

# M/V SUPERIOR FUTURE

## Marine Division Liftboat Specifications



# Class 175

Official No.: 1208449

Hull No.: 147

Call Sign: WDE 3022

- 175' Legs

- 4,200 Square Feet of Total Deck Area

335,000 lbs with maximum usable leg extended

- 579,000 Lbs. Variable Deckload with  
15 ft. of reserve leg above the tower

- Works In Water Depths Up To 128'  
(with 25' air gap)

- Sleeps 31 Persons, Including a Standard  
Crew Complement of 5

- Can travel with 31 Passengers minus crew

Gross Tons: 171 ITC:

Net Tons: 139

USCG Sub. L

Loyds's Load Line

Zero Discharge Capable

## Vessel Characteristics

### Hull Dimensions

Length Overall (ft.)	113.0'
Length (Barge Only) (ft.)	110'.3"
Beam Overall (ft.)	70'
Beam (Barge Only) (ft.)	69'.6"
Design Draft (ft./in.)	6.76'
Total Deck Area (sq. ft.)	5,074
Open Deck Area (sq. ft.)	2,850
Irregular working deck:	53.8' x 66'

### Leg Dimensions

Internally Braced

Number of Legs	3
Leg Length (ft.)	175'
Leg Diameter (in.)	54"
LegWall (in.)	0.75"
Leg Tower Height (ft.)	14'
Triangle:	56 P/S x 88 AFT

### Pad Dimensions

Pad Length (ft.)	26'
Pad Width (ft.)	14'
Pad Depth (ft.)	2'

Comments: Raked at both ends

### Crane Specifications

	Port	Starboard
Make	Ram	EBI
	100T@30'	26T@10'
Load Rating	200,000lbs.	52,000lbs.
Boom Type	Fixed	Telescoping
Boom Length (ft.)	100'	40-70'
Heelpin above deck:	14ft	13ft

### Propulsion Main Engines

	Port	Starboard
Make	Cat	Cat
Model	3412	3412
SHP	873	873
4ft Reduction Gears	Twin Disc MG 516	

### Generators

2 Generator Engine Make	Isuzu
Generator KW	99 kw

### Capacities

Diesel Fuel (gal.)	8,547
Lube Oil (gal.)	160
Potable Water (gal.)	13,625

### Electronic Aids & Communications

<input checked="" type="checkbox"/> Compass	<input type="checkbox"/> Cellular Phone
<input checked="" type="checkbox"/> GPS/DGPS	<input type="checkbox"/> Private Freq Radiotelephone
<input type="checkbox"/> Loran	<input checked="" type="checkbox"/> VHF Radio
<input checked="" type="checkbox"/> Radar	<input checked="" type="checkbox"/> Single Sideband Radio
<input checked="" type="checkbox"/> Fathometer	<input type="checkbox"/> GMDSS
<input checked="" type="checkbox"/> Loudhailer	
<input checked="" type="checkbox"/> Satellite Phone	

### Personnel Accommodations Features

Total Sleeping Accommodations	31
VIP Accommodations	1
Crew Accommodations	8
Contractor Accommodations	22

### Other Features

<input checked="" type="checkbox"/> VIP Office	<input checked="" type="checkbox"/> Laundry Facility
<input checked="" type="checkbox"/> Galley & Dining	<input checked="" type="checkbox"/> Air Conditioned/Heated
<input checked="" type="checkbox"/> TV Lounge	

### Performance Characteristics

Estimated Speed	6 Knots
Max Separation, Pad to Deck (ft.)	161'
Max Working Water Depth (ft.) (with 25' air gap)	128'
Min Working Water Depth (ft.)	10'
Max Jacking Sea States (ft.)	Soft Bottom 5' Hard Bottom 4'

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## LOAD CHART



Class  
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### I CRANE

#### MODEL - RAM 100 TON PORT

#### 100 FOOT BOOM

RADIUS IN FEET	BOOM ANGLE	STATIC RATING (x 1000lbs)	DYNAMIC RATING (x 1000lbs)
23	81	200.000	133.333
25	80	200.000	133.333
30	77	200.000	133.333
35	74	175.210	116.807
40	71	151.970	101.313
45	68	133.900	89.267
50	65	119.440	79.627
55	62	107.600	71.733
60	58	97.740	65.160
65	55	89.400	59.600
70	51	82.240	54.827
75	47	76.050	50.700
80	43	70.610	47.073
85	39	65.820	43.880
90	34	61.560	41.040
95	28	57.740	38.493
100	21	54.300	36.200
105	9	49.000	32.667
106	0	45.000	30.000

#### BASIS OF RATING

1. STATIC RATING ARE FOR LIFTING AND LANDING LOADS ON THE PLATFORM
2. DYNAMIC RATING ARE FOR LIFTING AND LANDING LOADS ON A FLOATING VESSEL
3. RATING DOES NOT INCLUDE WEIGHT OF HOOK BLOCK, OVERHAUL BALL, SLINGS AND RIGGING
4. LOAD CHART RADIUS FROM CENTER OF ROTATION TO CENTER OF GRAVITY OF LOAD

#### RIGGING

1. MAIN HOIST: EIGHT PART REEVING OF 1" WIRE ROPE ROTATION RESISTANT RIGHT REGULAR LAY WITH A MINIMUM BREAKING STRENGTH OF 127,000 LBS
2. AUXILIARY HOIST: ONE PART REEVING OF 3/4" WIRE ROPE ROTATION RESISTANT RIGHT REGULAR LAY WITH A MINIMUM BREAKING STRENGTH OF 69,000 LBS
3. BOOM HOIST: TEN PART REEVING OF 1" WIRE ROPE 6 X 19 EEIP IWRC (OR EQUAL) RIGHT REGULAR LAY WITH A MINIMUM BREAKING STRENGTH OF 115,000 LBS
4. PENDANT: 2" WIRE ROPE 6 X 19 EEIP IWRC RIGHT REGULAR LAY WITH A MINIMUM BREAKING STRENGTH OF 432,000 LBS EACH

**BOW TO C/L CRANE: 12 FT.**

AUXILIARY HOIST MAXIMUM SAFE WORKING LOAD  
12,000 LBS AT ALL RADII.

### II CRANE

#### MODEL - TECHCRANE T30-40-70

#### STBD

BOOM FULLY RETRACTED - 40'			
RADIUS IN FEET	BOOM ANGLE	DYNAMIC LOAD LINE	STATIC LOAD LINE
10	75.5	34900	53050
15	68.5	25550	39025
20	60	19850	30475
25	52.5	16400	25300
30	43	13650	21175
35	31	11200	17500
40	0	6650	10675

Maximum Overturning Moment (ft.-lbs.) 1,620,400  
 Corresponding Axial Force (lbs.) 66,270  
 Maximum Axial Force (lbs.) 137,380  
 Corresponding Moment (ft.-lbs.) 1,163,500  
 Basic Crane Weight (lbs.) 28,478

BOOM FULLY RETRACTED - 60'			
RADIUS IN FEET	BOOM ANGLE	DYNAMIC LOAD LINE	STATIC LOAD LINE
10	80	20100	20100
15	75.5	19850	20100
20	70.5	16000	20100
25	65.5	13350	20100
30	60	11350	17725
35	54.5	9850	15475
40	48.5	8600	13600
45	42	7700	12250
50	34	6650	10675
55	25	5600	9100
60	0	2950	5125

Maximum Overturning Moment (ft.-lbs.) 1,600,700  
 Corresponding Axial Force (lbs.) 52,650  
 Maximum Axial Force (lbs.) 92,250  
 Corresponding Moment (ft.-lbs.) 1,030,300  
 Basic Crane Weight (lbs.) 28,478

BOOM EXTENDED - 50'			
RADIUS IN FEET	BOOM ANGLE	DYNAMIC LOAD LINE	STATIC LOAD LINE
10	78	20300	20300
15	72.5	20300	20300
20	66.5	18900	20300
25	60	15350	20300
30	53.5	12950	20125
35	46	11000	17200
40	37.5	9400	14800
45	27	7900	12550
50	0	4500	7450

Maximum Overturning Moment (ft.-lbs.) 1,615,600  
 Corresponding Axial Force (lbs.) 56,400  
 Maximum Axial Force (lbs.) 95,100  
 Corresponding Moment (ft.-lbs.) 1,085,300  
 Basic Crane Weight (lbs.) 28,478

BOOM FULLY RETRACTED - 70'			
RADIUS IN FEET	BOOM ANGLE	DYNAMIC LOAD LINE	STATIC LOAD LINE
10	81.75	20100	20100
15	77.5	16850	20100
20	73	12100	18850
25	69	10050	15775
30	64.5	8400	13300
35	60	7100	11350
40	55.5	6200	10000
45	50	5250	8575
50	44.5	4600	7600
55	38.5	4050	6775
60	31.5	3600	6100
65	22.5	3200	5500
70	0	1800	3400

Maximum Overturning Moment (ft.-lbs.) 1,411,700  
 Corresponding Axial Force (lbs.) 42,290  
 Maximum Axial Force (lbs.) 92,980  
 Corresponding Moment (ft.-lbs.) 680,770  
 Basic Crane Weight (lbs.) 28,478

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