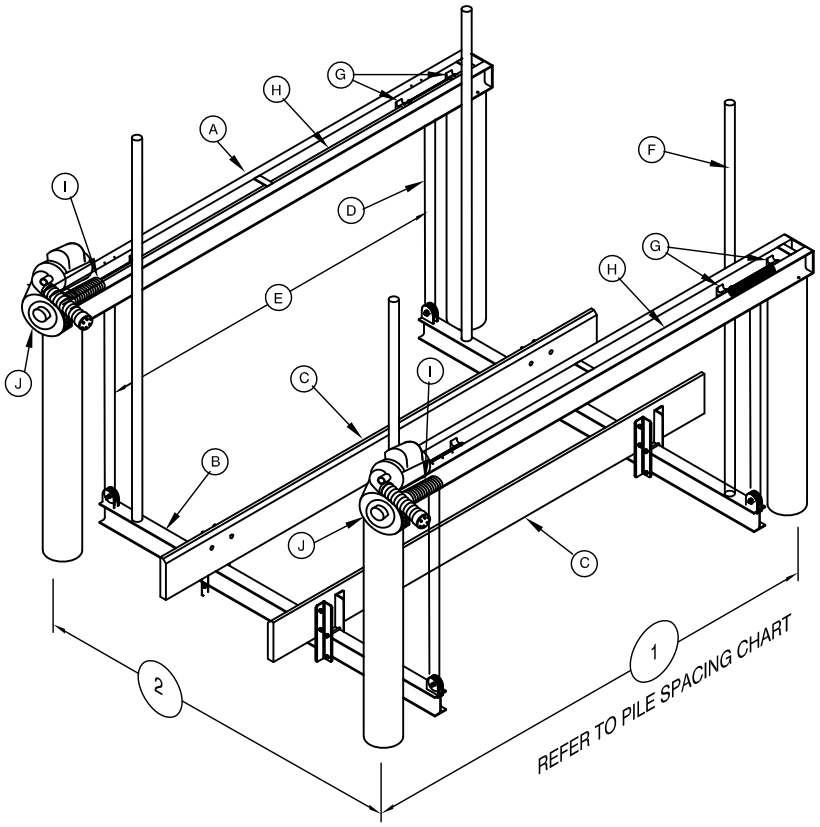
GOLDEN ENGINEERED 4 POST, 2 MOTOR SEA DRIVE BOAT LIFTS



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, ADM 2020, AND ASCE/SEI 7-22 "MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES" TO WITHSTAND THE WIND LOADS ASSOCIATED WITH AN ULTIMATE WIND SPEED OF 289 KM/HR, 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 "4 POST SEA DRIVE 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.

Digitally signed by J.L. Sanders
Date: 2024.12.16 14:05:24 -05'00'

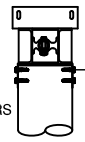
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Reg. Florida No. 66361

PILE SPACING CHART
The boat center of gravity needs to be set in the center of the top beam

Lift Capacity	"1" Dimension	"2" Dimension	Recommended Pile Diameters
KG	M	M.	mm
2,268	3.35	3.05	203
3,402	3.66	3.66	
4,536		4.17	254
5,443			
6,350			
7,257		4.27	
9,072	4.27	4.88	
10,886	4.88		
12,700			305

STAINLESS STEEL PILING MOUNT BRACKET- RECOMMENDED ATTACHMENT BASED ON BRACKET CONFIGURATION. VERIFY ADEQUACY BASED ON ACTUAL SITE CONDITIONS:
4-10 mm STAINLESS STEEL LAG SCREWS USED TO CONNECT THE BRACKETS TO THE PILING AND 2-10 mm STAINLESS STEEL CARRIAGE BOLTS USED TO CONNECT THE BRACKETS TO THE LIFT CHANNELS



NOTE: THIS STRUCTURE HAS BEEN DESIGNED FOR LOADS ASSOCIATED WITH AN ULTIMATE WIND SPEED OF 289 KM/HR,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, PILING PENETRATION TO BE A MINIMUM OF 3.05M INTO THE SAND BOTTOM OR 1.53M INTO THE ROCK STRATA. SUB-SURFACE CONDITIONS CAN VARY GREATLY, THE CONTRACTOR SHALL VERIFY ALL PILE CAPACITIES. ALL PILINGS TO BE 2.5 C.C.A. PRESSURE TREATED WOOD. ALL STRUCTURAL MEMBERS TO BE 6061-T6 ALUMINUM.

SUMMARY OF DESIGN FEATURES

LIFT CAPACITY		TOP BEAM: CHANNEL 2 PAIR EACH		CRADLE BEAM: I-BEAM 2 EACH		BUNK BOARDS 2 EACH (PT)		CABLE SIZE		CABLE SPREAD	GUIDE POST HEIGHT	BRGS	DRIVE SHAFT	WINDER DIA.	MOTOR HP	mm OF LIFT	RECOMMENDED PILING SIZES	
Lb	Kg	Inches	Mm	Inches	Mm	Inch	Mm	Inch	Mm	Mm	Mm		Mm	Mm		PER MIN	Inch	Mm
5,000#	2,268	4 H x .15 2 W x .23 141" OAL	102H x 3.8 50.8W x 5.8 3.58M OAL	6 H x .19 4 W x .29 120" LGTH	152H x 4.8 102W x 7.4 3.05M OAL	2x8x144 ROUGH SAWN CARPETED	50.8 x 203.2 x 3.66 M ROUGH SAWN CARPETED	4 - 5/16" x15' SS 1 PART	4 - 7.94mm x4.53M SS 1 PART	2,736.85mm	2032 mm	10 - 50.8 mm H.D. EXTRUDED 6061-T6 ALUM.	49.21 mm DIA. SCH 40 GALV PIPE	88.9 mm DIA SCH 80 ALUM PIPE W/ CABLE GROOVES	2 - 3/4 HP 120V/20A 240V/10A	1008 mm	8" DIA	203 mm
7,500#	3,402	5 H x .15 2.25 W x .26 x 153" OAL	127H x 3.8 57.2W x 6.6 3.89M OAL	6 H x .19 4 W x .29 144" LGTH	152H x 4.8 102W x 7.4 3.66M OAL					3,067.05mm					2 - 1 HP 120V/28A 240V/14A			
10,000#	4,536	6 H x .17 2.5 W x .29 x 153" OAL	152H x 4.3 63.5W x 7.4 3.89M OAL	8 H x .23 5 W x .35 150" LGTH	203H x 5.8 127W x 8.9 3.81M OAL			4 - 5/16" x30' SS 2 PART	4 - 7.94mm x9.14M SS 2 PART	2,965.45mm					2 - 3/4 HP 120V/20A 240V/10A	504 mm	10" DIA	254 mm
12,000#	5,443	7 H x .17 2.75 W x .29 x 153" OAL	178H x 4.3 69.9W x 7.4 3.89M OAL	8 H x .25 5 W x .41 150" LGTH	203H x 6.4 127W x 10.4 3.81M OAL													
14,000#	6,350	7 H x .17 2.75 W x .29 x 153" OAL	178H x 4.3 76.2W x 7.4 3.89M OAL	8 H x .25 5 W x .41 150" LGTH	203H x 6.4 127W x 10.4 3.81M OAL										2 - 1 HP 120V/28A 240V/14A			
16,000#	7,257	8 H x .19 3 W x .35 x 153" OAL	203H x 4.8 69.9W x 8.9 3.89M OAL	10 H x .25 6 W x .41 168" LGTH	254H x 6.4 152W x 10.4 4.27M OAL	3x10x192 ROUGH SAWN CARPETED	76.2 x 254 x 4.88 M ROUGH SAWN CARPETED				3048 mm							
20,000#	9,072	8 H x .25 3.75 W x .41 x 177 OAL	203H x 6.4 95.3W x 10.4 4.5 M OAL	10 H x .25 6 W x .41 192" LGTH	254H x 6.4 152W x 10.4 4.88M OAL			4- 5/16" x45' SS 3 PART	4 - 7.94mm x13.72M SS 3 PART	3,244.85mm			49.21 mm DIA. SCH 80 GALV PIPE			335 mm		
24,000#	10,886	8 H x .25 3.75 W x .41 x 201 OAL	203H x 6.4 95.3W x 10.4 5.11M OAL	10 H x .29 6 W x .50 192" LGTH	254H x 7.4 152W x 12.7 4.88M OAL					3,854.45mm								
28,000#	12,700	10 H x .526 2.88 W x .437 x 206 OAL	254H x 13.4 73.2W x 11.1 5.23M OAL	12 H x .29 7 W x .47 192" LGTH	305H x 7.4 178W x 11.9 4.88M OAL			4- 5/16" x60' SS 4 PART	4 - 7.94mm x18.29M SS 4 PART	3,817.94mm					2 - 1-1/2 HP 120V/30A 240V/15A	218 mm	12" DIA	305 mm