

**PULAU BUSING - TANKSTORE PTE LTD (OTS)**

<b>JETTY</b>	<b>DEPTH A/S(m)</b>	<b>APPROACH DEPTH(m)</b>	<b>MAX LOA(m)</b>	<b>MAX DISPL. (tonnes)</b>	<b>REMARKS</b>
OTS1	16.6	}17.8 from West {(Selat Sinki) }16.6m from East {(Jong Fairway)	360	276,710	Shallower depths of 16.2m, 14.9m exist West of berth.
OTS2	16.8		312	224,475	
OTS3	13.6	7.0 (130 South of berth)	102	17,455	
OTS4	12.2	7.0 (230 South of berth)	126	17,455	
OTS5	14.7	}15.3 m from West {(Selat Sinki)	280	292,940	See Note 5
OTS5E&W	14.7	}15.3 m from East {(Jong Fairway)	140	163,150	See Note 5
OTS6	-	-	-	-	For waterboat
OTS6W	7.3	8.0	120	12,000	See Note 7
OTS6E	11.0	8.0	120	15,500	See Note 7
OTS7	15.3	15.3m from west 15.3m from east	280	156,000	See Note 5
OTS8	17.1	16.1 m from west 15.3 m from east	280	156,000	See Note 5
OTS9	17.5	16.1 m from west 15.3 m from east	200	65,000	See Note 5 & 6
OTS10	16.2	16.1 m from west 15.3 m from east	185	61,500	See Note 5 Inner Berth <b>(daylight movements only)</b>

## **GENERAL INFORMATION**

- 1 Controlling depth of the channel is 17.8m and is marked by 4 buoys i.e. Sinki, Pempang, Butir and Busong.
- 2 For berthing of vessels with draft >14.0m, 3 big tugs are recommended.
- 3 For berthing, one mooring boat will be provided for vessels with LOA  $\leq$ 200m and 2 mooring boats for vessels with LOA >200m.
- 4 Please note the existence of the Shell (Bukom/Pandan) pipeline located east of jetty OTS2.
- 5 Please note the existence of pipelines located west of jetties OTS9 & 10.
- 6 Vessel's operator, master or person-in-charge, and pilot must immediately contact Port Operations Control Centre if their vessel causes, or is suspected to have caused, any damage to a submarine cable or pipeline or tunnel. Offenders whose vessels damage submarine cables, pipelines and tunnels may be prosecuted.
- 7 For vessels berthing/unberthing from OTS6E or OTS6W, two beacons OTB Rear: Iso.R.4s13m5M & OTB Front: Q(1).R.1s6m5M marks the limit of the approach channel. Shallower depths of water exist east of the transit line.
- 8 The minimum separation distance between vessels at jetties OTS5, 7, 8 & 9 is not to be less than 50m at all times.
- 9 Pilot and terminal's walkie-talkie operating channel: 5

## **PILOTAGE GUIDELINES**

### **1 BERTHING & UNBERTHING (DAY & NIGHT)**

#### a) **Flood & Ebb Tide**

**OTS 1 & 2 VLCC (LOA >280m or >75,000GT)**

- i) When berthing vessel to stem the tidal stream.
- ii) 4 big tugs to assist with bollard pull of at least 45 tons each and have backup towline for emergency purpose.
- iii) no movement in Jong Fairway during hours of darkness

### **2 BERTHING (DAY & NIGHT)**

#### b) **Flood Tide**

**OTS1, 2, 4, 5, 5E&W, 7, 8 & 9**

#### **From East**

LOA  $\leq$ 260m

Draft  $\leq$ 14.0m No restriction

Draft >14.0m Tidal strength  $\leq$ 1.0kt

LOA >260m

Draft  $\leq$ 12.0m Tidal strength  $\leq$  1.0kt

Draft >12.0m Tidal strength  $\leq$  0.5kt

**From West**

LOA $\leq 260\text{m}$	No restriction	
LOA $>260\text{m}$ to $\leq 280\text{m}$	Draft $\leq 14.0\text{m}$ Draft $>14.0\text{m}$	No restriction Tidal strength $\leq 1.0\text{kt}$
VLCC (LOA $>280\text{m}$ or $>75,000\text{GT}$ )	Draft $\leq 14.0\text{m}$ Draft $>14.0\text{m}$	Tidal strength $\leq 2.0\text{kt}$ Tidal strength $\leq 1.0\text{kt}$

**OTS3, 6E & 6W**

Tidal strength  $\leq 2.0\text{kt}$

**OTS10**

Tidal strength  $\leq 1.0\text{kt}$  (Daylight movement only)

b) **Ebb Tide**

**OTS1 to 9**

**From West**

LOA $\leq 260\text{m}$	Draft $\leq 14.0\text{m}$ Draft $>14.0\text{m}$	No restriction Tidal strength $\leq 1.0\text{kt}$
LOA $>260\text{m}$	Draft $\leq 12.0\text{m}$ Draft $>12.0\text{m}$	Tidal strength $\leq 1.0\text{kt}$ Tidal strength $<0.5\text{kt}$

**From East**

LOA $\leq 260\text{m}$	No restriction	
LOA $>260\text{m}$ to $\leq 280\text{m}$	Draft $\leq 14.0\text{m}$ Draft $>14.0\text{m}$	No restriction Tidal strength $\leq 1.0\text{kt}$
VLCC (LOA $>280\text{m}$ or $>75,000\text{GT}$ )	Draft $\leq 14.0\text{m}$ Draft $>14.0\text{m}$	Tidal strength $\leq 2.0\text{kt}$ Tidal strength $\leq 1.0\text{kt}$

**OTS10**

Tidal strength  $\leq 1.0\text{kt}$  (Day light movement only)

**3 UNBERTHING (DAY AND NIGHT)**

a) **Flood Tide** (Port A/S )

**OTS1 to 9**

LOA $\leq 260\text{m}$	Draft $\leq 12.0\text{m}$ No restriction Draft $>12.0\text{m}$ Tidal strength $\leq 1.0\text{kt}$
LOA $>260\text{m}$	Tidal strength $\leq 0.5\text{kt}$

**OTS10**

Draft  $>12.0\text{m}$  Tidal strength  $\leq 1.0\text{kt}$   
Day light movement only

b) **Flood Tide** (Starboard A/S)

**OTS1, 2,4, 5, 6E, 6W, 5E, 5W, 7 & 8**

**Out East**

No restriction

VLCC (LOA >280m or  
>75,000GT)

Draft  $\leq 14.0\text{m}$   
Draft >14.0m

Tidal strength  $\leq 2.0\text{kt}$   
Tidal strength  $\leq 1.0\text{kt}$

**Out West**

LOA  $\leq 260\text{m}$

Draft  $\leq 14.0\text{m}$  No restriction  
Draft >14.0m Tidal strength  $\leq 1.0\text{kt}$

LOA >260m

Draft  $\leq 12.0\text{m}$  Tidal strength  $\leq 1.0\text{kt}$   
Draft >12.0m Tidal strength  $\leq 0.5\text{kt}$

**OTS3** No unberthing if OTS6W is occupied.

**OTS10** Tidal strength  $\leq 1.0\text{kt}$  (Day light movement only)

c) **Ebb Tide** (Port A/S)

**OTS1 to 9**

**Out West**

No restriction

VLCC (LOA >280m or  
>75,000GT)

Draft  $\leq 14.0\text{m}$   
Draft >14.0m

Tidal strength  $\leq 2.0\text{kt}$   
Tidal strength  $\leq 1.0\text{kt}$

**Out East**

LOA  $\leq 260\text{m}$

Draft  $\leq 14.0\text{m}$  No restriction  
Draft > 14.0m Tidal strength  $\leq 1.0\text{kt}$

LOA > 260m

Draft  $\leq 12.0\text{m}$  Tidal strength  $\leq 1.0\text{kt}$   
Draft > 12.0m Tidal strength  $\leq 0.5\text{kt}$

**OTS10** Tidal strength  $\leq 1.0\text{kt}$  (Day light movement only)

d) **Ebb Tide** (Starboard A/S)

**OTS1 to 9**

LOA  $\leq 260\text{m}$

Draft  $\leq 12.0\text{m}$  No restriction  
Draft >12.0m Tidal strength  $\leq 1.0\text{kt}$

LOA >260m

Tidal strength  $\leq 0.5\text{kt}$

**OTS10**

Draft >12.0m Tidal strength  $\leq 1.0\text{kt}$   
Day light movement only

## **MOORING ARRANGEMENT RECOMMENDATIONS & TUG ASSIGNMENT GUIDELINES**

The following are recommendations for vessels mooring arrangement and guidelines for assigning tugs to vessels berthing & unberthing @: Berth 1, 2, 5, 5E&W, 7, 8 & 9.

<b>LENGTH OVERALL OF VESSEL (LOA)</b>	<b>MOORING ARRANGEMENT</b>	<b>NUMBER OF TUGS</b>	<b>REMARKS</b>
Up to 70 meters	FWD: 3 Headlines and 2 Spring Lines	Pilot, in consultation with the master, may order a tug from the tug company nominated by the ship's agent	
71 to 122 meters	AFT: 3 Stern lines and 2 Spring lines	1 small tug	A vessel equipped with a suitable bow/stern thruster(s), in good working condition, may dispense with the need for a tug in that position.
123 to 152 meters		2 small tugs	
153 to 180 meters	FWD: 4 Headlines and 2 Spring Lines	2 medium tugs	
181 to 220 meters	AFT: 4 Stern lines and 2 Spring lines	2 big tugs	
221 to 280 meters	FWD: 4 Headlines, 2 Breast lines, 2 Spring Lines	2 big tugs	Pilot , in consultation with the master, may order an additional tug from the tug company nominated by the ship's agent
281 meters and above	AFT: 4 Stern lines, 2 Breast lines, 2 Spring lines	4 big tugs	

The following are recommendations for vessels mooring arrangement and guidelines for assigning tugs to vessels berthing & unberthing @:Berth 3, 4, 6, 6E&W & 10.

LENGTH OVERALL OF VESSEL (LOA)	MOORING ARRANGEMENT	NUMBER OF TUGS	REMARKS
Up to 70 metres	FWD: 3 Headlines and 2 Spring Lines	1 small tug	
71 to 140 metres	AFT: 3 Stern lines and 2 Spring lines	2 small tug	A vessel equipped with a suitable bow/stern thruster(s), in good working condition, may dispense with the need for a tug in that position.
141 metres and above		2 medium tugs	

## CHARTLET

Chartlet for illustration purposes only, not to be used for navigation. For navigation, mariners are advised to use the appropriate BA nautical charts.



