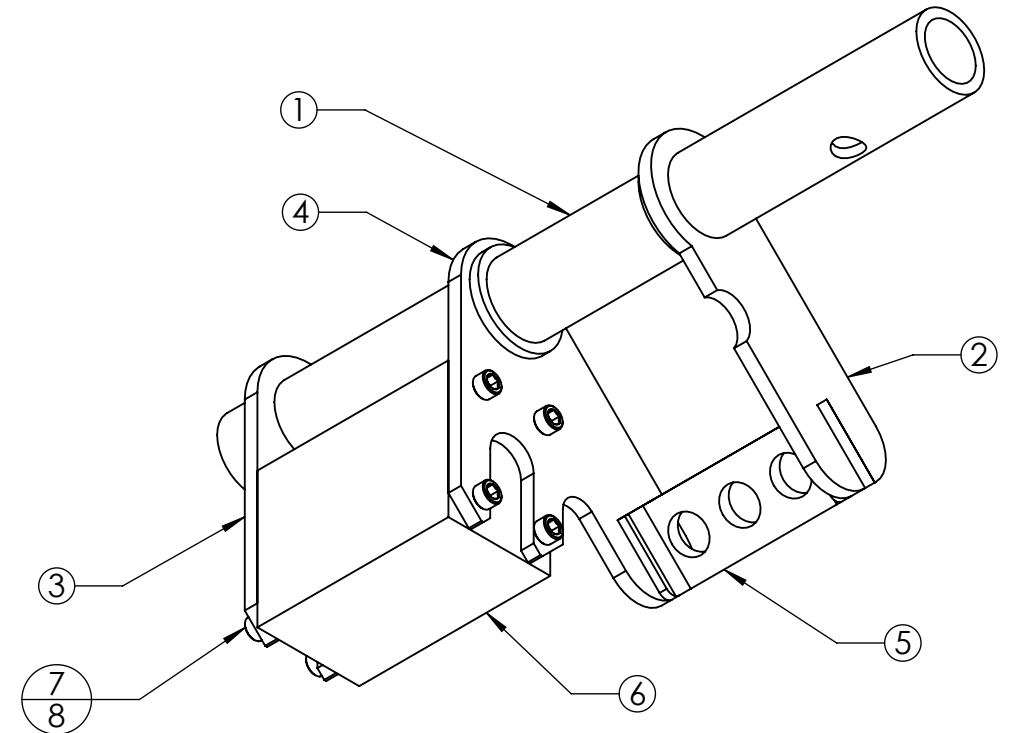
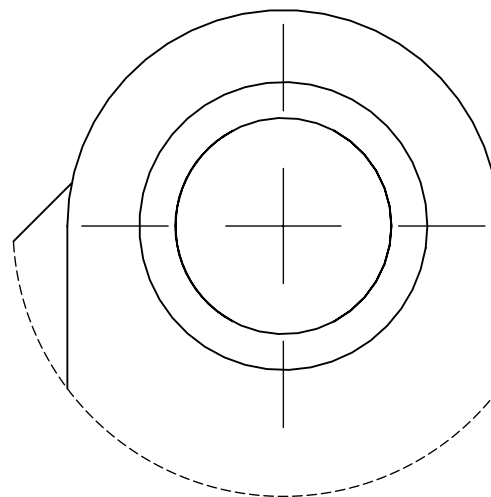
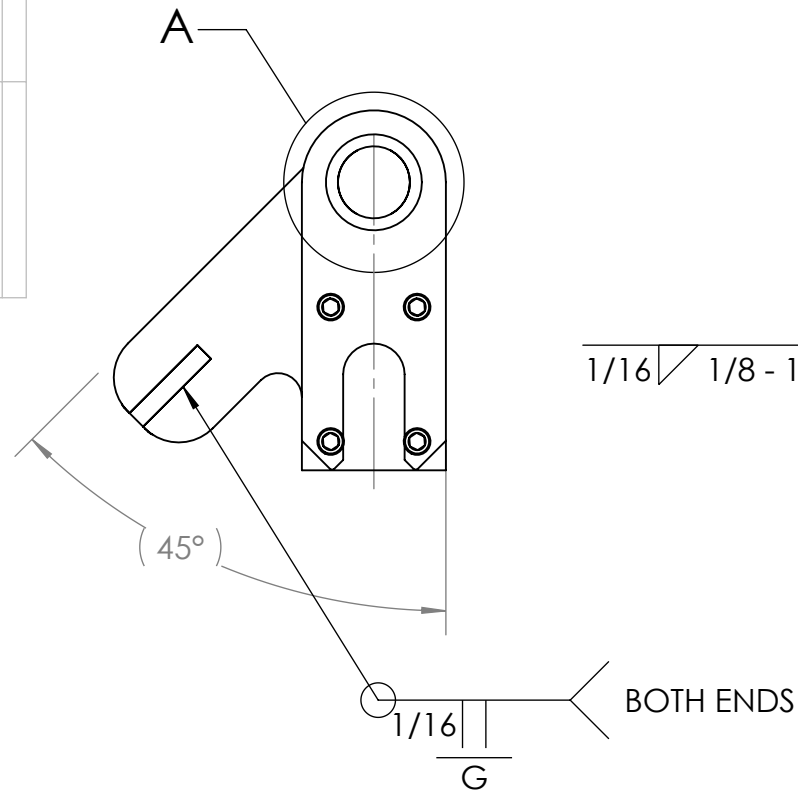
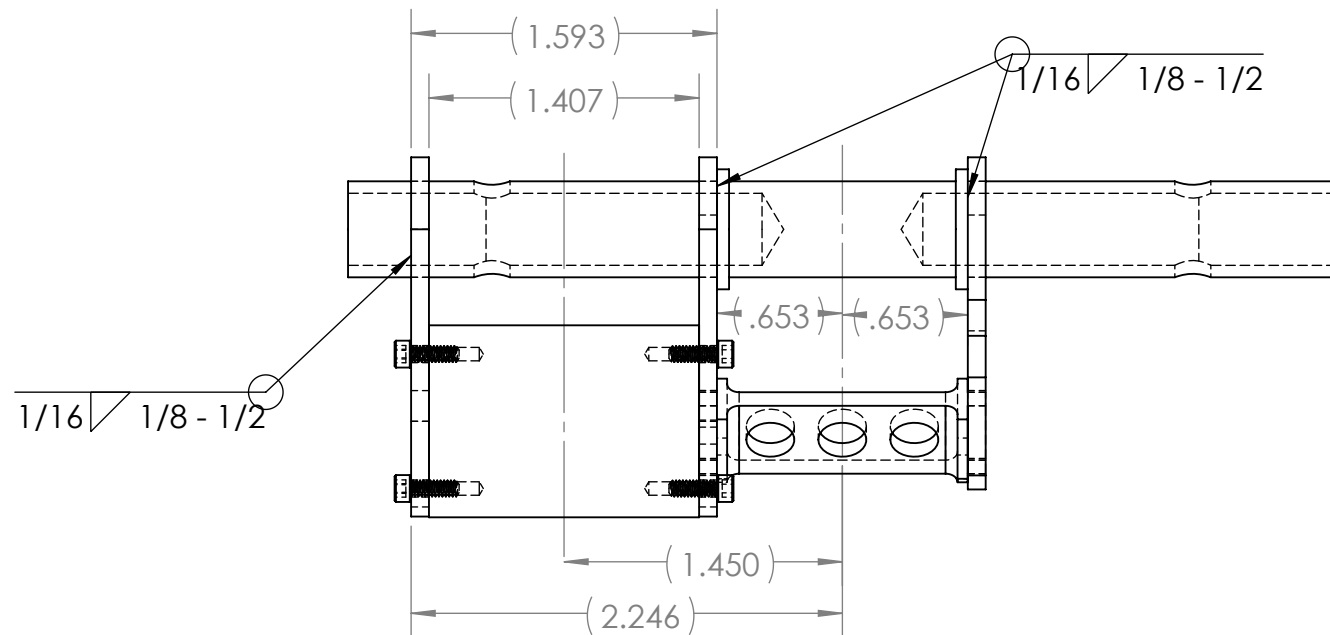
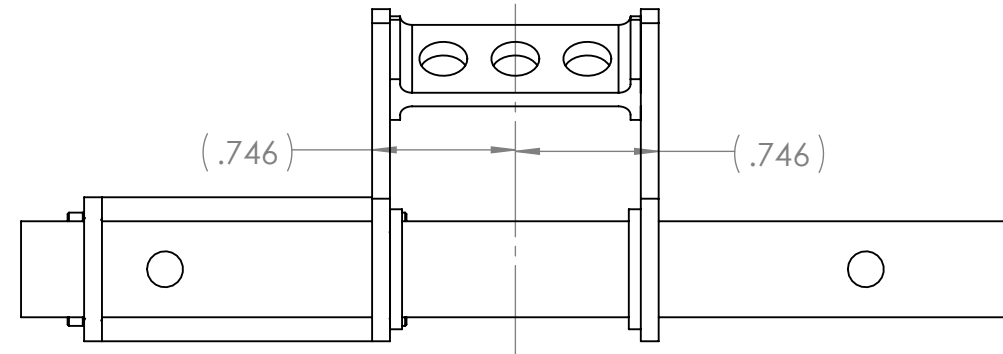


THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MBARI ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF MBARI IS PROHIBITED.

REVISIONS

INITIAL RELEASE

X/XX/01	
---------	--



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-200727-17	Rudder 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.	Build/QTY.	Part_Number	DESCRIPTION	Revision	Vendor	MATERIAL

BILL OF MATERIALS

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	B.H. 5/13/09						
NEXT ASSY Description		NEXT ASSY Number		PROJECT NO.				900739		TETHYS - LRAUV Rudder Crank WELDMENT 1_.093			
		A-200502-08		PROJECT				LRAUV					
Application		DO NOT SCALE DRAWING				WEIGHT		0.262 lb.		SIZE B	DWG. NO.	REV.	
										SCALE 1:2	CAD FILE: MECH ENG ON TORNADO	SHEET 1	OF 3

9. Q.C. (INSPECTION) REPORT REQUIRED FOR EACH PIECE.

8. FABRICATION ORDER SHEET #1, SHEET #2, SHEET #3

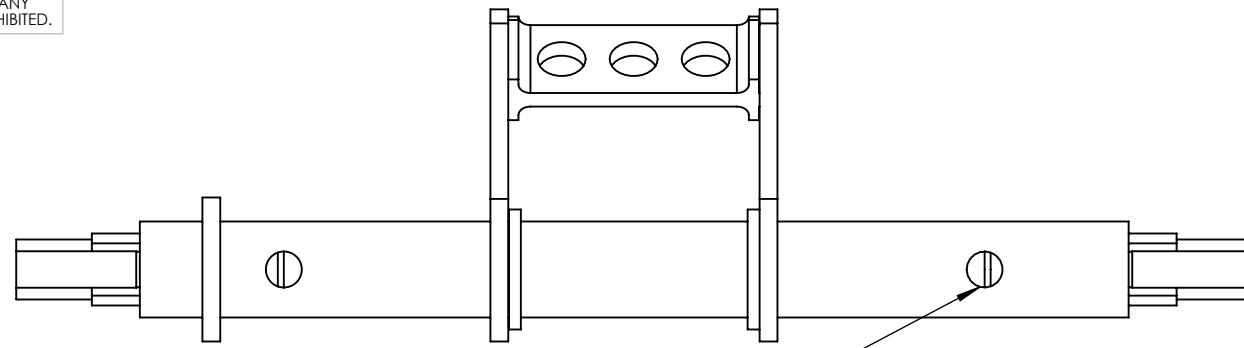
7. PROJECT LIBRARY:\900739.LRAUV\Project.Drawings\
Project.ME.Dwgs\LRAUV\Tail section\CS Linkage.093

NOTES: (CONT. FROM TITLE BLOCK)

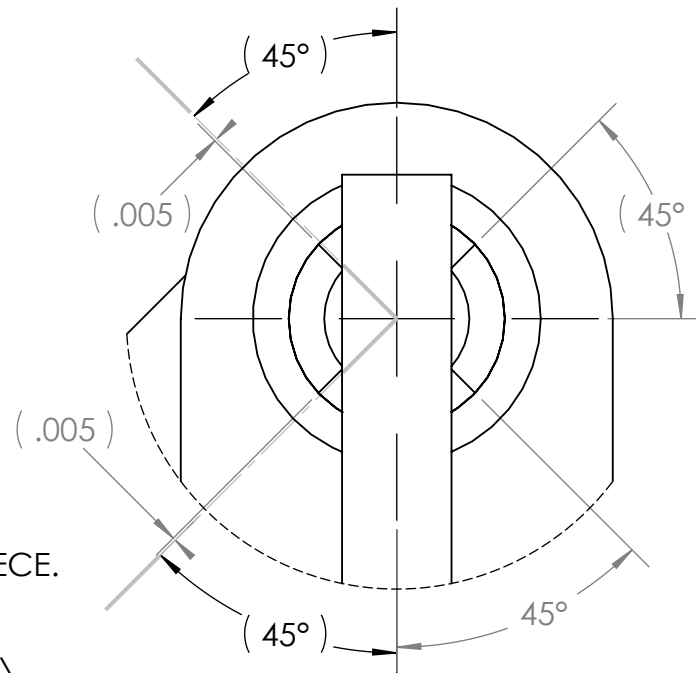
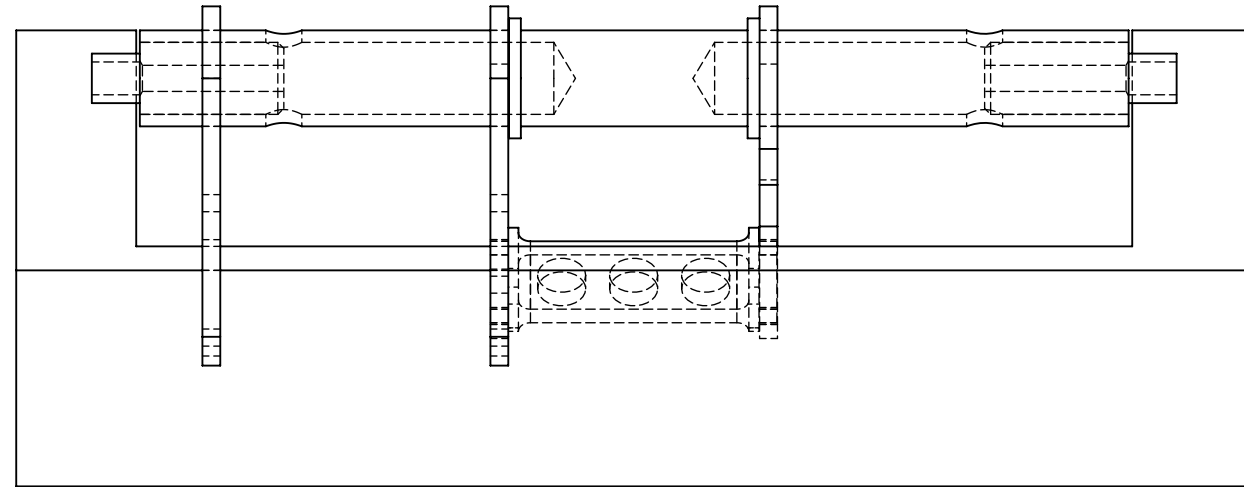
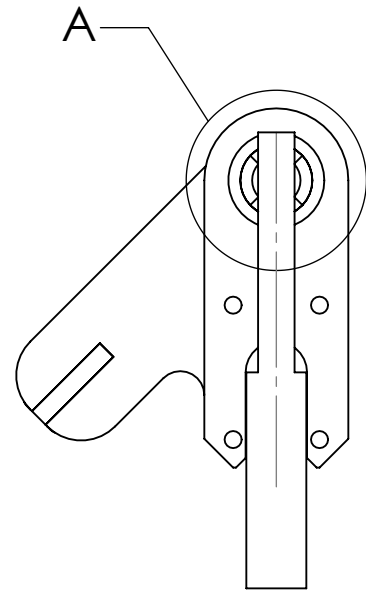
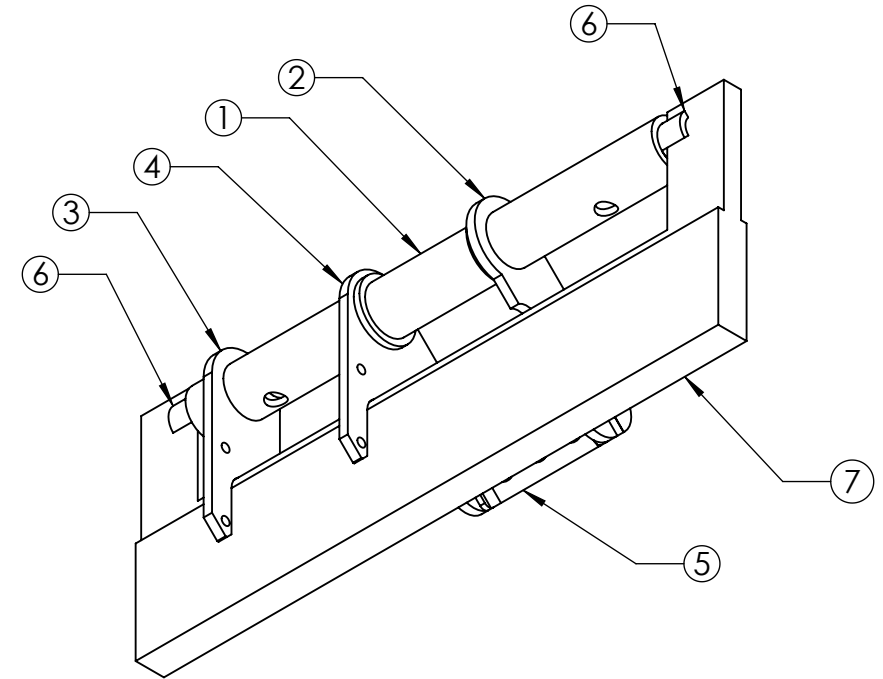
DETAIL A
SCALE 3 : 1
CLOCKING BOTH ENDS

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.



BOTH SIDES BOTH ENDS	1/16	
-------------------------	------	--



DETAIL A
SCALE 3 : 1

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-200727-17	Rudder 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.	Build2/QTY.	Part_Number	DESCRIPTION	Revision	Vendor	MATERIAL

BILL OF MATERIALS

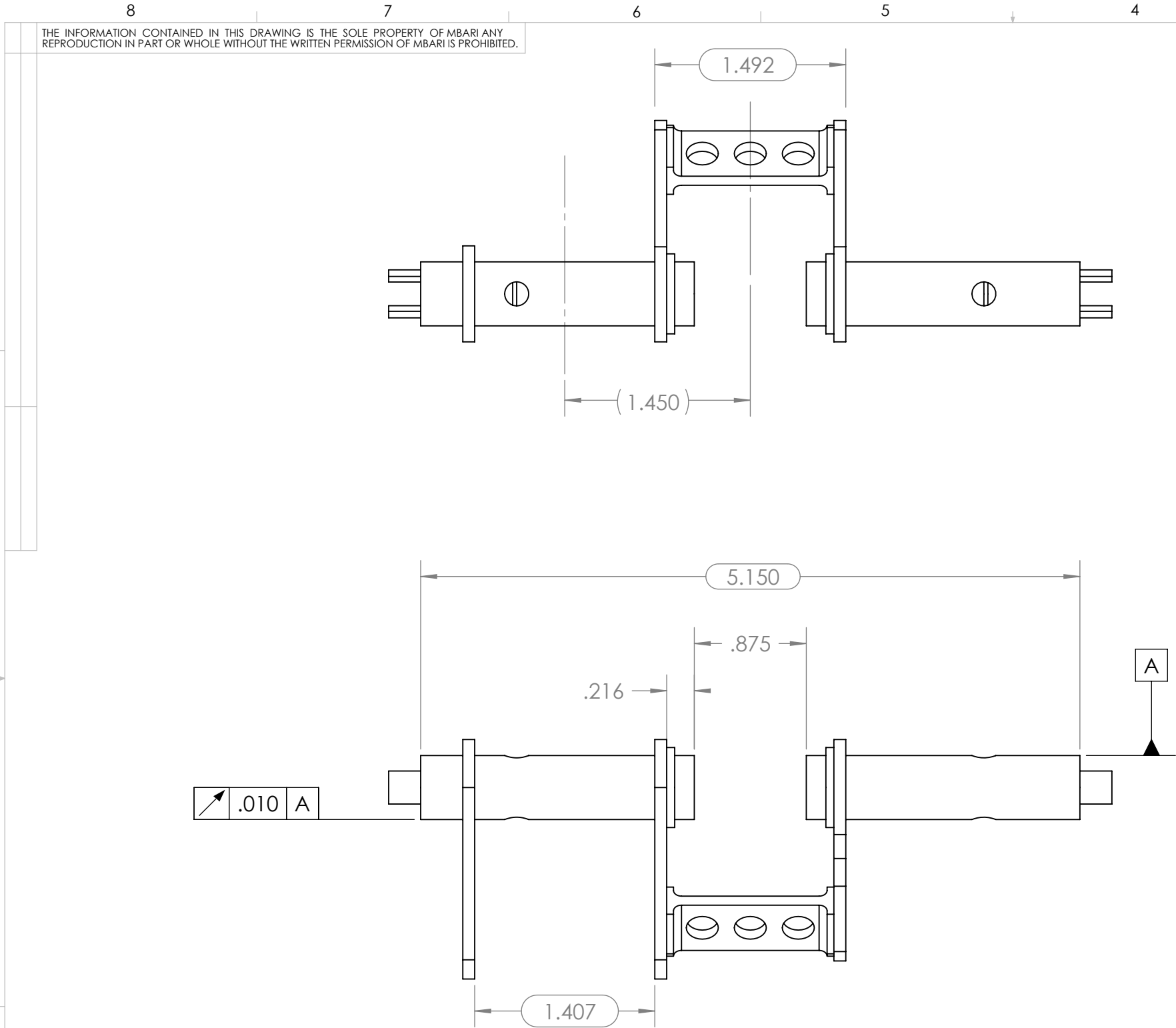
Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE		Monterey Bay Aquarium Research Institute MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700 			
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN	J. ERICKSON	5/11/09					
Shop Foreman		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					PROJECT NO.	900739						
	A-200502-08	PROJECT	LRAUV	TETHYS - LRAUV Rudder Crank WELDMENT 2_-093				SIZE B	DWG. NO.	REV.			
Application		DO NOT SCALE DRAWING	WEIGHT 0.278 lb.					A-200732-17.DWG		SCALE 1:2	CAD FILE: MECH ENG ON TORNADO	SHEET 2 OF 3	

9. Q.C. (INSPECTION) REPORT REQUIRED FOR EACH PIECE.

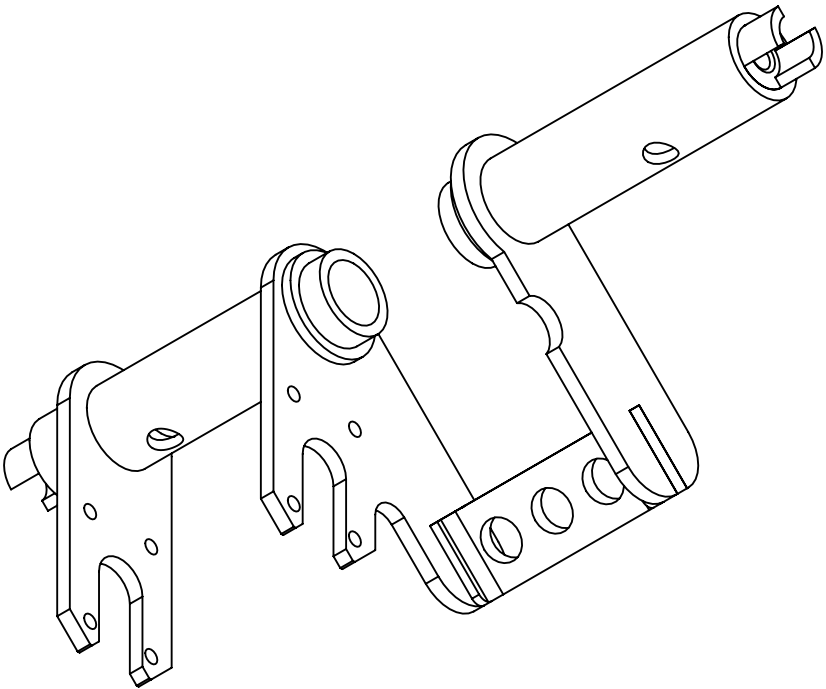
8. FABRICATION ORDER SHEET #1, SHEET #2, SHEET #3

7. PROJECT LIBRARY:\900739.LRAUV\Project.Drawings\
Project.ME.Dwgs\LRAUV\Tail section\CS Linkage.093

NOTES: (CONT. FROM TITLE BLOCK)



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
	INITIAL RELEASE	X/XX/00	J.E.



WATER WEIGHT =0.187594

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	A	MBARI	6AL-4V Titanium
5	1	P-200728-17	Bell Crank Bridge .093		MBARI	6AL-4V Titanium
4	1	P-200727-17	Rudder 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.	QTY.	Part_Number	DESCRIPTION	Revision	Vendor	MATERIAL

BILL OF MATERIALS

Shop / Q.C.		UNLESS OTHERWISE SPECIFIED TOLERANCES ARE:				APPROVALS		DATE		Monterey Bay Aquarium Research Institute			
Inspector		1 PLACE DIM ±1/16	2 PLACE DIM ±.02	3 PLACE DIM ±.005	ANGLES ±1°	DRAWN	J. ERICKSON		5/11/09		MBARI 7700 Sandholdt RD. Moss Landing, CA 95039 PH: (831) 775-1700		
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				
						PROJECT NO.				900739			
NEXT ASSY Description	NEXT ASSY Number					PROJECT		LRAUV		TETHYS - LRAUV			
	A-200502-08									Rudder Crank FINISH MACHINING_.093			
Application		DO NOT SCALE DRAWING				WEIGHT		0.155 lb.		SIZE B	DWG. NO. A-200732-17.DWG	REV.	
										SCALE 1:2	CAD FILE: MECH ENG ON TORNADO	SHEET 3 OF 3	