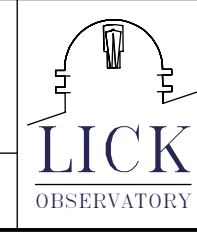


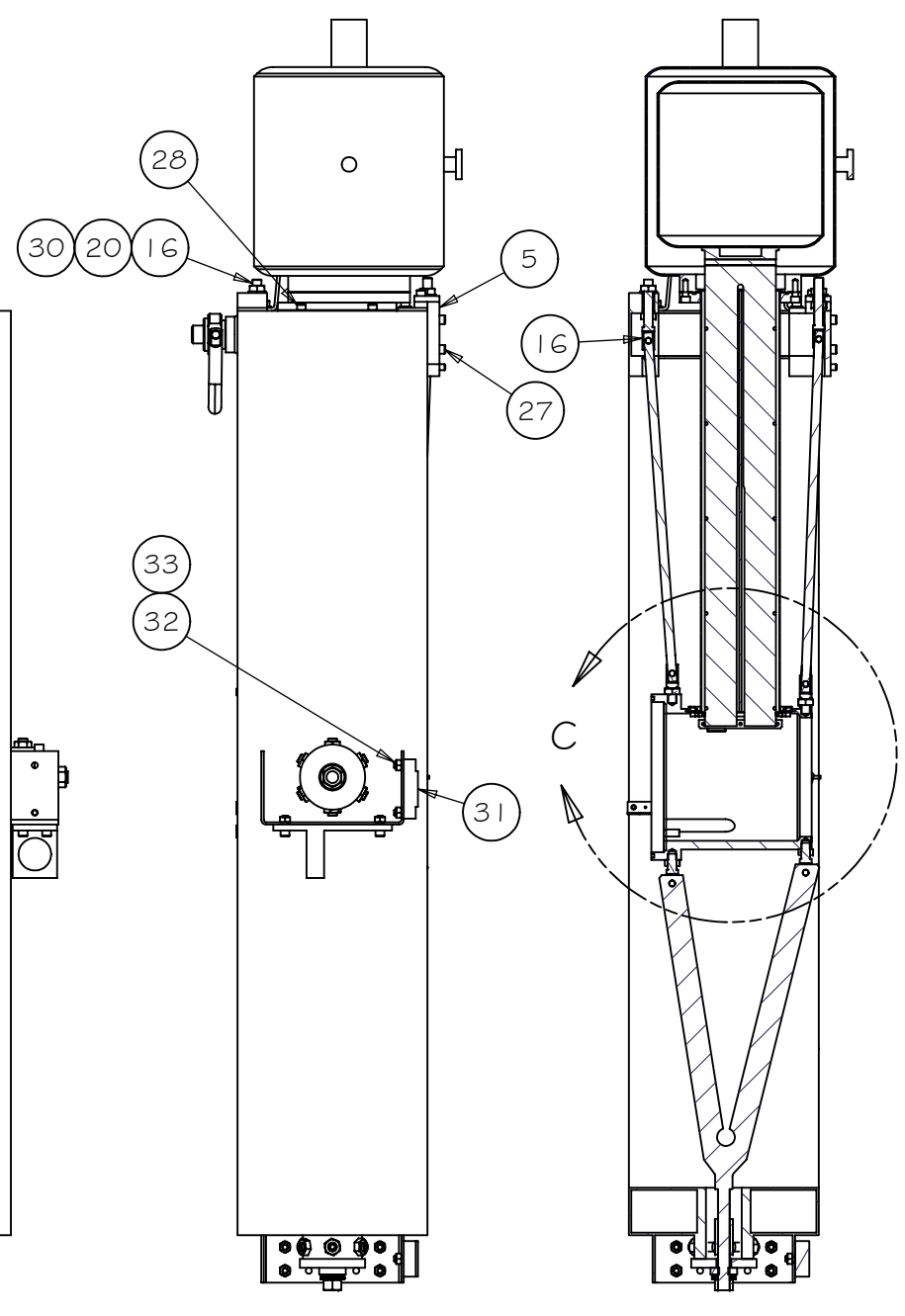
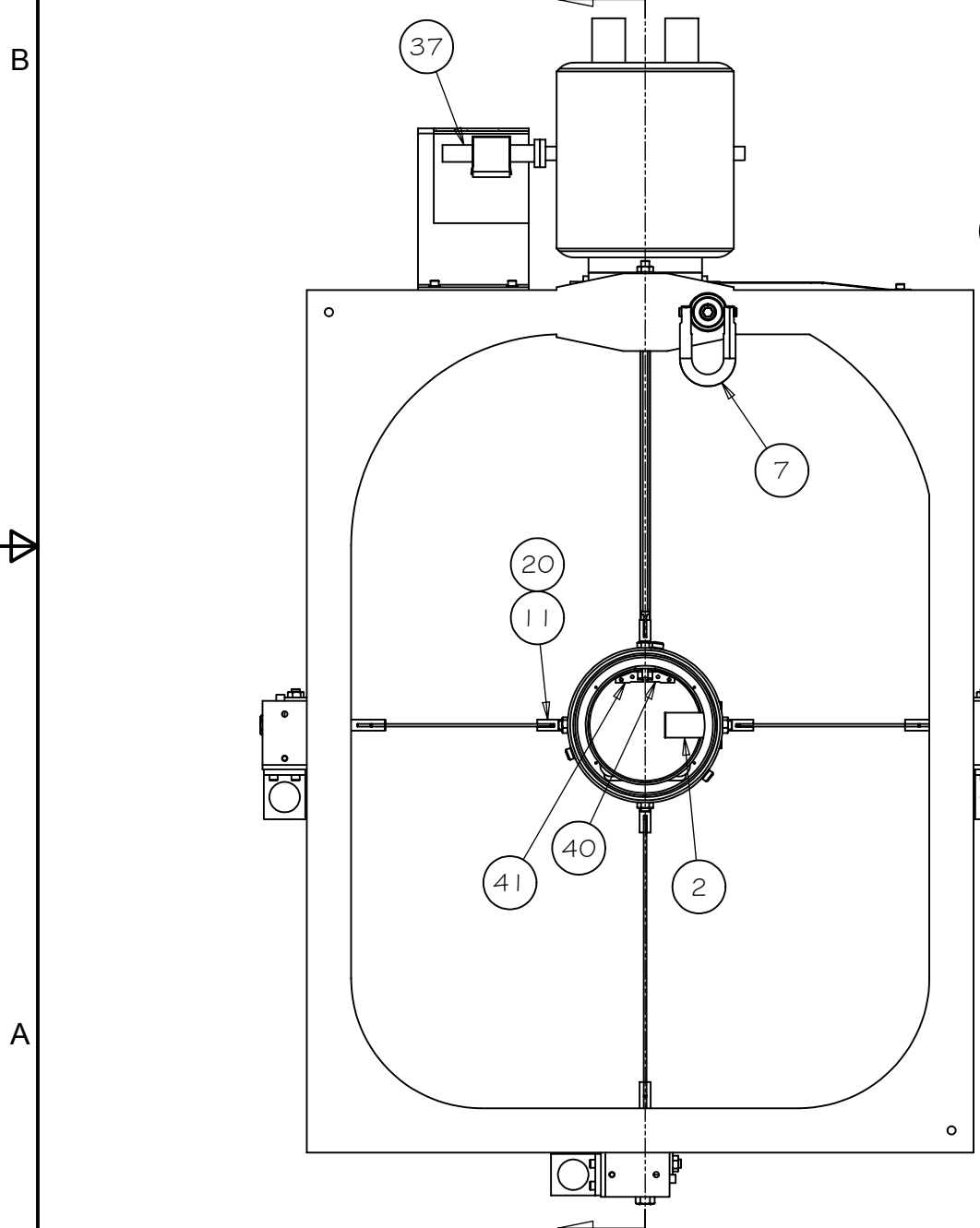
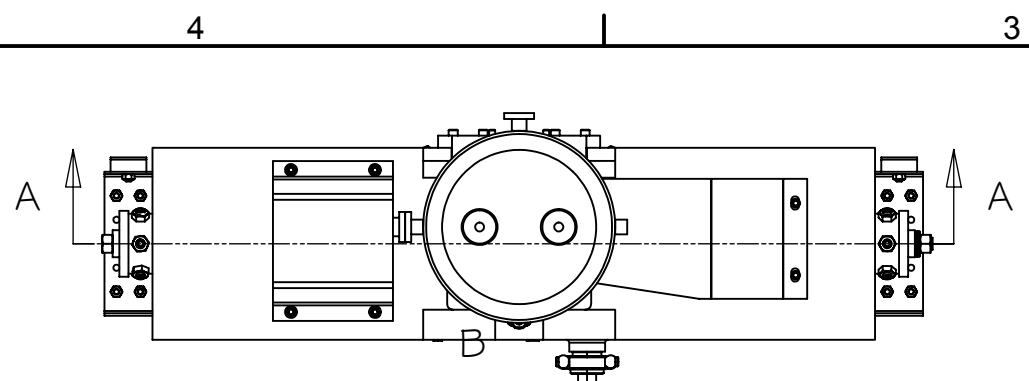
REV	DRWN	CHK'D	DATE	DESCRIPTION
A	GFC	JL	12/13/02	INITIAL RELEASE
B	GFC	GFC	12/16/02	DETAILED PARTS LIST HARDWARE
C	GFC	DK	10/3/03	ADDED ALIGNMENT DATA, SHEET 4
D	GFC	GFC	10/07/03	ADDED ION PUMP
E	GFC	GFC	1/7/04	ADDED ITEMS 39, 40 & 41

Parts List				
ITEM	QTY	P/N	DESCRIPTION	
1	1	H-9213	DEWAR & TRANSFER PIPE WELDMENT	
2	1	H-9204	GETTER	
3	1	H-9274	FRAME WELDMENT, PHASE 2	
4	1	H7122	LIQUID NITROGEN CAN	
5	1	H-9275	BACK BRACE ASSEMBLY	
6	4	H-9113-1	SET, BELLEVILLE WASHER, G, BS-39	
7	1	23410	HOIST RING, JERGENS, P/N #23410	
8	3	H-9212	LENS SUPPORT	
9	6	H/W	SCREW, SHCS, 10-32 UNF x 0.375	
10	1	H-9262	WEB	
11	8	H7236-2	CLEVIS	
12	2	H-9263	SIDE VANE	
13	1	H-9268	BOTTOM VANE	
14	1	H-9271-1	TENSION ROD, FRONT	
15	1	H-9271-2	TENSION ROD, REAR	
16	2	H-9267	CLEVIS	
18	3	H/W	VANESLEEVE, .75 OD x .5 ID X 2.00 LG	
19	10	H7236-3	PIN	
20	30	H/W	NUT, 3/8-24 UNF	
21	3	H/W	SET SCREW, 1/4-28 UNF x 0.25, SOFT TIP, MCMASTER-CARR P/N #90291A303	
22	18	H/W	SET SCREW, 3/8-24 UNF x 1.25	
23	3	H7230-4	WASHER PLATE	
24	3	41105	SPHERICAL WASHER SET, 1/2" BOLT, JERGENS #41105	
25	3	H/W	NUT, 1/2-20 UNF	
26	6	H/W	SCREW, SHCS, 1/4-28 UNF x 0.75	
27	6	H/W	SCREW, SHCS, 1/4-20 UNC x 0.75	
28	6	H/W	SCREW, SHCS, 1/4-20 UNC x 0.5	
29	4	H/W	WASHER, ANSI B PLAIN, SIZE 1/4	
30	2	H/W	WASHER, ANSI B PLAIN, SIZE 3/8	
31	3	H7231-3	REST PAD	
32	22	H/W	SCREW, SHCS, 1/4-20 UNC x 0.625	
33	18	H/W	NUT, 1/4-20 UNC	
34	3	H7251-1	MOVING BRACKET	
35	4	H/W	SCREW, SHCS, 8-32 UNC x 0.5	
36	1	H7132-2	ION PUMP ROLL BAR	
37	1	919-0520	ION PUMP, 2 L/S, VARIAN, MODEL 919-0520	
38	1	H-9511	COLD FINGER ASSEMBLY	
39	1	H-9505	ANCHOR, COLD FINGER	
40	1	H-9502	CLAMP, COLD FINGER, GETTER SIDE	
41	1	H-9503	CLAMP, COLD FINGER, OPPOSITE SIDE	

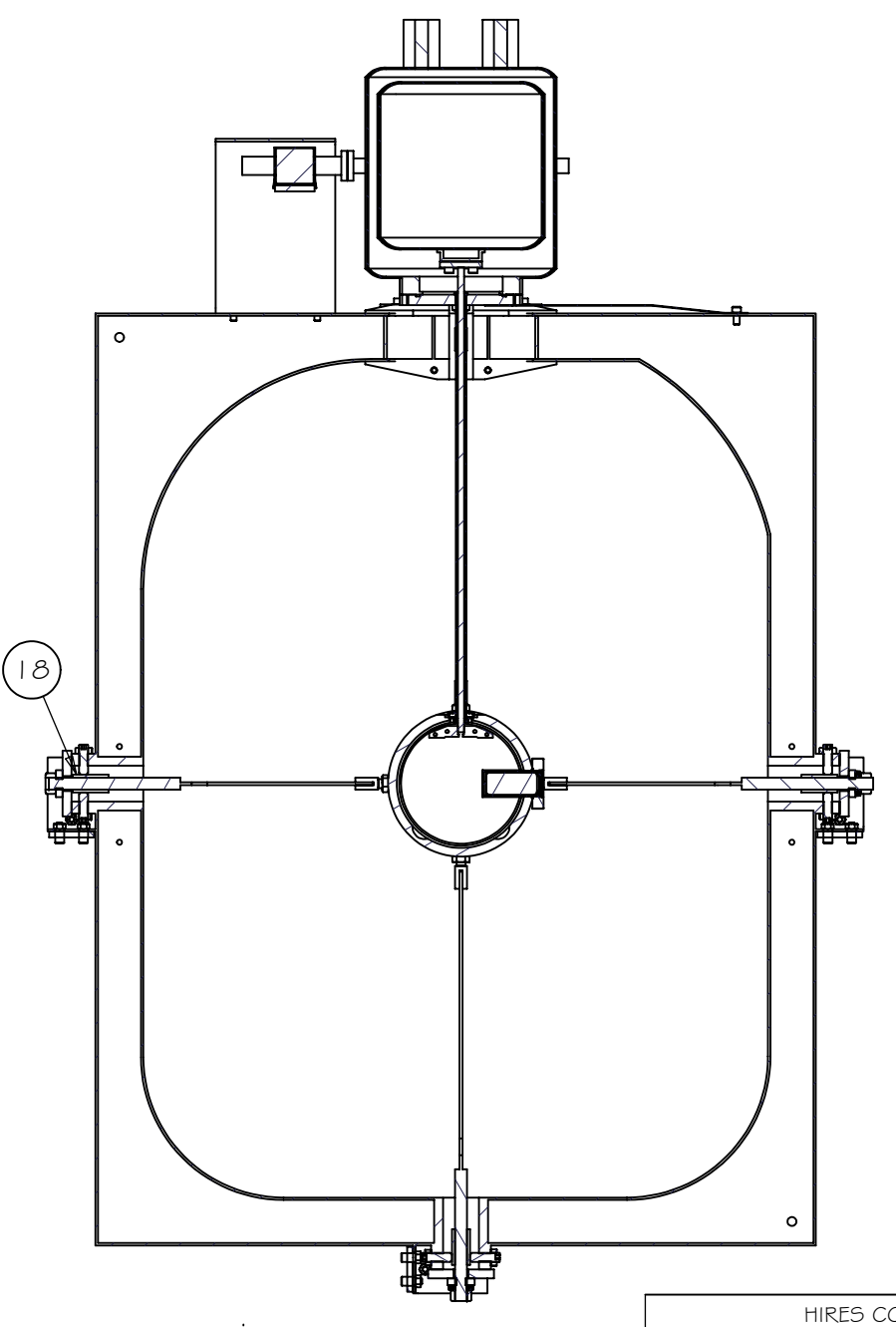
TOLERANCES UNLESS OTHERWISE NOTED:
 FRACTIONAL: 0"-6": ±1/64" 6"-24": ±1/32"
 24"+: ±1/16"
 DECIMAL: X.X: ±0.1000" X.XX: ±0.0100"
 X.XXX: ±0.0050" X.XXXX: ±0.0001"
 ANGLES: ±0.5° FINISH: 125 MICRO INCHES
 BREAK ALL SHARP EDGES & CORNERS 1/64" MAX



DRAWN	G CABAK	12/13/2002	HIRE CCD UPGRADE
CHECKED	J LEWIS	12/13/2002	MAJOR ASSEMBLIES
DESIGNED	G CABAK		TITLE
ENGINEER	G CABAK	12/13/2002	FRAME & VACUUM SYSTEM ASSEMBLY
MATERIAL	PARTS LIST	FINISH	
DO NOT SCALE DRAWING		PROJECT CODE	KHCCDE
		DWG NO	H-9113
		REV	E
		1/4	

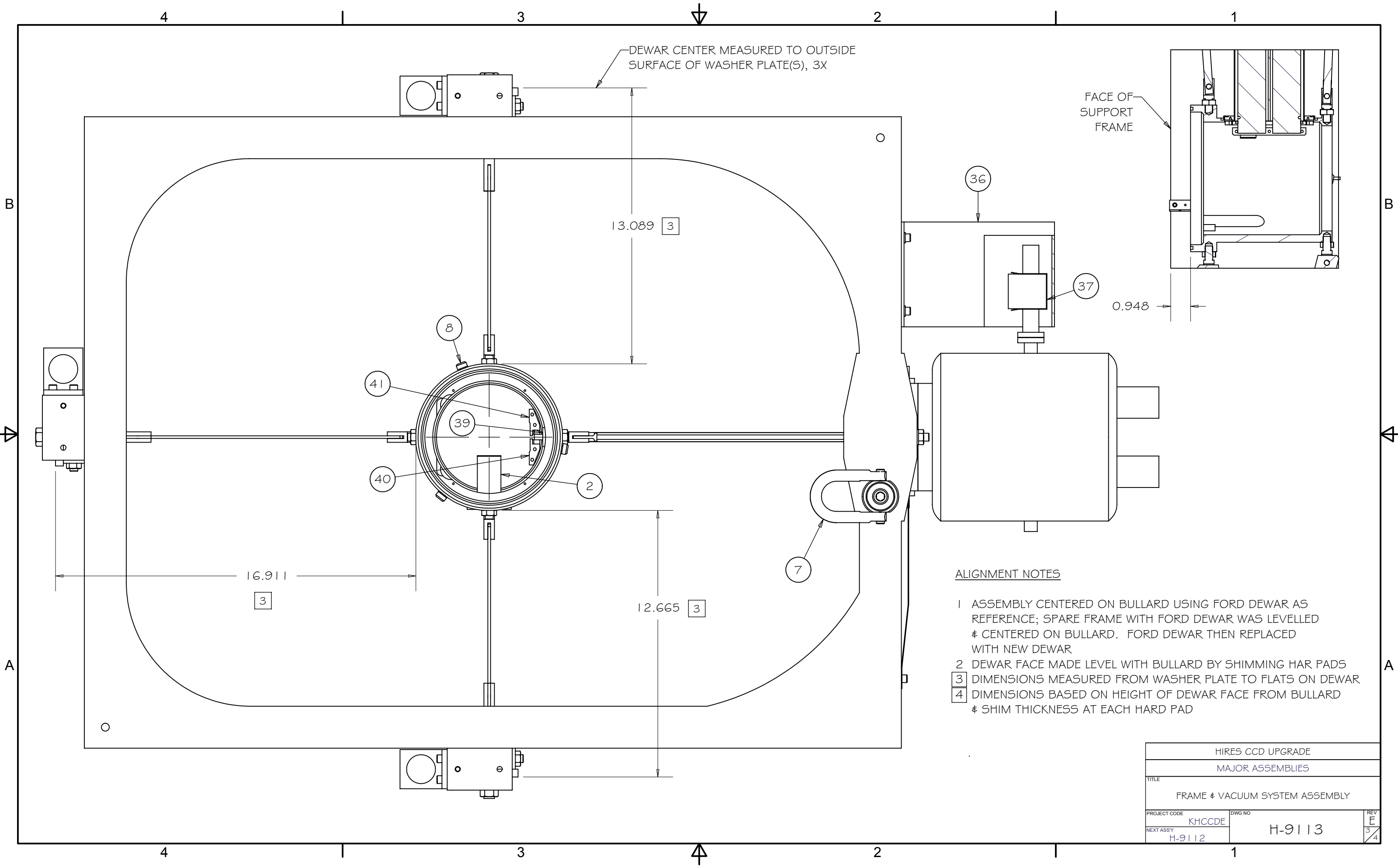


SECTION B-B



SECTION A-A

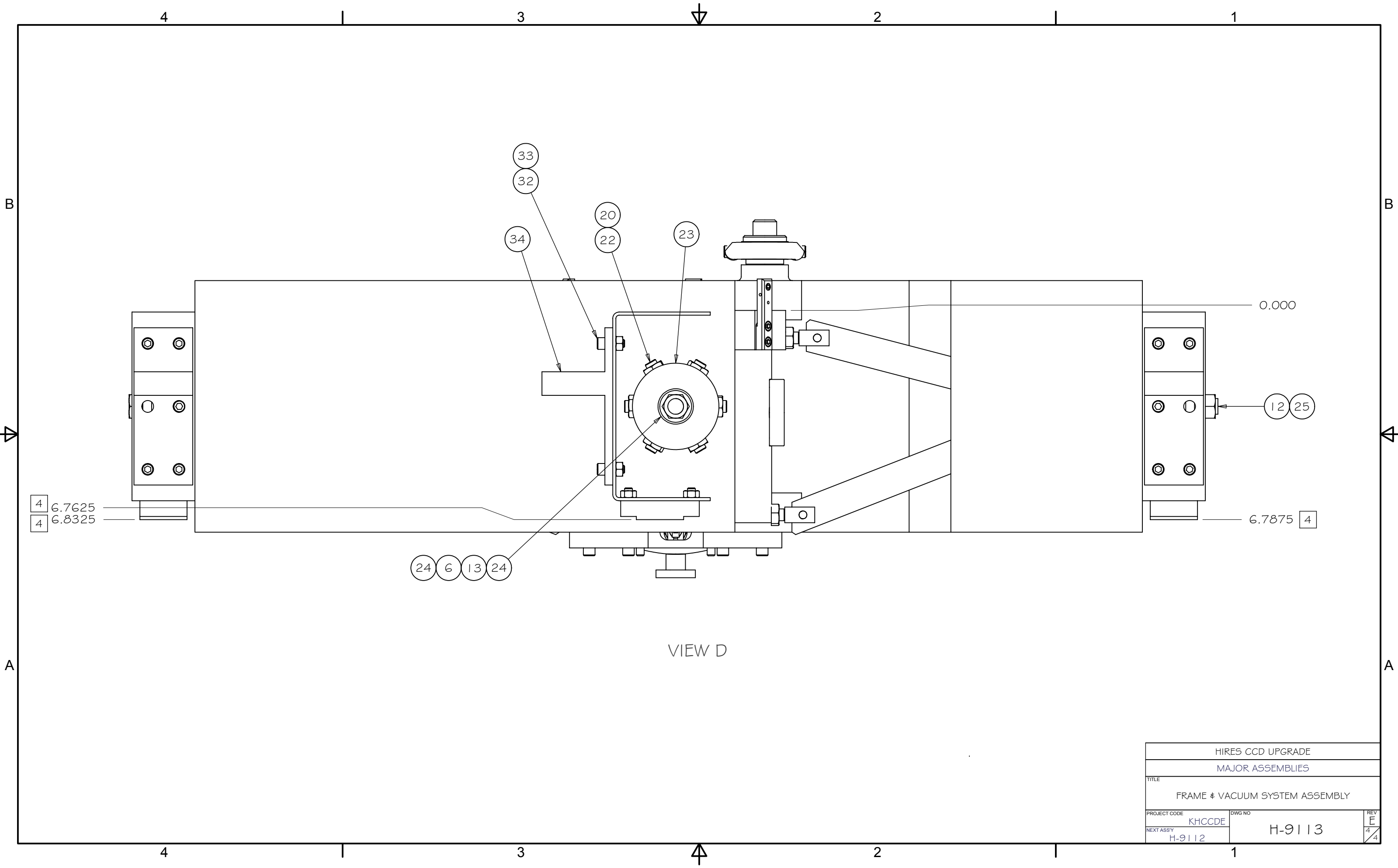
HIRES CCD UPGRADE			
MAJOR ASSEMBLIES			
TITLE FRAME & VACUUM SYSTEM ASSEMBLY			
PROJECT CODE	KHCCDE	DWG NO	H-9113
NEXT ASSY	H-9112	REV	E
			2/4



ALIGNMENT NOTES

- 1 ASSEMBLY CENTERED ON BULLARD USING FORD DEWAR AS REFERENCE; SPARE FRAME WITH FORD DEWAR WAS LEVELLED & CENTERED ON BULLARD. FORD DEWAR THEN REPLACED WITH NEW DEWAR
- 2 DEWAR FACE MADE LEVEL WITH BULLARD BY SHIMMING HAR PADS
- 3 DIMENSIONS MEASURED FROM WASHER PLATE TO FLATS ON DEWAR
- 4 DIMENSIONS BASED ON HEIGHT OF DEWAR FACE FROM BULLARD & SHIM THICKNESS AT EACH HARD PAD

HIRES CCD UPGRADE			
MAJOR ASSEMBLIES			
TITLE			
FRAME & VACUUM SYSTEM ASSEMBLY			
PROJECT CODE	KHCCDE	DWG NO	H-9113
NEXT ASSY	H-9112	REV	E
			3/4



VIEW D

HIRES CCD UPGRADE			
MAJOR ASSEMBLIES			
TITLE			
FRAME & VACUUM SYSTEM ASSEMBLY			
PROJECT CODE	KHCCDE	DWG NO	REV
NEXT ASSY	H-9112	H-9113	E
			4/4