RAK PORTS

GOVERNMENT OF RAS AL KHAIMAH
RAK PORTS

Saqr Port Deep-Water Bulk Terminal
ENTRY AND DEPARTURE GUIDE FOR VESSELS

RAK PORTS INTEGRATED MANAGEMENT SYSTEM

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Orig.*	28-09-2020	Initial Release	HM

***** This issue supersedes all previous versions

GENERAL INTRODUCTION

This 'Entry and Departure Guide for Vessels' is specifically formulated for 'Saqr Port Deep-Water Bulk Terminal'. All information given in this guide is presumed to be correct at the date of publication, and every endeavour will be made by means of corrections published from time to time to keep information up to date. No responsibility, however, can be undertaken that this information is correct, and the user should bear in mind that certain items are subject to alteration without prior notice.

APPLICATION

This guide is intended to be a working document and apply to: (a) all vessels calling the Saqr Port Deep-Water Bulk Terminal; (b) all persons responsible for the planning, operations, conduct and safe navigation of such vessels.

The Guide where applicable, must be read in conjunction with the RAK Ports Marine Safety Management System (MSMS), regulations, guidelines and procedures made pursuant to it. Nothing in this publication is intended to relieve any vessel, owner, operator, charterer, master, or person directing the movement of a vessel from the consequences of any failure to comply with any applicable law or regulation or of any neglect of precaution which may be required by the ordinary practice of seamanship, or by the special circumstances of the case. In particular the *International Regulations for Preventing Collisions at Sea 1972* (COLREGS) must continue to be obeyed.

CONTACT INFORMATION

Group Office:

Saqr Port

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Harbour Master's Office

The Harbour Master's Office is located in the Marine department at Saqr Port, and co-ordinates the statutory compliance for navigational safety across all RAK Ports. All operational marine matters are dealt with by respective ports.

For general enquiries, please call on: +971 (07)7 205 6164.

Port Control should be contacted for all urgent matters pertaining to marine operations:

- Saqr Port (Control Tower): VHF Ch.16/14 - Tel.: +971 (0)7 205 61 61 – Email: spatower@rakports.ae
- RMC/Stevin Rock (Control Tower): VHF Ch.16/69 - Tel.: +971 (0)7 205 61 62 – Email: rmctower@rakports.ae
- Ras Al Khaimah Port (Control Tower): VHF Ch.16/71 - Tel.: +971 (0)7 228 11 90 – Email: khrtower@rakports.ae
- Al Jazeera Port (Control Tower): VHF Ch.16/68 - Tel.: +971 (0)7 244 66 27– Email: ajzpt@rakports.ae
- Al Jeer Port – Contact Control Tower at Saqr Port & Al Jeer Port Office at: Tel.: +971 (0)7 268 23 33

WEBSITE OF THE PORT
https://www.rakports.ae

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Retention	@ Office	@ Archives
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DISTRIBUTION

The 'Entry and Departure Guide for Vessels' for Saqr Port's Deep-Water Bulk Terminal will be distributed as follows:

One copy will be posted on the company website and the following will be notified when there are any changes or amendments:

1. Harbour Master
2. Deputy Harbour Master
3. Pilots
4. Tug Masters
5. Port Control
6. Chief Executive Officer
7. All Ports' Managers
8. HSEQ Manager

One PDF copy shall be filed in the Integrated Management System as an internal Document.

AMENDMENTS

Proposed amendments are to be sent to the document owner, Harbour Master, who will maintain a record of changes in accordance with the Control of documents and records Procedure.

DOCUMENTS AND RECORDS

The definition of documents and records is defined below:

- **Documents:** Documents may be in any form or type of medium such as paper, magnetic, electronic, photos and templates. They are designed to capture information on activities or results.
- **Records:** Records provide evidence that activities have been performed or results have been achieved. They always record the past.

REFERENCE DOCUMENTS
Document Title
International Ship & Port Facility Security Code (ISPS)
International Safety Management Code (ISM)
SOLAS and MARPOL Conventions
UK Port Marine Safety Code (UK PMSC)
A Guide to Good Practice on Port Marine Operations
RAK Ports Marine Safety Management System (MSMS)
RAK Ports Regulations
RAK Ports Marine Guidelines
RAK Ports Pilotage Directions
RAK Ports Towage Guidelines

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TABLE OF CONTENTS

Retention	@ Office	@ Archives
	0-2 years	3-5 years

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Retention	@ Office	@ Archives
	0-2 years	3-5 years

SECTION ONE

General Information

Terminal Information	
Details	**Specification**
Length of Quay	685 metres ○ Berth No. 14 - (Bollard No. 1 to 12) ○ Berth No. 15 (Bollard No. 12 to 22) ○ Berth No. 16 (Bollard No. 22 to 33)
Height of Quay	+6.0 metres above ACD.
Control Depth (Berth & Turning Basin)	18 metres below Admiralty Chart Datum
Control Depth – Access Channel	18 -35 metres
Minimum Water depth alongside	18.0m below ACD.
UKC Requirements	Moored alongside = Minimum of 0.8m Whilst manoeuvring = Minimum of 1.5m. See 'Ruling Depth & Under Keel Clearances': https://rakports.ae/wp-content/uploads/2020/05/RDUKC.pdf
DUKC Availability	Yes (OMC International)
Distance between Fenders	21.6m in accordance with BS 6349-part 4
Distance between Bollards	21.6m (*As recommended by dynamic mooring analysis carried out by HR Wallingford also in accordance with BS 6349-4).*
SWL of Bollards at Main Berth	200 tonnes max
Min. Clearance between Berthed Vessels	20 – 25 metres

Geographic Location

- The Terminal is situated at a distance of some 100 metres from the main lee breakwater of Saqr Port Inner Harbour and runs in a south westerly direction between Quayside Beacons (Vertical Marks - Red), with a bearing 197^0 from breakwater.
- The approximate geographic coordinates of the terminal is Lat: 25° 58.855' N Log: 056° 02.784’ E and can be visualized in BA Chart 3174 and 3404.

Pilot Boarding Ground

- Pilot Boarding Ground position: Latitude 26º 01.803’ N, Longitude 056º 00.212’ E (Pilot boards the vessel at 2.5 mile NW of Fairway Buoy – refer to BA Charts 3174, see also, Annex 2 – Passage Layout).
- Vessel should not proceed further from the above position until directed to do so by the pilot.
- A speed of 3-4 knots should be maintained together with good lee on all occasions for pilot boarding.

Navigational Charts

- The geographical boundaries and relevant Navigational Aids for Saqr Port and its configuration are specified in BA Charts 3174 (INT 7209), 3404 (INT 7213).
- Masters are to ensure that all navigational resources (including charts and documentation) are current and up to date for passage planning.

Aids to Navigation

- **High Intensity Sector Light:**
  A sector light fitted with high intensity light for use in darkness and reduced visibility is located (25° 58.469’ N 056° 02.749’ E) at the back of berth 12 marking the deep water channel.
- **Quayside beacons (vertical marks – Red):**
  Two beacons fixed at the beginning and end of the berth.
- **Buoy Positions:**

Buoys	Characteristics	Latitude	Longitude
Fairway Buoy	Iso 6s	26° 00.096’ N	056° 02.324’ E
Buoy C1	Fl QG	25° 58.845’ N	056° 02.332’ E
Buoy C2	Fl QR	25° 58.928’ N	056° 02.442’ E
Buoy C3	Fl (2)G 6s	25° 58.536’ N	056° 02.489’ E
Buoy C4	Fl (2)R 6s	25° 58.933’ N	056° 02.707’ E

Tidal Information

- **Tide Tables:**
  Tide Tables, which includes yearly Tide Table, Hourly Tide Prediction and Sunrise and Sunset times can be downloaded from 'Marine' section of RAK Ports website: https://rakports.ae/marine
- **Tidal Level Observed:**

Highest Astronomical Tide (HAT)	2.790m	• During normal weather conditions there is a +/- 30 cm tidal range. • Strong and sustained winds from north-west raise water levels along the coast.
Lowest Astronomical Tide (LAT)	0.092m	
Mean High Water Springs (MHWS)	2.476m	
Mean Low Water Springs (MLWS)	0.765m	
Mean High Water Neap (MHWN)	1.997m	
Mean Low Water Neap (MLWN)	1.158m	

Winds

- Winds in the area are predictable well in advance, with winds of up to Beaufort Force 2-3 from most of the year from variable directions, but on occasion, a forecast may be issued with short notice of strong winds.
- On such occasions, Harbour Master will issue a warning. Weather reports and warnings are available from the Port Control.
- Berthing/unberthing operation shall be postponed when wind force in the area is greater than 20 knots.
- Whilst berthed alongside, if wind speeds are expected above 25 knots off the berth then:
  - Additional moorings should be considered.
  - Consideration should be given to starting engines and thrusters.
  - Consideration should be given to suspending cargo operations.

Port Operations during High Winds

- Should wind speeds increase in excess of 30 knots (gusting 40kts) the terminal will be closed temporarily (including the shutting down of Mobile Harbour Cranes).

Current

- In and around Saqr Port, the currents are normally less than 1.5 knots and variable. Generally, there is a set NE on the ebb tide and SW on the flood but this can vary with the weather. A current monitoring buoy is located at the entrance channel with a live feed to the Control Tower.

Reduced Visibility

- All cape-size vessels must have at least 1 mile visibility prior to moving towards pilot station.
- When visibility reduces to less than ½ mile, movements within Deep-Water Bulk Terminal will not be undertaken (visibility in the area is reduced to less than ½ nautical mile only on about two or three occasions per year).

Wave and Swell Conditions

- Wave generating capacity is relatively limited in winds from the north area due to limited fetch. These are probably limited to a significant height of around 1 metre.
- The Wave Detector at Saqr Port (installed in position latitude 25° 58.95' N and longitude 056° 02.70' E, in the vicinity of Deep-Water Bulk Terminal) provides online monitoring of wave and swell.
- The port utilises the information gained from the Wave Detector together with the weather forecasts/warnings to alert vessels alongside and at anchor.
- The average swell range from 0.2 to 1 metre and it increases up to 3 metres during rough weather conditions.
- Due to westerly or north-westerly blowing winds, combined and well developed waves and groundswell produce heavy seas.
- During windy condition, swell and current tends to become intensified particularly when approaching the turning basin and increases the surge as the berth is approached directly.
- The height and period of swell can change significantly in a short time and both wave and swell combine to produce heavy seas.
- Sea conditions are constantly monitored and Smart Mooring software is currently being tested (Aug 2020)

Weather Monitoring

- Weather monitoring system installed in the Port Control provides real-time continuous measurement of the wind speed, direction, tides etc.
- The Port Control and Pilots constantly monitor weather conditions to allow them take appropriate decision to continue, postpone and/or cease all marine operations, in case of adverse weather.
- Port Control broadcasts weather warning advisory to ships in the port and anchorage, and the master must ensure that the prevailing weather conditions are continuously monitored.

Weather Forecast

- The weather forecast detailing wind speed, direction, sea conditions/swell and visibility for the port region are supplied by StormGeo with a high level of accuracy.

Inclement Weather

- Strong winds with a south-easterly to westerly components, create rough seas in the anchorage area and on occasions penetrate into the entrance, mostly in the winter months.
- Weather of force 5 and above may impact on ship operations alongside berth.
- In all cases, the Pilot will evaluate the current forecasted weather and consult with Deputy Harbour Master/Harbour Master and the impact on vessel movement, and if necessary, delay movement or call for additional tugs.
- On occasions, particularly during the winter months, operations may suspend for few hours and in extreme cases, vessels may be taken off the berths.
- Should conditions deteriorate the Harbour Master may order vessels off the berths.
- Whilst small vessels may be ordered off the berths, depending on the weather conditions, it is possible that larger vessels may remain alongside.
- Owing to weather forecast and depending on direction and force of wind, type and characteristics of the vessel, shifting of vessels from berth to anchorage shall be carefully considered.

Passage Plan

- All vessels wishing to enter, depart or navigate within the area of port limits shall prepare a passage plan and discuss with the pilot, prior to each movement commencing.
- The format of the passage plan is left to the discretion of the Master but attention is drawn to the International Chamber of Shipping's Bridge Procedures Guide, Fifth Edition 2016, in particular, Sections 2.4 and 2.5.

Berthing Approaches

- Vessels, particularly large cape size-vessels loaded are to be brought to the berth parallel to and about 100 - 120 metres off the berth before breasting in using tugs in push-pull mode.

Berthing Alongside

- The normal berthing configurations are as follows:
  - Berth 14 – Starboard side to
  - Berth 15 – Port or Starboard side to
  - Berth 16 – Port side to

SECTION TWO

Vessel Berthing and Unberthing

General

- Berthing and unberthing of vessels in the Deep-Water Bulk Terminal is carried out 24/7.
- Where wind speeds exceed 20 knots, movements within the Terminal shall be at the Master/Pilot discretion (see the “Arrival & Departure Parameters”, below).

Dead-ship

- Dead-ships may berth or unberth only in daylight and during good weather conditions.
- Any defects shall be reported to Port Control prior to the movement.

Abort procedure

- Abort areas shall be a function of the passage planning agreed between the master of the vessel and pilot. If the weather deteriorates on the inward passage the Pilot/Master should consider aborting before entering the turning basin.
- In the event that a decision is taken to abort on the inward passage, port control shall be alerted to the situation.

ABORTING - Vessels constrained by their draft.

Should the sea conditions be unsuitable for making the tugs fast, the decision to abort a berthing must be made 0.5 mile before the entrance buoys.

Arrival & Departure Parameters						
Vessel Draft	**UKC**	**Tugs**	**Tide for Pilot Boarding**	**Weather**		
				Sea State	**Sustained wind**	**Visibility**
If ≥ 17.3m	1.5m*	See tug allocation table**	HW minus 2 hours	Total Sea*** > 0.5m = 1.75m UKC Total Sea*** > 1.0m = 2.0m UKC Total Sea*** > 1.5m = subject to prevailing conditions	No move exceeding 20 knots on arrival. Departure will be subject to prevailing weather conditions	No move less than ½ mile
If 16.6m – 17.3m			Timing to be in accordance with tidal conditions to maintain minimum UKC for the duration of operation			
If ≤ 16.6m			Anytime			

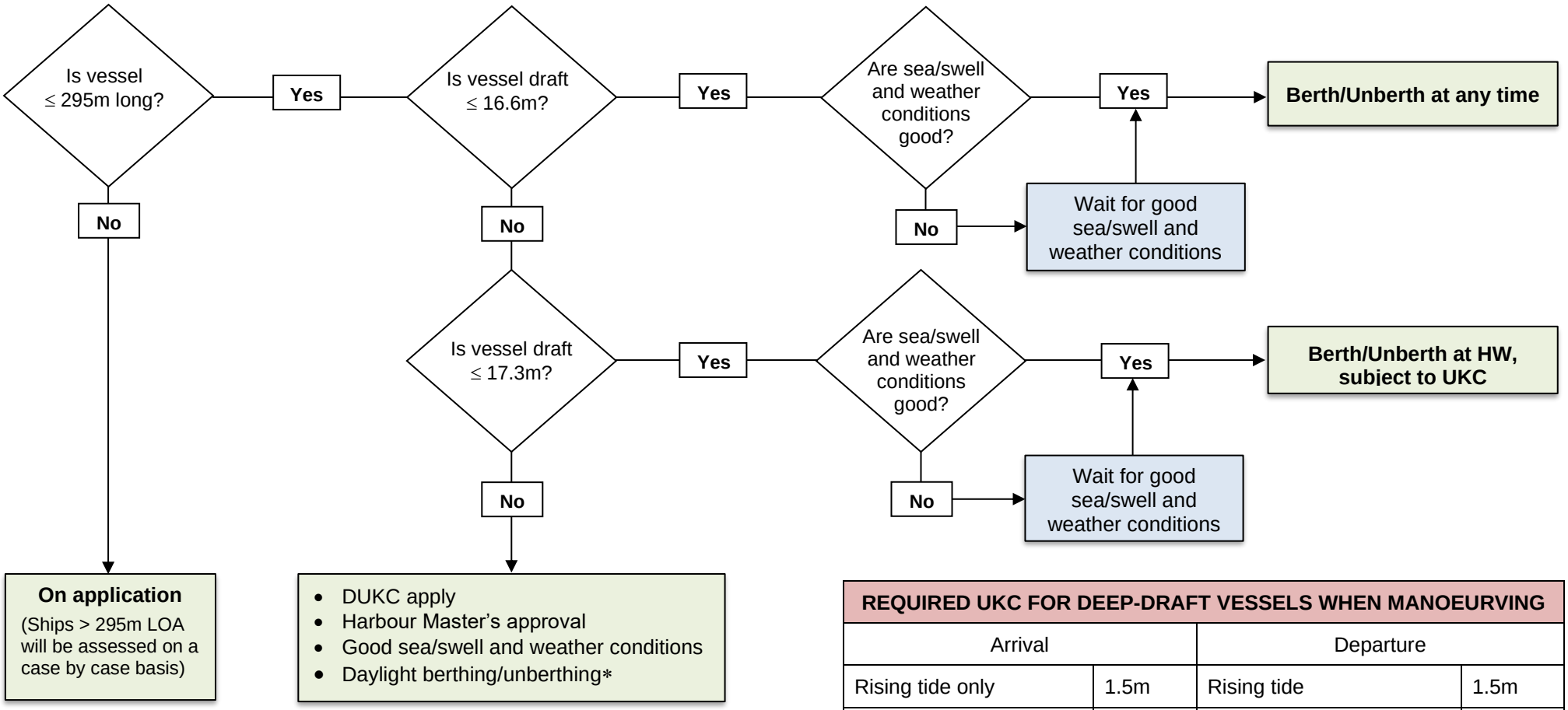
Note: Berthing of vessels with LOA >295m is subject to prior permission from Harbour Master.

* *Further UKC may be necessary due to sea state.*

** *See Towage Procedure document: http://rakports.ae/wp-content/uploads/2019/12/Towage-Procedure.pdf*

*** *Total sea is as per the conditions taken from the Storm Geo weather forecast "Hmax" column and/or live wave data from RAK Ports Wave Buoy.*

Vessels Berthing/Unberthing Criteria



REQUIRED UKC FOR DEEP-DRAFT VESSELS WHEN MANOEURVING			
Arrival		Departure	
Rising tide only	1.5m	Rising tide	1.5m
		Falling tide	2.0m

** At the Harbour Master's discretion vessels >17.3m daft may be restricted to daylight berthing/unberthing only.*

SECTION THREE

Deep-draft Vessels Cargo Operations

Guidelines

The following should be adhered in the case of departing deep-draft vessels to allow for under keel safety:

- The Harbour Master/Deputy Harbour Master in conjunction with Pilot will confirm the optimum sailing condition for vessels expecting to exceed the berth depths.
- A vessel intends to load beyond the depth of water at the berth will be subject to DUKC procedure, as such, the vessel may only be allowed to lay alongside until half an hour (½ hour) before high water.
- Ships with a draft of >17.3 m shall be subject to maximum draft under DUKC and prior application.
- When a vessel plans to exceed 17.3m the Harbour Master/Deputy Harbour Master/Duty Pilot prepares a draft table tabulated to determine what draft the vessel can load to.
- In order to sail the vessel half an hour (½ hours) before high water to allow sufficient safety margin, the vessel expecting to load to the tide (draft >17.3) must stop cargo operation 2 hours before HW and notify Port Control immediately.
- The loading plan must include the sequence, quantity and rate of loading/unloading, taking into consideration the speed of loading/unloading, and the deballasting or ballasting capacity of the ship.
- Vessels can be affected by swell during the winter months, therefore, when computing cargo-to-load it is important to allow sufficient swell allowance while loading is in progress.
- Masters of Deep-draft vessels are advised to adhere to this caution and are responsible for monitoring the quantity of cargo loaded on board their vessel and their trim.

SECTION FOUR

Mooring/Unmooring Arrangements

General

- Trained port mooring staff are responsible for mooring operations.
- The Shore-bosun (mooring supervisor) ensures that the quayside berthing area is kept clean, free from any obvious hazards and all-mooring tasks are carried out safely and correctly.
- Duty Shore-bosun will supervise the mooring and unmooring operations.
- Fenders will be checked before and after a vessel is alongside.

Minimum Mooring Arrangements

- The minimum mooring arrangement assumes a 16 mooring line deployment as below:

Head-lines	Stern-lines	Fwd. breast-lines	Aft breast-lines	Springs Fwd.	Springs Aft
4	**4**	**2**	**2**	**2**	**2**

- The final configuration will be decided between the Master and Pilot.

NB: Maximum 2 lines per bollard should be put for larger vessels.

Mooring Lines Monitoring

- The Master must ensure that:
  - The vessel is safely moored all the times.
  - A sufficient number of deck watch keepers are on duty to tend the mooring lines.
  - Line tending checks also ensure that mooring lines do not become too slack or too taught.
  - For severe weather, moorings to be increased in line with availability of ships leads, suitable moorings.
  - For severe weather, moorings to be increased in line with availability of ships leads, suitable moorings.
  - Snapped mooring lines must be reported immediately to the Port Authority:
    - Port Control on VHF Channel 14, or
    - Call Shore-bosun on +971 (0)50 487 84 58.

ANNEX 1

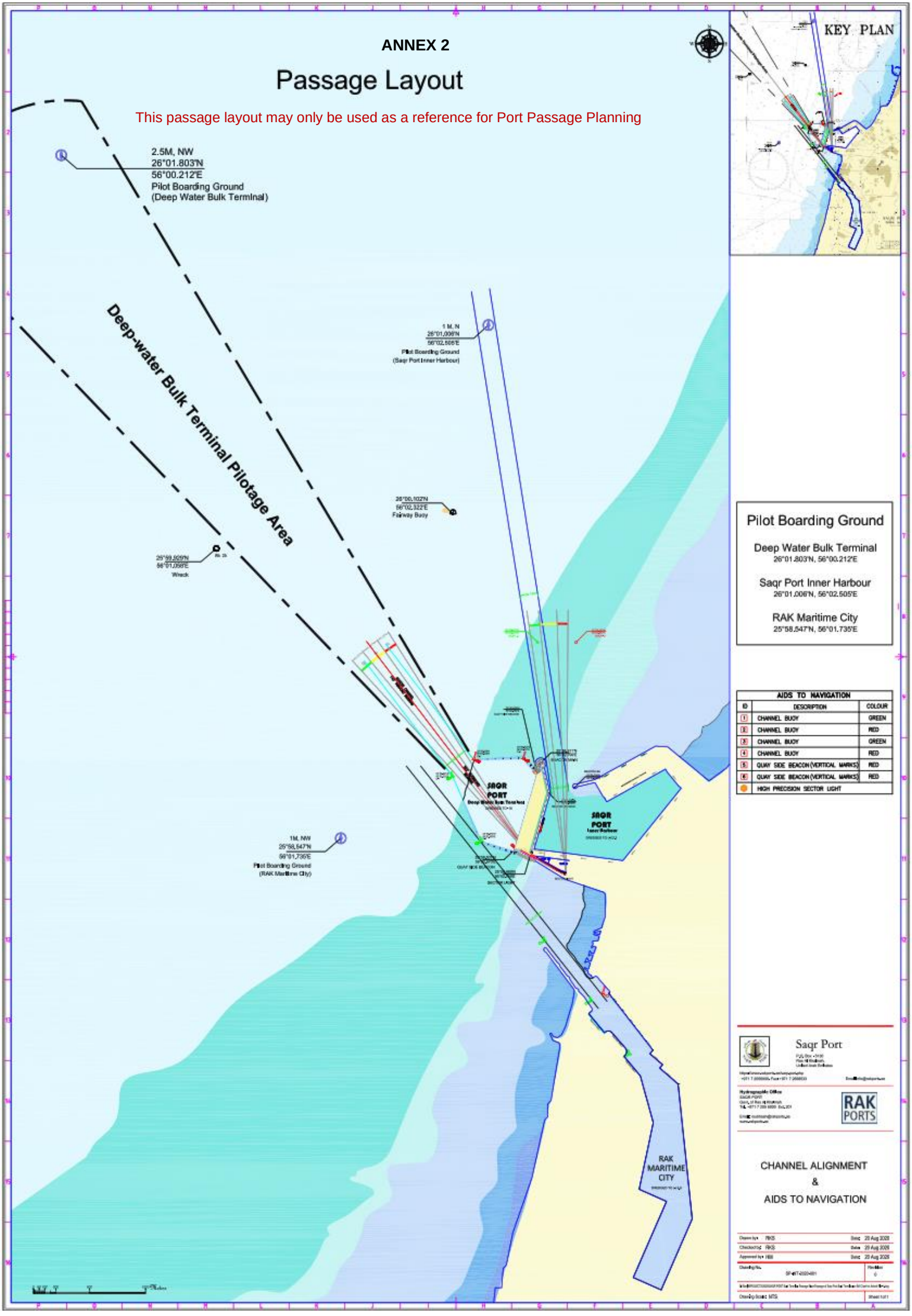
Fender Design Parameters

Description	Design Value	
	Minimum Vessel	**Maximum Vessel**
Vessel Type	Bulk carrier	Bulk carrier
Vessel (DWT)	30,000	180,000 (90% laden = 162,000 dwt)
Displacement-Full laden (tonnes)	36.867	195,057 (90% laden = 175,552 dwt)
Hull pressure limit (kN/m^2)	< 200	< 200
Length overall, LOA (m)	178.7	290.9
LBP (m)	170.2	281.0
Beam (m)	25.8	45.2
Depth (m)	14.2	24.6
Draft (m) – Full laden	10.1	16.31
Berthing angle (degree)	10^0	6^0
Minimum abnormal impact factor	1.25	1.75
Berthing mode	Quarter point berthing	Quarter point berthing
Berthing condition	Good berthing exposed condition, based on BS-6349-4	Good berthing exposed condition, based on BS-6349-4
Berth configuration coefficient, Cc	0.9	0.9
Softness coefficient, Cs	1.0	1.0

ANNEX 2

Passage Layout

This passage layout may only be used as a reference for Port Passage Planning



Pilot Boarding Ground

Deep Water Bulk Terminal
26°01.803'N, 56°00.212'E

Saqr Port Inner Harbour
26°01.006'N, 56°02.505'E

RAK Maritime City
25°58.547'N, 56°01.735'E

AIDS TO NAVIGATION		
ID	DESCRIPTION	COLOUR
1	CHANNEL BUOY	GREEN
2	CHANNEL BUOY	RED
3	CHANNEL BUOY	GREEN
4	CHANNEL BUOY	RED
5	QUAY SIDE BEACON (VERTICAL MARKS)	RED
6	QUAY SIDE BEACON (VERTICAL MARKS)	RED
	HIGH PRECISION SECTOR LIGHT	

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CHANNEL ALIGNMENT & AIDS TO NAVIGATION