

LITTLE DAVID

TAPE CARTRIDGE MANUAL



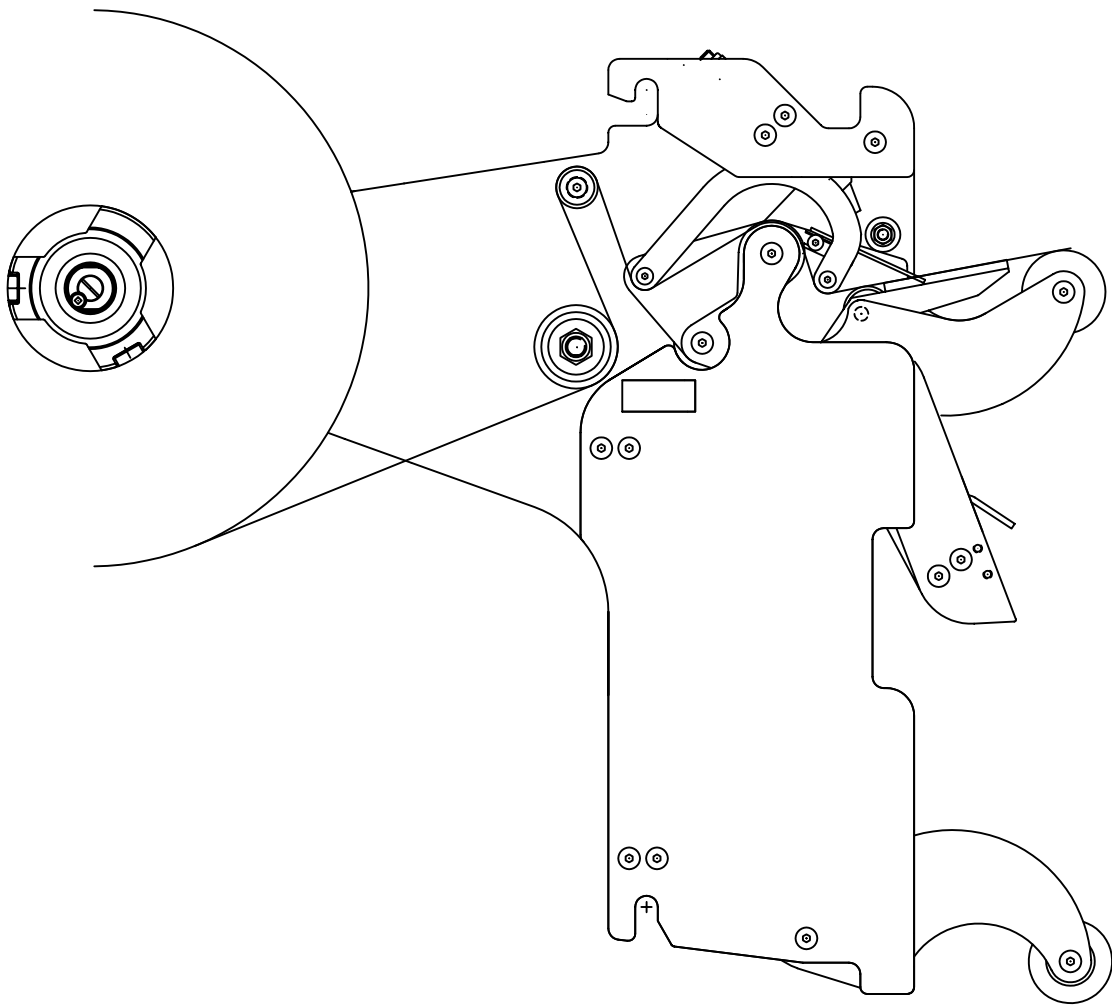
.CAC51

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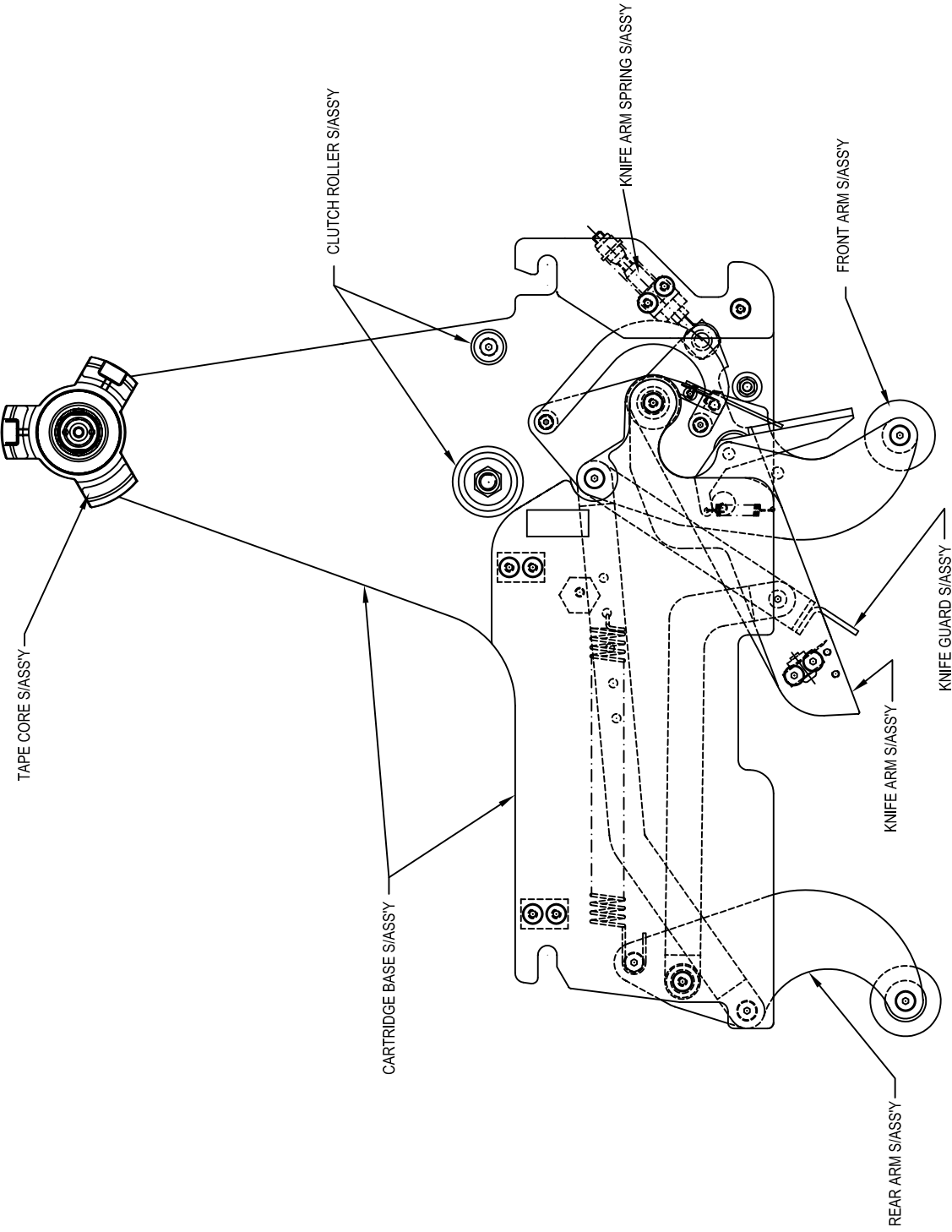
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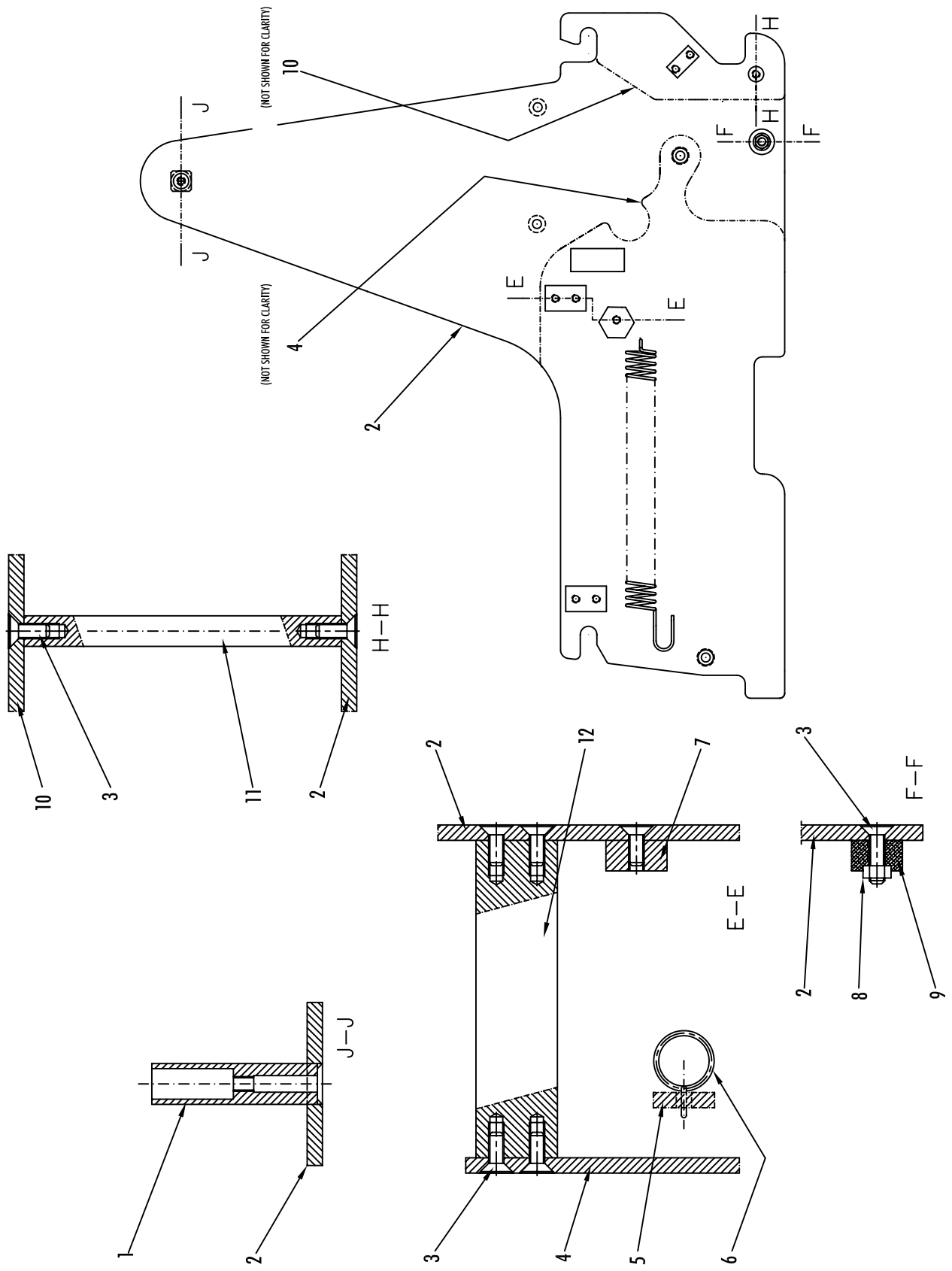
TAPE THREADING DIAGRAM



CARTRIDGE OVERVIEW



CARTRIDGE BASE ASS'Y



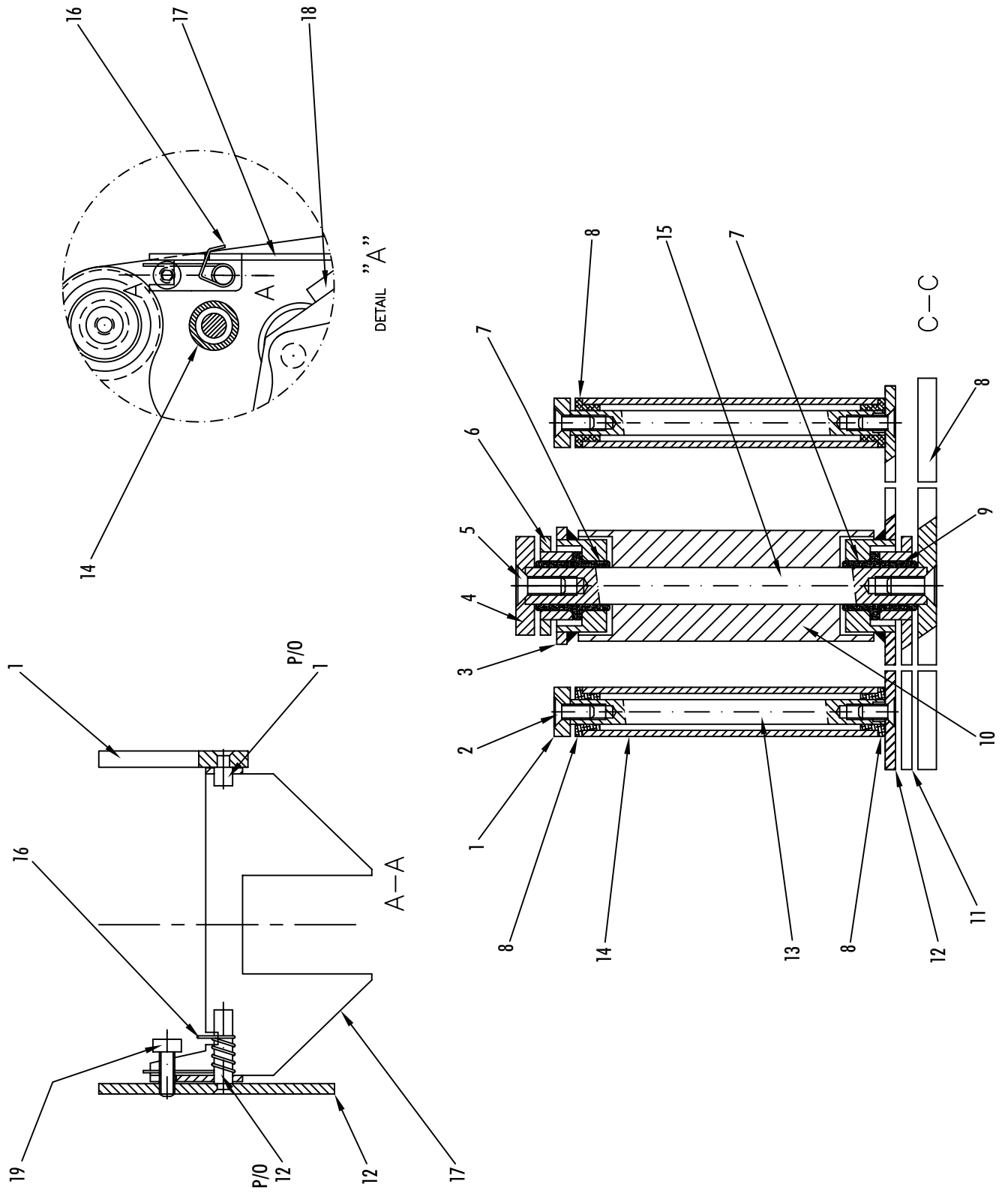
CARTRIDGE BASE ASSEMBLY

KEY	PART NUMBER	DESCRIPTION	QTY
1	CAC50-047-3	SLEEVE	1
2	CAC50-102-6	FRAME - MAIN	1
3	-----	M5 X FH. SCREW	23
4	CAC50-002-5	FRAME - TOP	1
5	CAC50-003-4	CONNECTING LINK - ARMS	1
6	PSC501101-4	CARTRIDGE MAIN SPRING	1
7	PSC301117-3	STOP ROLLER ARM	2
8	-----	M5 HEX NUT	1
9	CAC50-050-3	STOPPER - FRONT ARM	2
10	CAC50-012-3	FRAME - TOP EXCESS	1
11	CAC51-017-4	SHAFT - CARTRIDGE PLATE	1
12	CAC51-008-3	BLOCK - FRAME	2

FRONT ARM ASSEMBLY

KEY	PART NUMBER	DESCRIPTION	QTY
1	CAC50-005-4	FRONT ARM - MAIN	1
2	-----	M5 X 10 FH. SCREW	3
3	CAC51-013-3	SPACER - CONN. ARM	1
4	50186-039	BRONZE FLANGE BUSHING 3/8 X 1/2 X 3/8	2
5	PSC301110-3	SPACER - 1/2 ID X 1 1/8 LONG	1
6	PSC441013-4	TAPE HOLD DOWN PLATE	1
7	50186-007	BRONZE FLANGE BUSHING 3/8 X 1/2 X 1/2	1
8	CAC50-003-4	CONNECTING LINK - ARMS	1
9	CAC50-006-4	FRONT ARM - TOP	2
10	PSC139-3	STOP - TAPE GUIDE PLATE	1
11	LP06B-003B-3	WIPE ROLLER	2
12	J205-PS	TORRINGTON BEARING	1
13	CAC51-003-3	SLEEVE - NEEDLE BEARING	1
14	CAC51-002-3	SHAFT - FRONT ROLLER	1
15	J206-PS	TORRINGTON BEARING	1
16	PSC26-3	SPRING EXT. - GUIDE PLATE	1
17	CAC51-018-4	KNIFE GUARD	1
18	CAC51-001-3	SHAFT - WIPE ROLLER	3
19	JBW1014-4	HORSE SHOE	1
20	CAC51-019-4	TAPE GUIDE PLATE	1

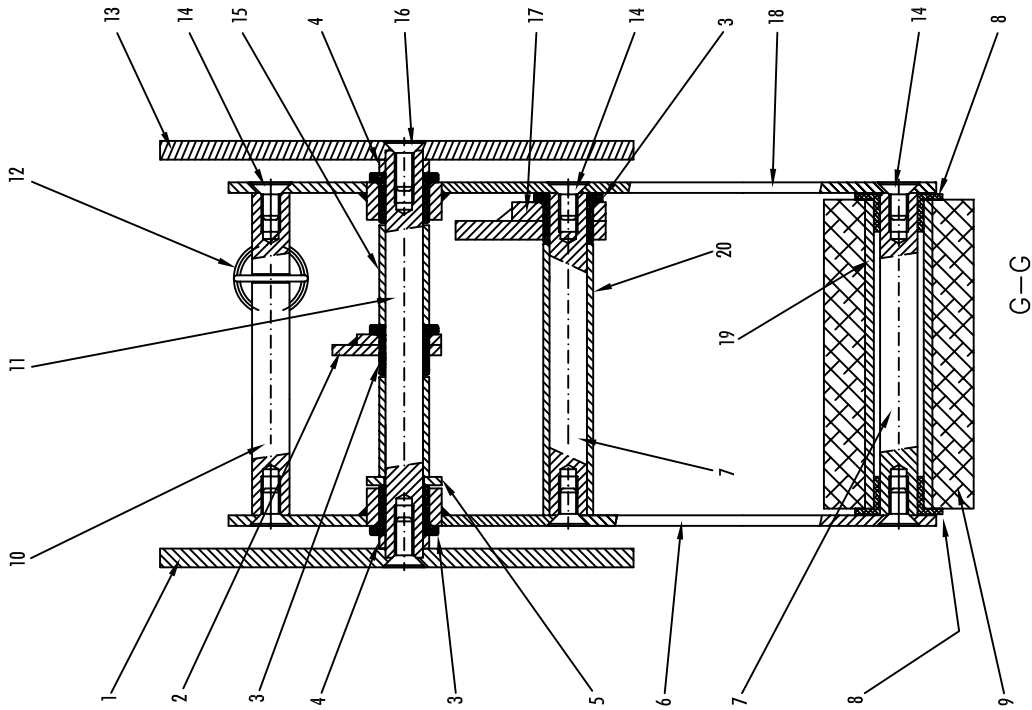
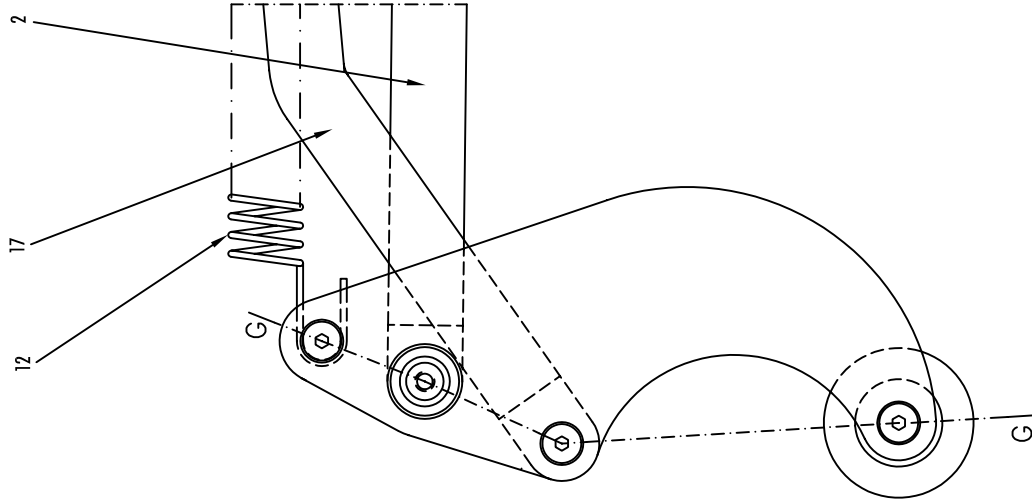
FRONT ARM ASS'Y - 2



FRONT ARM ASSEMBLY 2

KEY	PART NUMBER	DESCRIPTION	QTY
1	JBW1014-3	HORSE SHOE	1
2	-----	M4 X FH. SCREW	3
3	CAC50-006-4	FRONT ARM - TOP	2
4	CAC50-002-5	FRAME - TOP	1
5	-----	M5 X FH. SCREW	23
6	CAC50-010-4	KNIFE ARM - TOP	1
7	50186-039	BRONZE FLANGE BUSHING 3/8 X 1/2 X 3/8	4
8	PSC599	NYLON BUSHING	5
9	50185-049	BRONZE FLANGE BUSHING 3/8 X 1/2 X 3/8	2
10	CAC51-016-3	CENTER ROLLER - 1.12 DIA.	2
11	CAC50-009-4	KNIFE ARM - MAIN	1
12	CAC50-005-4	FRONT ARM - MAIN	1
13	CAC51-015-3	SHAFT KNURLED ROLLER	2
14	CAC51-012-3	KNURLED ROLLER - 1/2" DIA.	2
15	CAC51-011-3	SHAFT - PIVOT ARM	2
16	PSC321022-4	FINGER PLATE SPRING	1
17	PSC441013-4	TAPE HOLD DOWN PLATE	1
18	CAC51-019-4	TAPE GUIDE PLATE	1
19	-----	M4 X 15 ROUND HD. SCREW	1

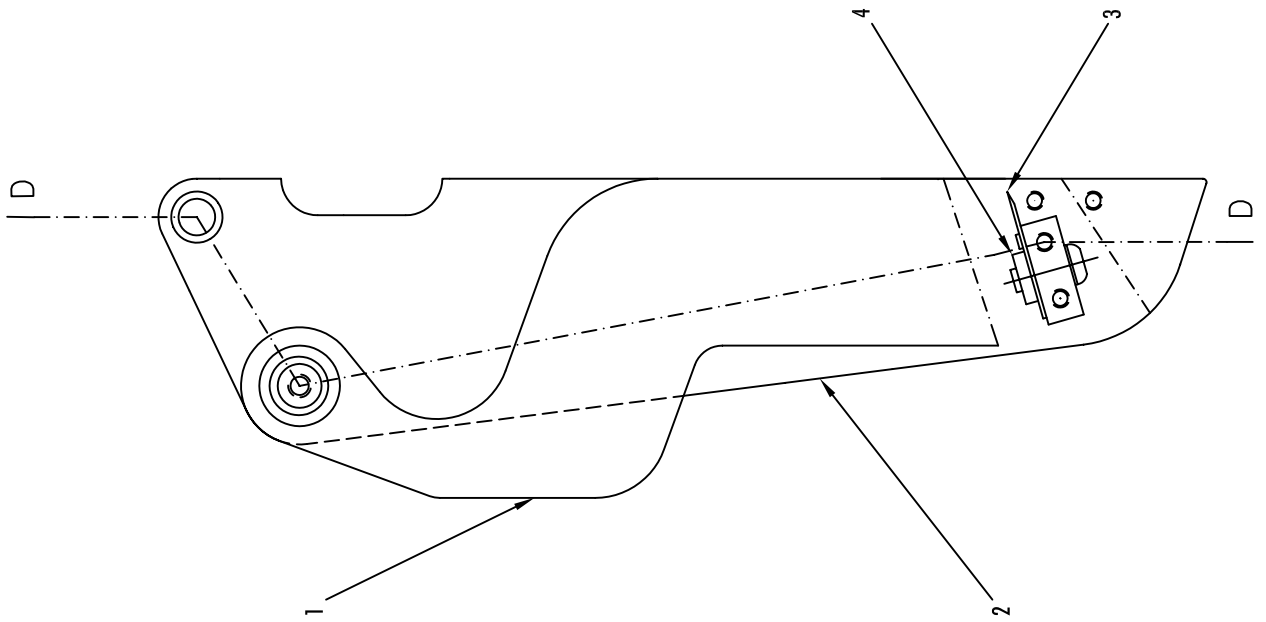
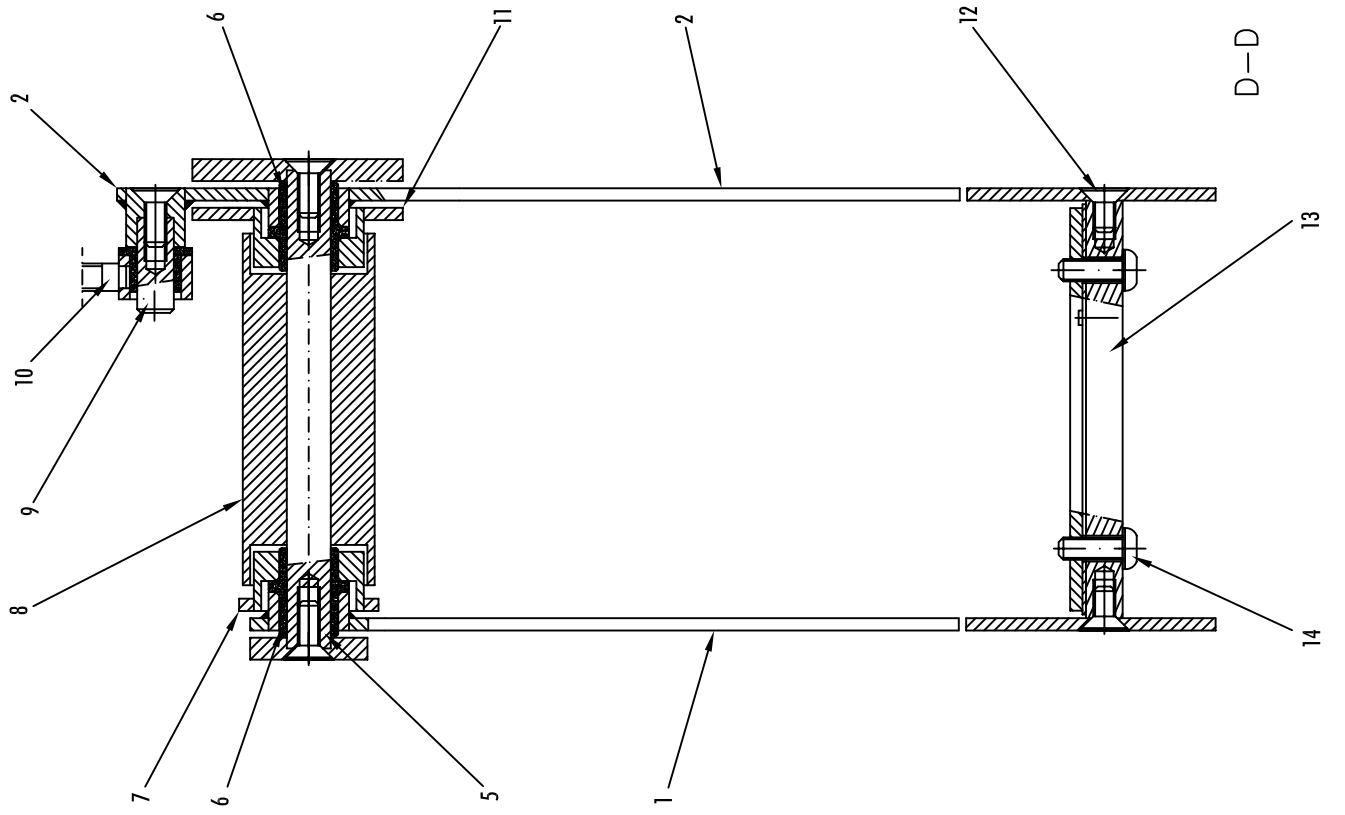
REAR ARM ASS'Y



REAR ARM ASSEMBLY

KEY	PART NUMBER	DESCRIPTION	QTY
1	CAC50-102-6	FRAME - MAIN	1
2	CAC50-004-4	CONN. LINK - KNIFE GUARD	1
3	50186-007	BRONZE FLANGE BUSHING 3/8 X 1/2 X 1/2	6
4	CAC50-049-3	SPACER - REAR ARM PIVOT	2
5	-----	3/8 DIA. NOM SAE WASHER	1
6	CAC50-007-4	REAR ARM - TOP	1
7	CAC51-001-3	SHAFT - WIPE ROLLER	3
8	PSC12/3-3	BUSHING - WIPE ROLLER	2
9	LP06B-003B-3	WIPE ROLLER	2
10	CAC51-010-3	STUD - REAR ARM SPRING	1
11	CAC51-011-3	SHAFT - PIVOT ARM	2
12	PSC501101-4	CARTRIDGE MAIN SPRING	1
13	CAC50-002-5	FRAME - TOP	1
14	-----	M5 X 10 FH. SCREW	13
15	CAC50-043-3	SPACER - REAR PIVOT ARM	1
16	-----	M5 X 12 FH. SCREW	23
17	CAC50-003-4	CONNECTING LINK - ARMS	1
18	CAC50-008-4	REAR ARM - LEFT	1
19	LP06B-003A-3	SLEEVE - WIPE ROLLER	1
20	CAC51-014-3	SPACER - REAR CONN. ARMS	1

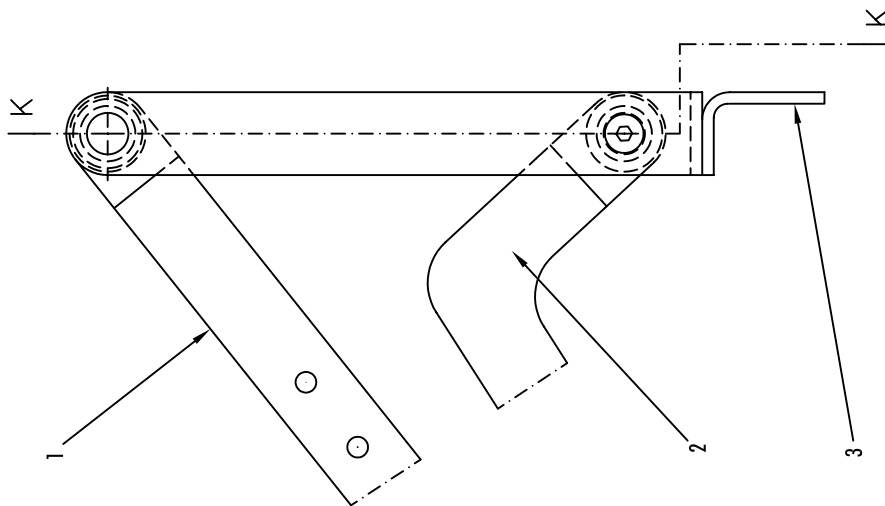
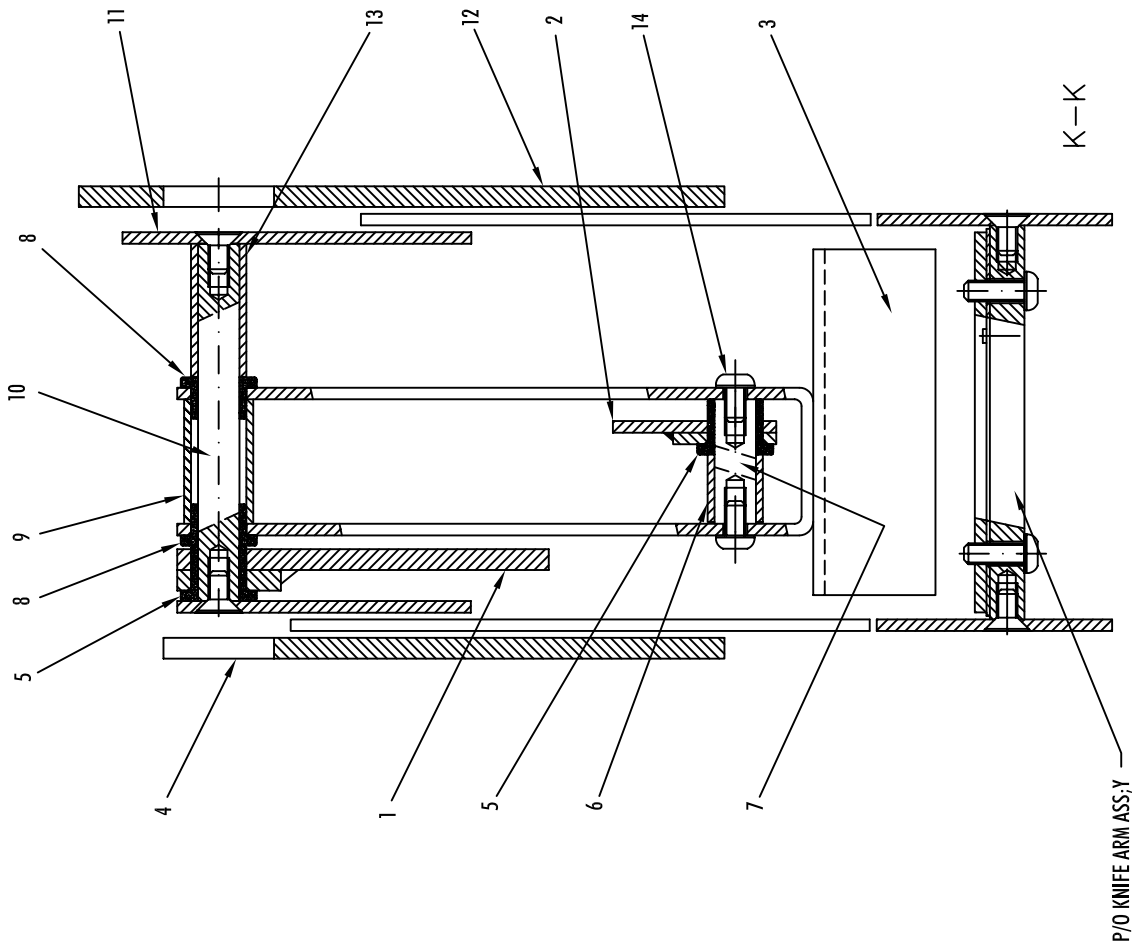
KNIFE ARM ASS'Y



KNIFE ARM ASSEMBLY

KEY	PART NUMBER	DESCRIPTION	QTY
1	CAC50-010-4	KNIFE ARM - TOP	1
2	CAC50-009-4	KNIFE ARM - MAIN	1
3	PS4117A-3	KNIFE	1
4	LP06B-005-3	PLATE - KNIFE	1
5	CAC51-011-3	SHAFT - PIVOT ARM	2
6	50185-049	BRONZE FLANGE BUSHING 3/8 X 1/2 X 3/8	2
7	CAC50-006-4	FRONT ARM - TOP	2
8	CAC51-016-3	CENTER ROLLER - 1.12 DIA.	1
9	CAC50-017-3	SHAFT - KNIFE ARM	1
10	CAC50-038-3	THREADED SUPPORT SHAFT	1
11	CAC50-005-4	FRONT ARM - MAIN	1
12	-----	M5 X FH. SCREW	13
13	CAC51-007-3	KNIFE BRACKET	1
14	-----	M5 X 12 BUT. HD. SCREW	2

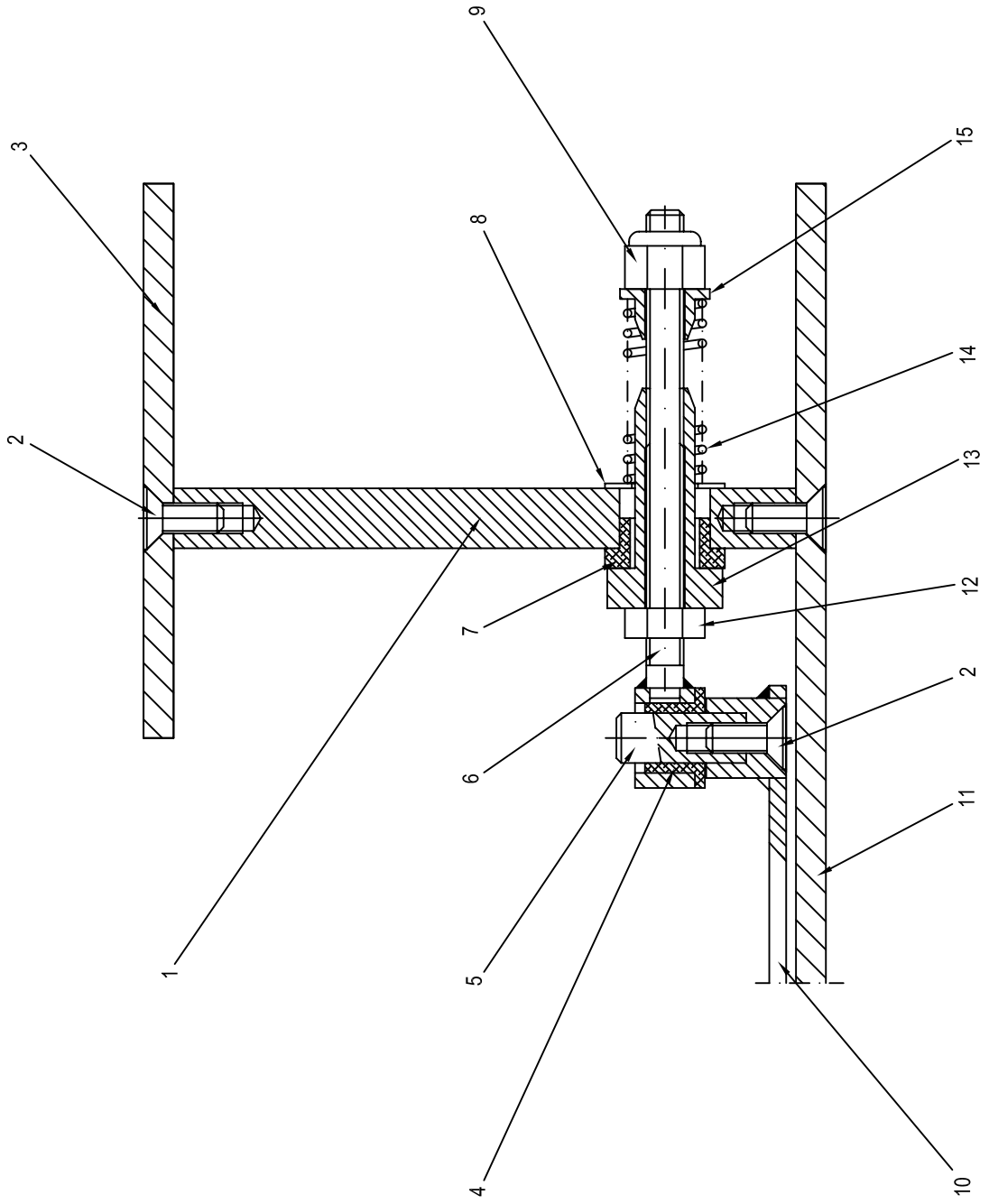
KNIFE GUARD ASS'Y



KNIFE GUARD ASSEMBLY

KEY	PART NUMBER	DESCRIPTION	QTY
1	CAC50-003-4	CONNECTING LINK - ARMS	1
2	CAC50-004-4	CONNECTING LINK - KNIFE GUARD	1
3	CAC51-018-4	KNIFE GUARD	1
4	CAC50-002-5	FRAME - TOP	1
5	50186-007	BRONZE FLANGE BUSHING 3/8 X 1/2 X 1/2	6
6	CAC50-041-3	SPACER - KNIFE GUARD	1
7	CAC50-048-3	SHAFT - KNIFE GUARD	1
8	50186-039	BRONZE FLANGE BUSHING 3/8 X 1/2 X 3/8	4
9	PSC301110-3	SPACER 1/2 ID X 1 1/8 LONG	1
10	CAC51-001-3	SHAFT - WIPE ROLLER	3
11	CAC50-005-4	FRONT ARM - MAIN	1
12	CAC50-102-6	FRAME - MAIN	1
13	CAC51-013-3	SPACER - CONN. ARM KNIFE COVER	1
14	-----	M5 X 10 BUTTON HD. SCREW	3

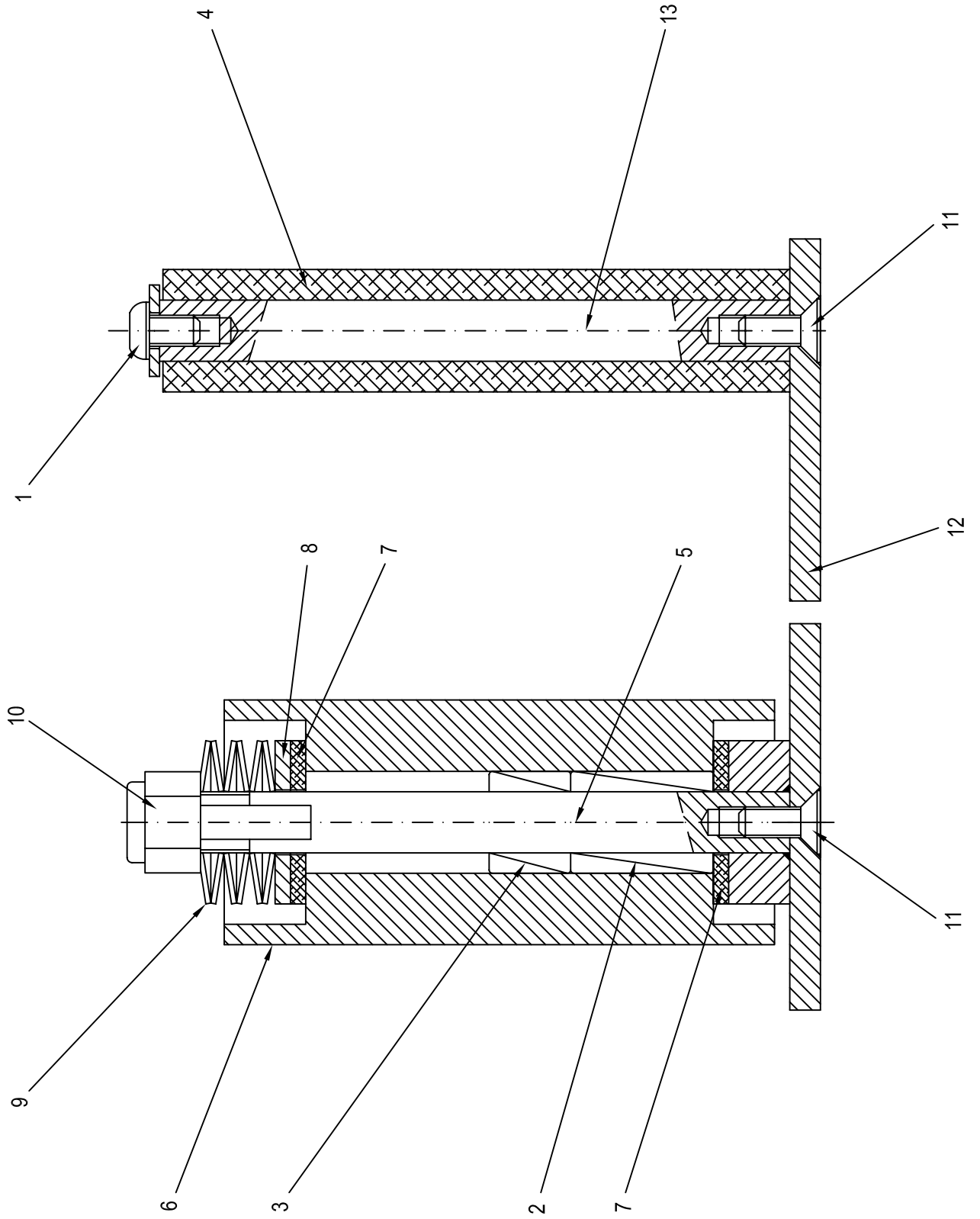
KNIFE ARM SPRING ASS'Y



KNIFE ARM SPRING ASSEMBLY

KEY	PART NUMBER	DESCRIPTION	QTY
1	CAC51-009-3	BLOCK - KNIFE ARM SPRING	1
2	-----	M5 X 12 FH. SCREW	23
3	CAC50-002-5	FRAME - TOP	1
4	PSC510	BUSHING TIE BAR	1
5	CAC50-017-3	SHAFT - KNIFE ARM	1
6	CAC50-038-3	THREADED SUPPORT SHAFT	1
7	PSC321044-3	BUSHING - KNIFE STOP	1
8	AV960C616C	FLAT WASHER	1
9	-----	M6 HEX NYLON INSERT NUT	1
10	CAC50-009-4	KNIFE ARM - MAIN	1
11	CAC50-102-6	FRAME - MAIN	1
12	-----	M5 HEX NUT	1
13	PSC321046-4	STOP NUT	1
14	X111-PS	SPRING KNIFE ARM	1
15	PSC321045-4	SPRING GUIDE	1

CLUTCH ROLLER ASS'Y



CLUTCH ROLLER ASSEMBLY

KEY	PART NUMBER	DESCRIPTION	QTY
1	-----	M5 X 10 BUTTON HD. SCREW	3
2	J205-PS	TORRINGTON BEARING	1
3	J206-PS	TORRINGTON BEARING	1
4	LP06B-010-3	IDLER ROLLER 3/4" DIA.	1
5	CAC51-004-3	KNURLED ROLLER SHAFT	1
6	PSC441014-4	KNURLED ROLLER	1
7	PSC321031-3	BRAKE WASHER	2
8	PSC321032-3	LOCKING WASHER	1
9	PSC321039	SPRING WASHER	6
10	50299-028	NYLON INSERT LOCKOUT	1
11	-----	M5 X 12 FH. SCREW	23
12	CAC50-102-6	FRAME - MAIN	1
13	CAC51-005-3	SHAFT - IDLER ROLLER	1

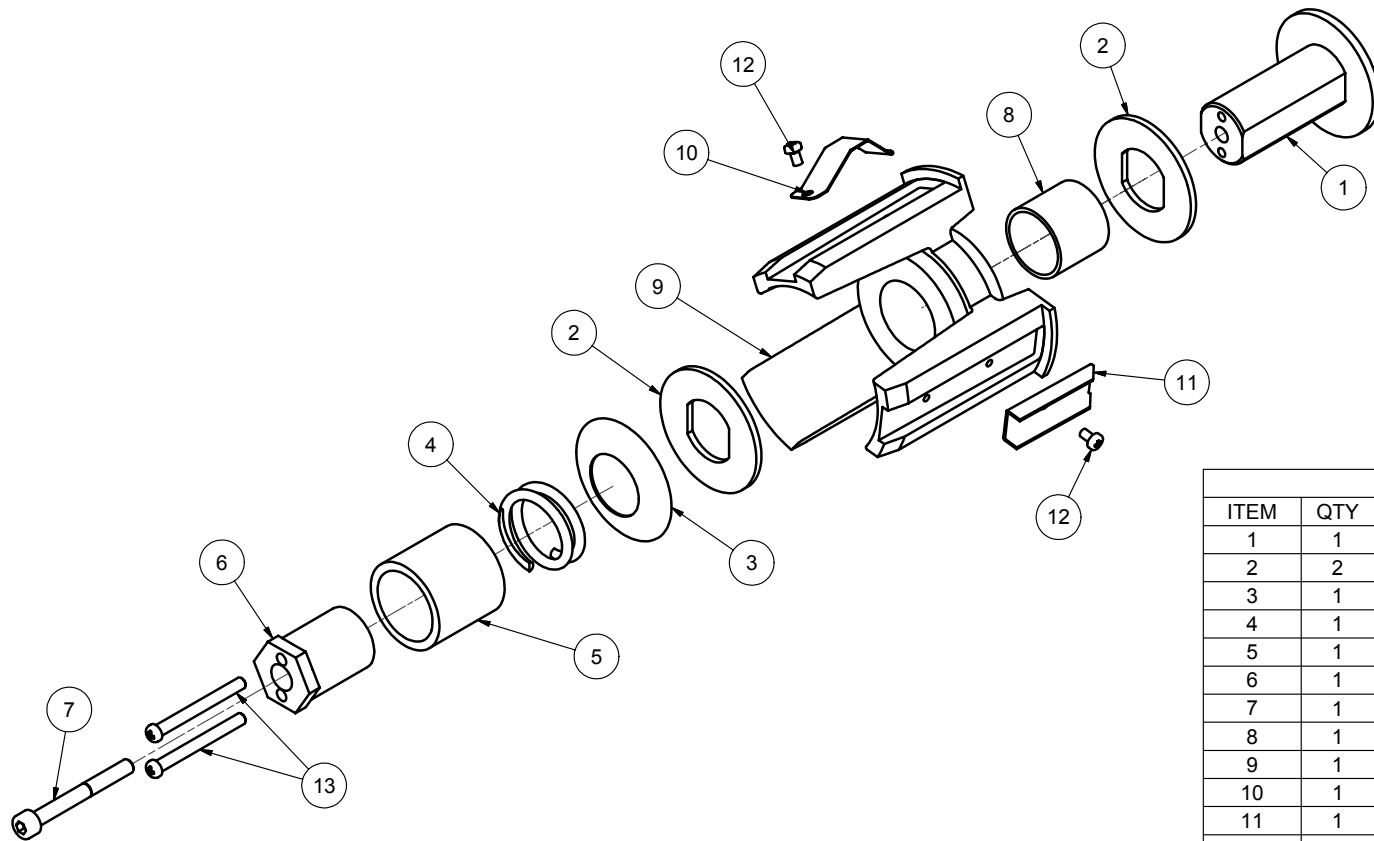
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REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	RELEASED	5/17/2005	AJS



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	CAC50-096-4	SHAFT, TAPE CORE THREADED
2	2	PSC28-3	BRAKE WASHER
3	1	PSC33	SPRING DISC
4	1	PSC33B-3	SPRING COMP.
5	1	LP06B-039-3	NUT TAPE CORE
6	1	CAC50-101-3	NUT HEX LOCK 3"
7	1	SPH-1030	M5 X 0.8 - 45 MM LONG SHCS
8	1	PSC625	BUSHING
9	1	LP06B-038-5	CASTING TAPE CORE
10	1	PSC88-3	SPRING, TAPE CORE
11	1	PSC144-3	TAPE HOLDER
12	2	FBHMD005P10	M3 X 0.5 -5mm BHS
13	2	SPH-1220	M4-.7 PAN HD BOLT (FULL THREAD)

MATL	PART #	CAD FILE TCA201.idw
NOTED	STD	PLOT DATE 5/17/2005
ST. ST.	N/A	DRAWN DATE 5/17/2005
STAINLESS : NO FINISH		DO NOT SCALE PRINT
<small>THIS DRAWING AND SUBJECT MATTER THEREON IS THE EXCLUSIVE PROPERTY OF LOVESHAW-ITW AND IS TO BE TREATED BY YOU AS CONFIDENTIAL PROPRIETARY INFORMATION. THIS DRAWING OR SUBJECT MATTER THEROF 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.</small>		

TOLERANCES UNLESS OTHERWISE NOTED:	
X = ±.050	ANGLES ± 1/2°
INCH .XX = ±.015	
.XXX = ±.005	
X = ±1.0mm	MACH. FINISH
METRIC .XX = ±.3mm	
.XXX = ±.1mm	
FRACTIONS ± 1/64	

LOVESHAW an ITW Company RT. 296, SOUTH CANAAN, PA.	
TITLE TAPE CORE ASSEMBLY 3"	
DWG NO .TCA201	SCALE
MATERIAL NOTED	CHECKED
DRAWN tonys	APPROVED

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TAPE CORE ASSEMBLY ADJUSTMENT PROCEDURES

(.TCA201 = 3" TAPE CORE AND .TCA301 = 2" TAPE CORE)

STEP 1: UNLOCKING THE TAPE CORE FOR ADJUSTMENT:

THERE IS A LOCKING BOLT USED TO MAINTAIN THE HEIGHT ADJUSTMENT OF THE TAPE CORE. THIS MUST BE LOOSENED TO CHANGE THE HEIGHT OF THE TAPE CORE. THIS WILL ALLOW YOU TO ADJUST THE HEIGHT OF THE TAPE (TRACKING) THROUGH THE CARTRIDGE. USING A 3 mm HEX KEY WRENCH TURN IN A COUNTERCLOCKWISE DIRECTION TO LOOSEN THE SOCKET HEAD CAP SCREW (SPH-1030). THEN TURN THE TAPE CORE NUT LP06B-039-3 (3") OR PSC142-3 (2") IN A COUNTERCLOCKWISE DIRECTION TO REMOVE DRAG FROM THE DISC SPRING (PSC33). BE SURE TO LOOSEN ENOUGH TO ALLOW THE TAPE CORE INTERNAL ASSEMBLY TO SPIN FREELY AND ADJUST UP AND DOWN.

STEP 2: ADJUSTING THE TAPE CORE HEIGHT:

THE INTERNAL ASSEMBLY IS THREADED ON A STUD MOUNTED ON THE CARTRIDGE MILL STAND. BY HOLDING THE EXTERNAL PART OF THE TAPE CORE ASSEMBLY AND ROTATING THE HEX LOCK NUT CAC50-101-3 (3") OR CAC50-095-3 (2") THE INTERNAL ASSEMBLY WILL ROTATE CHANGING THE HEIGHT OF THE TAPE CORE ASSEMBLY. TURN IN A CLOCKWISE DIRECTION TO DECREASE THE HEIGHT AND IN A COUNTERCLOCKWISE DIRECTION TO INCREASE THE HEIGHT. ***DO NOT OVER TIGHTEN THE INTERNAL ASSEMBLY.*** THIS MAY CAUSE DAMAGE TO THE TAPE CORE ASSEMBLY. RUN THE TAPE THROUGH THE CARTRIDGE AND CHECK FOR PROPER TAPE POSITION. REPEAT ADJUSTMENT AS REQUIRED TO CENTER TAPE.

STEP 3: ADJUSTING TAPE ROLL BACK LASH OR FREE SPIN:

THERE IS A DISC SPRING (PSC33) AND A SET OF BRAKE WASHERS (PSC28-3) USED TO SLOW THE FREE SPINNING OF THE TAPE ROLL CAUSED WHEN THE TAPE IS PULLED THROUGH THE CARTRIDGE. BY ROTATING THE TAPE CORE NUT LP06B-039-3 (3") OR PSC142-3 (2") IN A CLOCKWISE DIRECTION THIS WILL INCREASE THE DRAG FROM THE DISC SPRING (PSC33) RESTRICTING THE AMOUNT OF FREE SPIN. THIS SHOULD BE SET WITH JUST ENOUGH DRAG TO STOP THE FREE SPINNING. TOO MUCH OR TOO LITTLE WILL AFFECT THE CARTRIDGE TAPING PERFORMANCE. RUN TAPE THROUGH THE CARTRIDGE AND CHECK FOR TAPE ROLL FREE SPIN. REPEAT ADJUSTMENT AS REQUIRED TO SET TAPE ROLL FREE SPIN.

STEP 4: LOCKING THE TAPE CORE:

AFTER THE TAPE IS CENTERED AND THE TAPE ROLL FREE SPIN IS PROPERLY ADJUSTED THE TAPE CORE SHOULD BE LOCKED INTO POSITION. USING A 3 mm HEX KEY WRENCH TURN IN A CLOCKWISE DIRECTION TO TIGHTEN THE SOCKET HEAD CAP SCREW (SPH-1030). THIS WILL INSURE THAT THE HEIGHT ADJUSTMENT IS MAINTAINED DURING OPERATION.