

Chapter 4 GUIDELINES ON TUG REQUIREMENTS

Tugs Used for Port Operations – General Requirements

1. Tugs used for port operations should meet the following requirements :

- (a) Locally licensed and properly manned;
- (b) Fitted with VHF radio;
- (c) Fitted with AIS transponder;
- (d) Fitted with twin screw/propulsion preferably with azimuth propellers;
- (e) With adequate power and bollard pull; and
- (f) Tug master be able to communicate with pilot(s) effectively.

(New tug for listing must meet with these general requirements. Existing tugs with single screw will be allowed to remain on list in chapter 5 but will not be used for berthing and unberthing.)

Grades of Tug

2. Tugs mentioned in these guidelines are categorized in two grades, i.e. grade II of lesser power (with at least 1248 HP) and grade I of higher power (with at least 2600 HP). The table below illustrates the general application of tugs currently listed in the BGL for container vessels. For tug requirements concerning bulker and tanker vessels, see paragraph 7 below and relevant BGL for the specific berth.

Grade	Power (HP)	Bollard Pull (BP)	General Application For Container Vessels
I	≥6,000	≥78	LOA>370m & Draft>14.0m ^{1&2}
	≥5,000	≥62	LOA > 350m ³
	≥4,000	≥52	LOA>300m or Draft >12.5m
	≥3,600	≥50	LOA>300m or Draft>12.5m
	≥3,200	≥42	LOA≤300m and Draft≤12.5m
	≥3,000	≥38	LOA≤300m and Draft≤12.5m
	≥2,600	≥35	LOA≤200m
II	≥1,200	≥18	Not applicable

Note¹ at least one of the attending tugs should be of 6000HP or more &

one tug of 5000HP or more.

Note² The requirement for 6,000HP tug would be put on trial only, substitution with total equivalent power may be accepted.

Note³ at least one of the attending tugs should be of 5000HP or more; at least two if Draft >14.0m.

Tugs Information

3. A list of tugs suitable for port operations is at Chapter 5 for reference. New tugs for listing shall meet with the specifications above. Owners/Operators of new tugs should contact the Pilotage Advisory Committee (attention:- MO Pilotage, see Chapter 11 for contact information) for enquiry on listing their tugs in Chapter 5 for reference.

Number and Grades of Tugs Required

4. The number of tugs deployed and the working parameters required are based on the experience gained by pilot members in normal weather, sea and swell, and ship's manoeuvring conditions; and are deemed to be the minimum requirements. Subjected to the prevailing circumstances and working parameters; the pilot may, in order to maintain adequate safety margin, at his discretion amend any requirements therein. Any additional tug in excess of the said requirement as required by the Master and/or ship's operators to further enhance the safety is encouraged.
5. The grade of tug required in these guidelines will be Grade I unless specified otherwise.
6. When two or more Grade II tugs are stipulated in the Berthing Guidelines, they should not be replaced by one Grade I tug. The requirement on the number of tugs under this BGL shall remain unchanged.
7. For all bulk and oil terminals (including CLPTSK & HKELECT), where the BGL stipulates 3 tugs are required, at least 2 tugs must be 3,600 HP each or min. 7,200 HP together (Tug 2,600HP not accepted). If 4 tugs are required, at least 2 tugs must be 3,600 HP each. Detailed requirements of tug are contained in each relevant BGL.

Transverse Thruster(s)

8. Transverse thruster(s) in good working condition may be accepted to substitute for one tug. Transverse thruster with under-power will not be considered as equivalent to one tug. Transverse thruster(s) shall meet with conditions stipulated below,
- (a) It is in good working condition, such that the control button can be adjusted to full power operating position.
 - (b) It can run continuously for not less than 30 minutes.
 - (c) It must be totally immersed in water.
 - (d) It must not be interrupted by the operation of the main engine or other auxiliary engine.
 - (e) The thruster power required for different length overall are as follow:-

Vessel's Length Overall	Actual minimum Horse Power	Actual minimum Kilo Watts
≤130m	600	447
>130 to ≤170m	800	597
>170m to ≤200m	1000	746
>200m to ≤230m	1500	1119
>230m to ≤270m	2000	1491
>270m to ≤300m	2500	1864
>300m to ≤340m	3000	2237
>340m to ≤370m	3500	2610
>370m to ≤400m	4000	2983

- (f) Master should consider pilot's recommendation to use tug even the above conditions are met, especially in adverse weather or confined maneuvering area.
- (g) Depending on circumstances, thrusters may not be considered as substitute for tug for berthing and/or unberthing.

Azipod

9. Vessel equipped with azipods may be accepted to substitute for one tug.