

# EZ MOOR SOFTWARE

The results of the EZ MOOR computations and a "playback" of the input data are presented in spreadsheet form. Examples of each follow:

*E Z Moor Input Data*

	<b>Project Name:</b>	
	<b>Vessel:</b>	
	<b>Location:</b>	
	<b>Date:</b>	
----- MOORING LINE DATA -----		
		Breaking Strength
		Breaking Strength
<b>Line</b>	<b>No. of</b>	<b>Size of</b>
<b>No.</b>	<b>Parts</b>	<b>Part (in.)</b>
		<b>Area per</b>
		<b>Area per</b>
		<b>per Part</b>
		<b>per Line</b>
		<b>(kips)</b>
		<b>(kips)</b>
1	2	0.0
		6.45
		0.090
		277.0
		554.0
2	2	0.0
		6.45
		0.090
		277.0
		554.0
3	2	0.0
		2.86
		0.040
		131.5
		263.0
4	2	0.0
		2.86
		0.040
		131.5
		263.0
5	2	0.0
		2.86
		0.040
		131.5
		263.0
6	2	0.0
		2.86
		0.040
		131.5
		263.0
7	2	0.0
		6.45
		0.090
		277.0
		554.0
8		0.0
		0.0

*E Z Moor Input Data*

----- MOORING LINE DATA -----						
<b>Line</b>	<b>SHIP CHOCK LOCATIONS</b>			<b>PIER BOLLARD LOCATIONS</b>		
<b>No.</b>	<b>X (ft.)</b>	<b>Y (ft.)</b>	<b>Z (ft.)</b>	<b>X (ft.)</b>	<b>Y (ft.)</b>	<b>Z (ft.)</b>
1	281.0	8.0	40.0	335.0	120.0	10.0
2	266.0	16.0	40.0	300.0	120.0	10.0
3	116.0	45.0	30.0	244.0	60.0	10.0
4	101.0	45.0	30.0	0.0	60.0	10.0
5	-188.0	45.0	30.0	-49.0	60.0	10.0
6	-49.0	45.0	30.0	-185.0	60.0	10.0
7	20.0	45.0	30.0	-185.0	60.0	10.0

# E Z Moor Input Data

## SHIP ENVIRONMENTAL LOADING

### Wind Force/Moment Input Data

#### Wind Force/Moment Input Method?

Enter "0" for Sine/Cosine Method and "1" for Discrete Value Method:

0

#### Sine/Cosine Method Input Data:

Wind Angle  $\theta_w$  (°):

90.0

Maximum Longitudinal Wind Force (lbs.):

-50,000

Maximum Side Wind Force (lbs.):

-400,000

Maximum Moment of the Side Wind Force about the Z-Axis (ft.-lbs.):

0

#### Discrete Value Method Input Data:

Longitudinal Wind Force (lbs.):

-50,000

Side Wind Force (lbs.):

0

Moment of the Side Wind Force about the Z-Axis (ft.-lbs.):

0

Values Used in Calculations

### Water Current Input Data

Longitudinal Water Current Force (lbs.):

0

Depth (below waterline) of Longitudinal Water Current Force (ft.):

0.0

Side Water Current Force (lbs.):

0

Depth (below waterline) of Side Water Current Force (ft.):

0.0

Moment of the Side Water Current Force about the Z-Axis (ft.-lbs.):

0

## TIDAL EFFECTS

Tide Change (ft.):

0.0

## WEIGHT EFFECTS

Change in Load (lbs.):

0

## E Z Moor Input Data

----- SHIP HULL DATA -----	
Ship Draft (ft.):	19.0
Longitudinal Metacenter Height above Water Plane (GML, ft.):	400.0
Transverse Metacenter Height above Water Plane (GMt, ft.):	10.0
Area of Ship at Waterline (ft. <sup>2</sup> ):	46,560.0
----- FENDER DATA -----	
X-Axis Coordinate of FORWARD Fender (ft.):	200.0
Z-Axis Coordinate of FORWARD Fender (ft.):	0.0
X-Axis Coordinate of AFT Fender (ft.):	-200.0
Z-Axis Coordinate of AFT Fender (ft.):	0.0
Sea Water Density (lb./ft. <sup>3</sup> ):	64.00

## E Z Moor Results

<b>Project Name:</b>				
<b>Vessel:</b>				
<b>Location:</b>				
<b>Date:</b>				
Line Number	LINE TENSION (kips)	BREAKING STRENGTH (kips)	Factor of Safety	SUMMARY OF EXTERNAL FORCES:
1	102.8	554.0	5.39	Total Forces in X-Axis: 0
2	125.5	554.0	4.41	Total Forces in Y-Axis: -400,000
3	0.0	263.0	N/A	Total Forces in Z-Axis: 0
4	25.8	263.0	10.18	Total Moment about X-Axis: 0
5	0.0	263.0	N/A	Total Moment about Y-Axis: 0
6	18.4	263.0	14.32	Total Moment about Z-Axis: 0
7	196.8	554.0		SUMMARY OF DISPLACEMENT:

### Mooring Line Force Components and Summations

Line Number	F(x) (kips)	F(y) (kips)	F(z) (kips)			
1	43.4	90.0	-24.1			
2	37.6	115.0	-33.2			
3	0.0	0.0	0.0			
4	-25.1	3.7	-5.0			
5	0.0	0.0	0.0			
6	-18.1	2.0	-2.7			
7	-37.9	189.3	-36.0			
8	0.0	0.0	0.0			