rollers - free up / replace. Reduce tape tension.

CAUTION: When installing the cartridge into the case sealer, maintain control of the cartridge as it is lowered into its housing; **DO NOT** allow it to slam or free fall into place. Failure to do so could damage and void warranty on parts of the cartridge.

Exploded Drawings For Ordering Spare Parts

The following drawings represent several different models of the CAC60/60 series cartridges. Please read carefully to ensure the correct part number is chosen before ordering spare parts.

Explanation Of Parts List:

Each drawing contains a table with a parts list. The item numbers represent the corresponding balloon call outs on the drawings. Some of the drawings have two tables. One for a 2" wide tape cartridge and one for a 3" wide tape cartridge. Each table has a column for a stainless steel suffix , "SS" and a mirror image suffix, "MI". Any of the parts that have a suffix indicated in their row require the suffix to be added to the end of the part number for a stainless steel and/or mirror image cartridge.

Example 1:

Refer to Table 1 for the following example. If you wanted to order a, "Link Bar", for your stainless steel cartridge. Find the part in the corresponding table. The part number for a standard carbon steel cartridge is, "CAC60-0007-5". The cartridge your ordering is stainless steel. Check the column under the heading, "SS". If a, "SS", is in the row for the part you are ordering, than "SS" must be added to the end of the part number. In this example "SS" is indicated in the row for the, "Link Bar". So the part number would be as follows. "CAC60-0007-5SS"

Example 2:

Refer to Table 1 for the following example. If you wanted to order a, "Sliding Block", for your mirror image cartridge. Find the part in the corresponding table. The standard image part number is, "CAC60-0134-4". The cartridge your ordering for is mirror image. Check the column under the heading, "MI". If a, "MI", is in the row for the part you are ordering, than "MI" must be added to the end of the part number. In this example "MI" is indicated in the row for the, "Sliding Block". So the part number would be as follows. "CAC60-0134-4SS".

Example 3:

Refer to Table 1 for the following example. If you wanted to order a, "Front Roller Arm", for your stainless steel, mirror image cartridge. Find the part in the corresponding table. The part number for a standard image, carbon steel cartridge is, "CAC60-0001-6". The cartridge your ordering is stainless steel and mirror image. Check the columns under the heading, "SS" and "MI". If a, "SS" and "MI", are in the rows for the part you are ordering, than "SS" and "MI" must be added to the end of the part number. In this example "SS" and "MI" are indicated in the row for the, " Front Roller Arm ". So the part number would be as follows. "CAC60-0001-6SMI". Take note that a part number is limited to 15 characters. So in this example one of the "S" in "SS" was dropped.

Example 4:

Refer to Table 1 for the following example. This example deals with converting hardware from carbon steel to stainless steel. If you wanted to order a, "M4 x 12 Button Head", for your stainless steel, cartridge. Find the part in the corresponding table. The part number for a standard, carbon steel cartridge is, "FBHME012P10". The cartridge your ordering is stainless steel. Check the columns under the heading, "SS". If a, "P-S" or "B-S", is in the row for the part you

are ordering, than "S" must replace the "P" or "B" in the part number. The "P" refers to *plated* hardware and the "B" refers to *black oxide finished* hardware. In this example "P-S" are indicated in the row for the, " M4 x 12 Button Head ". This means the "P" must be replaced with a "S" to convert the part number to stainless steel. So the part number would be as follows. " FBHME012S10".

Table 1

ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0001-6	FRONT ROLLER ARM	SS	MI
2	1	SPH-1252	WAVE WASHER		
3	1	CAC60-0004-4	TAPE GUIDE PLATE	SS	MI
4	1	CAC60-0007-5	LINK BAR	SS	
5	5	SPH-1276	SNAP RING, 8mm	SS	
6	4	BSG-1090	8mm FLANGE BUSHING		
7	1	SPR-1044	SPRING, COMPRESSION	SS	
8	1	CAC60-0134-4	SLIDING BLOCK		MI
9	1	CAC60-0002-4	ROLLER		
10	2	SPH-1339	M8 WASHER	SS	
11	2	BSG-1098	BUSHING		
12	1	CAC60-0073-3	SMALL ROLLER		
13	4	FBHME012P10	M4 x 12 BUTTON HEAD	P-S	
14	1	FFHMG016P10	FHCS M6 X 1.0 X 16 LG.	P-S	
15	1	BSG-1085	BUSHING 16mm		
16	1	FBHME020P10	M4 x 20 PAN HEAD SCREW	P-S	
17	1	FHFNMEP	M4 HEX NUT	P-S	
18	1	SPR-1055	EXTENSION SPRING	SS	
19	1	.SA60/A	SHAFT ASSEMBLY	SS	MI
20	1	BSG-1124	10mm LINEAR BEARING		
21	1	SPH-1489	19mm EXTERNAL SNAP RING	SS	
22	1	CAC60-0141-4	KNIFE GUARD LOCK	SS	MI
23	1	SPH-1277	5/16 BRONZE WASHER		
24	1	CAC60-0142-3	BUSHING RETAINER		
25	1	FPACAC60-SB	FINGER PLATE ASSEMBLY	SS	MI
26	1	FBHME016P10	BUTTON HEAD M4-1.0 X 16	P-S	
27	1	FFWMFP	FLAT WASHER M5	P-S	
28	6	BRG-2015	10mm FLANGE BEARING		

RECOMMENDED SPARE PARTS KITS FOR CAC61 SERIES, 3"
CARTRIDGES

KIT PARTS#

.RPKT-CAC61HS20 (STANDARD)

.RPKT-CAC61MI (FOR ALL MIRROR IMAGE VERSIONS)

.RPKT-CAC61SS (FOR ALL STAINLESS STEEL VERSIONS)

.RPKT-CAC61MISS (FOR ALL ST. ST. AND MIRROR IMAGE VERSIONS)

QYT.	PART#	DESCRIPTION	SS	MI
2	CAC60-0002/3-4	ROLLER		
2	PS4C117A60-4M2	KNIFE BLADE 3"		
1	SPR-1055	EXTENSION SPRING	SS	
1	SPR-1044	COMPRESSION SPRING	SS	
8	BRG-2015	FLANGE BEARING		
1	.TRA61A	TENSION ROLLER ASSEMBLY	SS	MI
2	PSC28-3	BRAKE WASHER		
2	BSG-1098	BUSHING		
6	SPH-1276	SNAP RING, EXTERNAL	SS	
1	SPH-1268	RETAINING RING, EXTERNAL	SS	
1	SPR-1042	EXTENSION SPRING	SS	
1	SPH-1494	BUMPER		
1	SPH-1495	SET SCREW, (BUMPER STUD)		
1	CAC60-0078/3-3	KNIFE GUARD CUSHION		
4	SPR-1045	COMPRESSION SPRING	SS	
2	CAC60-0042-3	PIN		
1	CAC60-0043/3-3	PIN PLATE		
2	BSG-1091	FLANGE BUSHING		
1	SPR-1063	KNIFE GUARD SPRING		MI
1	SPR-1072	MAIN SPRING	SS	
1	CAC60-0082-3	ARM STOP		
1	CAC60-0082/A-3	ARM STOP		
1	BSG-1124	10mm, SLIDE BUSHING		
2	BSG-1135	COPPER WASHER		
3	BSG-1085	16mm BRONZE FLANGE BUSHING		
1	BSG-1136R1-3	BRONZE BUSHING		
4	BSG-1090	8mm PLASTIC FLANGE BUSHING		

RECOMMENDED SPARE PARTS KITS FOR CAC61 SERIES, 3"
PNEUMATIC HIGH SPEED CARTRIDGES

KIT PARTS#

.RPKT-CAC61NTNC (STANDARD)

.RPKT-61NTNCMI (FOR ALL MIRROR IMAGE VERSIONS)

.RPKT-61NTNCSS (FOR ALL STAINLESS STEEL VERSIONS)

.RPKT61NTNCMISS (FOR ALL ST. ST. AND MIRROR IMAGE VERSIONS)

QYT.	PART#	DESCRIPTION	SS	MI
2	CAC60-0002/3-4	ROLLER		
2	PSC117A60-4M2	KNIFE BLADE 3"		
1	SPR-1055	EXTENSION SPRING	SS	
1	SPR-1044	COMPRESSION SPRING	SS	
10	BRG-2015	FLANGE BEARING		
1	.TRA61A	TENSION ROLLER ASSEMBLY	SS	MI
2	PSC28-3	BRAKE WASHER		
2	BSG-1098	BUSHING		
6	SPH-1276	SNAP RING, EXTERNAL	SS	
1	SPH-1268	RETAINING RING, EXTERNAL	SS	
1	SPR-1042	EXTENSION SPRING	SS	
1	CAC60-0152-3	BUMPER		
1	SPH-1495	SET SCREW, (BUMPER STUD)		
1	CAC60-0078/3-3	KNIFE GUARD CUSHION		
4	SPR-1045	COMPRESSION SPRING	SS	
2	CAC60-0042-3	PIN		
1	CAC60-0043/3-3	PIN PLATE		
2	BSG-1091	FLANGE BUSHING		
1	SPR-1063	KNIFE GUARD SPRING		MI
1	SPR-1072	MAIN SPRING	SS	
1	CAC60-0082-3	ARM STOP		
1	CAC60-0082/A-3	ARM STOP		
1	BSG-1124	10mm, SLIDE BUSHING		
2	BSG-1135	COPPER WASHER		
3	BSG-1085	16mm BRONZE FLANGE BUSHING		

RECOMMENDED SPARE PARTS KITS FOR CAC61 SERIES, 3"
PNEUMATIC HIGH SPEED CARTRIDGES

KIT PARTS#

.RPKT-CAC61NTNC (STANDARD)

.RPKT-61NTNCMI (FOR ALL MIRROR IMAGE VERSIONS)

.RPKT-61NTNCSS (FOR ALL STAINLESS STEEL VERSIONS)

.RPKT61NTNCMISS (FOR ALL ST. ST. AND MIRROR IMAGE VERSIONS)

QYT.	PART#	DESCRIPTION	SS	MI
2	CAC60-0002/3-4	ROLLER		
2	PSC117A60-4M2	KNIFE BLADE 3"		
1	SPR-1055	EXTENSION SPRING	SS	
1	SPR-1044	COMPRESSION SPRING	SS	
10	BRG-2015	FLANGE BEARING		
1	.TRA61A	TENSION ROLLER ASSEMBLY	SS	MI
2	PSC28-3	BRAKE WASHER		
2	BSG-1098	BUSHING		
6	SPH-1276	SNAP RING, EXTERNAL	SS	
1	SPH-1268	RETAINING RING, EXTERNAL	SS	
1	SPR-1042	EXTENSION SPRING	SS	
1	CAC60-0152-3	BUMPER		
1	SPH-1495	SET SCREW, (BUMPER STUD)		
1	CAC60-0078/3-3	KNIFE GUARD CUSHION		
4	SPR-1045	COMPRESSION SPRING	SS	
2	CAC60-0042-3	PIN		
1	CAC60-0043/3-3	PIN PLATE		
2	BSG-1091	FLANGE BUSHING		
1	SPR-1063	KNIFE GUARD SPRING		MI
1	SPR-1072	MAIN SPRING	SS	
1	CAC60-0082-3	ARM STOP		
1	CAC60-0082/A-3	ARM STOP		
1	BSG-1124	10mm, SLIDE BUSHING		
2	BSG-1135	COPPER WASHER		
3	BSG-1085	16mm BRONZE FLANGE BUSHING		

QYT.	PART#	DESCRIPTION	SS	MI
1	BSG-1136R1-3	BRONZE BUSHING		
4	BSG-1090	8mm PLASTIC FLANGE BUSHING		
1	N401-359	COMPACT CYLINDER		
1	N401-349B	CYLINDER $\frac{3}{4}$ x 4 $\frac{1}{2}$ W/ CUSHION		
2	CAC60-0047-3	BRONZE BUSHING		

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	7/27/2011	BJF

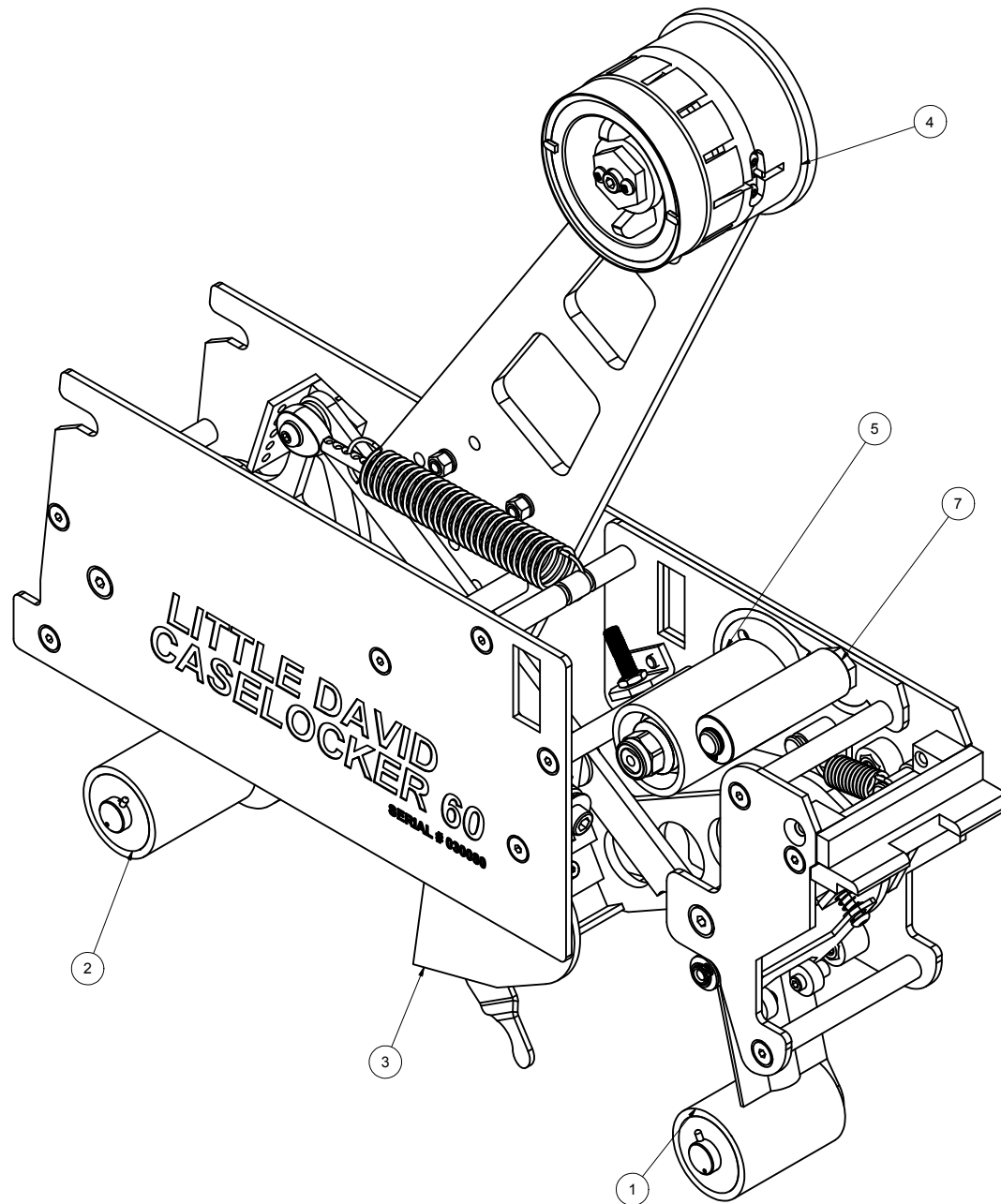
PARTS FOR .CAC60 2" CATRIDGE


Parts List						
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	M	MI
1	1	.FRACAC60-2	FORNT ROLLER ARM ASSEMBLY	SS	MI	
2	1	.RRACAC60-2	REAR ROLLER ARM ASSEMBLY	SS	MI	
3	1	.KAACAC60	KNIFE ASSEMBLY	SS	MI	
4	1	.TCA2	TAPE CORE ASSEMBLY 2"	SS		
5	1	.TRA60A	TENSION ROLLER ASSEMBLY	SS	MI	
6	1	CAC60-0154/2-4	TOP LOAD BRACKET, 2"			
7	1	RA-60	ROLLER ASSEMBLY			

PARTS FOR .CAC61 3" CARTRIDGE

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	.FRACAC61-2	FRONT ROLLER ARM ASSEMBLY	SS	MI
2	1	.RRACAC61-2	REAR ROLLER ARM ASSEMBLY	SS	MI
3	1	.KAACAC61	KINIFE ASSEMBLY	SS	MI
4	1	.TCA3	TAPE CORE ASSEMBLY 3"	SS	
5	1	.TRAC61A	TENSION ROLLER ASSEMBLY	SS	MI
6	1	CAC60-0154-4	TOP LOAD BRACKET 3"	SS	
7	1	.RA-61	ROLLER ASSEMBLY, 3"		

(TOP LOAD BRACKET REQUIRED FOR CAC60/61X CARTRDIGES)
(FOR USE IN LDXRTB & LDXUTB MACHINES ONLY)



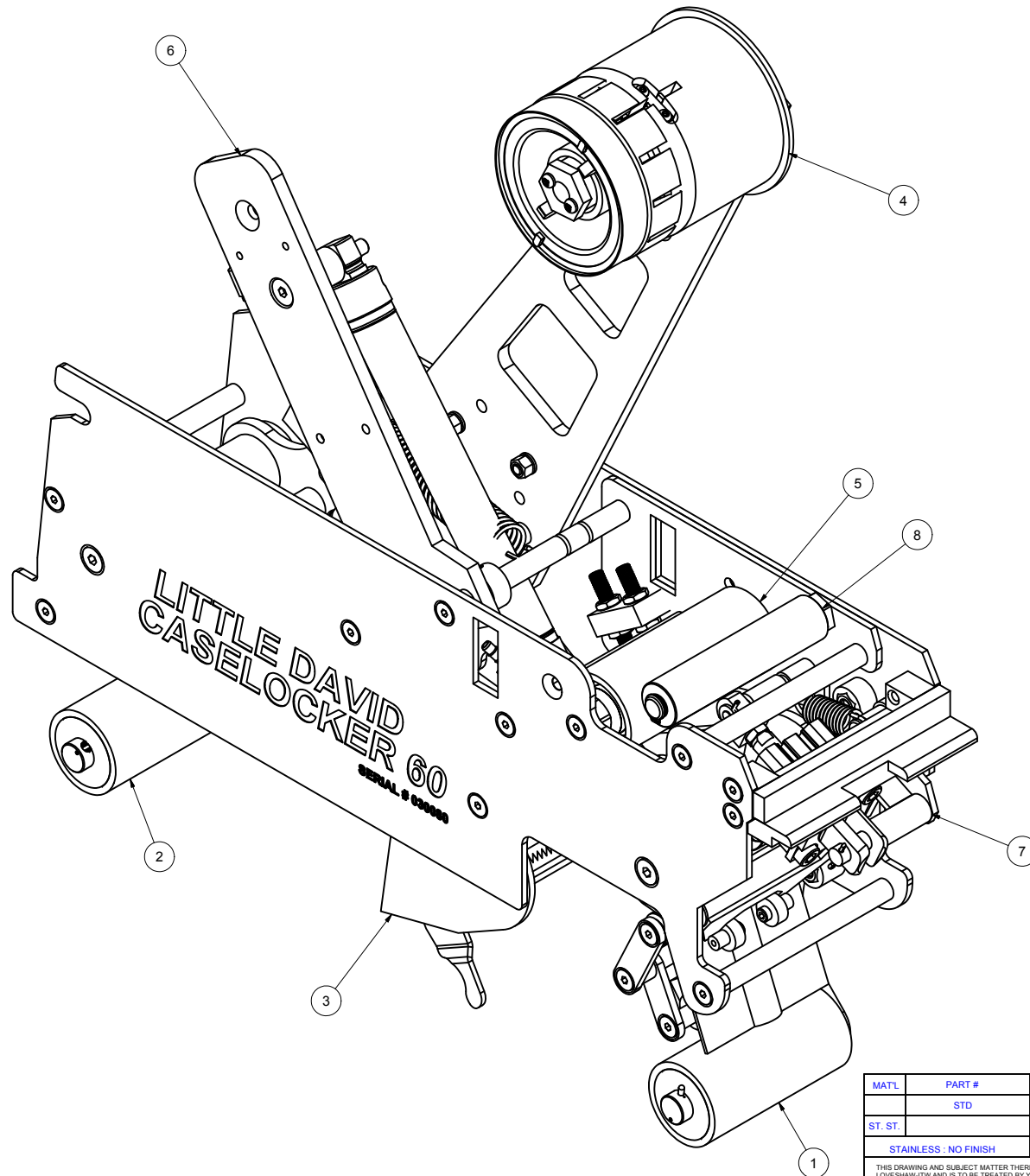
MATL		PART #		CAD FILE		MAIN ASSY HS 2.0		 an ITW Company RT. 296, SOUTH CANAAN, PA.	
STD		PLOT DATE		OTHER VIEWS UNLESS OTHERWISE NOTED:		TITLE			
ST. ST.		DRAWN DATE 7/27/2011		INCH X = ±.050 XX = ±.015 XXX = ±.005		ANGLES ± 1/2° X = ±1.0mm METRIC XX = ±.3mm XXX = ±.1mm		MAIN ASSEMBLY	
STAINLESS : NO FINISH		DO NOT SCALE PRINT		MACH. FINISH FRACTIONS ± 1/64		DWG NO MAIN ASSY HS 2.0 MATERIAL		SCALE CHECKED	
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 THEREON SHALL NOT BE REPRODUCED OTHER THAN FOR YOUR OWN USE OR TO BE DISCLOSED TO OTHER WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW-ITW AND WILL BE RETURNED TO LOVESHAW-ITW UPON REQUEST.				DRAWN BRYCEF		APPROVED			

(PNEUMATIC CARTRIDGE ONLY)

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	6/6/2012	BJF

PARTS FOR CAC61NTNC 3" CARTRIDGE

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	.FRAANTNC	FRONT ROLLER ARM ASSY	SS	MI
2	1	RRAA-HD	REAR ROLLER ARM ASSY	SS	MI
3	1	.KAACAC61	KNIFE ASSEMBLY 3"	SS	MI
4	1	.TCA3	TAPE CORE ASSEMBLY 3"	SS	
5	1	TRA61A	TENSION ROLLER ASSY.	SS	MI
6	1	.FRACA	FRONT ROLLER ARM CYL. ASSY.	SS	MI
7	1	.KACA	KNIFE ARM CYL. ASSY.	SS	
8	1	.RA-61	ROLLER ASSEMBLY, 3"		

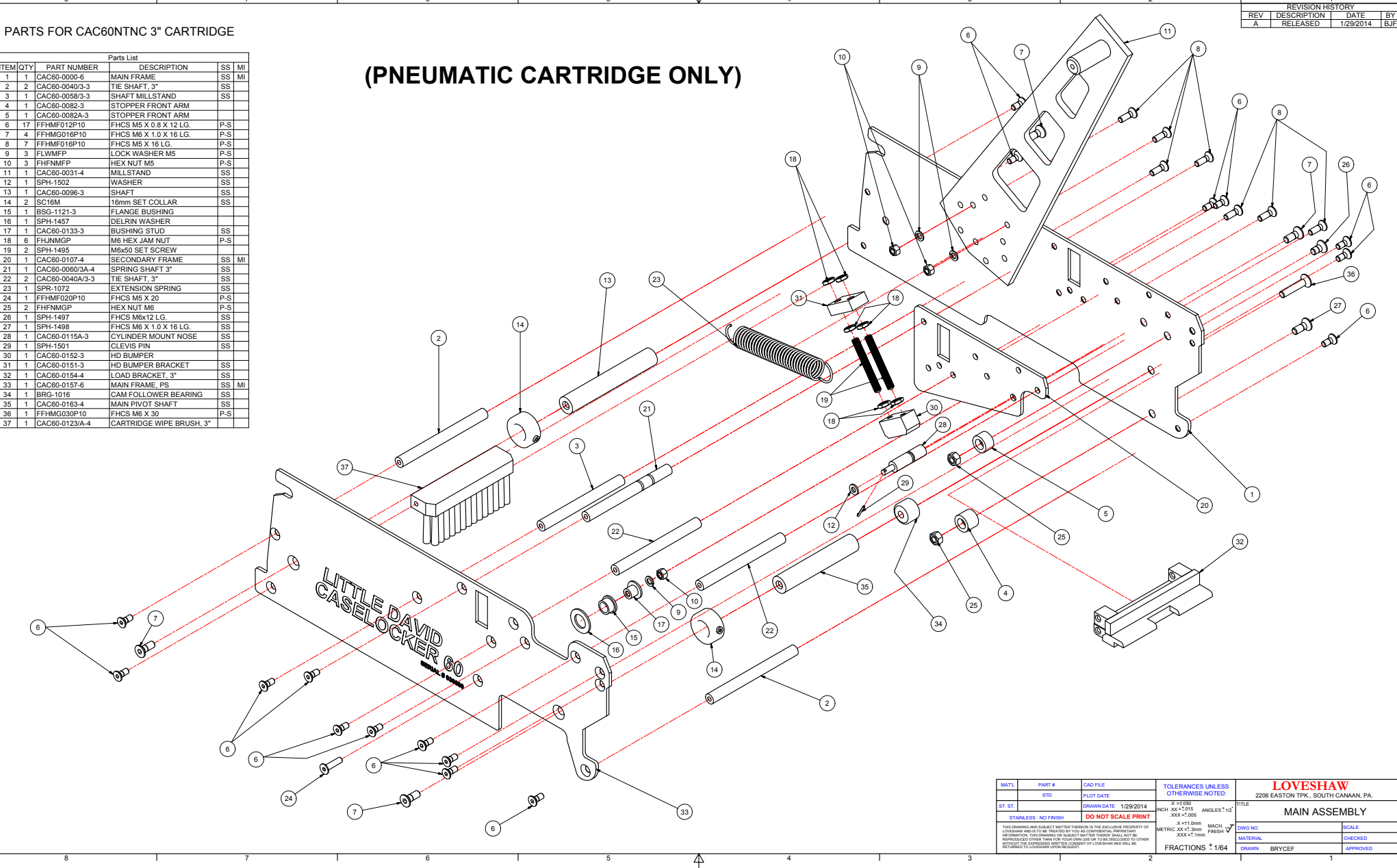


MATL	PART #	CAD FILE	MAIN ASSY.idw	TOLERANCES UNLESS OTHERWISE NOTED:	LOVESHAW an ITW Company RT. 296, SOUTH CANAAN, PA.	
	STD	PLOT DATE			TITLE MAIN ASSEMBLY	
ST. ST.		DRAWN DATE	6/6/2012	X = ±.050 INCH .XX = ±.015 .XXX = ±.005	DWG NO CAC60-NT_NC	
	STAINLESS : NO FINISH	DO NOT SCALE PRINT		ANGLES ± 1/2° X = ±1.0mm METRIC .XX = ±.3mm .XXX = ±.1mm	SCALE	
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 WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW-ITW AND WILL BE RETURNED TO LOVESHAW-ITW UPON REQUEST.				FRACTIONS ± 1/64	CHECKED	
					APPROVED	
					BRYCEF	

PARTS FOR CAC60NTNC 3" CARTRIDGE

Parts List				
ITEM	QTY	PART NUMBER	DESCRIPTION	SS MI
1	1	CAC60-0000-6	MAIN FRAME	SS MI
2	2	CAC60-0040/3-3	TIE SHAFT, 3"	SS
3	1	CAC60-0058/3-3	SHAFT MILLSTAND	SS
4	1	CAC60-0082-3	STOPPER FRONT ARM	
5	1	CAC60-0082A-3	STOPPER FRONT ARM	
6	17	FFHMF012P10	FHCS M5 X 0.8 X 12 LG.	P-S
7	4	FFHMG016P10	FHCS M6 X 1.0 X 16 LG.	P-S
8	7	FFHMF016P10	FHCS M5 X 16 LG.	P-S
9	3	FLWMFP	LOCK WASHER M5	P-S
10	3	FHFNMF	HEX NUT M5	P-S
11	1	CAC60-0031-4	MILLSTAND	SS
12	1	SPH-1502	WASHER	SS
13	1	CAC60-0096-3	SHAFT	SS
14	2	SC16M	16mm SET COLLAR	SS
15	1	BSG-1121-3	FLANGE BUSHING	
16	1	SPH-1457	DEL RIN WASHER	
17	1	CAC60-0133-3	BUSHING STUD	SS
18	6	FHJNMGP	M6 HEX JAM NUT	P-S
19	2	SPH-1495	M6x50 SET SCREW	
20	1	CAC60-0107-4	SECONDARY FRAME	SS MI
21	1	CAC60-0060/3A-4	SPRING SHAFT 3"	SS
22	2	CAC60-0040A/3-3	TIE SHAFT, 3"	SS
23	1	SPR-1072	EXTENSION SPRING	SS
24	1	FFHMF020P10	FHCS M5 X 20	P-S
25	2	FHFNMGF	HEX NUT M6	P-S
26	1	SPH-1497	FHCS M6x12 LG.	SS
27	1	SPH-1498	FHCS M6 X 1.0 X 16 LG.	SS
28	1	CAC60-0115A-3	CYLINDER MOUNT NOSE	SS
29	1	SPH-1501	CLEVIS PIN	SS
30	1	CAC60-0152-3	HD BUMPER	
31	1	CAC60-0151-3	HD BUMPER BRACKET	SS
32	1	CAC60-0154-4	LOAD BRACKET, 3"	SS
33	1	CAC60-0157-6	MAIN FRAME, PS	SS MI
34	1	BRG-1016	CAM FOLLOWER BEARING	SS
35	1	CAC60-0163-4	MAIN PIVOT SHAFT	SS
36	1	FFHMG030P10	FHCS M6 X 30	P-S
37	1	CAC60-0123A/4	CARTRIDGE WIPE BRUSH, 3"	

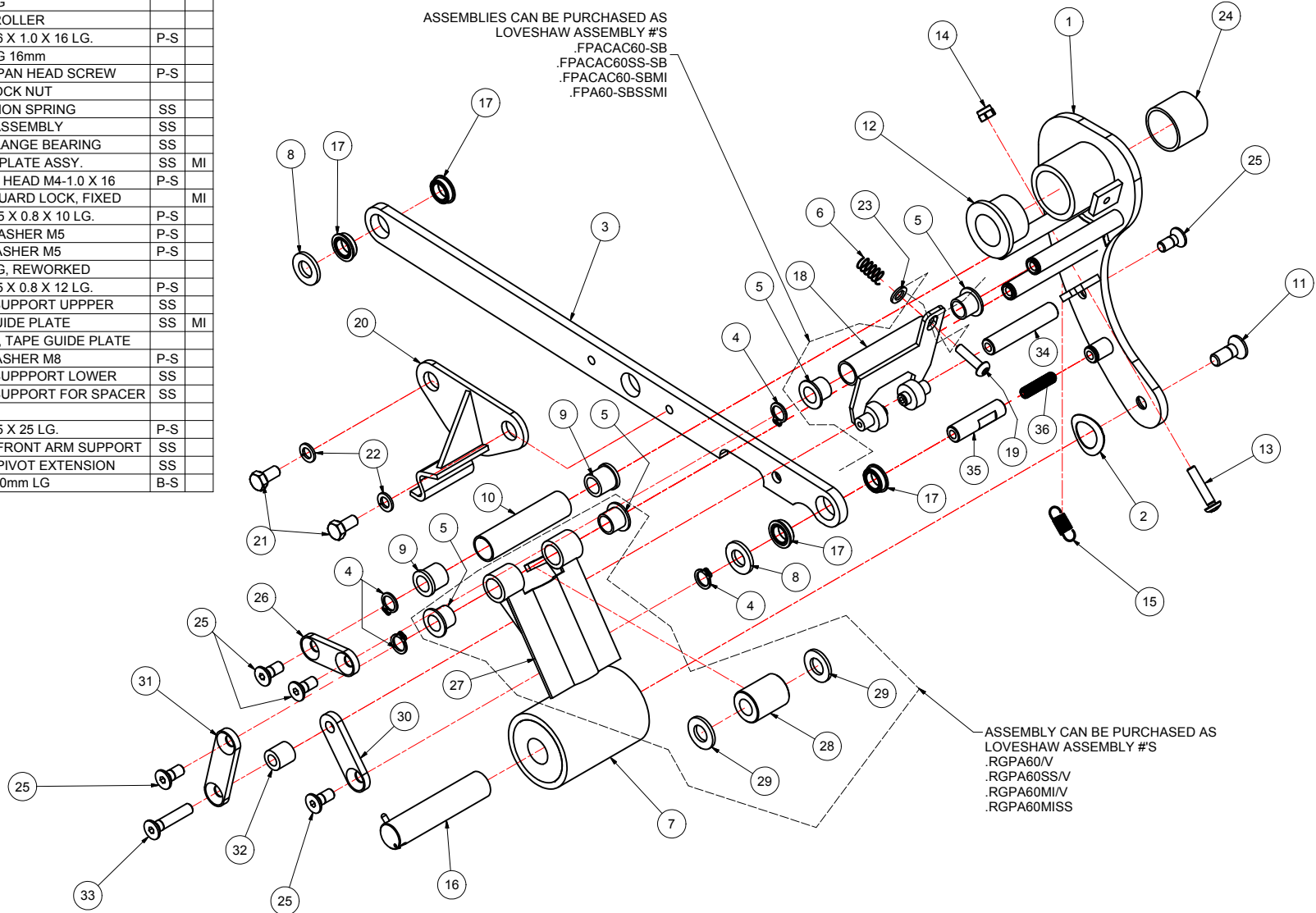
(PNEUMATIC CARTRIDGE ONLY)



REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	1/29/2014	BJF

MATERIAL		PART #	CAD FILE	TOLERANCES UNLESS OTHERWISE NOTED:		LOVESHAW	
BT ST		STD	PLOT DATE	X = ±0.005		2206 EASTON TPK., SOUTH CANAAN, PA.	
STAINLESS - NO FINISH		DO NOT SCALE PRINT	DRAWN DATE 1/29/2014	INCH XXX = ±0.015		TITLE	
				ANGLES 1/16"		MAIN ASSEMBLY	
				METRIC XXX = ±0.1mm		DWG NO.	
				FRACTIONS 1/64		SCALE	
						MATERIAL	
						CHECKED	
						DRAWN BRYCEF	
						APPROVED	

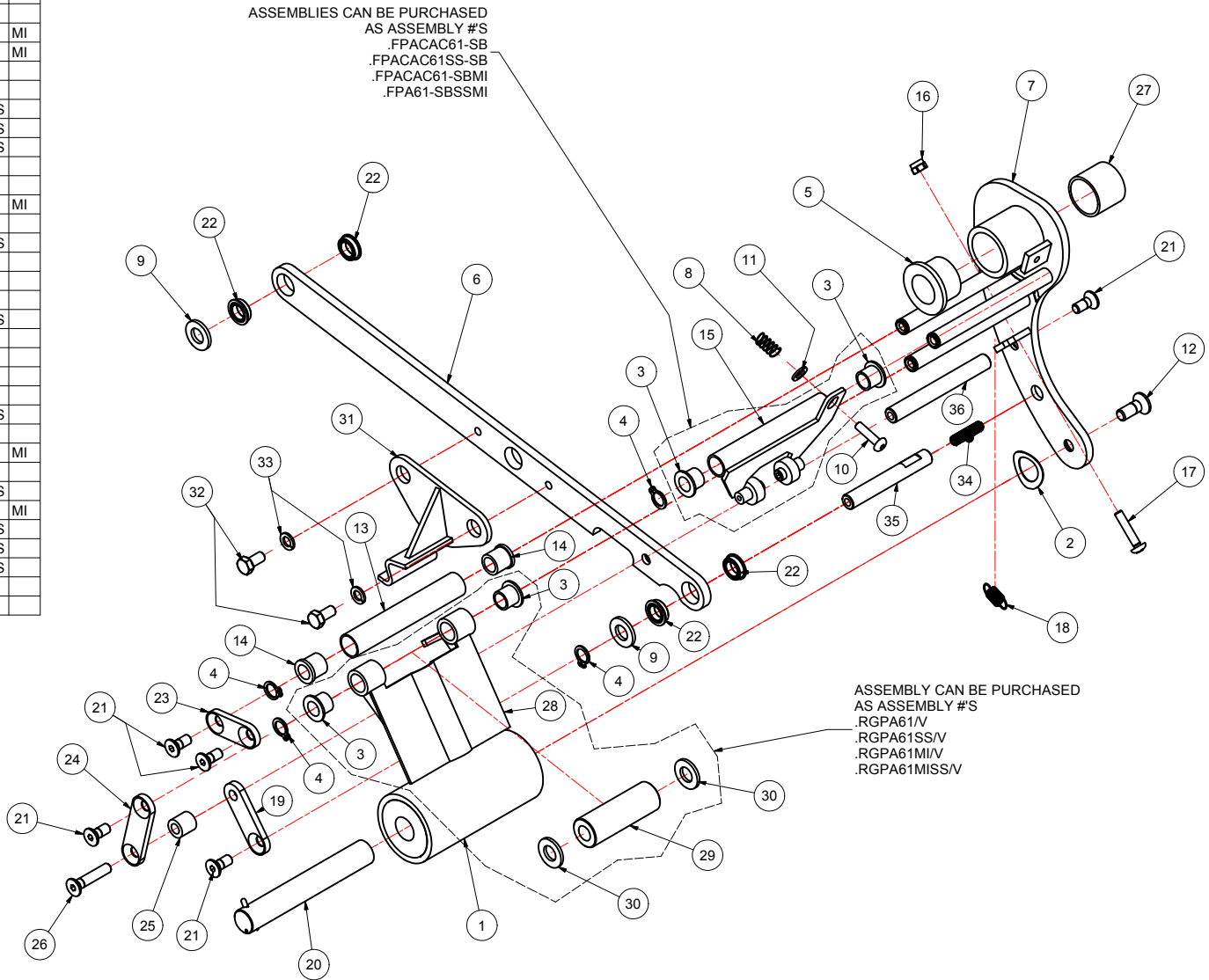
Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0001-6	FRONT ROLLER ARM	SS	MI
2	1	SPH-1252	WAVE WASHER		
3	1	CAC60-0007-5	LINK BAR	SS	MI
4	4	SPH-1276	SNAP RING, 8mm	SS	
5	4	BSG-1090	8mm FLANGE BUSHING		
6	1	SPR-1044	SPRING, COMPRESSION	SS	
7	1	CAC60-0002-4	ROLLER		
8	2	SPH-1339	M8 WASHER	SS	
9	2	BSG-1098	BUSHING		
10	1	CAC60-0073-3	SMALL ROLLER		
11	1	FFHMG016P10	FHCS M6 X 1.0 X 16 LG.	P-S	
12	1	BSG-1085	BUSHING 16mm		
13	1	FBHME020P10	M4 x 20 PAN HEAD SCREW	P-S	
14	1	FNLNMEP	M4 NYLOCK NUT		
15	1	SPR-1055	EXTENSION SPRING	SS	
16	1	.SA60/A	SHAFT ASSEMBLY	SS	
17	4	BRG-2015	10mm FLANGE BEARING	SS	
18	1	.FPACAC60-SB	FINGER PLATE ASSY.	SS	MI
19	1	FBHME016P10	BUTTON HEAD M4-1.0 X 16	P-S	
20	1	CAC60-0144-4	KNIFE GUARD LOCK, FIXED		MI
21	2	FHHMF010P10	HHCS M5 X 0.8 X 10 LG.	P-S	
22	2	FLWMFP	LOCK WASHER M5	P-S	
23	1	FFWMFP	FLAT WASHER M5	P-S	
24	1	BSG-1136R1-3	BUSHING, REWORKED		
25	5	FFHMF012P10	FHCS M5 X 0.8 X 12 LG.	P-S	
26	1	CAC60-0158-3	SHAFT SUPPORT UPPPER	SS	
27	1	CAC60-0171-4	TAPE GUIDE PLATE	SS	MI
28	1	CAC60-0172-4	ROLLER, TAPE GUIDE PLATE		
29	2	FFWMHP	FLAT WASHER M8	P-S	
30	1	CAC60-0159-3	SHAFT SUPPPORT LOWER	SS	
31	1	CAC60-0160-3	SHAFT SUPPORT FOR SPACER	SS	
32	1	CAC60-0161-3	SPACER		
33	1	FFHMF025P10	FHCS M5 X 25 LG.	P-S	
34	1	CAC60-0173-3	SHAFT, FRONT ARM SUPPORT	SS	
35	1	CAC60-0174-4	SHAFT, PIVOT EXTENSION	SS	
36	1	FSSMF020B10	M5x0.8 20mm LG	B-S	



(2" STD CAC60 ONLY)

MATL	PART #	CAD FILE	TOLERANCES UNLESS OTHERWISE NOTED:		LOVESHAW 2206 EASTON TPK., SOUTH CANAAN, PA.	
	STD	PLOT DATE	X =±.050 INCH .XX =±.015 .XXX =±.005		TITLE FRONT ROLLER ARM	
		DRAWN DATE 1/28/2016	ANGLES ±1/2°		DWG NO	SCALE
		STAINLESS : NO FINISH	DO NOT SCALE PRINT		MATERIAL	CHECKED
THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVESHAU 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 WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAU AND WILL BE RETURNED TO LOVESHAU UPON REQUEST.			X =±1.0mm METRIC .XX =±.3mm .XXX =±.1mm		DRAWN	APPROVED
			FRACTIONS ± 1/64		BRYCEF	

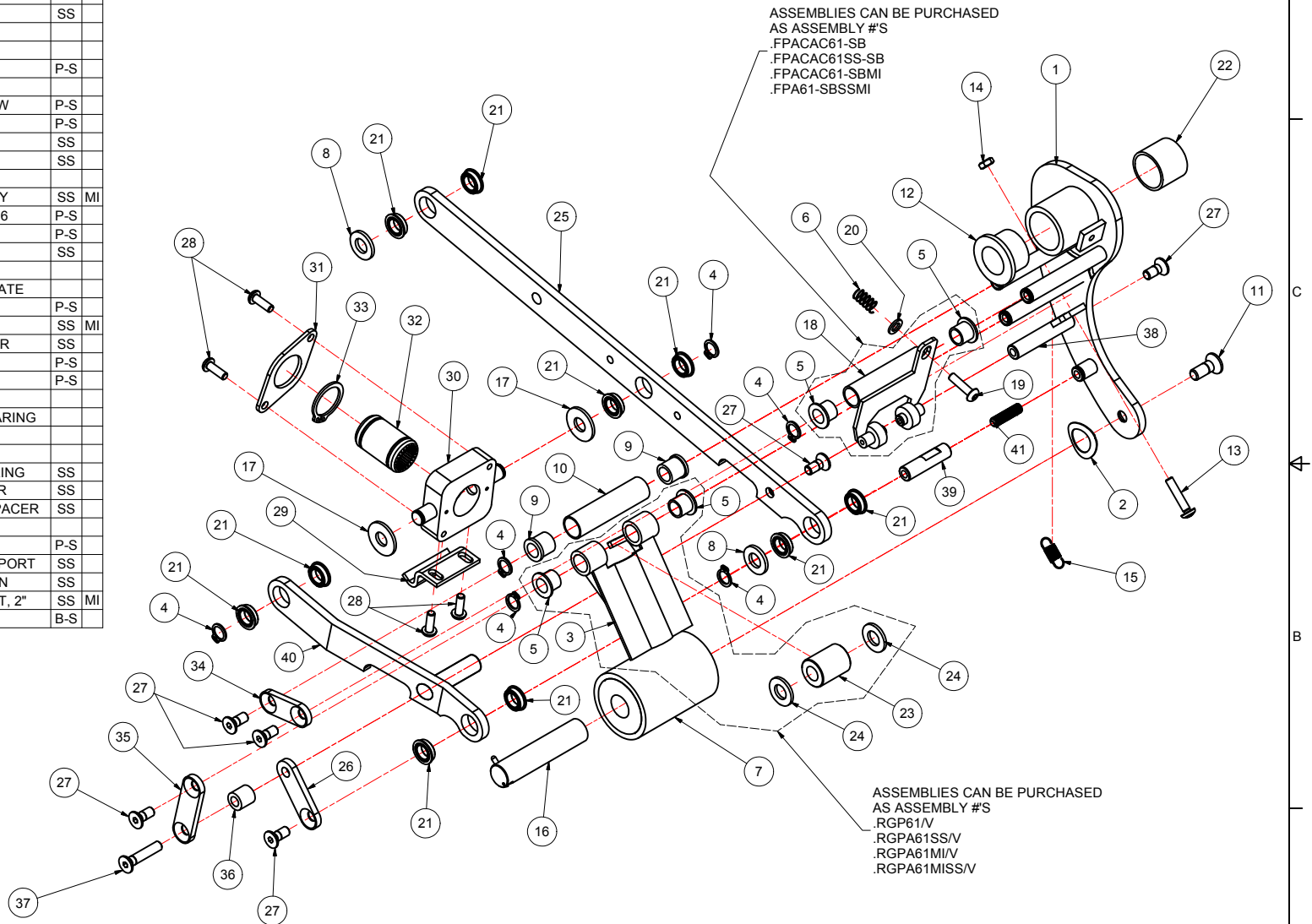
Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0002/3-4	ROLLER		
2	1	SPH-1252	WAVE WASHER		
3	4	BSG-1090	8mm FLANGE BUSHING		
4	4	SPH-1276	SNAP RING, 8mm	SS	
5	1	BSG-1085	BUSHING 16mm		
6	1	CAC60-0007-5	LINK BAR	SS	MI
7	1	CAC60-0001/3-6	FRONT ROLLER ARM	SS	MI
8	1	SPR-1044	SPRING, COMPRESSION	SS	
9	2	SPH-1339	M8 WASHER	SS	
10	1	FBHME016P10	BUTTON HEAD M4-1.0 X 16	P-S	
11	1	FFWMFP	FLAT WASHER M5	P-S	
12	1	FFHMG016P10	FHCS M6 X 1.0 X 16 LG.	P-S	
13	1	CAC60-0073/3-3	SMALL ROLLER		
14	2	BSG-1098	BUSHING		
15	1	.FPACAC61	FINGER PLATE	SS	MI
16	1	FNLNMEP	M4 NYLOCK NUT		
17	1	FBHME020P10	M4 x 20 PAN HEAD SCREW	P-S	
18	1	SPR-1055	EXTENSION SPRING	SS	
19	1	CAC60-0159-3	SHAFT SUPPPORT LOWER	SS	
20	1	.SA61A	SHAFT ASSEMBLY, 3"	SS	
21	5	FFHMF012P10	FHCS M5 X 0.8 X 12 LG.	P-S	
22	4	BRG-2015	10mm FLANGE BEARING	SS	
23	1	CAC60-0158-3	SHAFT SUPPORT UPPPER	SS	
24	1	CAC60-0160-3	SHAFT SUPPORT FOR SPACER	SS	
25	1	CAC60-0161-3	SPACER		
26	1	FFHMF025P10	FHCS M5 X 25 LG.	P-S	
27	1	BSG-1136R1-3	BUSHING, REWORKED		
28	1	CAC60-0171/3-4	TAPE GUIDE PLATE 3"	SS	MI
29	1	CAC60-0172/3-4	ROLLER, TAPE GUIDE PLATE		
30	2	FFWMHP	FLAT WASHER M8	P-S	
31	1	CAC60-0144-4	KNIFE GUARD LOCK, FIXED		MI
32	2	FHHMF010P10	HHCS M5 X 0.8 X 10 LG.	P-S	
33	2	FLWMFP	LOCK WASHER M5	P-S	
34	1	FSSMF020B10	M5x0.8 20mm LG	B-S	
35	1	CAC60-0174/3-4	SHAFT, PIVOT EXTENSION	SS	
36	1	CAC60-0173/3-3	SHAFT, FRONT ARM SUPPORT	SS	



(3" STD CAC61 ONLY)

MATL	PART #	CAD FILE	FRONT ROLLER ARM ASSY (STD) 2.0	LOVESHAW
	STD	PLOT DATE		2206 EASTON TPK., SOUTH CANAAN, PA.
ST. ST.		DRAWN DATE	1/28/2016	TITLE
				FRONT ROLLER ARM ASSY
STAINLESS : NO FINISH	DO NOT SCALE PRINT	INCH .XX = ±.015	ANGLES ± 1/2°	DWG NO FRONT ROLLER ARM ASSY (STD) 2.0.2
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 OTHER WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW AND WILL BE RETURNED TO LOVESHAW UPON REQUEST.		METRIC .XX = ±.3mm	MACH. FINISH	MATERIAL
		XXX = ±.1mm		BRYCEF
		FRACTIONS ± 1/64		CHECKED
				APPROVED

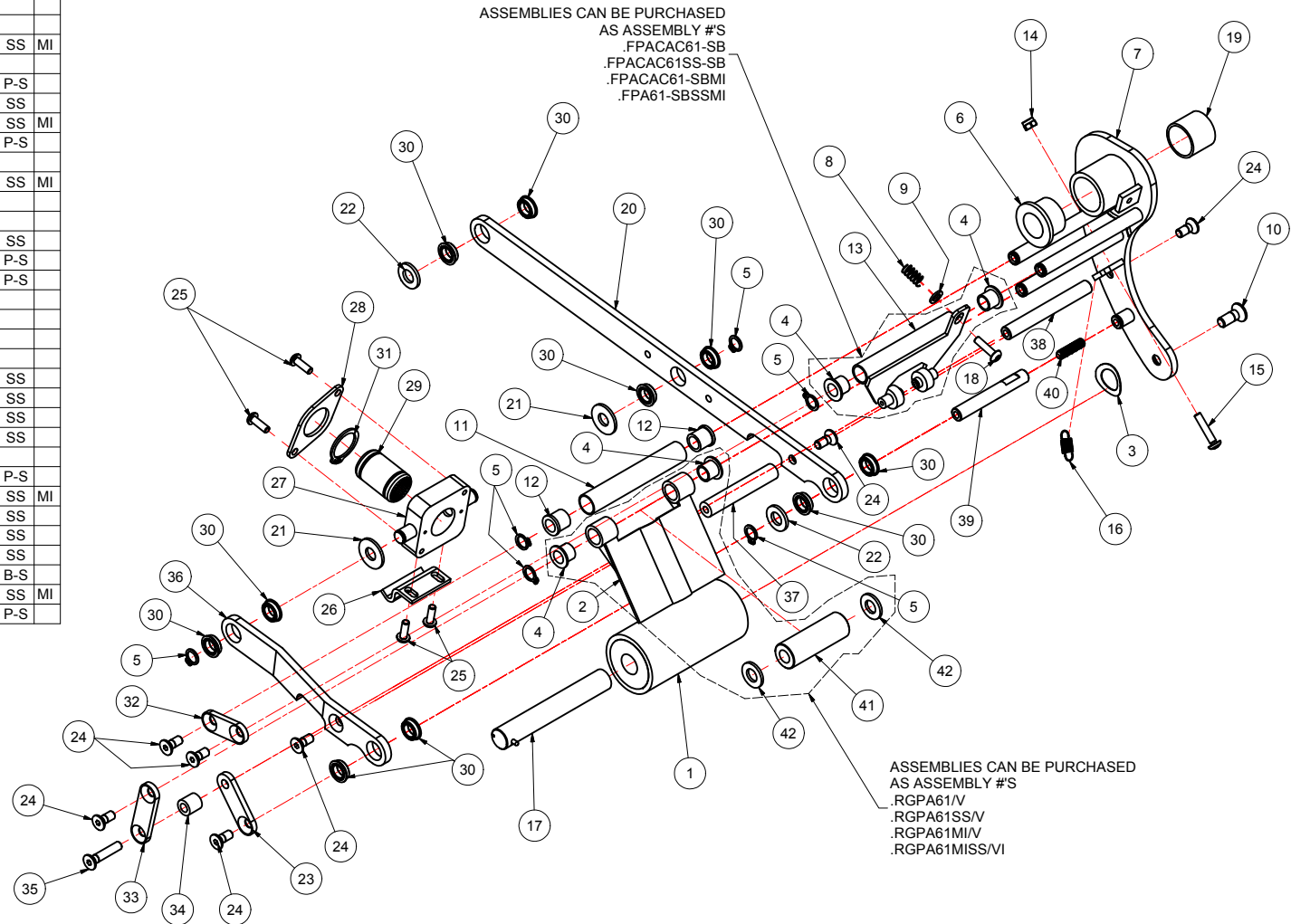
Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0001-6	FRONT ROLLER ARM	SS	MI
2	1	SPH-1252	WAVE WASHER		
3	1	CAC60-0171-4	TAPE GUIDE PLATE	SS	MI
4	6	SPH-1276	SNAP RING, 8mm	SS	
5	4	BSG-1090	8mm FLANGE BUSHING		
6	1	SPR-1044	SPRING, COMPRESSION	SS	
7	1	CAC60-0002-4	ROLLER		
8	2	SPH-1339	M8 WASHER	SS	
9	2	BSG-1098	BUSHING		
10	1	CAC60-0073-3	SMALL ROLLER		
11	1	FFHMG016P10	FHCS M6 X 1.0 X 16 LG.	P-S	
12	1	BSG-1085	BUSHING 16mm		
13	1	FBHME020P10	M4 x 20 PAN HEAD SCREW	P-S	
14	1	FHFNMEP	M4 HEX NUT	P-S	
15	1	SPR-1055	EXTENSION SPRING	SS	
16	1	.SA60/A	SHAFT ASSEMBLY	SS	
17	2	SPH-1277	5/16 BRONZE WASHER		
18	1	.FPACAC60-SB	FINGER PLATE ASSEMBLY	SS	MI
19	1	FBHME016P10	BUTTON HEAD M4-1.0 X 16	P-S	
20	1	FFWMFP	FLAT WASHER M5	P-S	
21	10	BRG-2015	10mm FLANGE BEARING	SS	
22	1	BSG-1136R1-3	BUSHING, REWORKED		
23	1	CAC60-0172-4	ROLLER, TAPE GUIDE PLATE		
24	2	FFWMHP	FLAT WASHER M8	P-S	
25	1	CAC60-0167-4	LINK BAR	SS	MI
26	1	CAC60-0159-3	SHAFT SUPPURT LOWER	SS	
27	6	FFHMF012P10	FHCS M5 X 0.8 X 12 LG.	P-S	
28	4	FBHME012P10	M4 x 12 BUTTON HEAD	P-S	
29	1	CAC60-0141-4	KNIFE GUARD LOCK		
30	1	CAC60-0166-4	SLIDING BLOCK, DBL BEARING		
31	1	CAC60-0142-3	BUSHING RETAINER		
32	1	BSG-1124	10mm LINEAR BEARING		
33	1	SPH-1489	19mm EXTERNAL SNAP RING	SS	
34	1	CAC60-0158-3	SHAFT SUPPORT UPPPER	SS	
35	1	CAC60-0160-3	SHAFT SUPPORT FOR SPACER	SS	
36	1	CAC60-0161-3	SPACER		
37	1	FFHMF025P10	FHCS M5 X 25 LG.	P-S	
38	1	CAC60-0173-3	SHAFT, FRONT ARM SUPPORT	SS	
39	1	CAC60-0174-4	SHAFT, PIVOT EXTENSION	SS	
40	1	CAC60-0175-4	SLIDING BLOCK SUPPORT, 2"	SS	MI
41	1	FSSMF020B10	M5x0.8 20mm LG	B-S	



(2" HS CAC60 ONLY)

MATL	PART #	CAD FILE	TOLERANCES UNLESS OTHERWISE NOTED:		LOVESHAW	
	STD	PLOT DATE			2206 EASTON TPK., SOUTH CANAAN, PA.	
ST. ST.		DRAWN DATE 1/28/2016	X = ±.050 INCH .XX = ±.015 .XXX = ±.005		TITLE	
STAINLESS: NO FINISH		DO NOT SCALE PRINT	X = ±1.0mm METRIC .XX = ±.3mm .XXX = ±.1mm		FRONT ROLLER ARM	
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 OTHER WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW AND WILL BE RETURNED TO LOVESHAW UPON REQUEST.			FRACTIONS ± 1/64		DWG NO	SCALE
					MATERIAL	CHECKED
					DRAWN BRYCEF	APPROVED

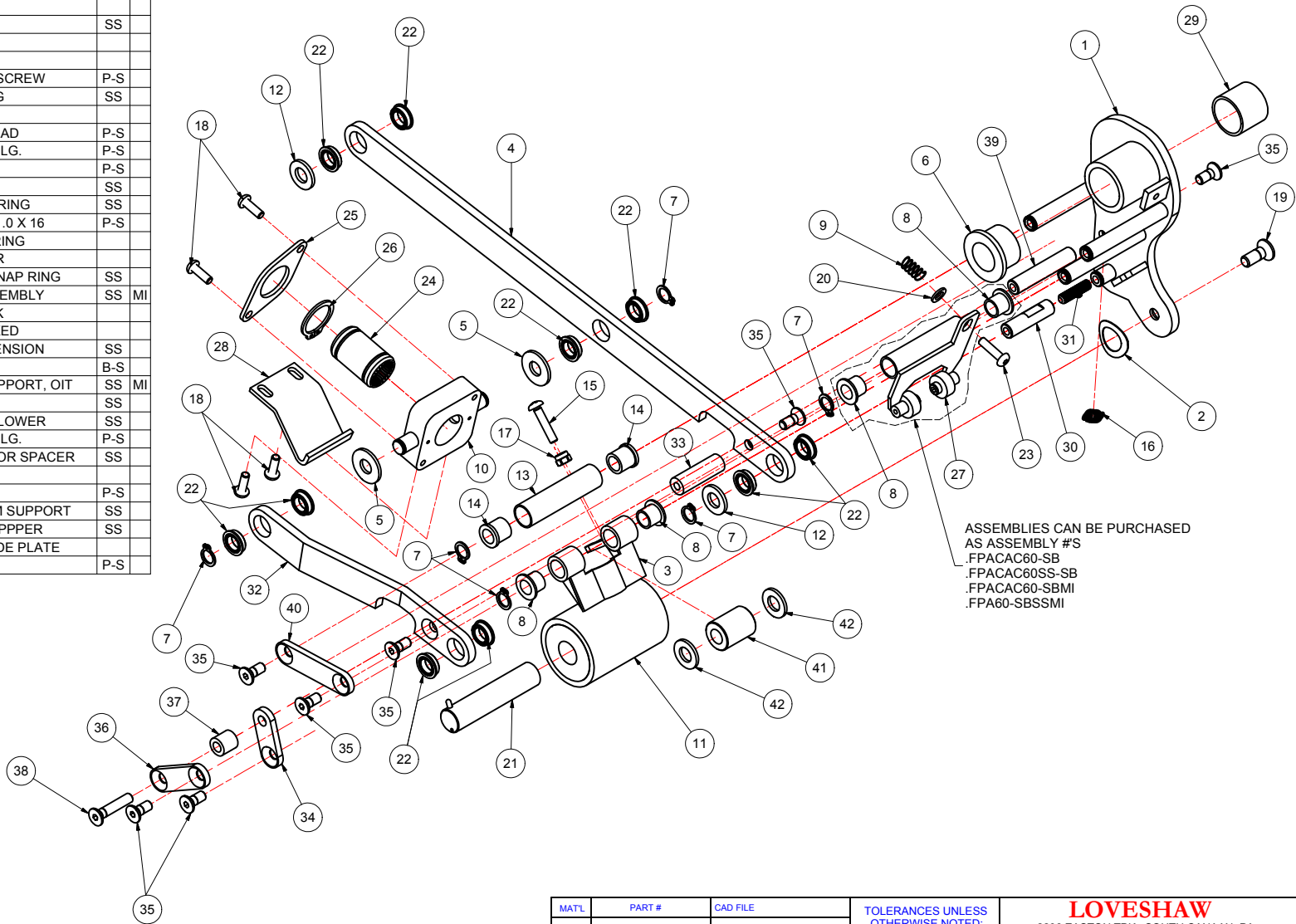
Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0002/3-4	ROLLER		
2	1	CAC60-0171/3-4	TAPE GUIDE PLATE 3"	SS	MI
3	1	SPH-1252	WAVE WASHER		
4	4	BSG-1090	8mm FLANGE BUSHING		
5	6	SPH-1276	SNAP RING, 8mm	SS	
6	1	BSG-1085	BUSHING 16mm		
7	1	CAC60-0001/3-6	FRONT ROLLER ARM	SS	MI
8	1	SPR-1044	SPRING, COMPRESSION	SS	
9	1	FFWMFP	FLAT WASHER M5	P-S	
10	1	FFHMG016P10	FHCS M6 X 1.0 X 16 LG.	P-S	
11	1	CAC60-0073/3-3	SMALL ROLLER		
12	2	BSG-1098	BUSHING		
13	1	FPACAC61	FINGER PLATE	SS	MI
14	1	FNLNMEP	M4 NYLOCK NUT		
15	1	FBHME020P10	M4 x 20 PAN HEAD SCREW	P-S	
16	1	SPR-1055	EXTENSION SPRING	SS	
17	1	.SA61A	SHAFT ASSEMBLY, 3"	SS	MI
18	1	FBHME016P10	BUTTON HEAD M4-1.0 X 16	P-S	
19	1	BSG-1136R1-3	BUSHING, REWORKED		
20	1	CAC60-0167-4	LINK BAR	SS	MI
21	2	SPH-1277	5/16 BRONZE WASHER		
22	2	SPH-1339	M8 WASHER		
23	1	CAC60-0159-3	SHAFT SUPPPORT LOWER	SS	
24	7	FFHMF012P10	FHCS M5 X 0.8 X 12 LG.	P-S	
25	4	FBHME012P10	M4 x 12 BUTTON HEAD	P-S	
26	1	CAC60-0141-4	KNIFE GUARD LOCK		
27	1	CAC60-0166-4	SLIDING BLOCK, DBL BEARING		
28	1	CAC60-0142-3	BUSHING RETAINER		
29	1	BSG-1124	10mm LINEAR BEARING		
30	10	BRG-2015	10mm FLANGE BEARING	SS	
31	1	SPH-1489	19mm EXTERNAL SNAP RING	SS	
32	1	CAC60-0158-3	SHAFT SUPPORT UPPPER	SS	
33	1	CAC60-0160-3	SHAFT SUPPORT FOR SPACER	SS	
34	1	CAC60-0161-3	SPACER		
35	1	FFHMF025P10	FHCS M5 X 25 LG.	P-S	
36	1	CAC60-0164-4	SLIDING BLOCK SUPPORT	SS	MI
37	1	CAC60-0165-3	SHAFT	SS	
38	1	CAC60-0173/3-3	SHAFT, FRONT ARM SUPPORT	SS	
39	1	CAC60-0174/3-4	SHAFT, PIVOT EXTENSION	SS	
40	1	FSSMF020B10	M5x0.8 20mm LG	B-S	
41	1	CAC60-0172/3-4	ROLLER, TAPE GUIDE PLATE	SS	MI
42	2	FFWMHP	FLAT WASHER M8	P-S	



(3" HS CAC61 ONLY)

MATL	PART #	CAD FILE	TOLERANCES UNLESS OTHERWISE NOTED:		LOVESHAW 2206 EASTON TPK., SOUTH CANAAN, PA.	
	STD	PLOT DATE	X = ±.050 INCH .XX = ±.015 XXX = ±.005		TITLE FRONT ROLLER ARM ASSY	
		DRAWN DATE 1/11/2016	ANGLES ± 1/2°		DWG NO	SCALE
	STAINLESS : NO FINISH	DO NOT SCALE PRINT	X = ±1.0mm MACH. FINISH METRIC .XX = ±.3mm XXX = ±.1mm		MATERIAL	CHECKED
THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVESHAWS 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 WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAWS AND WILL BE RETURNED TO LOVESHAWS UPON REQUEST.			FRACTIONS ± 1/64		DRAWN BRYCEF	APPROVED

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0063-6	FRONT ROLLER ARM	SS	MI
2	1	SPH-1252	WAVE WASHER		
3	1	CAC60-0177-4	TAPE GUIDE PLATE	SS	MI
4	1	CAC60-0065-5	LINK BAR	SS	MI
5	2	SPH-1277	5/16 BRONZE WASHER		
6	1	BSG-1085	BUSHING 16mm		
7	6	SPH-1276	SNAP RING, 8mm	SS	
8	4	BSG-1090	8mm FLANGE BUSHING		
9	1	SPR-1044	SPRING, COMPRESSION	SS	
10	1	CAC60-0166-4	SLIDING BLOCK, DBL BEARING		
11	1	CAC60-0002-4	ROLLER		
12	2	SPH-1339	M8 WASHER	SS	
13	1	CAC60-0073-3	SMALL ROLLER		
14	2	BSG-1098	BUSHING		
15	1	FBHME020P10	M4 x 20 PAN HEAD SCREW	P-S	
16	1	SPR-1055	EXTENSION SPRING	SS	
17	1	FNLNMEP	M4 NYLOCK NUT		
18	4	FBHME012P10	M4 x 12 BUTTON HEAD	P-S	
19	1	FFHMG016P10	FHCS M6 X 1.0 X 16 LG.	P-S	
20	1	FFWMFP	FLAT WASHER M5	P-S	
21	1	.SA60/A	SHAFT ASSEMBLY	SS	
22	10	BRG-2015	10mm FLANGE BEARING	SS	
23	1	FBHME016P10	BUTTON HEAD M4-1.0 X 16	P-S	
24	1	BSG-1124	10mm LINEAR BEARING		
25	1	CAC60-0142-3	BUSHING RETAINER		
26	1	SPH-1489	19mm EXTERNAL SNAP RING	SS	
27	1	.FPACAC60-SB	FINGER PLATE ASSEMBLY	SS	MI
28	1	CAC60-0150-4	KNIFE GUARD LOCK		
29	1	BSG-1136R1-3	BUSHING, REWORKED		
30	1	CAC60-0174-4	SHAFT, PIVOT EXTENSION	SS	
31	1	FSSMF020B10	M5x0.8 20mm LG	B-S	
32	1	CAC60-0176-4	SLIDING BLOCK SUPPORT, OIT	SS	MI
33	1	CAC60-0165A-3	SHAFT	SS	
34	1	CAC60-0159A-3	SHAFT SUPPPORT LOWER	SS	
35	7	FFHMF012P10	FHCS M5 X 0.8 X 12 LG.	P-S	
36	1	CAC60-0160A-3	SHAFT SUPPORT FOR SPACER	SS	
37	1	CAC60-0161-3	SPACER		
38	1	FFHMF025P10	FHCS M5 X 25 LG.	P-S	
39	1	CAC60-0173-3	SHAFT, FRONT ARM SUPPORT	SS	
40	1	CAC60-0158A-3	SHAFT SUPPORT UPPPER	SS	
41	1	CAC60-0172-4	ROLLER, TAPE GUIDE PLATE		
42	2	FFWMHP	FLAT WASHER M8	P-S	



(ONE INCH TAB ONLY)

MATL	PART #	CAD FILE	TOLERANCES UNLESS OTHERWISE NOTED:		LOVESHAW 2206 EASTON TPK., SOUTH CANAAN, PA.	
	STD	PLOT DATE	X = ±.050 INCH .XX = ±.015 .XXX = ±.005		TITLE FRONT ROLLER ARM	
		DRAWN DATE 2/4/2016	ANGLES ±1/2°		DWG NO	SCALE
		STAINLESS : NO FINISH	DO NOT SCALE PRINT		MATERIAL	CHECKED
THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVESHAUW 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 WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAUW AND WILL BE RETURNED TO LOVESHAUW UPON REQUEST.			X = ±1.0mm METRIC .XX = ±.3mm .XXX = ±.1mm		DRAWN	APPROVED
			FRACTIONS ± 1/64		BRYCEF	

PARTS FOR .CAC61NTNC 3" CARTRIDGE

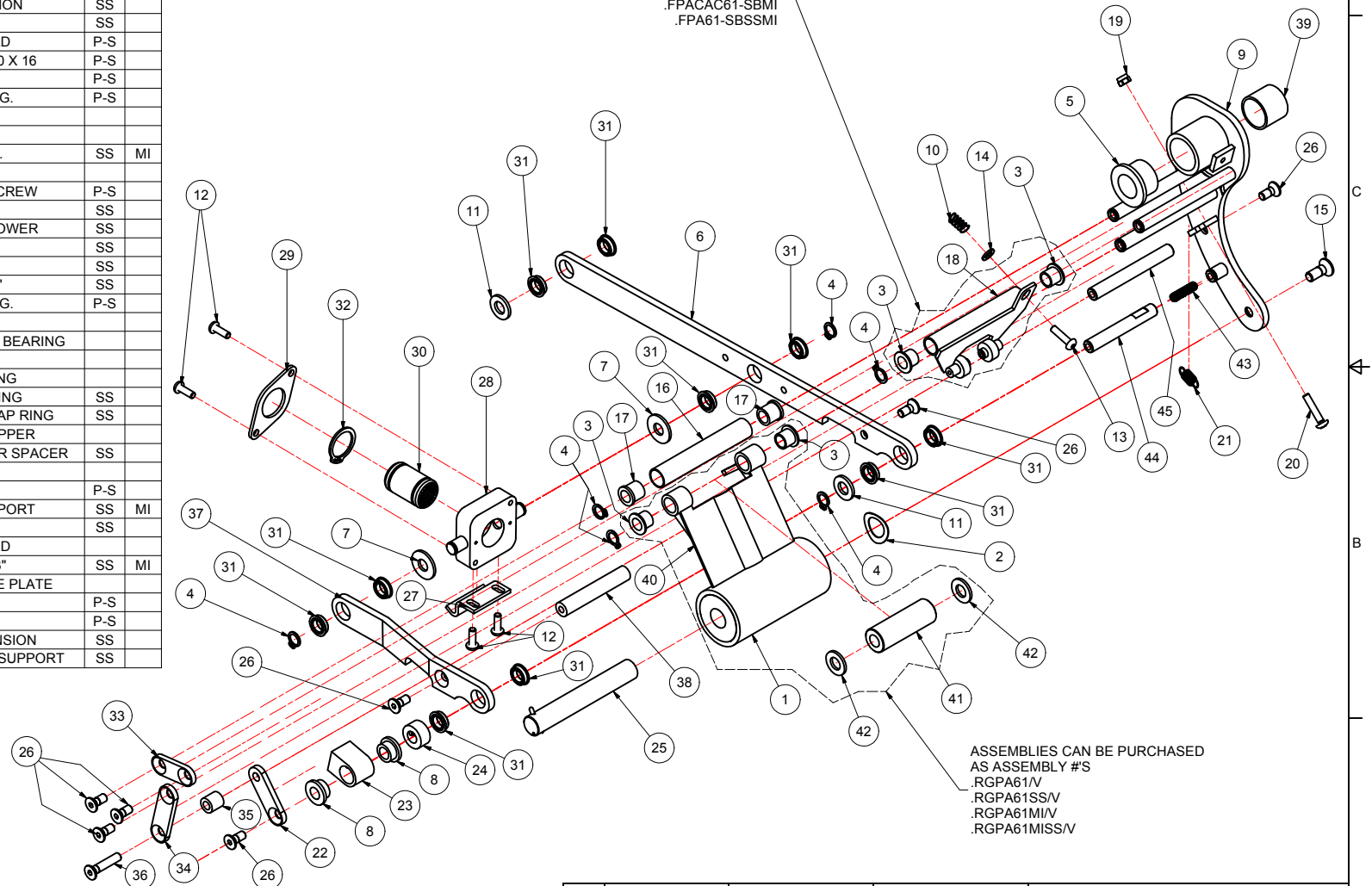
REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	1/29/2014	BJF

Parts List

ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0002/3-4	ROLLER		
2	1	SPH-1252	WAVE WASHER		
3	4	BSG-1090	8mm FLANGE BUSHING		
4	6	SPH-1276	SNAP RING, 8mm	SS	
5	1	BSG-1085	BUSHING 16mm		
6	1	CAC60-0167-4	LINK BAR	SS	MI
7	2	SPH-1277	5/16 BRONZE WASHER		
8	2	CAC60-0047-3	BUSHING, OILITE		
9	1	CAC60-0001/3-6	FRONT ROLLER ARM	SS	MI
10	1	SPR-1044	SPRING, COMPRESSION	SS	
11	2	SPH-1339	M8 WASHER	SS	
12	4	FBHME012P10	M4 x 12 BUTTON HEAD	P-S	
13	1	FBHME016P10	BUTTON HEAD M4-1.0 X 16	P-S	
14	1	FFWMFP	FLAT WASHER M5	P-S	
15	1	FFHMG016P10	FHCS M6 X 1.0 X 16 LG.	P-S	
16	1	CAC60-0073/3-3	SMALL ROLLER		
17	2	BSG-1098	BUSHING		
18	1	.FPACAC61	FINGER PLATE ASSY.	SS	MI
19	1	FNLNMEP	M4 NYLOCK NUT		
20	1	FBHME020P10	M4 x 20 PAN HEAD SCREW	P-S	
21	1	SPR-1055	EXTENSION SPRING	SS	
22	1	CAC60-0159-3	SHAFT SUPPPORT LOWER	SS	
23	1	CAC60-0111-3	CLEVIS	SS	
24	1	SC31	SET COLLAR 5/16	SS	
25	1	.SA61A	SHAFT ASSEMBLY, 3"	SS	
26	7	FFHMF012P10	FHCS M5 X 0.8 X 12 LG.	P-S	
27	1	CAC60-0141-4	KNIFE GUARD LOCK		
28	1	CAC60-0166-4	SLIDING BLOCK, DBL BEARING		
29	1	CAC60-0142-3	BUSHING RETAINER		
30	1	BSG-1124	10mm LINEAR BEARING		
31	10	BRG-2015	10mm FLANGE BEARING	SS	
32	1	SPH-1489	19mm EXTERNAL SNAP RING	SS	
33	1	CAC60-0158-3	SHAFT SUPPORT UPPPER		
34	1	CAC60-0160-3	SHAFT SUPPORT FOR SPACER	SS	
35	1	CAC60-0161-3	SPACER		
36	1	FFHMF025P10	FHCS M5 X 25 LG.	P-S	
37	1	CAC60-0164-4	SLIDING BLOCK SUPPORT	SS	MI
38	1	CAC60-0165-3	SHAFT	SS	
39	1	BSG-1136R1-3	BUSHING, REWORKED		
40	1	CAC60-0171/3-4	TAPE GUIDE PLATE 3"	SS	MI
41	1	CAC60-0172/3-4	ROLLER, TAPE GUIDE PLATE		
42	2	FFWMHP	FLAT WASHER M8	P-S	
43	1	FSSMF020B10	M5x0.8 20mm LG	P-S	
44	1	CAC60-0174/3-4	SHAFT, PIVOT EXTENSION	SS	
45	1	CAC60-0173/3-3	SHAFT, FRONT ARM SUPPORT	SS	

(PNEUMATIC CARTRIDGE ONLY)

ASSEMBLIES CAN BE PURCHASED
AS ASSEMBLY #S
.FPACAC61-SB
.FPACAC61SS-SB
.FPACAC61-SBMI
.FPA61-SBSSMI



ASSEMBLIES CAN BE PURCHASED
AS ASSEMBLY #S
.RGPA61/V
.RGPA61SS/V
.RGPA61MI/V
.RGPA61MISS/V

MATL	PART #	CAD FILE	TOLERANCES UNLESS OTHERWISE NOTED:		LOVESHAW 2206 EASTON TPK., SOUTH CANAAN, PA.	
	STD	PLOT DATE	X = ±.050 INCH .XX = ±.015 XXX = ±.005		TITLE FRONT ROLLER ARM ASSY	
		DRAWN DATE 1/29/2014	ANGLES ± 1/2° X = ±1.0mm METRIC .XX = ±.3mm XXX = ±.1mm		DWG NO	SCALE
STAINLESS : NO FINISH			DO NOT SCALE PRINT		MATERIAL	CHECKED
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 OTHER WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW AND WILL BE RETURNED TO LOVESHAW UPON REQUEST.			FRACTIONS ± 1/64		DRAWN BRYCEF	APPROVED

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	1/2/2012	BJF

PARTS FOR CAC60/LS 2" CARTRIDGE

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0126-5	REAR ROLLER ARM	SS	MI
2	1	CAC60-0002-4	ROLLER		
3	1	SPH-1252	WAVE WASHER		
4	2	BSG-1085	BUSHING 16mm		
5	1	SPH-1276	RETAINING RING 8mm	SS	
6	1	CAC60-0034-3	SPACER	SS	
7	1	FFHMG016P10	FHCS M6 X 1.0 X 16 LG.	P-S	
8	1	.SA60/A	SHAFT ASSEMBLY	SS	
9	1	SPH-1267R	ROD END, M6	SS	
10	1	FBHMF020P10	BUTT. HD. CAP SCREW M5 X 20	P-S	

PARTS FOR CAC61/LS 3" CARTRIDGE

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0126-5	REAR ROLLER ARM	SS	MI
2	1	CAC60-0002/3-4	ROLLER		
3	1	SPH-1252	WAVE WASHER		
4	2	BSG-1085	BUSHING 16mm		
5	1	SPH-1276	RETAINING RING 8mm	SS	
6	1	CAC60-0034-3	SPACER	SS	
7	1	FFHMG016P10	FHCS M6 X 1.0 X 16LG	P-S	
8	1	.SA61/A	SHAFT ASSEMBLY	SS	
9	1	SPH-1267R	ROD END, M6	SS	
10	1	FBHMF020P10	BUTT. HD. CAP SCREW M5 X 20	P-S	

(STANDARD CARTRIDGE ONLY)

MATL	PART #	CAD FILE	TOLERANCES UNLESS OTHERWISE NOTED:	LOVESHAW an ITW Company RT. 296, SOUTH CANAAN, PA.	
	STD	PLOT DATE		TITLE	
ST. ST.		DRAWN DATE 1/2/2012	X = ±.050 INCH .XX = ±.015 .XXX = ±.005	REAR ROLLER ARM	
	STAINLESS : NO FINISH	DO NOT SCALE PRINT	ANGLES ± 1/2° X = ±1.0mm METRIC .XX = ±.3mm .XXX = ±.1mm	DWG NO	SCALE
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 WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW-ITW AND WILL BE RETURNED TO LOVESHAW-ITW UPON REQUEST.				MATERIAL	CHECKED
FRACTIONS ± 1/64				DRAWN BRYCEF	APPROVED

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	7/27/2011	BJF

PARTS FOR .CAC60 2" CARTRIDGE

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0126-5	REAR ROLLER ARM	SS	MI
2	1	CAC60-0002-4	ROLLER		
3	1	SPH-1252	WAVE WASHER		
4	2	BSG-1085	BUSHING 16mm		
5	1	CAC60-0018-3	STANDOFF	SS	
6	1	SPH-1267	ROD END, M6	SS	
7	1	CAC60-0010-4	SLIDING ROD		
8	1	SPR-1036	COMPRESSION SPRING	SS	
9	1	SPH-1276	RETAINING RING 8mm	SS	
10	1	CAC60-0034-3	SPACER		
11	1	SPH-1338	SHAFT COLLAR		
12	2	FFHMG016P10	FHCS M6 X 1.0 X 16 LG.	P-S	
13	1	FBHMF016P10	BHCS M6 X 16	P-S	
14	1	FFHNMGP	HEX NUT M6	P-S	
15	1	.SA60/A	SHAFT ASSEMBLY	SS	
16	1	SPH-1267R	ROD END, M6	SS	
17	1	FBHMF020P10	B.H. CAP SCREW M5 X 20	P-S	
18	1	FSHMG012P10	SHCS M6 X 1.0 X 12 LG.	P-S	
19	1	FFWMGP	M6 FENDER WASHER	P-S	

PARTS FOR .CAC61 3" CARTRIDGE

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0126-5	REAR ROLLER ARM	SS	MI
2	1	CAC60-0002/3-4	ROLLER		
3	1	SPH-1252	WAVE WASHER		
4	2	BSG-1085	BUSHING 16mm		
5	1	CAC60-0018-3	STANDOFF	SS	
6	1	SPH-1267	ROD END, M6	SS	
7	1	CAC60-0010-4	SLIDING ROD		
8	1	SPR-1036	COMPRESSION SPRING	SS	
9	1	SPH-1276	SNAP RING, 8mm	SS	
10	1	CAC60-0034-3	SPACER		
11	1	SPH-1338	SHAFT COLLAR		
12	2	FFHMG016P10	FHCS M6 X 1.0 X 16 LG.	P-S	
13	1	FBHMF016P10	BHCS M6 X 16	P-S	
14	1	FFHNMGP	HEX NUT M6	P-S	
15	1	.SA61/A	SHAFT ASSEMBLY, 3"	SS	
16	1	SPH-1267R	ROD END, M6	SS	
17	1	FBHMF020P10	B.H. CAP SCREW M5 X 20	P-S	
18	1	FSHMG012P10	SHCS M6 X 1.0 X 12 LG.	P-S	
19	1	FFWMGP	M6 FENDER WASHER	SS	

(HIGH SPEED CARTRIDGE ONLY)

MATL	PART #	CAD FILE	PLT DATE	TOLERANCES UNLESS OTHERWISE NOTED:	LOVESHAW an ITW Company RT. 296, SOUTH CANAAN, PA.	
	STD				TITLE REAR ROLLER ARM ASSY	
ST. ST.		DRAWN DATE	7/27/2011	X = ±.050 INCH .XX = ±.015 .XXX = ±.005	DWG NO. .RRACAC61	
				ANGLES ± 1/2°	SCALE	
					MATERIAL	
					CHECKED	
					APPROVED	
					DRAWN BRYCEF	
					FRACTIONS ± 1/64	

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	6/5/2012	BJF

PARTS FOR CAC61NTNC 3" CARTRIDGE

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0155-5	REAR ROLLER ARM	SS	MI
2	1	CAC60-0018-3	STANDOFF	SS	
3	1	CAC60-0002/3-4	ROLLER		
4	1	SPH-1252	WAVE WASHER		
5	2	BSG-1085	BUSHING 16mm	SS	
6	1	SPH-1267	ROD END, M6	SS	
7	1	CAC60-0010-4	SLIDING ROD		
8	1	SPR-1036	COMPRESSION SPRING	SS	
9	1	CAC60-0034-3	SPACER		
10	1	FBHMF016P10	BHCS M6 X 16	P-S	
11	1	FHFNMGP	HEX NUT M6	P-S	
12	2	FFHMG016P10	FHCS M6 X 1.0 X 16 LG.	P-S	
13	1	SPH-1338	SHAFT COLLAR	SS	
14	1	.SA61A	SHAFT ASSEMBLY, 3"	SS	
15	1	FSHMG012P10	SHCS M6 X 1.0 X 12 LG.	P-S	
16	1	SPH-1496	M6 FLAT WASHER	SS	
17	1	CAC60-0156-3	BEARING HUB		
18	2	FSHMF012P10	SHCS M5 X 0.8 X 12 LG.	P-S	
19	1	SPH-1543R	ROD END, M8	SS	

(PNEUMATIC CARTRIDGE ONLY)

MATL	PART #	CAD FILE RRAA-HD.idw	TOLERANCES UNLESS OTHERWISE NOTED:	LOVESHAW an ITW Company RT. 296, SOUTH CANAAN, PA.	
	STD	PLOT DATE		TITLE REAR ROLLER ARM ASSY	
ST. ST.		DRAWN DATE 6/5/2012	X = ±.050 INCH .XX = ±.015 XXX = ±.005	DWG NO RRAA-HD	
	STAINLESS : NO FINISH	DO NOT SCALE PRINT	ANGLES ± 1/2° X = ±1.0mm METRIC .XX = ±.3mm XXX = ±.1mm	SCALE	
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 WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW-ITW UPON REQUEST.			FRACTIONS ± 1/64	CHECKED	
				APPROVED	
				DRAWN BRYCEF	

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	6/5/2012	BJF

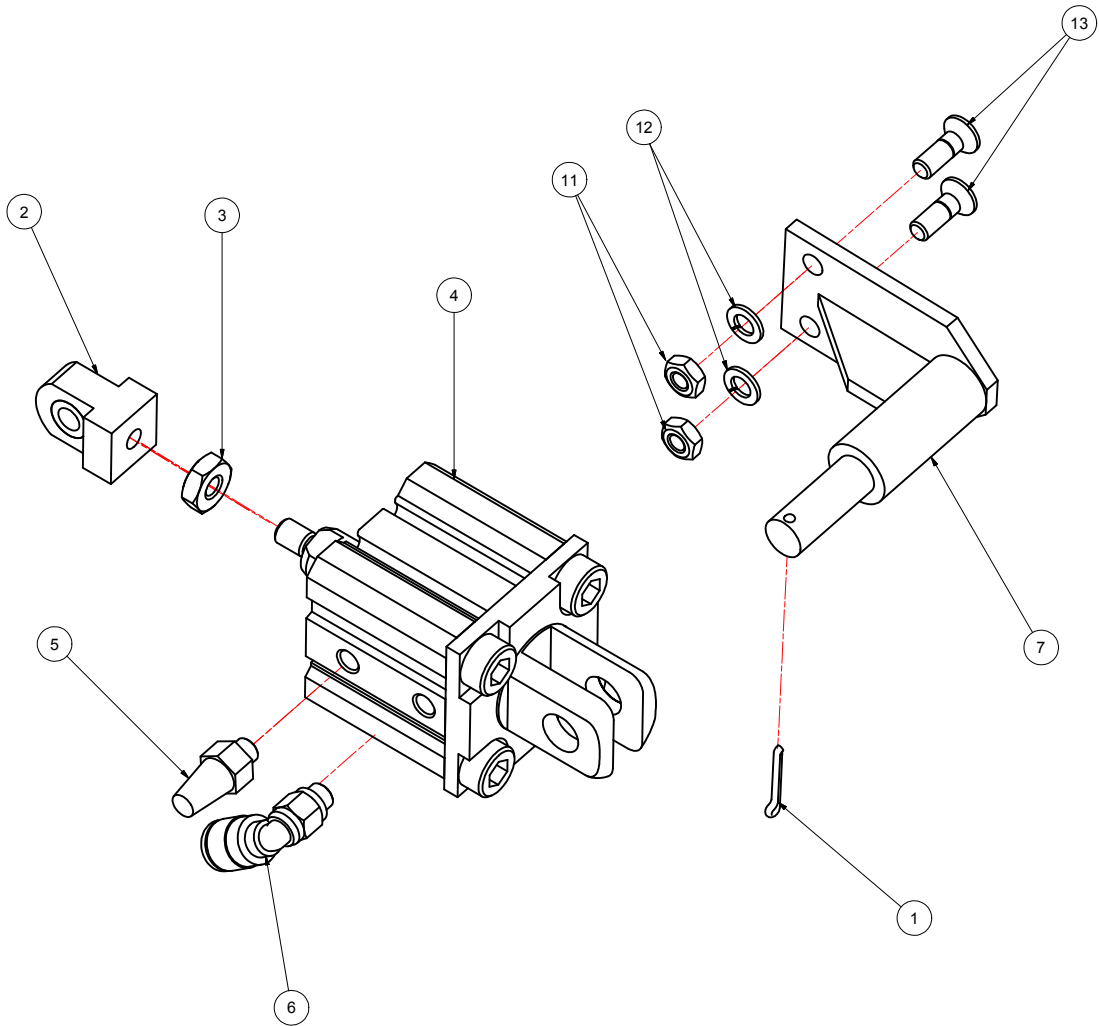
PARTS FOR CAC61NTNC 3" CARTRIDGE

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0112-5	CYLINDER MOUNT		
2	1	N400-25	1/4" X 1/4 NPT FITTING		
3	1	SC25	SET COLLAR, 1/4	SS	
4	1	FSHME020P10	SHCS M4 X 0.7 X 20 LG.	P-S	
5	1	P4010-004	1/4" "Y" CONNECTOR		
6	1	AH206	WIRE / HOSE CRADLE		
7	1	FBHMF006P10	BUTTON HEAD, M5 x 6	P-S	
8	1	N400-210	1/4" TO 5/32" REDUCER		
9	1	FFHMG020P10	FHCS M6 x 20	P-S	
10	1	N401-349B	AIR CYLINDER, 3/4 x 4.5		
10a	1	N401-349	AIR CYLINDER, 3/4 x 5 (OPTIONAL PASS THRU CARTRIDGE)		
11	1	CAC60-0113-3	CYLINDER STUD		
12	1	FHJNSGP	HEX JAM NUT 1/4-28		
13	1	PSR636	BARB FITTING, 1/8 NPT X 1/4 TUBE		
14	1	N400-230B	QUICK EXHAUST		
15	1	N400-242	IN-LINE FLOW CONTROL		
16	1	N522 /11	COIL HOSE, MULTI BORE		
17	2	H153	FITTING, 1/8 ID TUBE TO 1/8 NPT		
18	2	N400-224	MALE QUICK DISC., 1/8 NPT		
19	14"	N622	5/32" DIA. TUBING (NOT SHOWN)		
20	7"	PSR700	1/4" DIA. TUBING (NOT SHOWN)		

(PNEUMATIC CARTRIDGE ONLY)

MATL	PART #	CAD FILE FRONT ROLLER ARM CYLINDER.dwg		LOVESHAW an ITW Company RT. 296, SOUTH CANAAN, PA.			
	STD	PLOT DATE		TITLE			
ST. ST.		DRAWN DATE	6/5/2012	DWG NO FRONT ROLLER ARM CYLINDER			
STAINLESS : NO FINISH		DO NOT SCALE PRINT		MATERIAL	CHECKED		
<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 OTHERS WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW-ITW AND WILL BE RETURNED TO LOVESHAW-ITW UPON REQUEST.</p>				DRAWN	APPROVED		
				FRACTIONS ± 1/64		BRYCEF	

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	6/5/2012	BJF



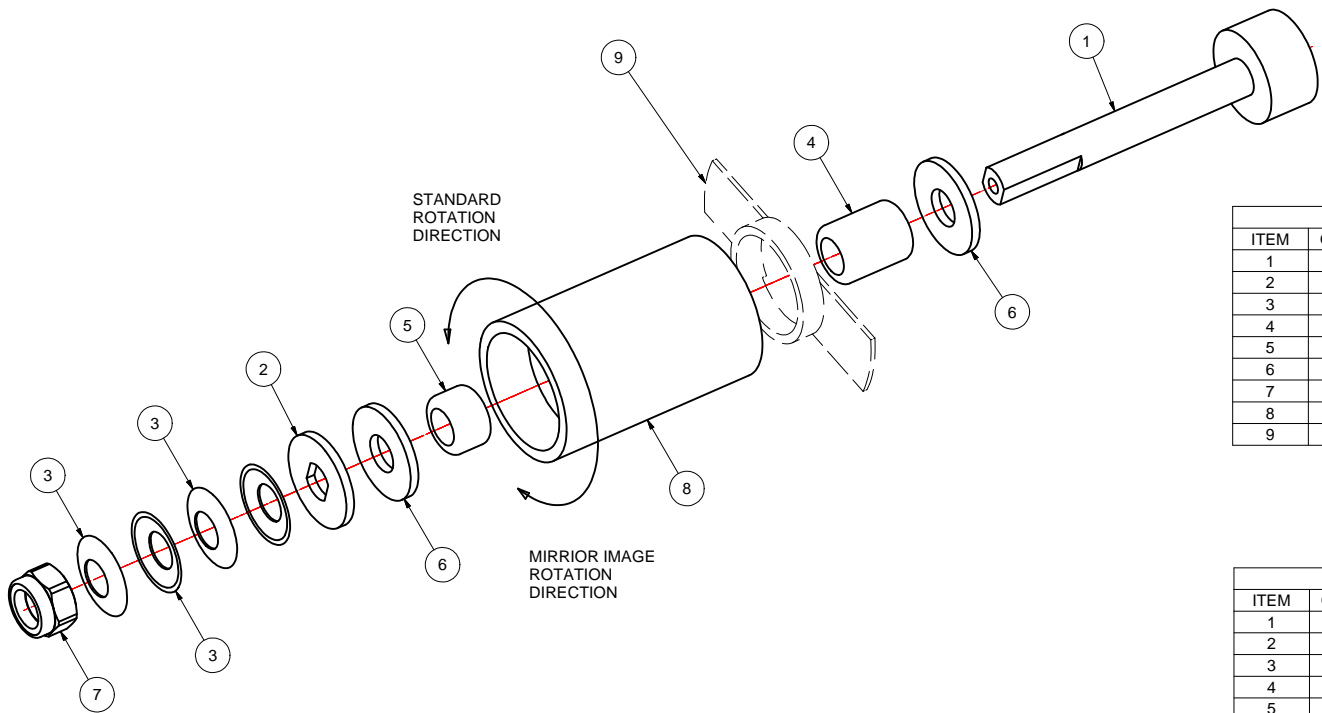
PARTS FOR CAC61NTNC 3" CARTRIDGE

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	SPH-1501	CLEVIS PIN	SS	
2	1	CAC60-0116A-3	CLEVIS		
3	1	FHJNSDP	#10-32 HEX JAM NUT	P-S	
4	1	N401-359	COMPACT CYLINDER	SS	
5	1	N400-207	MUFFLER		
6	1	N400-161	FITTING M5		
7	1	SP16-0358-4	CYLINDER MOUNT	SS	
11	2	FFHNMEP	M4 HEX NUT	P-S	
12	2	FLWMEP	LOCK WASHER M4	P-S	
13	2	FFHME012P10	M4x12 LG	P-S	

(PNEUMATIC CARTRIDGE ONLY)

MATL	PART #	CAD FILE	KNIFE ARM CYL. ASSY.dwg	TOLERANCES UNLESS OTHERWISE NOTED:		LOVESHAW an ITW Company RT. 296, SOUTH CANAAN, PA.	
	STD	PLOT DATE	6/5/2012	X = ±.050 INCH .XX = ±.015 XXX = ±.005		TITLE KNIFE ARM CYL. ASSY.	
ST. ST.		DRAWN DATE	6/5/2012	X = ±1.0mm METRIC .XX = ±.3mm XXX = ±.1mm		DWG NO KNIFE ARM CYL. ASSY.	
STAINLESS : NO FINISH		DO NOT SCALE PRINT		MACH. FINISH ✓		SCALE	
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 WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW-ITW AND WILL BE RETURNED TO LOVESHAW-ITW UPON REQUEST.				FRACTIONS ± 1/64		CHECKED	
DRAWN		BRYCEF				APPROVED	

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	4/19/2010	BJF
B	RELEASED	3/29/2011	BJF



PARTS FOR .CAC60 2" CARTRIDGE

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0074/A-4	SHAFT, KNURLED ROLLER	SS	
2	1	CAC60-0077-3	LOCKING WASHER	SS	
3	4	PSC321039A	WASHER, SPRING	SS	
4	1	BRG-1098	BEARING		
5	1	BRG-1099	BEARING		
6	2	CAC60-0076-3	BRAKE WASHER		
7	1	FNLNMIP	NYLOCK NUT M10	P-S	
8	1	CAC60-0075-4	KNURLED ROLLER		
9	1	SP4-3470-4	OPTIONAL TAPE DET. TAB		

PARTS FOR .CAC61 3" CARTRIDGE

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0074/3A-4	SHAFT, KNURLED ROLLER	SS	
2	1	CAC60-0077-3	LOCKING WASHER	SS	
3	3	PSC321039A	WASHER, SPRING	SS	
4	1	BRG-1098	BEARING		
5	1	BRG-1099	BEARING		
6	2	CAC60-0076-3	BRAKE WASHER		
7	1	FNLNMIP	NYLOCK NUT M10	P-S	
8	1	CAC60-0075/3-4	KNURLED ROLLER		
9	1	SP4-3470-4	OPTIONAL TAPE DET. TAB		

MATL	PART #	CAD FILE	TRA60A -.TRA61A	TOLERANCES UNLESS OTHERWISE NOTED:	LOVESHAW an ITW Company RT. 296, SOUTH CANAAN, PA.	
C.R.S.	STD	PLOT DATE	3/27/2011		TITLE	
ST. ST.		DRAWN DATE	1/19/2009	$x = \pm 0.05$ INCH $XX \pm 0.015$ ANGLES $\pm 1/2$ $XXX \pm 0.05$ $x = \pm 1.0mm$ METRIC $XX \pm 0.3mm$ FINISH <input checked="" type="checkbox"/> $XXX \pm 1.1mm$	TENSION ROLLER ASSEMBLY CAC60/61	
STAINLESS : NO FINISH		DO NOT SCALE PRINT			DWG NO	TRA60A/.TRA61A
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 WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW-ITW AND WILL BE RETURNED TO LOVESHAW-ITW UPON REQUEST.					SCALE	
				MATERIAL	CHECKED	
FRACTIONS $\pm 1/64$				DRAWN	AMYR	APPROVED

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	5/17/2011	BJF

PARTS FOR .CAC60 2" CARTRIDGE

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0125-6	KNIFE ARM, DBL.	SS	MI
2	1	CAC60-0028-3	KNIFE GUARD PIVOT PIN	SS	
3	1	CAC60-0029-5	KNIFE GUARD	SS	MI
4	2	BSG-1091	BUSHING, 6mm		
5	1	CAC60-0036-3	TAB ADJUSTER	SS	MI
6	2	CAC60-0042-3	PIN		
7	4	SPR-1045	SPRING	SS	
8	1	CAC60-0043-3	PIN PLATE	SS	
9	1	PSC11B60-4M2	KNIFE BLADE 2"		
9a	1	PSC11A60-4M2	KNIFE BLADE 2" , (OPT. COARSE)		
10	1	SPR-1042	EXTENSION SPRING	SS	
11	2	FFHME008P10	M4 x 8 FHCS	P-S	
12	2	FSSME004P10	M4 x 4 CUP POINT SET SCREW	P-S	
* 13	1	CAC60-0078-3	KNIFE GUARD CUSHION		
14	1	SPR-1063	TORSION SPRING		MI
15	2	FFHMD008P10	M3 X 8 FHCS	P-S	
16	2	BSG-1135	BRONZE WASHER		

PARTS FOR .CAC61 3" CARTRIDGE

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0125/3-6	KNIFE ARM, DBL.	SS	MI
2	1	CAC60-0028/3-3	KNIFE GUARD PIVOT PIN	SS	
3	1	CAC60-0029/3-5	KNIFE GUARD	SS	MI
4	2	BSG-1091	BUSHING, 6mm		
5	1	CAC60-0036-3	TAB ADJUSTER	SS	MI
6	2	CAC60-0042-3	PIN		
7	4	SPR-1045	SPRING	SS	
8	1	CAC60-0043/3-3	PIN PLATE	SS	
9	1	PS4117A60-4M2	KNIFE BLADE 3"		
9a	1	PS4117AN60-4M2	KNIFE BLADE 3", (OPT. COARSE)		
10	1	SPR-1042	EXTENSION SPRING	SS	
11	2	FFHME008P10	M4 x 8 FHCS	P-S	
12	2	FSSME004P10	M4 x 4 CUP POINT SET SCREW	P-S	
* 13	1	CAC60-0078/3-3	KNIFE GUARD CUSHION		
14	1	SPR-1063	TORSION SPRING		MI
15	2	FFHMD008P10	M3 x 8 FHCS	P-S	
16	2	BSG-1135	BRONZE WASHER		

* USE DEVCON 5 MINUTE EPOXY OR EQUIVALENT TO AFFIX FELT PAD TO KNIFE GUARD.

ASSEMBLIES CAN BE PURCHASED AS ASSEMBLY #'S (2" ASSEMBLIES)
.KGA60/V
.KGA60SS/V
.KGA60MI/V
.KGA60SSMI/V
(3" ASSEMBLIES)
.KGA61/V
.KGA61SS/V
.KGA61MI/V
.KGA61SSMI/V

SPECIAL NOTES:

- ITEM #16, TORSION SPRING, MUST BE PRELOADED ONE FULL TURN TO GET THE APPROPRIATE TENSION. IT MUST BE WOUND IN THE DIRECTION IT'S WRAPPED IN TO FUNCTION CORRECTLY.
- ITEM #11, OPTIONAL SPRING FOR PROCESSING VOID BOXES. LOVESHAW #SPR-1042LD. LIGHT DUTY SPRING IS RED IN COLOR FOR EASY VISUAL IDENTIFICATION.

MATL	PART #	CAD FILE	KNIFE ASSY.dwg	TOLERANCES UNLESS OTHERWISE NOTED:	LOVESHAW an ITW Company RT. 296, SOUTH CANAAN, PA.	
	STD	PLOT DATE			TITLE KINFE ASSEMBLY .CAC60/61	
ST. ST.		DRAWN DATE	5/17/2011	INCH .XX = ±.015 XXX = ±.005	ANGLES ±.12°	DWG NO KNIFE ASSY-PTA
STAINLESS : NO FINISH		DO NOT SCALE PRINT		XXX = ±.1mm XXX = ±.3mm XXX = ±.1mm	MACH. FINISH	SCALE
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 WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW/ITW AND WILL BE RETURNED TO LOVESHAW/ITW UPON REQUEST.				FRACTIONS ± 1/64	MATERIAL	CHECKED
					DRAWN	BRYCEF
						APPROVED

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	1	CAC60-0066-6	KNIFE ARM	SS	MI
2	1	CAC60-0028-3	KNIFE GUARD PIVOT PIN	SS	
3	1	CAC60-0029-5	KNIFE GUARD	SS	MI
4	2	BSG-1091	BUSHING, 6mm		
5	2	CAC60-0042-3	PIN		
6	4	SPR-1045	SPRING	SS	
7	1	CAC60-0043-3	PIN PLATE	SS	
8	1	PSC11B60-4M2	KNIFE BLADE 2"		
8a	1	PSC11A60-4M2	KNIFE BLADE 2", (OPT. COARSE)		
9	1	SPR-1042	EXTENSION SPRING	SS	
10	1	CAC60-0083-3	TAB ADJUSTER	SS	MI
11	2	FSSME004P10	M4 x 4 CUP POINT SET SCREW	P-S	
12	2	FFHME008P10	M4 X 8 FHCS	P-S	
13	1	CAC60-0078-3	KNIFE GUARD CUSHION		*
14	1	SPR-1063	TORSION SPRING		MI
15	2	FFHMD008P10	M3 X 8 FHCS	P-S	
16	2	BSG-1135	BRONZE WASHER		

REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	5/20/2009	BJF

* USE DEVCON 5 MINUTE EPOXY OR EQUIVALENT TO AFFIX THE FELT PAD TO THE KNIFE GUARD.

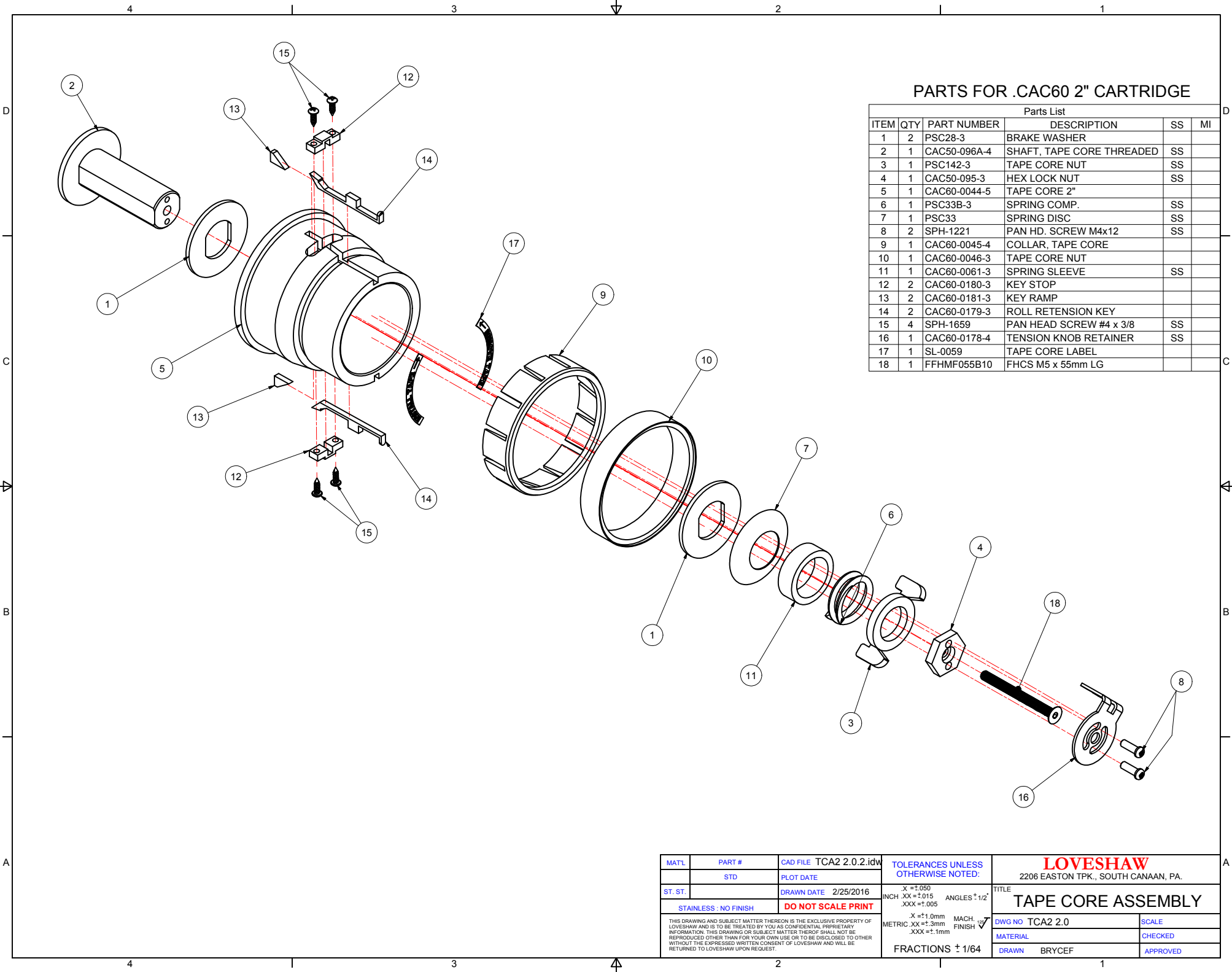
ASSEMBLIES CAN BE PURCHASED AS ASSEMBLY #S
.KGA60/V
.KGA60SS/V
.KGA60MI/V
.KGA60SSMI/V

SPECIAL NOTES:

- ITEM #16, TORSION SPRING, MUST BE PRELOADED ONE FULL TURN TO GET THE APPROPRIATE TENSION. IT MUST BE WOUND IN THE DIRECTION IT'S WRAPPED IN TO FUNCTION CORRECTLY.
- ITEM #10 OPTIONAL SPRING FOR PROCESSING VOID BOXES. LOVESHAW #SPR-1042LD. LIGHT DUTY SPRING IS RED IN COLOR FOR EASY VISUAL IDENTIFICATION.

(ONE INCH TAB CARTRIDGE ONLY)

MATL	PART #	CAD FILE	KAACAC60-OIT	TOLERANCES UNLESS OTHERWISE NOTED:		LOVESHAW an ITW Company RT. 296, SOUTH CANAAN, PA.	
	STD	PLOT DATE	3/14/2012			TITLE	
ST. ST.		DRAWN DATE	5/20/2009	X = ±.050 INCH .XX = ±.015 XXX = ±.005	ANGLES ± 1/2°	KNIFE ASSY	
STAINLESS : NO FINISH		DO NOT SCALE PRINT		X = ±1.0mm METRIC .XX = ±.3mm XXX = ±.1mm	MACH. FINISH	DWG NO	KAACAC60-OIT
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 WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW-ITW AND WILL BE RETURNED TO LOVESHAW-ITW UPON REQUEST.				FRACTIONS ± 1/64		SCALE	
						MATERIAL	CHECKED
						DRAWN	brycef
							APPROVED



PARTS FOR .CAC60 2" CARTRIDGE

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	2	PSC28-3	BRAKE WASHER		
2	1	CAC50-096A-4	SHAFT, TAPE CORE THREADED	SS	
3	1	PSC142-3	TAPE CORE NUT	SS	
4	1	CAC50-095-3	HEX LOCK NUT	SS	
5	1	CAC60-0044-5	TAPE CORE 2"		
6	1	PSC33B-3	SPRING COMP.	SS	
7	1	PSC33	SPRING DISC	SS	
8	2	SPH-1221	PAN HD. SCREW M4x12	SS	
9	1	CAC60-0045-4	COLLAR, TAPE CORE		
10	1	CAC60-0046-3	TAPE CORE NUT		
11	1	CAC60-0061-3	SPRING SLEEVE	SS	
12	2	CAC60-0180-3	KEY STOP		
13	2	CAC60-0181-3	KEY RAMP		
14	2	CAC60-0179-3	ROLL RETENTION KEY		
15	4	SPH-1659	PAN HEAD SCREW #4 x 3/8	SS	
16	1	CAC60-0178-4	TENSION KNOB RETAINER	SS	
17	1	SL-0059	TAPE CORE LABEL		
18	1	FFHMF055B10	FHCS M5 x 55mm LG		

MATL	PART #	CAD FILE	TCA2 2.0.2.idw	TOLERANCES UNLESS OTHERWISE NOTED:		LOVESHAW 2206 EASTON TPK., SOUTH CANAAN, PA.	
ST. ST.	STD	PLOT DATE	DRAWN DATE 2/25/2016	X = ±.050 INCH .XX = ±.015 .XXX = ±.005	ANGLES ± 1/2°	TITLE TAPE CORE ASSEMBLY	
STAINLESS : NO FINISH		DO NOT SCALE PRINT		X = ±1.0mm METRIC .XX = ±.3mm .XXX = ±.1mm	MACH. FINISH ✓	DWG NO	TCA2 2.0
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 OTHER WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW AND WILL BE RETURNED TO LOVESHAW UPON REQUEST.						MATERIAL	CHECKED
						DRAWN	BRYCEF
						APPROVED	
FRACTIONS ± 1/64							

PARTS FOR .CAC61 3" SERIES CARTRIDGE

Parts List					
ITEM	QTY	PART NUMBER	DESCRIPTION	SS	MI
1	2	PSC28-3	BRAKE WASHER		
2	1	CAC50-096A-4	SHAFT, TAPE CORE THREADED	SS	
3	1	CAC60-0044/3-5	TAPE CORE 3"		
4	1	PSC33B-3	SPRING COMP.	SS	
5	1	PSC33	SPRING DISC	SS	
8	1	CAC60-0045-4	COLLAR, TAPE CORE		
9	1	CAC60-0046-3	TAPE CORE NUT		
10	1	LP06B-039-3	NUT TAPE CORE	SS	
11	1	CAC50-101-3	NUT HEX LOCK 3"	SS	
12	2	SPH-1220	M4-.7 PAN HD BOLT	SS	
13	1	FSHMF050B10	S.H.C.S. M5x50	B-S	
14	1	CAC60-0061-3	SPRING SLEEVE	SS	
18	1	FLWMFP	LOCK WASHER M5	P-S	
19	2	CAC60-0179-3	ROLL RETENSION KEY		
20	2	CAC60-0181-3	KEY RAMP		
21	2	CAC60-0180-3	KEY STOP		
22	4	SPH-1659	PAN HEAD SCREW #4 x 3/8	SS	
23	1	CAC60-0178-4	TENSION KNOB RETAINER	SS	
24	1	SL-0059	TAPE CORE LABEL		

MATL	PART #	CAD FILE	TCA3 2.0.2.idw		TOLERANCES UNLESS OTHERWISE NOTED:		LOVESHAW 2206 EASTON TPK., SOUTH CANAAN, PA.	
STD		PLOT DATE				TITLE		
ST. ST.		DRAWN DATE	3/30/2016		INCH .XX = ±.015 .XXX = ±.005		ANGLES ±1/2°	
STAINLESS : NO FINISH		DO NOT SCALE PRINT				TAPE CORE ASSEMBLY 3"		
<p>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 OTHER WITHOUT THE EXPRESSED WRITTEN CONSENT OF LOVESHAW AND WILL BE RETURNED TO LOVESHAW UPON REQUEST.</p>				x = ±.050				
				METRIC .XX = ±.3mm		MACH. FINISH ✓		
				FRACTIONS ± 1/64				
				DWG NO		SCALE		
				MATERIAL		CHECKED		
				DRAWN		BRYCEF		
						APPROVED		

2" TAPE CORE

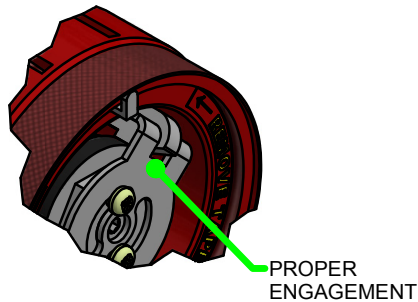
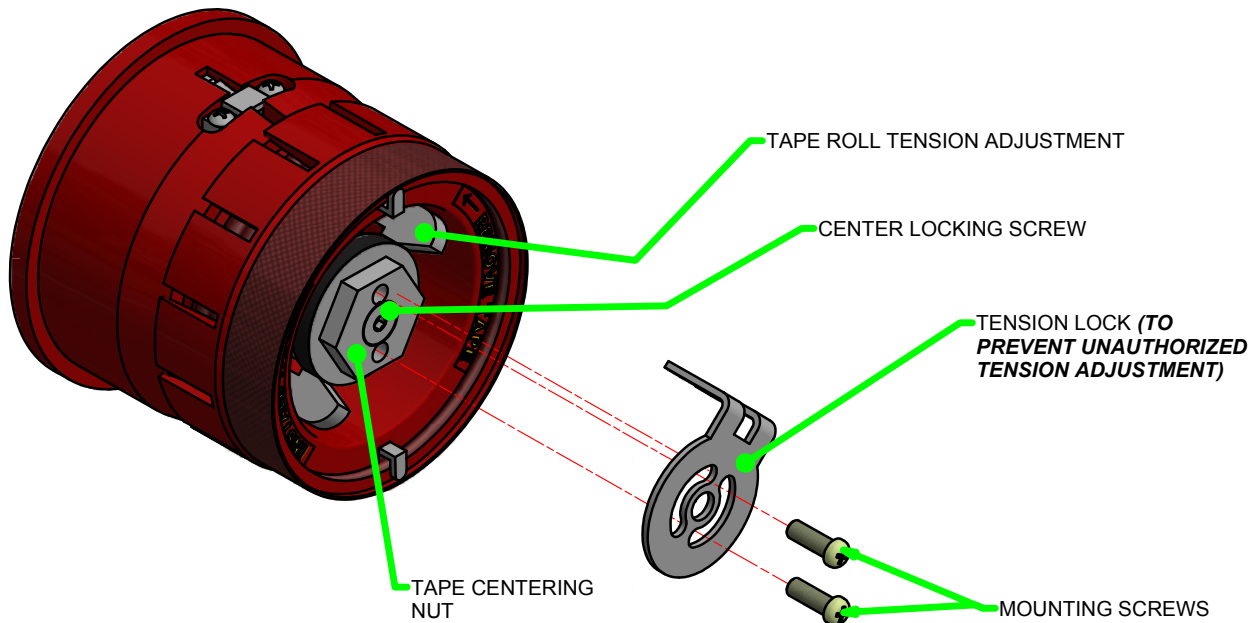


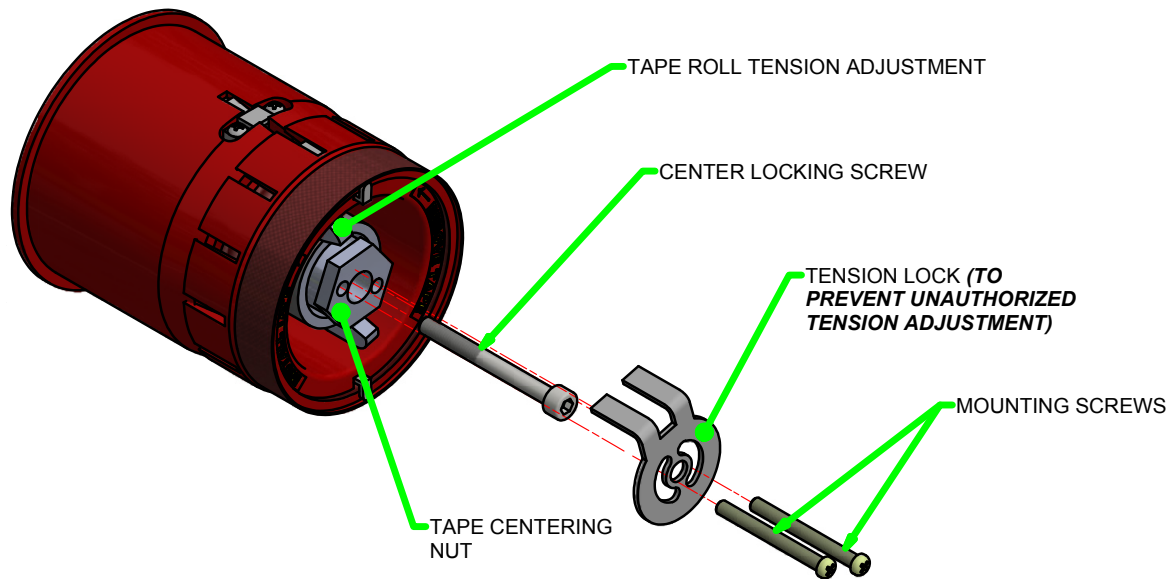
FIGURE 1

BEFORE INSTALLING THE TENSION LOCK MECHANISM, IT MAY BE NECESSARY TO ADJUST THE TENSION ON THE TAPE ROLL AND CENTER THE TAPE ON THE CARTRIDGE.

TENSIONING: TO TENSION THE TAPE ROLL ON THE CARTRIDGE REMOVE THE TENSION LOCKING MECHANISM BY REMOVING THE (2) MOUNTING SCREWS. NEXT USE THE TENSION ADJUSTMENT TO SET THE TAPE ROLL TENSION. WHEN FINISHED REINSTALL THE TENSION LOCKING MECHANISM WITH THE (2) MOUNTING SCREWS. MAKE SURE THE CUTOUT SLOT IN THE LOCKING MECHANISM GOES AROUND THE FINGER TABS ON THE TENSION ADJUSTMENT KNOBS. (FIGURE 1).

CENTERING: TO CENTER THE TAPE ON THE CARTRIDGE REMOVE THE TENSION LOCKING MECHANISM BY REMOVING THE (2) MOUNTING SCREW. ***(TO MAKE SMALL ADJUSTMENTS, IT'S POSSIBLE TO DO THIS WITHOUT REMOVING TENSION LOCK, BY JUST LOOSENING THE MOUNTING SCREWS AND THE CENTER LOCKING SCREW).*** NEXT REINSERT THE MOUNTING SCREWS AND LOOSEN THE CENTER LOCKING SCREW. CENTER THE TAPE ROLL IN THE TAPE CARTRIDGE USING CENTERING NUT. WHEN COMPLETE, TIGHTEN THE CENTER LOCKING SCREW. AGAIN REMOVE THE MOUNTING SCREWS. THEN REINSTALL THE TENSION LOCK, AND SECURE IN PLACE WITH THE MOUNTING SCREWS. MAKE SURE THE CUT OUT SLOT IN THE LOCKING MECHANISM GOES AROUND THE FINGER TABS ON THE TENSION ADJUSTMENT KNOBS. (FIGURE 1).

3" TAPE CORE



BEFORE INSTALLING THE TENSION LOCK MECHANISM, IT MAY BE NECESSARY TO ADJUST THE TENSION ON THE TAPE ROLL AND CENTER THE TAPE ON THE CARTRIDGE.

TENSIONING: TO TENSION THE TAPE ROLL ON THE CARTRIDGE REMOVE THE TENSION LOCKING MECHANISM BY REMOVING THE (2) MOUNTING SCREWS. NEXT USE THE TENSION ADJUSTMENT TO SET THE TAPE ROLL TENSION. WHEN FINISHED REINSTALL THE TENSION LOCKING MECHANISM WITH THE (2) MOUNTING SCREWS. MAKE SURE THE CUTOUT SLOT IN THE LOCKING MECHANISM GOES AROUND THE FINGER TABS ON THE TENSION ADJUSTMENT KNOBS. (FIGURE 1).

CENTERING: LOOSEN THE CENTER LOCKING SCREW. CENTER THE TAPE ROLL IN THE TAPE CARTRIDGE USING CENTERING NUT. WHEN COMPLETE, TIGHTEN THE CENTER LOCKING SCREW. MAKE SURE THE CUT OUT SLOT IN THE LOCKING MECHANISM GOES AROUND THE FINGER TABS ON THE TENSION ADJUSTMENT KNOBS. (FIGURE 1).

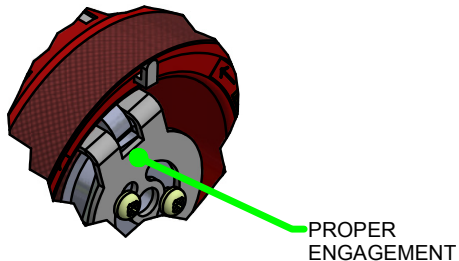
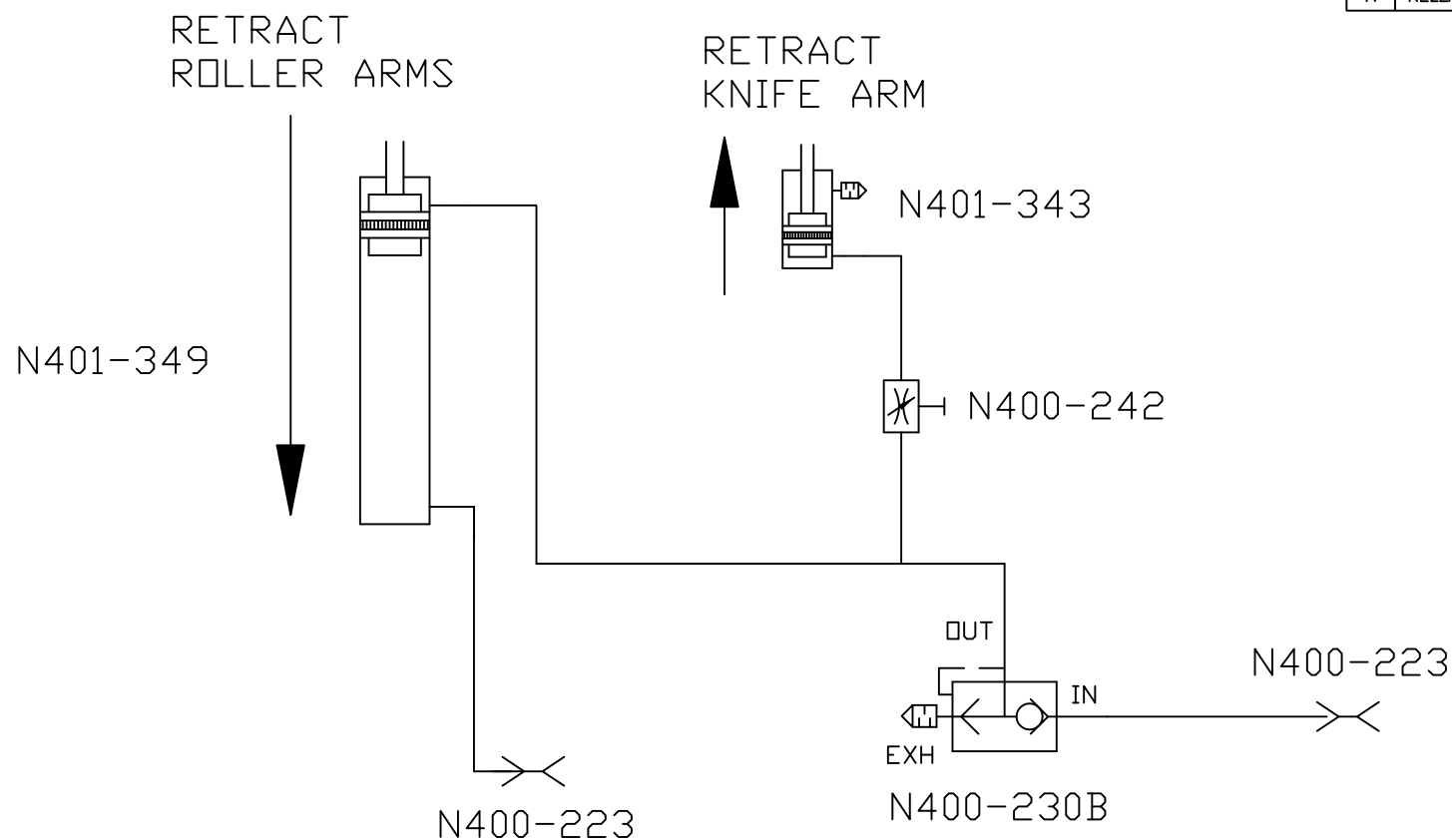


FIGURE 1

REVISION RECORD					
REV	DESCRIPTION	DATE	ATH	DR	CK
A	RELEASED	5/29/2014		BJF	



MAT'L	PART #	CAD FILE: G85438	TOLERANCES UNLESS OTHERWISE NOTED:	LOVESHAW an <i>ITW</i> Company RT. 296, SOUTH CANAAN, PA.	
	STD	PLOT DATE: 5/29/2014			
ST. ST.		DRAWN DATE: 5/29/2014	INCH .X = ±.050 .XX = ±.015 .XXX = ±.005 METRIC .X = ±1.0mm .XX = ±.3mm .XXX = ±.1mm	TITLE: PNEU. SCHEMATIC CAC61NT/NC	
STAINLESS: NO FINISH	DO NOT SCALE PRINT			DWG. #: PNEU-0269-4	SCALE: N/A
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 EXPRESS WRITTEN CONSENT OF LOVESHAW-ITW AND WILL BE RETURNED TO LOVESHAW-ITW UPON REQUEST.			ANGLES ±1/2° FRACTIONS ±1/64	MATERIAL:	CHECK'D:
MACHINE FINISH 125				DESIGNED:	APPRV'D:
				DRAWN: BJF	