RMT AIR TOGGLE PRESS MODELS 6C, 8C, 10C, AND 12C



Installation

If Foremost Machinery Corporation's options floorstand, FS-ABC, was not purchased with the press, be sure to use a sturdy floor stand or workbench that can support the machine's weight of 660lbs. A hole beneath the press must also be cut into the top mounting surface so that the Cylinder Adjusting Screw and Head (47) can extend beneath the bottom surface of the press when the ram stroke is increased. The hole is a 5" left-to-right by 9" front-to-back rectangle. It is central to the width and 2" from the back of the press.

Using the four flanges cast into the press body; securely bolt the machine to the floor stand or workbench with 1/2" bolts. The floor stand or workbench should be bolted to the floor or mounted on machinery vibration mounts.

To insure rapid response time and eliminate air pressure fluctuations, connect the air supply to the machine using a minimum of 1/2" I.D. hose. The rated tonnage of the press is achieved when the air pressure is set at 80 PSI. To insure reliable operation and long cylinder life, the air supply should be filtered and lubricated close to the press. Failure to filter and lubricate the airline will result in shorter life of cylinder seals and control valves in the press.

Set-up

An in-line shut-off and down-line exhaust sleeve valve is located at the air inlet to the press and should be moved to the 'Off' position before setting up. This allows the Link Arm (9) to be raised and lowered by hand which strokes the ram. RMT Air Toggle Presses have variable ram strokes from zero up to the maximum allowable for each model. The machines are shipped with the stroke preset to zero. When the press is set at zero stroke, the Ram (16) is down and the Cylinder Adjusting Screw and Head (47) is completely inside the Cylinder Tube (38).

<u>CAUTION</u> - TO AVOID DAMAGING THE ADJUSTABLE STROKE AIR CYLINDER, THE STROKE ADJUSTING HANDWHEEL (55) SHOULD ONLY BE ROTATED AFTER THE AIR HAS BEEN EXHAUSTED FROM THE MACHINE!

By turning the handwheel (55) counter-clockwise, the Cylinder Adjusting Screw and Head (47) is screwed out of the Cylinder Tube (38). This allows the Piston Head (42) and Piston Rod (39) to retract further into the Cylinder Tube (38). As you turn the handwheel, manually push the Link Arm (9) down, forcing the Piston Rod (39) down as well. This will raise the Ram (16) up from the bottom of the stroke. When the desired stroke length has been achieved, the die can be placed on the press bed.

6C, 8C, 10C, & 12C Grease Points

Pivot pins should rotate in one part only. All pivot pins are locked in one part by set screws or roll pins. If a pivot pin rotates in both parts, wear will occur in the part which is not protected by bronze bushings or able to be greased, requiring the parts replacement. Do **not** allow the Link Pin (26) to rotate in the press body or the casting will be damaged.

There are ten grease fittings throughout the Ram (16) and the toggle linkage (21, 10, 9). All bushings and rotational areas have spiral-machined grease grooves to allow grease to flow around the pins.

Link Arm, Item no. 9

The link pin (26), is prohibited from rotating in the press body by two set screws (67). The first set screw enters a drill point in the pin to lock it in place and the second set screw acts like a jam nut to prohibit the first set screw from backing out. The Link Arm (9) has two bronze bushings (6) which are greased through the straight grease fitting (40) on the top of the Link Arm (9). Grease flows through the Link Arm (9) into the spiral machined, grease grooves in the bushings (6) on each end to completely lubricate the rotational surfaces between the Pin (26) and the bushings (6).

Ram Link Clamp, Item no. 10

The Pivot Pin (5) is prohibited from rotating in the Link Arm (9) by a roll pin (29). The Ram Link Clamp (10) has a straight grease fitting (40) and spiral-machined grease grooves in the surface of the hole in the Ram Link Clamp (10) to grease the rotational contact area between the Ram Link Clamp (10) and the Pivot Pin (5).

Swivel Block, Item no. 15

The Ram Pin (25) is locked in the Swivel Block (15) by two set screws (64). The Ram Pin (25) rotates in the Ram (16) which is protected by two bushings (17). Two straight grease fittings (40) provide grease to both ends of the Ram Pin (25). When the bushings (17) are replaced, holes must be drilled through them after they are installed to allow grease flow.

Ram Gibs, Item no. 21

Two straight grease fittings (40) in each Gib (21) provide grease to the front surface of the Ram (16) and the angled surface of the Gib (21). Two angled grease fittings (12) in the Ram (16) provide grease to the rear surface of the Ram (16) where it slides against the machined press surface.

	Trouble Shooting				
Problems	Solutions				
Press is leaking air	90% of the time the cylinder seals need to be replaced				
Press leaking air part 2	If the cylinder seals are OK, then the main valve of the quick exhaust valve needs to be replaced.				
If the press is not getting its rated tonnage at the bottom of the stroke	Check air pressure to the machine to make sure it is operating at 80 PSI. If air pressure is ok and the machine is being lubricated regularly then the sea in the cylinder may need to be replaced. Also make sure application is not exceeding the tonnage of the machine. The farther from the bottom of the stroke that you are meeting the material the less tonnage you have.				
Ram link clamp, ram adjusting screw and swivel block threads are wearing out quickly	They are not tightening the cap screws on the rar link clamp (R2197/C) and the Swivel block (R2198/C) tight enough. This is causing them to round the threads and cause rapid replacement of the parts. Improper care is the cause.				
Ram adjusting screw is breaking	The linkage (ram link clamp R2197/C, ram adjusting screw R2200/C, and swivel block R2198/C) is over toggling causing the ram to go past the bottom of the stroke and the linkage to h the casting. You should be able to slide a piece of paper behind the linkage when the machine is at the bottom of the stroke.				
Is there a way to slow the rams downstroke	This can be accomplished by replacing the muffle that is in the quick exhaust valve at the top of the cylinder with a flow restrictor muffler (63006)				
What ram do I have	The clamp style ram has a silver block with two c screws and a set screw to hold tooling in place. The flange style ram is standard on all other models. There are two holes, one on the left and one on the right side of the ram for bolting tooling die sets to the ram				

Item #		Qty	Part #	Description
2	10	2	R2002/11	Cover knob for the "C" body RMT Press
3	10	1	R2002/8	Cylinder link pin, .500" dia. X 2.5"
5		1	R2199/2	Pivot pin, .875" dia. X 5.660"
6	° 🕐	2	R2090/31	Bushing for main pivot on link arm
9	-11-	1	R2215	6 ton link arm
9		1	R2196	8 ton link arm
9		1	R2214	10 ton link arm
9	• 11-•	1	R1974/1	12 ton link arm
10		1	R2197/C	Ram Link Clamp
11	10	2	R2217/14	3/8-16 X 2" long socket head cap screw
12	10	2	R2217/18	Angled grease fitting
13	∦⊘	1	R2200/C	Ram adjusting screw
15		1	R2198/C	Swivel block
16		1	R2201C	Clamp style ram
16	1	1	R2201F	Flange style ram
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Item #		Qty	Part #	Description				
17	° 🕐	2	R2217/12	Bushing for the ram				
19	No picture	6	R2090/30	2BA X 1/2" long socket head cap screw for back plate				
21		2	R2002/1	Gib strip				
24	No picture	1	R2081	Press body				
25		1	R2199/1	Ram Pin, 1.000" dia. X 3.250"				
26		1	R2086	Link pin 1.250" dia X 10.375"				
27	۵ 🗳	2	R2084	Trunnion pin				
28	No picture	2	R2090/30	2BA X 1/2" long socket head cap screw for trunnion pin				
29	No picture	1		3/16 dia. X 2" long roll pin				
30	¤ 🕐	1	R2220/42	Tab washer				
31	• 🕐	1	R2220/28	Lock nut				
32	10	1	R2220/25	Rod end				
33	• 🕐	1	R2220/16	Wiper seal				
34	0	1	R2001/1	Cylinder head				
35	00	1	R2220/18	O ring				
36	20	1	R2220/17	Piston rod bushing				
37	80	1	R2220/19	Piston rod seal				

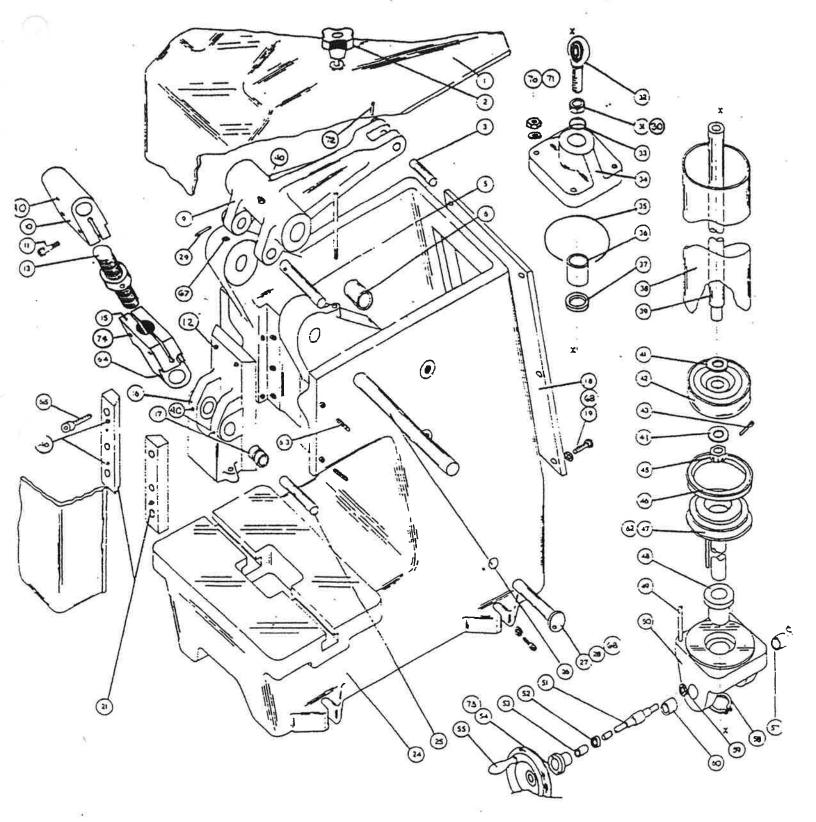
Item #		Qty	Part #	Description
38		1	R2220/11	Cylinder tube
39	•	1	R2224/5	Piston rod
40	• 🥐	8	R2217/17	Straight grease fitting
41	• 🕐	2	R2220/30	Piston head washer
42	0	1	R2220/15	Piston head
43	1 🕐	1	R2220/26	Cotter pin
45	: 🕐	1	R2220/27	Slotted nut
46	80	1	R2220/21	Piston seal
47		1	R2222R2223/3	Cylinder adjusting screw and head
48	4 🔿	1	R2006/1	Worm nut
49		4	R2103	Tie rod
50	<u>ð</u> 0	1	R2001/2	Cylinder rear end
51	0	1	R2006/2	Worm shaft
52, 59	• 🕐	2	R2001/12	Thrust washer

ltem #	Contraction of the local	Qty	Part #	Description
53, 56	- 🤭	2	R2001/22	Bushing for worm shaft
54	L 🕐	1	R2001/8	Sleeve
55	•) 1	R2220/34	Handwheel
57, 60	10	2	R2220/23	Trunnion bushing
58	00	1	R2220/33	Snap ring
62	•	1	R2104	Stay bar
	. 8.	1	SK3/12CYL	Seal kit - contains one of each of the following part numbers R2220/15, R2220/16, R2220/17, R2220/18, R2220/19, R2220/21

ltem	ot V	Item Qty. Part Number	Description
-	-	AC1726	Shut off sleeve valve, On/Off Valve for press
2	2		1/8" NPT Ports for optional controls (jumpered)
ო	-	43003 CS	Guard valve, 3 port, 2 position, 3 way valve
4	-		Ram trip lever (guard actuated)
S	-		1/8" NPT port for the production counter (plugged)
9	-	8L504-102	Main press control valve, 5 port, 2 position, 4 way valve
7	2		Muffler (quantity of 1 on 'A' model
∞	-	RGCYL	Adjustable stroke cylinder
9	-	3340B	Quick exhaust valve ('B' and 'C' models only)
10	-	63006	**Optional** Flow restrictor muffler
Sing	le cy	Single cycle operation	
1. In	sert i	Insert material into die	
2. M	anua	Manually lower plastic guard.	0
ე შ	bntrol	control valve (6) to advance the The ram will advance to the bott	control valve (6) to advance the air cylinder (ð) The ram will advance to the bottom of the stroke and remain there until the plastic guard is released.
Warning	ning		
<u>ب د</u>	hut o	Shut off air supply before making	Shut off air supply before making adjustments or tool changes. Do not remove quard or modify air circuit without saftey precautions
	o not	t reposition trip le	Do not reposition trip lever without safety precautions. Trip lever is
Ъ	reset	preset at the factory to activate t	activate the press only when the guard is within
7	/4" of	f the bed of the p	1/4" of the bed of the press, enclosing the die space.
			RMT AIR TOGGLE PRESS PNEUMATIC CIRCUIT
			Scale: Aproved By Drawn by JWS
			Date: 8/22/86
			t Machinery Corpor
			Sheet 2 of 2 Drawing Number RMT-PC1

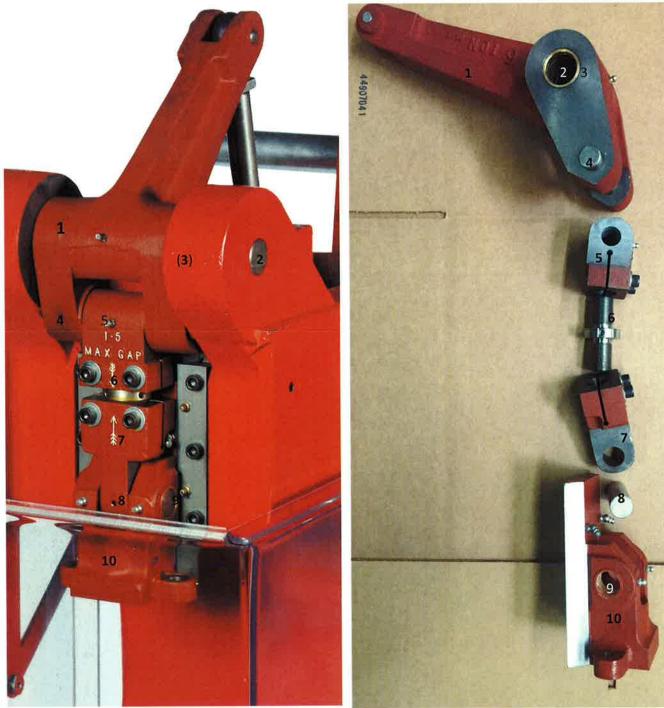
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RMT AIR TOGGLE PRESS MODELS 6C, 8C, 10C, & 12C

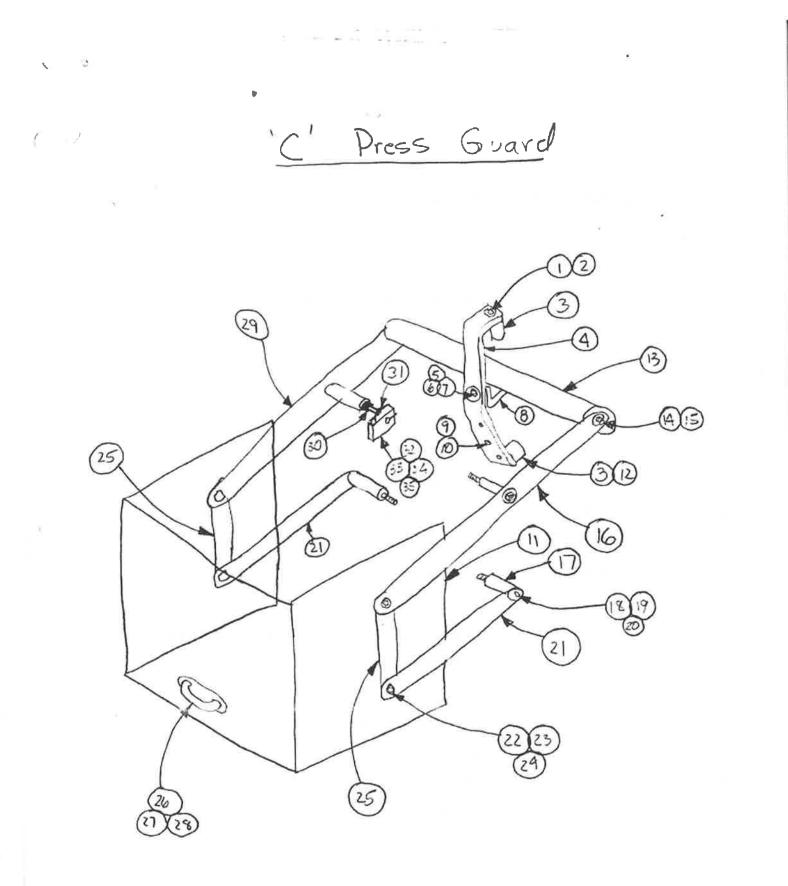


FOREMOST MACHINERY CORPORATION

425 Huehl Road, Northbrook, Illinois 60062 Tel: (847)272-7880 FAX: (847)272-7948



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My Pic Ref	Part List #	Part #	Description
1	9	R2215 (pictured	l) 6 Ton Link Arm
2	26	R2086	Link Pin, 1.250 X 10.375"
3	6	R2090/31	Link Bushing, for main pivot
4	5	R2199/2	Pivot Pin, connects to Ram link clamp (R2197/C)
5	10	R2197/C	Ram Link Clamp
6	13	R2200/C	Ram Adjusting Screw
7	15	R2198/C	Swivel Block
8	25	R2199/1	Ram Pin, 1.000" x 3.250"
9	17	R2217/12	Ram Bushing
10	16	R2201F	Ram



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RMT 'C' PRESS SAFETY GUARD PARTS LIST

ITEM	QTY	PART NO.	DESCRIPTION
1	1	RH22	MACHINE SCREW, SLOTTED ROUND HEAD, 2 BA X 1 LG.
2	1	RH23	NUT, 2 BA
3	2	RG04ABCD -	BUMPER, 1-3/8 OD X 1 T
4	1	RG01C >	BRACKET, BENT BUMPER
5	1	RH15	B.H.C.S., 1/4-26 BSF X 1 LG.
6	1	RH07	WASHER, 1/4 ID, 5/8 OD, .056 T
7	1	RH16	NUT, NYLOC, 1/4-26 BSF
8	1	RG02C	LATCH, GUARD, 1/8 X 2-1/8 X 2-1/8 X 1-3/16 WIDE
9	2	RH24	S.H.C.S., 1/4-26 BSF X 1/2 LG.
10	2	RH14	LOCKWASHER, 1/4
11	1	RCGRD	GUARD
12	1	RH25	MACHINE SCREW, SLOTTED ROUND HEAD, 2 BA X .675 LG.
13	1	RG03C -	COUNTERWEIGHT, 1-1/2 OD X 15-1/4 LG.
14	2	RH02	S.H.C.S., 5/16-22 BSF X 3/4 LG.
15	2	RH03	LOCKWASHER, 5/16
16	1	RG04C -	BRACKET, LONG, 3/16 X 1 X 20 LG.
17	З	RG05C -	SPACER, 1 OD X 2-1/8 LG.
18	3	RG06C —	STUD, THREADED, 3/8 OD X 3-1/4 LG. CASTING: 3/8-16 X 1/2 LG. BRACKET: 3/8-24 X 1 LG.
19	3	RH04	WASHER, 3/8 ID, 7/8 OD, .072 T
20	3	RH05	NUT, NYLOC, 3/8-24
21	2	RG07C ~	BRACKET, SHORT, 3/16 X 1 X 10 LG.

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П	EM	QTY	PART NO.	DESCRIPTION
	22	4	RH06	B.H.C.S., 1/4-26 BSF X 1/2 LG.
	23	4	RH07	WASHER, 1/4 ID, 5/8 OD, .056 T
	24	4	RG01ABC -	NUT, SPECIAL FLANGED
	25	2	RG02ABC -	BRACKET, GUARD, .119 X 1 X 7-7/16 LG.
	26	1	RG01ABCD-	HANDLE, GUARD
	27	2	RH08	S.H.C.S., 1/4-20 X 3/4 LG.
	28	1	RG02ABCD-	BRACKET, HANDLE, 1/8 X 1 X 7-7/16 LG.
	29	1	RG08C -	BRACKET & SPACER WELDMENT, 3/16 X 1 X 20 LG.
	30	1	R2001/22	BUSHING
	31	1	RH09	WASHER, 3/8 ID, 7/8 OD, .049 T
	32	1	RG03ABCD-	LEVER, RAM ACTUATING
	33	1	RH10	H.H.C.S., ROUNDED HEAD, 1/4-26 BSF X 1 LG.
	34	1	RH11	NUT, 1/4-26 BSF
	35	1	RH17	S.H.C.S., 1/4-26 BSF X 5/8 LG.
	36*	2 3	RH34 RH19	S.H.C.S., 1/4-26 BSF X 2-1/2 LG. (A) S.H.C.S., 1/4-26 BSF X 1-3/4 LG. (B)
	37*	2 3	RH14 RH14	LOCKWASHER, 1/4 (A) LOCKWASHER, 1/4 (B)
	38*	2 3	RH16 RH16	NUT, NYLOC, 1/4-26 BSF(A) NUT, NYLOC, 1/4-26 BSF(B)
	39*	2	RH20	H.H.C.S., 2 BA X 1 LG. (C)
	40*	2	RH21	LOCKWASHER, 2 BA (C)

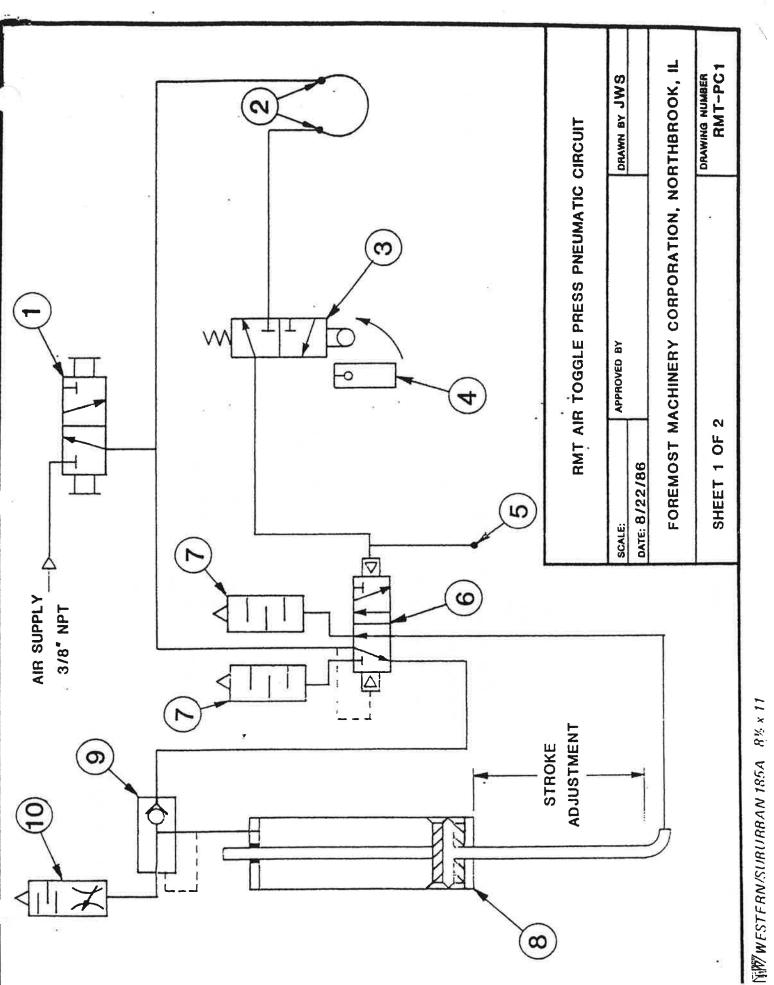
· - VALVE HARDWARE (NOT SHOWN ON DRAWING)

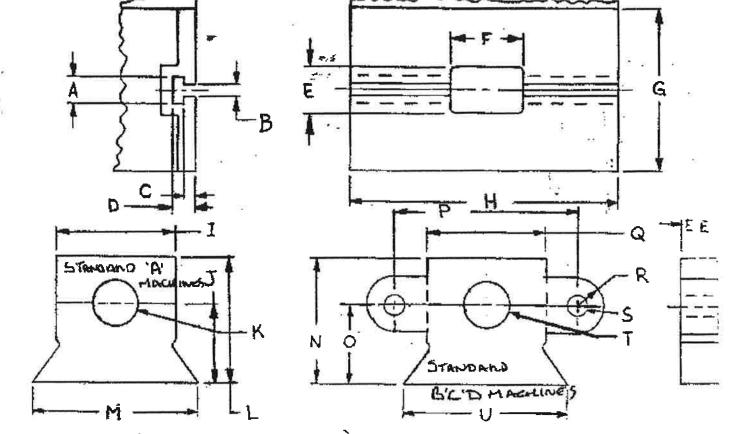
A - FOR COMPAIR VALVE NO. 8L504-102

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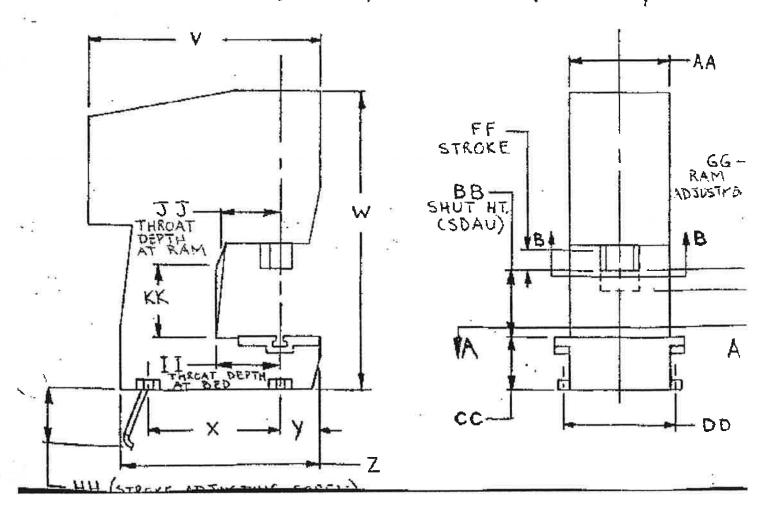
B - FOR SCHRADER-BELLOWS VALVE NO. 3456AP

C - FOR SCHRADER BELLOWS VALVE NO. 43003CS





FCTION E-B (RAM ONLY, CLAMP) SECTION E-B (RAM ONLY FLANCED



RMT AIR TOGGLE PRESSES DIMENSIONS AND SPECIFICATIONS

_	DESCRIPTION				MAC	HINE MOI	DEL NUM	BER	_		
'SL	OT										
		3A	5B	7B	6C	8C	10C	12C	18D	20D	24D
A	width at top	1-3/16"	1-3/8"	1-3/8"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"	1-1/2"
B	width at bottom	17/32"	11/16"	11/16"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
C	depth at top	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	5/8"	5/8"	5/8"
D	depth overall	1"	1-1/8"	1-1/8"	1-1/8"	1-1/8"	1-1/8"	1-1/8"	1-1/4"	1-1/4"	1-1/4"
BED -	optional wide bed ava	ilable on		D" model							
		3A	5B	7B	6C	8C	10C	12C	18D	20D	24D
E	bed hole, F-B	2"	3"	3"	3"	3"	3"	3"	4"	4"	4"
F	bed hole, L-R	3-1/8"	3-1/4"	3-1/4"	3-1/2"	3-1/2"	3-1/2"	3-1/2"	4-1/2"	4-1/2"	4-1/2"
G	bed depth	7"	8"	8"	9"	9"	9"	9"	12"	12"	12"
H	bed width	11-3/4"	12"	12"	14"	14"	14"	14"	18"	18"	18"
H	bed width - wide bed	N/A	N/A	N/A	20"	20"	20"	20"	24"	24"	24"
CLAM	P RAM - standard on '	'A" machi	ines, opti	onal on "I	B" and "C	" machin	es, not av	ailable o	n "D" mag	chines	
		3A	5B	7B	6C	8C	10C	12C	18D	20D	24D
	width at front	2-9/16"	3-1/8"	3-1/8"	3-1/8"	3-1/8"	3-1/8"	3-1/8"	N/A	N/A	N/A
J	back to hole center	1-3/4"	1-3/4"	1-3/4"	1-3/4"	1-3/4"	1-3/4"	1-3/4"	N/A	N/A	N/A
K	hole diameter	1"	1-9/16"	1-9/16"	1-9/16"	1-9/16"	1-9/16"	1-9/16"	N/A	N/A	N/A
ĸ	hole depth	1-1/4"	2"	2"	2"	2"	2"	2"	N/A	N/A	N/A
L	front to back	2-3/4"	3"	3"	3"	3"	3"	3"	N/A	N/A	N/A
M	width at back	3-9/16"	3-7/8"	3-7/8"	3-7/8"	3-7/8"	3-7/8"	3-7/8"	N/A	N/A	N/A
LANC	GE RAM - not available	e on "A" r	nachines	, standard	d on "B",	"C" and "	D" machi	ne			
		3A	5B	7B	6C	8C	10C	12C	18D	20D	24D
N	front to back	N/A	3-3/8"	3-3/8"	3-3/8"	3-3/8"	3-3/8"	3-3/8"	4-1/4"	4-1/4"	4-1/4"
0	back to hole centers	N/A	1-3/4"	1-3/4"	1-3/4"	1-3/4"	1-3/4"	1-3/4"	2-1/2"	2-1/2"	2-1/2"
p†	hole centers	N/A	3-15/16"	3-15/16"	3-15/16"	3-15/16"	3-15/16"	3-15/16"	5-1/2"	5-1/2"	5-1/2"
Q	width at front	N/A	2-3/4"	2-3/4"	2-3/4"	2-3/4"	2-3/4"	2-3/4"	4-1/8"	4-1/8"	4-1/8"
R	flange radius	N/A	5/8"	5/8"	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"
S	flange hole diameter	N/A	9/16"	9/16"	9/16"	9/16"	9/16"	9/16"	9/16"	9/16"	9/16"
Ť	ram hole diameter	N/A	1-9/16"	1-9/16"	1-9/16"	1-9/16"	1-9/16"	1-9/16"	1-9/16"	1-9/16"	1-9/16
Ť	ram hole depth	N/A	2"	2"	2"	2"	2"	2"	3"	3"	3"
U	width at back	N/A	3-7/8"	3-7/8"	3-7/8"	3-7/8"	3-7/8"	3-7/8"	5-1/4"	5-1/4"	5-1/4'
_	DIMENSIONS										
bridie	DIMENDIONO	3A	5B	7B	6C	8C	10C	12C	18D	20D	24D
VI	overall depth at top	20"	18"	18"	21"	21"	21"	21"	32"	32"	32"
w	overall height	25"	30"	30"	35"	35"	35"	35"	44-1/2"	44-1/2"	44-1/2
x	hole centers, F-B	11-1/2"	12"	12"	14"	14"	14"	14"	23"	23"	23"
Ŷ	front to front holes	3-3/8"	3-7/8"	3-7/8"	4-3/8"	4-3/8"	4-3/8"	4-3/8"	5-7/8"	5-7/8"	5-7/8
z	overall depth at base	17-1/4"	19-1/4"	19-1/4"	23"	23"	23"	23"	32"	32"	32"
AA	width at top	9"	10"	10"	12"	12"	12"	12"	12"	12"	12"
BB	shut height - SDAU	6"	7"	7-11/16"	6-3/4"	7-1/2"	8"	8-1/2"	8-1/2"	9"	9-1/2
CC	base to bed	4-3/4"	5-1/4"	5-1/4"	7"	7"	7"	7"	10-5/8"	10-5/8"	10-5/8
DD	hole centers, L-R	10-1/2"	10-1/2"	10-1/2"	12-7/8"	12-7/8"	12-7/8"	12-7/8"	12-3/4"	12-3/4"	12-3/4
EE	flange thickness	N/A	7/8"	7/8"	7/8"	7/8"	7/8"	7/8"	1"	1"	1"
FF	maximum stroke	2"	2"	1-5/16"	3-1/4"	2-1/2"	2"	1-1/2"	2-1/2"	2"	1-1/2
GG	ram adjustment	1/2"	3/4"	3/4"	1"	1"	1"	1"	5/8"	5/8"	5/8"
HH	max. extend below	0"	0"	0"	6-1/2"	6-1/2"	6-1/2"	6-1/2"	13"	13"	13"
	throat depth at bed	5-1/2"	5-1/2"	5-1/2"	8-1/2"	8-1/2"	8-1/2"	8-1/2"	8-7/8"	8-7/8"	8-7/8
JJ	throat depth at ram	5"	5"	5"	7-1/2"	7-1/2"	7-1/2"	7-1/2"	6-1/2"	6-1/2"	6-1/2
								N/A	6-1/2"	6-1/2"	6-1/2
KK ga	height of back surface	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6-1/2"		5-1/2"

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RMT AIR TOGGLE PRESS WARRANTY CERTIFICATE

As part of the purchase of a new RMT Pneumatic Toggle Press, a parts warranty will be included. The warranty begins at the point of initial shipment and will not automatically be passed along to second owners. The warranty applies to equipment, which has been installed, protected, maintained and used in accordance with the specifications and instructions of the manufacturer, for its intended purposes, without modification, misuse or abuse by the PURCHASER.

Mechanical parts and components are warranted for a period of 12 months from the date of shipment. Pneumatic parts and components are warranted for a period of 90 days from the date of shipment.

PARTS WARRANTY: In the event of a problem, the purchaser contacts RMT's American Master Distributor whose service technicians will provide over the phone trouble shooting measures to resolve the situation. The purchaser is responsible for executing all required troubleshooting steps to determine the problem. If it is determined that any part has failed due to a defect in material or workmanship within the Warranty Period (defined above), a replacement part will be provided free of charge except for the freight costs which are the purchaser's responsibility. The purchaser is responsible for installing any replacement parts and/or all labor charges associated with installation of replacement parts. The purchaser may be required to send damaged parts prepaid to RMT's American Master Distributor for inspection. Replacement parts are warranted only for the balance of the original Warranty Period.