

## OCIMF CRITERIA REPORT

Berth: Demo Terminal 2 [test]

Symmetrical Berth 180°

Vessel: Witherbys test

Port Side, Loaded, MEG 3

Water/Tide Level: -0.50 m from LAT (vertical datum)

Controlled Depth: 15.0 m (below vertical datum)

Draught: 12.50 m Trim: 0.00 m UKC: 2.00 m

Water Depth/Draught: 1.16

***Hull Current Coefficients:***

**Coefficient Set:** MEG4 LNG Carrier 1.1

***Hull Wind Coefficients:***

**Coefficient Set:** MEG4 SIGTTO 2007  
Prismatic

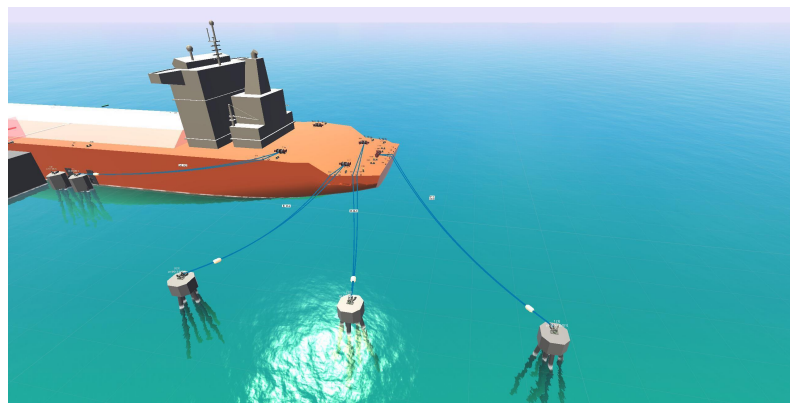
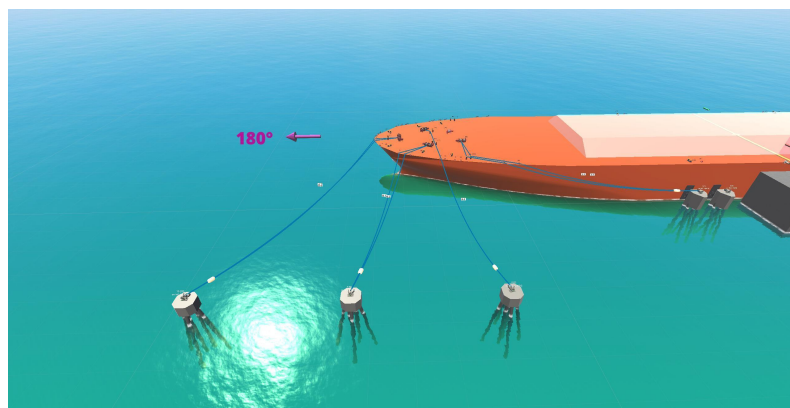
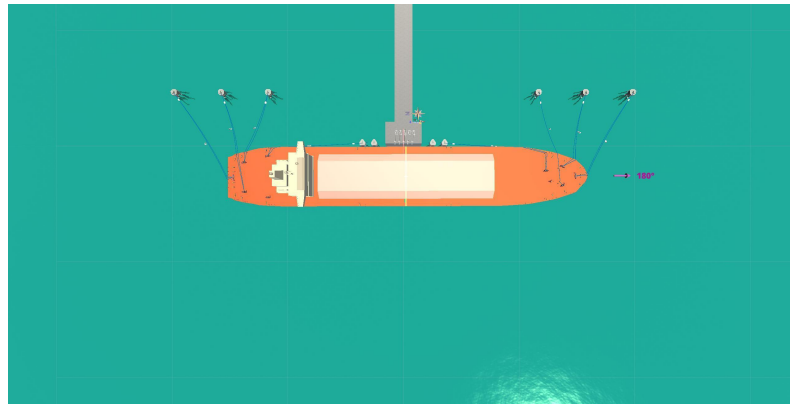
1	60 knots of wind from any direction with 3 knots of current at 0° (stern)	PASSED
2	60 knots of wind from any direction with 3 knots of current at 180° (bow)	PASSED
3	60 knots of wind from any direction with 2 knots of current at 010°	PASSED
4	60 knots of wind from any direction with 2 knots of current at 350°	FAILED
5	60 knots of wind from any direction with 2 knots of current at 170°	PASSED
6	60 knots of wind from any direction with 2 knots of current at 190°	FAILED
7	60 knots of wind from any direction with 0.75 knots of current at 090°	PASSED
8	60 knots of wind from any direction with 0.75 knots of current at 270°	FAILED

*Recommended Water depth to draft ratio 1.1 (except oil tanker in ballast: 3.0)*

*Static only (no waves, no swell).*

*Force from right astern 0° and compass angles anti-clockwise.*

Selected mooring configuration:



	Head Lines	Fwd Lines		Aft Lines		Stern Lines	Total Lines	Capacity
		Breast	Spring	Spring	Breast			
<b>Selected Configuration</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>15</b>	
Terminal Requirement	0	0	0	0	0	0	0	

# OCIMF Criteria Nr 1

**PASSED**

60 knots of wind from any direction with 3 knots of current at 0° (stern)

**Current Load** 16 t applied to the stern 0 t applied to the starboard side  
159 t·m to port

Wind Dir					Fenders		
Rel. Ship Bow	From True North	Mooring Lines Highest % MBL	Mooring Hooks Highest % SWL	Highest % Buckling Compression	Buckling Exceeded	Max Reaction Force Exceeded	
000°	180°	19% (AS 1)	20% (4)	1	None	None	
90 t applied to the bow		1 t applied to the starboard side		37 t·m to port			
015°	195°	19% (AS 1)	20% (4)	4	None	None	
87 t applied to the bow		91 t applied to the starboard side		2985 t·m to starboard			
030°	210°	17% (AS 1)	18% (4)	7	None	None	
77 t applied to the bow		219 t applied to the starboard side		5910 t·m to starboard			
045°	225°	11% (AS 1)	12% (4)	9	None	None	
54 t applied to the bow		351 t applied to the starboard side		6028 t·m to starboard			
060°	240°	5% (AB 2)	5% (3)	9	None	None	
31 t applied to the bow		430 t applied to the starboard side		4554 t·m to starboard			
075°	255°	1% (AB 2)	1% (3)	8	None	None	
16 t applied to the bow		466 t applied to the starboard side		29 t·m to port			
090°	270°	3% (FS 1)	3% (7)	11	None	None	
10 t applied to the bow		476 t applied to the starboard side		6435 t·m to port			
105°	285°	10% (FS 2)	11% (7)	14	None	None	
11 t applied to the stern		455 t applied to the starboard side		13396 t·m to port			
120°	300°	22% (FS 2)	23% (7)	16	None	None	
43 t applied to the stern		411 t applied to the starboard side		19221 t·m to port			
135°	315°	32% (FS 2)	33% (7)	16	None	None	
70 t applied to the stern		331 t applied to the starboard side		21389 t·m to port			
150°	330°	36% (FS 2)	38% (7)	12	None	None	
86 t applied to the stern		217 t applied to the starboard side		18100 t·m to port			
165°	345°	34% (FS 2)	36% (7)	7	None	None	
90 t applied to the stern		97 t applied to the starboard side		9385 t·m to port			
180°	000°	29% (FS 2)	31% (7)	3	None	None	
85 t applied to the stern		0 t applied to the starboard side		46 t·m to port			

195°	015°	25% (FS 2)	26% (7)	0	None	None
90 t applied to the stern		98 t applied to the port side		9277 t·m to starboard		
210°	030°	31% (St 2)	32% (1)	0	None	None
86 t applied to the stern		219 t applied to the port side		18025 t·m to starboard		
225°	045°	37% (St 2)	38% (1)	0	None	None
70 t applied to the stern		332 t applied to the port side		21250 t·m to starboard		
240°	060°	41% (AB 2)	43% (3)	0	None	None
43 t applied to the stern		412 t applied to the port side		19112 t·m to starboard		
255°	075°	44% (AB 2)	46% (3)	0	None	None
11 t applied to the stern		455 t applied to the port side		13351 t·m to starboard		
270°	090°	44% (FB 1)	47% (9)	0	None	None
10 t applied to the bow		476 t applied to the port side		6424 t·m to starboard		
285°	105°	48% (FB 1)	50% (9)	0	None	None
16 t applied to the bow		466 t applied to the port side		32 t·m to starboard		
300°	120°	47% (FB 1)	50% (9)	0	None	None
31 t applied to the bow		430 t applied to the port side		4502 t·m to port		
315°	135°	41% (FB 1)	43% (9)	0	None	None
54 t applied to the bow		351 t applied to the port side		5920 t·m to port		
330°	150°	29% (FB 2)	30% (9)	0	None	None
77 t applied to the bow		219 t applied to the port side		5751 t·m to port		
345°	165°	15% (AB 2)	16% (3)	0	None	None
87 t applied to the bow		91 t applied to the port side		2812 t·m to port		

## OCIMF Criteria Nr 1 Lines/Hooks

Line	Worst Wind Direction			Tension (t)	% MBL Tension	Inclination (°)	Mooring Point	% SWL Tension
	Rel to Bow	From True N						
Headline 1	300°	120°		36	28	6	10	10
Headline 2	300°	120°		36	28	6	10	10
Fwd Breast Line 1	285°	105°		63	48	8	9	17
Fwd Breast Line 2	285°	105°		62	47	8	9	17
Fwd Breast Line 3	285°	105°		54	41	9	8	14
Fwd Spring Line 1	150°	330°		47	36	7	7	19
Fwd Spring Line 2	150°	330°		47	36	8	7	19
Aft Spring Line 1	000°	180°		25	19	7	4	10
Aft Spring Line 2	000°	180°		25	19	7	4	10
Aft Breast Line 1	255°	075°		49	37	4	3	13
Aft Breast Line 2	255°	075°		58	44	4	3	15
Aft Breast Line 3	240°	060°		50	38	4	2	13
Aft Breast Line 4	240°	060°		50	38	4	2	13
Sternline 1	240°	060°		49	37	3	1	13
Sternline 2	240°	060°		50	38	3	1	13

## OCIMF Criteria Nr 1 Fenders

Fender	Worst Wind Direction			Thrust (t)	% Max Reaction Force (t)	Compression Distance (m)	Contact Area (%)
	Rel to Bow	From True N					
F1	120°	300°		253.2	23	0.14	100
F2	120°	300°		192.2	17	0.11	100
F3	060°	240°		134.1	12	0.08	100
F4	060°	240°		143.5	13	0.08	100

## OCIMF Criteria Nr 1 Movement

Max Surge						Max Sway					
Fwd (m)	Wind (N)	Wind (Bow)	Aft (m)	Wind (N)	Wind (Bow)	In (m)	Wind (N)	Wind (Bow)	Out (m)	Wind (N)	Wind (Bow)
1.6	330°	150°	1.0	180°	000°	0.1	270°	090°	1.7	090°	270°

## OCIMF Criteria Nr 2

**PASSED**

60 knots of wind from any direction with 3 knots of current at 180° (bow)

**Current Load** 11 t applied to the bow  
135 t·m to starboard

0 t applied to the port side

Wind Dir					Fenders		
Rel. Ship Bow	From True North	Mooring Lines Highest % MBL	Mooring Hooks Highest % SWL	Highest % Buckling Compression	Buckling Exceeded	Max Reaction Force Exceeded	
000°	180°	27% (AS 1)	28% (4)	2	None	None	
		90 t applied to the bow	1 t applied to the starboard side	38 t·m to port			
015°	195°	26% (AS 1)	28% (4)	4	None	None	
		87 t applied to the bow	91 t applied to the starboard side	2984 t·m to starboard			
030°	210°	24% (AS 1)	26% (4)	7	None	None	
		77 t applied to the bow	219 t applied to the starboard side	5910 t·m to starboard			
045°	225°	19% (AS 1)	20% (4)	9	None	None	
		54 t applied to the bow	351 t applied to the starboard side	6028 t·m to starboard			
060°	240°	12% (AS 1)	13% (4)	9	None	None	
		31 t applied to the bow	430 t applied to the starboard side	4553 t·m to starboard			
075°	255°	8% (AS 1)	8% (4)	8	None	None	
		16 t applied to the bow	466 t applied to the starboard side	29 t·m to port			
090°	270°	5% (AS 1)	6% (4)	11	None	None	
		10 t applied to the bow	476 t applied to the starboard side	6434 t·m to port			
105°	285°	5% (FB 1)	5% (9)	14	None	None	
		11 t applied to the stern	455 t applied to the starboard side	13396 t·m to port			
120°	300°	13% (FS 2)	14% (7)	16	None	None	
		43 t applied to the stern	411 t applied to the starboard side	19218 t·m to port			
135°	315°	24% (FS 2)	25% (7)	15	None	None	
		70 t applied to the stern	331 t applied to the starboard side	21389 t·m to port			
150°	330°	28% (FS 2)	29% (7)	12	None	None	
		86 t applied to the stern	217 t applied to the starboard side	18111 t·m to port			
165°	345°	27% (FS 2)	28% (7)	7	None	None	
		90 t applied to the stern	98 t applied to the starboard side	9401 t·m to port			
180°	000°	22% (FS 2)	23% (7)	2	None	None	
		85 t applied to the stern	1 t applied to the starboard side	62 t·m to port			

195°	015°	19% (St 2)	20% (1)	0	None	None
90 t applied to the stern		98 t applied to the port side		9276 t·m to starboard		
210°	030°	28% (AB 2)	30% (1)	0	None	None
86 t applied to the stern		219 t applied to the port side		18021 t·m to starboard		
225°	045°	37% (AB 2)	38% (3)	0	None	None
70 t applied to the stern		332 t applied to the port side		21250 t·m to starboard		
240°	060°	45% (AB 2)	47% (3)	0	None	None
43 t applied to the stern		412 t applied to the port side		19115 t·m to starboard		
255°	075°	48% (AB 2)	50% (3)	0	None	None
11 t applied to the stern		455 t applied to the port side		13358 t·m to starboard		
270°	090°	47% (AB 2)	49% (3)	0	None	None
10 t applied to the bow		476 t applied to the port side		6431 t·m to starboard		
285°	105°	48% (FB 1)	50% (9)	0	None	None
16 t applied to the bow		466 t applied to the port side		39 t·m to starboard		
300°	120°	47% (FB 2)	49% (9)	0	None	None
31 t applied to the bow		430 t applied to the port side		4500 t·m to port		
315°	135°	41% (FB 2)	43% (9)	0	None	None
54 t applied to the bow		351 t applied to the port side		5920 t·m to port		
330°	150°	29% (FB 2)	30% (9)	0	None	None
77 t applied to the bow		219 t applied to the port side		5755 t·m to port		
345°	165°	24% (AS 1)	25% (4)	0	None	None
87 t applied to the bow		91 t applied to the port side		2811 t·m to port		



## OCIMF Criteria Nr 2 Lines/Hooks

Line	Worst Wind Direction			Tension (t)	% MBL Tension	Inclination (°)	Mooring Point	% SWL Tension
	Rel to Bow	From True N						
Headline 1	300°	120°		38	29	6	10	10
Headline 2	300°	120°		38	29	6	10	10
Fwd Breast Line 1	285°	105°		62	48	8	9	17
Fwd Breast Line 2	285°	105°		62	48	8	9	17
Fwd Breast Line 3	285°	105°		51	39	9	8	13
Fwd Spring Line 1	150°	330°		36	28	8	7	15
Fwd Spring Line 2	150°	330°		37	28	8	7	15
Aft Spring Line 1	000°	180°		35	27	7	4	14
Aft Spring Line 2	000°	180°		34	26	7	4	14
Aft Breast Line 1	255°	075°		53	40	4	3	14
Aft Breast Line 2	255°	075°		63	48	4	3	17
Aft Breast Line 3	240°	060°		49	38	4	2	13
Aft Breast Line 4	240°	060°		50	38	4	2	13
Sternline 1	240°	060°		46	35	3	1	12
Sternline 2	240°	060°		46	35	3	1	12

## OCIMF Criteria Nr 2 Fenders

Fender	Worst Wind Direction			Thrust (t)	% Max Reaction Force (t)	Compression Distance (m)	Contact Area (%)
	Rel to Bow	From True N					
F1	120°	300°		251.6	23	0.14	100
F2	120°	300°		195.3	18	0.11	100
F3	060°	240°		136.2	12	0.08	100
F4	060°	240°		145.0	13	0.08	100

## OCIMF Criteria Nr 2 Movement

Max Surge						Max Sway					
Fwd (m)	Wind (N)	Wind (Bow)	Aft (m)	Wind (N)	Wind (Bow)	In (m)	Wind (N)	Wind (Bow)	Out (m)	Wind (N)	Wind (Bow)
1.3	330°	150°	1.3	180°	000°	0.1	270°	090°	1.7	090°	270°

## OCIMF Criteria Nr 3

**PASSED**

60 knots of wind from any direction with 2 knots of current at 010°

**Current Load** 3 t applied to the stern  
8311 t·m to port

69 t applied to the starboard side

Wind Dir					Fenders		
Rel. Ship Bow	From True North	Mooring Lines Highest % MBL	Mooring Hooks Highest % SWL	Highest % Buckling Compression	Buckling Exceeded	Max Reaction Force Exceeded	
000°	180°	22% (AS 1)	23% (4)	5	None	None	
90 t applied to the bow		1 t applied to the starboard side		24 t·m to port			
015°	195°	22% (AS 1)	23% (4)	6	None	None	
87 t applied to the bow		91 t applied to the starboard side		2994 t·m to starboard			
030°	210°	20% (AS 1)	21% (4)	7	None	None	
77 t applied to the bow		220 t applied to the starboard side		5918 t·m to starboard			
045°	225°	14% (AS 1)	15% (4)	8	None	None	
54 t applied to the bow		352 t applied to the starboard side		6027 t·m to starboard			
060°	240°	8% (AS 1)	8% (4)	10	None	None	
31 t applied to the bow		431 t applied to the starboard side		4542 t·m to starboard			
075°	255°	5% (FB 2)	5% (9)	13	None	None	
16 t applied to the bow		466 t applied to the starboard side		52 t·m to port			
090°	270°	6% (FB 1)	6% (9)	16	None	None	
10 t applied to the bow		476 t applied to the starboard side		6463 t·m to port			
105°	285°	8% (FB 1)	9% (9)	20	None	None	
11 t applied to the stern		454 t applied to the starboard side		13437 t·m to port			
120°	300°	20% (FS 2)	21% (7)	21	None	None	
43 t applied to the stern		411 t applied to the starboard side		19250 t·m to port			
135°	315°	31% (FS 2)	32% (7)	20	None	None	
71 t applied to the stern		331 t applied to the starboard side		21389 t·m to port			
150°	330°	35% (FS 2)	37% (7)	16	None	None	
87 t applied to the stern		216 t applied to the starboard side		18038 t·m to port			
165°	345°	34% (FS 2)	35% (7)	11	None	None	
90 t applied to the stern		97 t applied to the starboard side		9313 t·m to port			
180°	000°	29% (FS 2)	30% (7)	6	None	None	
85 t applied to the stern		0 t applied to the port side		22 t·m to starboard			

195°	015°	27% (FS 2)	28% (7)	1	None	None
90 t applied to the stern		99 t applied to the port side			9358 t·m to starboard	
210°	030°	23% (St 2)	24% (1)	0	None	None
86 t applied to the stern		219 t applied to the port side			18062 t·m to starboard	
225°	045°	28% (St 2)	30% (1)	0	None	None
70 t applied to the stern		333 t applied to the port side			21250 t·m to starboard	
240°	060°	32% (AB 2)	33% (3)	0	None	None
42 t applied to the stern		412 t applied to the port side			19098 t·m to starboard	
255°	075°	37% (FB 1)	38% (9)	0	None	None
11 t applied to the stern		455 t applied to the port side			13324 t·m to starboard	
270°	090°	44% (FB 1)	46% (9)	0	None	None
10 t applied to the bow		476 t applied to the port side			6397 t·m to starboard	
285°	105°	47% (FB 1)	49% (9)	0	None	None
16 t applied to the bow		466 t applied to the port side			8 t·m to starboard	
300°	120°	46% (FB 1)	49% (9)	0	None	None
31 t applied to the bow		430 t applied to the port side			4511 t·m to port	
315°	135°	40% (FB 1)	42% (9)	0	None	None
55 t applied to the bow		350 t applied to the port side			5921 t·m to port	
330°	150°	28% (FB 2)	29% (9)	0	None	None
77 t applied to the bow		218 t applied to the port side			5733 t·m to port	
345°	165°	19% (FB 2)	20% (9)	4	None	None
87 t applied to the bow		90 t applied to the port side			2790 t·m to port	

## OCIMF Criteria Nr 3 Lines/Hooks

Line	Worst Wind Direction			Tension (t)	% MBL Tension	Inclination (°)	Mooring Point	% SWL Tension
	Rel to Bow	From True N						
Headline 1	300°	120°		36	28	6	10	10
Headline 2	300°	120°		36	28	6	10	10
Fwd Breast Line 1	285°	105°		61	47	8	9	16
Fwd Breast Line 2	285°	105°		61	46	8	9	16
Fwd Breast Line 3	285°	105°		52	39	9	8	14
Fwd Spring Line 1	150°	330°		46	35	8	7	18
Fwd Spring Line 2	150°	330°		46	35	8	7	18
Aft Spring Line 1	015°	195°		29	22	7	4	11
Aft Spring Line 2	015°	195°		28	22	7	4	11
Aft Breast Line 1	255°	075°		37	28	4	3	10
Aft Breast Line 2	255°	075°		46	35	4	3	12
Aft Breast Line 3	240°	060°		39	30	4	2	10
Aft Breast Line 4	240°	060°		39	30	4	2	10
Sternline 1	240°	060°		38	29	3	1	10
Sternline 2	240°	060°		39	30	3	1	10

## OCIMF Criteria Nr 3 Fenders

Fender	Worst Wind Direction			Thrust (t)	% Max Reaction Force (t)	Compression Distance (m)	Contact Area (%)
	Rel to Bow	From True N					
F1	120°	300°		320.5	29	0.18	100
F2	105°	285°		248.2	22	0.14	100
F3	060°	240°		110.0	10	0.06	100
F4	060°	240°		101.8	9	0.06	100

## OCIMF Criteria Nr 3 Movement

Max Surge						Max Sway					
Fwd (m)	Wind (N)	Wind (Bow)	Aft (m)	Wind (N)	Wind (Bow)	In (m)	Wind (N)	Wind (Bow)	Out (m)	Wind (N)	Wind (Bow)
1.5	330°	150°	1.2	180°	000°	0.1	270°	090°	1.5	090°	270°

## OCIMF Criteria Nr 4

**FAILED**

60 knots of wind from any direction with 2 knots of current at 350°

**Current Load** 3 t applied to the stern  
8219 t·m to starboard

68 t applied to the port side

Wind Dir		Mooring Lines Highest % MBL	Mooring Hooks Highest % SWL	Fenders		
Rel. Ship Bow	From True North			Highest % Buckling Compression	Buckling Exceeded	Max Reaction Force Exceeded
000°	180°	25% (AB 2)	26% (3)	1	None	None
90 t applied to the bow		0 t applied to the port side		66 t·m to port		
015°	195°	24% (AB 2)	25% (3)	5	None	None
87 t applied to the bow		90 t applied to the starboard side		2957 t·m to starboard		
030°	210°	21% (AS 1)	23% (4)	8	None	None
77 t applied to the bow		218 t applied to the starboard side		5886 t·m to starboard		
045°	225°	16% (AS 1)	16% (4)	11	None	None
54 t applied to the bow		351 t applied to the starboard side		6029 t·m to starboard		
060°	240°	10% (AB 2)	10% (3)	12	None	None
31 t applied to the bow		430 t applied to the starboard side		4561 t·m to starboard		
075°	255°	6% (AB 2)	6% (3)	11	None	None
16 t applied to the bow		466 t applied to the starboard side		7 t·m to port		
090°	270°	3% (AB 2)	3% (3)	8	None	None
10 t applied to the bow		476 t applied to the starboard side		6406 t·m to port		
105°	285°	5% (FS 2)	5% (7)	9	None	None
11 t applied to the stern		455 t applied to the starboard side		13370 t·m to port		
120°	300°	15% (FS 2)	16% (7)	12	None	None
43 t applied to the stern		412 t applied to the starboard side		19195 t·m to port		
135°	315°	25% (FS 2)	26% (7)	11	None	None
70 t applied to the stern		332 t applied to the starboard side		21390 t·m to port		
150°	330°	30% (FS 2)	31% (7)	8	None	None
86 t applied to the stern		218 t applied to the starboard side		18169 t·m to port		
165°	345°	27% (FS 2)	29% (7)	3	None	None
90 t applied to the stern		98 t applied to the starboard side		9468 t·m to port		
180°	000°	21% (FS 2)	22% (7)	1	None	None
85 t applied to the stern		1 t applied to the starboard side		146 t·m to port		

195°	015°	27% (St 2)	29% (1)	0	None	None
90 t applied to the stern		98 t applied to the port side		9230 t·m to starboard		
210°	030°	36% (St 2)	38% (1)	0	None	None
86 t applied to the stern		218 t applied to the port side		17985 t·m to starboard		
225°	045°	45% (AB 2)	48% (3)	0	None	None
70 t applied to the stern		332 t applied to the port side		21249 t·m to starboard		
240°	060°	54% (AB 2)	56% (3)	0	None	None
43 t applied to the stern		411 t applied to the port side		19129 t·m to starboard		
255°	075°	57% (AB 2)	60% (3)	0	None	None
11 t applied to the stern		454 t applied to the port side		13385 t·m to starboard		
270°	090°	56% (AB 2)	59% (3)	0	None	None
10 t applied to the bow		476 t applied to the port side		6460 t·m to starboard		
285°	105°	52% (AB 2)	54% (3)	0	None	None
16 t applied to the bow		466 t applied to the port side		62 t·m to starboard		
300°	120°	49% (FB 2)	51% (9)	0	None	None
31 t applied to the bow		430 t applied to the port side		4492 t·m to port		
315°	135°	43% (FB 2)	45% (9)	0	None	None
54 t applied to the bow		351 t applied to the port side		5919 t·m to port		
330°	150°	36% (AB 2)	37% (3)	0	None	None
77 t applied to the bow		220 t applied to the port side		5764 t·m to port		
345°	165°	29% (AB 2)	31% (3)	0	None	None
87 t applied to the bow		92 t applied to the port side		2831 t·m to port		

## OCIMF Criteria Nr 4 Lines/Hooks

Line	Worst Wind Direction			Tension (t)	% MBL Tension	Inclination (°)	Mooring Point	% SWL Tension
	Rel to Bow	From True N						
Headline 1	300°	120°		38	29	6	10	10
Headline 2	300°	120°		38	29	6	10	10
Fwd Breast Line 1	285°	105°		64	49	8	9	17
Fwd Breast Line 2	285°	105°		64	49	8	9	17
Fwd Breast Line 3	285°	105°		53	41	9	8	14
Fwd Spring Line 1	150°	330°		38	29	7	7	15
Fwd Spring Line 2	150°	330°		39	30	8	7	15
Aft Spring Line 1	000°	180°		31	24	7	4	13
Aft Spring Line 2	000°	180°		31	24	7	4	12
Aft Breast Line 1	255°	075°		65	50	4	3	17
Aft Breast Line 2	255°	075°		75	57	4	3	20
Aft Breast Line 3	240°	060°		60	46	4	2	16
Aft Breast Line 4	240°	060°		61	46	4	2	16
Sternline 1	240°	060°		57	43	3	1	15
Sternline 2	240°	060°		57	44	3	1	15

## OCIMF Criteria Nr 4 Fenders

Fender	Worst Wind Direction			Thrust (t)	% Max Reaction Force (t)	Compression Distance (m)	Contact Area (%)
	Rel to Bow	From True N					
F1	120°	300°		179.8	16	0.10	100
F2	120°	300°		154.2	14	0.09	100
F3	060°	240°		160.8	14	0.09	100
F4	060°	240°		187.1	17	0.11	100

## OCIMF Criteria Nr 4 Movement

Max Surge						Max Sway					
Fwd (m)	Wind (N)	Wind (Bow)	Aft (m)	Wind (N)	Wind (Bow)	In (m)	Wind (N)	Wind (Bow)	Out (m)	Wind (N)	Wind (Bow)
1.4	330°	150°	1.1	180°	000°	0.1	270°	090°	1.9	090°	270°

# OCIMF Criteria Nr 5

**PASSED**

60 knots of wind from any direction with 2 knots of current at 170°

**Current Load** 6 t applied to the bow  
7507 t·m to starboard

136 t applied to the starboard side

Wind Dir		Mooring Lines Highest % MBL	Mooring Hooks Highest % SWL	Fenders		
Rel. Ship Bow	From True North			Highest % Buckling Compression	Buckling Exceeded	Max Reaction Force Exceeded
000°	180°	26% (AS 1)	27% (4)	7	None	None
90 t applied to the bow		1 t applied to the starboard side		46 t·m to port		
015°	195°	26% (AS 1)	27% (4)	9	None	None
87 t applied to the bow		90 t applied to the starboard side		2976 t·m to starboard		
030°	210°	24% (AS 1)	25% (4)	12	None	None
77 t applied to the bow		219 t applied to the starboard side		5901 t·m to starboard		
045°	225°	18% (AS 1)	19% (4)	14	None	None
54 t applied to the bow		351 t applied to the starboard side		6029 t·m to starboard		
060°	240°	12% (AS 1)	12% (4)	15	None	None
31 t applied to the bow		430 t applied to the starboard side		4560 t·m to starboard		
075°	255°	7% (AS 1)	7% (4)	13	None	None
16 t applied to the bow		466 t applied to the starboard side		10 t·m to port		
090°	270°	5% (AS 1)	5% (4)	10	None	None
10 t applied to the bow		476 t applied to the starboard side		6410 t·m to port		
105°	285°	3% (FS 1)	3% (7)	12	None	None
11 t applied to the stern		455 t applied to the starboard side		13371 t·m to port		
120°	300°	13% (FS 2)	14% (7)	15	None	None
43 t applied to the stern		412 t applied to the starboard side		19195 t·m to port		
135°	315°	21% (FS 2)	23% (7)	15	None	None
70 t applied to the stern		333 t applied to the starboard side		21390 t·m to port		
150°	330°	25% (FS 2)	26% (7)	12	None	None
86 t applied to the stern		219 t applied to the starboard side		18215 t·m to port		
165°	345°	24% (FS 2)	26% (7)	7	None	None
90 t applied to the stern		98 t applied to the starboard side		9488 t·m to port		
180°	000°	21% (FS 2)	22% (7)	5	None	None
85 t applied to the stern		1 t applied to the starboard side		103 t·m to port		



195°	015°	21% (St 2)	22% (1)	6	None	None
90 t applied to the stern		97 t applied to the port side		9207 t·m to starboard		
210°	030°	29% (St 2)	30% (1)	5	None	None
86 t applied to the stern		217 t applied to the port side		17903 t·m to starboard		
225°	045°	31% (St 2)	33% (1)	1	None	None
71 t applied to the stern		331 t applied to the port side		21248 t·m to starboard		
240°	060°	39% (AB 2)	41% (3)	0	None	None
43 t applied to the stern		411 t applied to the port side		19142 t·m to starboard		
255°	075°	42% (AB 2)	44% (3)	0	None	None
11 t applied to the stern		454 t applied to the port side		13405 t·m to starboard		
270°	090°	41% (AB 2)	43% (3)	0	None	None
10 t applied to the bow		476 t applied to the port side		6479 t·m to starboard		
285°	105°	36% (AB 2)	38% (3)	0	None	None
16 t applied to the bow		466 t applied to the port side		76 t·m to starboard		
300°	120°	32% (AB 2)	33% (3)	0	None	None
31 t applied to the bow		430 t applied to the port side		4486 t·m to port		
315°	135°	28% (AB 2)	29% (3)	0	None	None
54 t applied to the bow		352 t applied to the port side		5918 t·m to port		
330°	150°	20% (AS 1)	21% (4)	0	None	None
77 t applied to the bow		220 t applied to the port side		5765 t·m to port		
345°	165°	24% (AS 1)	26% (4)	4	None	None
87 t applied to the bow		91 t applied to the port side		2822 t·m to port		

## OCIMF Criteria Nr 5 Lines/Hooks

Line	Worst Wind Direction		Tension (t)	% MBL Tension	Inclination (°)	Mooring Point	% SWL Tension
	Rel to Bow	From True N					
Headline 1	300°	120°	22	17	6	10	6
Headline 2	300°	120°	22	17	6	10	6
Fwd Breast Line 1	285°	105°	39	30	8	9	11
Fwd Breast Line 2	285°	105°	40	30	8	9	11
Fwd Breast Line 3	285°	105°	29	22	9	8	8
Fwd Spring Line 1	150°	330°	33	25	8	7	13
Fwd Spring Line 2	150°	330°	33	25	8	7	13
Aft Spring Line 1	000°	180°	34	26	7	4	14
Aft Spring Line 2	000°	180°	34	26	7	4	13
Aft Breast Line 1	255°	075°	45	34	4	3	12
Aft Breast Line 2	255°	075°	55	42	4	3	15
Aft Breast Line 3	240°	060°	41	31	4	2	11
Aft Breast Line 4	240°	060°	41	32	4	2	11
Sternline 1	225°	045°	41	31	3	1	11
Sternline 2	225°	045°	41	31	3	1	11

## OCIMF Criteria Nr 5 Fenders

Fender	Worst Wind Direction		Thrust (t)	% Max Reaction Force (t)	Compression Distance (m)	Contact Area (%)
	Rel to Bow	From True N				
F1	135°	315°	235.8	21	0.13	100
F2	120°	300°	207.1	19	0.12	100
F3	060°	240°	206.2	19	0.12	100
F4	060°	240°	229.4	21	0.13	100

## OCIMF Criteria Nr 5 Movement

Max Surge						Max Sway					
Fwd (m)	Wind (N)	Wind (Bow)	Aft (m)	Wind (N)	Wind (Bow)	In (m)	Wind (N)	Wind (Bow)	Out (m)	Wind (N)	Wind (Bow)
1.3	330°	150°	1.3	180°	000°	0.1	270°	090°	1.2	090°	270°

## OCIMF Criteria Nr 6

**FAILED**

60 knots of wind from any direction with 2 knots of current at 190°

**Current Load** 6 t applied to the bow  
7478 t·m to port

135 t applied to the port side

Wind Dir					Fenders	
Rel. Ship Bow	From True North	Mooring Lines Highest % MBL	Mooring Hooks Highest % SWL	Highest % Buckling Compression	Buckling Exceeded	Max Reaction Force Exceeded
000°	180°	22% (FB 2)	23% (9)	0	None	None
		90 t applied to the bow	1 t applied to the starboard side	22 t·m to port		
015°	195°	24% (AS 1)	25% (4)	2	None	None
		87 t applied to the bow	91 t applied to the starboard side	2998 t·m to starboard		
030°	210°	22% (AS 1)	24% (4)	3	None	None
		77 t applied to the bow	220 t applied to the starboard side	5918 t·m to starboard		
045°	225°	17% (AS 1)	18% (4)	5	None	None
		54 t applied to the bow	352 t applied to the starboard side	6027 t·m to starboard		
060°	240°	10% (AS 1)	11% (4)	7	None	None
		31 t applied to the bow	431 t applied to the starboard side	4544 t·m to starboard		
075°	255°	6% (AS 1)	6% (4)	9	None	None
		16 t applied to the bow	466 t applied to the starboard side	49 t·m to port		
090°	270°	7% (FB 2)	7% (9)	13	None	None
		10 t applied to the bow	476 t applied to the starboard side	6463 t·m to port		
105°	285°	14% (FB 1)	15% (9)	15	None	None
		12 t applied to the stern	454 t applied to the starboard side	13475 t·m to port		
120°	300°	21% (FB 3)	22% (8)	16	None	None
		43 t applied to the stern	410 t applied to the starboard side	19269 t·m to port		
135°	315°	30% (FS 2)	32% (7)	15	None	None
		71 t applied to the stern	330 t applied to the starboard side	21388 t·m to port		
150°	330°	35% (FS 2)	37% (7)	11	None	None
		87 t applied to the stern	216 t applied to the starboard side	17997 t·m to port		
165°	345°	33% (FS 2)	35% (7)	4	None	None
		90 t applied to the stern	96 t applied to the starboard side	9258 t·m to port		
180°	000°	25% (FS 2)	26% (7)	0	None	None
		85 t applied to the stern	0 t applied to the port side	39 t·m to starboard		

195°	015°	26% (FB 3)	28% (8)	0	None	None
90 t applied to the stern		99 t applied to the port side		9379 t·m to starboard		
210°	030°	34% (St 2)	36% (1)	0	None	None
86 t applied to the stern		220 t applied to the port side		18091 t·m to starboard		
225°	045°	41% (AB 2)	43% (3)	0	None	None
70 t applied to the stern		333 t applied to the port side		21251 t·m to starboard		
240°	060°	49% (AB 2)	51% (3)	0	None	None
42 t applied to the stern		412 t applied to the port side		19092 t·m to starboard		
255°	075°	55% (FB 1)	58% (9)	0	None	None
11 t applied to the stern		455 t applied to the port side		13312 t·m to starboard		
270°	090°	62% (FB 1)	65% (9)	0	None	None
10 t applied to the bow		476 t applied to the port side		6386 t·m to starboard		
285°	105°	65% (FB 1)	68% (9)	0	None	None
16 t applied to the bow		466 t applied to the port side		1 t·m to starboard		
300°	120°	65% (FB 1)	68% (9)	0	None	None
31 t applied to the bow		430 t applied to the port side		4513 t·m to port		
315°	135°	59% (FB 2)	61% (9)	0	None	None
55 t applied to the bow		350 t applied to the port side		5921 t·m to port		
330°	150°	46% (FB 2)	49% (9)	0	None	None
77 t applied to the bow		218 t applied to the port side		5733 t·m to port		
345°	165°	33% (FB 2)	34% (9)	0	None	None
87 t applied to the bow		90 t applied to the port side		2796 t·m to port		

## OCIMF Criteria Nr 6 Lines/Hooks

Line	Worst Wind Direction			Tension (t)	% MBL Tension	Inclination (°)	Mooring Point	% SWL Tension
	Rel to Bow	From True N						
Headline 1	300°	120°		54	41	6	10	14
Headline 2	300°	120°		54	41	6	10	14
Fwd Breast Line 1	285°	105°		85	65	8	9	23
Fwd Breast Line 2	285°	105°		85	65	8	9	23
Fwd Breast Line 3	285°	105°		73	56	9	8	20
Fwd Spring Line 1	150°	330°		46	35	7	7	18
Fwd Spring Line 2	150°	330°		46	35	8	7	18
Aft Spring Line 1	015°	195°		31	24	7	4	12
Aft Spring Line 2	015°	195°		31	23	7	4	12
Aft Breast Line 1	255°	075°		59	45	4	3	16
Aft Breast Line 2	255°	075°		68	52	4	3	18
Aft Breast Line 3	240°	060°		58	44	4	2	15
Aft Breast Line 4	240°	060°		58	44	4	2	15
Sternline 1	240°	060°		54	41	3	1	14
Sternline 2	240°	060°		55	42	3	1	15

## OCIMF Criteria Nr 6 Fenders

Fender	Worst Wind Direction			Thrust (t)	% Max Reaction Force (t)	Compression Distance (m)	Contact Area (%)
	Rel to Bow	From True N					
F1	120°	300°		251.4	23	0.14	100
F2	090°	270°		165.2	15	0.09	100
F3	060°	240°		64.9	6	0.04	100
F4	060°	240°		58.7	5	0.03	100

## OCIMF Criteria Nr 6 Movement

Max Surge						Max Sway					
Fwd (m)	Wind (N)	Wind (Bow)	Aft (m)	Wind (N)	Wind (Bow)	In (m)	Wind (N)	Wind (Bow)	Out (m)	Wind (N)	Wind (Bow)
1.5	330°	150°	1.3	195°	015°	0.1	255°	075°	2.2	090°	270°

# OCIMF Criteria Nr 7

**PASSED**

60 knots of wind from any direction with 0.75 knots of current at 090°

**Current Load** 1 t applied to the stern  
199 t·m to port

82 t applied to the starboard side

Wind Dir					Fenders		
Rel. Ship Bow	From True North	Mooring Lines Highest % MBL	Mooring Hooks Highest % SWL	Highest % Buckling Compression	Buckling Exceeded	Max Reaction Force Exceeded	
000°	180°	23% (AS 1)	24% (4)	3	None	None	
90 t applied to the bow		1 t applied to the starboard side			37 t·m to port		
015°	195°	23% (AS 1)	24% (4)	5	None	None	
87 t applied to the bow		91 t applied to the starboard side			2985 t·m to starboard		
030°	210°	21% (AS 1)	22% (4)	8	None	None	
77 t applied to the bow		219 t applied to the starboard side			5910 t·m to starboard		
045°	225°	15% (AS 1)	16% (4)	10	None	None	
54 t applied to the bow		351 t applied to the starboard side			6028 t·m to starboard		
060°	240°	9% (AS 1)	9% (4)	10	None	None	
31 t applied to the bow		430 t applied to the starboard side			4553 t·m to starboard		
075°	255°	4% (AS 1)	4% (4)	9	None	None	
16 t applied to the bow		466 t applied to the starboard side			30 t·m to port		
090°	270°	4% (FB 1)	4% (9)	13	None	None	
10 t applied to the bow		476 t applied to the starboard side			6436 t·m to port		
105°	285°	6% (FS 2)	6% (7)	16	None	None	
11 t applied to the stern		455 t applied to the starboard side			13397 t·m to port		
120°	300°	17% (FS 2)	17% (7)	18	None	None	
43 t applied to the stern		412 t applied to the starboard side			19210 t·m to port		
135°	315°	27% (FS 2)	28% (7)	17	None	None	
70 t applied to the stern		332 t applied to the starboard side			21390 t·m to port		
150°	330°	31% (FS 2)	33% (7)	14	None	None	
86 t applied to the stern		217 t applied to the starboard side			18126 t·m to port		
165°	345°	29% (FS 2)	31% (7)	9	None	None	
90 t applied to the stern		98 t applied to the starboard side			9419 t·m to port		
180°	000°	25% (FS 2)	26% (7)	4	None	None	
85 t applied to the stern		1 t applied to the starboard side			69 t·m to port		

195°	015°	22% (FS 2)	23% (7)	3	None	None
90 t applied to the stern		98 t applied to the port side			9273 t·m to starboard	
210°	030°	26% (St 2)	27% (1)	0	None	None
86 t applied to the stern		217 t applied to the port side			17950 t·m to starboard	
225°	045°	30% (St 2)	32% (1)	0	None	None
70 t applied to the stern		332 t applied to the port side			21250 t·m to starboard	
240°	060°	37% (AB 2)	38% (3)	0	None	None
43 t applied to the stern		412 t applied to the port side			19118 t·m to starboard	
255°	075°	40% (AB 2)	42% (3)	0	None	None
11 t applied to the stern		455 t applied to the port side			13363 t·m to starboard	
270°	090°	39% (AB 2)	41% (3)	0	None	None
10 t applied to the bow		476 t applied to the port side			6436 t·m to starboard	
285°	105°	40% (FB 1)	42% (9)	0	None	None
16 t applied to the bow		466 t applied to the port side			41 t·m to starboard	
300°	120°	40% (FB 1)	42% (9)	0	None	None
31 t applied to the bow		430 t applied to the port side			4499 t·m to port	
315°	135°	34% (FB 2)	35% (9)	0	None	None
54 t applied to the bow		351 t applied to the port side			5920 t·m to port	
330°	150°	21% (FB 2)	22% (9)	0	None	None
77 t applied to the bow		219 t applied to the port side			5755 t·m to port	
345°	165°	22% (AS 1)	23% (4)	2	None	None
87 t applied to the bow		91 t applied to the port side			2812 t·m to port	

## OCIMF Criteria Nr 7 Lines/Hooks

Line	Worst Wind Direction			Tension (t)	% MBL Tension	Inclination (°)	Mooring Point	% SWL Tension
	Rel to Bow	From True N						
Headline 1	300°	120°		31	23	6	10	8
Headline 2	300°	120°		31	23	6	10	8
Fwd Breast Line 1	285°	105°		53	40	8	9	14
Fwd Breast Line 2	285°	105°		53	40	8	9	14
Fwd Breast Line 3	285°	105°		43	32	9	8	11
Fwd Spring Line 1	150°	330°		40	31	8	7	16
Fwd Spring Line 2	150°	330°		41	31	8	7	16
Aft Spring Line 1	000°	180°		30	23	7	4	12
Aft Spring Line 2	000°	180°		30	23	7	4	12
Aft Breast Line 1	255°	075°		43	33	4	3	11
Aft Breast Line 2	255°	075°		52	40	4	3	14
Aft Breast Line 3	240°	060°		42	32	4	2	11
Aft Breast Line 4	240°	060°		42	32	4	2	11
Sternline 1	240°	060°		41	31	3	1	11
Sternline 2	240°	060°		41	31	3	1	11

## OCIMF Criteria Nr 7 Fenders

Fender	Worst Wind Direction			Thrust (t)	% Max Reaction Force (t)	Compression Distance (m)	Contact Area (%)
	Rel to Bow	From True N					
F1	120°	300°		279.8	25	0.16	100
F2	120°	300°		235.5	21	0.13	100
F3	060°	240°		153.8	14	0.09	100
F4	060°	240°		162.1	15	0.09	100

## OCIMF Criteria Nr 7 Movement

Max Surge						Max Sway					
Fwd (m)	Wind (N)	Wind (Bow)	Aft (m)	Wind (N)	Wind (Bow)	In (m)	Wind (N)	Wind (Bow)	Out (m)	Wind (N)	Wind (Bow)
1.4	330°	150°	1.2	180°	000°	0.1	270°	090°	1.4	090°	270°



## OCIMF Criteria Nr 8

**FAILED**

60 knots of wind from any direction with 0.75 knots of current at 270°

**Current Load** 1 t applied to the stern  
198 t·m to starboard

82 t applied to the port side

Wind Dir		Mooring Lines Highest % MBL	Mooring Hooks Highest % SWL	Fenders		
Rel. Ship Bow	From True North			Highest % Buckling Compression	Buckling Exceeded	Max Reaction Force Exceeded
000°	180°	22% (AS 1)	23% (4)	0	None	None
90 t applied to the bow		1 t applied to the starboard side		42 t·m to port		
015°	195°	23% (AS 1)	24% (4)	3	None	None
87 t applied to the bow		91 t applied to the starboard side		2983 t·m to starboard		
030°	210°	21% (AS 1)	22% (4)	6	None	None
77 t applied to the bow		219 t applied to the starboard side		5910 t·m to starboard		
045°	225°	15% (AS 1)	16% (4)	8	None	None
54 t applied to the bow		351 t applied to the starboard side		6028 t·m to starboard		
060°	240°	9% (AS 1)	9% (4)	8	None	None
31 t applied to the bow		430 t applied to the starboard side		4554 t·m to starboard		
075°	255°	4% (AS 1)	4% (4)	6	None	None
16 t applied to the bow		466 t applied to the starboard side		29 t·m to port		
090°	270°	4% (FB 1)	4% (9)	10	None	None
10 t applied to the bow		476 t applied to the starboard side		6434 t·m to port		
105°	285°	6% (FS 2)	6% (7)	13	None	None
11 t applied to the stern		455 t applied to the starboard side		13397 t·m to port		
120°	300°	18% (FS 2)	19% (7)	15	None	None
43 t applied to the stern		411 t applied to the starboard side		19233 t·m to port		
135°	315°	28% (FS 2)	30% (7)	14	None	None
70 t applied to the stern		331 t applied to the starboard side		21389 t·m to port		
150°	330°	33% (FS 2)	35% (7)	10	None	None
86 t applied to the stern		217 t applied to the starboard side		18073 t·m to port		
165°	345°	31% (FS 2)	33% (7)	5	None	None
90 t applied to the stern		97 t applied to the starboard side		9360 t·m to port		
180°	000°	25% (FS 2)	26% (7)	0	None	None
85 t applied to the stern		0 t applied to the starboard side		32 t·m to port		

195°	015°	24% (St 2)	25% (1)	0	None	None
90 t applied to the stern		99 t applied to the port side		9313 t·m to starboard		
210°	030°	34% (St 2)	36% (1)	0	None	None
86 t applied to the stern		219 t applied to the port side		18040 t·m to starboard		
225°	045°	41% (AB 2)	43% (3)	0	None	None
70 t applied to the stern		333 t applied to the port side		21250 t·m to starboard		
240°	060°	49% (AB 2)	52% (3)	0	None	None
43 t applied to the stern		412 t applied to the port side		19110 t·m to starboard		
255°	075°	52% (AB 2)	55% (3)	0	None	None
11 t applied to the stern		455 t applied to the port side		13348 t·m to starboard		
270°	090°	52% (FB 1)	55% (9)	0	None	None
10 t applied to the bow		476 t applied to the port side		6422 t·m to starboard		
285°	105°	55% (FB 1)	58% (9)	0	None	None
16 t applied to the bow		466 t applied to the port side		31 t·m to starboard		
300°	120°	55% (FB 1)	58% (9)	0	None	None
31 t applied to the bow		430 t applied to the port side		4503 t·m to port		
315°	135°	49% (FB 2)	51% (9)	0	None	None
54 t applied to the bow		351 t applied to the port side		5920 t·m to port		
330°	150°	37% (FB 2)	38% (9)	0	None	None
77 t applied to the bow		219 t applied to the port side		5750 t·m to port		
345°	165°	24% (AB 2)	25% (3)	0	None	None
87 t applied to the bow		91 t applied to the port side		2813 t·m to port		

## OCIMF Criteria Nr 8 Lines/Hooks

Line	Worst Wind Direction			Tension (t)	% MBL Tension	Inclination (°)	Mooring Point	% SWL Tension
	Rel to Bow	From True N						
Headline 1	300°	120°		44	34	6	10	12
Headline 2	300°	120°		44	34	6	10	12
Fwd Breast Line 1	285°	105°		72	55	8	9	19
Fwd Breast Line 2	285°	105°		72	55	8	9	19
Fwd Breast Line 3	285°	105°		62	47	9	8	16
Fwd Spring Line 1	150°	330°		43	33	7	7	17
Fwd Spring Line 2	150°	330°		43	33	8	7	17
Aft Spring Line 1	015°	195°		30	23	7	4	12
Aft Spring Line 2	015°	195°		30	23	7	4	12
Aft Breast Line 1	255°	075°		59	45	4	3	16
Aft Breast Line 2	255°	075°		69	52	4	3	18
Aft Breast Line 3	240°	060°		57	44	4	2	15
Aft Breast Line 4	240°	060°		57	44	4	2	15
Sternline 1	240°	060°		54	41	3	1	14
Sternline 2	240°	060°		55	42	3	1	15

## OCIMF Criteria Nr 8 Fenders

Fender	Worst Wind Direction			Thrust (t)	% Max Reaction Force (t)	Compression Distance (m)	Contact Area (%)
	Rel to Bow	From True N					
F1	120°	300°		226.8	20	0.13	100
F2	105°	285°		170.1	15	0.10	100
F3	060°	240°		115.0	10	0.06	100
F4	060°	240°		124.2	11	0.07	100

## OCIMF Criteria Nr 8 Movement

Max Surge						Max Sway					
Fwd (m)	Wind (N)	Wind (Bow)	Aft (m)	Wind (N)	Wind (Bow)	In (m)	Wind (N)	Wind (Bow)	Out (m)	Wind (N)	Wind (Bow)
1.5	330°	150°	1.2	195°	015°	0.1	270°	090°	2.0	090°	270°