

## DETAILED REPORT

**Berth:** Demo Terminal  
North Berth [test] 120°

**Vessel:** Flex Polaris [test] 7654321  
Port Side, Fully laden, MEG 4

**Date and Time:** 18 May 2021 15:00 LT

**Wind:** 30 knot(s) 050° (from True N)  
From 290° relative to ship  
at 10 metres, steady wind

**Current:** 1.5 knot(s) 180°N (to) At half draught  
From 240° relative to ship

**Water/Tide Level:** 1.00 m from LAT (vertical datum)

**Controlled Depth:** 11.7 m (below vertical datum)

**Draught:** 12.10 m **Trim:** 0.00 m **UKC:** 0.60 m

**Water Depth/Draught:** 1.05

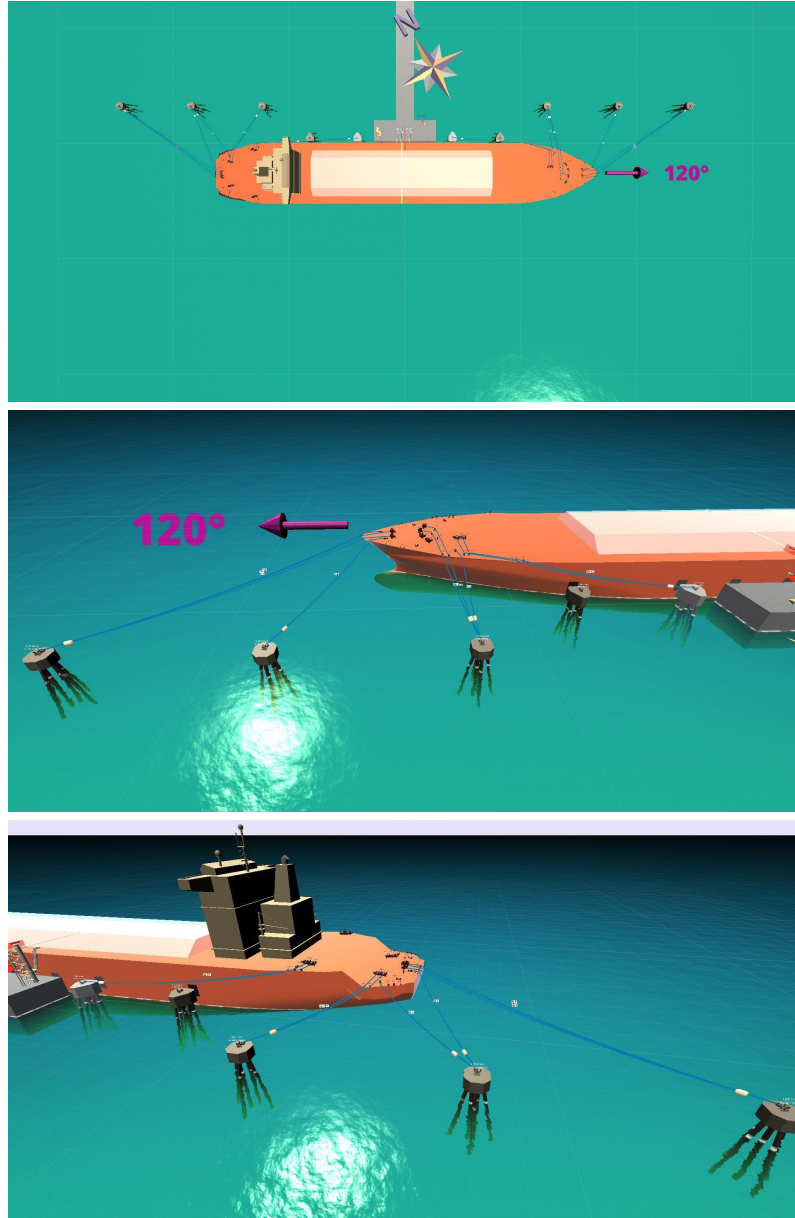
***Hull Current Coefficients:***

**Coefficient Set:** MEG4 LNG Carrier 1.05

***Hull Wind Coefficients:***

**Coefficient Set:** MEG4 SIGTTO 2007 Prismatic

Selected mooring configuration:



	Head Lines	Fwd Lines		Aft Lines		Stern Lines	Total Lines	Capacity
		Breast	Spring	Spring	Breast			
<b>Selected Configuration</b>	4	3	2	2	3	4	18	
<b>Terminal Requirement</b>	4	3	2	2	3	4	18	<= 217000 m3

Vessel motion at spotting line:

*Surge:* 0.2 m FWD      *Sway:* 1.7 m OUTWARD, TO STARBOARD

*Heave:* 0.0 m              *Yaw:* 0°

*Roll:* 0.5°              *Pitch:* 0°

Maximum permissible values at berth:      Surge 2.00 m    Sway 2.00 m  
Heave 1.00 m    Yaw 3°

**Total Environmental Load**

23 t applied to the stern

410 t applied to the port side

5925 t·m to starboard

**Wind Load**

5 t applied to the bow

118 t applied to the port side

368 t·m to port

**Current Load**

28 t applied to the stern

292 t applied to the port side

6294 t·m to starboard

Main Deck Elevation: 7.90 m *above jetty*

Gangway vertical range above central jetty:

Shore Gangway (1)      2.0 m to 17.0 m

Equilibrium Position (Ship Target Manifold):

0.2 m RIGHT of the Spotting Line (seen from the ship)

7.3 m OUT from the Jetty face

4.9 m OUT from the Fenders line

17.6 m *above Berth Vertical Datum*

Mooring Line (Pre-Tension)	From Winch	Via Fairlead	To Berth Mooring	Material (Line / Tail)	Length Total (On-Deck) [m]	Line LDBF [t]	Line tension [t]	Line % LDBF	Line Inclination [°]
Headline 1 (0t)	1	1	10 [E5 (hook)] on 6 [MD-6]	Dyneema/Nylon Tail	111.3 (6.8)	93	8	9%	4
Headline 2 (5t)	3	0	10 [E5 (hook)] on 6 [MD-6]	Dyneema/Nylon Tail	114.7 (12.4)	93	15	16%	4
Headline 3 (5t)	4	2	10 [E5 (hook)] on 6 [MD-6]	Dyneema/Nylon Tail	112.9 (11.2)	93	15	16%	4
Headline 4 (0t)	2	4	9 [E4 (hook)] on 5 [MD-5]	Dyneema/Nylon Tail	67.5 (6.4)	93	26	28%	7
Fwd Breast 1 (5t)	7	12	8 [E3 (hook)] on 4 [MD-4]	Dyneema/Nylon Tail	65.5 (23.8)	93	53	57%	11
Fwd Breast 2 (5t)	9	14	8 [E3 (hook)] on 4 [MD-4]	Dyneema/Nylon Tail	69.5 (29.0)	93	49	53%	11
Fwd Breast 3 (0t)	16	16	8 [E3 (hook)] on 4 [MD-4]	Dyneema/Nylon Tail	44.7 (5.7)	93	49	53%	11
Fwd Spring 1 (5t)	18	18	6 [E1 (hook)] on 3 [BD-3]	Dyneema/Nylon Tail	94.6 (31.8)	93	9	10%	7
Fwd Spring 2 (5t)	22	20	6 [E1 (hook)] on 3 [BD-3]	Dyneema/Nylon Tail	92.9 (32.4)	93	9	10%	7
Aft Spring 1 (5t)	116	120	5 [W1 hook] on 2 [BD-2]	Dyneema/Nylon Tail	88.2 (4.8)	93	5	5%	5

Aft Spring 2 (5t)	118	122	5 [W1 hook] on 2 [BD-2]	Dyneema/Nylon Tail	87.0 (5.7)	93	5	5%	5
Aft Breast 1 (5t)	114	118	3 [W3 hook] on 3 [MD-3]	Dyneema/Nylon Tail	55.4 (10.7)	93	59	63%	2
Aft Breast 2 (5t)	112	116	3 [W3 hook] on 3 [MD-3]	Dyneema/Nylon Tail	55.8 (9.5)	93	56	60%	2
Aft Breast 3 (0t)	110	114	2 [W4 hook] on 2 [MD-2]	Dyneema/Nylon Tail	55.4 (3.3)	93	37	39%	2
Sternline 1 (5t)	103	103	1 [W5 hook] on 1 [MD-1]	Dyneema/Nylon Tail	108.3 (5.5)	93	26	28%	1
Sternline 2 (5t)	101	101	1 [W5 hook] on 1 [MD-1]	Dyneema/Nylon Tail	107.2 (5.5)	93	26	28%	1
Sternline 3 (5t)	106	102	1 [W5 hook] on 1 [MD-1]	Dyneema/Nylon Tail	105.7 (5.5)	93	25	27%	1
Sternline 4 (0t)	102	104	2 [W4 hook] on 2 [MD-2]	Dyneema/Nylon Tail	63.1 (3.2)	93	44	48%	2

Berth Mooring Point	Hook Nr	Horizontal Force [t]	Horiz. Force Direction [°]	Uplift Force [t]	% SWL	Line Inclination [°]	
1 [W5 hook] on 1	Total	77	156	2			
	1	26	157	0	22	1	Sternline 1
	2	26	156	0	21	1	Sternline 2
	3	25	155	0	21	1	Sternline 3
2 [W4 hook] on 2	Total	80	181	3			
	1	44	188	1	37	2	Sternline 4
	2	37	171	1	30	2	Aft Breast 3
	3	-	-	-	-	-	
3 [W3 hook] on 3	Total	115	240	5			
	1	56	241	2	47	2	Aft Breast 2
	2	59	240	2	49	2	Aft Breast 1
	3	-	-	-	-	-	
5 [W1 hook] on 2	Total	10	294	1			
	1	5	294	0	4	5	Aft Spring 1
	2	5	294	0	4	5	Aft Spring 2
6 [E1 (hook)] on 3	Total	18	128	2			
	1	9	128	1	8	7	Fwd Spring 2
	2	9	128	1	8	7	Fwd Spring 1
8 [E3 (hook)] on 4	Total	148	204	29			
	1	48	209	9	41	11	Fwd Breast 3
	2	49	203	9	41	11	Fwd Breast 2
	3	52	201	9	44	11	Fwd Breast 1
9 [E4 (hook)] on 5	Total	26	236	3			
	1	26	236	3	22	7	Headline 4
	2	-	-	-	-	-	
	3	-	-	-	-	-	
10 [E5 (hook)] on 6	Total	38	265	3			
	1	15	266	1	12	4	Headline 3
	2	15	265	1	13	4	Headline 2
	3	8	264	1	7	4	Headline 1

Deck Mooring Point	% Max Brake Load	% SWL
1 (Bollard)	-	8
2 (Bollard)	-	26
3 (Fwd mooring (SB))	27	15
4 (Fwd mooring (PS))	26	15
7 (Fwd Anchor 2 (SB))	94	53
9 (Fwd Anchor (SB))	88	49
16 (Bollard)	-	49
18 (Fwd (centre))	16	9
22 (Fwd (centre))	16	9
101 (Aft Centre)	46	26
102 (Aft Centre)	-	44
103 (Aft Centre)	46	26
106 (Aft Centre)	45	25
110 (Aft PS)	-	37
112 (Aft PS)	100	56
114 (Aft PS)	105	59
116 (Aft Spring (PS))	9	5
118 (Aft Spring (PS))	9	5

Fender	Buckling Exceeded	Max Reaction Exceeded	Reaction Force [t]	Compression [m]	% Buckling Compression	Hull Pressure [t/m <sup>2</sup> ]	% Contact Area
1 (F1)	No	No	No Contact	-	0	-	100
2 (F2)	No	No	No Contact	-	0	-	100
3 (F3-Jetty)	No	No	No Contact	-	0	-	100
4 (F4-Jetty)	No	No	No Contact	-	0	-	100
5 (F5-Jetty)	No	No	No Contact	-	0	-	100
6 (F6)	No	No	No Contact	-	0	-	100
7 (F7)	No	No	No Contact	-	0	-	0



