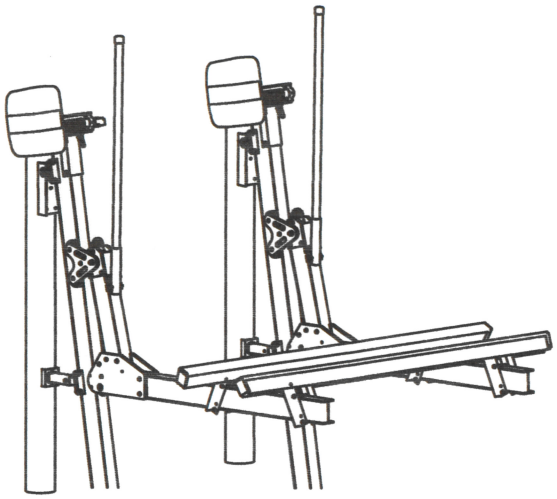
IMM QUALITY BOAT LIFTS - ELEVATOR SPECIFICATIONS

4,500# - 20,000# Vator



STRUCTURAL ENGINEERING REVIEW

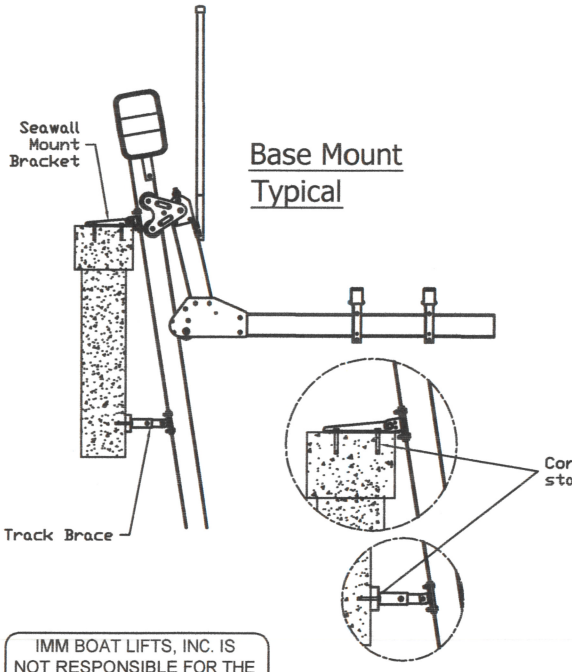
THIS CONSTRUCTION HAS BEEN DESIGNED AS A MAIN WIND FORCE RESISTING SYSTEM, WITH CALCULATED GRAVITY AND WIND LOADS IN COMPLIANCE WITH THE FLORIDA BUILDING CODE, 6th EDITION, 2017, CHAPTERS 16 AND 20, ALUMINUM DESIGN MANUAL (ADM 2015), AND ASCE/SEI 7-10 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" 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 DESIGN FEATURES 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 DESIGN FEATURES ARE BASED ON STRUCTURAL CALCULATIONS, TITLED "STRUCTURAL CALCULATIONS FOR ELEVATOR", WHICH CONTAIN ADDITIONAL DESIGN REQUIREMENTS AND CRITERIA AND ARE AVAILABLE UPON REQUEST. THE BOAT LIFTS DEPICTED BY THESE DESIGNS AND RELATED CALCULATIONS WERE ENGINEERED AS MANUFACTURED PRODUCT FOR NON-SITE SPECIFIC USE AND SHALL MEET THE DESIGN REQUIREMENTS AND INSTALLATION LIMITATIONS LISTED IN THE STRUCTURAL CALCULATIONS - IN PARTICULAR THE TRACK BEAMS SHALL BE ADEQUATELY BRACED AT NO MORE THAN 5 FT. O.C..

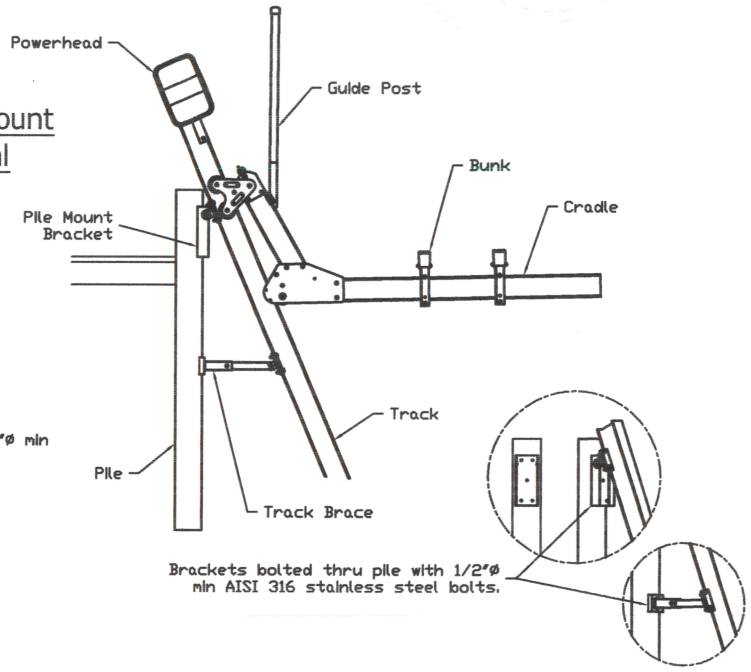
J.L. SANDERS, P.E.
2515 Gratis Road, NW
Monroe, GA 30656
Phone: 239-671-1578

J.L. Sanders 2-28-18

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

SIGNATURE NOT VALID WITHOUT RAISED SEAL





IMM BOAT LIFTS, INC. IS NOT RESPONSIBLE FOR THE DOCK STRUCTURE OR ITS ABILITY RESIST THE APPLIED LOADS OF THE BOAT LIFT. THE SITE SHOULD BE VERIFIED BY A LICENSED MARINE CONTRACTOR. APPLIED LOADS WILL BE PROVIDED UPON REQUEST.

Notes:
1. Structure designed for loads associated with an ultimate wind speed of 180 MPH, exposure "D", risk category 1, calculated for Florida Building Code 2017, ASCE/SEI 7-10 and ADM-2015.
2. Boats shall not be stored on lifts during high wind events.
3. All primary structural members to be 6061-T6 aluminum.
4. Tracks are to be driven to firm bearing material.
5. Wood piles shall comply with ASTM D25 and be southern pine, 2.5 cca marine grade pressure treated.
6. Lateral support for piles and attachment to piles shall be engineered by others for site specific conditions.

LIFT CAPACITY	CRADLE I-BEAM	TRACK I-BEAM	TRACK ANGLE OPTIONS	CABLE STD TRAVEL	CABLE EXT TRAVEL	TRACK SPREAD	GUIDE POST HEIGHT	BUNK BOARD LENGTH	DRIVE SHAFT	WINDER DIA	SPROCKET Vator/Select	Standard Speed			High Speed			TRAVEL	TRAVEL
												DRIVE RATIO	MOTOR HP/VOLTAGE	SPEED in/min	DRIVE RATIO	MOTOR HP/VOLTAGE	SPEED in/min		
4,500#	6 H x .21 4 W x .35	6 H x .21 4 W x .35 x 25'	0, 10, 23	5/16 SSAC 7x19 304 2-PART 34'	5/16 SSAC 7x19 304 2-PART 49'	108"	80"	2x8x12' Wood 12' Aluminum	2.875" O.D. 8 Gauge	3" SCH 80 Pipe	#50 Chain 60/11 t	327:1	(2) 3/4 HP 115V/230V 22/11 A	30	164:1 Vator	(2) 1-1/2 HP 230V 22 A	60	12'	20'
8,000#	8 H x .23 5 W x .35	8 H x .23 5 W x .35 25'	0, 10, 23	3/8 SSAC 6x36 304 2-PART 34'	3/8 SSAC 6x36 304 2-PART 42'														
10,000#	8 H x .25 5 W x .41	8 H x .25 5 W x .41 25'	0, 10, 23								#50 Chain 60/9 t	400:1	(2) 1 HP 230V 13A	24	200:1 Vator	(2) 2 HP 230V 25A	48		15'
13,500#	10 H x.41 6 W x .25	10 H x.41 6 W x .25 25'	0, 23	5/16 SSAC 7x19 304 4-PART 58'	5/16 SSAC 7x19 304 4-PART 98'					4" SCH 80 Pipe				16			32	11'	20'
16,000#	10 H x.50 6 W x .29	10 H x.50 6 W x .29 25'	0, 23				120"				#60 Chain 60/10 t	360:1		17	150:1 Vator		41		
20,000#	12 H x.62 7 W x .31	12 H x.62 7 W x .31 25'	0, 23	3/8 SSAC 6x36 304 4-PART 62'	3/8 SSAC 6x36 304 4-PART 82'	132"		16' Aluminum			50/10 t high speed		(2) 1-1/2 HP 230V 18A			(2) 2 HP 230V 38A			16'

DWG: 600109 Pub: Feb 28, 2018