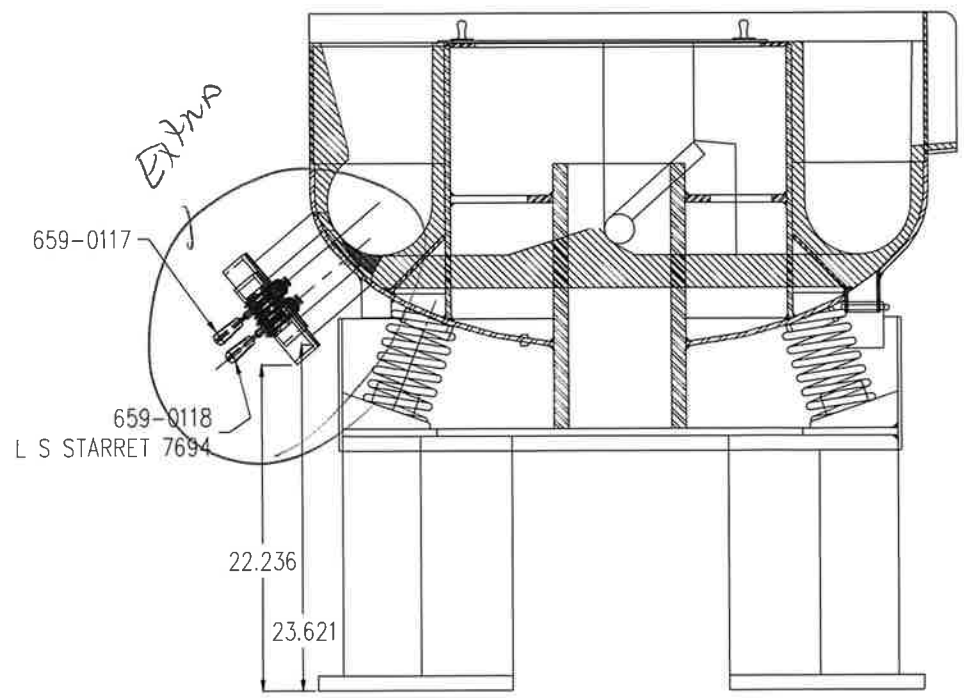
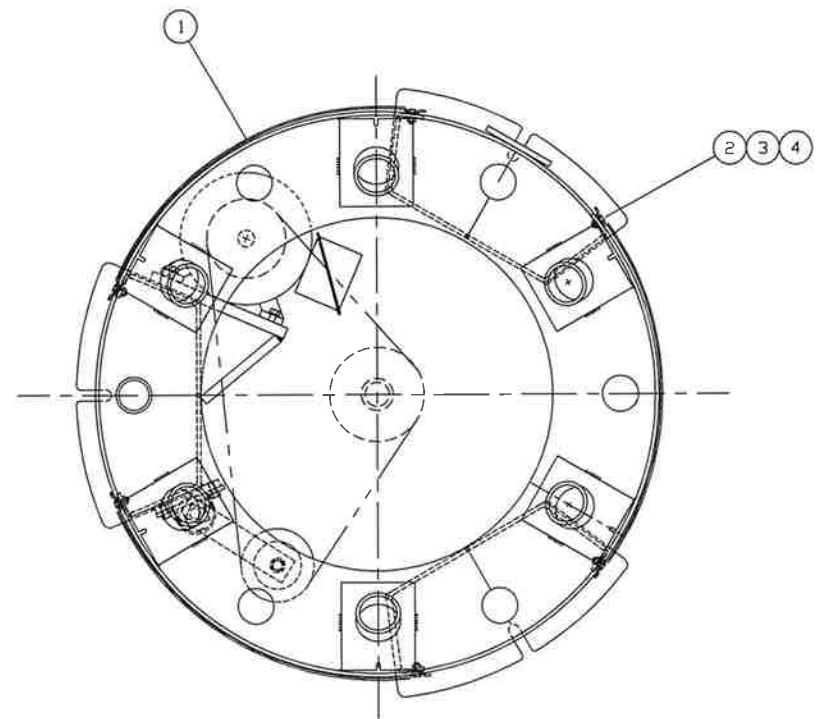
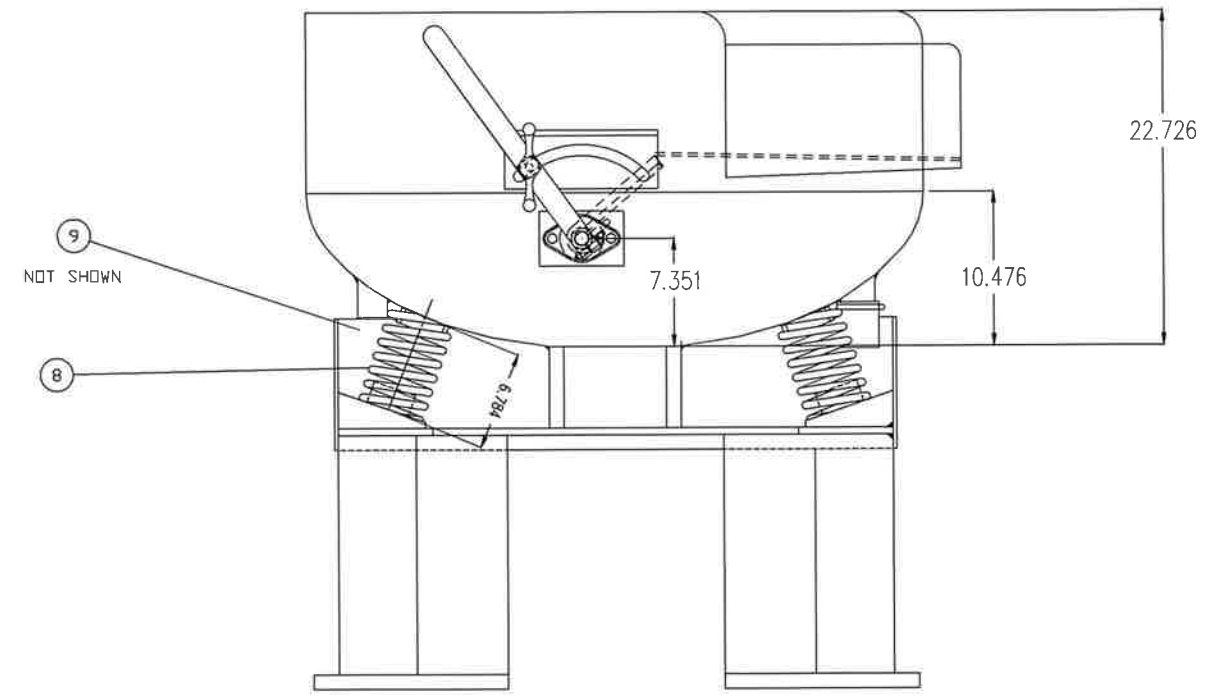
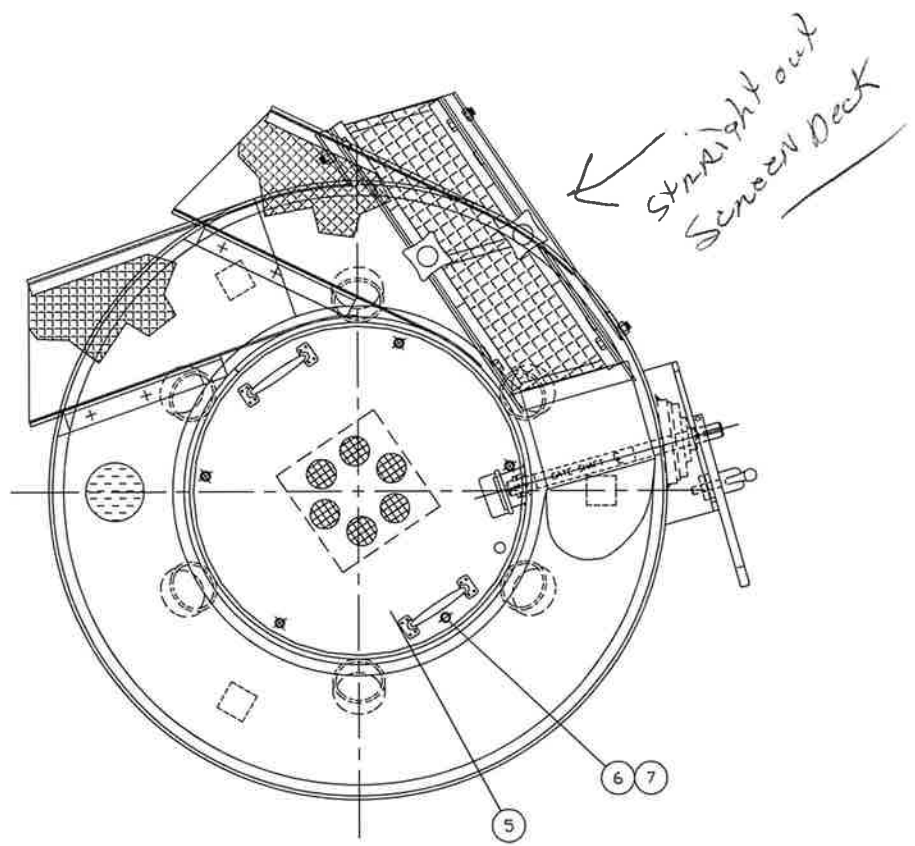


REVISIONS				
SYM	WAS	ECD	DATE	BY
A	WAS TOP COVER 229-0180 OBSOLETE, NOW 229-1393	*	08/02/18	MRR



ITEM	QTY	DESCRIPTION	PART NO	RAW MAT'L NO
9	3	ANCHOR SHIPPING BOLT ASS'Y	C013-0010	
8	6	SPRINGS	802-0004	
7	5	WASHERS, 3/8	958-0003	
6	5	HHCS, 3/8-16 X 5/8	079-0020	
5	1	TOP COVER	D229-1393	
4	12	NUT, 1/4-20	606-0010	
3	24	WASHERS, 1/4	958-0001	
2	12	HHCS, 1/4-20 X 1"	079-0004	
1	3	PANEL, BASE	C636-0024	

DO NOT SCALE DRAWING

TOLERANCES EXCEPT WHERE NOTED
 DECIMALS FRACTIONS ± 1/16
 .XX ± .030 SURFACE 125
 .XXX ± .010 FINISH ✓
 .XXXX ± .0005 ANGLE ± 1/2°

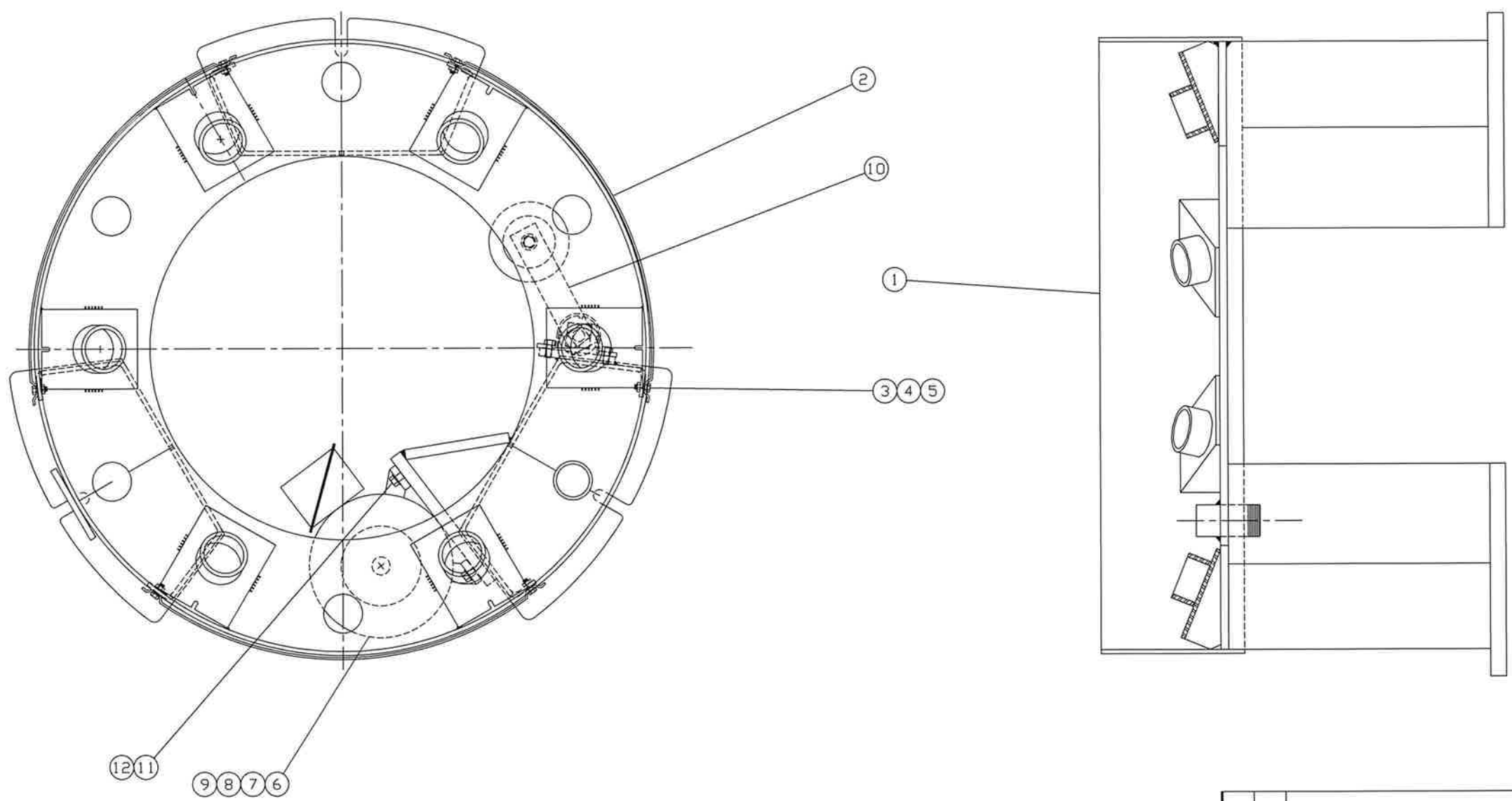
ROTO-FINISH
 ROTO-FINISH CO., 1600 DOUGLAS AVE., KALAMAZOO, MICHIGAN 49007

SCALE 1=6 CAD FILE # X
 MODEL NAME
 ESK:EFD
 INTERNAL WEAR

REPLOTTED DATE 08/02/18
 PART NO. D005-0018
 REV. A

MATERIAL
 DRAWN BY ROEDER DATE 06/09/93

REVISIONS				
SYM	WAS	ECD	DATE	BY
C	REDRAWN ON CAD	NONE	11/24/92	RAF



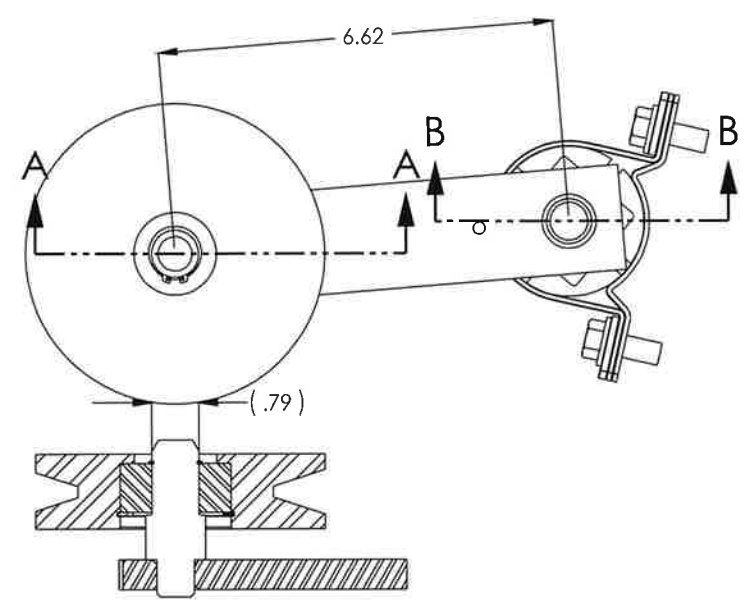
12	4	WASHERS 3/8	958-0003	
11	4	HHCS, 3/8-16 X 1 1/4 LG.	079-0023	
10	1	TAKE UP ASS'Y	C857-0010	
9	1	KEY, STOCK, 1/4 X 1" LG.	486-0004	
8	1	BUSH, TAPER LOCK	A115-0005	
7	1	SHEAVE, B 5.0	760-0047	-
6	1	MTR, 3HP TEFC 182T FRM	A576-0113	-
5	12	NUT, 1/4-20, LOCK	606-0010	-
4	24	WASHERS, 1/4	958-0001	-
3	12	HHCS, 1/4-20 X 1"	079-0004	-
2	3	PANEL, BASE	C636-0024	-
1	1	BASE WELDM' T	D049-0152	-

DO NOT SCALE DRAWING

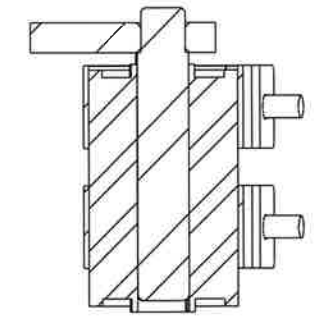
TOLERANCES EXCEPT WHERE NOTED	
DECIMALS	FRACTIONS ± 1/16
.XX ± .030	SURFACE 125
.XXX ± .010	FINISH ✓
.XXXX ± .0005	ANGLE ± 1/2°

This drawing and all information thereon is the property of Roto-Finish Co., Inc. and is confidential and must not be made public or copied unless authorized by them and is subject to return upon demand.

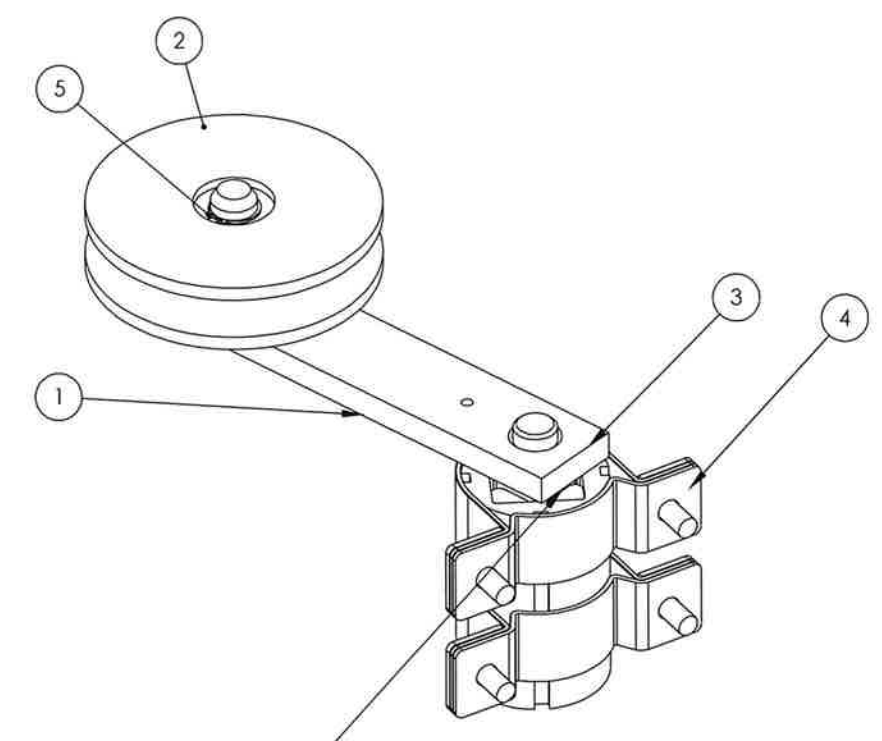
ROTO-FINISH		ROTO-FINISH CO., 1600 DOUGLAS AVE., KALAMAZOO, MICHIGAN 49007	
MATERIAL	DRAWN BY R. FYKE	DATE 11/24/92	
SCALE 1=4	CAD FILE #	REPLOTTED DATE	
MODEL NAME	PART NO.	REV.	
ER-2	BASE ASS'Y	D049-0153	C



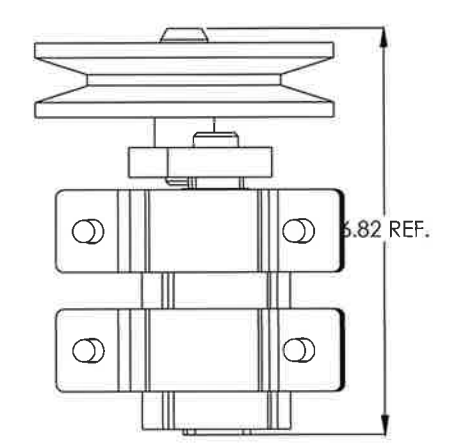
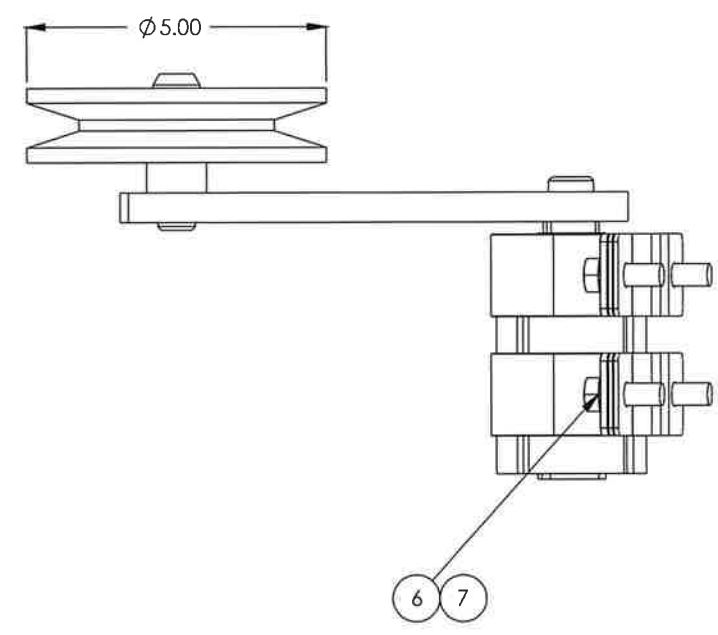
SECTION A-A



SECTION B-B



**IMPORTANT NOTE:
THE 22mm SQUARE SHAFT SHOULD
SLIDE FREELY INTO THE ROSTA.
DO NOT LOCTITE.**

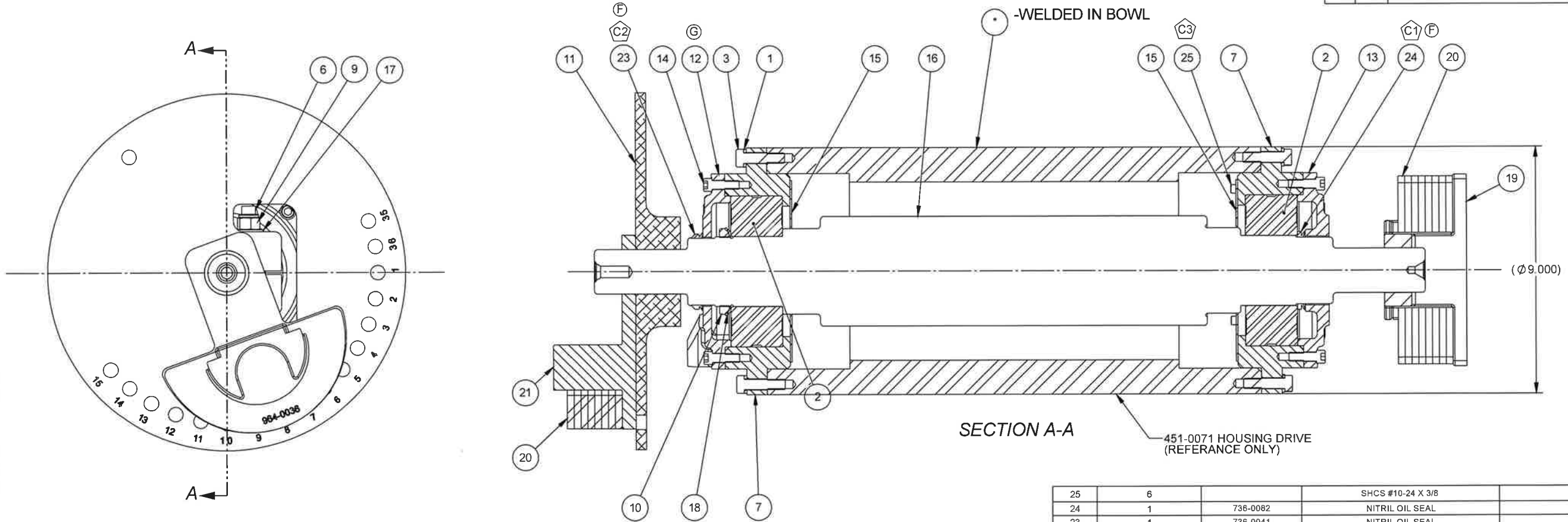


ITEM	Default /QTY.	PART NO.	DESCRIPTION	MFR/MATL
7	4	079-0022	HHCS 3/8-16 x 1" L-9	PURCHASED
6	4	958-0003	WASHER, FLAT 3/8 L9	PURCHASED
5	1	706-0273	SNAP RING	
4	2	157-0116	CLAMP, TORSION BLOCK	ROSTA #101016 (BK-27)
3	1	067-0051	BLOCK, TORSION	ROSTA #100506
2	1	760-0051	SHEAVE ASSEMBLY	
1	1	025-0041	ARM, TENSION WELDMENT	

Hammond Machinery Inc. Roto-Finish Co.
1400 DOUGLAS AVE. KALAMAZOO MICHIGAN 49007, U.S.A.

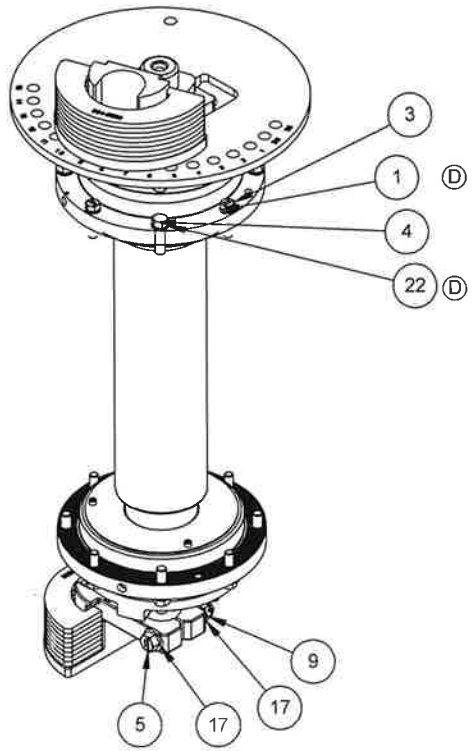
This drawing and all information thereon is the property of the Kalamazoo Company and subsidiaries. This is confidential and must not be made public or copied unless authorized by them and is subject to return upon demand.	DO NOT SCALE DRAWING	DESIGNED BY WILSEY	DATE 2/3/2009
	TOLERANCE UNLESS OTHERWISE SPECIFIED	DETAILED BY DAD	SCALE 1:2
	DECIMALS FRACS ± 1/32 XXX ± .005 ± 0-.30 ANGLES SURFACE FINISH 125 ✓	CHECKED BY	PLLOT DATE
PART NAME TAKE-UP ASSEMBLY, BELT SMALL TENSIONER			SHEET NO. C PART NUMBER 857-0010 1 OF 1

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	REMOVED (2) 996-0001	3/24/04	KMC
	B	REDRAWN ON SOLIDWORKS	11/12/2004	JAS
	C	SELVRO2500001 WAS 736-0081 SELVRO2375001 WAS 736-0041 SELVRO1152001 WAS 736-0042	3/23/2007	JAS
	D	WAS 958-0003 3/8" FLAT WASHER L9, NOW P-NORZ037 3/8" NORDLOCK WASHER WAS 958-0004 7/16" FLAT WASHER L9, NOW P-NORZ043 7/16" NORDLOCK WASHER	9/4/2013	SWG/rmr
	E	ADDED TORQUE SPECS	10/4/2013	MRR
	F	VITON SEALS CHANGED COUNTRY OF ORIGIN, THE SURFACE FINISH WAS DEGRADED AND THESE SEALS LEAKED, CHANGED BACK TO THE NITRIL SEALS, 736-0082 WAS SELVRO2500001 736-0081 WAS SELVRO2375001	4/6/2018	MLB
	G	CHANGED VENTLESS TO VENTED WAS 700-0086 NOW 700-0081,	5/29/2024	KJE/ld



New updated Drive

ITEM	FOR DRAWING/QTY.	PART NO.	DESCRIPTION	MFR/MATL	WIDE	LG
25	6		SHCS #10-24 X 3/8			
24	1	736-0082	NITRIL OIL SEAL	CR #400650		
23	1	736-0041	NITRIL OIL SEAL	CR #400601		
22	8		NORDLOCK 7/16"	P-NORZ043 (NL11)		
21	1	964-0118	TOP WEIGHT			
20	16	964-0036	WEIGHT SEGMENT	ASTM A36 1/4 PLATE	3.44	6.88
19	1	964-0031	LOWER WEIGHT	CASTING #133-0040	*	*
18	1	958-0043	LOCKWASHER, BRG	WT-13		
17	4	958-0005	WASHER 1/2	L9		
16	1	754-0080	SHAFT DRIVE	CRS 1018/1020	*	30.28
15	2	736-0180	SEAL, GREASE PLATE	16 GA. HR A36	6.63	6.63
14	16	730-0041	SHCS 5/16-18 X 1	GRADE B		
13	1	700-0092	RETAINER-LOWER BOTTOM BEARING	133-0059	*	*
12	1	700-0081	RETAINER AND VENT ASSY			
11	1	653-0231	PLATE, INDEX	ALUMINUM A356, (CASTING DWG 133-0041)	*	*
10	1	606-0060	LOCKNUT, BRG	NT-13	*	*
9	2	606-0014	HEX LOCK NUT 1/2-13	L-9		
8	2	540-0017	GREASE, CM-P 14OZ CARTRIDGE			
7	2	451-0058	HOUSING, BEARING	133-0060		
6	1	079-0057	HHCS 1/2-13 X 4.00 LG.	L-9		
5	1	079-0056	HHCS 1/2-13 X 3-1/2	L-9		
4	8	079-0039	HHCS 7/16-14 X 1-1/2 L9	L9		
3	8	079-0024	HHCS 3/8-16 X 1-1/2 L9	L9		
2	2	055-0076	BEARING, SPHERICAL ROLLER	FAG 22313E1A.MA.T41A		
1	8	P-NORZ037	NORDLOCK LOCKWASHER 3/8	NORDLOCK #NORZ037		



NOTE THIS:

- 1) L-9 FASTENER TORQUE SPEC USED AS REFERENCE GUIDE; ALWAYS USE L-9 FASTENERS & NORDLOCK WASHERS WHERE SPECIFIED.
- 2) THE QUANTITY & TYPE OF WEIGHT SEGMENTS WILL VARY BASED ON THE PROCESS REQUIRED.
- 3) TORQUE HARDWARE AS FOLLOWS:
 # 10-24 SHCS @ 4 FT/LBS
 5/16-18 SHCS @ 20 FT/LBS
 3/8-16 BOLT HEAD @ 30 FT/LBS or NUT @ 33 FT/LBS
 7/16-14 BOLT HEAD @ 55 FT/LBS or NUT @ 60 FT/LBS
 1/2-13 BOLT HEAD @ 85 FT/LBS or NUT @ 95 FT/LBS

**ER-0203
HR-3
G-400
GREASE DRIVE**

Hammond Machinery Inc **Roto Finish Inc**

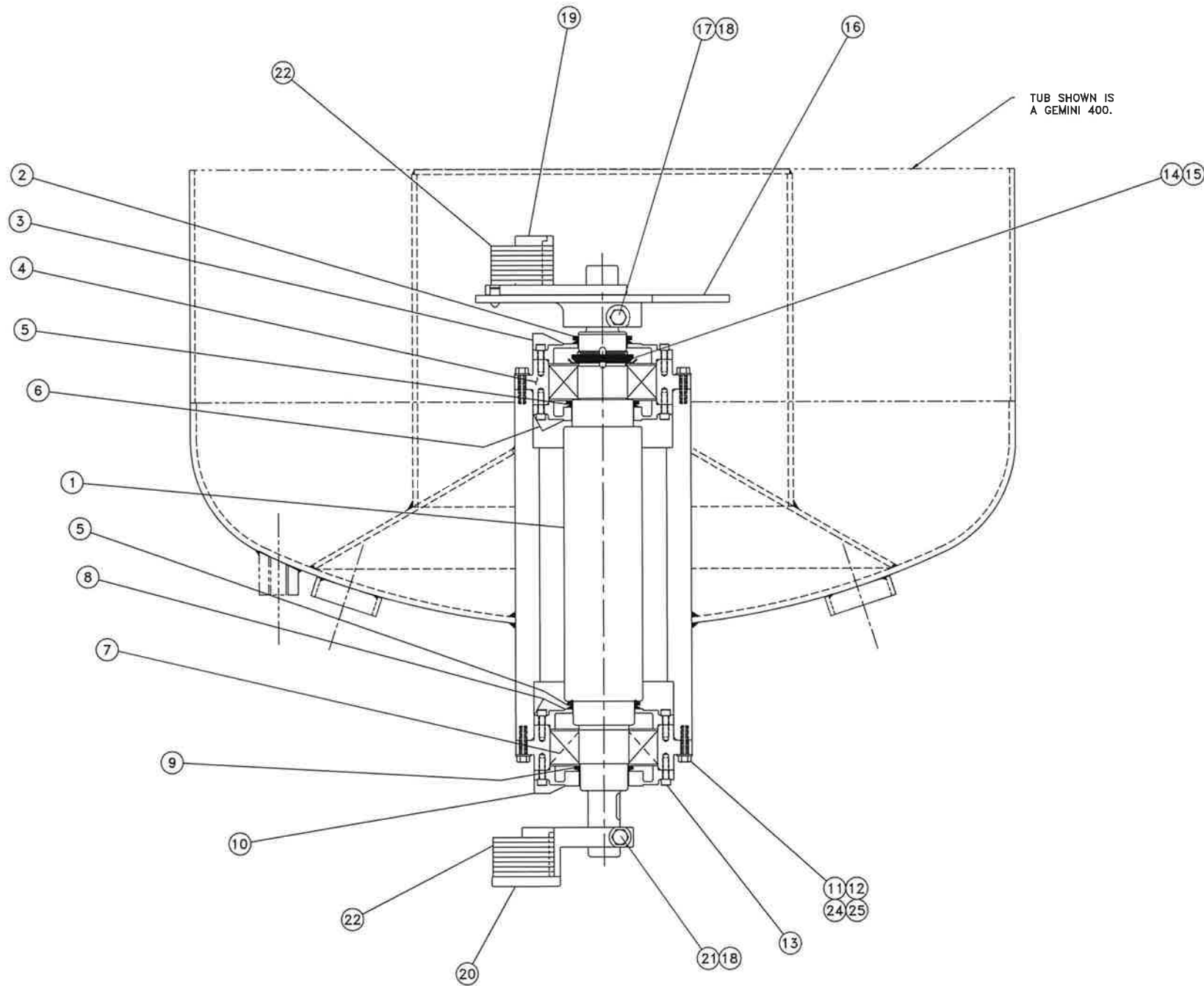
1605 DOUGLAS AVE KALAMAZOO MICHIGAN 49007 U.S.A.

DESIGNED BY: ROEDER DATE: CHECKED BY: MRR TORQUE: 1 2

DO NOT SCALE DRAWING TOLERANCE UNLESS OTHERWISE SPECIFIED DECIMALS: FRACTION: 1/32 SURFACE FINISH: 125 DIMENSION: 1/32

PART NAME: ER-2, HR-3 & G-400 DRIVE GROUP - GREASE PART NUMBER: D 290-0173

REVISIONS					
REV	BY	ECO	DATE	BY	
1	REMOVED (1)	9/11/00	N/A	3-24-04	AKC



*Old style
Drive
bearing Housing
No longer
Available*

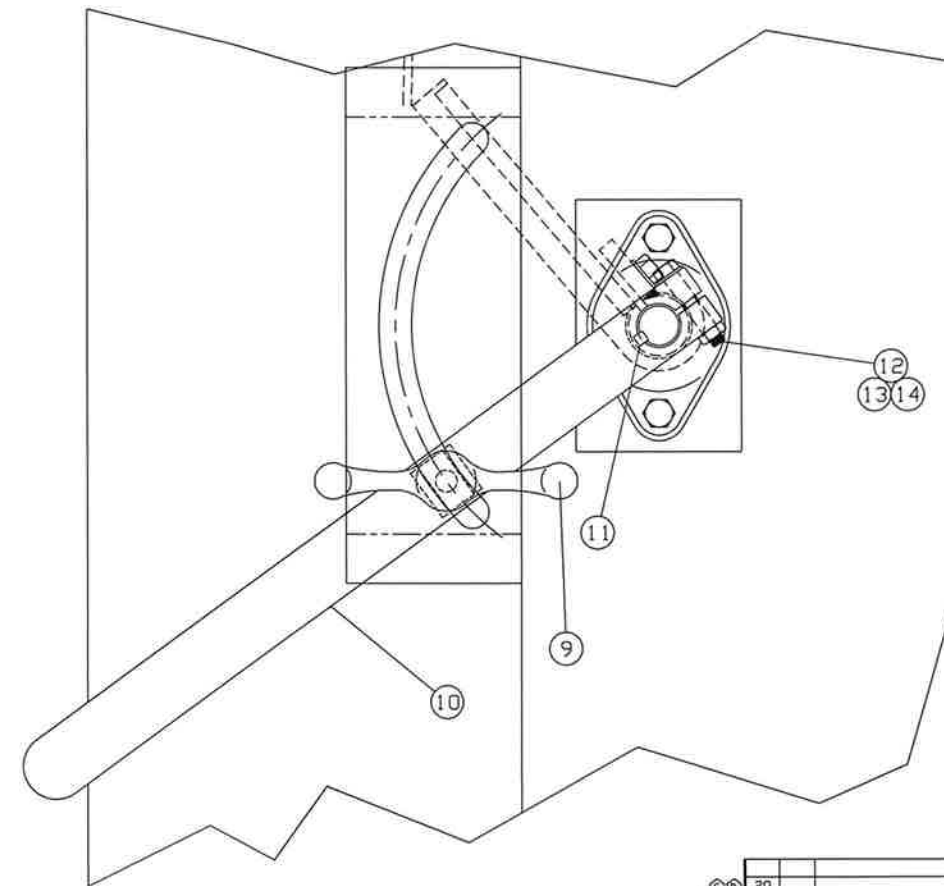
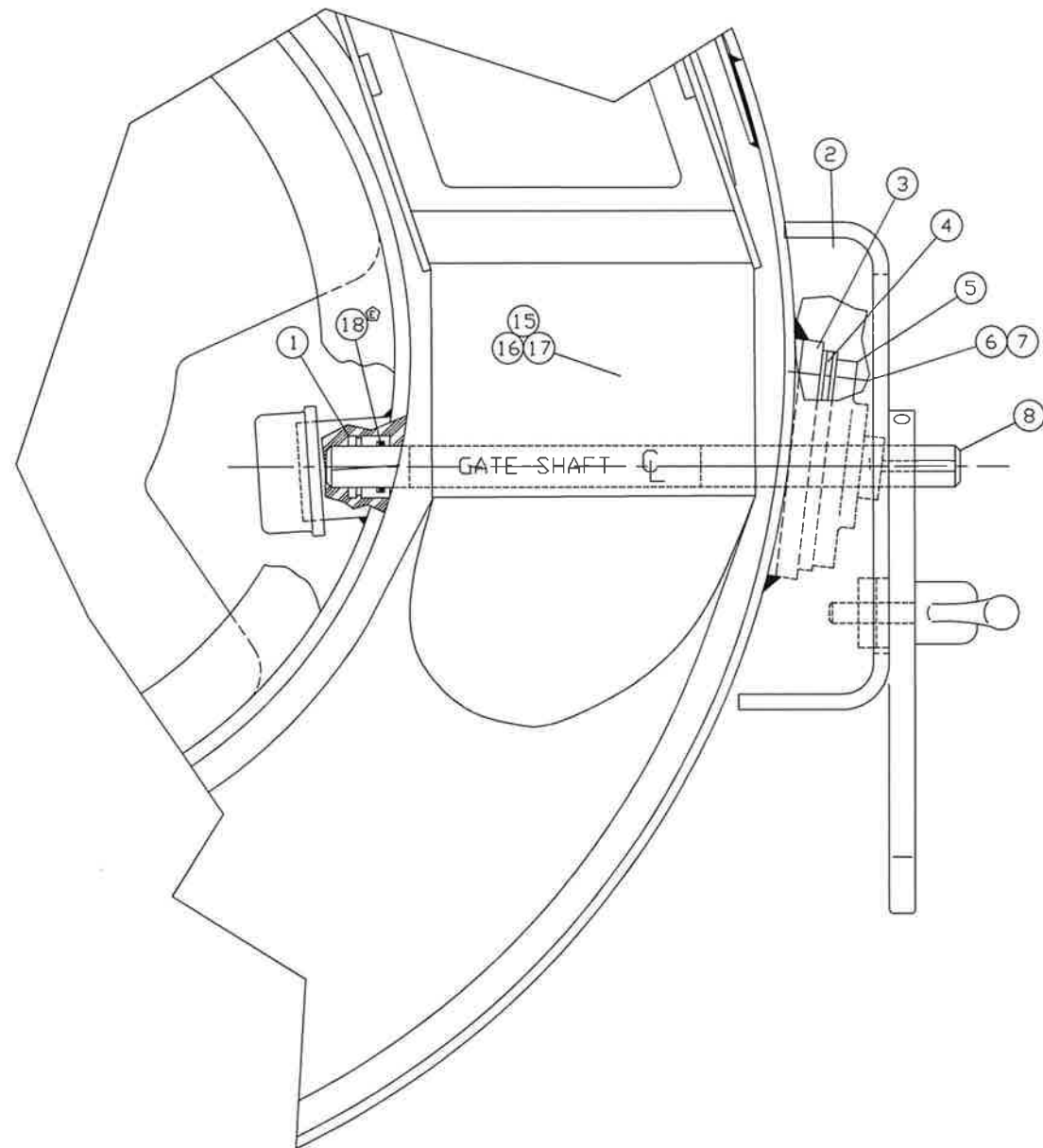
ITEM	QTY.	DESCRIPTION	PART NO.	RAW MAT'L NO.
26	2	GREASE, CM-P 14OZ CARTRIDGE	540-0017	
25	8	WASHERS, 7/16	958-0004	
24	8	HHCS, 7/16-14 X 1 1/2	079-0039	
23	16	WEIGHT SEGMENT	964-0036	
21	1	HHCS, 1/2-13 X 3	079-0055	
20	1	LOWER WEIGHT	C964-0031	
19	1	TOP WEIGHT	C964-0118	
18	2	NUT, 1/2-13	606-0014	
17	1	HHCS, 1/2-13 X 3 1/2	079-0056	
16	1	INDEX PLATE	D653-0231	
15	1	LOCKWASHER, BRG	958-0043	
14	1	LOCKNUT, BRG	606-0060	
13	2	SHCS, 5/16-18 X 1	730-0041	
12	8	WASHERS, 3/8	958-0003	
11	8	HHCS, 3/8-16 X 1 1/2	079-0024	
10	1	RETAINER, LDW BRG. OUTLET	D700-0092	
9	1	OIL SEAL	736-0082	
8	1	RETAINER, LDW BRG. INLET	D700-0091	
7	2	BEARING, SPHERICAL ROLLER	055-0076	
6	1	RETAINER, UP BRG. OUTLET	D700-0089	
5	2	OIL SEAL	736-0042	
4	2	HOUSING BEARING	D451-0072	
3	1	RETAINER, UP BRG. INLET	D700-0088	
2	1	OIL SEAL	736-0041	
1	1	SHAFT, DRIVE	D754-0080	

DO NOT SCALE DRAWING

TOLERANCES UNLESS OTHERWISE NOTED
 DECIMALS FRACTIONS ± 1/16
 .01 ± .010 SURFACE ± .015
 .001 ± .010 FINISH ✓
 .002 ± .005 ANGLE ± 1/2°

ROTO-FINISH
 ROTO-FINISH CO., 1660 DOUGLAS AVE., KALAMAZOO, MICHIGAN 49007
 DRAWN BY REYNE DATE 4/21/93
 SCALE 1:1 CAD FILE * X
 REPLICATED DATE 3-24-04
 MODEL NAME PART NO. REV.
 DR-2 & GEMINI 400 DRIVE GROUP D290-0081 A

REVISIONS				
SYM	WAS	ECD	DATE	BY
A1	ITEM #19 WAS 451-0073	868	07/21/86	EH
A2	ITEM #4 ADDED 617-0007	868	07/21/86	EH
B1	WAS 2" CPLG 337-0074	911	10/10/86	EH
B2	ADDED 2" PIPE CAP	911	10/10/86	EH
C	DELETED ITEMS No. s 19 & 20	2285	10/03/90	MB
D	REDRAWN DN CAD	NDNE	06/15/93	MRR
E	PN 612-0013 WAS PN 612-0003	3400	3/10/95	DG
F	WAS 019-0093, NDW 019-0406	*	10/12/10	MRR



FOR COMBO MANUAL
GATE ONLY SEE 367-0773

ER-2

ITEM	QTY.	DESCRIPTION	PART NO.	RAW MAT'L. NO.
20				
19				
18	1	O-RING #568-214 1" ID x 1.25 OD	612-0013	-
17	4	WASHER, TENSION 3/8	958-0003	-
16	4	BOLT 3/8-16NC x 1 LG	079-0022	-
15	1	GATE ASS'Y	367-0216	-
14	1	NUT, HEX LOCK 5/16-18	606-0011	-
13	2	WASHER, TENSION 5/16	958-0002	-
12	1	BOLT 5/16-18NC x 2 LG	079-0016	-
11	1	KEY 1/4 x 1/4 x 1 LG	486-0004	-
10	1	HANDLE, GATE	B409-0006	-
9	1	HANDLE ASS'Y	C409-0037	-
8	1	SHAFT, GATE	B754-0164	-
7	2	WASHER, TENSION 7/16	958-0004	-
6	2	BOLT 7/16-14NC x 1.25 LG	079-0038	-
5	1	BEARING, FLANGE	A055-0003	-
4	1	GASKET, BEARING	B361-0001	-
3	1	PAD, BEARING	B617-0007	-
2	1	ANGLE, LEVER CLAMP	019-0406	-
1	1	BUSHING, GATE PIVOT	A115-0050	-

DO NOT SCALE DRAWING

TOLERANCES EXCEPT WHERE NOTED

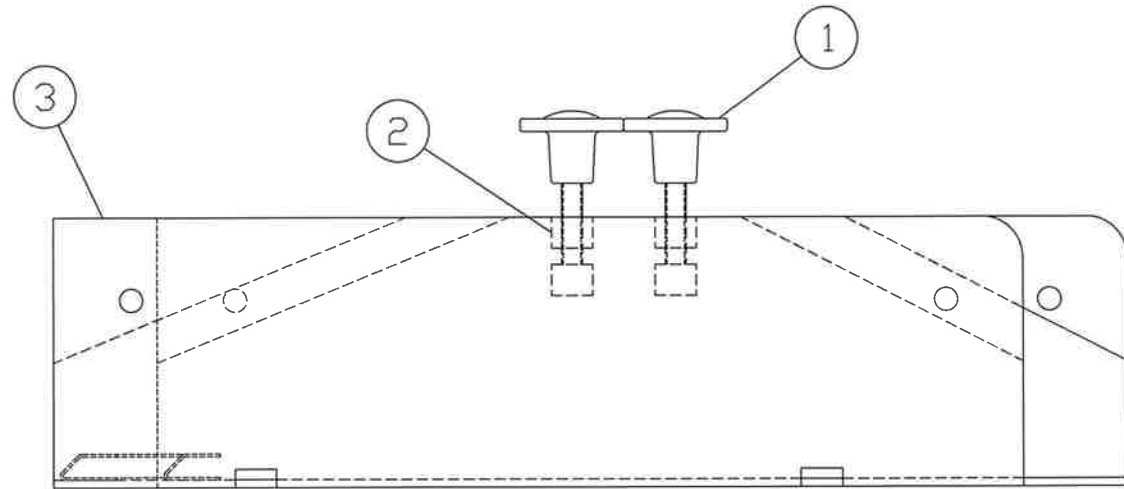
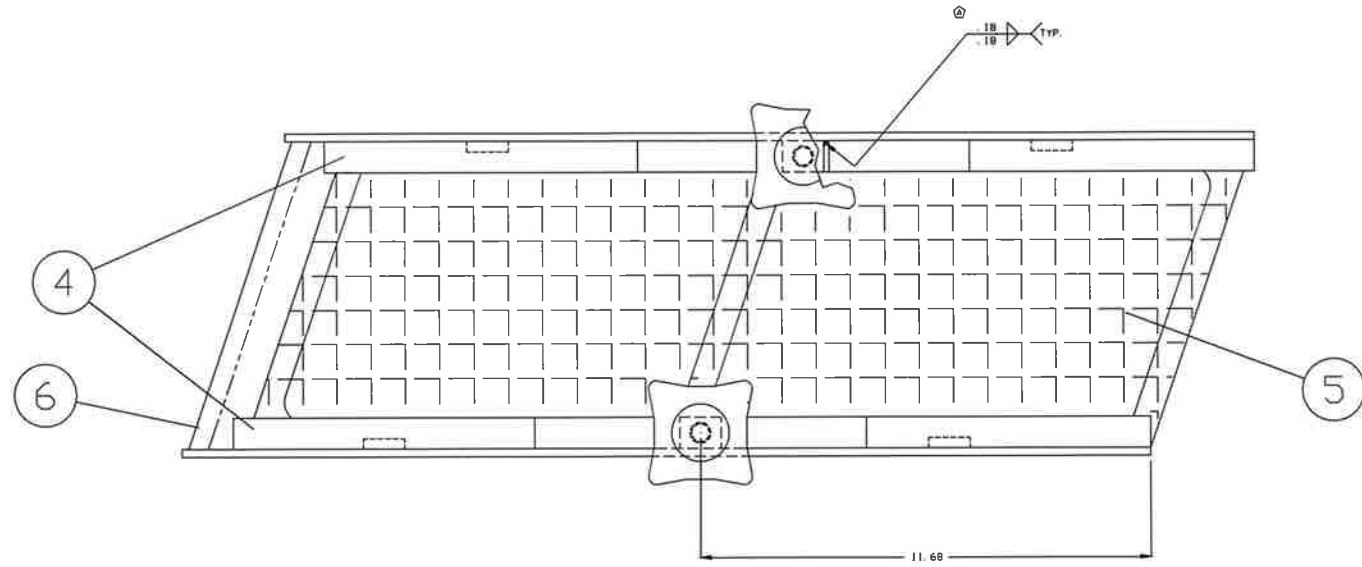
DECIMALS	FRACTIONS	1/16
XX ± .030	SURFACE	125
XXX ± .010	FINISH	✓
XXXX ± .0005	ANGLE	1/2°

ROTIFINISH
ROTIFINISH CO., 1600 DOUGLAS AVE., KALAMAZOO, MICHIGAN 49007

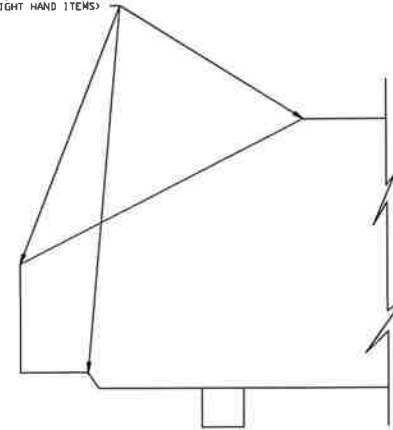
SCALE 1=2	CAD FILE * X	DRAWN BY SALMAN	DATE 05/13/86
MODEL ER-2	NAME MANUAL GATE ASSY	PART NO. D367-0222	REV. F

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REVISIONS				
SN	DATE	BY	DESCRIPTION	APP
1	03/20/98	AS	ADD'S WELD NOTATION	
2	06/15/93	MM	RE-DRAWN ON CAD	



RADIUS EDGES & NOTCH FOR NOSE
PIECE IF REQUIRED AT ASS'Y.
(BOTH LEFT & RIGHT HAND ITEMS)



ITEM	QTY.	DESCRIPTION	PART NO.	RAW MAT'L. NO.
6	1	BAR, TRANSITION B. 18 LG	B031-0011	-
5	REF	SCREEN - PER ORDER	-	-
4	2	HOLDDOWN ASS'Y	C427-0060	-
3	1	FRAME, SCREEN	D343-0257	-
2	2	BLOCK, ADJUSTING	A067-0064	-
1	2	PALM KNOB	498-0012	-

DO NOT SCALE DRAWING

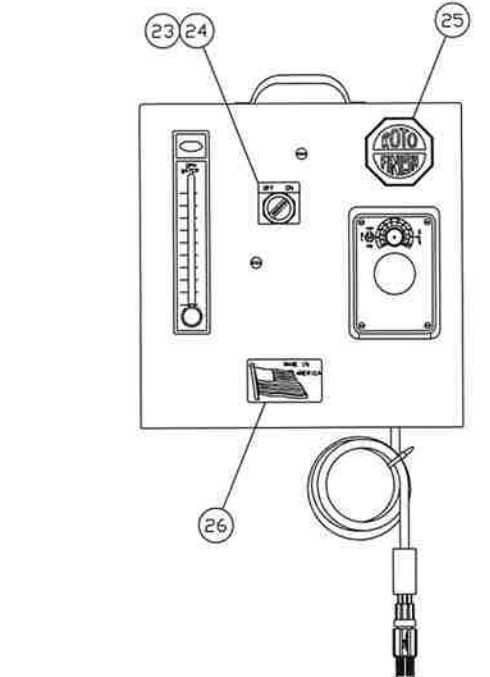
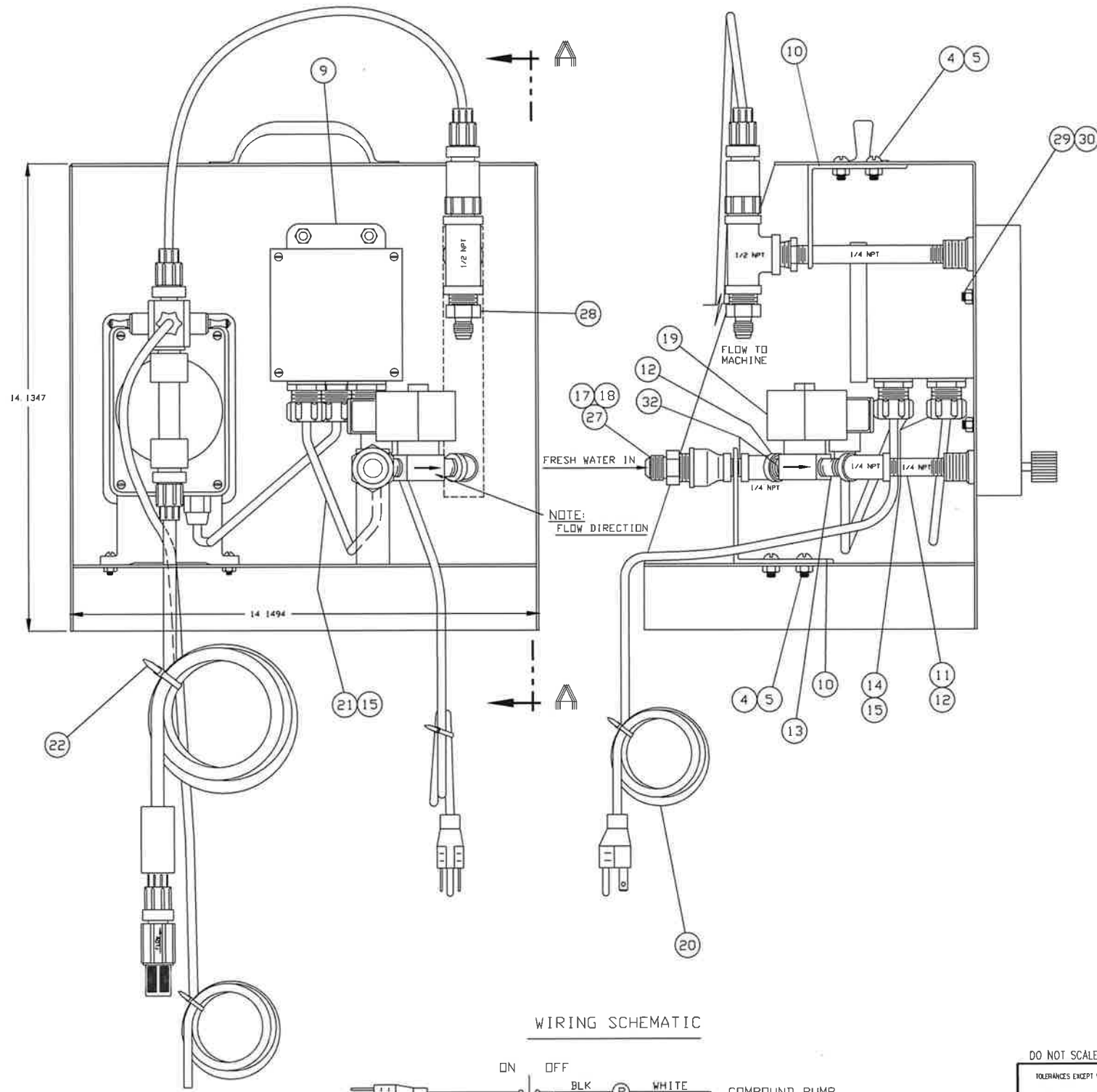
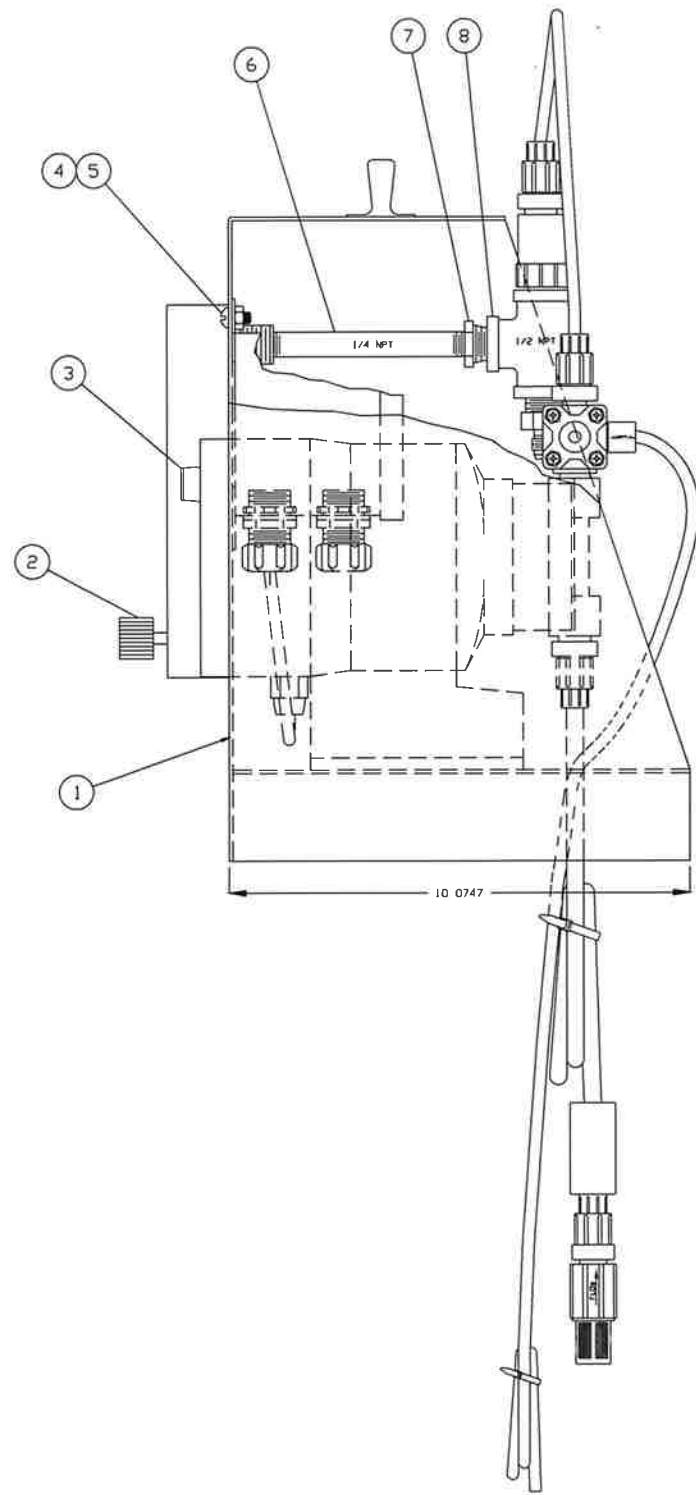
TOLERANCES EXCEPT WHERE NOTED:

DECIMALS FRACTIONS ± 1/16
XX ± .030 SURFACE 125
XXX ± .010 FINISH ✓
XXXX ± .000 ANGLE ± 1/2°

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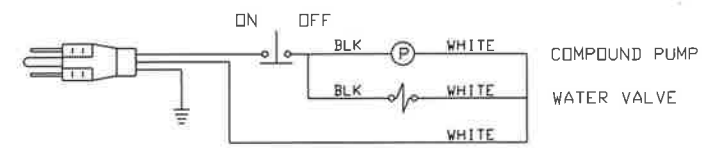
MATERIAL: ROTO-FINISH CO., 1600 DOUGLAS AVE., KALAMAZOO, MICHIGAN 49007			
SCALE 1:2		DRAWN BY SALMAN DATE 04/25/98	
MODEL NAME: ER-2 FRAME SCREEN ASS'Y		PLOTTER DATE: 06/15/93	
PART NO: X		REV: B	

REVISIONS				
SYM	WAS	ECCD	DATE	BY
A1	WAS 337-1155 SS 1/4NPT 45 DEGREE STR ELBDW (NOT AVAILABLE IN SS)	NONE	06/27/05	MRR
A2	WAS QTY 1, NOW QTY 2	NONE	06/27/05	MRR
A3	ADDED ITEM 337-0268	NONE	06/27/05	MRR
B	WAS QTY 2, NOW QTY 1	NONE	06/15/06	JAS
C	WAS 665-0107, FACTORY OBSOLETE REPLACED WITH PMPK00000001	NONE	5/10/17	SWQ



Shipped with this

WIRING SCHEMATIC



ITEM	QTY	DESCRIPTION	PART NO	RAW MAT'L NO
32	1	NIPPLE, 304 SS 1/4 NPT CLOSE	337-0268	-
31	1	SHRINK TUBING	929-0015	1 Ft.
30	2	NUT, 1/4-20 HX NT L-9	606-0001	-
29	2	WASHER 1/4 L-9	958-0001	-
28	1	MALE ADAPTER #8-6 316SS	336-0091	-
27	1	MALE ADAPTER #8-8 316SS	336-0100	-
26	1	TAG-MADE IN AMERICA	862-0083	-
25	1	LDGD, RF	862-0077	-
24	1	SWITCH SELECTOR	850-0102	-
23	1	TAG *DN-DF*	862-0080	-
22	3	WIRE TIE	977-0049	-
21	-	EXCESS CORD FROM PUMP	NPN	-
20	6'	EXCESS CORD & PLUG FROM PUMP	NPN	-
19	1	VALVE	946-0141	-
18	1	BELL REDUCER 1/4 - 1/2 304SS	337-0357	-
17	1	NIPPLE 1/4 X 2 1/2 LG 304SS	337-0427	-
16				
15	4	STRAIN RELIEF 1/8 - 1/4	335-0003	-
14	4	SEALING WASHER	335-0017	-
13	1	NIPPLE 1/4 X 1 1/2 LG 304SS	337-0424	-
12	2	ELBDW 1/4 X 45° 304SS	337-0512	-
11	1	NIPPLE 1/4 X 2 LG 304SS	337-0654	-
10	2	BRACKET	C103-0231	-
9	1	ENCLOSURE 4 X 4 X 3 SC	C307-0052	-
8	1	TEE 1/2 304SS	337-0178	-
7	1	BUSHING, REDUCING 1/2-1/4 SS	337-0173	-
6	1	NIPPLE, 1/4 X 6 LG 304SS	337-0467	-
5	8	NUT, WHIZ 1/4-20	606-0039	-
4	6	SCREW, TRUSS HD 1/4-20 X 1/2 LG	730-0184	-
3	1	PUMP, COMPOUND	PMPK000000001	-
2	1	METER, FLOW 0-20 GPH	564-0020	-
1	1	HOUSING, WELDMENT	D451-0094	-

DO NOT SCALE DRAWING

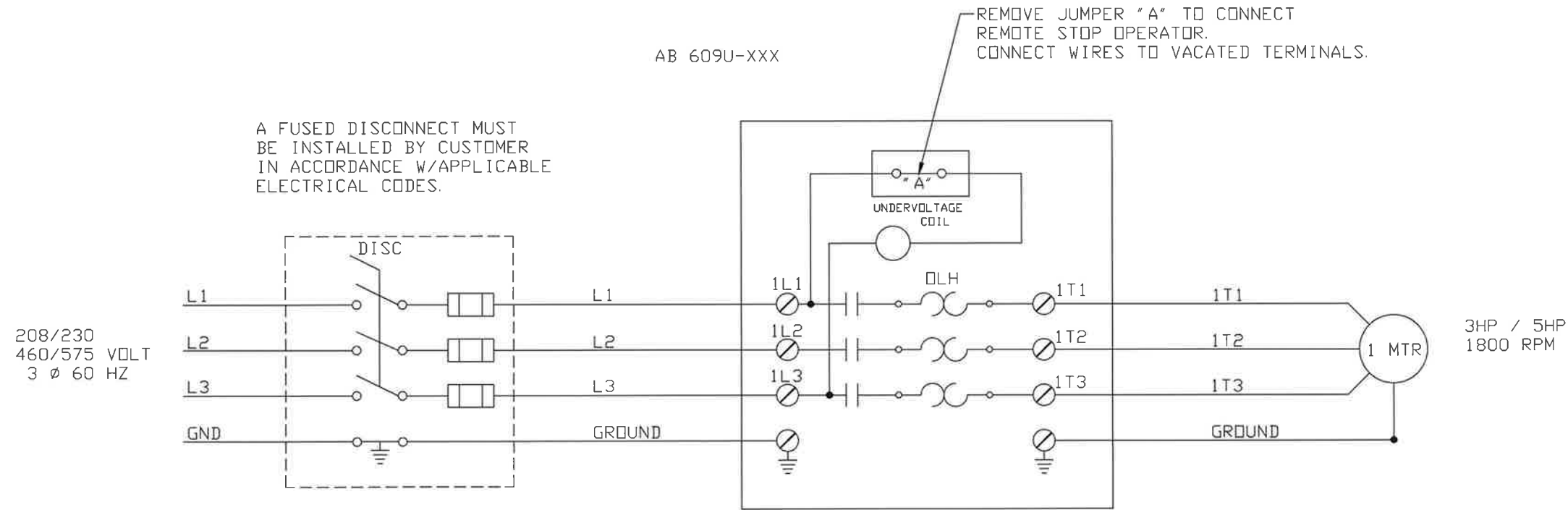
TOLERANCES EXCEPT WHERE NOTED
 DECIMALS FRACTIONS ± 1/16
 .XX ± .030 SURFACE 125
 .XXX ± .010 FINISH /
 .XXXX ± .0005 ANGLE ± 1/2°

ROTO-FINISH
 ROTO-FINISH CO., 1600 DOUGLAS AVE., KALAMAZOO, MICHIGAN 49007

MATERIAL: SCALE 1=2 CAD FILE # REPLOTTED DATE 05/09/17
 MODEL NAME PORTABLE COMPOUND PART NO REV.
 304SS 304 SS PUMP ASSY 0-20 GPH D940-0031 C

DRAWN BY JAS DATE 5/23/05

REVISIONS				
SYM	WAS	ECO	DATE	BY
A1	W-50 (415-0066)	2062	3/14/89	EH
A2	W-43 (415-0063)	2062	3/14/89	EH
B	ADD 380V-50	*	9/05/91	GEM
C	REDRAWN ON CAD	*	9/08/93	SHW



basic on/off switch

ER-2 / GEMINI 400 & 700

GEMINI 1000

VOLTS	3 HORSE POWER				
	MOTOR STARTER		OVERLOAD HEATERS		COIL
	ALLEN BRADLEY	ROTO FINISH	ALLEN BRADLEY	ROTO FINISH	
208	609U-ACH	820-0012	W-53	415-0038	174-0006
230	609U-ACA	820-0010	W-54 ^(A1)	415-0003	
460	609U-ACB	820-0011	W-46 ^(A2)	415-0010	174-0002
575	609U-ACC	820-0014	W-40	415-0043	174-0001
^(B) 380V-50	609U-ACVN		W-47	415-0013	174-0003

MA278

VOLTS	5 HORSE POWER				
	MOTOR STARTER		OVERLOAD HEATERS		COIL
	ALLEN BRADLEY	ROTO FINISH	ALLEN BRADLEY	ROTO FINISH	
208	609U-BCH		W-56	415-0024	174-0006
230	609U-BCA	820-0013	W-55	415-0025	174-0005
460	609U-ACB	820-0011	W-48	415-0009	174-0002
575	609U-ACC	820-0014	W-45	415-0044	

DO NOT SCALE DRAWING

TOLERANCES EXCEPT WHERE NOTED
 DECIMALS .xx ± .030 SURFACE ± 1/16
 .xxx ± .010 FINISH ✓
 .xxxx ± .0005 ANGLE ± 1/2°

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ITEM	QTY.	DESCRIPTION	PART NO.	RAW MAT'L NO.
ROTO-FINISH				
ROTO-FINISH CO., 1600 DOUGLAS AVE., KALAMAZOO, MICHIGAN 49007				
MATERIAL		DRAWN BY HEALY		DATE 10/15/86
SCALE 1 = 1	CAD FILE #	REPLOTTED DATE		
MODEL ER-2, GEMINI 400, 700, & 1000	NAME ELECTRICAL SCHEMATIC	PART NO. C212-0354	REV. C	