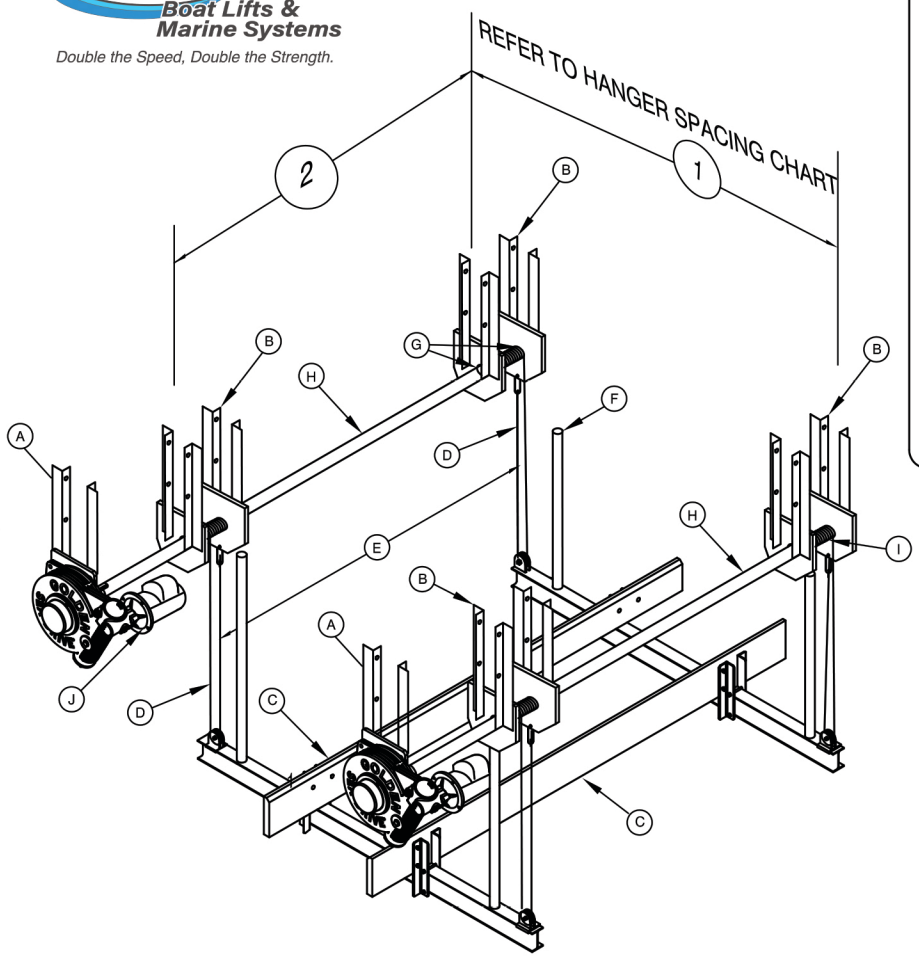
GOLDEN ENGINEERED 2 MOTOR SEA DRIVE BOAT HOUSE LIFTS

GOLDEN Boat Lifts & Marine Systems

Double the Speed, Double the Strength.



STRUCTURAL ENGINEERING REVIEW

THIS CONSTRUCTION HAS BEEN DESIGNED AS A MAIN WIND FORCE RESISTING SYSTEM, WITH CALCULATED GRAVITY AND WIND LOADS IN COMPLIANCE WITH THE FLORIDA BUILDING CODE, 8th EDITION, 2023, CHAPTERS 16 & 20, ADM 2020, AND ASCE/SEI 7-22 "MINIMUM DESIGN LOADS AND OTHER CRITERIA FOR BUILDINGS AND OTHER STRUCTURES" TO WITHSTAND THE WIND LOADS ASSOCIATED WITH AN ULTIMATE WIND SPEED OF 180 MPH, EXPOSURE "D", RISK CATEGORY I. J.L. SANDERS, P.E. HAS NO CONTROL OF THE MANUFACTURING, PERFORMANCE, OR INSTALLATION OF THIS PRODUCT. THESE GENERIC SPECIFICATIONS WERE ENGINEERED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES BASED ON DATA PROVIDED BY THE MANUFACTURER. THIS STRUCTURAL REVIEW IS LIMITED TO THE PRIMARY FRAMING AND CONNECTIONS AND IS NOT INTENDED TO COVER MECHANICAL AND ELECTRICAL COMPONENTS. THESE SPECIFICATIONS ARE BASED ON STRUCTURAL CALCULATIONS TITLED "2 MOTOR SEA DRIVE BOAT HOUSE LIFT", WHICH CONTAIN ADDITIONAL DESIGN REQUIREMENTS AND CRITERIA AND ARE AVAILABLE UPON REQUEST. THE BOAT LIFTS DEPICTED IN THESE SPECIFICATIONS AND RELATED CALCULATIONS WERE ENGINEERED AS MANUFACTURED PRODUCT FOR NON-SITE SPECIFIC USE AND NOT INTENDED TO COVER SITE SPECIFIC CONDITIONS.

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY J.L. SANDERS, PE ON THE DATE ADJACENT TO THE SEAL. PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

J.L. SANDERS LICENSE No. 66361 STATE OF FLORIDA PROFESSIONAL ENGINEER

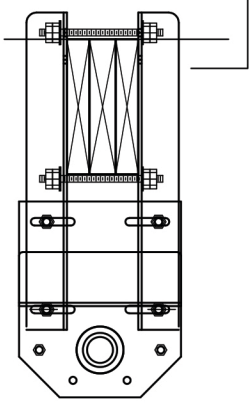
Digitally signed by J.L. Sanders
Date: 2024.03.07 16:10:22 -05'00'

J.L. Sanders, P.E.
2515 Gratis Road NW
Monroe, GA 30656
Phone: 239-671-1578

J.L. SANDERS, P.E. Reg. Florida No. 66361 Date:

6061-T6 ALUMINUM HANGER MOUNT BRACKETS- RECOMMENDED ATTACHMENT BASED ON BRACKET CONFIGURATION. VERIFY ADEQUACY BASED ON ACTUAL SITE CONDITIONS:

4-1/2" STAINLESS STEEL THRU BOLTS USED TO CONNECT THE BRACKETS TO THE SUPPORT BEAM AND 4-1/2" STAINLESS STEEL THRU BOLTS USED TO CONNECT THE BRACKETS TO THE DRIVE PLATES. SUPPORT BEAM DESIGN BY OTHERS.



HANGER SPACING CHART

The Boat Center of Gravity is to be Centered between Cradle Beams

Lift Capacity	"1" Dimension	"2" Dimension	Recommended Bolt Diameters
Lb.	In.	In.	In.
7,500	144	116.75	1/2
10,000	150		
14,000			
16,000	168		

NOTE: THIS STRUCTURE HAS BEEN DESIGNED FOR LOADS ASSOCIATED WITH AN ULTIMATE WIND SPEED OF 180 MPH,EXPOSURE "D", RISK CATEGORY I, CALCULATED PER FLORIDA BUILDING CODE 8th EDITION, 2023, ASCE/SEI 7-22 AND ADM-2020. BOATS SHALL NOT BE STORED ON LIFTS DURING HIGH WIND EVENTS.

IN GENERAL, THE HANGERS SHALL BE ATTACHED TO A SITE SPECIFIC SUPPORT BEAM STRUCTURE (DESIGN BY OTHERS). THE CONTRACTOR SHALL VERIFY ALL BEAM CAPACITIES. ALL BEAMS TO BE #2 SYP PRESSURE TREATED WOOD AS A MINIMUM . ALL STRUCTURAL MEMBERS TO BE 6061-T6 ALUMINUM UNO.

SUMMARY OF DESIGN FEATURES

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)		
LIFT CAPACITY	TOP BEAM HANGER ASSY. 4 EACH	CRADLE I-BEAM 2 EACH	BUNK INCHES	CABLE SIZE	CABLE SPREAD	GUIDE POST HEIGHT	BRGS	DRIVE SHAFT	WINDER DIA	MOTOR HP VOLTAGE	INCHES OF LIFT PER MIN	RECOM HANGER BOLT SIZE
Lbs	INCHES	INCHES		INCHES	IN							
7,500#	SUPPORT ARMS 23.5 H x 3 X 3 X 1/4" DRIVE PLATES 14.5 H x 12 X 3/4"	6 H x .19 4 W x .29 144" LGTH	2 x 8 X 144	(4) - 5/16" x 40' 40' STAINLESS STEEL 2 PART	116.75	80"	8-UT-210-31-BO	1.9" O.D. 8 GAUGE	3.5" DIAMETER ALUMINUM PIPE WITH CABLE GROOVES	(2) - 1 HP 120V/28A 240V/14A	21" to 54"	(4)1/2" DIA PER LIFT LOCATION
10,000#		8 H x .23 5 W x .35 150" LGTH								(2) - 3/4 HP 120V/28A 240V/14A		
14,000#		8 H x .25 5 W x .41 150" LGTH								(2) - 1 HP 120V/28A 240V/14A		
16,000#		10 H x .25 6 W x .41 168" LGTH	3 x 10 X 192									