

Osaka-Wan Pilotage District

(Port of Kobe)

Criteria for the use of Tugboats for Ships equipped with bow thrusters

Applicable as of Nov 1st 2007

Ship (G/T)	B / T capacity		Tugboat type(& quantity)
	PS	KW	
Up to 5,000tons	400(Criterion)	294 (Criterion)	Large (1)
5,000 ~ 7,000	600 (Criterion)	441 (Criterion)	Large (1)
7,000 ~ 15,000	800 or more	588 or more	Large (1)
	up to 800	up to 588	Large (2)
15,000 ~ 25,000	1,000 or more	736 or more	Large (1)
	up to 1,000	up to 736	Large (2)
25,000 ~ 45,000	1,200 or more	883 or more	TypeIII (1)
	up to 1,200	883	TypeIII (1) Large (1)
45,000 ~ 75,000	1,400 or more	1,030 or more	TypeIII (1)
	up to 1,400	up to 1,030	TypeIII (1) Large (1)
Over 75,000	2,000 or more	1,471 or more	TypeIII (1)
	up to 2,000	up to 1,471	TypeIII (1) Large (1)

Large type: Tugboats with an output of 2,400PS or 2,600PS

Type III : Tugboats with an output of 3,600PS

PS(KW): Continuous maximum output

B/S : Bow thruster

S/T :Stern thruster

For ships exceeding 40,000G/T

With B/T of 1,200 PS or more and S/T of PS or more:

1 type III tugboat.

With B/T under 1,200 PS and S/T under 1,000 PS:

1 type III tugboat and 1 large tugboat.

Criteria for the use of Tugboats for Ships

Applicable as of Nov 1st 2007

Ship (G/T)	Tugboat type(&quantity)	Remark
Up to 5,000tons	Large (1)	Use two large type tugboats for mooring ships to private piers and multi-deck vessels using the Japanese gross tonnage system
5,000 ~ 7,000	Large (2)	
7,000 ~10,000	Large (2)	
10,000~40,000	Large (2)	
Over 40,000	Type III (2) or Large (3)	

NOTE

The type and quantity of tugboats may vary depending on tugboat availability, weather, conditions, maneuverability, type of ship and berth situation, etc.

(Re: Kobe Municipal Ordinance for Port Facilities)

Article 23

Those wishing to moor or unmoor large ships (500G/T or more) at wharves, buoys or dolphins should use tugboats suitable for large ships. This rule, however, can be waived, with the Mayor's approval, in certain special cases.

1 type III tugboat and 1 medium tugboat