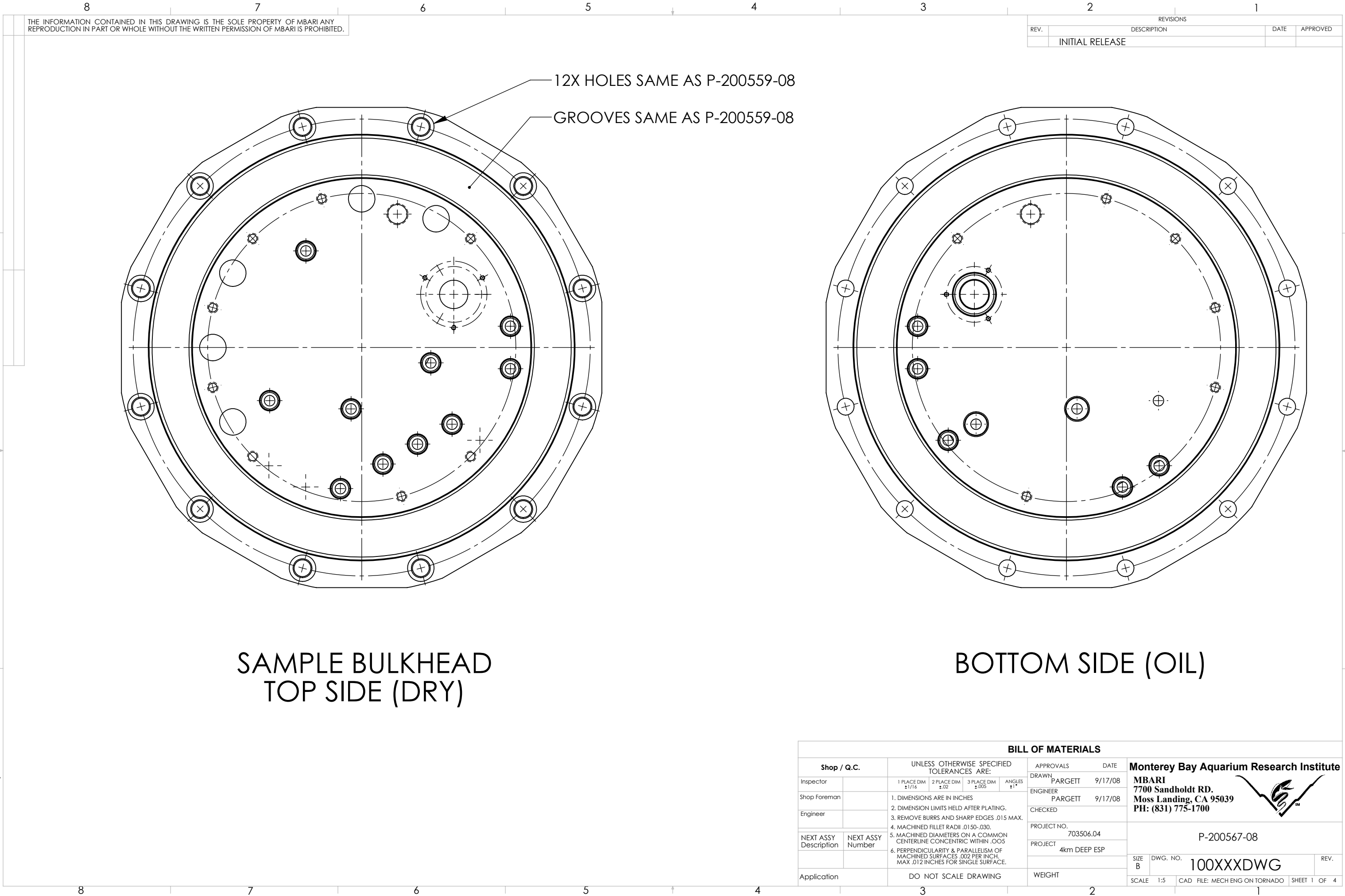
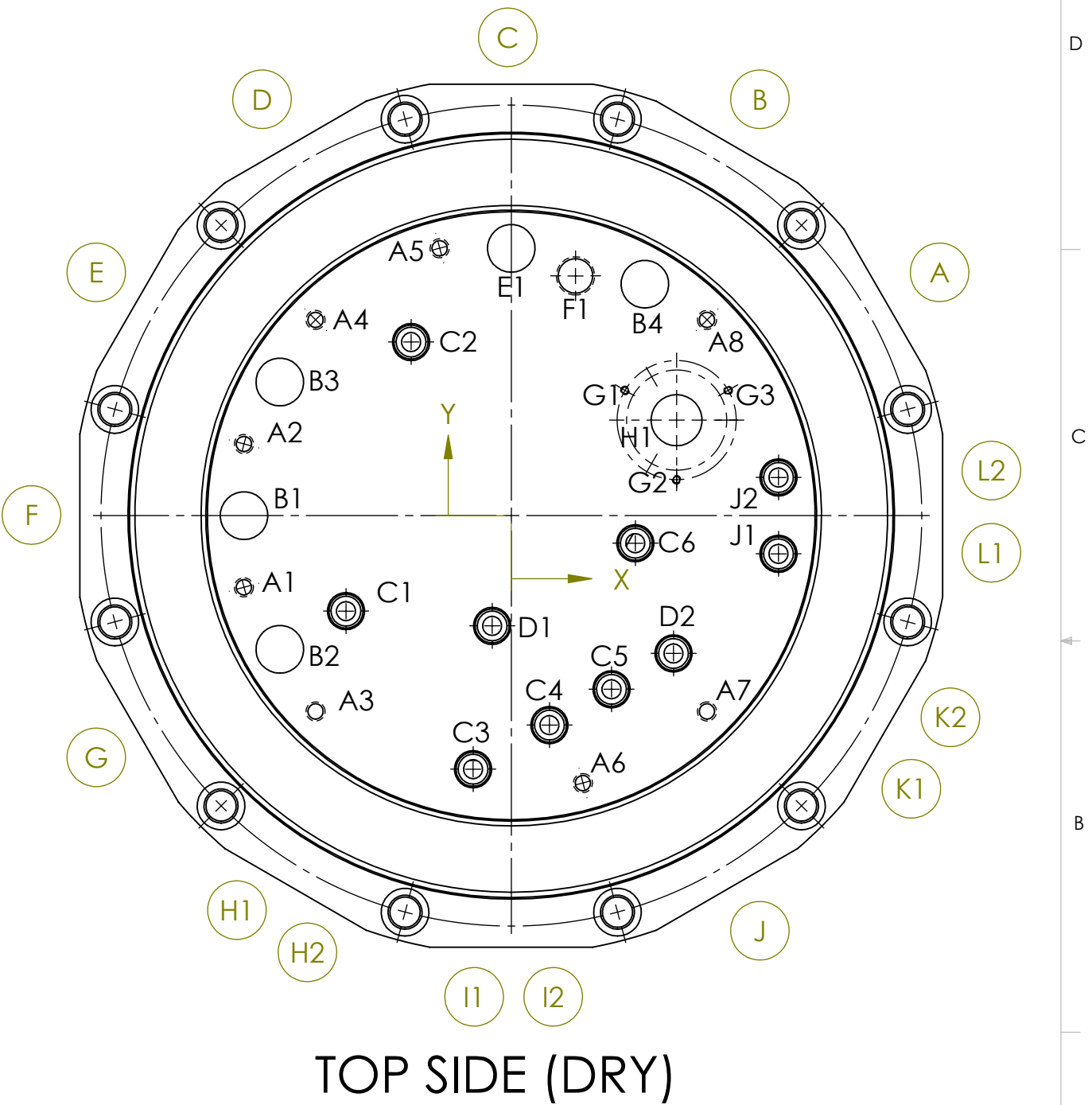


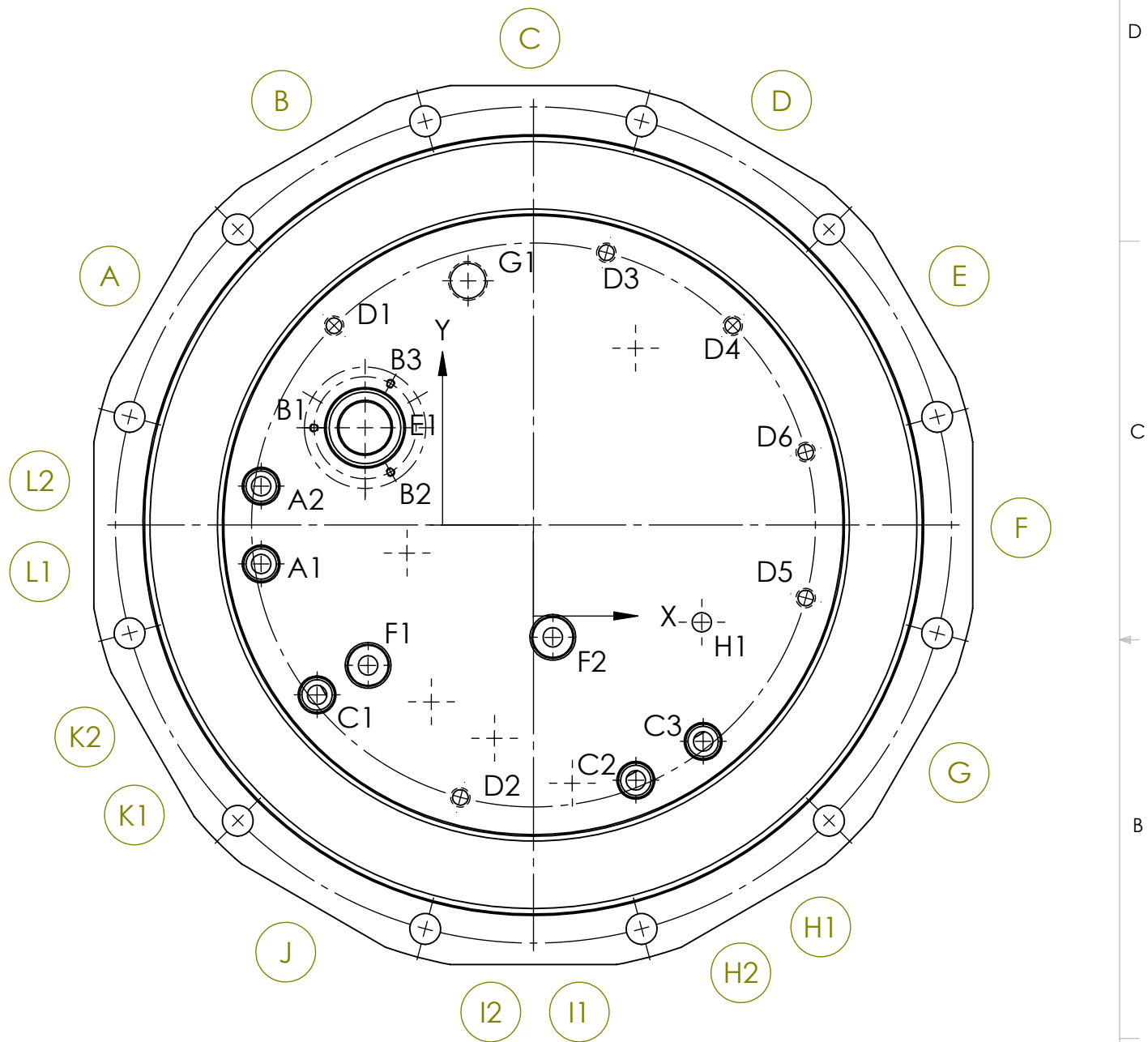


	8	7	6	5	4	3	2	1
	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MBARI ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF MBARI IS PROHIBITED.							REVISIONS
	Hole Table							REV. DESCRIPTION DATE APPROVED
	TAG	X LOC	Y LOC	SIZE	CONNECTING PORTS			
	A1	-3.501	-.938	1/4-20 TAPPED .375 DEEP				
	A2	-3.501	.938	1/4-20 TAPPED .375 DEEP				
	A3	-2.563	-2.563	1/4-20 TAPPED .375 DEEP				
	A4	-2.563	2.563	1/4-20 TAPPED .375 DEEP				
	A5	-.938	3.501	1/4-20 TAPPED .375 DEEP				
	A6	.938	-3.501	1/4-20 TAPPED .375 DEEP				
	A7	2.563	-2.563	1/4-20 TAPPED .375 DEEP				
	A8	2.563	2.563	1/4-20 TAPPED .375 DEEP				
	B1	-3.500	.000	Ø.625 ▽ 1.28	SIDE F			
	B2	-3.031	-1.750	Ø.625 ▽ 1.28	SIDE G			
	B3	-3.031	1.750	Ø.625 ▽ 1.28	SIDE E			
	B4	1.750	3.031	Ø.625 ▽ 1.28	SIDE B			
	C1	-2.165	-1.250	SAE #4 PORT Ø.25 ▽ 1.00	BOTTOM H1			
	C2	-1.312	2.273	SAE #4 PORT Ø.25 ▽ 1.00	SIDE D			
	C3	-.500	-3.320	SAE #4 PORT Ø.25 ▽ 1.00	SIDE I1			
	C4	.500	-2.742	SAE #4 PORT Ø.25 ▽ 1.00	SIDE I2			
	C5	1.313	-2.273	SAE #4 PORT Ø.25 ▽ 1.00	SIDE J			
	C6	1.625	-.361	SAE #4 PORT Ø.25 ▽ 1.00	SIDE K2			
	D1	-.250	-1.443	SAE #4 PORT Ø.25 ▽ 1.00	BOTTOM F2			
	D2	2.125	-1.804	SAE #4 PORT Ø.25 ▽ 1.00	BOTTOM F1			
	E1	.000	3.500	Ø.625 ▽ 1.28	SIDE C			
	F1	.841	3.139	SEE BOTTOM SIDE HOLE G1	BOTTOM G1			
	G1	1.490	1.640	#4-40 TAPPED ▽.22				
	G2	2.165	.470	#4-40 TAPPED ▽.22				
	G3	2.841	1.640	#4-40 TAPPED ▽.22				
	H1	2.165	1.250	SEE BOTTOM SIDE HOLE E1	BOTTOM E1			
	J1	3.500	-.500	SAE #4 PORT Ø.25 ▽ 1.00	BOTTOM A1, SIDE L1			
	J2	3.500	.500	SAE #4 PORT Ø.25 ▽ 1.00	BOTTOM A2, SIDE L2			



BILL OF MATERIALS									
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE	
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN	NAME	9/27/00	
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES .015 MAX. 4. MACHINED FILLET RADII .0150-.030. 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH, MAX .012 INCHES FOR SINGLE SURFACE.				ENGINEER	NAME	9/27/00	
Engineer						CHECKED			
NEXT ASSY Description	NEXT ASSY Number					PROJECT NO.	XXX		
						PROJECT	ZZZZZZZ		
Application		DO NOT SCALE DRAWING				WEIGHT			
		SIZE B		DWG. NO.		100XXWDWG		REV.	
		SCALE 1:5		CAD FILE: MECH ENG ON TORNADO		SHEET 2 OF 4			

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Hole Table				
TAG	X LOC	Y LOC	SIZE	CONNECTING PORTS
A1	-3.500	-.500	SAE #4 PORT $\varnothing$.25 ∇ 1.00	TOP J1, SIDE L1
A2	-3.500	.500	SAE #4 PORT $\varnothing$.25 ∇ 1.00	TOP J2, SIDE L2
B1	-2.821	1.250	#4-40 TAPPED ∇ .22	
B2	-1.837	.682	#4-40 TAPPED ∇ .22	
B3	-1.837	1.818	#4-40 TAPPED ∇ .22	
C1	-2.781	-2.183	SAE #4 PORT $\varnothing$.25 ∇ 1.00	SIDE K1
C2	1.317	-3.281	SAE #4 PORT $\varnothing$.25 ∇ 1.00	SIDE H2
C3	2.183	-2.781	SAE #4 PORT $\varnothing$.25 ∇ 1.00	SIDE H1
D1	-2.563	2.563	1/4-20 TAPPED ∇ .38	
D2	-.938	-3.501	1/4-20 TAPPED ∇ .38	
D3	.938	3.501	1/4-20 TAPPED ∇ .38	
D4	2.563	2.563	1/4-20 TAPPED ∇ .38	
D5	3.501	-.938	1/4-20 TAPPED ∇ .38	
D6	3.501	.938	1/4-20 TAPPED ∇ .38	
E1	-2.165	1.250	SEE DETAIL AV, SECTION AW-AW P-200559-08	TOP H1
F1	-2.125	-1.804	1/4-18 NPT PORT $\varnothing$.25 ∇ 1.00	TOP D2
F2	.250	-1.443	1/4-18 NPT PORT $\varnothing$.25 ∇ 1.00	TOP D1
G1	-.841	3.139	1/2-20 UNF TAPPED .88 TAP DRILL THRU	TOP F1
H1	2.165	-1.250	$\varnothing$.25 ∇ 1.00	TOP C1

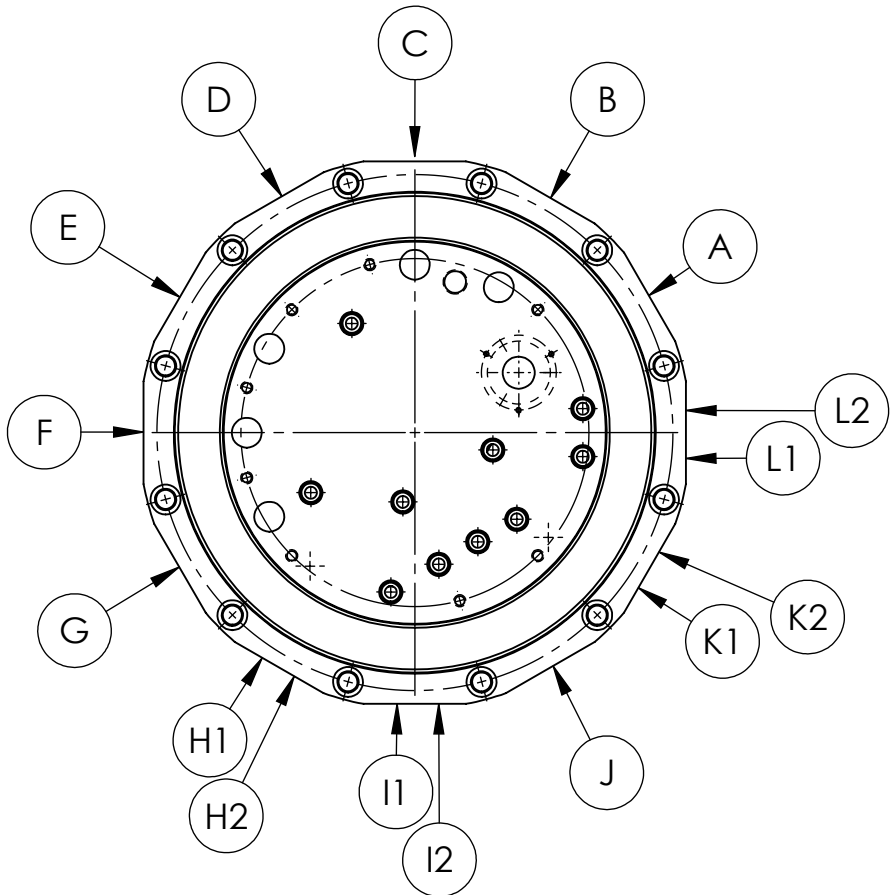


BOTTOM SIDE (OIL)

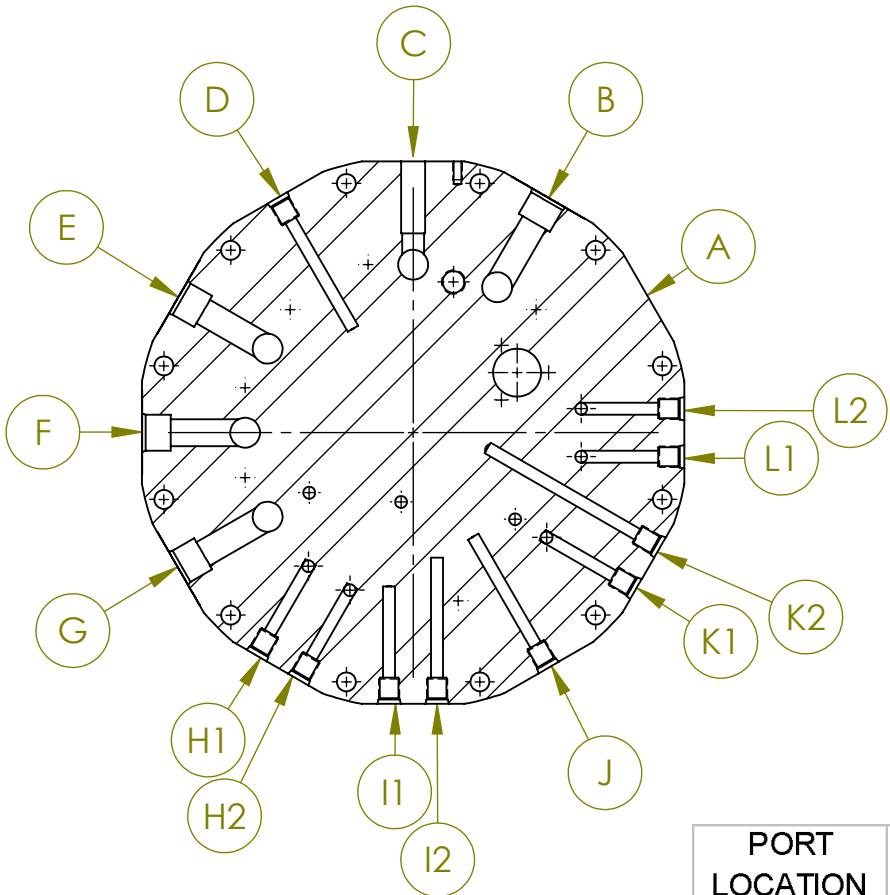
BILL OF MATERIALS									
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE	
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN	NAME	9/27/00	
Shop Foreman		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES .015 MAX. 4. MACHINED FILLET RADII .0150-.030. 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH, MAX .012 INCHES FOR SINGLE SURFACE.				ENGINEER	NAME	9/27/00	
Engineer						CHECKED			
NEXT ASSY Description	NEXT ASSY Number					PROJECT NO.		XXX	
						PROJECT		ZZZZZZZZ	
Application						DO NOT SCALE DRAWING		WEIGHT	
						SIZE B		DWG. NO.	
								100XXXDWG	
						SCALE		1:5	CAD FILE: MECH ENG ON TORNADO
								SHEET 3	OF 4
		3						1	

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MBARI. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF MBARI IS PROHIBITED.

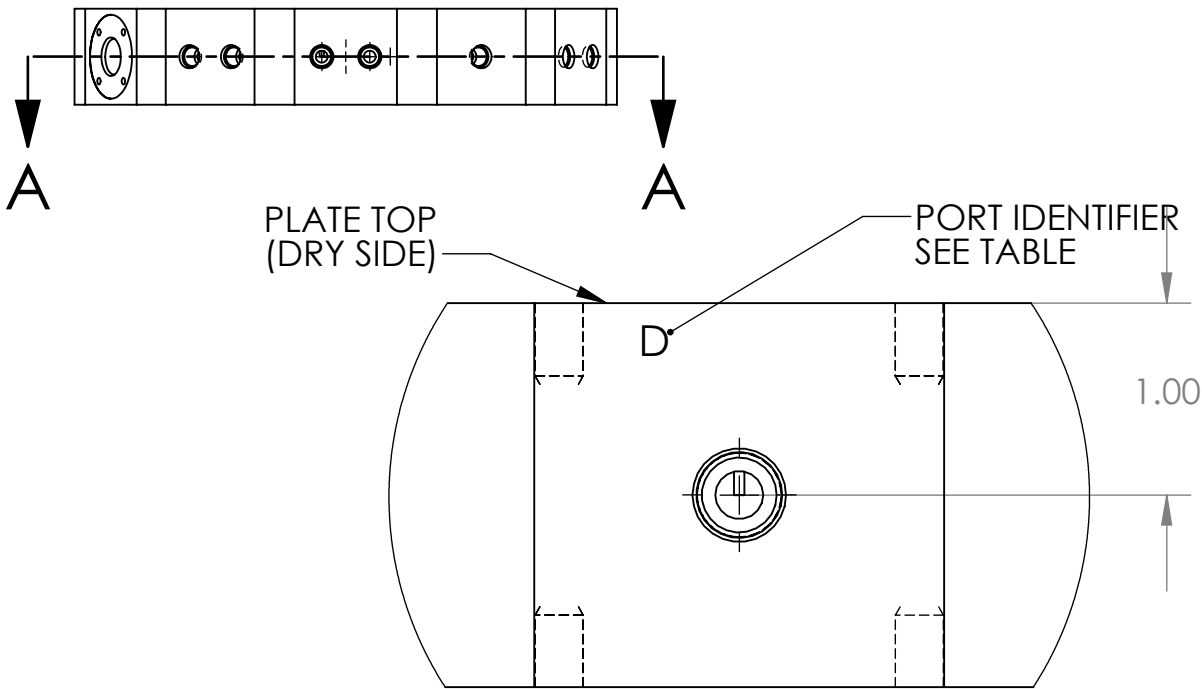
REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE		



TOP SIDE (DRY)



SECTION A-A



DETAIL AD
SINGLE SAE #4 PORT

NOTES:
1. SEE P-200559-08 FOR DETAILS NOT SHOWN

PORT LOCATION	LABEL	DESCRIPTION	CENTER HOLE DIA	HOLE DEPTH	DETAIL
A	SAMPLE	blank			
B	B	MINK FCR	0.5625	2.15	AB
C	C	1/2-20 TAPPED	TAP DRILL	2.15	AE
D	D	SAE #4	0.25	3.15	AD
E	E	MINK FCR	0.5625	2.15	AB
F	F	MINK FCR	0.5625	2.15	AB
G	G	MINK FCR	0.5625	2.15	AB
H1	H1	SAE #4	0.25	2.27	AC
H2	H2	SAE #4	0.25	2.27	AC
I1	I1	SAE #4	0.25	2.45	AC
I2	J2	SAE #4	0.25	3.03	AC
J	J	SAE #4	0.25	3.15	AD
K1	K1	SAE #4	0.25	3.03	AC
K2	K2	SAE #4	0.25	4.18	AC
L1	L1	SAE #4	0.25	2.27	AC
L2	L2	SAE #4	0.25	2.27	AC

BILL OF MATERIALS			
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:	
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02
Shop Foreman		3 PLACE DIM ±.005	ANGLES ±1°
Engineer		1. DIMENSIONS ARE IN INCHES 2. DIMENSION LIMITS HELD AFTER PLATING. 3. REMOVE BURRS AND SHARP EDGES .015 MAX. 4. MACHINED FILLET RADII .0150-.030. 5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005 6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH, MAX .012 INCHES FOR SINGLE SURFACE.	
NEXT ASSY Description	NEXT ASSY Number	APPROVALS DATE	
		DRAWN NAME	9/27/00
		ENGINEER NAME	9/27/00
		CHECKED	
		PROJECT NO. XXX	
		PROJECT ZZZZZZZZ	
		WEIGHT	
		DO NOT SCALE DRAWING	
		Monterey Bay Aquarium Research Institute	
		MBARI	
		7700 Sandholdt RD.	
		Moss Landing, CA 95039	
		PH: (831) 775-1700	
		P-200567-08	
		SIZE B	DWG. NO. 100XXWDWG
		SCALE 1:5	REV.
		CAD FILE: MECH ENG ON TORNADO	SHEET 4 OF 4