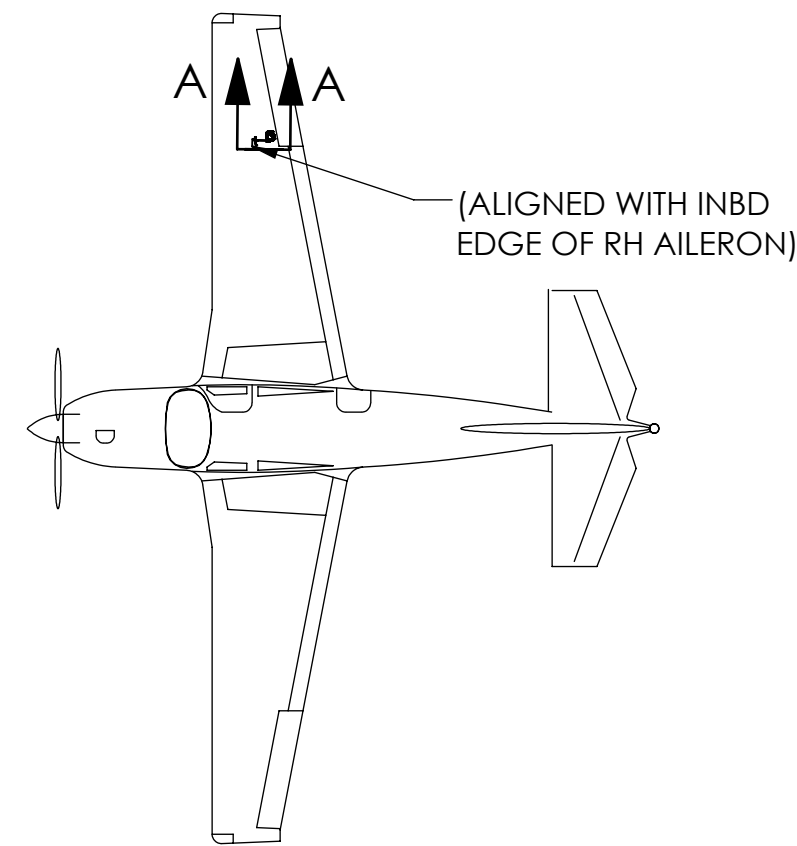
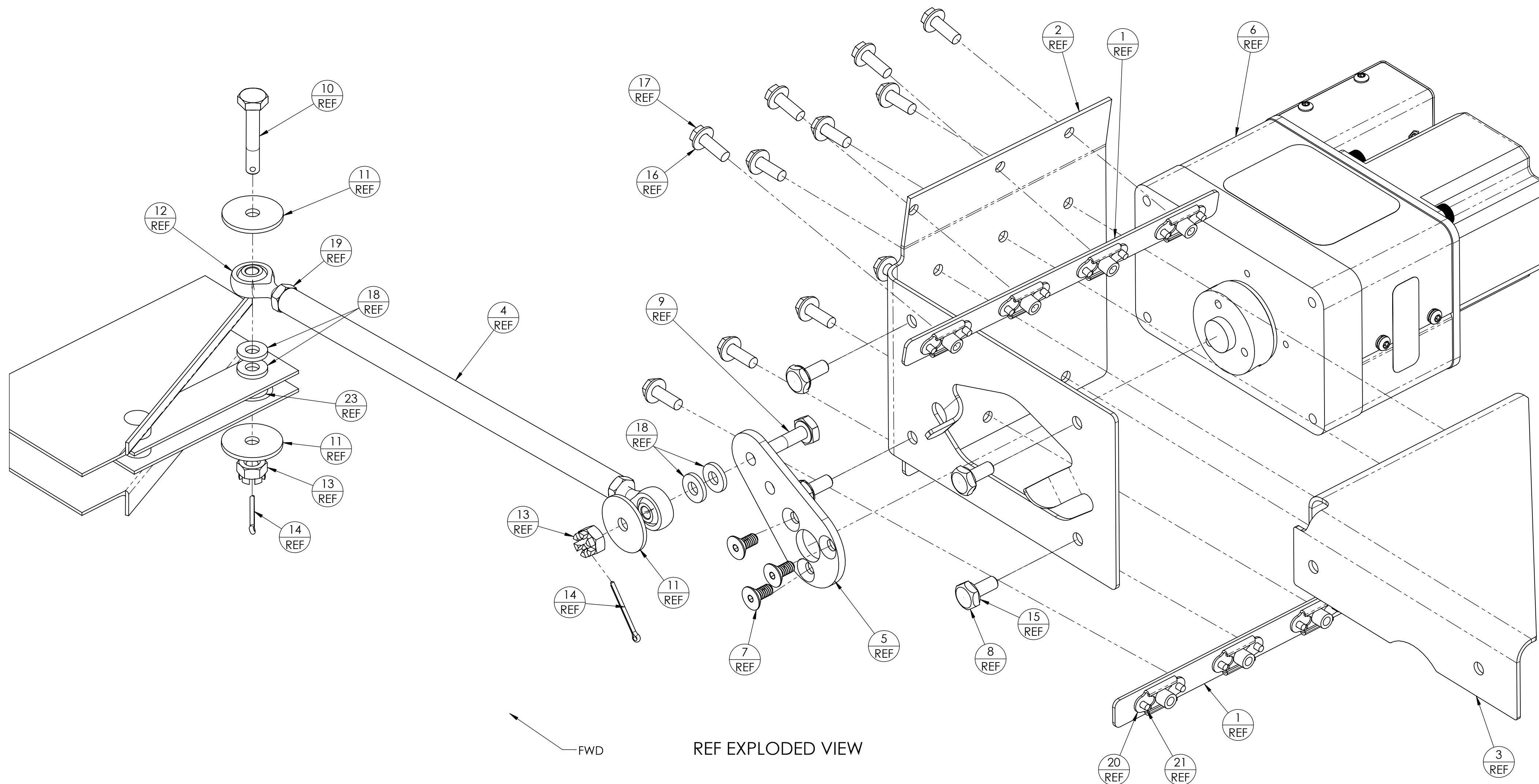


NOTES:

1. REMOVE SHARP EDGES OR BURRS.
2. TOUCH UP BARE ALUMINUM PER MIL-DTL-5541 TYPE 1, CLASS 3 OR EQUIVALENT USING ALODINE.
3. INSTALL NUTPLATES APPROXIMATELY AS SHOWN. INSTALL RIVETS PER MIL-R-47196A. REDUCED EDGE MARGIN OF 1.5D PERMISSIBLE IN THIS LOCATION ONLY.
4. LOCATE COMPONENTS AND MATCH DRILL Ø.169-.175 HOLES AS SHOWN.
5. INSTALL FASTENERS IAW MOONEY M20 STRUCTURAL REPAIR MANUAL. MAINTAIN A MINIMUM OF 2D FASTENER EDGE MARGIN AND 4D TO 6D FASTENER SPACING UNLESS OTHERWISE NOTED.
6. FASTENER LENGTHS MAY VARY UP OR DOWN ONE GRIP LENGTH IF REQUIRED TO MEET FASTENER INSTALLATION REQUIREMENTS IAW M20 SRM.
7. APPLY BLUE THREADLOCKER (LOCTITE 242 OR EQUIVALENT).
8. TORQUE 8-32 FASTENERS TO 15-20 IN-LBS AND TORQUE 10-32 FASTENERS TO 20-25 IN-LBS. APPLY TORQUE SEAL TO ALL TORQUED FASTENERS.
9. MAINTAIN ADEQUATE CLEARANCE BETWEEN ALL PUSHRODS AND FLIGHT CONTROL COMPONENTS THROUGHOUT THE FULL RANGE OF TRAVEL.
10. ENSURE ELECTRICAL BONDING AND GROUNDING OF LESS THAN 2.5 MILLIOHMS BETWEEN SERVO AND AIRCRAFT STRUCTURE PER SAE ARP1870
11. ENSURE ROD END HAS MINIMUM 12 THREADS OF ENGAGEMENT INTO PUSHROD. SECURE USING LOCTITE 271 OR EQUIVALENT.
12. TRIM PART EDGES .25 MAX TO CLEAR EXISTING STRUCTURE.
13. LOCATE PER DIMENSIONS SHOWN OR COORDINATE WITH EXISTING FASTENERS. MAINTAIN NUMBER OF FASTENERS SHOWN ON UPPER AND LOWER LONGERONS.
14. VERIFY SERVO ARM POSITION IS 5 TO 15 DEGREES AFT OF VERTICAL WHEN AILERON IS IN NEUTRAL POSITION.
15. SERVO PUSHROD TO BE ATTACHED PER DIMENSION SHOWN.
16. (DELETED)
17. VERIFY SERVO ARM DOES NOT CONTACT THE STOPS BEFORE FULL AILERON DEFLECTION, BOTH DIRECTIONS.



-501 AUTOPILOT ROLL SERVO INSTALLATION



REV	DESCRIPTION	DRAWN	CHECKED	APPROVED
IR	INITIAL RELEASE	CGP 05/07/21	D. SAM 05/07/21	D. RANKIN 05/07/21
A	REVISED INSTALLATION INSTRUCTIONS & BOM	M. BAIG 06/08/21	D. SAM 06/08/21	D. RANKIN 06/08/21
B	REVISED NOTE 11 AND BOM ITEM 22	M. BAIG 06/24/21	D. SAM 06/24/21	D. RANKIN 06/24/21
C	ADDED BOM ITEM 24	M. BAIG 07/11/21	D. SAM 07/11/21	D. RANKIN 07/11/21
D	UPDATED P/N FOR BOM ITEM 8	M. BAIG 07/21/21	D. SAM 07/21/21	D. RANKIN 07/21/21
E	UPDATED BOM AND ADDED SH 3.	M. BAIG 07/26/21	D. SAM 07/26/21	D. RANKIN 07/26/21
F	REVISED DRAWING TEMPLATE, DRAWING VIEWS AND ARRANGEMENT FOR CLARITY. REPLACED -307/-315/-325 COMPONENTS WITH -329 MOUNT BRACKET. REPLACED -309 WITH -333 GUSSET ASSEMBLY. UPDATED PART NUMBER OF SERVO ARM. DELETED NOTE 16. ADDED 12V SERVO TO BOM. ADDED ITEM 22. REVISED NOTES 3, 5 AND 15. CHANGED AN315-3 NUTS TO AN345-10. CHANGED NAS1149F0332P WASHERS TO AN960-10. CHANGED NAS1802 BOLTS TO NAS1801.	A. PRESTEL 1/30/2022	T. BAILEY 2/5/22	T. BAILEY 2/5/22

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	VENDOR
22	1	NAS43DD3-32N	SPACER	-
21	16	MS20426AD3	RIVET, CTSK, # 3 X .19"	-
20	8	MS21059L08	NUTPLATE, FLOATING, # 8-32	-
19	2	AN345-10	NUT, PLAIN, HEX	-
18	4	AN960-10	WASHER, FLAT, # 10 X .063 THK	-
17	11	NAS1801-08-08	SCREW, HEX, 8-32 X .50"	-
16	11	NAS1149FN832P	WASHER, FLAT, # 8, .032" THK	-
15	4	MS35333-39	LOCK WASHER	-
14	2	MS24665-134	COTTER PIN, .063" DIA X .75"	-
13	2	MS17825-3	CASTELLATED NUT, 10-32	-
12	2	MM-3-300	ROD END BEARING, 10-32	-
11	3	AN970-3	WASHER, LARGE O.D., # 10	-
10	1	AN3-16	BOLT, HEX, HOLE IN SHANK, 10-32 X 1.156"	-
9	1	AN3-6	BOLT, HEX, HOLE IN SHANK, 10-32 X .781"	-
8	4	AN3-3A	BOLT, HEX, 10-32 X .469"	-
7	3	2500-216	FLAT HEAD SOCKET CAP SCREW, 8-32 X .375"	-
6	1	8100-065 8100-064	PMA SERVO, 24 VOLT, 60 IN-LBS PMA SERVO, 12 VOLT, 60 IN-LBS	BENDIXKING
5	1	1420-209	SERVO ARM	BENDIXKING
4	1	2520-044	ROLL PUSHROD, 7.5 LONG	BENDIXKING
3	1	PA-201130-333	GUSSET ASSEMBLY, ROLL SERVO	BENDIXKING
2	1	PA-201130-329	MOUNT BRACKET, ROLL SERVO	BENDIXKING
1	2	PA-201130-317	METAL STRIP, STRUCTURE SUPPORT	BENDIXKING

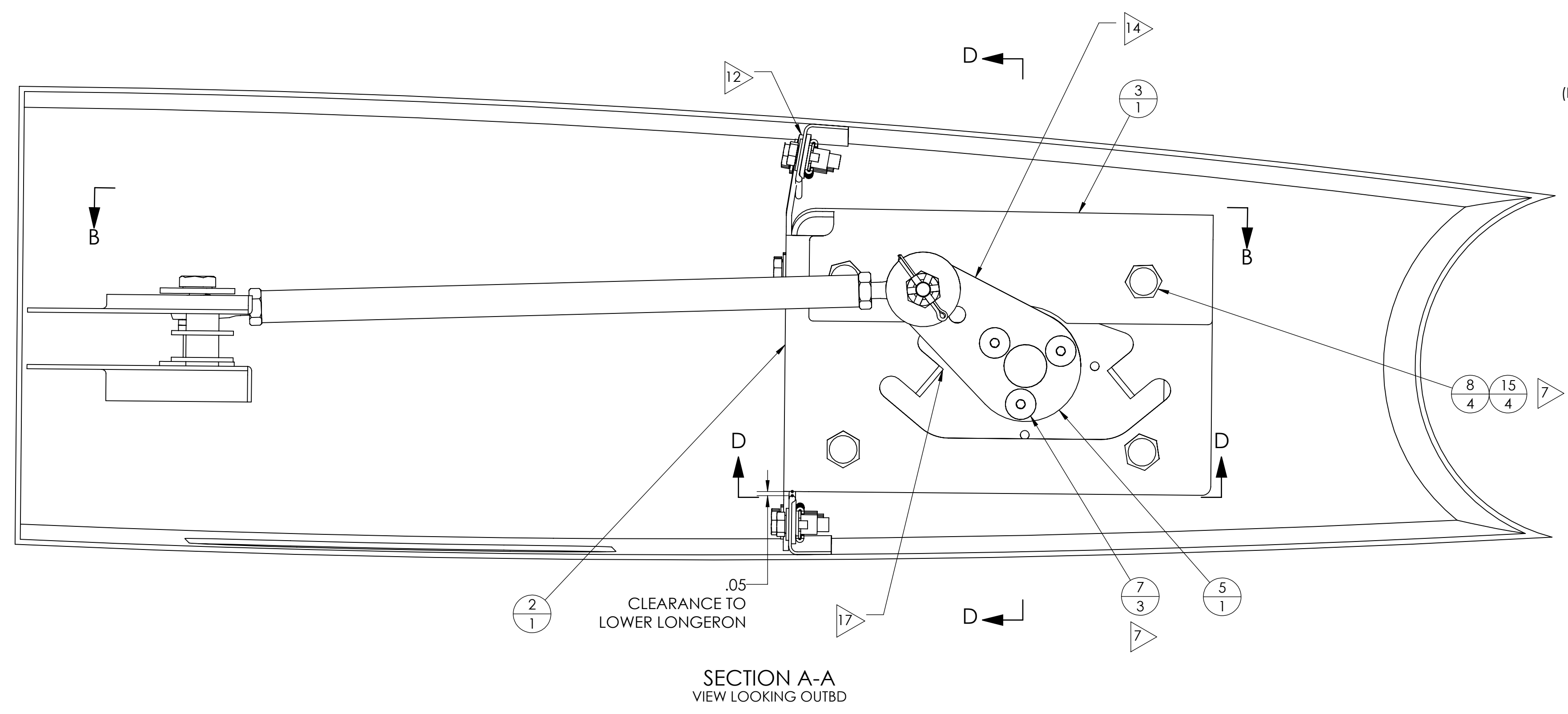
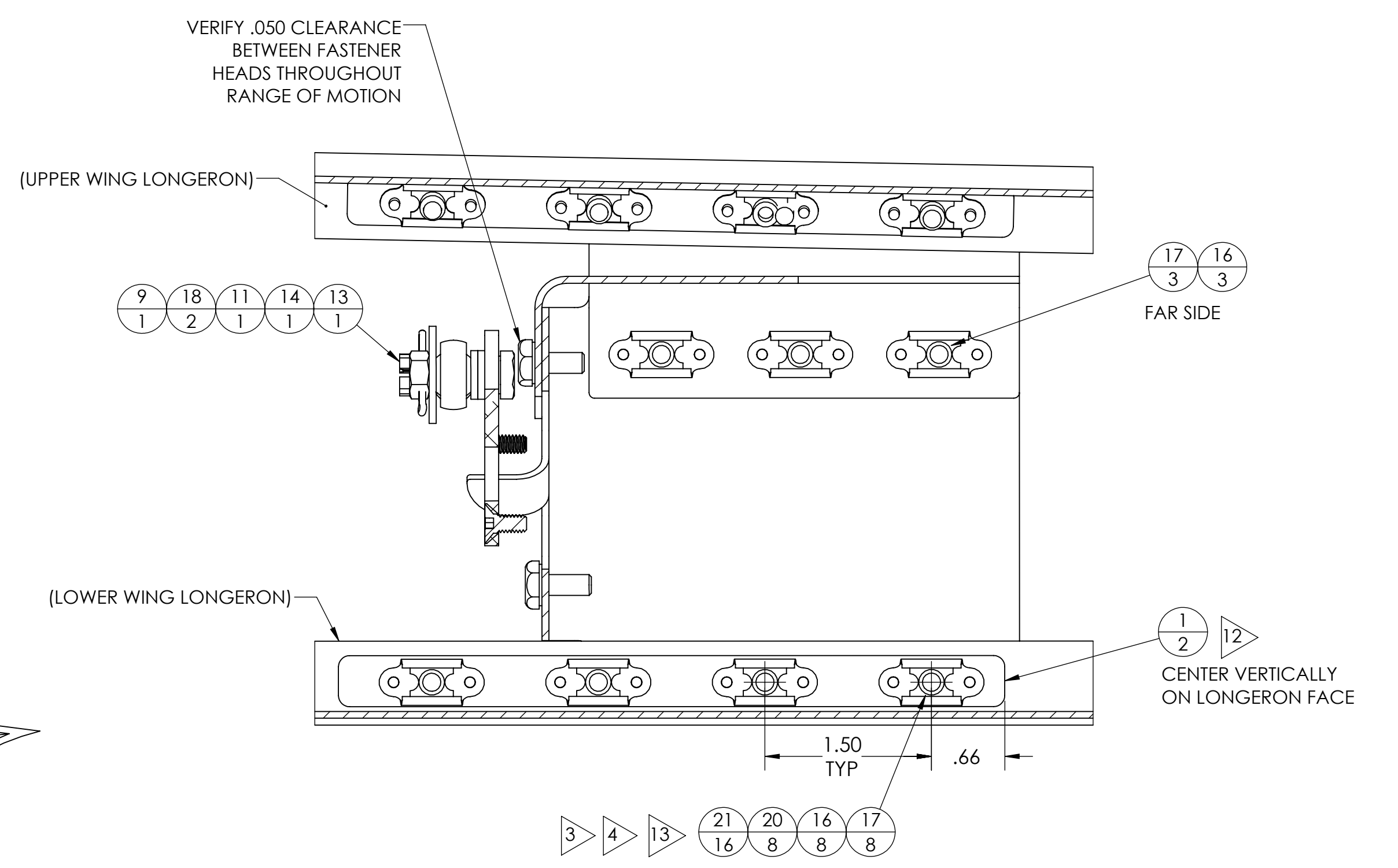
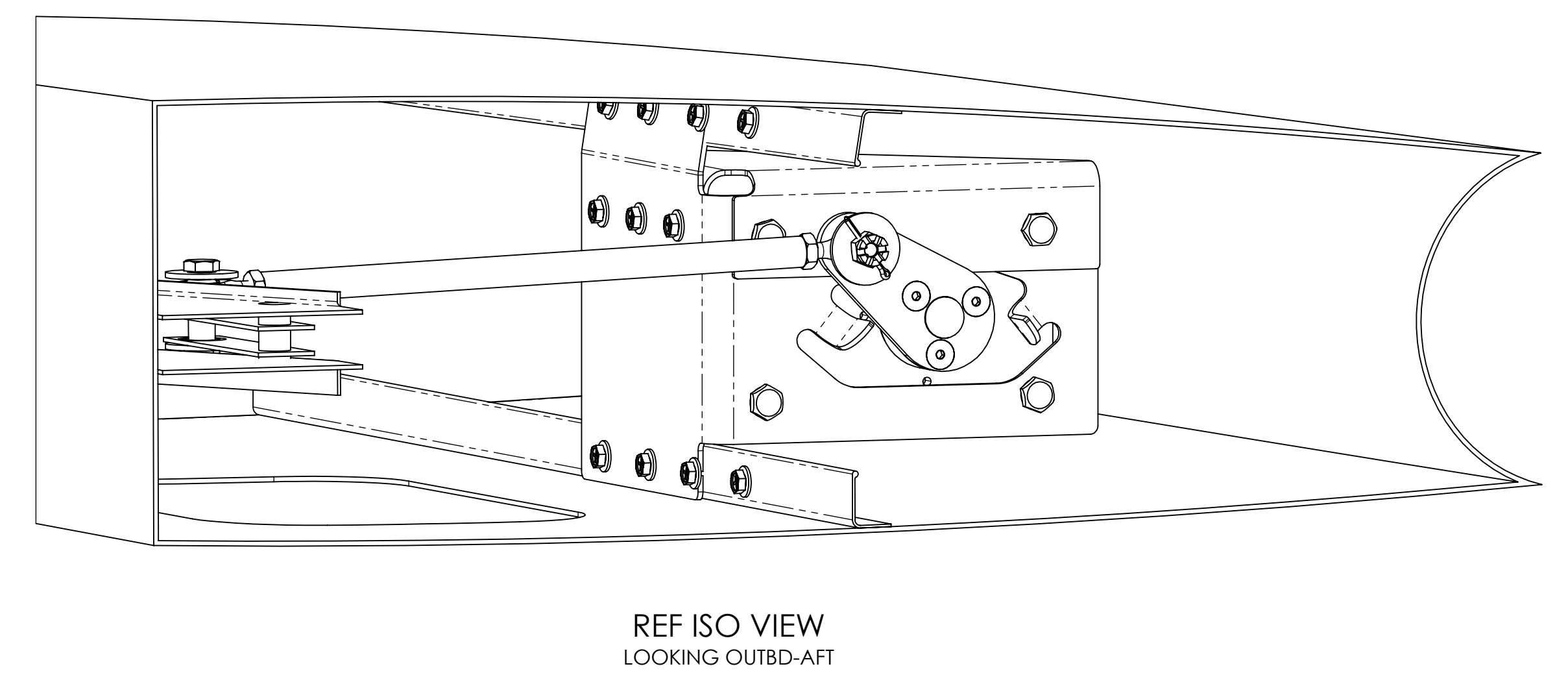
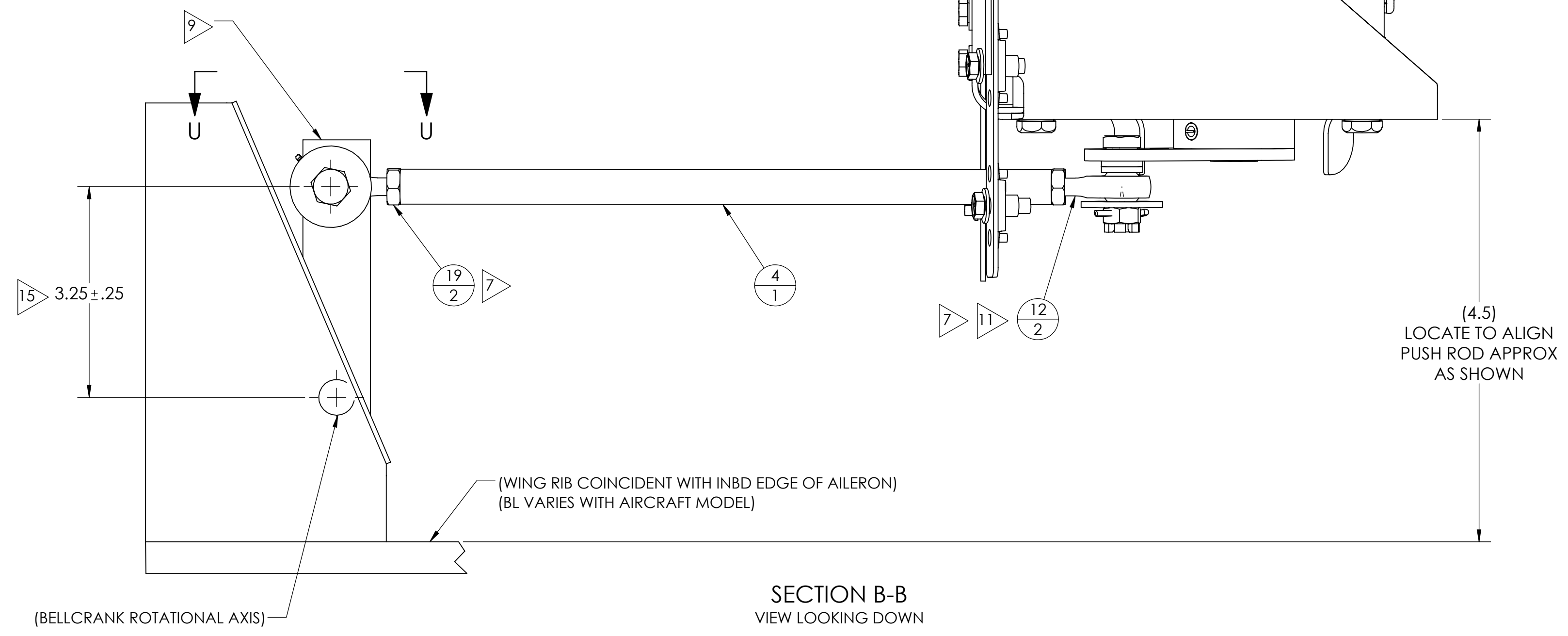
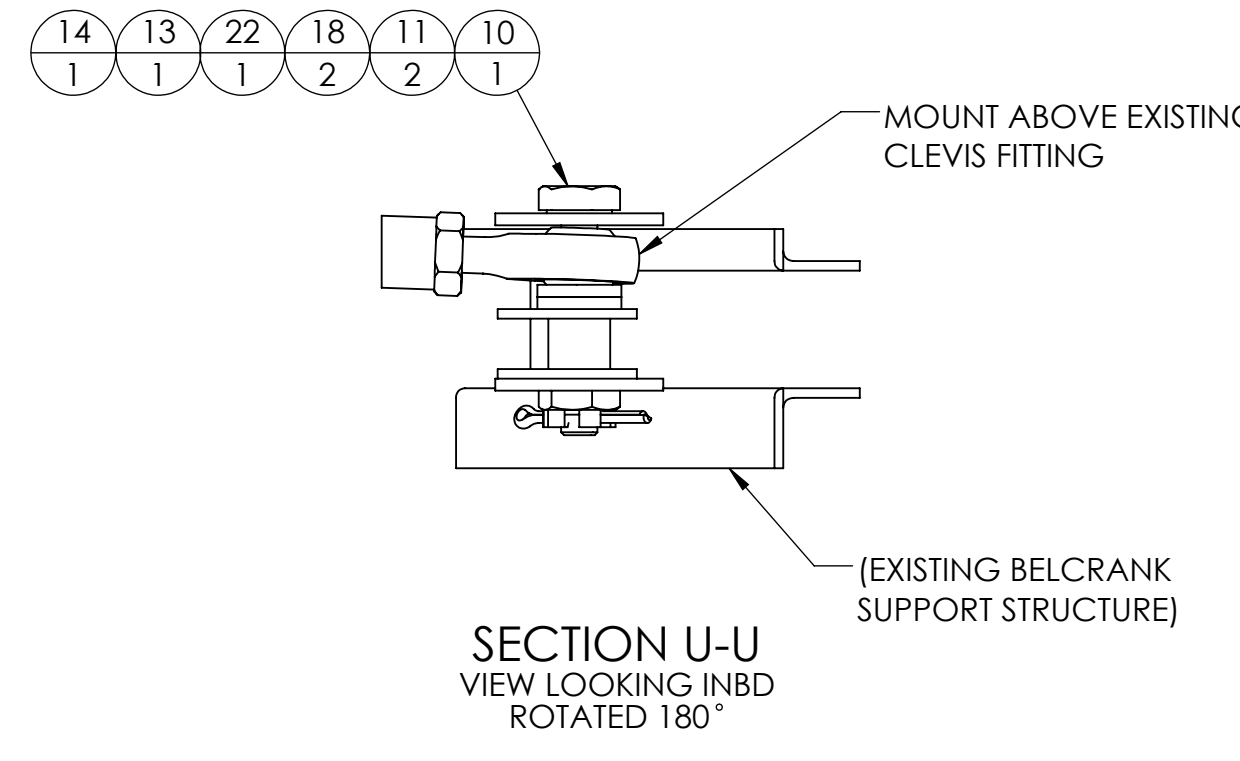
	DRAWN	CGP	05/07/21			
	CHECKED	D. SAM	05/07/21			
	RELEASED	D. RANKIN	05/07/21			
PROPRIETARY DATA NOTICE THE INFORMATION CONTAINED IN THIS DRAWING IS PROPRIETARY TO PERSEGRINE AVIONICS LLC. ANY USE, DISCLOSURE OR REPRODUCTION OF THIS DATA IN WHOLE OR IN PART WITHOUT THE WRITTEN PERMISSION OF PERSEGRINE IS PROHIBITED.				TITLE: AUTOPILOT ROLL SERVO INSTALL, MOONEY		
MATERIAL SEE NOTES				SIZE	DWG. NO.	REV
FINISH SEE NOTES				D	PA-201130-501	F
WEIGHT				SCALE: N/A	DO NOT SCALE DRAWING	SHEET 1 OF 2
NEXT ASSEMBLY						

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TITLE: AUTOPILOT ROLL SERVO INSTALL, MOONEY		
SIZE D	DWG. NO. PA-201130-501	REV F
SCALE: N/A	DO NOT SCALE DRAWING	SHEET 2 OF 2