

## Tug regulations

Port of Gothenburg

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# Rules of assistance and tugboat in the Port of Gothenburg

Special tug regulations are in place at the Port of Gothenburg according to the Bye-Laws of Port of Gothenburg 20§. The tug regulations in Port of Gothenburg are developed in consultation with the Swedish Maritime Administration and stipulates number of tugboats during arrival and departure in Port of Gothenburg. They are calculated for normal current conditions and wind force of max 10 m/s.

When exceeding these normal conditions or other circumstances that could appear, it might be necessary to increase the number of tugboats. The Pilot decides in consultation with the captain in each case how a planned vessel operation can be performed with sufficient safety margins. For vessels not subject to compulsory pilotage, the Port Authority – as responsible for safety and the port facilities – recommends that a pilot is used when tugboat assistance is needed.

Regarding high efficient rudder, it is a high-lift rudder creating effective side force and minimum force forward. A high efficient rudder may be a Schilling-, Becker Flap rudder or a type of rudder with similar functionality. An ordinary spade rudder that can be operated with great rudder angles is not to be considered as a high-efficient rudder. All rudders named high efficient rudder don't create enough side force why the Port Authority, in consultation with the Swedish Maritime Administration Gothenburg pilot area, reserves the right to the definition and assessment of a high efficient rudder. If a vessel desires to prove its rudder to be high-efficient, according to the definition above, the vessel must present a "vector diagram" of the rudder, showing the correlation between ahead-force and force sideways in percent. This diagram shall be sent to the Port Authority for evaluation.

Future development of the tug regulations must be in consultation with the Swedish Maritime Administration, Gothenburg pilot area. Escort towing is compulsory at the Port of Gothenburg for tankers of more than 30,000 tonnes. The towing company at the Port of Gothenburg, Svitzer, can offer this service. Vessels that are subject to compulsory escort towing must comply with the OCIMF (Oil Companies International Maritime Forum) recommendations. Escort towing will not be conducted when significant wave height exceeds 3 m.



For detailed information about which rules apply regarding escort towing of tankers at the Port of Gothenburg, see our General Port Regulations. Find it by scanning the QR-code.

Continue reading below for detailed specifications per port area.



## TOR HARBOUR

#### **ARRIVAL**

NUMBER OF TUGS							
LOA (m)		Bowthruster	Bowthruster + high efficiant rudder	Bowthruster + stern thruster akter alt. azipod	Bowthruster + 2 propeller and 2 rudder		
100 - 139	1	l	1	1	1		
140 - 179	2	l	1	1	1		
180 - 239	3	2	2	2	2		
240 - 289	4	3	2	2	2		
290 -	4*	4*	4*	4*	4*		

<sup>\*</sup> Each tugboat with a capacity of at least 50 ton BP (Bullard Pull).

#### **DEPARTURE**

NUMBER OF TUGS							
LOA (m)		Bowthruster	Bowthruster + high efficiant rudder	Bowthruster + stern thruster akter alt. azipod	Bowthruster + 2 propeller and 2 rudder		
100 - 139	1	1	l	l	1		
140 - 179	2	1	l	l	1		
180 - 239	2	2	2	2	2		
240 – 289	3	2	2	2	2		
290 –	4*	4*	4*	4*	4*		

<sup>\*</sup> Each tugboat with a capacity of at least 50 ton BP (Bullard Pull).



## ARENDAL, SKANDIA- AND ÄLVSBORG HARBOUR

#### **ARRIVAL**

(Note: Does not apply berth 600-601, scroll further down the page for separate chart)

NUMBER OF TUGS							
LOA (m)		Bowthruster	Bowthruster + high efficiant rudder	Bowthruster + stern thruster akter alt. azipod	Bowthruster + 2 propeller and 2 rudder		
120 - 139	1	0	0	0	0		
140 - 249	2	1 (0***)	1 (0*)	0	0		
250 – 349	3	2	l	0	0		
350 –	3	2	2	1 (0**)	2 (1**)		

<sup>\*</sup> Vessel LOA <180 meter.

#### **DEPARTURE**

(Note: Does not apply berth 600-601, scroll further down the page for separate chart)

NUMBER OF TUGS							
LOA (m)		Bowthruster	Bowthruster + high efficiant rudder	Bowthruster + stern thruster akter alt. azipod	Bowthruster + 2 propeller and 2 rudder		
120 - 139	1	0	0	0	0		
140 – 249	2	1 (0**)	1 (0*)	0	0		
250 - 349	2	l	1	0	0		
350 –	2	1	1	0	1		

<sup>\*</sup> Vessel LOA <180 meter.



<sup>\*\*</sup> Vessel draft <10 metres.

<sup>\*\*\*</sup> Vessel LOA <152 m arriving/departing from berth 610-615 and equipped with CPP (controllable pitch propeller).

<sup>\*\*</sup> Vessel LOA <152 m arriving/departing from berth 610-615 and equipped with CPP (controllable pitch propeller).

## BERTHS 600 - 601

#### **ARRIVAL**

NUMBER OF TUGS or total BP (Bullard Pull)							
LOA (m)		Bowthruster	Bowthruster + high efficiant rudder	Bowthruster + stern thruster akter alt. azipod	Bowthruster + 2 propeller and 2 rudder		
120 - 139	1	0	0	0	0		
140 - 189	2	1	1 (0*)	0	0		
190 - 0 - 4 m/s	2	2 (1**)	2 (1**)	2 (1**)	2 (1**)		
190 - 4 - 12 m/s	2	2	2	2	2		
190 - 12 - 14 m/s	3	3	3	3	3		
190 - 14 - 16 m/s	3***	3***	3***	3***	3***		

<sup>\*</sup> Vessel LOA <180 meter.

No arrivals are permitted for vessels >190 metres when the mean wind speed is more than 16 m/s. When the average wind speed exceeds 12 m/s on arrival/departure for berth 601, with ships >190m, loading / unloading at berth 520 and

The anemometer at "Karet" is to be used as a reference point.



<sup>\*\*</sup> If berth 520 is not occupied.

<sup>\*\*\*</sup> The total force from minimum 3 tugboats shall at least be 150 tons BP (Bollard Pull).

#### **DEPARTURE**

NUMBER OF TUGS or total BP (Bullard Pull)							
LOA (m)		Bowthruster	Bowthruster + high efficiant rudder	Bowthruster + stern thruster akter alt. azipod	Bowthruster + 2 propeller and 2 rudder		
120 - 139	l	0	0	0	0		
140 – 189	2	l	1 (0*)	0	0		
190 - 0 - 10 m/s	2	Ī	1	1	1		
190 - 10 - 16 m/s	3	2	2	2	2		
190 - 16 - 18 m/s	3	150 ton BP**	150 ton BP**	150 ton BP**	150 ton BP**		

<sup>\*</sup> Vessel LOA <180 meter.

The anemometer at "Karet" is to be used as a reference point.



<sup>\*\*</sup> The total force from the minimum 2 tugboats shall at least match this BP (Bollard Pull). Departure in wind speed of >18 m/s for vessels >190 metres may be permitted after a risk analysis is conducted in consultation with the Harbour Master and the Manager of Gothenburg pilot area. When the average wind speed exceeds 12 m/s on arrival/departure for berth 601, with ships >190m, loading / unloading at berth 520 and 521 must be stopped.

## SKARVIKS- OCH RYA HARBOURS

#### **ARRIVAL**

**Berth 509**: Vessel LOA (Length Over All) ≥ 120 m and wind speed ≥ 12 m/s (mean wind at "Karet") is the use of one (1) tugboat compulsory.

(Note: For berth 551: scroll further down the page for separate chart)

NUMBER OF TUGS							
LOA (m)	Bowthruster + 2 propeller and rudder akter alt. azipod 2 rudder						
120 - 139	l	0	0	0	0		
140 – 179	2	1 (0*)	0	0	0		
180 - 209	3	2	2 (1**)	2 (1**)	2 (1**)		
210 -	4	3	2	2	2		

<sup>\*</sup> For vessels LOA <145 m to berth 510, 511, 519, 520 and 521, and equipped with bow thruster and CPP (Controllable Pitch Propeller).

#### **DEPARTURE**

(Note: For berth 551: scroll further down the page for separate chart)

NUMBER OF TUGS							
LOA (m)		Bowthruster	Bowthruster + high efficiant rudder	Bowthruster + stern thruster akter alt. azipod	Bowthruster + 2 propeller and 2 rudder		
120 - 139	l	0	0	0	0		
140 - 179	2	1 (0*,**)	0	0	0		
180 - 209	2	2 (1***)	2 (1***)	2 (1***)	2 (1***)		
210 -	3	2	2	2	2		

<sup>\*</sup> For vessels LOA <145 m from berth 510, 511, 519, 520 and 521, and equipped with bow thruster and CPP (Controllable Pitch Propeller).

<sup>\*\*\*</sup> Can be reduced to one (1) if the bow thruster is stronger than 110 kW/ 150 Hkr per m current draft up to 11.5m draft. If the draft is greater than 11.5 m, 2 boats apply.



<sup>\*\*</sup> Can be reduced to one (1) if the bow thruster is stronger than 110 kW/ 150 Hkr per m current draft up to 10.5m draft. If the draft is greater than 10.5 m, 2 boats apply.

<sup>\*\*</sup> For vessels LOA <170 m and equipped with bow thruster and CPP (Controllable Pitch Propeller), the vessel can leave without a tug, if bow is heading towards the fairway.

## **BERTH 551**

#### **ARRIVAL**

**Berth 551:** Use of tugboat is compulsory when wind speed ≥ 12m/s (mean wind at "Karet")

**Berth 551:** For all gas tankers without bowthruster the use of one (1) tugboat is compulsory

NUMBER OF TUGS							
LOA (m)		Bowthruster	Bowthruster + high efficiant rudder	Bowthruster + stern thruster akter alt. azipod	Bowthruster + 2 propeller and 2 rudder		
100 – 119	1	1 (0*)	1 (0*)	0	0		
120 - 139	2	1	1 (0*)	0	0		
140 -	2	1	1	0	0		

<sup>\*</sup> If the draft <7.3 metres at MW

#### **DEPARTURE**

**Berth 551:** Use of one (1) tugboat is compulsory when wind speed is  $\geq$  15 m/s (mean wind at "Karet").

**Berth 551:** For all gas tankers without bowthruster the use of one (1) tug is compulsory.

NUMBER OF TUGS							
LOA (m)		Bowthruster	Bowthruster + high efficiant rudder	Bowthruster + stern thruster akter alt. azipod	Bowthruster + 2 propeller and 2 rudder		
100 – 119	l	1 (0*,**)	1 (0*,**)	0	0		
120 - 139	2	1 (0**)	1 (0*,**)	0	0		
140 -	2	1	l (0***)	0	0		

<sup>\*</sup> If the draft <7.3 metres at MW.



<sup>\*\*</sup> If the vessel's bow is pointing towards the fairway regardless draft.

<sup>\*\*\*</sup> If the vessel's bow is pointing towards the fairway and the draft is <7.3 m at MW.

## **INNER HARBOUR**

#### **ARRIVAL**

NUMBER OF TUGS							
LOA (m)		Bowthruster	Bowthruster + high efficiant rudder	Bowthruster + stern thruster akter alt. azipod	Bowthruster + 2 propeller and 2 rudder		
120 - 139	l	0	0	0	0		
140 - 179	2	1	0	0	0		
180 - 209	3	2	2	0	0		
210 -	4	3	2	1 (0*)	1 (0*,**)		

<sup>\*</sup> Vessels planned with starboard side alongside berth 34-36 at Stigbergskajen, are allowed to dock without tugboat if captain/pilot think it is safe to do so.

#### **DEPARTURE**

NUMBER OF TUGS								
LOA (m)		Bowthruster	Bowthruster + high efficiant rudder	Bowthruster + stern thruster akter alt. azipod	Bowthruster + 2 propeller and 2 rudder			
120 - 139	l	0	0	0	0			
140 - 179	2	1	0	0	0			
180 - 209	3	1	1	0	0			
210 -	4	2	2	1 (0*)	l (0*,**)			

<sup>\*</sup> Vessels planned with port side alongside berth 34-36 at Stigbergskajen, are allowed to depart without tugboat if captain/pilot think it is safe to do so.



<sup>\*\*</sup> Ferries in regular traffic.

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## GOTENIUS VARV - DRY DOCKING OF VESSELS

#### **INDOCKING**

NUMBER OF TUGS								
LOA (m)		Bowthruster	Bowthruster + high efficiant rudder	Bowthruster + stern thruster akter alt. azipod	Bowthruster + 2 propeller and 2 rudder			
0 – 110	2	1	0	0	0			

#### **OUTDOCKING**

NUMBER OF TUGS							
LOA (m)		Bowthruster	Bowthruster + high efficiant rudder	Bowthruster + stern thruster akter alt. azipod	Bowthruster + 2 propeller and 2 rudder		
0 - 110	1	0	0	0	0		





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