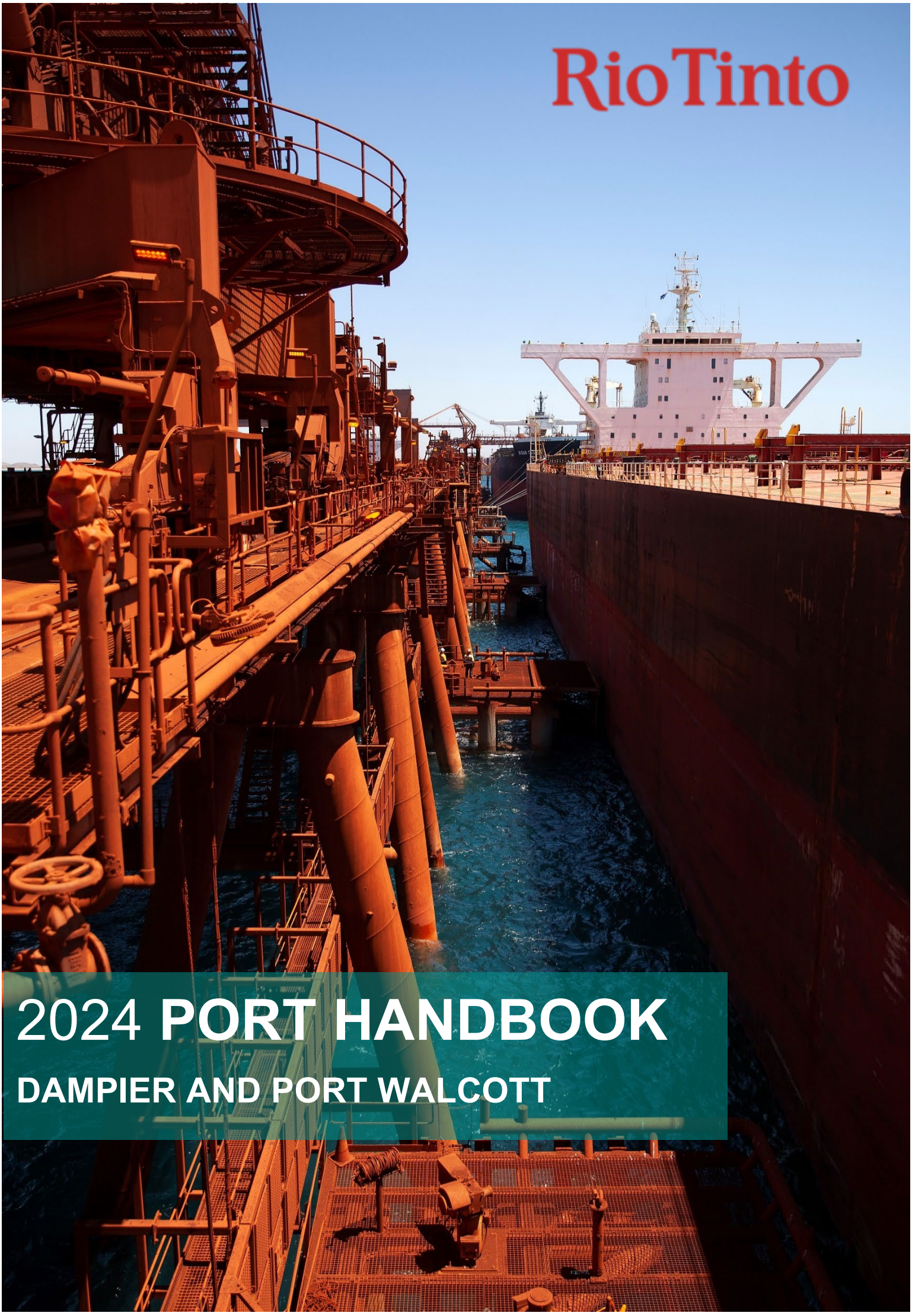


2024 PORT HANDBOOK

DAMPIER AND PORT WALCOTT

ATTENTION

Marine Notices may be issued which supersede some details contained in this handbook. Please check the relevant websites for current notices.

Dampier	Pilbara Ports Authority Local Marine Notices - PPA
Port Walcott	Department of Transport Temporary Notices to Mariner – DoT

CONTENTS

1 SAFETY, SECURITY & ENVIRONMENT

Rio Tinto ports are committed to the highest standards of safety and environmentally responsible conduct, and expect vessels, their crews, and all other visitors to maintain the same standards.

Our goal is zero harm.

Through effective leadership and management practices, we strive to continuously improve our performance.

Our success in this area requires active participation and a shared commitment by our stakeholders to achieve our goals.

Please contact Rio Tinto Iron Ore Marine Operations Dampier on +61 8 9183 7111 or Port Walcott on +61 8 9186 1487 for any safety, security or environment enquiries, or to report an issue.

Individuals or vessels in breach of standards and regulations may be prosecuted and/or excluded from the port.

1.1 Safety

- Mooring line safety is of high priority. Do not access areas in the vicinity of tensioned mooring lines, follow Marine Pilot instructions carefully, and report all incidents or concerns.
- Personal protective equipment must be worn in all areas whilst on site including hard hat, safety glasses, enclosed boots, long sleeves and trousers.
- Ship's crew must contact the Rio Tinto ship loader through appropriate UHF/VHF channels when conducting draft mark readings. All persons checking drafts must only attend the berth at which their vessel is located and are not permitted to walk through the wharf. Crew must comply with the rules regarding the wearing of personal protective equipment. This includes the following for all crew going ashore at any time: as a minimum personal protective equipment consisting of safety glasses, enclosed footwear, hard hat and a life jacket (PFD) (if working on or crossing over any dolphin) must be worn ashore at all times.
- Only persons authorised by Rio Tinto may leave the wharf. Ship's crew are not permitted in the plant areas or workshops, nor are they permitted to fish at the terminal. If crew need to go ashore, they should contact their Shipping Agent who will organise the crew transfers on your behalf so crew can be safely escorted both on and off site.
- Smoking is strictly prohibited on-site at Rio Tinto Iron Ore terminals.
- Access to site will be refused to persons suspected of being affected by alcohol/drugs.
- Under no circumstances may a vessel immobilise its main engine without permission from Rio Tinto and the Harbour Master.
- Approval must be sought to perform repairs on-board a vessel whilst at berth. Hot work is not permitted at berth without additional specific permission from Rio Tinto.
- Outboard draft marks cannot be read by ship's crew using rope ladders over the outboard side. A manometer must be used for the purpose of calculating outboard drafts.
- Non-intrinsically safe electrical equipment is not permitted on the Dampier Fuel Berth.

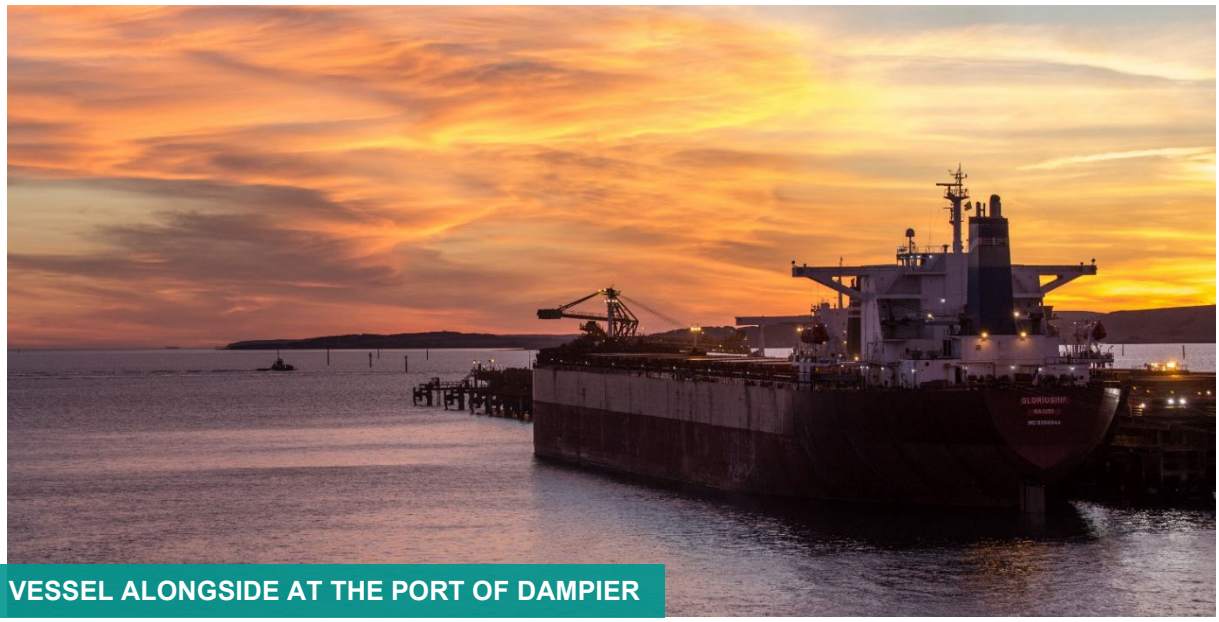
- Marine Pilot transfers, gangway deployment and mooring practice should be as documents contained in the “Safety Letter Pack” referred to in section 5.17.

1.2 Security

- Maritime Security Identification Cards (MSIC) are required for unescorted access to a maritime security zone (wharf areas and immediate surrounds). MSIC is not required for vessels crews who hold a valid Australian Maritime Crew Visa.
- MSIC are issued by the Australian Government to those who meet security criteria as assessed by police and intelligence organisations.
- Recreational boating is prohibited near to terminals and vessels at anchorage.
- Quarantine authorities should be notified of all cases of illness or death on board vessels.
- Security level 1 is required for both Dampier and Port Walcott.

1.3 Environment

- Fishing is not permitted while at berth - all breaches will be reported to fisheries authorities.
- No refuse of any kind should be discharged, including oil, garbage and excessive funnel exhaust. Ballast water can only be discharged in accordance with Australian environmental and quarantine regulations. Masters to reference the International Convention for the Prevention of Pollution from Ships (MARPOL).



VESSEL ALONGSIDE AT THE PORT OF DAMPIER

2 TERMINAL EXPECTATIONS

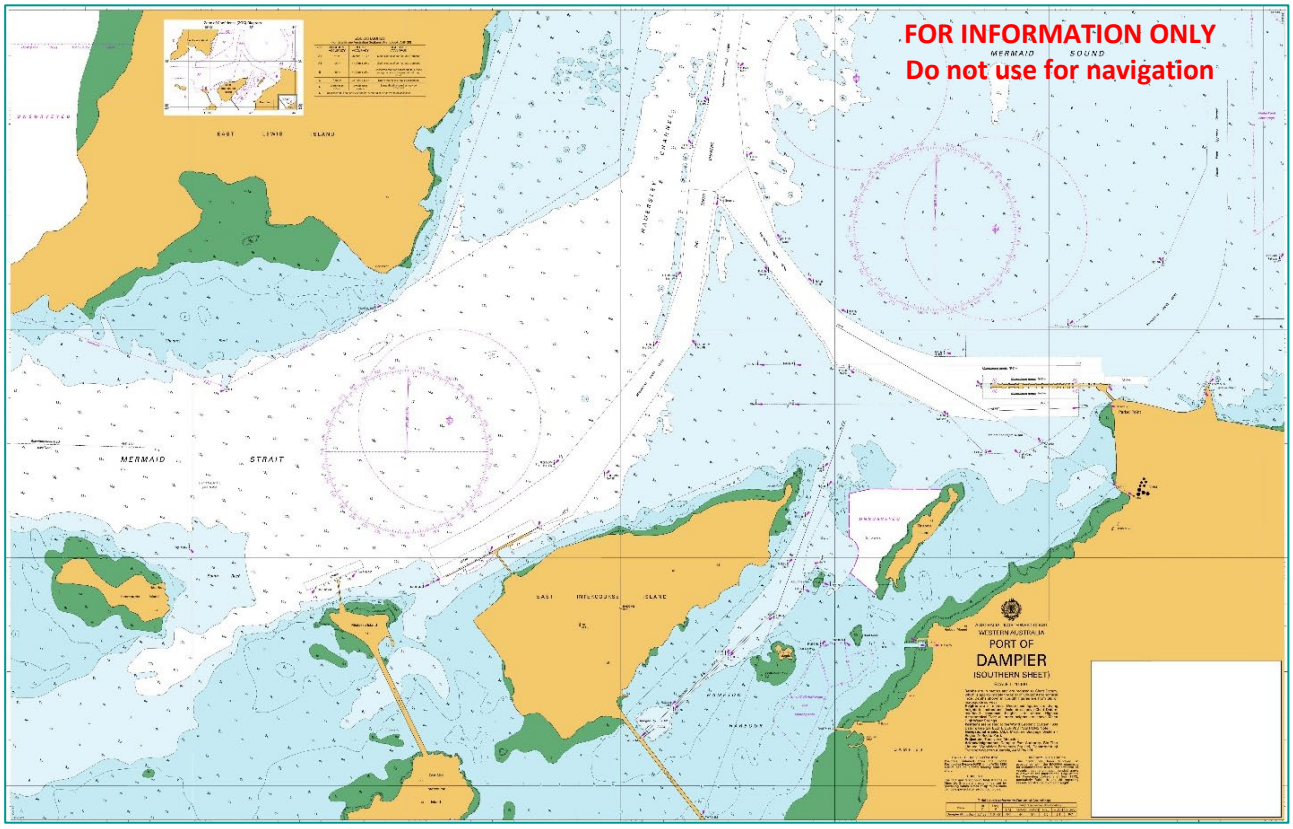
- Ensure all key machinery including propulsion, power management systems, steering, emergency equipment and associated controls & alarms are functional, and not reposed.
- Planned Maintenance Systems of above machinery must be up to date and there are to be no outstanding maintenance items. Critical spare parts are to be identified and onboard.
- Mooring and anchoring equipment must be in good order and operational.
- Ensure ballast system and hatch cover operating systems and controls are in good order.
- All key navigational equipment must be fully operational, tested, and ready for use.
- Vessels should have no major structural defects or sea worthiness issues.
- Boarding arrangements are to be functional and in good order.
- Crew are to be trained, briefed, and sufficiently rested for the operations.
- Any breakdowns or incidents must be reported as soon as possible to your agent via a Form 18 and Form 19. Any emergencies whilst alongside must be communicated via radio.

3 PORT OF DAMPIER

The Port of Dampier is located on the NW coast of Australia in the Dampier Archipelago. Sections of the archipelago are a designated marine park and include areas of particular environmental sensitivity.

In addition to facilities operated by Rio Tinto, several other terminals service LNG, bulk liquid, general cargo and offshore supply traffic.

These terminals are functionally separate (including separate towage and pilotage services) but operate under the shared auspices of the Pilbara Ports Authority. Pilbara Ports Authority may issue Marine Notices from time to time which supersede some details contained in this handbook. Please check the Pilbara Ports Authority website for Dampier relevant notices: www.pilbaraports.com.au/ports/port-of-dampier/safety-and-security/local-marine-notices



Rio Tinto Facilities

East Intercourse Island	Iron Ore
Parker Point	Iron Ore
Parker Point Fuel Berth	Petroleum Products
Mistaken Island	Salt

Navigation

Dry-bulk vessels anchor at the Western Anchorage, located NNW at the entrance to the archipelago.

Pilotage is compulsory for berthing and departing vessels, with transfer via helicopter (subject to vessel capability).

Pilot boarding ground is marked as Bravo on Admiralty chart AUS 57. Coordinates are available from the Pilbara Ports Authority.

Departing vessels transit a 15 nautical mile channel and sea-track, maintained as per admiralty charts and NTM.

Sailing drafts are determined by a Dynamic Under-Keel Clearance system, based upon real-time tide and wave measurements, when required. Please refer to section 13.2 for further information.

Environmental Conditions

Tides	MSL 2.7 m, MHWS 4.4 m, LAT to HAT range 5.3 m, typical currents up to 1 knot (flood Southerly, ebb Northerly)
Load-line zone	Summer Zone from 1st Dec to 30th Apr Seasonal Tropical Zone from 1st May to 30th Nov
Cyclones	Typically occur between November and April

Services

SERVICE	AVAILABILITY	SERVICE	AVAILABILITY
Waste disposal	Contact agent	**Provisions**	Available
Bunkers	Marine diesel available§	**Fresh water**	Available‡
Crew change	Available	**Repairs**	Limited availability
Facilities ashore	Mission to Seafarers at Dampier Airport, post office, banks, shops, hospital at Karratha (15-20 km)		

§ via barge; ‡ except Mistaken Island

Key Contacts

VHF — Ships are required to monitor up to three VHF channels as follows:
Channel 11 for Dampier VTS
Channel 13 for Helicopter Operations
Channel 16 for emergencies only

Phone

Rio Tinto Iron Ore Marine Operations	+61 8 9183 7111
PPA Port Control	+61 8 9159 6549

A radio box containing a handheld radio and mobile phone will be supplied on arrival. **This radio and mobile phone must be monitored at all times. Please ensure all items are returned shoreside prior to departure.**

Further References

The Pilbara Ports Authority Port of Dampier Handbook can be found at the Pilbara Ports Authority website: Port of Dampier Handbook

3.1 East Intercourse Island

East Intercourse Island (EII) is an Iron Ore terminal capable of loading more than 48 Mt/a. Vessels with a length of 340m and beam of 58m can be accommodated. The loading berth is serviced by a travelling slew-type ship loader.

A lay-by berth allows tidal-constrained, laden vessels to vacate the loading berth to allow berthing of inbound vessels. All draft restricted sailing vessels will be escorted by 2 tugs for a portion of the channel as directed by the Terminal, a minimum of 1 tug will stay with the vessel until Fairway beacon.

EAST INTERCOURSE ISLAND			
Location	Port of Dampier: 20° 38’ S, 116° 40’ E		
Cargo	Iron Ore		
Facilities	One berth with one slew-type ship loader and one lay-by berth		
		Loading Berth	**Lay-by Berth**
Parameters	Ship loader travel at berth	209.07 m	-
	Ship loader outreach radius from fender line	30.93 m	-
	Berth pocket length	430.00 m	436.00 m
	Total length of wharf at berth	341.40 m	-
	Total length of fendering at berth	429.80 m	-
	Required gross loading rate	9,000 t/h	-
Restrictions	Length overall	340.0 m	340.0 m
	Beam	58.0 m	58.0 m
	Berth pocket depth at LAT	20.7m	19.5 m
	Berth width	84.0 m	82.0 m
	Shallowest depth in approach	9.4 m	-
	Rio Tinto allowable air draft (Distance to top of hatch coaming)	20.5 m	-
	Berthing displacement	150,000 t	280,000 t
Typical Towage	**Berthing & shifting to Lay-by Berth** Number of tugs	3	2 (shifting)
	Sailing Number of tugs	2	2 (direct sail) 3 (passing sail)
	Number of escort tugs into channel	2	2
	Escort tugs accompany to channel	2 to B3, 1 to Fairway beacon	2 to B3, 1 to Fairway beacon

EAST INTERCOURSE ISLAND
Ship loading in loading berth (left) and fully laden vessel in lay-by berth (right) awaiting tide

3.2 Parker Point

Parker Point is an Iron Ore terminal capable of loading more than 100 Mt/a. Vessels up to 235,000 dead weight tonnes can be accommodated for loading.

Note that parameters and restrictions vary between berths.

PARKER POINT					
Location	Port of Dampier: 20° 38' S, 116° 43' E				
Cargo	Iron Ore				
Facilities	Four berths with two slew-type ship loaders				
		Berth 2	**Berth 3**	**Berth 4**	**Berth 5**
Parameters	Ship loader travel at berth	278.44 m	278.44 m	284.49 m	284.49 m
	Ship loader outreach radius from fender line	34.02 m	28.57 m	29.83 m	32.77 m
	Berth pocket length	377.00 m	267.54 m	558.41 m	472.49 m
	Total length of wharf at berth	413.78 m	413.78 m	303.28 m	303.28 m
	Total length of fendering at berth	413.77 m	413.77 m	376.75 m	376.75 m
	Required gross loading rate	9,000 t/h	9,000 t/h	9,000 t/h	9,000 t/h
Restrictions	Length overall	300.0 m	300.0 m	330.0 m	300.0 m
	Beam	47.5 m	47.5 m	55.0 m	50.0 m
	Berth pocket depth at LAT	19.5 m	19.5 m	19.5 m	19.5 m
	Berth width	93.0 m	70.0 m	80.0 m	80.0 m
	Shallowest depth in approach	7.8 m	10.0 m	7.8 m	10.0 m
	Rio Tinto allowable air draft (Distance to top of hatch coaming)	20.5 m	20.5 m	20.5 m	20.5 m
	Berthing displacement	142,000 t	140,000 t	142,000 t	140,000 t
Typical Towage	**Berthing** Number of tugs	3	3	3	3
	Sailing Number of tugs	2 (direct sail) 3 (passing sail)	2 (direct sail) 3 (passing sail)	2	2
	Number of escort tugs into channel	2	2	2	2
	Escort tugs accompany to channel	2 to B3, 1 to Fairway beacon	2 to B3, 1 to Fairway beacon	2 to B3, 1 to Fairway beacon	2 to B3, 1 to Fairway beacon

PARKER POINT
Vessel loading in Berth 2 and preparing to load in Berth 5

3.3 Dampier Fuel Berth (Parker Point)

Dampier Fuel Berth (Parker Point) has been issued with a specific exemption to the hazardous zone provisions of ISGOTT on the basis that the Terminal is only permitted to discharge diesel.

Prior to berthing, all empty cargo tanks and slop tanks must be purged with inert gas to achieve a hydrocarbon content of less than 2% by volume.

The Viva Energy Australia Parker Point Terminal Information Book can be accessed via your Shipping Agent.

DAMPIER FUEL BERTH (PARKER POINT)		
Location	Port of Dampier: 20° 38’ S, 116° 43’ E	
Cargo	Diesel fuel	
Facilities	One berth	
		Discharging Berth
Parameters	Berthing basin length	243.8 m
	Berthing basin width	38.1 m
	Minimum parallel body length forward, (relative to centre of manifold)	42.0 m
	Minimum parallel body length aft, (relative to centre of manifold)	46.0 m
	Total length of wharf at berth	69.5 m
Restrictions	Length overall	190.0 m
	Beam	35.0 m
	Berth pocket depth at LAT	12.0 m
	Shallowest depth in approach at LAT	8.1 m
	Maximum bow to centre manifold length	91.3 m
	Maximum side of ship to manifold length	7.6 m
	Berthing displacement	46,000 t
Typical Towage	**Berthing** Number of tugs	2 3 (if night berthing)
	Sailing Number of tugs	2

DAMPIER FUEL BERTH

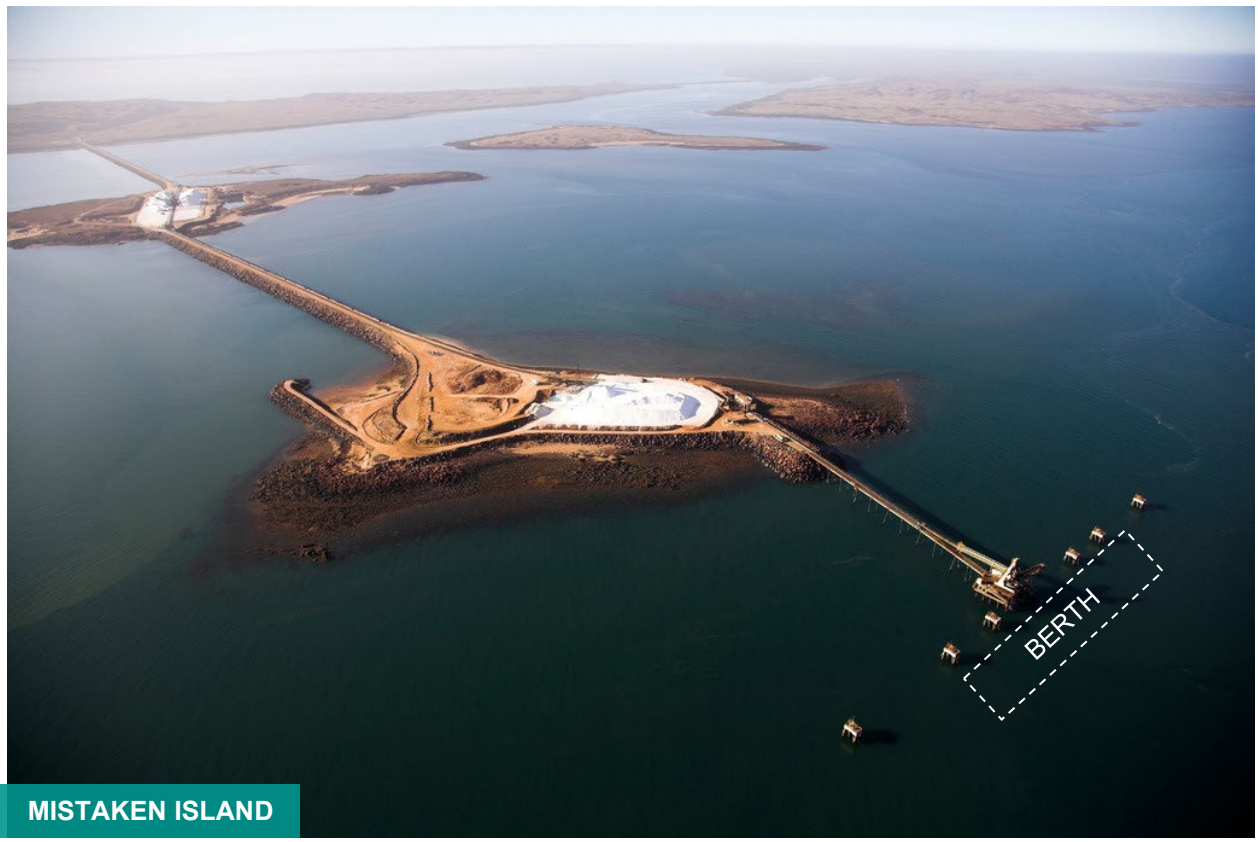
3.4 Mistaken Island

The terminal is owned and operated by Dampier Salt Limited, a Rio Tinto business and the world's largest salt producer. Mistaken Island ships up to 4.2 Mt/a of high-quality solar salt.

The berth consists of a ship loader platform and seven mooring dolphins. Vessels berth starboard side to, moor to and warp along dolphins using ships winches on fore and aft lines, and also central springs attached to No 4 dolphin.

The fixed slewing ship loader can load hatches adjacent to one another, but for loading of other hatches, the vessel is shifted along the berth using ships winches.

MISTAKEN ISLAND		
Location	Port of Dampier: 20° 38' 05.6" S, 116° 39' 40.5" E	
Cargo	Salt	
Facilities	One berth with one fixed cantilever ship loader	
		Loading Berth
Parameters	Number of mooring dolphins	7
	Total length between dolphins	358.20 m
	Ship loader outreach radius from fender line	17.40 m
	Average net loading rate	2,000 t/h, maximum output 3,500 t/h
Restrictions	Length overall	225.0 m
	Beam	36.0 m
	Berth pocket depth at LAT	12.3 m
	Shallowest depth in approach	9.4 m
	Maximum air draft above LAT	20.25 m
	Minimum air draft above LAT	16.60 m
	Berthing displacement	50,000 t
Typical Towage	**Berthing** Number of tugs	2
	Sailing Number of tugs	If draft <10.8 m - 2 until clear of EII If draft >10.8 m - 2 until clear of EII, then 1 to 11W

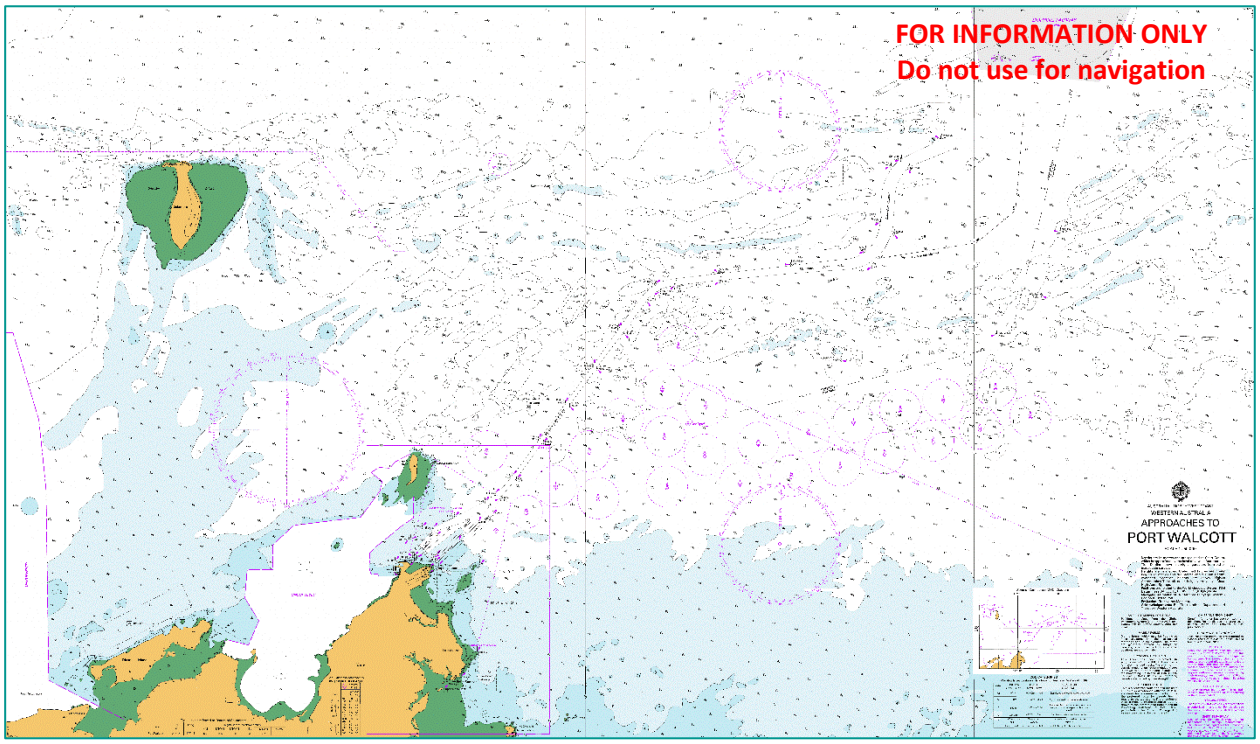


MISTAKEN ISLAND

4 PORT WALCOTT

Port Walcott facilities are the only deep-water terminal within the port, operating under the auspices of the Western Australian Department of Transport, in its role as port authority.

The Department of Transport may occasionally issue Marine Notices which supersede some details contained in this handbook. Please check the Department of Transport website for Port Walcott relevant notices: www.transport.wa.gov.au/imarine/notices-to-mariners.asp



Rio Tinto Facilities

Cape Lambert Terminal A	Iron Ore
Cape Lambert Terminal B	Iron Ore
Cape Lambert Service Wharf	Break-bulk / general (upon request)

Navigation

Dry-bulk vessels anchor in a designated area immediately to the NE of terminal.

Pilotage is compulsory for berthing and departing vessels, with transfer via helicopter (subject to vessel capability).

Departing vessels transit an 18 nautical mile channel (maintained to a depth of 15.6 m) to sea.

Sailing drafts are determined by a Dynamic Under-Keel Clearance system based upon real time- tide and wave measurements, except during spring tides or if the system is inoperative. Please refer to section 13.2 for further information.

Environmental Conditions

Tides	MSL 2.5 m, MHWS 4.5 m, LAT to HAT range 5.5 m, typically strong currents up to 1.2 knots (flood (HW-4) in general direction SE, ebb (HW+4) in general direction NW). **Important to note:** Fully laden vessels in CLA berths 1 & 3 and CLB berth 5 are to remain vigilant with mooring lines during the period of low water and to hold on brakes if ranging off the berth. Winds can reach 35 knots generating waves over 2.5 m.
Load-line zone	Summer Zone from 1st Dec to 30th Apr Seasonal Tropical Zone from 1st May to 30th Nov
Cyclones	Typically occur between November and April

Services

SERVICE	AVAILABILITY	SERVICE	AVAILABILITY
Waste disposal	Contact agent	**Provisions**	Available
Bunkers	Not available	**Fresh water**	Available
Crew change	Available	**Repairs**	Limited availability
Facilities ashore *(Agent to arrange transport)*	Shops available at Wickham (13 km) Airport, post office, banks, shops, hospital at Karratha (50km) Mission to Seafarers at Wickham (13km) and Dampier (70km)		

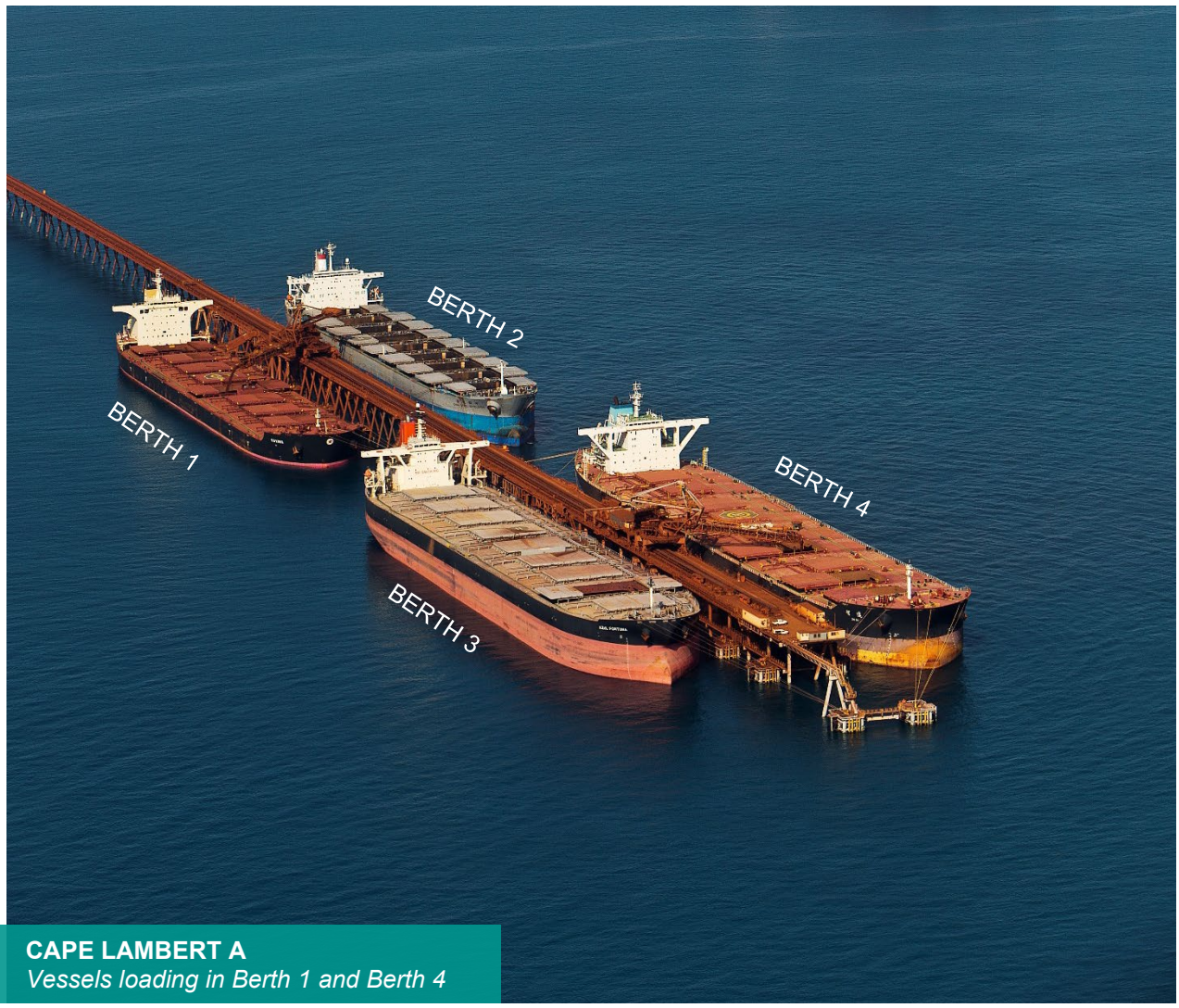
Key Contacts

VHF	Channel 14 call 'Port Walcott Base' for Rio Tinto Iron Ore Marine Operations Channel 16 for emergencies only
Phone	Rio Tinto Iron Ore Marine Operations +61 8 9186 1487 A radio box containing a handheld radio and mobile phone will be supplied on arrival. **This radio and mobile phone must be monitored at all times. Please ensure all items are returned shoreside prior to departure.**

4.1 Cape Lambert A

Cape Lambert A is an Iron Ore terminal capable of loading more than 85 Mt/a. Vessels up to 255,000 dead weight tonnes can be accommodated for loading. Four berths, located at the end of a 3,000m jetty, serviced by two travelling slew-type ship loaders.

CAPE LAMBERT A					
Location	Port Walcott: 20° 34' S, 117° 12' E				
Cargo	Iron Ore				
Facilities	Four berths with two slew-type ship loaders				
		Berth 1	**Berth 2**	**Berth 3**	**Berth 4**
Parameters	Ship loader travel at berth	293.24 m	293.24 m	323.16 m	323.16 m
	Ship loader outreach radius from fender line	27.76 m	24.56 m	28.96 m	32.06 m
	Berth pocket length	383.44 m	383.44 m	415.00 m	415.00 m
	Total length of wharf at berth	350.85 m	350.85 m	365.60 m	365.60 m
	Total length of fendering at berth	346.50 m	346.50 m	423.10 m	423.10 m
	Required gross loading rate	9,000 t/h	9,000 t/h	9,000 t/h	9,000 t/h
Restrictions	Length overall	310.0 m	310.0 m	330.0 m	330.0 m
	Beam	47.5 m	55.0 m	57.0 m	57.0 m
	Berth pocket depth at LAT	19.2 m	19.4 m	19.4 m	19.4 m
	Berth width	87.0 m	87.0 m	87.0 m	87.0 m
	Shallowest depth in approach	10.6 m	9.6 m	10.6 m	9.6 m
	Rio Tinto allowable air draft (Distance to top of hatch coaming)	22.0 m	22.0 m	22.0 m	22.0 m
	Berthing displacement	150,000 t	150,000 t	150,000 t	150,000 t
Typical Towage	**Berthing** Number of tugs	3	3	3	3
	Sailing Number of tugs	3	3	3	3
	Number of escort tugs into channel	1-2	1-2	1-2	1-2
	Escort tugs accompany to channel	Beacon 23	Beacon 23	Beacon 23	Beacon 23



CAPE LAMBERT A
Vessels loading in Berth 1 and Berth 4

4.2 Cape Lambert B

Cape Lambert B is an Iron Ore terminal capable of loading more than 100 Mt/a. Vessels up to 255,000 dead weight tonnes can be accommodated for loading. Berths 5 and 6 began operating in August 2013. Berths 7 and 8 began operating in June 2014.

CAPE LAMBERT B					
Location	Port Walcott: 20° 34' S, 117° 12' E				
Cargo	Iron Ore				
Facilities	Four berths with two slew-type ship loaders				
		Berth 5	**Berth 6**	**Berth 7**	**Berth 8**
Parameters	Ship loader travel at berth	242.55 m	242.55 m	242.55 m	242.55 m
	Ship loader outreach radius from fender line	32.16 m	32.16 m	32.16 m	32.16 m
	Berth pocket length	418.0 m	418.0 m	418.0 m	418.0 m
	Total length of wharf at berth	408.0 m	408.0 m	408.0 m	408.0 m
	Total length of fendering at berth	408.0 m	408.0 m	408.0 m	408.0 m
	Required gross loading rate	10,000 t/h	10,000 t/h	10,000 t/h	10,000 t/h
Restrictions	Length overall	330.0 m	330.0 m	330.0 m	330.0 m
	Beam	57.0 m	57.0 m	57.0 m	57.0 m
	Berth pocket depth at LAT	20.0 m	20.0 m	20.0 m	20.0 m
	Berth width	85.5 m	85.5 m	85.5 m	85.5 m
	Shallowest depth in approach	10.0 m	10.0 m	10.0 m	10.0 m
	Rio Tinto allowable air draft (Distance to top of hatch coaming)	22.0 m	22.0 m	22.0 m	22.0 m
	Berthing displacement	147,000 t	147,000 t	147,000 t	147,000 t
Typical Towage	**Berthing** Number of tugs	4	4	4	4
	Sailing Number of tugs	4	4	3	3
	Number of escort tugs into channel	1-2	1-2	1-2	1-2
	Escort tugs accompany to channel	Beacon 23	Beacon 23	Beacon 23	Beacon 23

CAPE LAMBERT B
Vessels loading in Berth 6 and Berth 8. Vessel preparing to sail from Berth 5

4.3 Cape Lambert Service Wharf

Cape Lambert Service Wharf is a general-purpose facility used for the loading or discharge of break-bulk or general cargoes using vessel gear or mobile crane.

A timber-decked approach jetty, 457 m long, connects to a 155 m long berthing head wharf which has mooring dolphins 27.5 m distant at each end.

The berth primarily exists to service Rio Tinto requirements, third party calls are undertaken at the discretion of Rio Tinto.

CAPE LAMBERT SERVICE WHARF		
Location	Port Walcott: 20° 35’ S, 117° 11’ E	
Cargo	Break-bulk / General	
Facilities	One berth	
		Discharging Berth
Parameters	Berthing basin length	No defined berthing basin
	Berthing basin width	No defined berthing basin
	Total length of wharf	155.0 m
Restrictions	Length overall	185.0 m
	Beam	32.2 m
	Berth pocket depth at LAT	9.40 m
	Shallowest depth in approach at LAT	7.80 m
	Berthing displacement	48,000 t
Typical Towage	**Berthing** Number of tugs	2
	Sailing Number of tugs	2

CAPE LAMBERT SERVICE WHARF

5 INSTRUCTIONS TO VESSELS CALLING TERMINALS

5.1 Safety and Environment

- All vessels are required to have a Safety Management System (SMS) and hold a current Safety Management Certificate (SMC), as per the International Safety Management (ISM) code.
- All vessels require a Ship Security Officer and Ship Security Plan, as per IMO legislation and compliance with the Australian ballast water management legislation is required.

5.2 Emergencies

- In the event of an emergency, the following instructions must be followed:
  - Raise the Alarm - sound one or more blast of air horn for 10 seconds or longer, continuously sound general alarm system.
  - Stop all cargo / deballasting operations.
  - Implement berth emergency plan.
  - Inform Terminal / port control:
    - VHF 11 or 16 for terminal or Dampier PPA VTS
    - VHF 14 or 16 for Port Walcott
    - Berth ship to shore radio (radio supplied by terminal whilst alongside berth)
  - Vessels to advise your Shipping Agent/AMSA and complete appropriate forms.
  - In case of fire, contain fire, prevent from spreading.
  - Standby to disconnect hoses or loading arms if applicable.
  - Bring engines to standby.
  - For any parted line incidents or vessels ranging off the berth seek Terminal assistance for tug resources immediately.

5.3 Use of Auxiliary Engines and Emergency Generators

- Bulk Carriers over 100,000 DWT require Standby Auxiliary Engine to be kept on Running Standby, during manoeuvring and transit of the Port.
  - A ‘Standby Auxiliary Engine’ is the Auxiliary Engine reserved for redundancy in case of a failure of the on-load Auxiliary Engine.
  - ‘Running Standby’ means that the Standby Auxiliary Engine must be kept running during the entire duration of the manoeuvring and transit of the Port, however it is not required to be ‘on load’.
- Emergency Generators must be tested within 24 hours prior to arrival for good working order.

- Any defects identified must be immediately reported to the Harbour Master and rectified prior to berthing.
- All planned maintenance must be completed and auxiliary engines tested prior to the vessel's berthing.
- Any defects or performance issues must be reported to the Harbour Master immediately.
- Following the report of any defect, the Master must demonstrate that adequate controls are in place to guarantee sufficient capacity and redundancy. These controls will be reviewed by the Harbour Master prior to berthing approval being granted.
- For further information refer to Appendix 1 PPA Port of Dampier Marine Notice D22/23 - Availability and use of Auxiliary Engines (Generators) and Emergency Generator

5.4 Communication

- The vessel must be contactable at all times while at berth. A hand-held radio will be provided for communication between vessel's Duty Officer and the Ship loader Operator.
- Regular contact should be maintained, and batteries changed regularly. The call sign is 'Ship loader'.

5.4.1 Communication - Dampier

- The Dampier Pilbara Ports Authority is the primary contact for general enquires and can be contacted by calling 'Dampier VTS' on VHF 11 and 16, telephone +61 8 9159 6556.
- Direct communication to the Marine Coordinators call 'Hamersley Base' on VHF 11 and 16, telephone +61 8 9183 7111.
- Rio Tinto Iron Ore Marine Coordinators and Pilbara Ports Authority maintain a watch on VHF 11 and 16.
- Other channels are listed below:
    - Ch.11 Port working frequency
    - Ch.13 Helicopter operations
    - Ch.16 Distress, calling and declared port emergencies; monitored by port authority
    - Ch.67 Secondary emergency
    - Ch.72 Ship-to-ship
    - Ch.74 Ship-to-shore (Shipping Agent)
    - Ch.82 Woodside operations
- Pilots and tugs use private VHF channels when vessels are under pilotage:
    - Ch.4 Dampier Pilot 1
    - Ch.5 Dampier Pilot 2
    - Ch.6 Dampier Pilot 3
- Vessels approaching or at anchor must maintain a continuous watch.

5.4.2 Communication - Port Walcott

- Rio Tinto Iron Ore Marine Operations can be contacted on channel 14 or 16 by calling "Port Walcott Base", or via telephone + 61 8 9186 1487.
- Other channels are listed below:
    - Ch.14 Port working frequency.
    - Ch.16 Distress, calling and declared port emergencies; monitored by port authority.
    - Ship loader Operator – Berth ship to shore radio (radio supplied by terminal whilst alongside berth)
- Pilots and tugs use private VHF channels when vessels are under pilotage.
    - Ch. 7 Cape Lambert Pilot Inbound
    - Ch. 8 Cape Lambert Pilot Outbound
    - Ch. 9 Cape Lambert Pilot Escort
    - Ch.10 Cape Lambert A Backup
    - Ch. 11 Cape Lambert B Backup
- Vessels approaching or at anchor must maintain a continuous watch.

5.5 Cyclones

- Cyclone season is from 1st November to 30th April.
- An average of six cyclones each season threatens the region and usually half of the cyclones will make landfall.
- Approaching cyclones are monitored by Marine Pilots and Marine Coordinators.
- If necessary, ports will be closed and all vessels required to seek refuge at sea.
- Dampier vessels will be advised by Pilbara Ports Authority via VHF 11.
- Port Walcott vessels will be advised by Port Walcott base via VHF 14.
- Maintain watch on:
    - VHF 11 or 16 for Dampier
    - VHF 14 or 16 for Port Walcott

5.6 Environmental Pollution

- No refuse of any kind should be discharged, including oil, garbage, and excessive funnel exhaust.
- A vessel engaged in international trade may only discharge ballast with approval from the Department of Agriculture, Fisheries and Forestry. Vessels engaged in Australian coastal trade must abide by the voluntary code of practice regarding ballast discharge.
- Australian environmental and marine law applies to vessels in port and surrounds, and offenders may be prosecuted.

- Offenders will be held liable for clean-up costs.
- In the event of an oil spill immediately follow emergency procedures as outlined in section 5.2.

5.7 Fishing

- Fishing is heavily regulated in Australia, please contact your agent for advice regarding fishing outside of the port. **Fishing is strictly prohibited while alongside any berth**.

5.8 Crew Illness or Death

- In the event of crew illness or death please contact your agent. If alongside, please also contact Port Operations.

5.9 Repairs, Defects and Malfunctions

- Any defects and/or malfunctions should be promptly reported to AMSA (KTAOperations@amsa.gov.au), relevant port authority and your Shipping Agent.
- Main engine immobilisation is permitted after approval received from Harbour Master and Rio Tinto Iron Ore.
    - A detailed written description should be on a 'Request for Immobilisation' form including signed and dated risk assessment of all tasks involved.
    - Such approval may not be granted during elevated weather conditions unless in the case of an emergency.
- Work is not to be undertaken whilst alongside a berth unless approval is granted by a Rio Tinto Iron Ore Marine Coordinator.
    - Agreement should be reached on safety precautions to be taken.
- Hot work is not permitted whilst alongside a berth unless approved by the Rio Tinto Iron Ore Marine Operations Superintendent and the Pilbara Ports Authority/Department of Transport.
    - All hot work permits are also to be counter-signed by port authority, shore officer and ship's officer.

5.10 Electrical Equipment

- Non-intrinsically safe certified equipment is not permitted in the vicinity of Dampier Fuel Wharf while petroleum cargoes are being handled, except in permanent buildings ashore as nominated by the shore officer, or areas of the vessel as nominated by the Master.
- Unsafe equipment may include mobile phones, computers, cameras and other devices.
- Exceptions may be given when a risk assessment has been conducted and approval given by both the Master and shore officer.

- Do not change a radio battery unless inside a permanent building.

5.11 Towage and Line Boat Fleet

Rio Tinto operates a fleet of modern tugs to carry out harbour towage and to escort all vessels using the company's terminals, based from tug pens located at Dampier and Port Walcott.

Third party towage work can be undertaken, subject to availability.

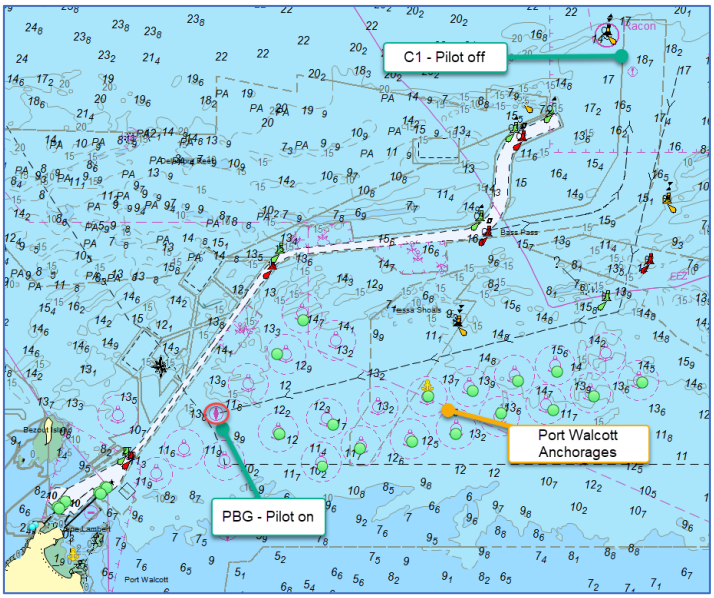
Vessel	IMO Number	Build Year	BP (t)	GT (t)	LOA (m)	Beam (m)	Port	AIS Compatible
Oita	9528964	2010	65	429	32.0	11.6	Dampier	Yes
Pilbara Thor	9455612	2009	65	429	32.0	11.6	Dampier	Yes
Pilbara Titan	9346158	2006	65	353	30.6	10.6	Dampier	Yes
Pilbara Vulcan	9298959	2005	65	353	30.6	10.6	Dampier	Yes
Pilbara Neptune	9298947	2004	65	353	30.6	10.6	Dampier	Yes
Pilbara Apollo‡	9635884	2012	80	499	32.0	12.8	Port Walcott	Yes
Kashima	9635896	2012	80	499	32.0	12.8	Port Walcott	Yes
Matsuzaka	9635901	2012	80	499	32.0	12.8	Port Walcott	Yes
Barrura	9635913	2012	80	499	32.0	12.8	Port Walcott	Yes
Gurrgura	9635925	2012	80	499	32.0	12.8	Port Walcott	Yes
Wamalhanha	9635937	2014	80	499	32.0	12.8	Port Walcott	Yes
Samson 3	MMSI 503594200	2011	2	23.2§	17.09	6.0	Port Walcott	Yes
Line Boat 4	M&H 6943	2012	2	16§	12.0	5.0	Port Walcott Dampier	Yes
Line Boat 5	UVI460311	2022	1	6.9	10.2	3.15	Dampier	Yes

BP = bollard pull; GT = gross tonnage; LOA = length overall; ‡ picture below; § lightship weight

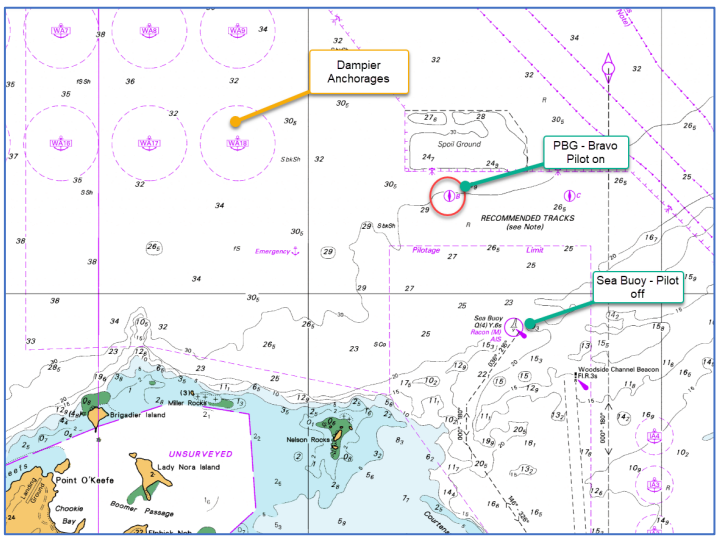
PILBARA APOLLO

5.12 Helicopter Operations

- Marine Pilot transfers are predominantly done via helicopter movements, and the vessel must provide safe access and egress for the Marine Pilot.
- Ships involved in helicopter operations at Dampier will communicate on VHF channel 13 and Port Walcott will communicate on channel 14.
- Vessels under NO circumstances are to proceed past Pilot Boarding Ground until the Marine Pilot is on board.
- Inbound vessels Pilot Boarding Ground locations:
  - **Port Walcott PBG: Latitude 20°32.71' South Longitude 117°15.1' East**



  - When picking up a pilot from Pilot Boarding Ground vessels are to take the preferred route on the chart. All care is to be taken to avoid all outbound traffic and vessels at anchorage.
  - Any deviation to plan, or inability to be at the pilot boarding ground should be reported to Port Walcott Base.
  - **Dampier PBG Pilot Station: Bravo Latitude 20°23.7' South 116°42.0' East**



    - Vessels are not to proceed past pilot boarding ground until pilot has boarded.
- As per AMSA guidelines for Marine Pilot transfers “the vessel is required to have onboard documentation to prove that the area being used for helicopter operations is capable of withstanding the static and dynamic loads that will be experienced during the operation”.
- The vessels helicopter party is to have received instruction in accordance with AMSA guidelines (ship-helicopter transfer Australian code of practice or relevant IMO/ICO equivalent).
- All hatch covers must be closed prior to the helicopter’s arrival.
- The vessel’s helicopter party must be on standby prior to the helicopter’s arrival and be ready to perform firefighting/emergency procedures at any time until the aircraft has safely departed the vessel’s vicinity.
- Helicopter party require access to at least two connected and “charged” firehoses which can supply water to all parts of the helicopter landing zone.
- The landing hatch must have one access point with raised handrails installed prior to the helicopter’s arrival. All other hatch accesses are to have any raised handrails removed during helicopter operations with no more than 350 mm step height.
- For night operations, all deck lights (including accommodation and bridge lights) are to be on.
- A clearly visible wind indicator/sock is required at all times.

5.12.1 Helicopter Transfers

- Marine Pilot transfers are primarily carried out by helicopter; three helicopters are operated on Rio Tinto’s behalf for this purpose.
- Transfers via pilot boat are carried out when helicopter transfer is not possible.

5.12.2 Helicopter Operational Parameters

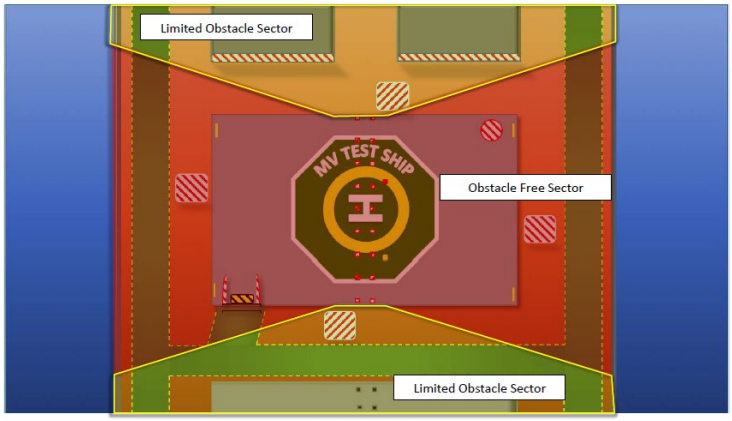
Minimum manoeuvring diameter	39 m
Maximum laden weight	3,200 kg

5.12.3 The ICS Guide to Ship Helicopter Operations

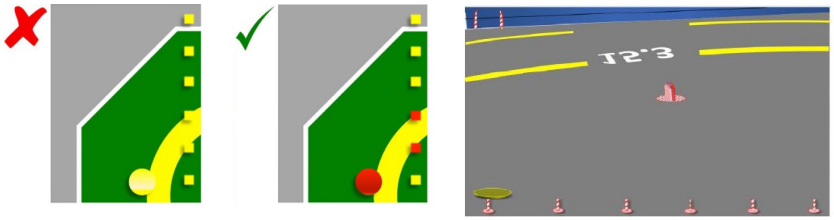
The International Chamber of Shipping's (ICS) *Guide to Ship Helicopter Operations* underpins the Australian Maritime Safety Authority (AMSA) regulatory orders regarding the transfer of Marine Pilots using helicopters in Australian waters (*Marine Order 57*). The Order requires the Master to provide shipboard arrangements, equipment, training and drills that “are at least as effective as those mentioned in the ICS Guide for operations or activities directly related to the vessel”. Additionally, Marine Order 57 states “any obstacles within the helicopter landing or operating area that do not comply with the ICS Guide must be clearly marked”.

- Helicopter landing hatch must be capable of accommodating the maximum loaded weight of 3200kg.

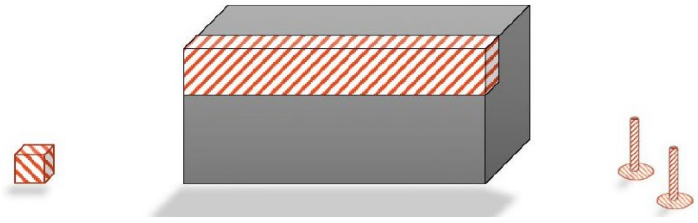
- In accordance with the International Chamber of Shipping (ICS) Guide to Helicopter/ Ship Operations, Rio Tinto require a 39 m diameter manoeuvring zone around the helicopter landing area. This requirement also applies to geared or craned vessels (day and night).
- The helicopter landing area must be clearly defined with an "**H**". If "winch only", the vessel must provide assurances to the terminal that it is safe to land before arrival at the designated anchorage.



- Any raised items (lugs, handrails, etc.) located on the landing hatch must be painted in accordance with the ICS Guide to Helicopter/ Ship Operations so that they are clearly distinguishable from the markings of the hatch's surface.



- The red/white scheme should also be requested to mark the edges of large obstacles such as deckhouses adjacent to the helideck, and for large vertical obstructions adjacent the helideck such as hydrant stands, vents, and the like.



5.12.4 Rio Tinto Helicopter Safety Compliance Checklist

When completing the pre-arrival questionnaire, Masters are to refer to the ICS Guide to Ship Helicopter Operations, and AMSA *Marine Order 57* to ensure that all obstacles on and surrounding the helideck are correctly marked.

5.13 Pre-Arrival Information

- The requested information is to be submitted and if not received this may result in the non-acceptance of the Notice of Readiness.
- Information should be provided via your Shipping Agent to Rio Tinto Iron Ore Marine Operations Attention the Marine Coordinators.
- If you have any questions, please contact your Shipping Agent.

5.14 Vetting - RightShip

- As part of the Charter Party acceptance, the vessel will be approved under the Rio Tinto Marine RightShip guidelines.
- RightShip is endorsed by Rio Tinto Group HSE as the primary quality risk management tool to be used by the Rio Tinto business.
- RightShip is an online ship vetting system, which considers a range of criteria in assessing a vessel.
- Every vessel used for carriage of Rio Tinto cargo or calling at Rio Tinto owned or operated Port must be vetted and accepted on RightShip before being fixed for business.
- Vessels used by Rio Tinto must complete a RightShip Terminal Vetting Questionnaire and once approved remains valid for a two-year period unless a serious deficiency or incident is recorded.
- All enquiries should be directed to the vessel Owners or Charterers.

5.15 Estimated Time of Arrival (ETA)

- The estimated time of arrival is to be updated and advised to Shipping Agents/Rio Tinto on a regular basis during the voyage.

5.16 Pre-Arrival Questionnaire

- To be completed prior to arrival, and no less than 5 days prior to arrival at the anchorage.
- This information should be provided via your Shipping Agent to Rio Tinto Iron Ore Marine Operations Attention the Marine Coordinators.
- If you have any questions, please contact your Shipping Agent.

5.17 Safety Letter Pack

- Rio Tinto Iron Ore Marine Operations prepare a Safety Letter Pack for each vessel, the Shipping Agent will send this electronically to the vessel which consists of:
    - Safety Letter
    - Single Point Lessons
        - Safe Gangway Operation

- Working Near Hatches
- Crew Transfer and Shore Leave
- Working near Tensioned Lines
- Manometers
- Draft Mark Specifications

- The Surveyor will email the Electronic Ship Shore Safety Checklist for the Master or Chief Officer to complete and return via email to terminal and surveyor. The Ship Shore Safety Checklist will be discussed and confirmed once Surveyor is onboard.

5.18 Border Force, Department of Agriculture, Fisheries & Forestry, AMSA, Port Authority

- All Australia government and regulatory requirements need to be completed and/or adhered to.
- For further information, please contact your Shipping Agent.

5.19 Load Plan - BLU Format

- Required a minimum of 5 days prior to berthing and is to be in Hunter Marine Surveyors format. A copy is also to be provided to the Surveyor on boarding to complete berthing process.
- Please provide a loading plan in accordance with the BLU code format clearly stating:
    - Loading plan with hatch changes kept to a minimum of 2 pours per hatch, i.e., for 9 holds = 18 pours including trimming
    - Total cargo to be loaded
    - Complete deballasting program
    - Departure drafts
- Please provide a completed Dynamic UKC Ship Data Form containing:
    - Departure displacement
    - KG, KM, GM (GMs), GoM (GMf)
- Where appropriate, Rio Tinto will load ships to within 9% of the contract cargo assigned to each “Letter of Credit” shipment. This is to allow for possible weightometer and other loading errors to ensure the amount of cargo loaded onto a ship remains within the agreed quantity and complies with the terms of the contract.
- Shipping Agents should keep the vessel informed of the static maximum sailing draft on the vessel’s assigned tide and the maximum allowable cargo under the 9% policy.
- Once the ship has this information it can provide Rio Tinto with a workable loading plan.
- On berthing the final load plan will be signed by the Master and Surveyor.
- Alternate hold load plans will not be accepted at Ports of Port Walcott or Dampier.

SURVEYOR TIPS FOR COMPLETING THE LOAD PLAN	
Entering Data	Complete all **yellow cells.** Select from the **dropdown** lists for **grey** cells. Ensure both **Load Plan** & **DUKC** pages are completed. Some calls will automatically populate once dropdown selections are made. **Do not leave** any **blank lines** in the sequence. Select if SF & BM's are calculated for **Sea Going** or **Harbour** condition. It is recommended the **Sea Going** condition be used especially in exposed berths. The **dock water** density is 1.023kg/L by draught survey Zeal hydrometer and will be used for survey calculations. **Hover** over the **red triangle** for a hint on what is required. **Read** the **warnings in red** if information is missing.
Load Plan Consideration	Always **consider** the following when making a plan. **MSD** for the tide will vary according to the **berth** you are loading at. Do you have **draft limit** at the **discharge port?** Are you close to your **contract quantity** (ATL) limits? Are you close to you **hold mass limits** for each hold or **combined** limits for adjacent holds? Does your plan have a **sag allowance?** Load plans should be made in accordance with the principles of the **IMSBC** code preferably with **18 pours** and should be for summer draft or MSD for departure tide (whichever is less). **Two plans** should be made if loading two grades. One with **each grade loaded first** E.g. Loading PBF and PBL, one plan loading PBL then PBF, and another loading PBL and PBF.
Grade Details	**Plan** to load to +/- **9%** for each grade for safety due to uncertain belt error. Maximum cargo +/- **10%** may be loaded **during trimming** once the belt error has been determined, if safe to do so and tide allows. The **last grade loaded** should be planned to be less than 4000 from the contract maximum in case cargo is added during trimming for DUKC or belt error.
Plan Flexibility	The **load plan** is made for **static** tides as per the tide tables and UKC requirements and as requested by the **agent.** During trimming the **DUKC** draft will be known and the vessel **may load more or less** according to the conditions. Sometimes, in favourable actual tidal conditions, up to 50cm extra draft may be loaded if still under summer draft.

	It is advisable to have a plan ready for your expected **departure time** and also for the **next tide** should there be delays. With these alternate plans the **first run** in each hatch **should be the same** as changes to the departure may be cancelled mid loading. If possible, the **pour before trimming** should be in a **central hatch** to allow flexibility to add or reduce cargo as required. **Trimming pours** should be **2000**mt each. Trimming hatches should be planned to be **less** than the **hold mass limit** by at least **2000t** in case cargo is added during trimming to make up the belt error or extra draft for DUKC.
Tropical Allowance	**Tropical zone** applies to vessels sailing between **1 May & 30 Nov.** During this time, load plans should be made for **summer draft only** and extra draft for tropical allowance will be added during trimming in consultation with the Master on the basis of the intended voyage. The vessel must not be over draft at any time during the voyage as she passes between different zones.
Save the File	**Save** the completed plan back to the **Agent** with a **logical name.** E.g. **VESSEL NAME – Lod Plan – 18.32m**

6 ANCHORAGE

- To receive anchorage instructions, contact below at least four hours prior to arrival:
  - Dampier contact ‘‘Dampier VTS” on VHF 11
  - Port Walcott contact “Port Walcott Base” on VHF 14
- A Marine Pilot is not required to proceed to the designated anchorage.
- Berth arrival is determined by operational requirements. The pilot boarding time will be advised by ‘Dampier VTS’ on VHF 11 (Dampier), or ‘Port Walcott Base’ on VHF 14 or via Shipping Agent.
- Designated anchorage positions are shown on relevant charts.
- Change heavy fuel tanks if required. Port regulations prohibit doing so within the port confines.
- It is a terminal requirement that LNG powered vessels, whilst under pilotage, must operate main engine on alternative fuel. Bunkering station and LNG lines must be purged prior to pilotage.
- Vessels fitted with alternative propulsion (i.e. sails/kites) must be stowed away and secured a minimum of 4 hours prior to pilot boarding.

7 VESSEL MACHINERY READINESS

All vessels shall, as a minimum:

1. Ensure that the following machinery and equipment is tested within 4 hours prior to pilot boarding and on arrival at load-port and recorded in the vessel logbook:
    a. Main propulsion machinery, ahead and astern
    b. Primary and secondary steering gear
2. All equipment on the bridge that works from emergency power should be clearly marked so that it is apparent to the Pilot and Bridge Team.
3. Test ballast system and hatch cover operating systems and controls to ensure they are in good order.
4. Ensure strict adherence to their Safety Management System (SMS), Planned Maintenance System (PMS) and Original Equipment Manufacturer (OEM) guidelines for all critical equipment.
5. Ensure maintenance, testing and monitoring of all critical equipment, in particular of main propulsion machinery is adequately carried out and that the vessel is ready in all respects during arrival and departure ports.
6. Ensure all personnel in charge of critical machineries are aware of their operation and limitations including handling of emergency situations.
7. Ensure recommendations / guidelines stated in the fuel oil analysis reports of the fuel in use are strictly followed.

In addition, vessels are advised to avoid changeover to a new batch of fuel during manoeuvring or port stay, where practicable. If a changeover to a new batch of fuel is necessary, this should be done at least 72 hours prior to arrival at the anchorage or pilot station, whichever is earlier.

Any vessel that experiences an engine breakdown will be subject to an enquiry and Owners asked for reasons why the breakdown occurred, what was done to rectify the problem and what measures have been taken to ensure a similar incident will not happen again.

RTIO reserves the right to restrict poor performing vessels from calling at their terminals.

8 BERTHING

8.1 Early Loading When Berthing

- Vessels must confirm 5 days prior to arrival at anchorage, through their Shipping Agent that they are able to commence loading immediately when the vessel is all secure.
- Vessels should be prepared to commence loading immediately when the vessel is all secure as directed by the Marine Pilot/Surveyor.
- The first hatch must be clean, open and ready for use after the tugs are secured.

8.2 Draft

- The berthing draft will be advised via the Shipping Agent, once this is received please advise: the hours required for deballasting; remaining ballast on board for stripping; air draft at first loading hatch at the berthing draft.
- If amended, revised berthing drafts will be advised approximately 24 hours prior to berthing.
- Berthing drafts depend on propeller immersion (full), satisfactory boarding arrangements, prevailing weather conditions, trim (not to exceed 2 m), and the air draft not exceeding terminal restriction.
- If a vessel cannot comply with its assigned draft, any exemption to the above conditions must be requested in writing and addressed to the Surveyor. The ship will be notified of the revised draft 12 to 18 hours prior to berthing.
- Non-adherence to berthing draft procedure could cause measurability and air draft issues resulting in berthing delays or refusal to berth.

8.3 Pilotage

- Pilotage is compulsory for all vessels over 35 m LOA, unless the Master holds a current exemption certificate.
- The Marine Pilot acts as an advisor to the Master, and an agent of the ship Owner.
- Marine Pilot embarkation will be via helicopter except where exempted on Rio Tinto discretion, when a pilot boat may be used. Refer to section 5.12.1 for further information.
- When a pilot boat is used, information of pilot boarding arrangement and speed will be directed when pilot boat is inbound via channel 11 or 14. Maintain speed and heading as directed providing suitable lee.
- The pilot ladder should be in good condition, properly placed, secured and illuminated. For further information please refer to Appendix 2 AMSA Marine Notice 2023/04 - Pilot Transfers

- Shipowners, operators, masters and crews are reminded that pilot transfer arrangements, including pilot ladders, must comply with Marine Order 21 (Safety and emergency arrangements) 2016 (MO21).
- A Rio Tinto Pre-Arrival checklist will need to be filled in with regards to the Pilot ladder and arrangement including accompanying photo evidence.
- Man ropes and ladder must be less than 30 months old.
- Where the freeboard exceeds 9 m, use a gangway / pilot ladder combination rigged 2 m from waterline.
- Bridge wing sun shades must be rigged (if fitted) for both berthing and sailing.

8.4 Towage

- Tugs are of varying bollard pull, from 65 t to 80 t. Please refer to 'Towage and Line Boat Fleet' table in section 5.11 for specific information.
- Vessel bollards and fairleads should be rated at no less than 65 t (as per the RightShip Terminal Vetting Questionnaire).
- Communication with tugs is the responsibility of the Marine Pilot.
- When letting go of tug lines lower the line slowly, never drop the line.

8.5 Mooring

- For mooring diagrams by berth refer to section 14.
- The Master is responsible for ensuring that the vessel remains securely moored alongside wharf at all times.
- Mixed mooring lines are prohibited at all Terminals. This includes mooring lines of the same material and construction in the same direction.
- A quick-release hook system, rated at 100 t, is used at Iron Ore terminals. Dolphins are fitted with electric capstans and/or tugger winches.
- Synthetic ropes should be used.
- Vessels are **NOT** permitted to use wire lines at the Rio Tinto Dampier or Port Walcott Terminals.
- Mooring lines are taken ashore by lines boat where possible.
- All lines should have a light rope tail no greater than 2 m, spliced into the eye to facilitate transfer of lines from ship to lines boat.
- All anchor locks and restraints must be in place and tested before commencement of line running and confirmed by the Master to the Marine Pilot.
- When instructed by Pilot, lower both anchors to 2 m below waterline.
- Splicing together mooring line is acceptable if five tucks or more are used, and the line is in good condition.

- All lines will be run either by lines boat or messenger line to mooring crew under direction of Marine Pilot and mooring crew supervisor.
- Always keep watch on the crew of the lines boat while running lines.
- Heaving lines should not have metal objects or heavy weights added to, or used in place of, a monkey fist knot.
- Signals from lines boat to ‘heave up’ mean to just clear the water line.
- Always keep mooring lines slack (just touching water) once on the mooring dolphin hook, and ensure the slack is monitored and maintained throughout the mooring process.
- Under no circumstances should a gangway be positioned on a dolphin utilised by mooring lines.
- Mooring lines are NOT to be tensioned until the Marine Pilot instructs the Master that it is safe to heave up.
- Do not ring finished with engines until all fast and confirmed with Marine Pilot.
- Mooring line inspections should be conducted no less than every 30 minutes, particularly around the changing of tidal flow where risk of line breakage is increased.
- Vessels to maintain constant watch on mooring lines for the rise and fall of the tide. During spring tides there will be significant current movement at both ports.
- Any line breakage or abnormality must be reported immediately to the terminal for investigation.
- Information regarding typical mooring instructions for Iron Ore terminals is available from your Shipping Agent or Rio Tinto representative.

8.6 Berthing Conditions

- Berthing will not be performed in unsafe wind or currents.
- Marine Pilots monitor conditions in real time from a system of instruments and will determine if a berthing is safe to perform.
- Maximum berthing displacement varies for each terminal. Please refer to the ‘Restrictions’ section in the relevant terminal table (pages 9 to 23).

9 ALONGSIDE BERTH

9.1 Loading

- Confirmation of cargo plan will be delivered on board by the Draft Surveyor. This document contains multiple copies of the loading sequence. Reference to loading is made by hatch, not hold. All weights are expressed in metric tonnes. The first copy is retained on board, the remainder distributed by the Draft Surveyor as required.
- Marine Pilot or Surveyor may request that the first loading hatch is opened before berthing so that loading can begin immediately when the vessel is all fast. Additional hatches should be opened progressively as the loading sequence proceeds. The next hatch should be ready to receive cargo at all times. Do not open all hatches as ship loader slewing may be impeded.
- A quantity of cargo will have to be loaded (run-off) to clear conveyors at completion of loading.
- Discharge of ballast should be performed at the rate aligned with the approved loading plan which will not result in a delay to loading operations. Vessels to advise terminal immediately if they are required to stop for de-ballasting, failure to comply with above ballasting rules may result in delays allocated against the vessel if loading is delayed.
- Ballast should be adjusted to ensure sufficient air draft to maintain more than 2 m clearance between vessel and ship loader boom.
- Hatch numbers should be clearly marked on deck or coaming adjacent to hatch. Colour and size should be such that numeral is clearly visible to the Ship Loader Operator.
- Access to hatches during loading must be approved by the Ship Loader Operator. The Crew in Hatch procedure must be followed. Hatch covers must remain partially open when the hatches are occupied by crew members. Ship loader Operator to be notified once crew have exited hatch. A ship's crewmember must act as a spotter on the deck of the vessel while Crew in Hatch procedure is underway.
- Red, green and white list lights are recommended to vessels loading Iron Ore and should be clearly visible to the Ship loader Operator. A fixed white light shall indicate the vessel is upright.
- Draft marks must be painted white on the raised welded marks so that they are clearly visible from a distance in varying sea states.
- The outboard draft marks CAN NOT be read by ship's crew using rope ladders over the outboard side. A manometer must be used for this purpose. All vessels must comply with manometer specifications. More information can be provided by your Shipping Agent.
- Loading may cease due to significant weather and will be advised on a case-by-case basis directly with the vessel by the Ship loader Operator.

9.2 Remote Draft Survey (RDS)

- Dampier and Port Walcott terminals are operating with Remote Draft Survey (RDS) technology. This offers some improvement to compliance of draft reading during loading operation for access restrictions and varying state of terminal conditions. This will assist in greater clarity of draft check through improvement of lighting and capability to focus in on distant and difficult to read locations.
- If draft marks are found to be in poorly maintained condition, surveyor will discuss vessels non-compliance and RightShip Feedback Reported. Further calls to port will be restricted until draft marks are legible and in good condition.

9.3 Dual Port Loading – Port Walcott

- Due to specific cargo, some vessels will complete dual port loading. Dual port loading requirements will be advised prior to berthing.
- Vessel will commence part-loading of cargo at either CLA or CLB and load to a re-berthing maximum draft of 10.5m and maximum 147kt displacement before moving between berths.
- Movement to the second berth for completion of loading will be as per standard berthing operations.

9.4 Responsibility

- Master is solely responsible for loading operation, communication and access.

- Mooring safety is of high importance.
- Masters are responsible for compliance with mooring directions and policy. All incidents or concerns should be reported immediately.
- Conduct within the port of Dampier is governed by the Port Authority Act (1999). Conduct within the port of Walcott is governed by the Shipping and Pilotage Act (1967). Copies are available on request to Shipping Agent.
- Vessel personnel are responsible for discharge or escape of oil. Heavy penalties and liability for any spills, dispersal costs and damages may apply.
- Masters must ensure a competent officer is on duty throughout the loading period and that the officer visits the deck frequently maintaining a continuous check on the draft and air draft.
- Loading will stop and delays will be booked against a vessel if air draft is exceeded or if the Officer of the watch fails to respond within 10 minutes.
- Adequate notice must be given before loading can be resumed due to delays or deballasting requirements.
- A minimum 20 minutes notice must be given of changes in loading sequence, and approval given by Draft Surveyor.
- Ship loaders are equipped with weight scales, these figures are used as a reference only and do not relieve the Master of any responsibility.

9.5 Cargo Stowage Factors (Iron Ore Products)

Product Name	Product Acronym	IMSBC Code Schedule	Angle of Repose	Bulk Density kg/m³	Stowage Factor m³/t	IMO Group	Notes
Pilbara Blend Lump	PBL	IRON ORE	37°	2000	0.50	C	1, 3
Pilbara Blend Fines	PBF	IRON ORE	37°	2250	0.44	C	2, 3
Hamersley Iron Yandi Fines	HIY	IRON ORE	37°	2000	0.50	C	2, 3
Robe Valley Lump	RVL	IRON ORE	37°	1700	0.59	C	1, 3
Robe Valley Fines	RVF	IRON ORE	37°	1950	0.51	C	2, 3
RTX Lump	RTXL	IRON ORE	37°	2000	0.50	C	1, 3
SP 10 Fines	SP10F	IRON ORE	37°	2000	0.50	A	2, 3
SP 10 Lump	SP10L	IRON ORE	37°	2000	0.50	C	1, 3

Notes

1. As defined in Annex 2 of DSC.1/Circ.71, 15 November 2013
2. As defined in Annex 2 of DSC.1/Circ.71, 15 November 2013, because it is iron ore fines with more than 35% goethite.
3. As described in Exemption Certificate 5186, issued by AMSA on 13 December 2013

- Details of other products shipped by Rio Tinto are included on Shipper's Cargo Declaration and associated documentation.
- Rio Tinto Shipper’s Cargo Declarations will be provided to the vessel by the Surveyor/Shipping Agent.

10 CREW ACCESS ASHORE

10.1 Safe Conduct

- Wharves are potentially hazardous areas, where traffic and cargo operations mean all visitors need to a make particular effort to stay safe.
- Appropriate safety equipment is to be worn at all times on site, safety hat, safety glasses, enclosed boots, long shirt sleeves, long trousers, high visibility jacket.
- When accessing a dolphin (e.g. using vessel gangway or performing a draft check) a PFD / lifejacket must also be worn. **Do not access dolphins with tensioned mooring lines.**
- Minimise pedestrian activity and do not access wharf without good reason.

10.2 Crew Transfers

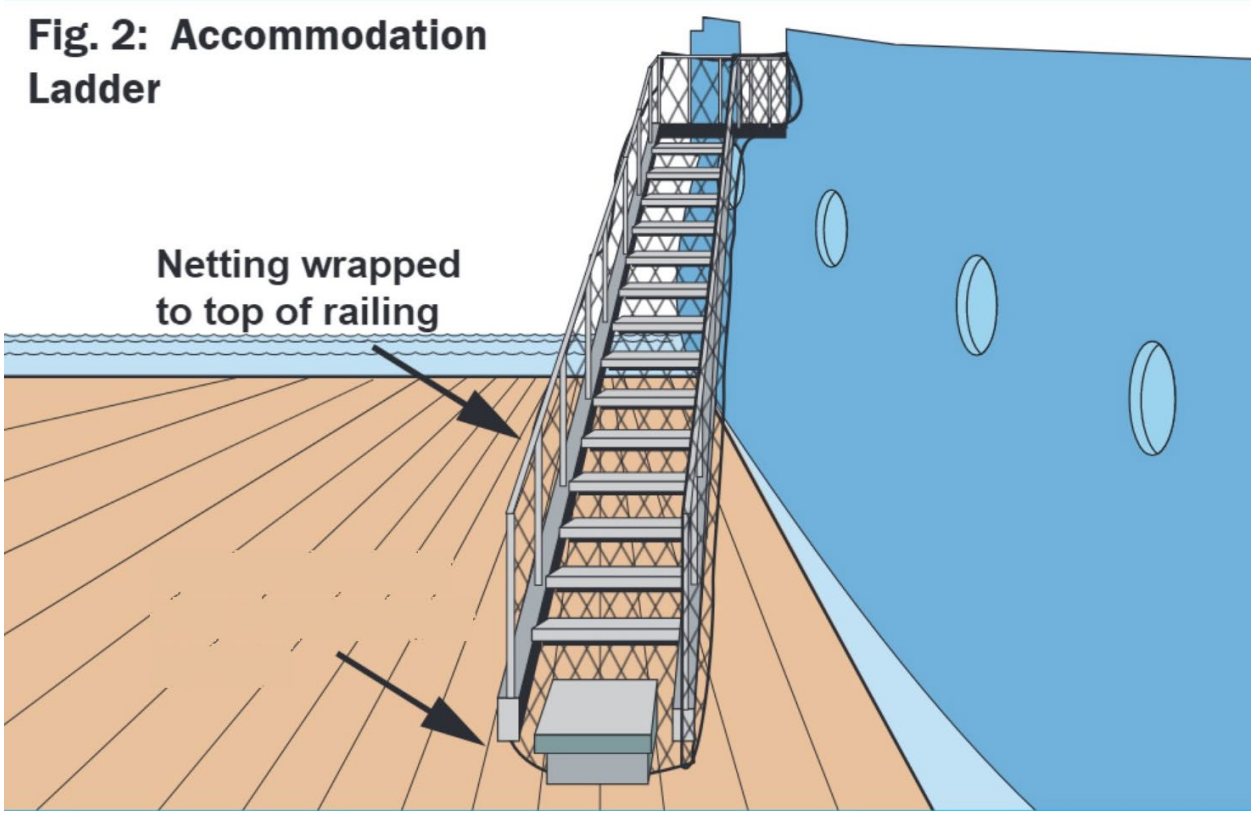
- Access and egress from berths should be by vehicle only via designated pick-up points. Transport drivers will escort ships crew from vehicle to gangway.
- Rio Tinto authorised transport must be booked through the Shipping Agent or with the Dampier Seafarers Centre.

10.3 Gangways

- The vessel gangway should be always ready and serviceable for use upon berthing and whilst alongside.
- A safety net should be rigged under gangway and brow (if used). Under no circumstances are vessels crew to be found rigging gangway during berthing operations.
- The gangway should have a life buoy prominently displayed at top, illuminated at night and a notice indicating number of persons allowed on the gangway at any one time.
- A Watchman should be posted at the top of the gangway.
- Ensure gangway is secure and ready for use before accessing; confirm readiness with the shore officer.
- If you require further information, please refer to your safety pack or contact your Shipping Agent or Rio Tinto representative.

10.3.1 Gangways - Dampier

- Gangways are preferred to be rigged around the gangway, from handrail to handrail, not from ship's side.



- Prior to Pilot boarding the ships gangway should be rigged and lowered to deck level complete with safety net, if weather permits.
- Contact the Ship loader Operator to arrange mooring crew to shift the Shore Access Platform (SAP). The ship's gangway is likely to make contact during low water.

10.3.2 Gangways – Port Walcott

- Port Walcott primarily use Shore Access Gangways (SAG). Ships gangways should remain in a secured position unless advised otherwise by the terminal.
- Always check for obstacles before opening hatch covers. DO NOT OPEN hatch cover if shore gangway deployed on deck vicinity.
- Request SAG via Ship loader Operator via ship shore radio supplied to every vessel at berth.

11 ACCESSING VESSELS

11.1 Transit to and From a Vessel by Helicopter

- Please refer to section 5.12 Helicopter Operations for more information.

11.2 Transit to a Vessel Underway Using a Pilot Boat

- The pilot boat Master will:
  - Make contact with the vessel using VHF radio.
  - The Master will confirm the vessel's required course and speed.
  - Confirm the side of boarding/disembarking and ensure the ladder is in position at the appropriate height.
  - Arrange for the vessel to make a suitable lee.

11.3 Embarking and Disembarking a Marine Pilot by Pilot Boat

- VHF communication is maintained between ship and pilot boat.
- A pilot boat crew/ship's crew member must be stationed at the ladder.
- If weather and sea state conditions are considered to be unsafe the operation is aborted.
- Once the Marine Pilot transfer is complete the pilot boat moves away from the ship and the pilot boat Master radios confirmation to the ship's Master.
- Prior to boarding or disembarking the Marine Pilot must ensure that he is wearing the appropriate PPE and self-inflating life jacket.
- When coming alongside the Marine Pilot should ascertain the condition and rigging of the pilot ladder.
- Prior to boarding or disembarking the Marine Pilot must ensure the ladder is rigged in accordance with the International Marine Pilot Standards as required under SOLAS Regulation V/23 and IMO Resolution A.1045 (27).

11.4 Embarking and Disembarking a Berthed Vessel

- Transfer must only occur by using a proper gangway and at night the Master/Vessel should ensure that suitable lighting is available to embark/disembark safely.

11.5 Reporting of Incidents

- Any incidents that occur during the act of piloting are to be reported on the Marine Pilot's incident forms.
- Depending on the incident, the report is sent to:
  - Rio Tinto Iron Ore Marine Operations Superintendent
  - Rio Tinto Marine Manager Coastal Operations

    - AMSA
    - Pilbara Ports Authority/ Department of Transport Harbour Master
    - Ship's Agent
- Any emergency incident that occurs while alongside and requires immediate response must be reported via radio/telecom.
- It is the responsibility of the Marine Operations Superintendent to follow up any incidents.

All Vessels involved in a marine incident in Australian waters need to make a report to AMSA - A marine incident may include the following:

- Death of, or injury to, a person associated with the operation or navigation of a vessel.
- The loss or presumed loss of a vessel
- Collision of a vessel with another vessel
- Collision by a vessel with an object
- The grounding, sinking, flooding or capsizing of a vessel.
- Fire on board a vessel
- Loss of stability of a vessel that affects the safety of the vessel.
- The structural failure of a vessel
- A close quarters situation
- A dangerous occurrence, which is an occurrence that could have caused the death of, or serious personal injury to, any person on the vessel.

Under AMSA Marine Order 1 - Administration, regulated Australian vessels and foreign vessels must submit an incident alert **within 4 hours** (Form 18). **Within 72 hours** after becoming aware of the incident, the owner/operator/master must submit a report (Form 19) with more details of the incident including actions taken or will be taken to manage the incident.

12 PROVISIONS AND SERVICES

12.1 Stores

Stores can be arranged via your Shipping Agent. Supply is via launch only. For large orders, it is recommended that 7 days' notice be given of requirements.

12.2 Fresh water

Fresh water is available at all berths except Mistaken Island and the Dampier Fuel Berth. Vessels need to supply their own hoses with 2.5" quick release fittings. Please contact the Shipping Agent to organise.

12.3 Bunkers

Marine diesel is available in Dampier via barge. This service is provided by an external party. IFO/HFO are not available.

12.4 Medical

Hospital and medical care are available in Karratha. Please ensure all illnesses are reported to Australian Quarantine Inspection Service.

12.5 Mission to Seafarers

Mission to Seafarers centres are located in Dampier and Port Walcott offering recreation, religious and practical facilities and support for all seafarers. Transport to the centres can be arranged via Shipping Agents. Shipboard visits can be arranged for crew members unable to go ashore. Further information is available online or contact the centres:

Dampier	www.dampierseafarers.org	+61 8 9183 1424
Port Walcott	www.mtsnwa.org/portwlcott	+61 460 889 523

13 DEPARTURE

13.1 Draft Survey (Iron Ore Vessels)

- As loading nears completion, an independent surveyor engaged by Rio Tinto will board the vessel and produce a final weight certificate based on draft survey, enabling completion of the Bills of Lading.
- Unless otherwise stipulated by the surveyor, seawater density will be calculated at 1.023 g/ml.

13.2 Dynamic Under-Keel Clearance (DUKC)

- With the large tidal range experienced in the Port of Dampier and Port Walcott together with an extended channel length, it is necessary to carefully manage vessel sailing drafts.
- The main component of the DUKC® system is O'Brien Maritime Consultants International ship motion simulation package, utilising real time sea, swell and tide data as well as the vessel's own stability criteria to determine accurate allowances for squat and wave response to enable the Port to predict with greater accuracy, and hence safety, the sailing draft and/or sailing window, thus optimising the vessel's load.
- Vessels will be required to provide ship data via the DUKC Ship Data Form.
- All vessels sailing from Dampier are required to run DUKC.
- Port Walcott will run DUKC on a vessel as required, taking into consideration tide, scheduling and prevailing weather conditions.

13.3 Main Engine Test While Alongside

PPA do not allow main engine testing while alongside at any Dampier berth unless pilot is on board the vessel.

Cape Lambert approval can be obtained via the Marine Coordinator on channel 14 provided criteria is met:

- cargo loading has been completed and the gangway is stowed, engines may be tested up to 1 hour prior to ETD and permission is to be requested from Port Walcott Base on VHF CH14.
- Master to ensure that mooring lines are being monitored.
- Tugs required to be on the water and nearby.
- In all other circumstances, the engine is to be blown through on air prior to pilot boarding and on fuel 15 – 30 minutes prior to departure.

13.4 Pilotage

- Vessel masters are to liaise with agents for updated sailing times.

- Call ‘Dampier VTS’ on VHF11 for updated Pilot on Board times for sailing.
- Call ‘Port Walcott Base’ on VHF14 for updated Pilot on Board times for sailing.
- Bridge wing sun shades must be rigged (if fitted) for both berthing and sailing.

13.5 Release of Moorings

- Lines should be slackened to approximately 1 m above the water to avoid recoil when slip hooks release.
- In the event the slip hook fails to release, line should be slackened to the water and released manually by mooring crew.
- Extra care should be taken to ensure line does not become caught under dolphins.

13.6 Towage

- Tugs are arranged by the terminal and will make fast according to Marine Pilot instructions.
- On submission of the Agents Guarantee, the Owners and Shipping Agents are thereby acknowledging the following in relation to towage hire.
- Towage services are performed in accordance with the amended U.K. Standard Conditions for Towage and Services (revised 1974) at the current schedule of rates, with the express reservation of the tug Owner’s rights, to the extent allowed by law, to limit its liability to an amount equal to the cost of providing the towage services again.
- A copy of the U.K. Standard Conditions for Towage and Services (revised 1974) are available upon request.

13.7 South Channel Departure – Port Walcott

- Marine Pilot will discuss the passage plan for berthing during the MPX. On completion of the berthing the Marine Pilot will advise on the possible departure routes. On boarding for departure, the Pilot will confirm the departure route.
- The Terminal uses a 15% allowance for UKC to calculate the maximum draft when transiting the South Channel.
- Calculation for the use of South Channel is (Chart Datum + HW) / 1.15 = Max Draft.
- Any vessel that meets Max Draft calculation can sail via the South Channel and disembark the Marine Pilot once vessel is east of buoy 8. Before disembarking, Pilot will also contact inbound vessels in the immediate area on VHF 14 to confirm safe passing.

13.8 Limiting Conditions

- The shipping parameters are for normal operations. Abnormal movements may occur outside these parameters by exception or for the purposes of protecting life, infrastructure and/or the environment during Pilotage Operations.

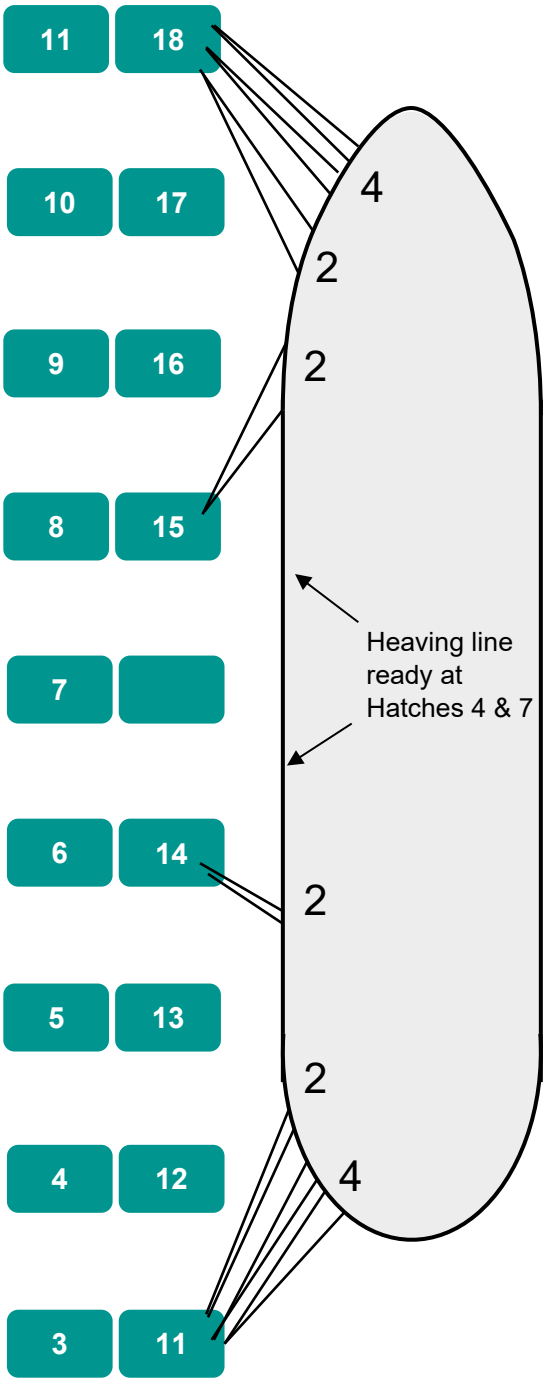
14 MOORING DIAGRAMS

14.1 Port of Dampier: Parker Point Berth 2 and 4

PARKER POINT - BERTH 2 AND BERTH 4
PORT SIDE ALONGSIDE

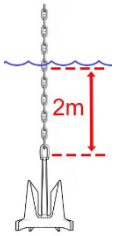
Dolphin numbers by berth

Berth 2 | Berth 4



Gangway to be fully rigged at deck level, with safety net, prior to Pilot boarding.

Prepare spring lines with mooring eyes passed through fairleads and both eyes back over the handrails.



When advised by Pilot, lower anchors 2 metres into the water and secure with stopper and brake.

Pilot will advise the sequence for lines to be run.

The vessel will run:

4x head lines by lines boat

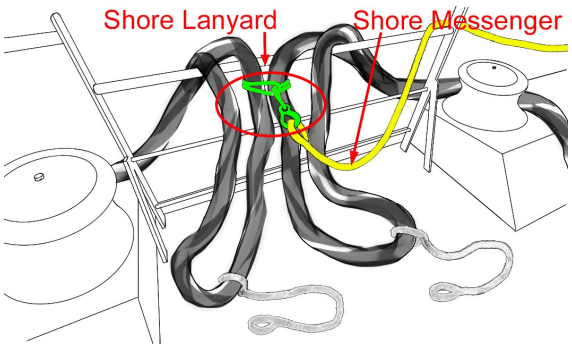
2x breast lines (forward & aft) by lines boat

2x spring lines (forward & aft) by heaving line & shore messenger

4x stern lines by lines boat

Spring lines will be run by passing the ship's heaving line to the wharf and bringing back a long messenger with a shore lanyard.

Pass the shore lanyard around the middle of the two mooring eyes.



Be careful not to lower the mooring lines onto the nearby fender and chains.

DO NOT TENSION any lines until advised by Marine Pilot.

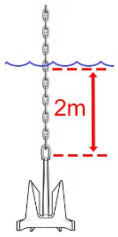
Wait until vessel is all fast and tugs have been released before fitting chafing gear and rat guards.

14.2 Port of Dampier: Parker Point Berth 3 and 5

PARKER POINT - BERTH 3 AND BERTH 5
STARBOARD SIDE ALONGSIDE

Gangway to be fully rigged at deck level, with safety net, prior to Pilot boarding.

Prepare spring lines with mooring eyes passed through fairleads and both eyes back over the handrails.



When advised by Pilot, lower anchors 2 metres into the water and secure with stopper and brake.

Pilot will advise the sequence for lines to be run.

The vessel will run:

4x head lines by lines boat

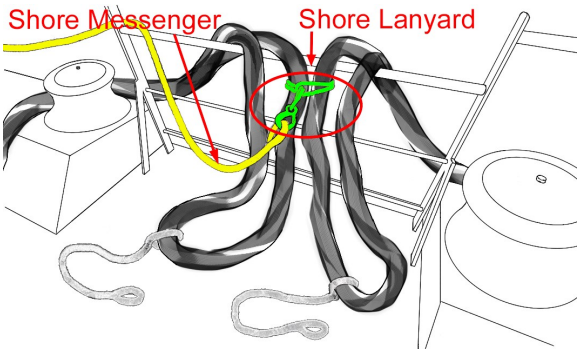
2x breast lines (forward & aft) by lines boat

2x spring lines (forward & aft) by heaving line & shore messenger

4x stern lines by lines boat

Spring lines will be run by passing the ship's heaving line to the wharf and bringing back a long messenger with a shore lanyard.

Pass the shore lanyard around the middle of the two mooring eyes.



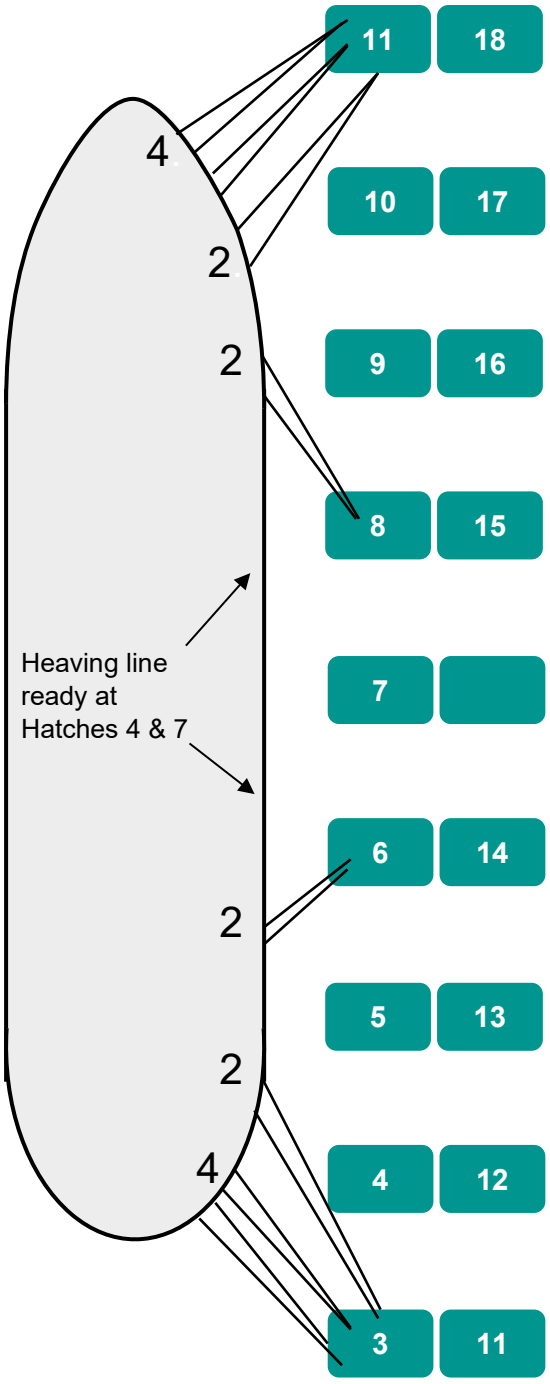
Be careful not to lower the mooring lines onto the nearby fender and chains.

DO NOT TENSION any lines until advised by Marine Pilot.

Wait until vessel is all fast and tugs have been released before fitting chafing gear and rat guards.

Dolphin numbers by berth

Berth 3 | Berth 5

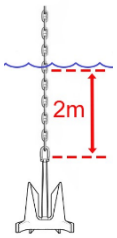


14.3 Port of Dampier: East Intercourse Island

EAST INTERCOURSE ISLAND
STARBOARD SIDE ALONGSIDE

Gangway to be fully rigged at deck level, with safety net, prior to Pilot boarding.

Prepare spring lines with mooring eyes passed through fairleads and both eyes back over the handrails.



When advised by Pilot, lower anchors 2 metres into the water and secure with stopper and brake.

Pilot will advise the sequence for lines to be run.

The vessel will run:

4x head lines by lines boat

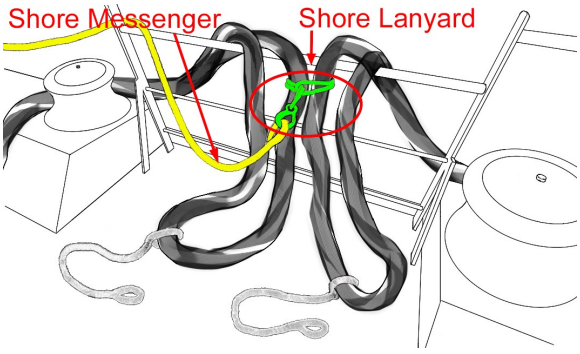
2x breast lines (forward & aft) by lines boat

2x spring lines (forward & aft) by heaving line & shore messenger

4x stern lines by lines boat

Spring lines will be run by passing the ship's heaving line to the wharf and bringing back a long messenger with a shore lanyard.

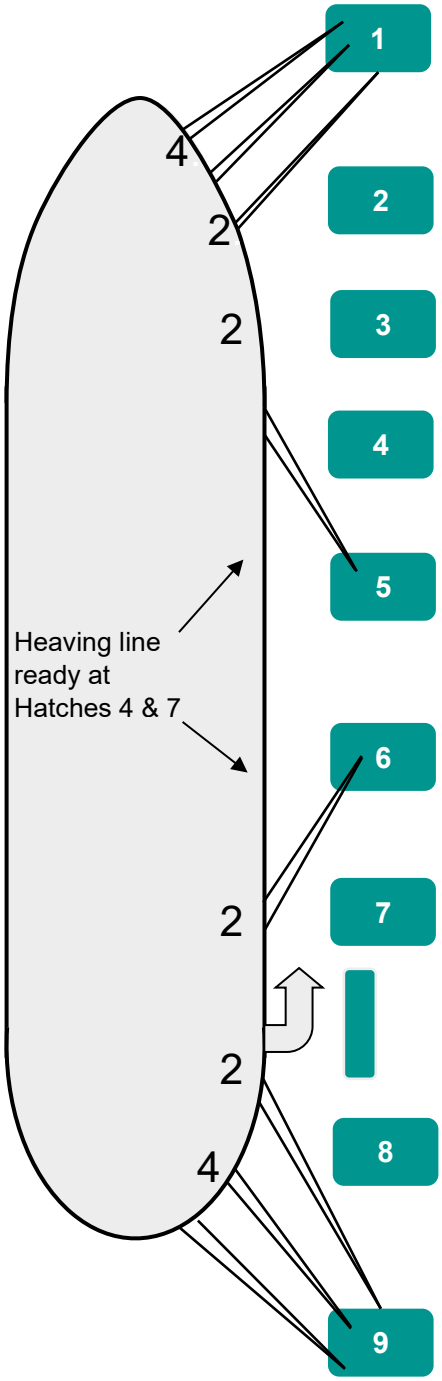
Pass the shore lanyard around the middle of the two mooring eyes.



Be careful not to lower the mooring lines onto the nearby fender and chains.

DO NOT TENSION any lines until advised by Marine Pilot.

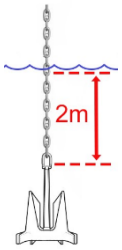
Wait until vessel is all fast and tugs have been released before fitting chafing gear and rat guards.



14.4 Port of Dampier: East Intercourse Island Lay-by Berth

EAST INTERCOURSE ISLAND LAY-BY BERTH
STARBOARD SIDE ALONGSIDE

Gangway to be fully stowed before letting go lines and shifting.



Make tugs fast - Once made fast stay clear of tugs lines at all times

If not already in position, when advised by Pilot, lower anchors 2 meters into the water and secure with stopper and brake.

Pilot will advise the number and sequence for lines to be run. This will be dependent on the length of stay and weather conditions.

The vessel may run:

4x head lines by lines boat

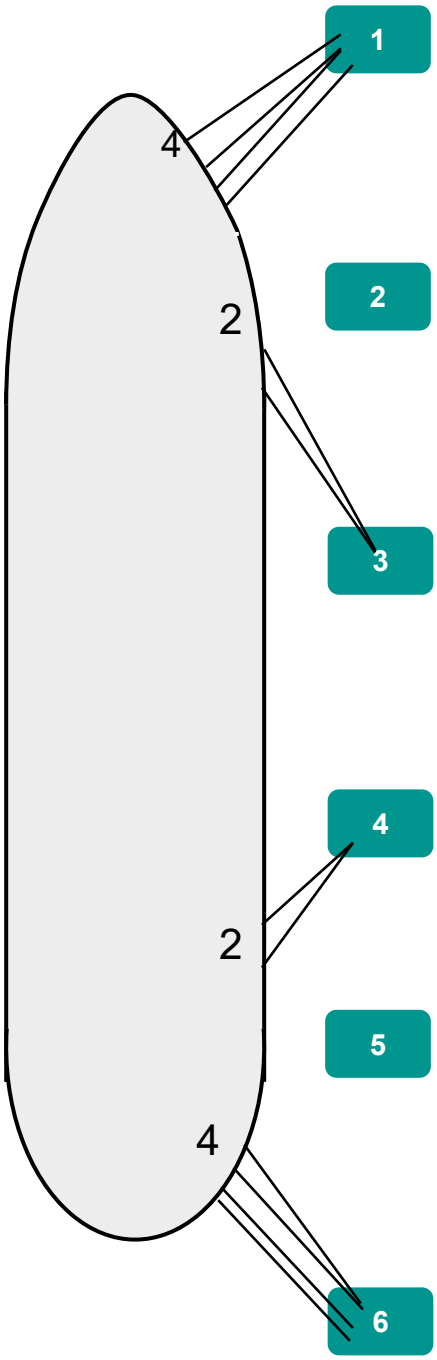
2x breast lines (forward & aft) by lines boat

2x spring lines (forward & aft) by boat or heaving line & shore messenger

4x stern lines by lines boat

DO NOT TENSION any lines until advised by the Marine Pilot.

Wait until vessel is all fast and tugs have been released before fitting chafing gear and rat guards.



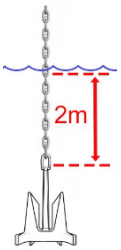
14.5 Port of Dampier: Dampier Fuel Berth (Parker Point)

DAMPIER FUEL BERTH
STARBOARD SIDE ALONGSIDE

Mooring lines will be run by boat and heaving lines with a shore messenger.

The Pilot will advise the sequence for lines to be run.

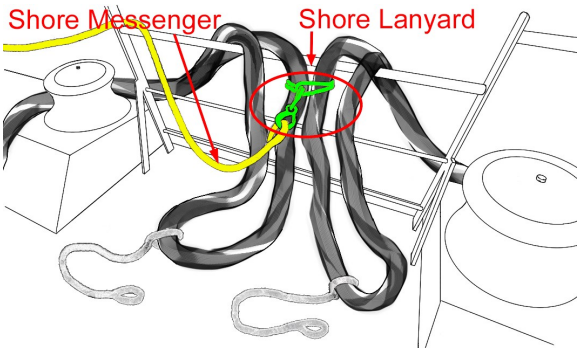
When advised by Pilot, lower anchors 2 metres into the water and secure with stopper and brake.



Dolphins T1, T2, T3 & T6 mooring lines will be run by mooring boat.

2x spring lines from aft to T4 by heaving line and shore messenger

2x breast lines from main deck to T5 by heaving line and shore messenger



2x stern lines to T6 by lines boat

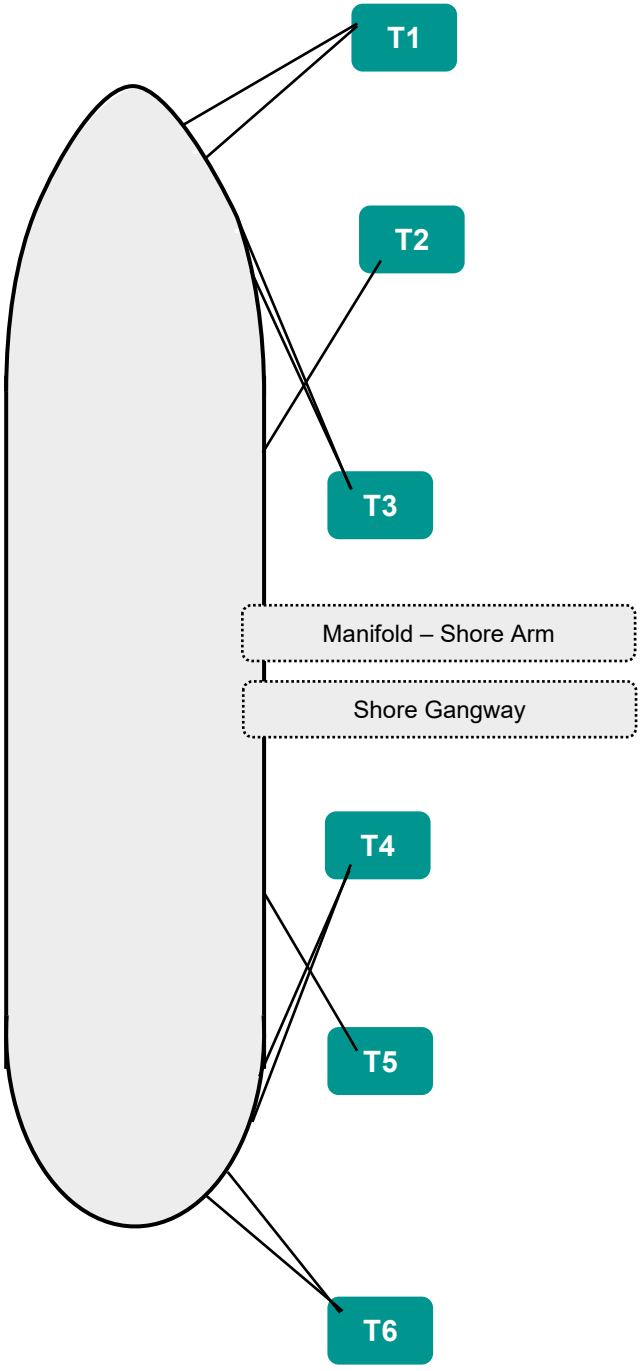
2x spring lines from fo'c'sle to T3 by lines boat

2x breast lines from main deck to T2 by lines boat

2x head lines from fo'c'sle to T1 by lines boat

DO NOT TENSION any lines until advised by the Marine Pilot.

Wait until the vessel is all fast and tugs have been released before fitting chafing gear and rat guards.



14.6 Port of Dampier: Mistaken Island

MISTAKEN ISLAND
STARBOARD SIDE ALONGSIDE

Under normal circumstances your vessel will berth starboard side to using configuration shown.

You will need to prepare two long springs to assist in shifting your vessel for loading (one from forward, one from aft). They will go to dolphin number 4 as shown in the diagram.

These springs must be prepared along the deck PRIOR to the Marine Pilot boarding.

The springs running to dolphin number 4 are to be run along the main deck **outside of all obstructions**. They must have enough slack to enable your crew to lower the eyes to the linesmen on dolphin number 4.

IMPORTANT: The eyes of the springs should be run along the deck to about 15 metres astern from the midpoint between the first two hatches to be loaded.

Preparing these springs can be a difficult and time-consuming task for your crew. It is more hazardous at night with the vessel under pilotage.

Pilot will advise the sequence for lines to be run.

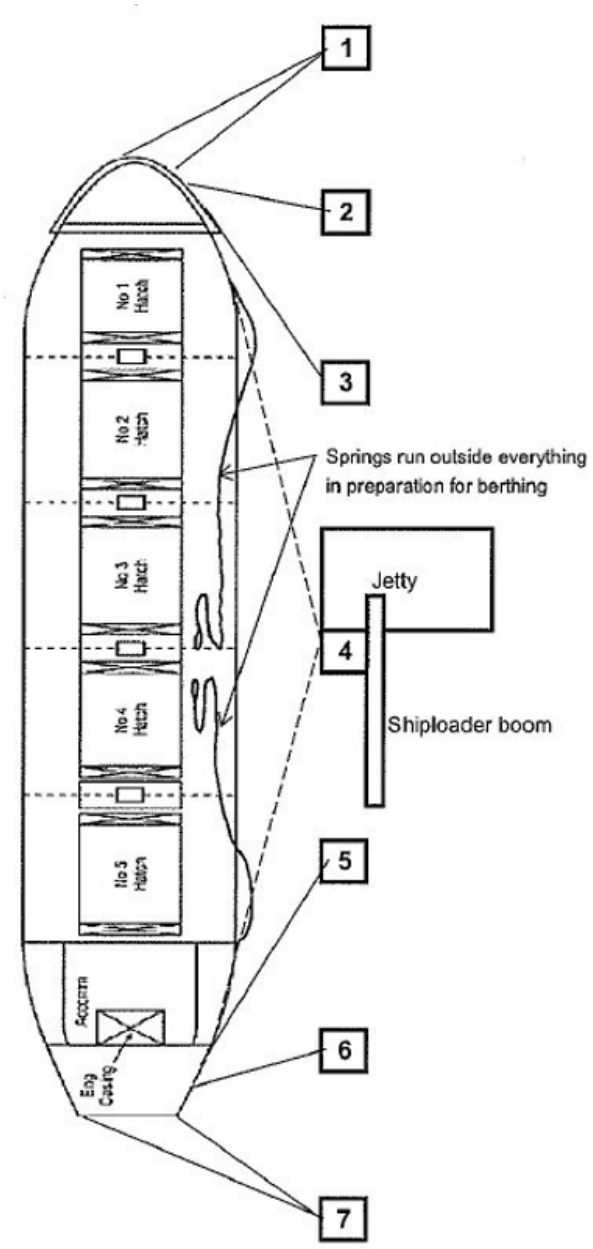
Normally lines will be secured to the dolphins in this order:

Dolphin 1, 2, 3. Then dolphin 7, 6, 5. Lastly, springs to dolphin 4.

Mooring lines run to dolphin 6 MUST comes from starboard side of the vessel, NOT from the transom.

DO NOT TENSION any lines until advised by the Marine Pilot.

Wait until vessel is all fast and tugs have been released before fitting chafing gear and rat guards.

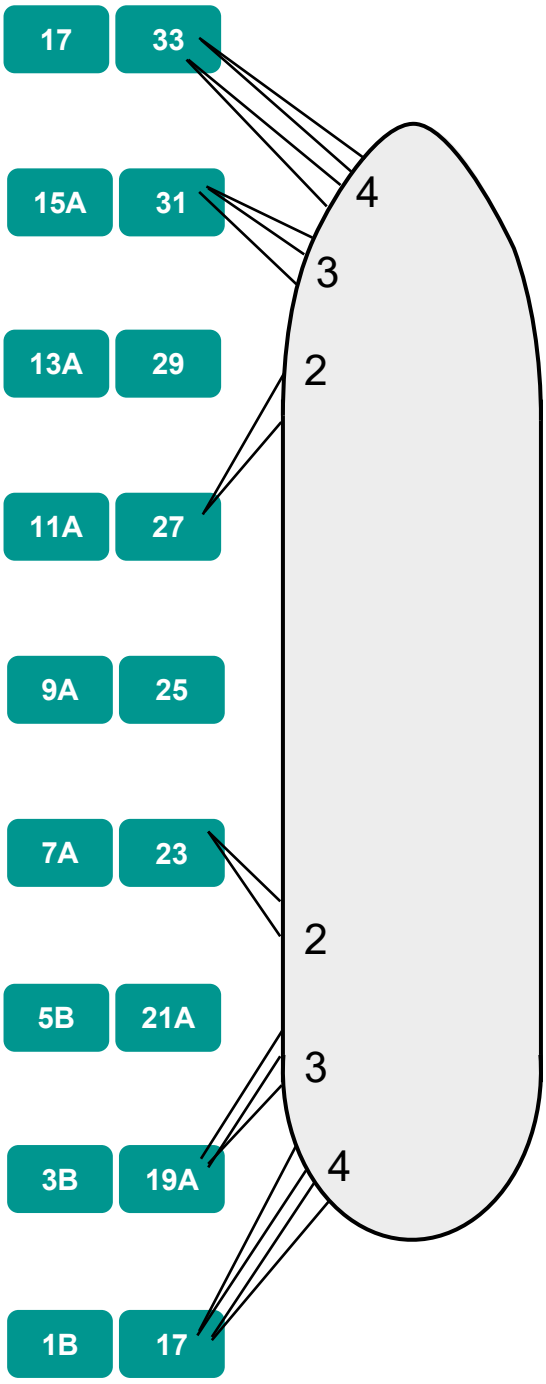


14.7 Port Walcott: Cape Lambert A Berth 1 and 3

CAPE LAMBERT A - BERTH 1 AND BERTH 3
PORT SIDE ALONGSIDE

Dolphin numbers by berth

Berth 1 | Berth 3



Make tugs fast

Always remain clear of tensioned lines

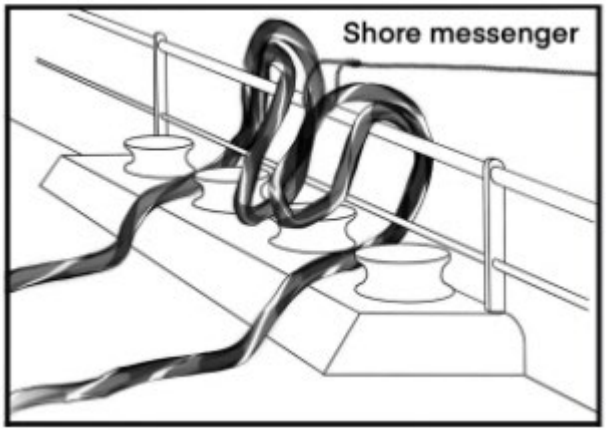
FORWARD SEQUENCE

3 forward breast lines by lines boat

2 inside forward head mooring lines by lines boat

2 outside forward mooring lines by lines boat

2 forward spring lines by messenger



Shore will heave to mooring dolphin with winch

Leave line slack when on hook

Marine Pilot will instruct when to tension

AFT SEQUENCE

2 aft spring lines by messenger

3 aft breast lines by messenger or lines boat (to be advised by Pilot)

2 inside aft stern mooring lines by lines boat

2 outside aft stern mooring lines by lines boat

Once all lines are on hooks, lines boat is clear and mooring crew are clear of dolphin, Marine Pilot will instruct to tension lines

14.8 Port Walcott: Cape Lambert A Berth 2 and 4

CAPE LAMBERT A - BERTH 2 AND BERTH 4
STARBOARD SIDE ALONGSIDE

Make tugs fast

Always remain clear of tensioned lines

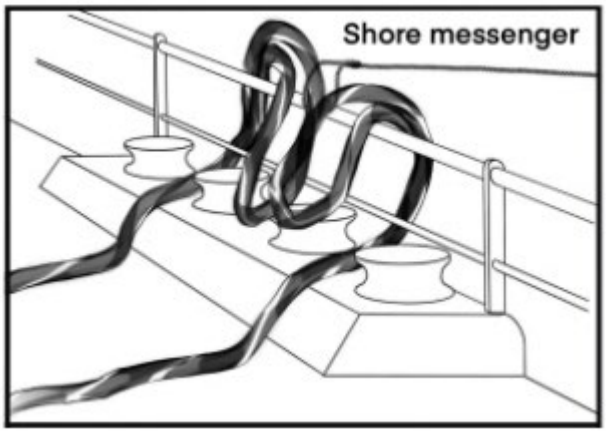
FORWARD SEQUENCE

3 forward breast lines by lines boat

2 inside forward head mooring lines by lines boat

2 outside forward mooring lines by lines boat

2 forward spring lines by messenger



Shore will heave to mooring dolphin with winch

Leave line slack when on hook

Marine Pilot will instruct when to tension

AFT SEQUENCE

2 aft spring lines by messenger

3 aft breast lines by messenger or lines boat (to be advised by Pilot)

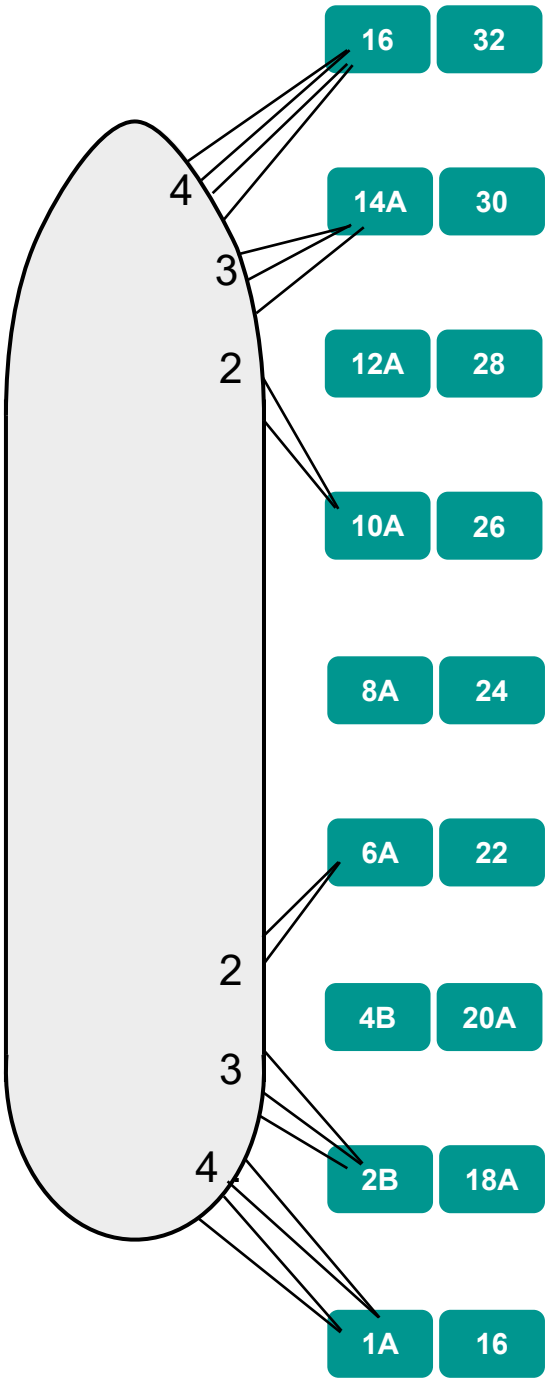
2 inside aft stern mooring lines by lines boat

2 outside aft stern mooring lines by lines boat

Once all lines are on hooks, lines boat is clear and mooring crew are clear of dolphin, Marine Pilot will instruct to tension lines

Dolphin numbers by berth

Berth 2 | Berth 4

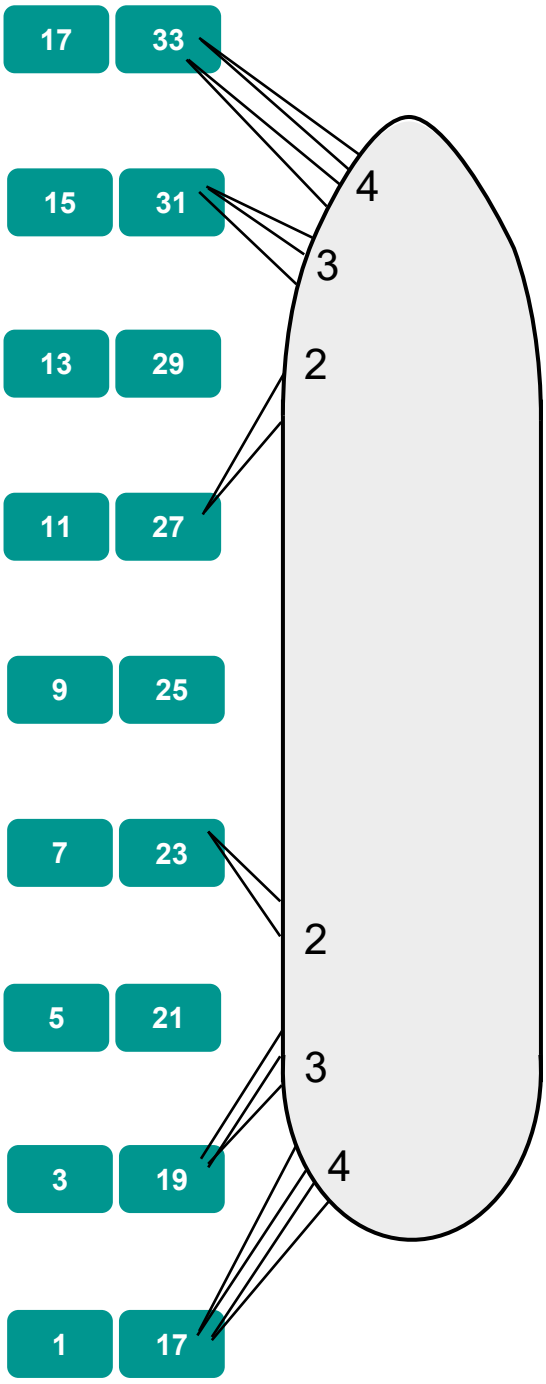


14.9 Port Walcott: Cape Lambert B Berth 5 and 7

CAPE LAMBERT B - BERTH 5 AND BERTH 7
PORT SIDE ALONGSIDE

Dolphin numbers by berth

Berth 5 | Berth 7



Make tugs fast

Always remain clear of tensioned lines

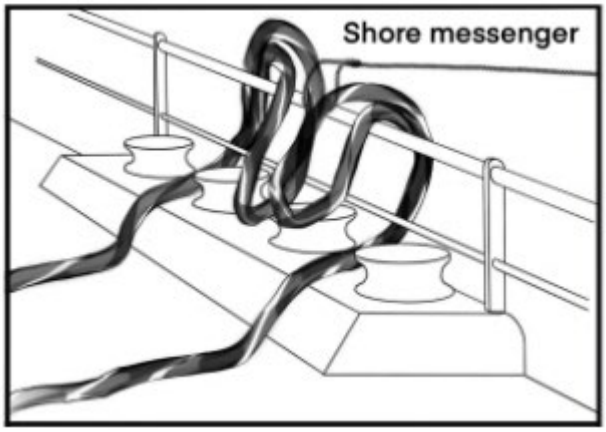
FORWARD SEQUENCE

3 forward breast lines by lines boat

2 inside forward head mooring lines by lines boat

2 outside forward mooring lines by lines boat

2 forward spring lines by messenger



Shore will heave to mooring dolphin with winch

Leave line slack when on hook

Marine Pilot will instruct when to tension

AFT SEQUENCE

2 aft spring lines by messenger

3 aft breast lines by messenger or lines boat (to be advised by Pilot)

2 inside aft stern mooring lines by lines boat

2 outside aft stern mooring lines by lines boat

Once all lines are on hooks, lines boat is clear and mooring crew are clear of dolphin, Marine Pilot will instruct to tension lines

14.10 Port Walcott: Cape Lambert B Berth 6 and 8

CAPE LAMBERT B - BERTH 6 AND BERTH 8
STARBOARD SIDE ALONGSIDE

Make tugs fast

Always remain clear of tensioned lines

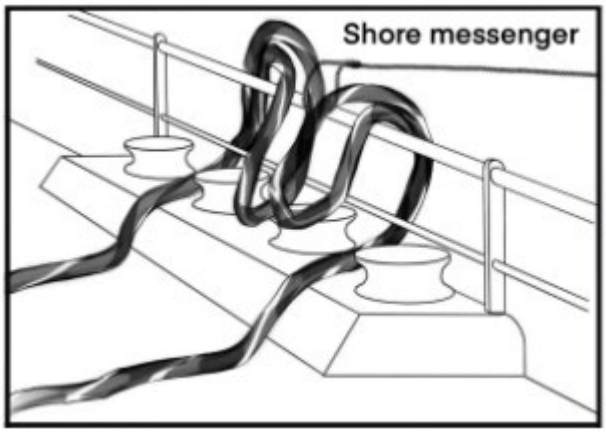
FORWARD SEQUENCE

3 forward breast lines by lines boat

2 inside forward head mooring lines by lines boat

2 outside forward mooring lines by lines boat

2 forward spring lines by messenger



Shore will heave to mooring dolphin with winch

Leave line slack when on hook

Marine Pilot will instruct when to tension

AFT SEQUENCE

2 aft spring lines by messenger

3 aft breast lines by messenger or lines boat (to be advised by Pilot)

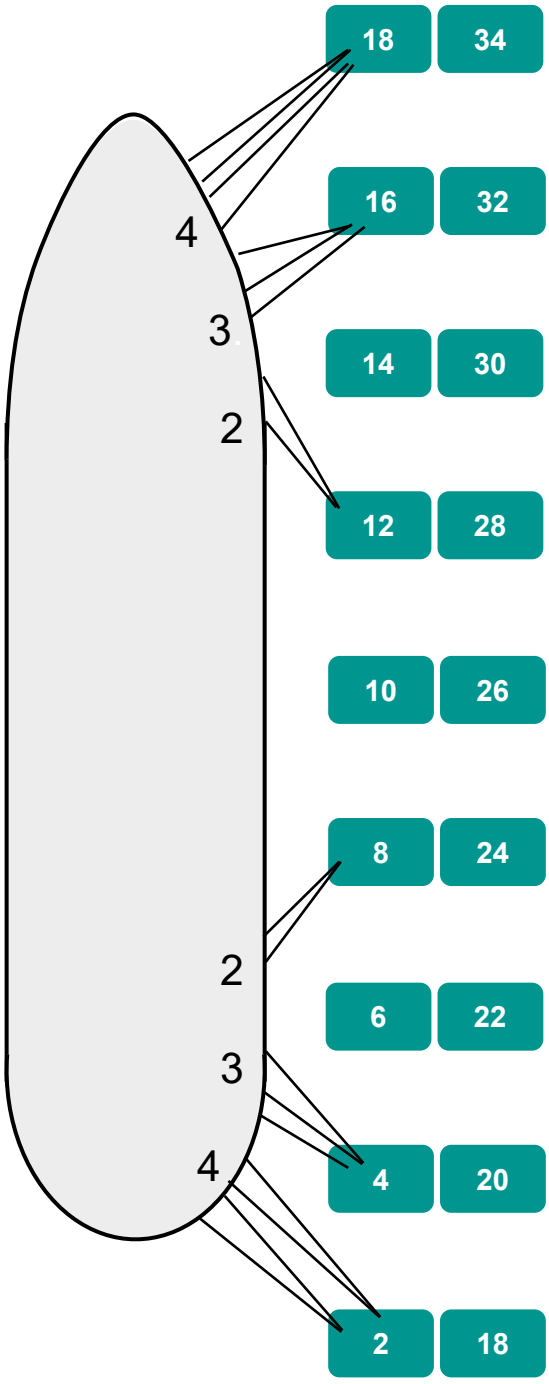
2 inside aft stern mooring lines by lines boat

2 outside aft stern mooring lines by lines boat

Once all lines are on hooks, lines boat is clear and mooring crew are clear of dolphin, Marine Pilot will instruct to tension lines

Dolphin numbers by berth

Berth 6 | Berth 8



15 KEY CONTACTS

EMERGENCY	
Local Fire Services, Police or Ambulance	000
Emergency Site Services Office	
Dampier	+61 8 9183 7222
Port Walcott	+61 8 9186 1222
UHF/VHF Radio	VHF16 UHF99
RIO TINTO	
Marine Coordinator	marine.operations@riotinto.com
Dampier	Phone +61 8 9183 7111 Mobile +61 417 914 588
Port Walcott	Phone +61 8 9186 1487 Mobile +61 429 087 177
Marine Operations Superintendent	
Dampier	Phone +61 8 9183 7775 Mobile +61 439 904 642
Port Walcott	Phone +61 8 9186 1462 Mobile +61 438 949 753
Manager Coastal Operations	RTMarineReportsWA@riotinto.com
PILBARA PORTS AUTHORITY - DAMPIER	
Pilbara Ports Authority Office	+61 8 9159 6555
Pilbara Ports Authority Port Control	+61 8 9159 6549 dampier.vts@pilbaraports.com.au
WA DEPARTMENT OF TRANSPORT – PORT WALCOTT	
Harbour Master	+61 457 562 622 Port.Ops@transport.wa.gov.au
MARINE SERVICES WA - MARINE PILOTS	
Dampier	+61 8 9185 5251 dp@mswapilots.com.au
Port Walcott	+61 8 9187 1329 portwalcott@mswapilots.com.au

SHIPPING AGENTS	
Gulf Agency Company	+61 8 9183 8627
	shipping.dampier@gac.com
Inchcape Shipping Services	+61 8 9185 6319
	dampier@iss-shipping.com
LBH Australia	+61 8 9144 2120
	dampier@lbhaustralia.com
Monson Shipping Agency	+61 8 9144 7300
	karratha@monson.com.au
Sturrock Grindrod Maritime	+61 8 9185 2955
	karratha@sturrockgrindrod.com
Wilhelmsen Ships Service	+61 8 9144 2311
	wss.dampier@wilhelmsen.com

16 GLOSSARY

TERM	DEFINITION
AMSA	Australian Maritime Safety Authority
CLA	Cape Lambert Terminal A
CLB	Cape Lambert Terminal B
DFB	Dampier Fuel Berth
DoT	Department of Transport
EII	East Intercourse Island
ICS	International Chamber of Shipping
LBB	Lay-By Berth (East Intercourse Island)
MI	Mistaken Island
MSIC	Maritime Security Identification Card
NTM	Notice to Mariners
PPA	Pilbara Ports Authority
PPE	Personal Protective Equipment
PPT	Parker Point
RDS	Remote Draft Survey
RTIO	Rio Tinto Iron Ore
SAG	Shore Access Gangway
SAP	Shore Access Platform
VTS	Vessel Traffic Services

17 APPENDICES

17.1 Appendix 1 – PPA Port of Dampier Marine Notice D22/2023

MARINE NOTICE
PORT OF DAMPIER

PILBARA PORTS AUTHORITY

Port of Dampier – Availability and Use of Auxiliary Engines (Generators) and Emergency Generator

Number: D22/2023 **Date: 29/08/2023**

Date of Effect:	**14/09/2023**
Details:	**Availability and Use of Auxiliary Engines (Generators) and Emergency Generators**
Former Notice:	**Nil**
Charts & Publications:	**Aus 57, 59 & 60**
Further Notice:	**Nil**
Attachments:	**NA**

This Marine Notice details the Harbour Master's requirements for vessel operators, owners and Masters regarding the availability and condition of Auxiliary Engines and Emergency Generators within the Port of Dampier.

This is in response to several incidents related to the failure of Auxiliary Engines and / or Emergency Generators.

Requirements for Auxiliary Engines and Emergency Generators in Port Waters:

Emergency Generators

1. Emergency Generators must be tested within 24 hours prior to arrival for good working order.
2. Any defects identified, must be immediately reported to the Harbour Master and rectified prior to berthing.

Auxiliary Engines

1. All planned maintenance must be completed, and Auxiliary Engines tested, prior to the vessel's berthing.
2. Any defects or lack of performance issues must be reported to the Harbour Master immediately.
3. Following the report of any defect, the Master must demonstrate that adequate controls are in place to guarantee sufficient capacity and redundancy. These

All current local Marine Notices are available on our website: http://www.pilbaraports.com.au/#marine-notices
Dampier Vessel Traffic Service | Phone: (08) 9159 6556 | dampier.vts@pilbaraports.com.au
Mariners and other port users are requested to notify the Harbour Master on the discovery of new dangers or suspected dangers to navigation within the Port.

controls will be reviewed by the Harbour Master prior to berthing approval being granted.

Additional requirements for Bulk Carriers of 100,000 DWT or above:

The Standby Auxiliary Engine must be kept on Running Standby, during manoeuvring and transit of the Port.

For the purpose of this notice:

1. A **'Standby Auxiliary Engine'** is the Auxiliary Engine reserved for redundancy in case of a failure of the on-load Auxiliary Engine, and
2. A **'Running Standby'** means that the Standby Auxiliary Engine must be kept running during the entire duration of the manoeuvring and transit of the Port, however it is not required to be 'on load'.

For example:

On a typical Bulk Carrier, during manoeuvring, two Auxiliary Engines could be on load, the third Standby Auxiliary Engine must be Running Standby and in readiness to put on load immediately in emergency.

Vessels unable to comply with the above requirement must notify the Harbour Master immediately. The Marine team will evaluate each vessel on a case-by-case basis.

Mike Minogue
Harbour Master (Port of Dampier)

17.2 Appendix 2 – AMSA Marine Notice 2023/04

Australian Government
Australian Maritime Safety Authority

MARINE NOTICE

Marine Notice 2023/04
Supersedes 2022/03

Pilot transfer arrangements

Purpose

This Marine Notice reminds ship owners, operators, masters, crews, recognised organisations, marine pilots and pilotage providers about their obligation to provide and ensure continued safe pilot transfer arrangements on ships.

Background

Since November 2017 several pilots' lives were placed at risk, in multiple separate incidents where a man rope parted, or its securing point failed. Additionally, AMSA received several incident reports on safety issues related to pilot transfer arrangements.

Ship owners, operators, masters and crews are reminded that pilot transfer arrangements, including pilot ladders, must comply with Marine Order 21 (Safety and emergency arrangements) 2016 (MO21) which sets out Australia's obligations under the International Convention for the Safety of Life at Sea (SOLAS) Chapter V Regulation 23 (SOLAS V/23).

Pilot transfer arrangement standards

Whenever a pilot or other person embarks or disembarks from a ship by ladder, they entrust their safety to the pilot transfer arrangements provided by the ship and the pilot boat crew.

SOLAS V/23 sets out the minimum standards for pilot transfer arrangements on ships on or after 1 July 2012. The International Maritime Organisation (IMO) standards related to pilot transfer arrangements are found in:

- IMO Resolution A.1045(27) – Pilot transfer arrangements.
- IMO Resolution A.1108(29) – Amendments to the Recommendations on Pilot Transfer Arrangements (Resolution A.1045(27)).
- MSC.1/Circ. 1428 – Pilot Transfer Arrangements – Required boarding arrangements for pilots
- MSC.1/Circ.1495/Rev.1. – Unified Interpretation of SOLAS Regulation V/23.3.3 on Pilot Transfer Arrangements

SOLAS V/23.2.3 also states a pilot ladder shall be certified by the manufacturer as complying with SOLAS V/23 or "with an international standard acceptable to the Organization" and refers to ISO 799-1:2019 "Ships and marine technology – pilot ladders". Compliance with this particular provision of SOLAS V/23 can be met when a manufacturer has certified the pilot ladder complies with either of the IMO or ISO standards, noting they are not identical.

Where a pilot ladder has been certified under the ISO standard, AMSA expects that the ladder is strength tested according to the standard. Where this test has not been conducted within 30 months, the ladder should not be used until the test is conducted, or the ladder is replaced.

When purchasing a pilot ladder, care should be exercised that the product supplied actually meets the above requirements - relying on the manufacturer's documentation may not be sufficient in some cases. If in doubt, the ship's Recognised Organisation should be requested to confirm that the ladder meets the minimum standards.

Pilot transfer arrangements

IMO Circular MSC.1/Circ.1428 illustrates the pilot transfer arrangements required by SOLAS V/23.

When using a combination pilot ladder arrangement, the pilot ladder and accommodation ladder are required to be secured to the ship's side. A common means of securing both the pilot ladder and accommodation ladders is with magnetic pads (refer to photo 1 below as an example).

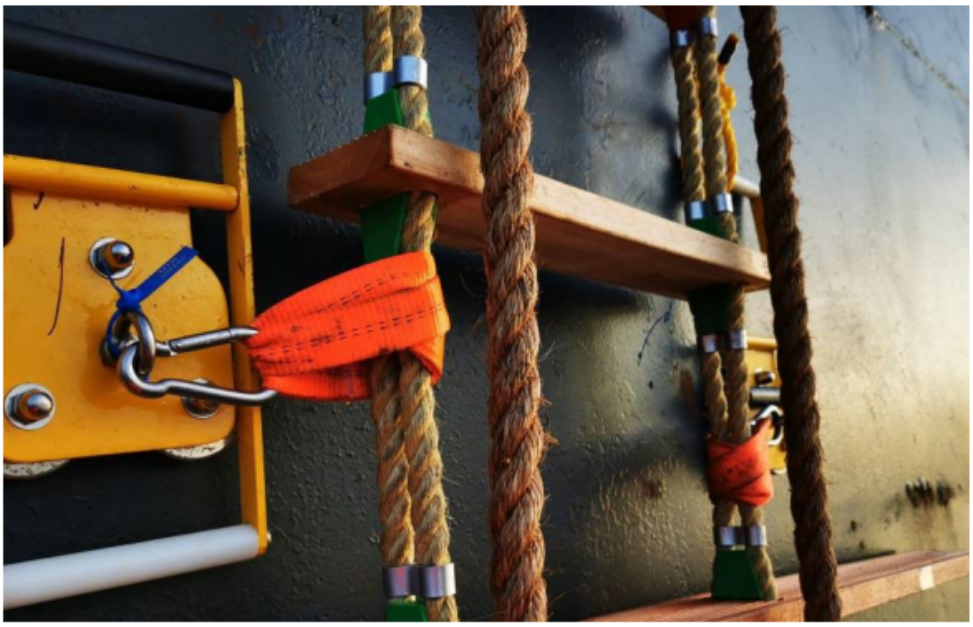


Photo 1: Example of securing both the pilot ladder and accommodation ladders with magnetic pads (Reproduced with permission from Fremantle Ports).

Clear and efficient communication with the pilot boat master is essential to ensure the safety of the pilot transfer arrangements before a person uses the ladder. The pilot boat master is best positioned to judge correct height of the bottom of the ladder and identify any potential issues with the ladder or ropes once in place.

One common issue found is that the pilot ladder does not extend the required 2.0 m past the accommodation platform when a combination arrangement is used. Photo 2 illustrates an example of a pilot ladder not extending the required height past the platform.

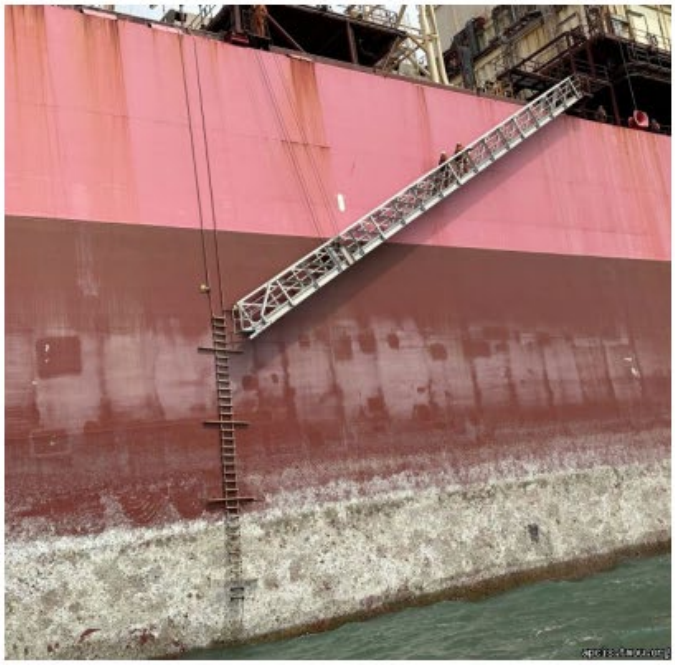


Photo 2: Example of non-compliant combination pilot ladder arrangements.

As shown in photos 2 and 3 persons cannot climb the pilot ladder to a level where they can move safely onto the accommodation ladder.

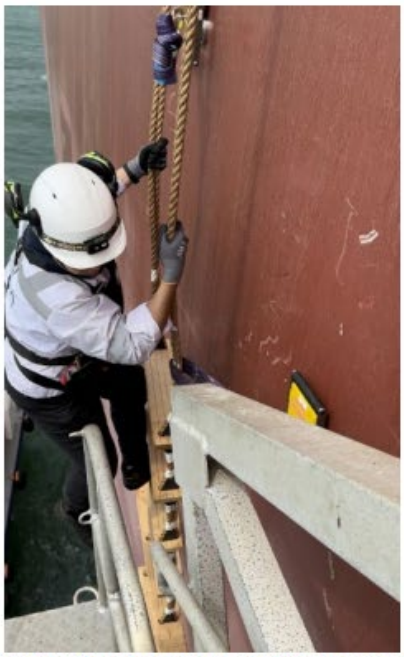


Photo 3: Person unable to safely access accommodation ladder platform from pilot ladder.

Securing of Pilot Transfer Arrangements

The pilot ladder is normally secured at its thimble end with shackles. However, due to the varying freeboard at specific loading conditions, the pilot ladder cannot always be secured at full length by the thimble ends. Under such circumstances it must be secured at an intermediate length. That can only be done in a safe way by ensuring that the weight of the ladder is transferred from ladder's side ropes to the approved strong point on deck directly.

The ladder's steps, spreaders or chocks should not be used to carry the weight of the ladder as they are not designed for this and do not have sufficient strength. For this reason, shackles, bars and tongues should not be used to secure the ladder to the deck. They will damage the ladder and put weight on the parts which are not designed to carry the weight.

Photo 4 shows an example of an unsafe use of shackles to secure pilot ladders.

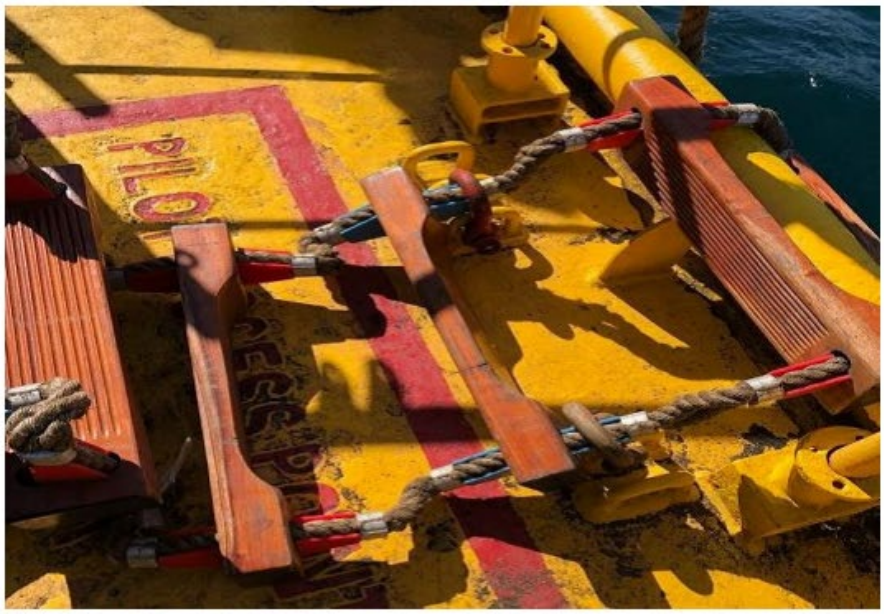


Photo 4: Unsafe pilot ladder securing arrangements (Reproduced with permission from Fremantle Ports).

Photo 5: Unsafe pilot ladder securing arrangements.

Photos 5 shows the pilot ladder being secured to the strong point by using a shackle passed through the pilot ladder side ropes. This puts increased load on the single part of the side rope and the chock securing arrangements.

It is common industry practice to use a rope stopper usually in the form of a rolling hitch knot between the pilot ladder sides ropes and the approved strong point on the main deck. This will transfer the weight of the ladder arrangement directly onto the designated strong point and will not damage the ladder.

It is suggested that two strong (at least 2 x 24 kN) manila ropes be used to secure the pilot ladder. Photo 6 illustrates a method of tying a rolling hitch knot.

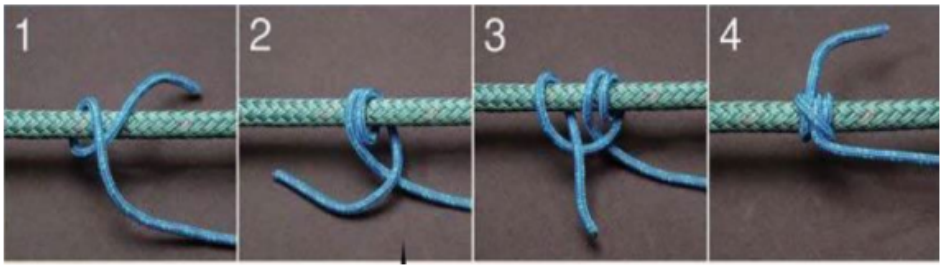


Photo 6: The rolling hitch knot. (Reproduced with permission from Fremantle Ports).

Photo 7 provides an example of rolling hitch knots being used to secure pilot ladders to approved main deck strong points.

Photo 7: Rolling hitch knots being used to secure pilot ladders to approved main deck strong points (Reproduced with permission from Fremantle Ports).

Inspection and Maintenance

Ongoing inspection and maintenance of pilot boarding arrangements are an essential part of ensuring their continued safe operation. Paragraph 10.1 of Part A of the International Safety Management Code (ISM) requires ship operators establish procedures to ensure a ship is maintained in conformity with the relevant rules and regulations, including pilot transfer arrangements. Such procedures should include regular inspections of the pilot transfer arrangements and storage to prevent damage of such equipment when not in use.

Photo 8: Pilot ladder where side ropes parted when in use (Reproduced with permission of the MAIB).

Common areas of defects can be the thimble ends of the pilot ladder. Corroded end point thimbles as illustrated in photo 9, can damage the side ropes leading to failure.

Photo 9: Example of corroded end point thimbles (Reproduced with permission from Fremantle Ports).

Another common area is the frayed or damaged side ropes as illustrated in photo 10. These should be detected during routine visual inspections.

Photo 10: Frayed side rope.

If side ropes are frayed, or in any way degraded the ladder should not be used.

The man ropes which are used as part of the arrangements should also be regularly inspected. There have been two recent incidents of man ropes parting during transfer operations. Though rope type is not specified in SOLAS the Australasian Marine Pilots Institute recommends grade 1 manila be used. These should be tagged and included in onboard inspection and maintenance procedures. Good practice dictates these should be removed from service at the same intervals of not more than 30 months or sooner if required.

Trap door arrangements and use of combinations ladder

There has been an increase in ships fitted with trapdoor arrangements. The additional requirement for their use is "the pilot ladder and man ropes shall be rigged through the trapdoor extending above the platform to the height of the handrail".

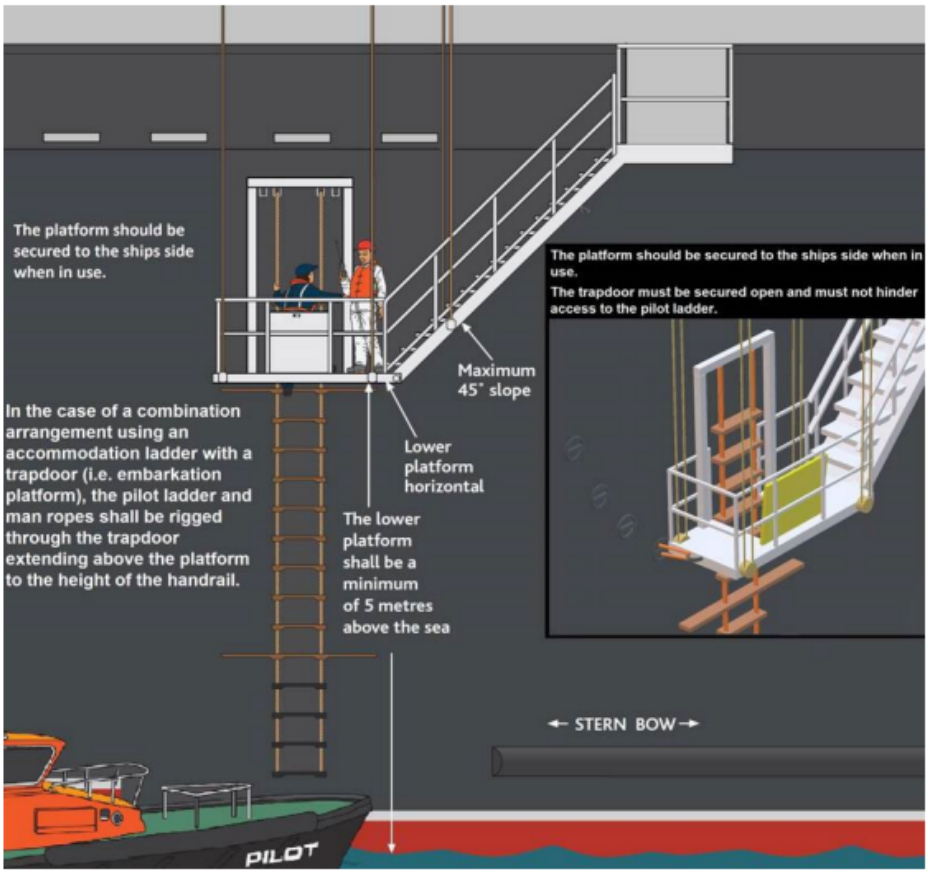


Figure 1: Pilot card depicting trap door arrangements.

If the pilot ladder and man ropes are not rigged through the trapdoor this creates an unsafe arrangement for persons as illustrated in photo 11

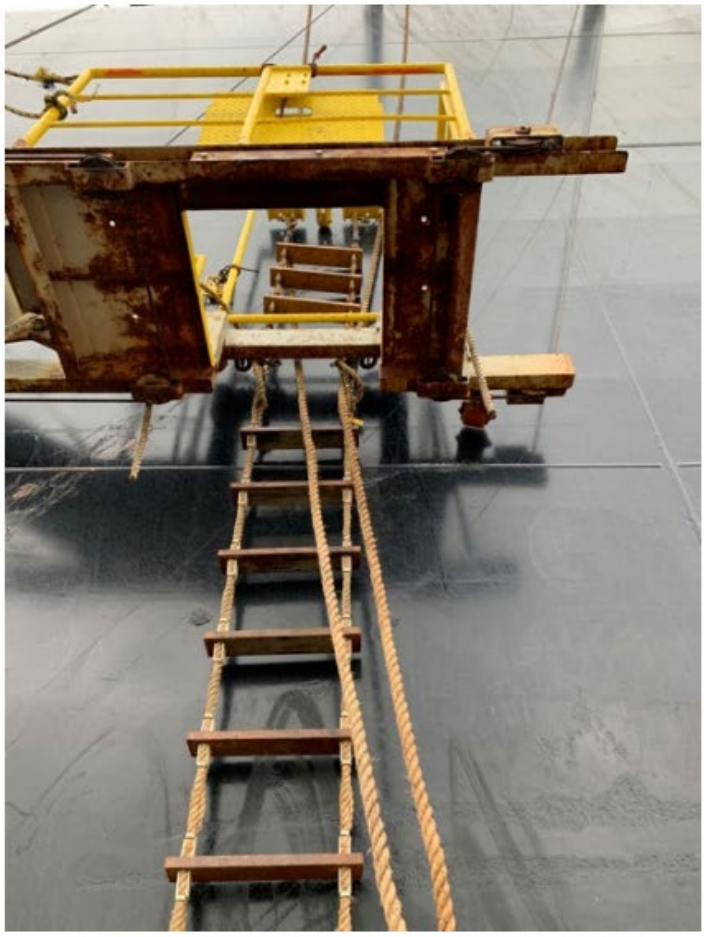


Photo 11: Unsafe trapdoor pilot transfer arrangement.

Responsibility for safe pilot transfer arrangements

Responsibility for safe practices for personnel transfers rests with each person involved in the activity including the ship owners, operators, master and crew, pilotage providers, pilots and pilot boat crew, as well as the person being transferred. All parties should observe both the spirit and intent of the regulations, to ensure safety is not compromised.

Where a person suspects that the pilot transfer arrangement provided is unsafe, they should refuse to use the arrangement until it is made safe by the master and crew and report the circumstances to AMSA[1] and their employer. Where such situations occur, AMSA will endeavour to follow-up to determine the cause and actions taken. Where a ship is not calling into an Australian port, AMSA will follow up with the flag State.

When not in use, the pilot ladder and man ropes should be stowed appropriately to avoid exposure to contaminants or other elements that will degrade the ladder and man ropes. The ladder and man ropes should be regularly inspected by the ship's crew to ensure they remain ready for use.

Additional information

The IMO/IMPA Pilot Ladder Poster provides further guidance on pilot transfer arrangements This and other useful guidance material are available on the AMSA website and in the AMSA Pilot mobile App.

Implementation of standards

When conducting port State control (PSC) inspections, AMSA inspectors will pay particular attention to the material state of all equipment and the implementation of Marine Order 21, Res.A.1045(27) as amended by Res.A.1108(29), ISO 799-1:2019, MSC.1/Circ.1428 and MSC.1/Circ.1495/Rev.1. The relevant IMO circulars and resolutions can be obtained from AMSA or www.imo.org.

During recent PSC inspections AMSA surveyors have noted pilot ladders which have been constructed with splices in the side ropes.

Photo 12: Example of non-compliant pilot ladder with splices in side ropes.

[1] These should be reported using a incident alert (AMSA 18), report (AMSA 19) or marine safety concern. See Incident reporting (amsa.gov.au)

Pilot ladders constructed like this are considered non-compliant by AMSA. Ship operators and masters are recommended to check their pilot ladders for splices in the side ropes. It should be noted by operators coming to Australian ports that the availability of compliant pilot ladders is limited in Australia. To prevent avoidable delays operators are recommended to have spare compliant pilot transfer arrangements onboard.

Compliance with the referenced standards does not of itself assure safety in each case. A pilot transfer arrangement that complies with the standards but is incorrectly rigged still presents a hazard to anyone using the arrangement. Crew members assigned to rig a pilot transfer arrangement should be sufficiently familiar with the task. The master or responsible officer supervising the rigging of the pilot transfer arrangements should assess whether supplementary measures, such as lifejackets, harnesses, lifelines be made available to enhance the safety of personnel rigging the pilot transfer arrangement. Where a pilot transfer arrangement is rigged incorrectly, this may contribute to evidence that the master or crew are not familiar with essential shipboard procedures relating to the safety of the ship. A number of documents have been produced as referenced in this Marine Notice to assist in the rigging of a pilot transfer arrangement correctly.

Australian Maritime Safety Authority
GPO Box 2181 CANBERRA ACT 2601

DOCUMENT CONTROL

	Date	Position
Prepared by	01/12/2023	Marine Logistics Officer
Reviewed by	13/12/2023	Cape Lambert & Dampier Marine Superintendents
Approved by	18/12/2023	Marine Manager

Record of Changes

Version	Date	Amendment
4.0	01/01/2024	2024 Revision – major review and re-write of document
3.0	30/05/2019	2019 Revision
2.0	20/07/2016	2016 Revision
1.0	06/10/2015	2015 Revision