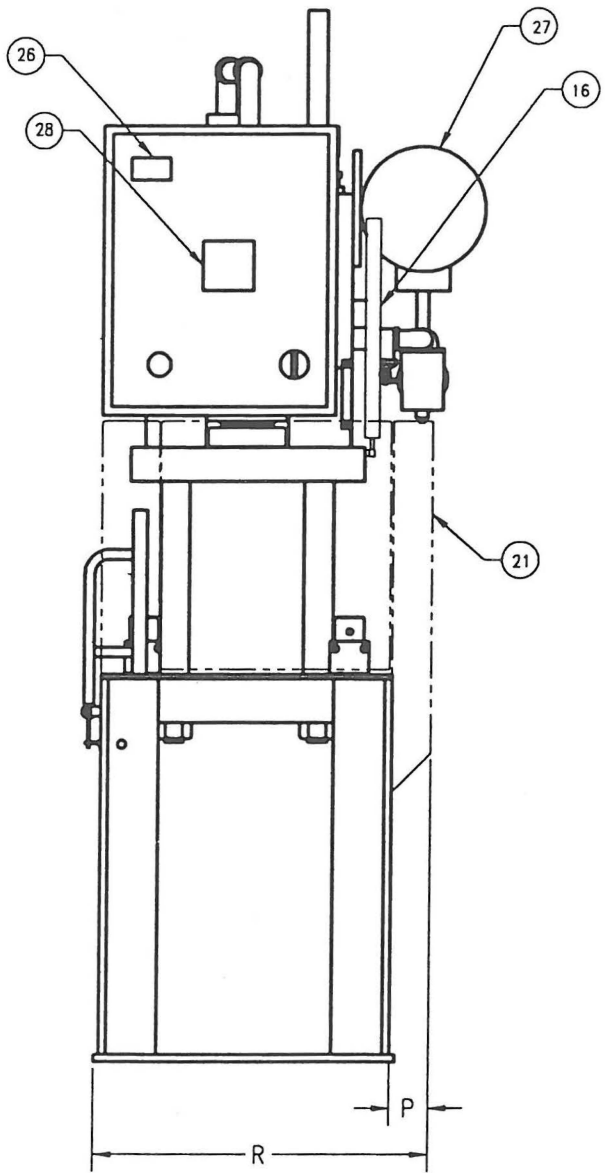
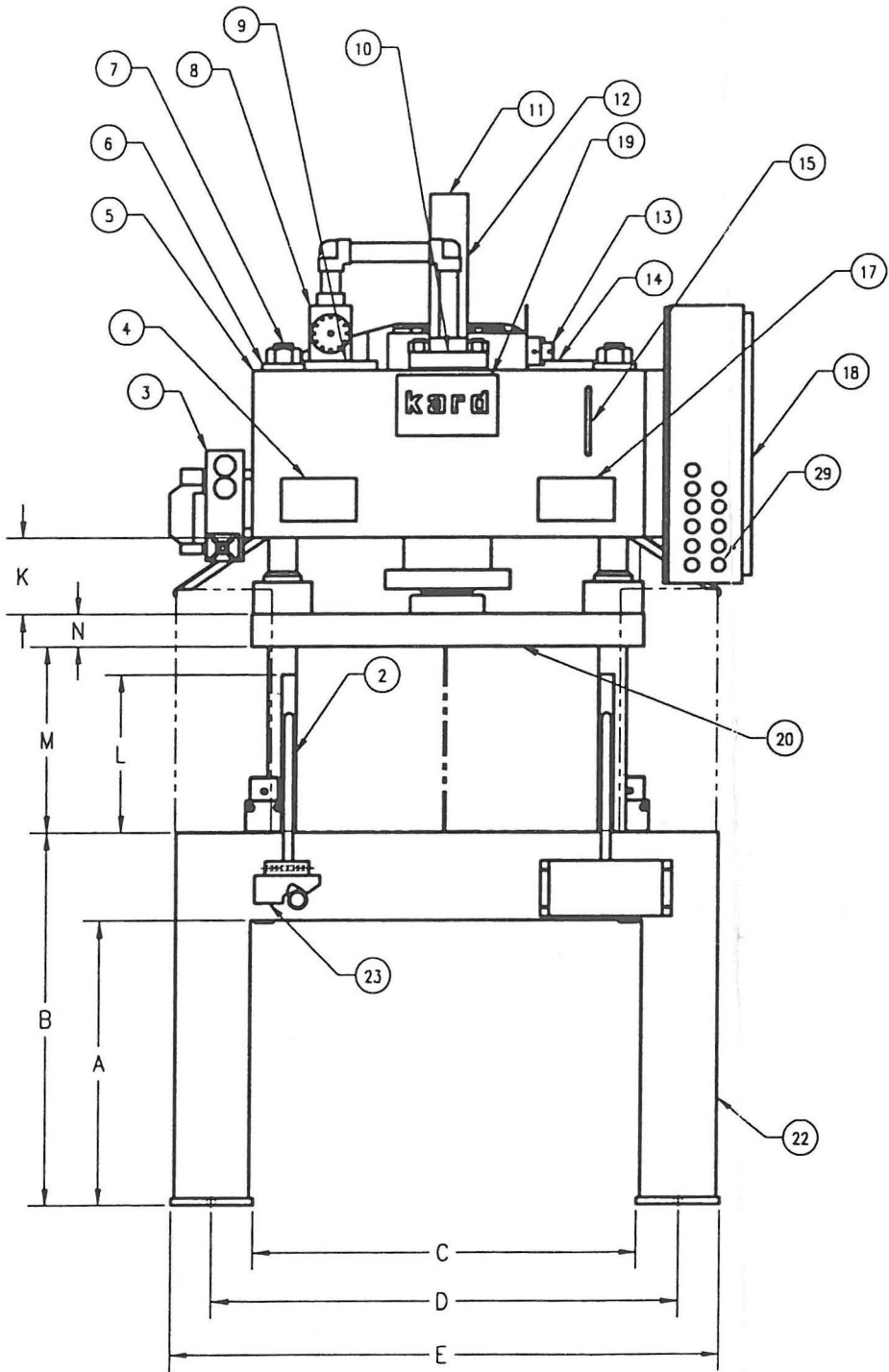
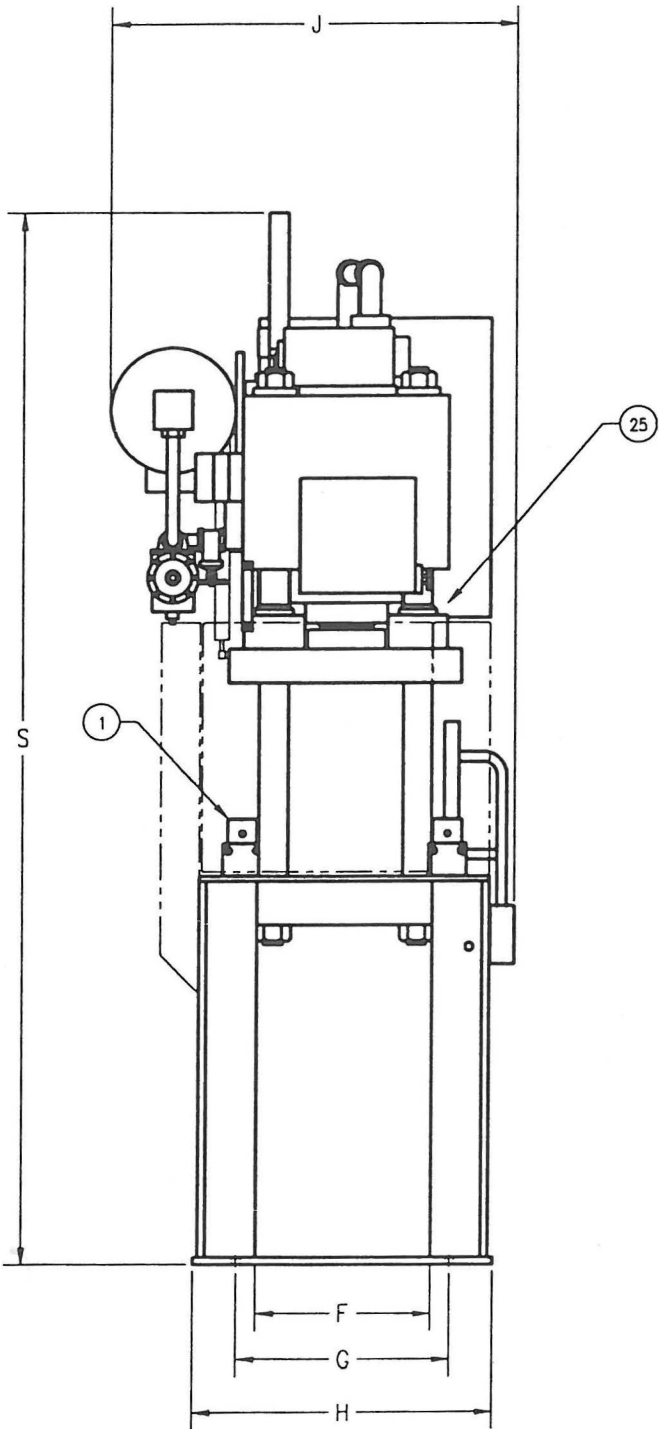


REVISIONS			
SYM.	DESCRIPTION	DATE	APP.



29	OPERATOR CONTROLS
28	PROGRAMMABLE COUNTER
27	MOTOR / PUMP
26	ELECTRIC / HYDRAULIC WARNING PLATE
25	TIE BAR BUSHING
24	SAFETY STOP ASSEMBLY
23	PUSHBUTTON PLATE
22	BASE
21	SAFETY GUARDS
20	MOVING PLATEN
19	KARD NAMEPLATE
18	ELECTRICAL BOX
17	SAFETY GUARD WARNING PLATE
16	LINEAR TRANSDUCER
15	OIL GAGE
14	RESERVOIR COVER
13	SAFETY STOP ASSEMBLY
12	SAFETY STOP GUARD
11	SAFETY RATCHET BAR
10	CYLINDER ASSEMBLY
9	RESERVOIR COVER
8	PREFILL ASSEMBLY
7	TIE BAR
6	TIE BAR SPACER RING
5	CROWN
4	OPERATION WARNING PLATE
3	MANIFOLD
2	SAFETY HANDPULLS
1	PLATEN STOPS
NO.	DESCRIPTION

LETTER	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	S
DIMENSION	30.50	40.00	41.25	50.00	58.75	22.75	26.75	52.75	42.00	8.26	17.00	20.00	3.50	4.00	34.50	108.80

DIMENSIONS ARE IN INCHES
THIRD ANGLE PROJECTION

SURFACE FINISH
UNLESS OTHERWISE SPECIFIED

ALL SURFACES

SHEET: 1 OF 1

TOLERANCES
EXCEPT AS NOTED

2 PLACE
+
-

3 PLACE
+
-

ANGULAR
+
-

NATIONAL DIECASTING MACHINERY
KARD TRIM PRESSES

MATERIAL:

DATE: 6/17/97

SCALE: 1=10

DRAWN: P. BOSWELL
APP'D. BY:

TITLE: TRIM PRESS ASSEMBLY

ASSY/MODEL: TP30-4

PART NUMBER

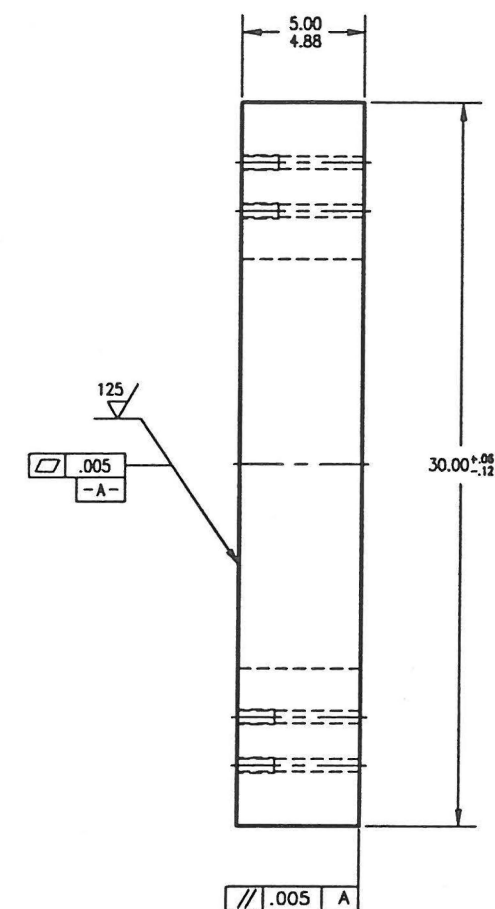
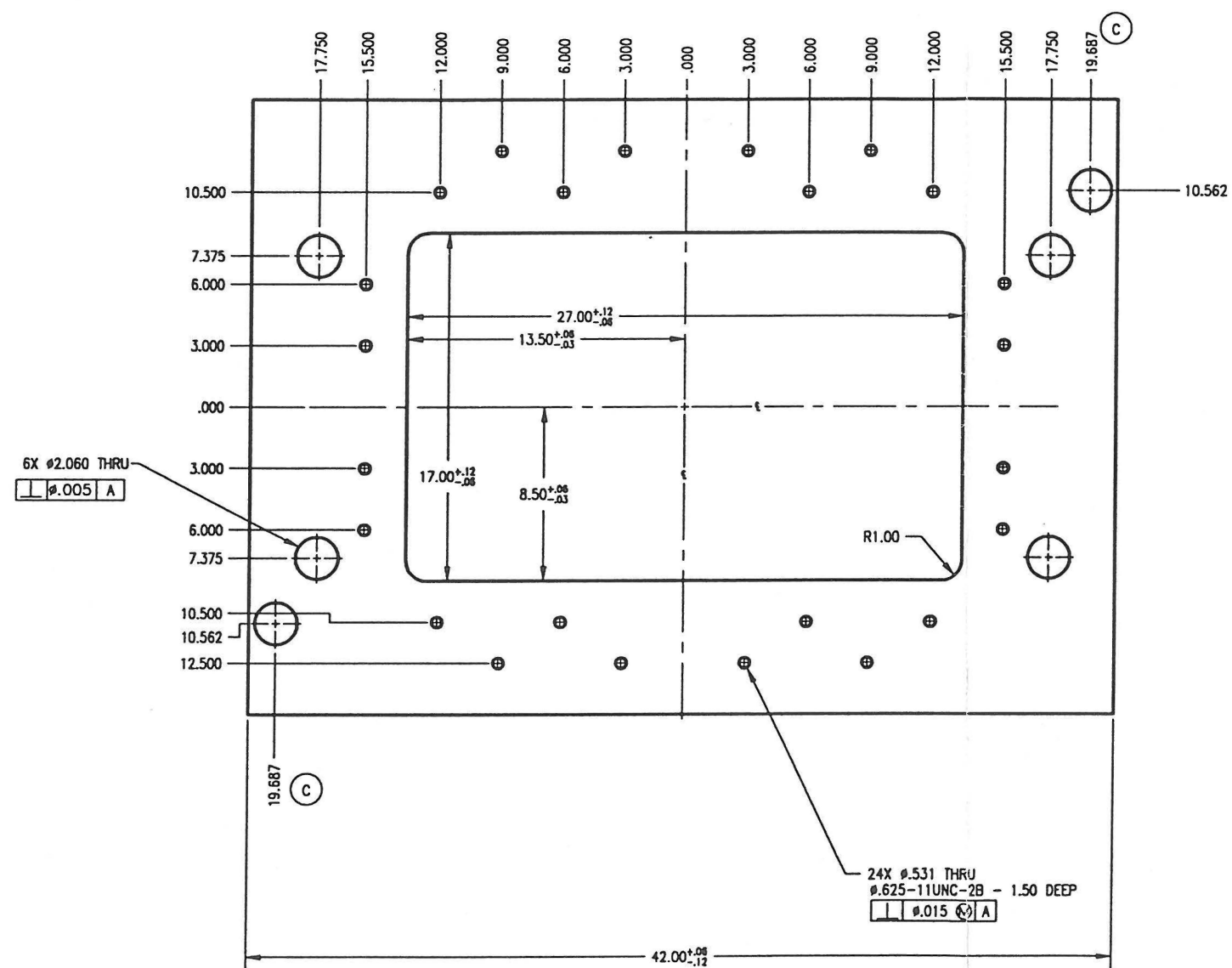
DRAWING NO.: SP-013056-D

REV.: -

NOTES:

1. SUPERSEDES DRAWING NUMBERS CK012615 AND CK012616.
2. REMOVE ALL BURRS AND SHARP EDGES .060 MAX.
3. HOLES ARE SYMMETRICAL ABOUT CENTERLINES.
4. TORCHCUT CENTER OPENING TO DIMENSIONS SHOWN.

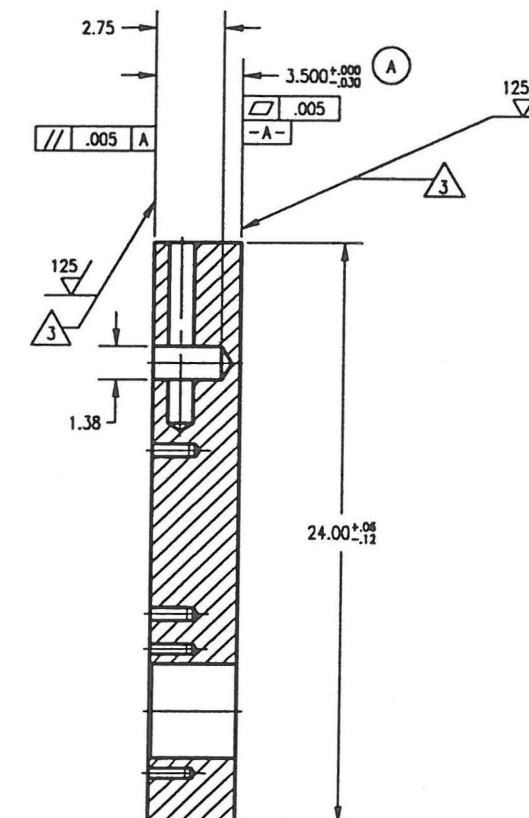
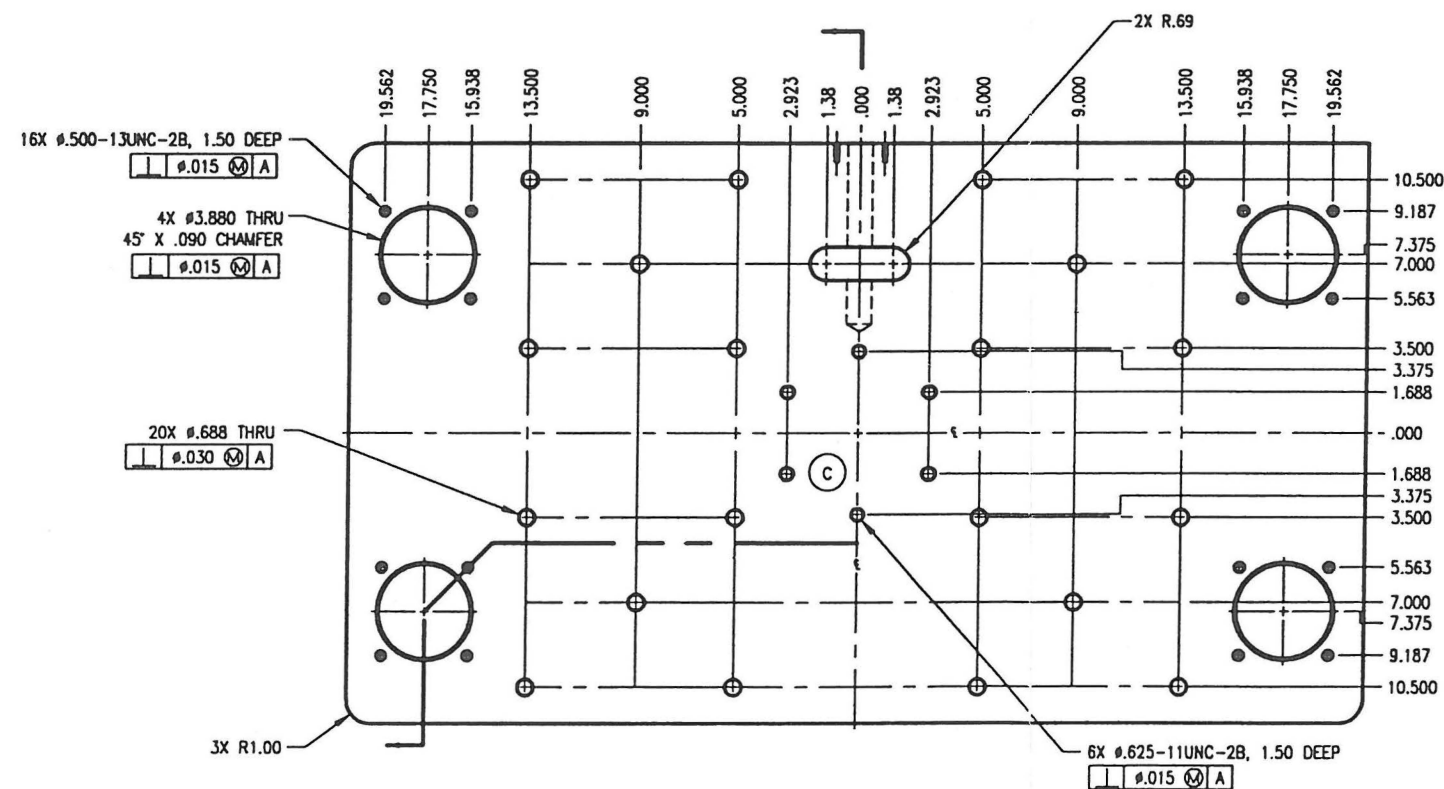
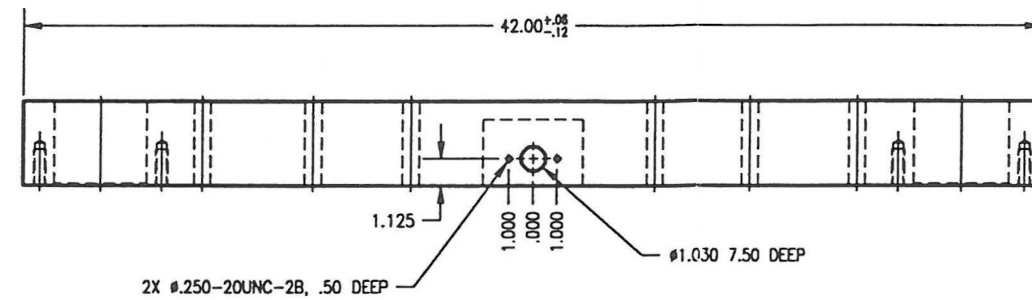
REVISIONS			
SYML	DESCRIPTION	DATE	APP.
A	HOLES WERE 6X @2.030	11/95	
B	WAS 52X .625-11, MOVE STOP HOLES	3/96	
C	WAS 19.562	10/96	



DIMENSIONS ARE IN INCHES THIRD ANGLE PROJECTION 		TOLERANCES EXCEPT AS NOTED 2 PLACE ± .03		 NATIONAL DIECASTING MACHINERY KARD TRIM PRESSES	
SURFACE FINISH UNLESS OTHERWISE SPECIFIED 125 ✓ ALL SURFACES		3 PLACE ± .005 ANGULAR ± 1°		MATERIAL: AISI 1025 HRS	DATE: 8/5/94
SHEET 1 OF 1				SCALE: 1 = 4	DRAWN: A. SILVIA APP'D. BY:
		TITLE: LOWER PLATEN		ASSY/MODEL: TP30-4	PART NUMBER DRAWING NO.: DK012616
				REV.: C	

1. SUPERSEDES DRAWING NUMBERS:
CK012619 AND CK012620.
2. REMOVE ALL BURRS AND SHARP
EDGES .060 MAX.
3. BLANCHARD GRIND SURFACES REFERENCED.
BOTH SURFACES MUST BE FREE OF
NICKS AND SCRATCHES.
4. APPLY RUST PREVENTIVE OIL AFTER
MACHINING.
5. HOLES ARE SYMMETRICAL ABOUT CENTERLINES.

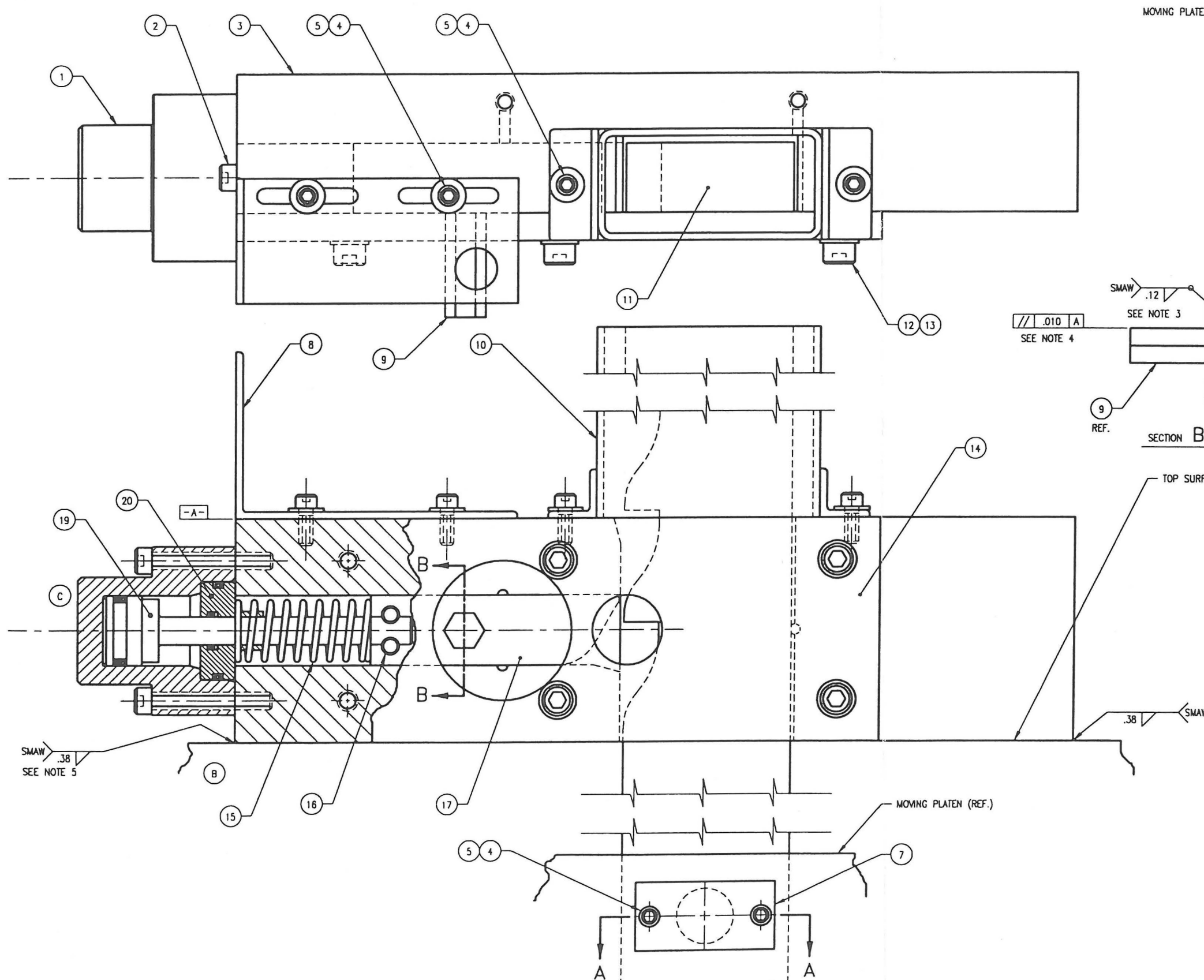
REVISIONS			
SYM.	DESCRIPTION	DATE	APP.
A	WAS 3.50 - 3.38	10/95	
B	WAS 38X Ø.688	3/96	
C	ELIMINATE Ø2.50 HOLE	7/96	



DIMENSIONS ARE IN INCHES THIRD ANGLE PROJECTION		TOLERANCES EXCEPT AS NOTED		NATIONAL DIECASTING MACHINERY KARD TRIM PRESSES				
		2 PLACE ± .03		MATERIAL: AISI 1025 HRS		DATE: 8/5/94	SCALE: 1 = 4	DRAWN: A. SILVA APP'D. BY:
SURFACE FINISH UNLESS OTHERWISE SPECIFIED 125 ✓ ALL SURFACES		3 PLACE ± .005 ANGULAR ± 1°		TITLE: MOVING PLATEN				
SHEET 1 OF 1				ASSY/MODEL: TP30-4		PART NUMBER DK012620		REV.: C

- NOTES:
1. DIMENSIONS ARE IN INCHES.
2. INTERPRET WELD AND WELDING SYMBOLS PER ANSI/AWS A2.4-79.
3. WELD ITEMS 9 AND 17 AFTER ASSEMBLING COVER PLATE (ITEM 14).
4. ITEM 9 MUST BE ASSEMBLED WITH ONE FACE OF THE HEX
PARALLEL TO THE TOP SURFACE OF ITEM 3.
5. WELD ONLY ITEM 3 TO TOP OF CROWN. DO NOT WELD ITEM 14.

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVAL
A	SEE ECO 10010	12/93	
B	ADDED ITEM 18	01/94	
C	CHANGE CYLINDER ASSEMBLY	5/96	

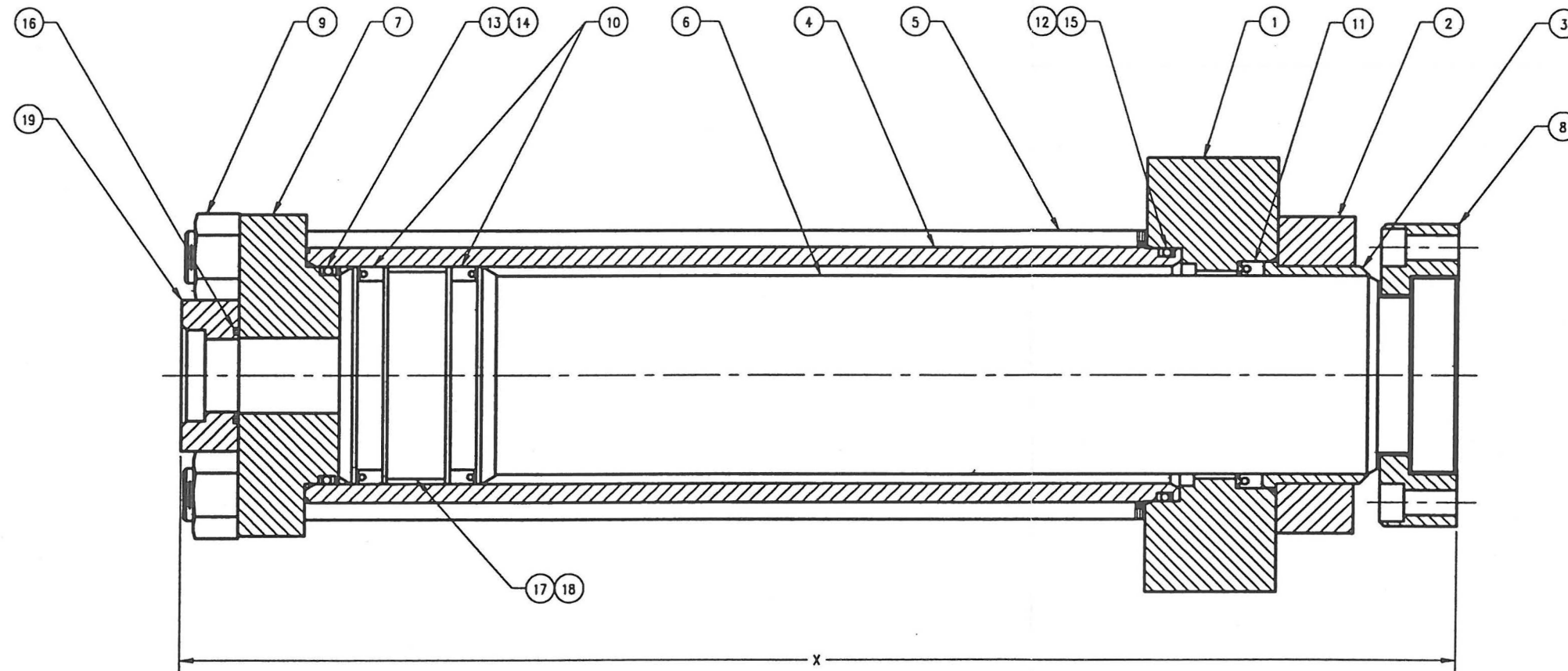


NO.	QTY.	PART NO.	DRAWING NUMBER	DESCRIPTION
20	1	NK511007	AK012858	BEARING
19	1	NK511006	AK012857	PISTON
18				
17	1		BK012597	SAFETY STOP DOG
16	2			.25 X 1.00 ROLL PIN
15	1	K511008		SPRING
14	1		CK012596	SAFETY STOP COVER
13	6			.38 LOCK WASHER
12	6			.375-16 X 1.00 AHSCS
11	1	VARIES	VARIES	SAFETY RATCHET BAR
10	1	VARIES	VARIES	RATCHET BAR GUARD
9	1		BK012598	MICRO ACTUATOR
8	1		BK012679	TRANSDUCER MOUNTING BRACKET
7	1		BK012603	RETAINER PIN COVER PLATE
6	1			RETAINER PIN
5	6			.25 FLAT WASHER
4	6			.250-20 AHSCS .625 LEN.
3	1		DK012595	SAFETY STOP BODY
2	2			.313-18 UNC AHSCS 2.00 LEN
1	1	NK511005	CK012847	AIR CYLINDER BODY
PARTS LIST				

TOLERANCES EXCEPT AS NOTED			
2 PLACE			
+	.01		
-	.01		
3 PLACE			
+	.005		
-	.005		
ANGULAR			
+	1°		
-	1°		

NATIONAL DIECASTING MACHINERY WARWICK, RHODE ISLAND			
MATERIAL:	DATE:	SCALE:	DRAWN: A. SILVA
	12/07/93	1=1	APP'D. BY:
TITLE:	SAFETY STOP ASSEMBLY		
STD T.P.	DRAWING NO.: DK012599		

NOTE:
1. ON PARTS WITH TABULATED DETAIL DRAWINGS
USE EXTENSION .1 FOR 14.00 STROKE,
EXTENSION .2 FOR 18.00 STROKE,
EXTENSION .3 FOR 24.00 STROKE.



19	1	K541014		WELD FLANGE
18	1	K411041		WEAR RING
17	1	K411040		WEAR RING
16	1	K411014		O-RING
15	1	K411013		BACK-UP RING
14	1	K411012		BACK-UP RING
13	1	K411011		O-RING
12	1	K411010		O-RING
11	1	K411009		ROD SEAL
10	2	K411008		PISTON SEAL
9	4	K411007		1.375-12 HEX NUT
8	1	NK421001	CK012586	PLATEN ATTACHMENT
7	1	NK411004	CK012585	BLIND HEAD
6	1	NK411003	DK012584	PISTON ROD
5	4	NK411001	BK012583	STUD
4	1	NK411002	DK012582	BARREL
3	1	NK411006	CK012580	ROD BUSHING
2	1	NK411006	DK012579	ROD BUSHING HOUSING
1	1	NK411005	DK012578	ROD HEAD
ITEM QTY.		PART NUMBER	PART NUMBER	DESCRIPTION

PARTS LIST

NATIONAL DIECASTING MACHINERY
KARD TRIM PRESSES

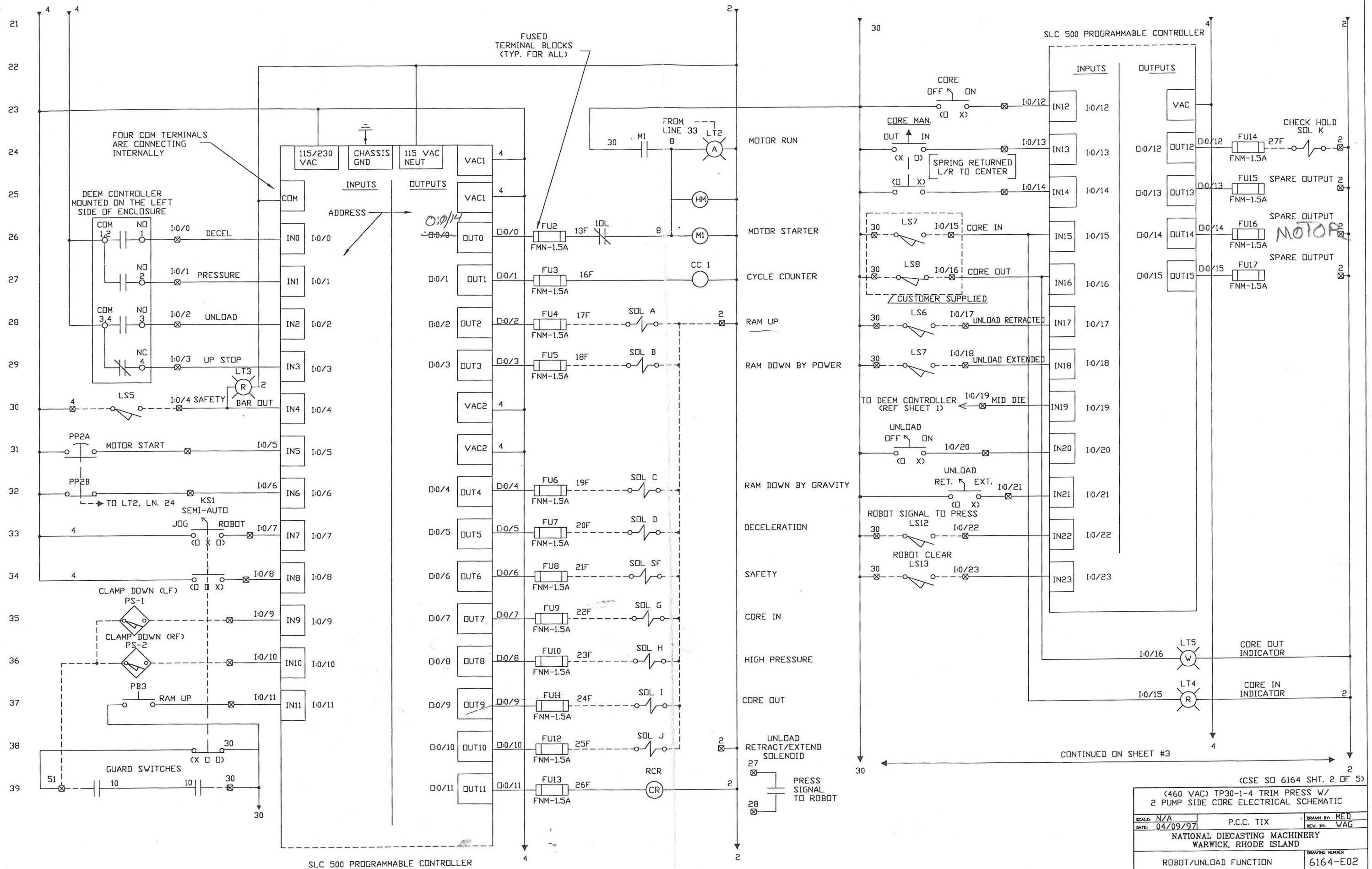
MATERIAL:	DATE	SCALE	DRAWN BY
SEE PARTS LIST	9/11/95	1-2	P. BOSWELL

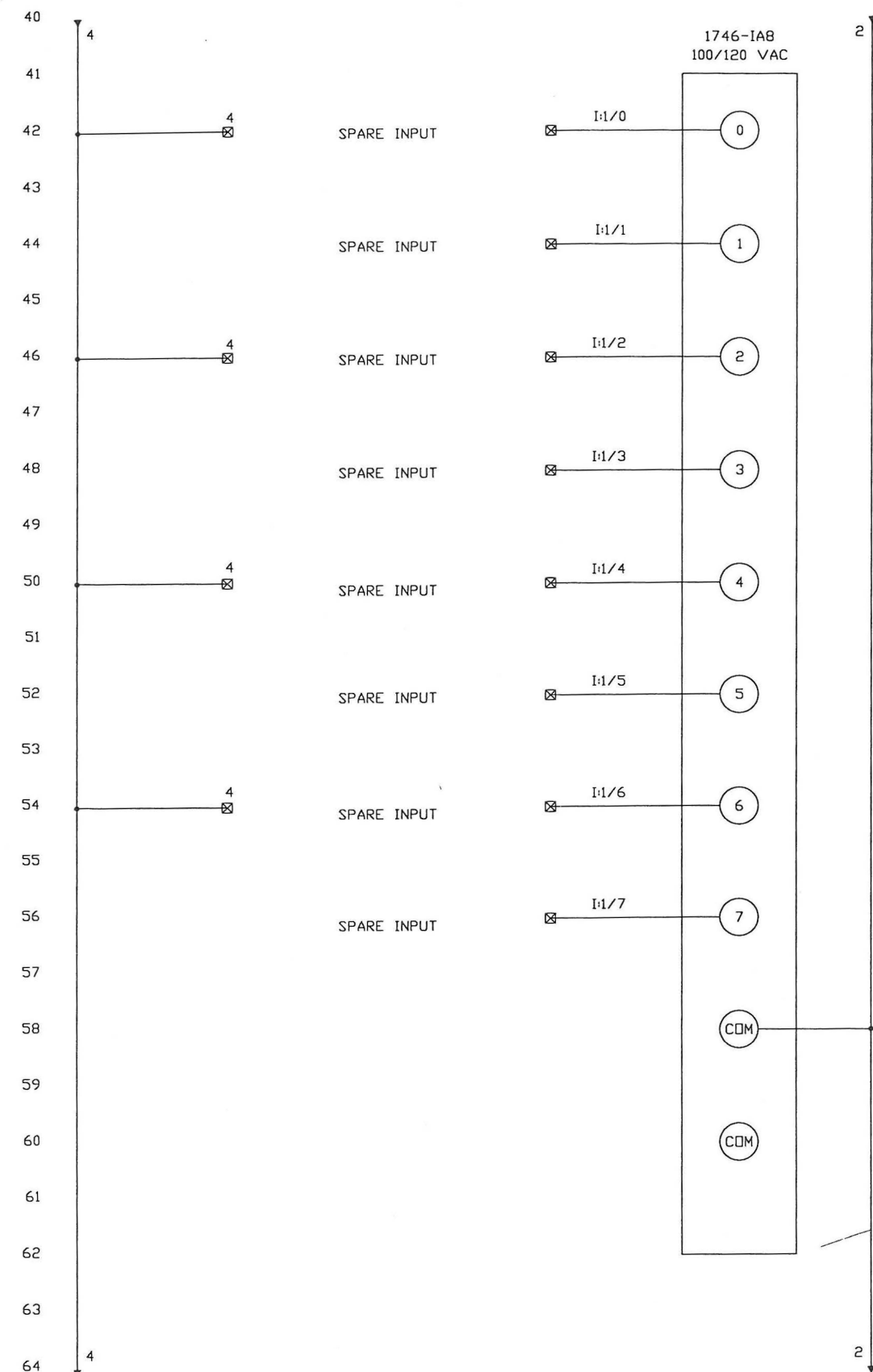
TITLE: CYLINDER ASSEMBLY

ASSY/MODEL:	PART NUMBER	DRAWING NO.:	REV.:
TP30		DK012811	—

DK012587.3	24.00	38.12
DK012587.2	18.00	32.12
DK012587.1	14.00	28.12
DRAWING NO.	STROKE	X

DIMENSIONS ARE IN INCHES	TOLERANCES
THIRD ANGLE PROJECTION	EXCEPT AS NOTED
	2 PLACE
SURFACE FINISH	+
UNLESS OTHERWISE SPECIFIED	+
	3 PLACE
ALL SURFACES	+
	ANGULAR
	+
SHEET 1 OF 1	

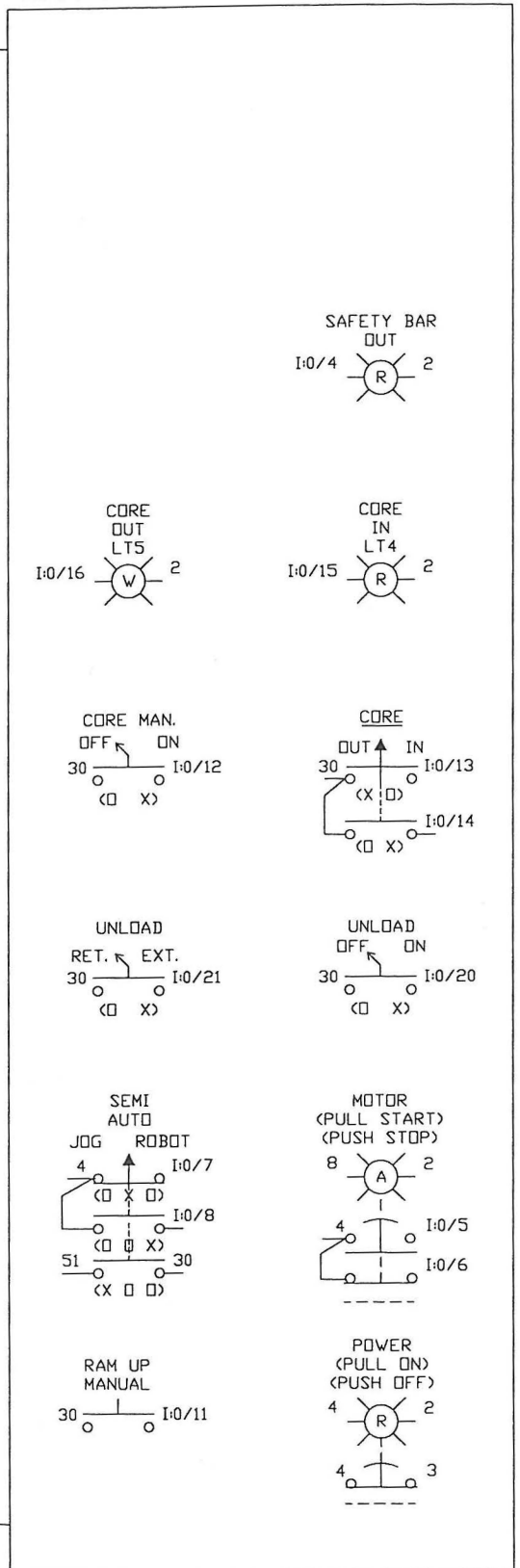




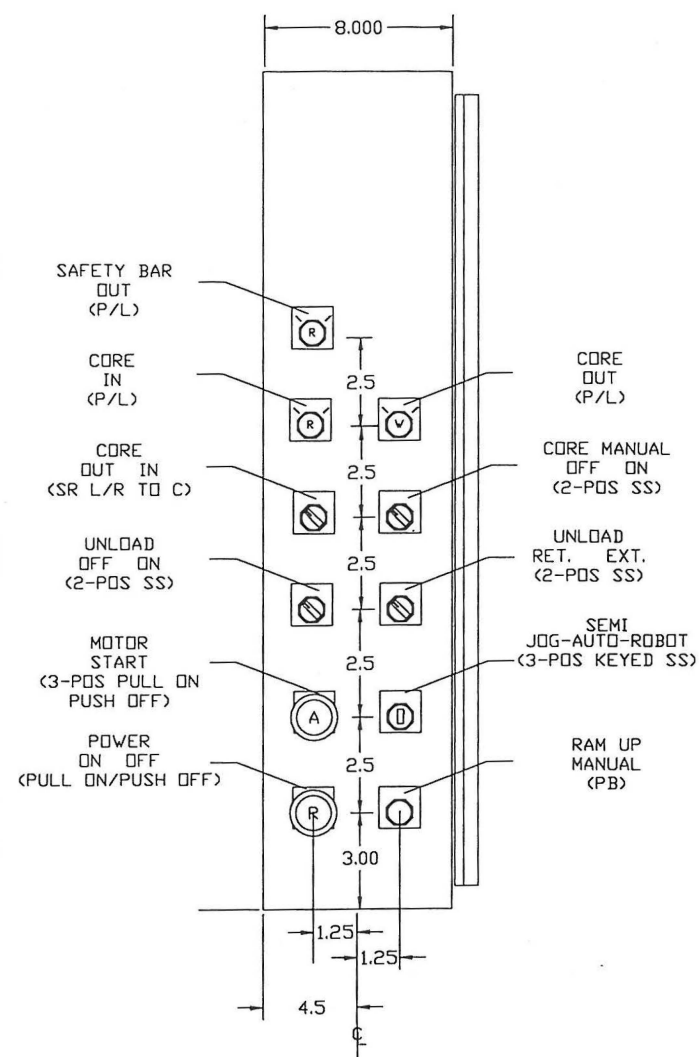
(CSE SD 6164 SHT. 3 OF 5)

(460 VAC) TP30-1-4 TRIM PRESS W/ 2 PUMP SIDE CORE ELECTRICAL SCHEMATIC		
SCALE: N/A	P.C.C. TIX	DRAWN BY: MED
DATE: 04/09/97	REV. BY: WAG	
NATIONAL DIECASTING MACHINERY WARWICK, RHODE ISLAND		
ROBOT/UNLOAD FUNCTION		DRAWING NUMBER 6164-E03

LEFT HAND SIDE SHOWN FROM REAR (NOT TO SCALE)



LEFT HAND SIDE



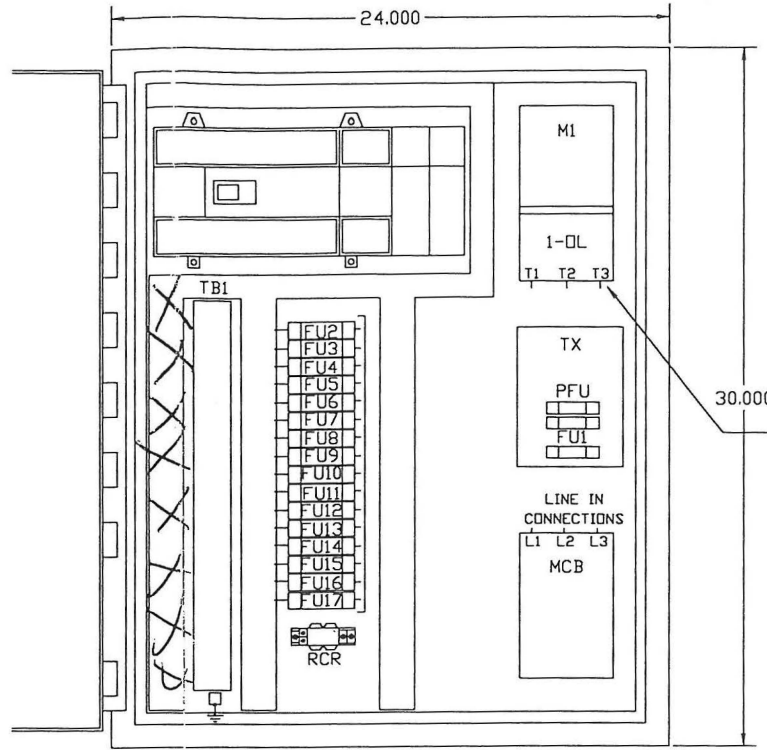
ALL HOLES 1-7/32" Ø

TB1 (53-PTS)

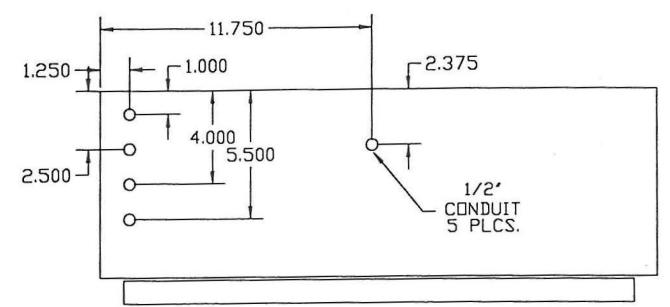
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2	I:0/2
2	I:0/3
2	I:0/4
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2	I:0/6
2	I:0/7
2	I:0/8
2	I:0/9
3	I:0/10
4	I:0/11
4	I:0/12
4	I:0/13
27	I:0/14
28	I:0/15
30	I:0/16
30	I:0/17
30	I:0/18
30	I:0/19
30	I:0/20
30	I:0/21
30	I:0/22
30	I:0/23
51	I:1/0
	I:1/1
	I:1/2
	I:1/3
	I:1/4
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	I:1/99
	I:1/100

FRONT VIEW / PANEL LAYOUT

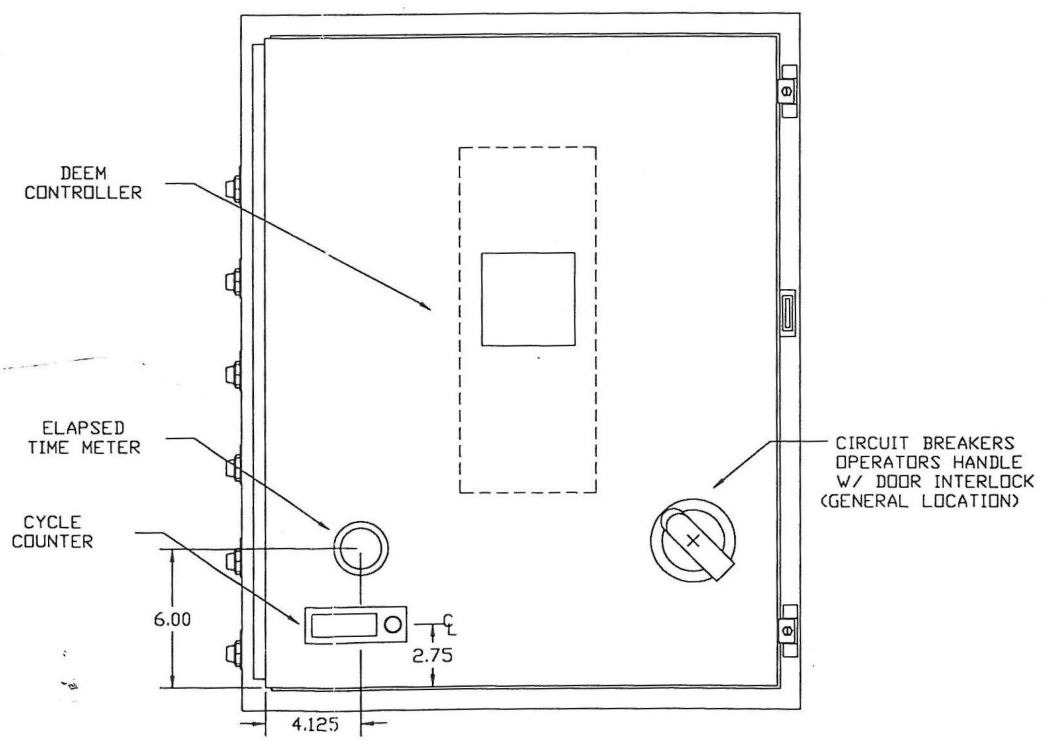
NEMA TYPE 12 ENCLOSURE
30" HIGH, 24" WIDE 8" DEEP
SUBPANEL SIZE: 27" HIGH, 21" WIDE



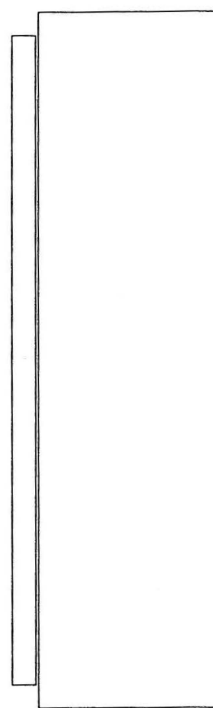
TOP VIEW



FRONT VIEW / DOOR LAY-OUT



RIGHT HAND SIDE

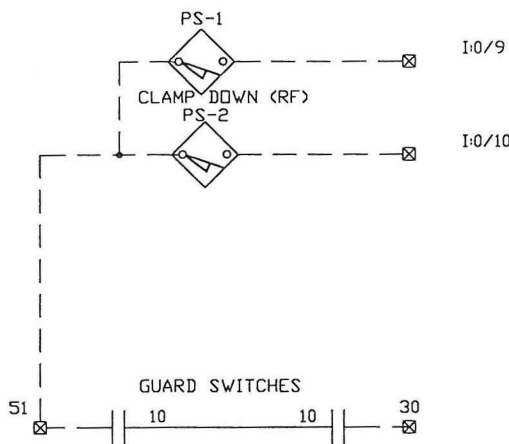
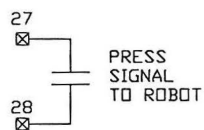
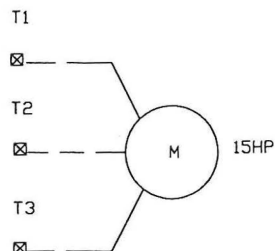
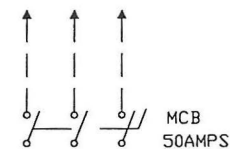


(CSE SD 6164 SHT. 4 OF 5)

(460 VAC) TP30-1-4 TRIM PRESS W/ 2 PUMP SIDE CORE ELECTRICAL SCHEMATIC			
SCALE: N/A	P.C.C. TIX	DRAWN BY: MED	REV. BY: WAG
DATE: 04/09/97			
NATIONAL DIECASTING MACHINERY WARWICK, RHODE ISLAND			
ROBOT/UNLOAD FUNCTION			DRAWING NUMBER 6164-E04

FIELD WIRING DIAGRAM

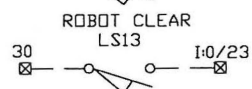
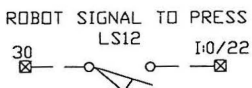
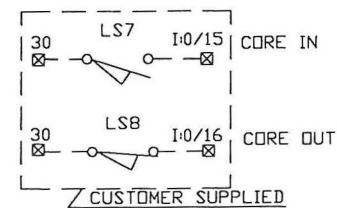
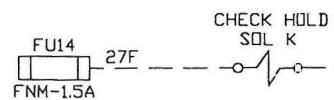
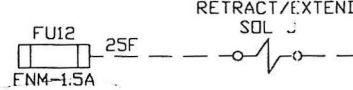
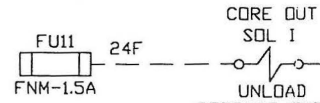
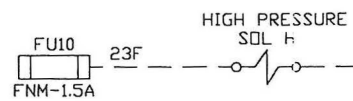
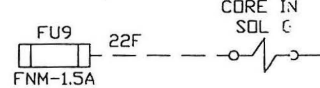
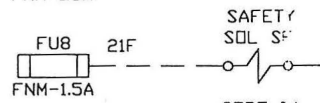
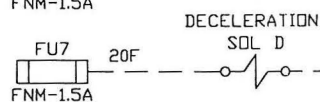
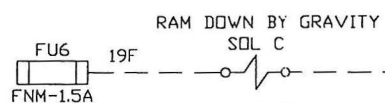
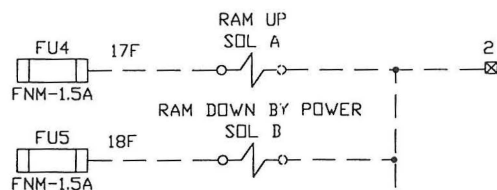
460VAC
3 PHASE 60HZ



TANK VENT
WHEN DEENERGIZED



AIR SHUT OFF
WHEN DEENERGIZED



(CSE SD 6164 SHT. 5 OF 5)

(460 VAC) TP30-4-1 TRIM PRESS W/
2 PUMP SIDE CORE ELECTRICAL SCHEMATIC

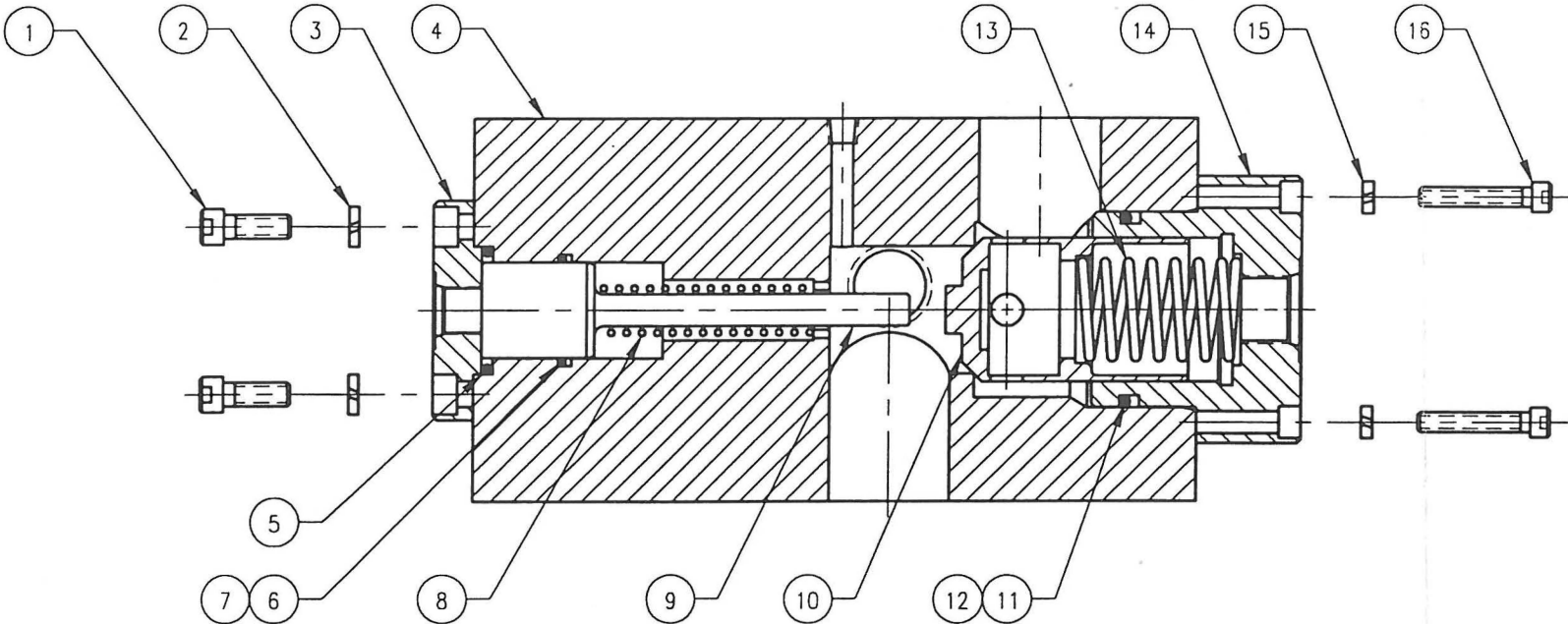
SCALE: N/A
DATE: 04/09/97
P.C.C. TIX
REV. BY: WAG

NATIONAL DIECASTING MACHINERY
WARWICK, RHODE ISLAND

ROBOT/UNLOAD FUNCTION

DRAWING NUMBER
6164-E05

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVAL
A	REDRAWN	11/93	



16	12	013014	5/16-18 X 1.75 S.H.C.S.
15	12	K541005	5/16 NOM. HIGH COLLAR LOCK WASHER
14	1	CK012588	BODY CAP
13	1	K541012	PREFILL POPPET SPRING
12	1	K541009	BACK-UP RING 8-334
11	1	K541008	O-RING 2-334
10	1	NK541010	MAIN POPPET
9	1	NK541015	PILOT PISTON
8	1	K541016	PREFILL PILOT SPRING
7	1	K541007	BACK-UP RING 8-222
6	1	K511013	O-RING 2-222
5	1	K541006	O-RING 2-326
4	1	DK012212	PREFILL HOUSING
3	1	BK012592	PILOT END CAP
2	4	K541003	3/8 NOM. HIGH COLLAR LOCK WASHER
1	4	013018	3/8-16 X 1.00 S.H.C.S.
NO.	QTY.	PART NO.	DESCRIPTION

PARTS LIST			
TOLERANCES EXCEPT AS NOTED	NATIONAL DIECASTING MACHINERY		
2 PLACE	WARWICK, RHODE ISLAND		
+ .01 - .01	MATERIAL:	DATE: 11/22/93	SCALE: 1/2
3 PLACE			DRAWN: A. SILVIA
+ .005 - .005	TITLE:	APP'D. BY:	
ANGULAR	PREFILL VALVE ASSEMBLY		
+ 1° - 1°		DRAWING NO.: CK012593	