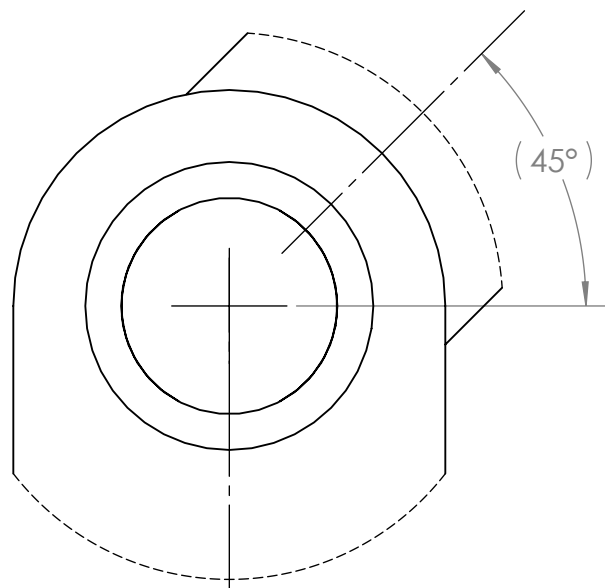
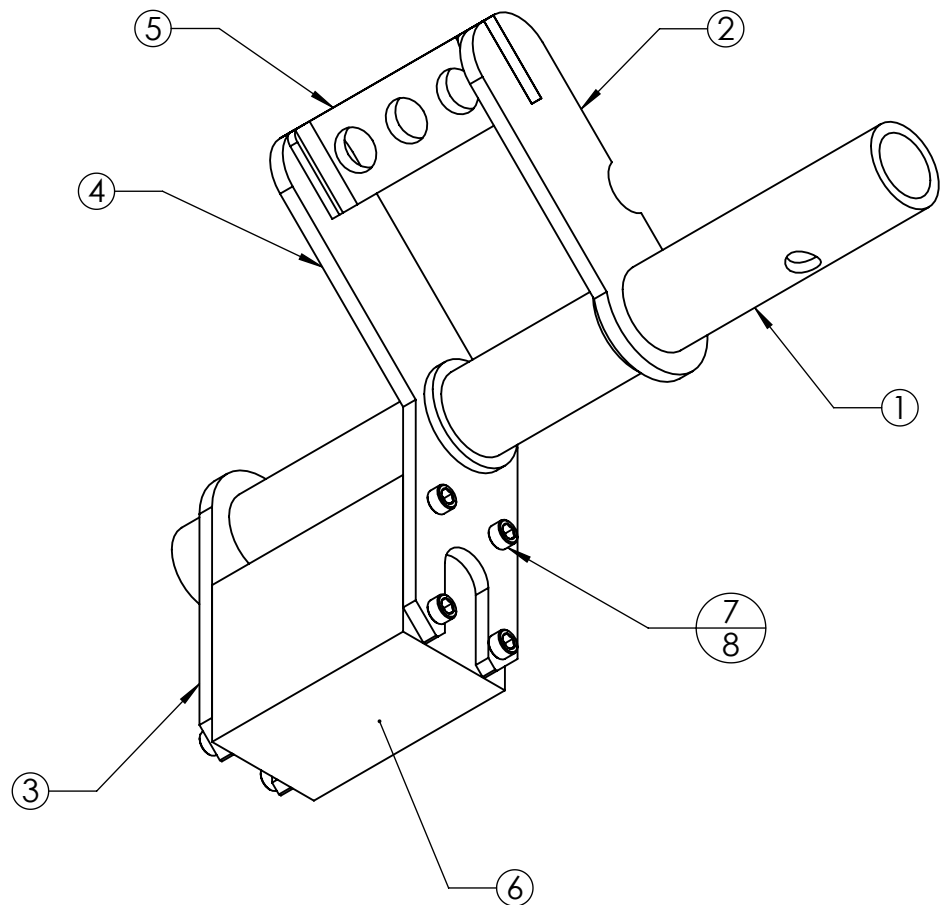




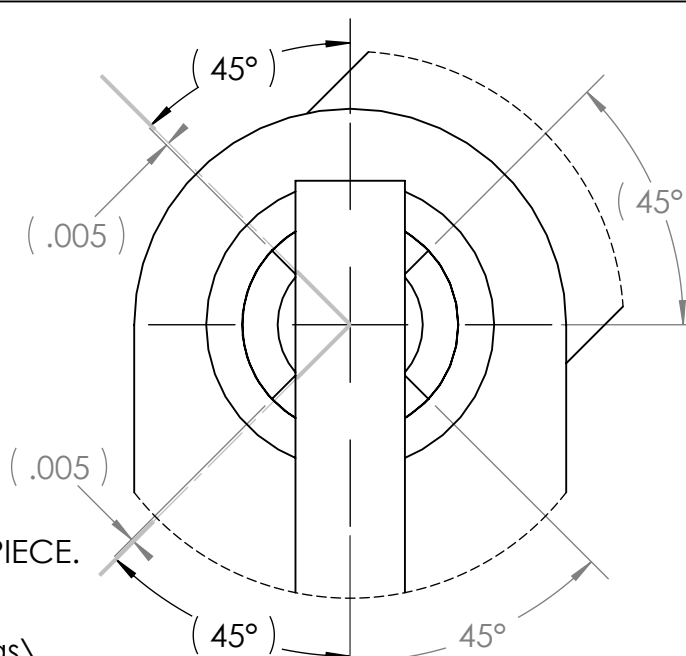
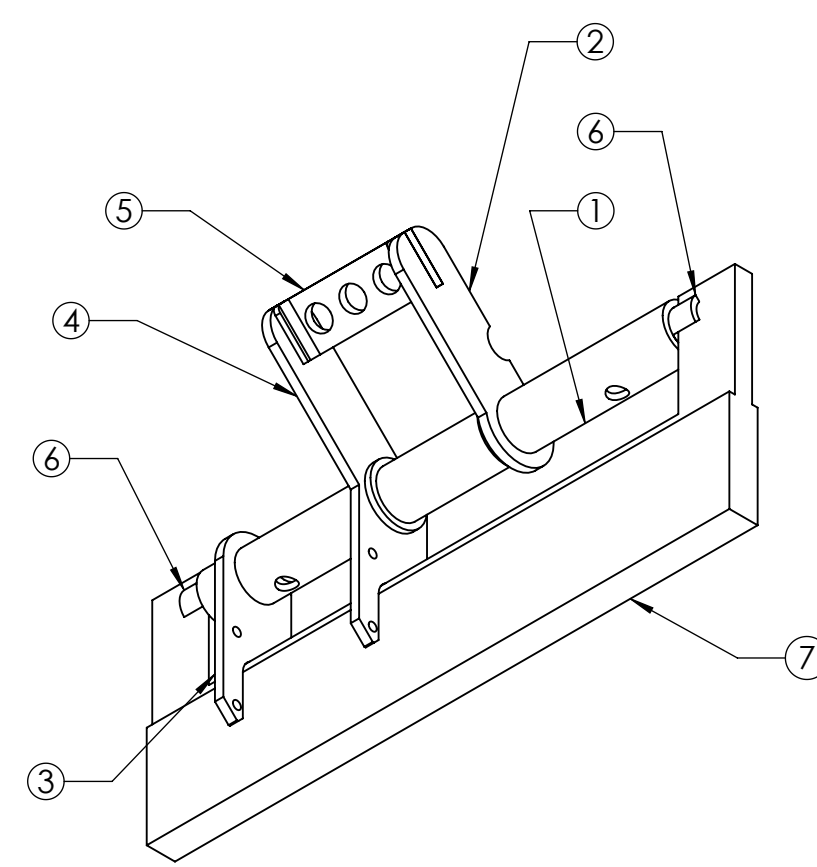
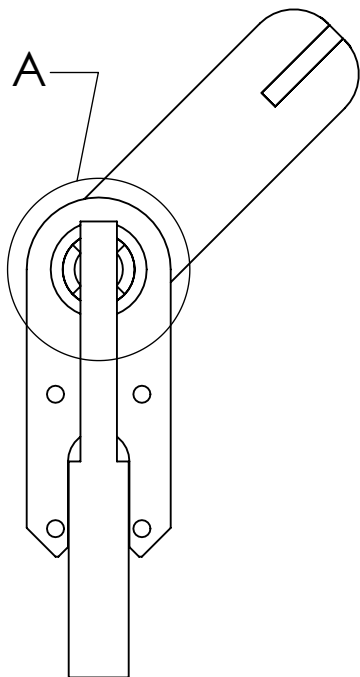
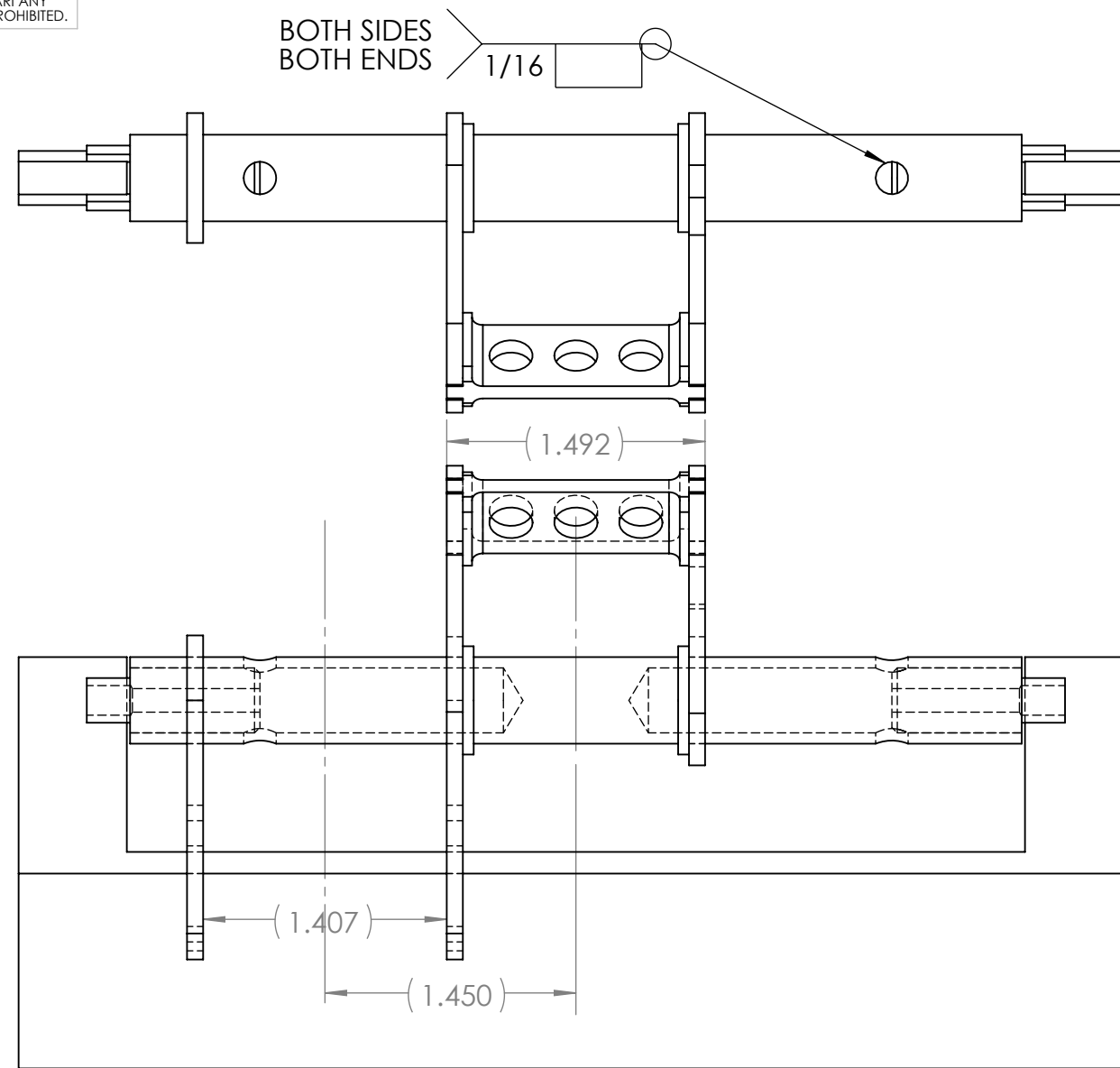
DETAIL A
SCALE 3 : 1
CLOCKING BOTH ENDS

7	8	92185A077	#2-56x 1/4 Soc Hd Cap		McMaster-Carr	AlSi 316
6	1	P-200733-17	CS-Link_Weld Jig Block.093		MBARI	Aluminum 6061-T6
5	1	P-200728-17	Bell Crank Bridge .093		MBARI	6AL-4V Titanium
4	1	P-200726-17	Elevator Crank Plate .093		MBARI	6AL-4V Titanium
3	1	P-200729-17	CS-Crank Plate .093		MBARI	6AL-4V Titanium
2	1	P-200730-17	Bell Crank Plate .093		MBARI	6AL-4V Titanium
1	1	P-200715-17	CS Connector Sleeve .093		MBARI	6AL-4V Titanium
ITEM NO	build1/QTY.	Part_Number	DESCRIPTION	Revision	Vendor	MATERIAL

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	J. ERICKSON 5/11/09		
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	J. ERICKSON 5/11/09		
Engineer						CHECKED	B.H. 5/13/09		
NEXT ASSY Description	NEXT ASSY Number					PROJECT NO.	900739		
	A-200502-08	PROJECT	LRAUV			TETHYS - LRAUV			
		SIZE B	DWG. NO.			Elevator CRANK WELDMENT 1_.093			
					A-200731-17.DWG			REV.	
Application		DO NOT SCALE DRAWING				WEIGHT	0.264 lb.		
		SCALE 1:2	CAD FILE: MECH ENG ON TORNADO			SHEET 1 OF 3			

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	X/XX/00	J.E.



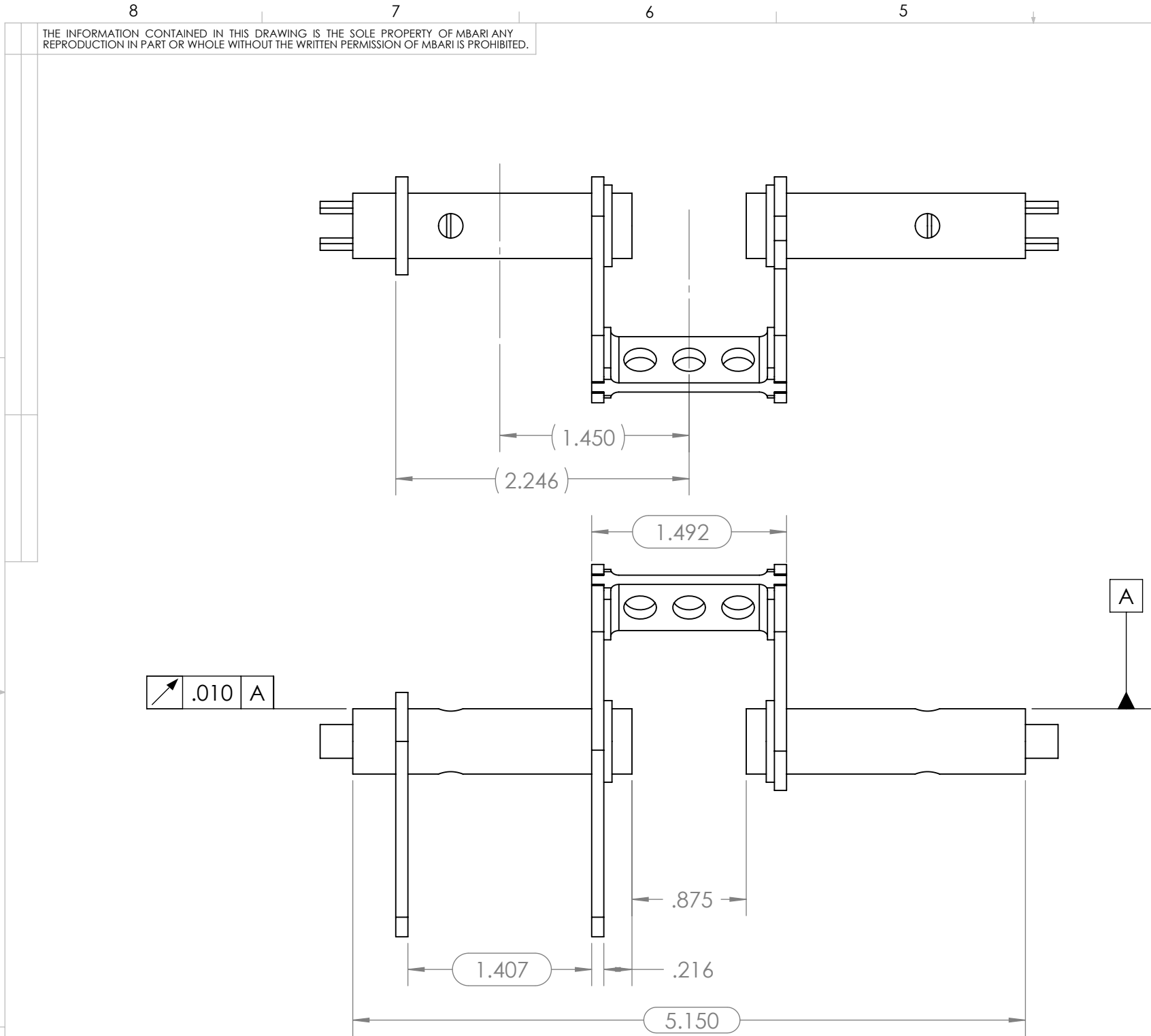
DETAIL A
SCALE 3 : 1

9. Q.C. (INSPECTION) REPORT REQUIRED FOR EACH PIECE.
8. FABRICATION ORDER SHEET #1, SHEET #2, SHEET #3
7. PROJECT LIBRARY:\900739.LRAUV\Project.Drawings\
Project.ME.Dwgs\LRAUV\Tail section\CS Linkage.093

NOTES: (CONT. FROM TITLE BLOCK)

7	1	P-201337-12	Dog End Welding Jig		MBARI	316 SS
6	2	P-200494-08	Bell Crank F-Dog Link	A	MBARI	6AL-4V Titanium
5	1	P-200728-17	Bell Crank Bridge .093		MBARI	6AL-4V Titanium
4	1	P-200726-17	Elevator Crank Plate .093		MBARI	6AL-4V Titanium
3	1	P-200729-17	CS-Crank Plate .093		MBARI	6AL-4V Titanium
2	1	P-200730-17	Bell Crank Plate .093		MBARI	6AL-4V Titanium
1	1	P-200715-17	CS Connector Sleeve .093		MBARI	6AL-4V Titanium
ITEM #	Build/QTY.	Part Number	DESCRIPTION	Revision	Vendor	MATERIAL

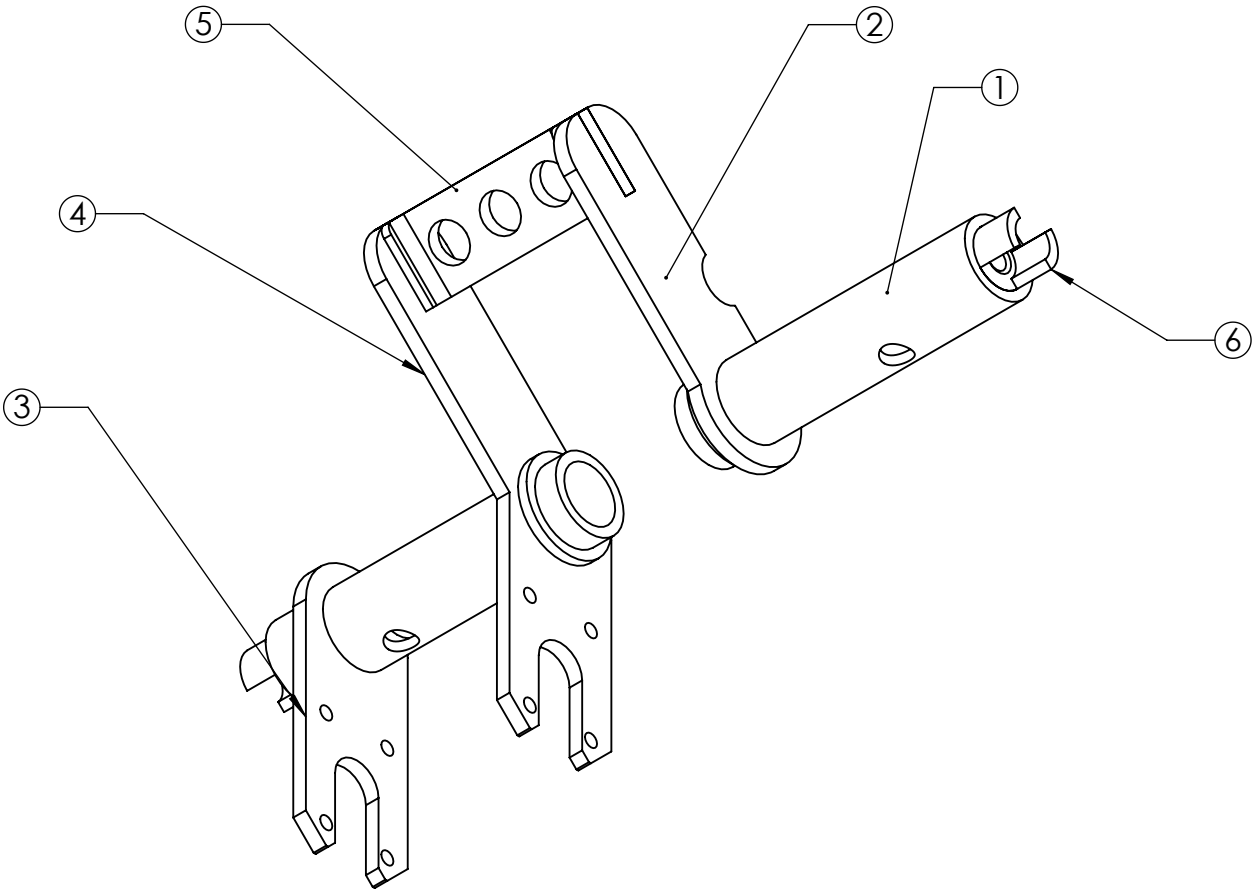
Shop / Q.C.					UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE		Monterey Bay Aquarium Research Institute MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700 								
Inspector		1 PLACE DIM ±1/16		2 PLACE DIM ±.02		3 PLACE DIM ±.005		ANGLES ±1°		DRAWN		J. ERICKSON 5/11/09									
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		J. ERICKSON 5/11/09									
Engineer										CHECKED											
NEXT ASSY Description		NEXT ASSY Number		TETHYS - LRAUV								PROJECT NO.		900739							
A-200502-08												PROJECT		LRAUV							
Application		DO NOT SCALE DRAWING								WEIGHT		0.280 lb.		SIZE B		DWG. NO.		A-200731-17.DWG		REV.	
														SCALE 1:2		CAD FILE: MECH ENG ON TORNADO		SHEET 2 OF 3			



WATER WEIGHT = 0.188534

- 10 Q.C. (INSPECTION) REPORT REQUIRED FOR EACH PIECE.
- 9. FINISH MACHINE AFTER WELDING. DIMENSIONS AS NOTED.
- 8. FABRICATION ORDER SHEET #1, SHEET #2, SHEET #3
- 7. PROJECT LIBRARY:\900739.LRAUV\Project.Drawings\Project.ME.Dwgs\LRAUV\Tail section\CS Linkage.093

NOTES: (CONT. FROM TITLE BLOCK)



6	2	P-200494-08	Bell Crank F-Dog Link	MBARI	6AL-4V Titanium
5	1	P-200728-17	Bell Crank Bridge .093	MBARI	6AL-4V Titanium
4	1	P-200726-17	Elevator Crank Plate .093	MBARI	6AL-4V Titanium
3	1	P-200729-17	CS-Crank Plate .093	MBARI	6AL-4V Titanium
2	1	P-200730-17	Bell Crank Plate .093	MBARI	6AL-4V Titanium
1	1	P-200715-17	CS Connector Sleeve .093	MBARI	6AL-4V Titanium
ITEM NO.	Default/Assembly Print/QTY.	Part_Number	DESCRIPTION	Vendor	MATERIAL

BILL OF MATERIALS					
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:		APPROVALS	DATE
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	DRAWN	J. ERICKSON 5/11/09
Shop Foreman		1. DIMENSIONS ARE IN INCHES	3 PLACE DIM ±.005	ENGINEER	J. ERICKSON 5/11/09
Engineer		2. DIMENSION LIMITS HELD AFTER PLATING.		CHECKED	B.H. 5/13/09
NEXT ASSY Description	NEXT ASSY Number	3. REMOVE BURRS AND SHARP EDGES .015 MAX.		PROJECT NO.	900739
		4. MACHINED FILLET RADII .0150-.030.		PROJECT	LRAUV
		5. MACHINED DIAMETERS ON A COMMON CENTERLINE CONCENTRIC WITHIN .005		WEIGHT	0.156 lb.
	A-200502-08	6. PERPENDICULARITY & PARALLELISM OF MACHINED SURFACES .002 PER INCH. MAX .012 INCHES FOR SINGLE SURFACE.		SIZE	B
Application		DO NOT SCALE DRAWING		SCALE	1:2

Monterey Bay Aquarium Research Institute
MBARI
7700 Sandholdt RD.
Moss Landing, CA 95039
PH: (831) 775-1700



TETHYS - LRAUV
Elevator CRANK FINISH MACHINING .093

SIZE DWG. NO. REV.
B A-200731-17.DWG
SCALE 1:2 CAD FILE: MECH ENG ON TORNADO SHEET 3 OF 3