

# PACIFIC PILOTAGE AUTHORITY

1000 – 1130 West Pender Street  
Vancouver, B.C  
V6E 4A4



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## NOTICE TO INDUSTRY

**Date Issued:** 19 April 2023

**Notice Number:** 04/2023

**Subject:** Container Ship Tug Requirements for Docking/Undocking & Tethered Operations

**Geographic Area:** DP World Fairview Container Terminal, Prince Rupert, BC

### Details:

A risk analysis was conducted by the Port of Prince Rupert to assess the manoeuvring risk for large container vessels that currently frequent the Port of Prince Rupert, including vessels with LOA up to 400 metres. It was determined that one of the worst outcomes/mishaps related to vessel transits would be a grounding in the channel between Barrett Rock and Casey Point whereby the channel would effectively be blocked for all vessel movements. In Prince Rupert the prevailing wind is from the south-easterly direction, frequently exceeding 20 knots with winds more than 30 knots being relatively common, especially in the autumn and winter.

### Guideline:

- (1) The portion of the Prince Rupert Inner Harbour Channel between Barrett Rock and the DPW Fairview berth is designated as a mandatory tethered tug escort zone for container ships, both inbound and outbound.
- (2) Escort tugs are recommended to meet up with inbound vessels in the vicinity of buoy D-27 (Ridley Island buoy) and must have their lines up and be tethered prior to passing Trigon berth.
- (3) Outbound vessels must keep the tugs tethered until after passing Prince Rupert Grain berth.
- (4) Any tug tethered through the stern fairleads must be escort-rated and must be capable of maintaining their Bollard Pull rating while transiting at a speed of 7 kts through the water.
- (5) Tethered tugs must have functioning towline tension meters.
- (6) Prior to arrival, the vessels' masters must provide the official mooring and towing arrangement plans that show the SWLs of the bollards and fairleads. The maximum line forces must not exceed the SWL of a ship's bits, regardless of the tugs' bollard pull ratings.
- (7) The two tug-matrix tables overleaf are provided as reference for the ships' masters, pilots, and tug operators. Effective Line Force (ELF) is the force that the tug(s) must be capable of inducing in the tug lines tethered to the ship. The safe working load ratings of the ships' bollards & fairleads must be capable of withstanding the ELF forces.

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## ESCORT TUG REQUIREMENTS (Inbound & Outbound)

Vessel LOA	Sustained Wind Conditions	Minimum Stern Tugs (Must be Tethered and Escort-rated)	Additional Tugs (position at pilot's discretion)
< 300 metres	≤ 25 knots	Tug(s) with minimum of 65 tons ELF	Min 60 tons ELF
	> 25 knots	Tug(s) with minimum of 80 tons ELF	Min 60 tons ELF
300 to 350 metres	≤ 25 knots	Tug(s) with minimum of 80 tons ELF	Min 60 tons ELF
	> 25 knots	Tugs in tandem tether with a combined min 125t ELF	Min 60 tons ELF
350 to 375 metres	≤ 25 knots	Tugs in tandem tether with a combined min 145t ELF	At pilot's discretion
	> 25 knots	Tugs in tandem tether with a combined min 145t ELF	Min 60 tons ELF
> 375 metres	≤ 25 knots	Tugs tandem tether with a combined min of 165t ELF	Min 60 tons ELF
	> 25 knots	Not permitted	

*Pilot Discretion always applies. Weather, sea conditions, predicted current, freset, draught, manoeuvring characteristics, fender capacity at the berth, and mechanical history of the vessel may all be factors.*

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## BERTHING / UNBERTHING TUG REQUIREMENTS

(all tugs **MUST** be ASD tugs)

Vessel LOA	Sustained Wind Conditions	Minimum ASD Tugs	Minimum Additional ASD Tugs
< 300 metres	≤ 25 knots	Tugs with a combined minimum of 120 tons ELF	At pilot's discretion
	> 25 knots	Tugs with a combined minimum of 120 tons ELF	At pilot's discretion
	≥ 35 knots	Pilot / Terminal discretion to proceed*	
300 to 350 metres	≤ 25 knots	Tugs with a combined minimum of 130 tons ELF	At pilot's discretion
	> 25 knots	Tugs with a combined minimum of 130 tons ELF	60 tons ELF
	≥ 35 knots	Pilot / Terminal discretion to proceed*	
350 to 375 metres	≤ 25 knots	Tugs with a combined minimum of 195 tons ELF	At pilot's discretion
	> 25 knots	Tugs with a combined minimum of 220 tons ELF	At pilot's discretion
	≥ 30 knots	Pilot / Terminal discretion to proceed*	
>375 metres	≤ 25 knots	Tugs with a combined minimum of 240 tons ELF	At pilot's discretion
	> 25 knots	Not permitted	

*Pilot Discretion always applies. Weather, sea conditions, predicted current, freshet, draught, manoeuvring characteristics, fender capacity at the berth, and mechanical history of the vessel may all be factors.*

*\* Pilot shall consult with the Terminal (i.e., Line Handlers) prior to final approach to determine whether safe berthing is possible in conditions of high winds.*

Please contact the PPA at [marineops@ppa.gc.ca](mailto:marineops@ppa.gc.ca) if there are any queries or concerns.