

5. Port infrastructure

5.1 Berth, channel and swing basin information

5.1.1 Port navigation depths

Location	Designed depth (lowest astronomical tide) *
Hovell Bar	3.2 metres
Main Wharf (alongside wharf)	3.1 metres (#4.1 metres alongside)
Caltex Wharf	3.0 metres
Engineers Wharf	4.3 metres
Horn Island Passage	4.8 metres
Inner Harbour	4.9 metres

Table 6 – minimum design depths

*The above shows minimum design depths; the latest survey information may be sourced from the [Notice to Mariners](#) on the Maritime Safety Queensland website.

5.2 Leading lights and Beacons

No.	Description	Type	Mark	Characteristic
Ellis Channel				
	Hovell Bar Buoy	Buoy	South cardinal	Q(6) +LFL.15s
No.1	Hovell Bar	Buoy	Stbd lateral	Fl.G.2.5s
No.2	Hovell Bar	Buoy	Port lateral	Fl.R.2.5s
No.3	Hovell Bar	Buoy	Stbd lateral	Fl.G.2.5s
No.4	Hovell Bar	Buoy	Port lateral	Fl.R.2.5s
	Madge Reef	PEL		
	Madge Reef	Buoy	Special mark	Fl.Y.2.5s
	Madge Reef	Bcn	Port lateral	Fl.R.2.5s
	Madge Reef	Bcn	Port lateral	Fl.R.2.5s
	Wilkie Bank	Buoy	Starboard lateral	Fl.G.2.5s
	Wilkie Bank	Buoy	Starboard lateral	Fl.G.2.5s
Normanby Sound				
	Normanby Sound Rear Lead	Bcn	Dir. lead	F.WRG

No.	Description	Type	Mark	Characteristic
	Normanby Sound Front Lead	Bcn	Dir. lead	F.Bu (night)
	Thursday Is Reef light (west)	Bcn	Special mark	F.W. (day)
	Vivian Point (Hospital Point)	Bcn	Port lateral	Fl.Y.2.5s
	Normanby Sound ledge	Bcn	Port lateral	Q.R
	Madge Reef front lead	Bcn	Dir.lead	Fl.R.2.5s
	Horn Island rear lead	Bcn	Dir.lead	Q. & Fl.G2.5s
Boat Channel				
	Boat Channel north	Buoy	North cardinal	Q.
	Boat Channel south	Buoy	West cardinal	Q(9)15s
	Jardine Rock	Bcn	Port lateral	Fl.R.2.5s
Miscellaneous				
	Goods Island Light	Light		Fl.2.5s.105m.14M
	Goods Island light north	Light		Fl.WR.2.5s.8m.10M/7
	Hovell Rock West	Buoy	Special	Fl.Y.4s
	Hovell Rock East	Buoy	Special	Fl.Y.6s
	Caltex Dolphin	Light	Special	Fl.Y.2.5s
	Waiweer Reef	Bcn	Port lateral	Fl.R.2.5s

Table 7 – Leading lights and beacons

5.3 Anchorage conditions

Anchorage positions are located within the compulsory pilotage area of Thursday Island. Anchorages are effected by strong currents and prevailing weather conditions.

Vessels calling at Thursday Island and wishing to anchor will be subject to final assessment of conditions by the attending harbour pilot and Regional Harbour Master (Cairns) on the day.

5.4 Anchorage areas

The following anchorages have been designated for use by passenger ships visiting the port of Thursday Island.

These anchorages are within the compulsory pilotage area and vessel assessment and approval is required from the Regional Harbour Master (Cairns) prior to port visit.

5.4.1 Normanby Sound Anchorage

Located in approximate position 10°34.8' S 142°09.5' E and suitable for vessels in excess of 185 metres LOA with adequate UKC. Depths range from 6.5 to 9 metres with deeper water available at port limits. A sandy bottom with good shelter from south-easterly trade winds is afforded.

5.4.2 Brisbane Rock West Anchorage

Located in approximate position 10°35.033'S 142°11.574' E and suitable for vessels up to 185 metres LOA with adequate UKC. Larger vessels should have a minimum configuration of twin screws, twin rudders and an effective bow thruster capable in 25 knot winds. Depths range from 6.7 to 8.8 metres, coral bottom. The vessel will be exposed to south-easterly trades and strong tidal currents (small boat transfers need to be cautious of prevailing conditions). Consideration should be given to predicted tidal streams on the day. Regional harbour master or pilots will approve on a case-by-case basis.

5.4.3 Inner Harbour Anchorage

Located to the south of the main wharf and suitable for ships up to 80 metres LOA. Depths range from 6 to 8 metres with a mud and sandy bottom. The anchorage is exposed to south-easterly trade winds and strong tidal currents. Ships up to 165 metres LOA and draft 5.5 metres or less have been anchored successfully in appropriate tidal and weather conditions. Vessels up to 165 metres LOA will be approved by the regional harbour master on a case by case basis if they are assessed to have appropriate power, manoeuvrability and UKC for the prevailing tidal stream and weather conditions.

5.4.4. Ships at anchor

The Ports North port pilot will, if necessary, remain onboard in order to ensure a safe anchorage. Any ship that drags anchor within the compulsory pilotage area must inform the pilot immediately. All movements within the pilotage area including re-anchoring must be conducted by a licensed port pilot.

This rule does not prevent the master from taking any necessary action to ensure the immediate safety of the ship.

5.4.5. Prohibited anchorages

There are two anchor free zones established within the Thursday Island pilotage area. Anchoring is not permitted within these zones.

An area adjacent Main Wharf and Engineers Jetty

An area adjacent Horn Island Wharf and Horn Island barge ramp

Please refer to Maritime Safety Queensland website for the latest Notice to Mariners reflecting zone boundaries.