

Welcome to the British Tugowners Association Annual Safety Seminar:
Operational Safety in the Port Ecosystem



BTA/WA Joint Gog Rope Use Advice

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GOG ROPES

Industry Advice



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Girting

Girting (often referred to as “Girding”) occurs when a tug is pulled sideways by a towline force. It can develop rapidly, often leaving insufficient time or capacity to introduce slack into the towline or release the tow before the heeling force becomes excessive and surpasses the vessel’s righting ability.

Such circumstances can, more often than not, result in the tug capsizing, frequently with fatal outcomes. These short videos explain more:

Tug Girting - Marine Transport Safety Board of Canada



FIGURE 1. Tug in trouble

■ Conventional Towing

Conventional (single or twin propeller) tugs require the most skills when it comes to manoeuvrability, i.e. the ability to turn around on its own axis quickly, which means that the tug master must anticipate the dynamics of an operation. (ETA, 2015)

MANOEUVRING WITH A GOG ROPE RIGGED

The tug remains gogged-down throughout the towage operation, unless the tug master needs to manoeuvre the tug and the gog is preventing this.

While running with the vessel to secure prior to berthing the tow, the gog line can be slacked to provide steerage while the tug is alongside.

The gog is only slackened if the manoeuvre is happening at a very low speed (i.e. 1.5 - 2 knots STW) and communication between tug and tow is maintained.

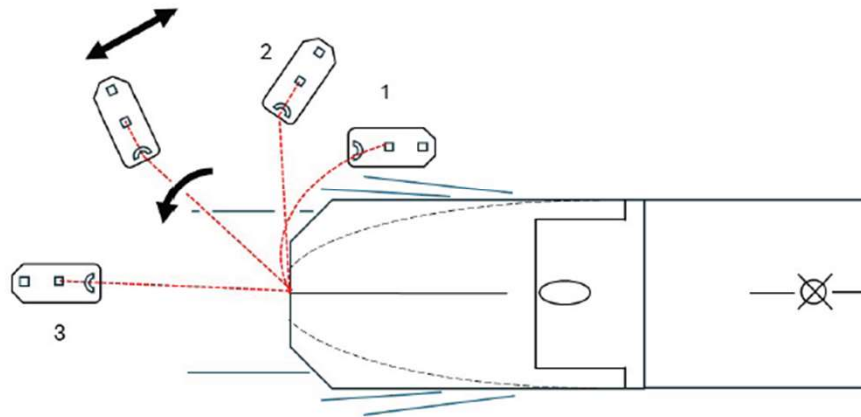


FIGURE 10. Making fast aft

Questions

Here are some questions to ask yourself in relation to your tug, towing gear and port. If you can't answer these questions go and find out the answer, it may save your life.

Your vessel

- What are the characteristics of your tug?
- What are your tugs limitation?
- Do you have a speed indicator within sight and is it working?
- Have you read your stability book?
- What is your angle of deck edge immersion?
- What is your angle of down flooding?
- How and when do you confirm watertight integrity?
- What are the weather constraints for towage operations on your tug?

Your gog rope system

- Do you have a dedicated gog rope, gog eye and tow rope?
- Do you have relevant Certification for all elements of the gog rope system?
- What are the SWL for all elements of the gog rope system?
- Have you considered the relationship between the towline, gog and staple in terms of breaking strain when used together as a system?
- Do you have a record of towage operations onboard including us of the gog rope and tow rope?
- How do you release the gog in cases of emergency or adjusting the length?
- What is the established a safe speed to adjust your gog line?
- Do you log the towage operations conducted by master, mate or trainee?

Your port

- Do you have agreed plans for communications between tug(s) and tow?
- Do you have access to the towage guidelines for the port you are operating?
- Do you have weather parameters for towage operations in the port you are operating?
- Has your company contributed to towage risk assessments for the port?

Summary

Conventional tug essentials

1. The tug master is in control of the action of his towline at all times.
2. Communication between tug and tow is adequate and constant. Each must understand what the other is doing and intends to do.
3. The whole operation is conducted at a safe speed – which may need to be determined and enforced by the tug master.
4. The tug master must take time to learn and know the limitations and characteristics of their particular tug.
5. Heeling angles can be reduced by moving the towing point aft and as low as possible.
6. All elements of the gog rope system are well maintained and good condition.
7. Means of releasing the gog and towline are in place and tested prior to towage operations
8. A towage plan with safe parameters has been agreed with the pilot
9. Has the appointed pilot suitable level of experience in conducting conventional towage operations
10. Has the port authority ensured that there is a suitable platform for training pilots to use conventional tugs including exercises with pilots.

A correctly rigged gog line in good condition and thorough knowledge of the characteristics and operational capabilities of your tug could well prevent your tug from capsizing and could save your life.

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Gog Rope Use Simulations

Nick Jeffery

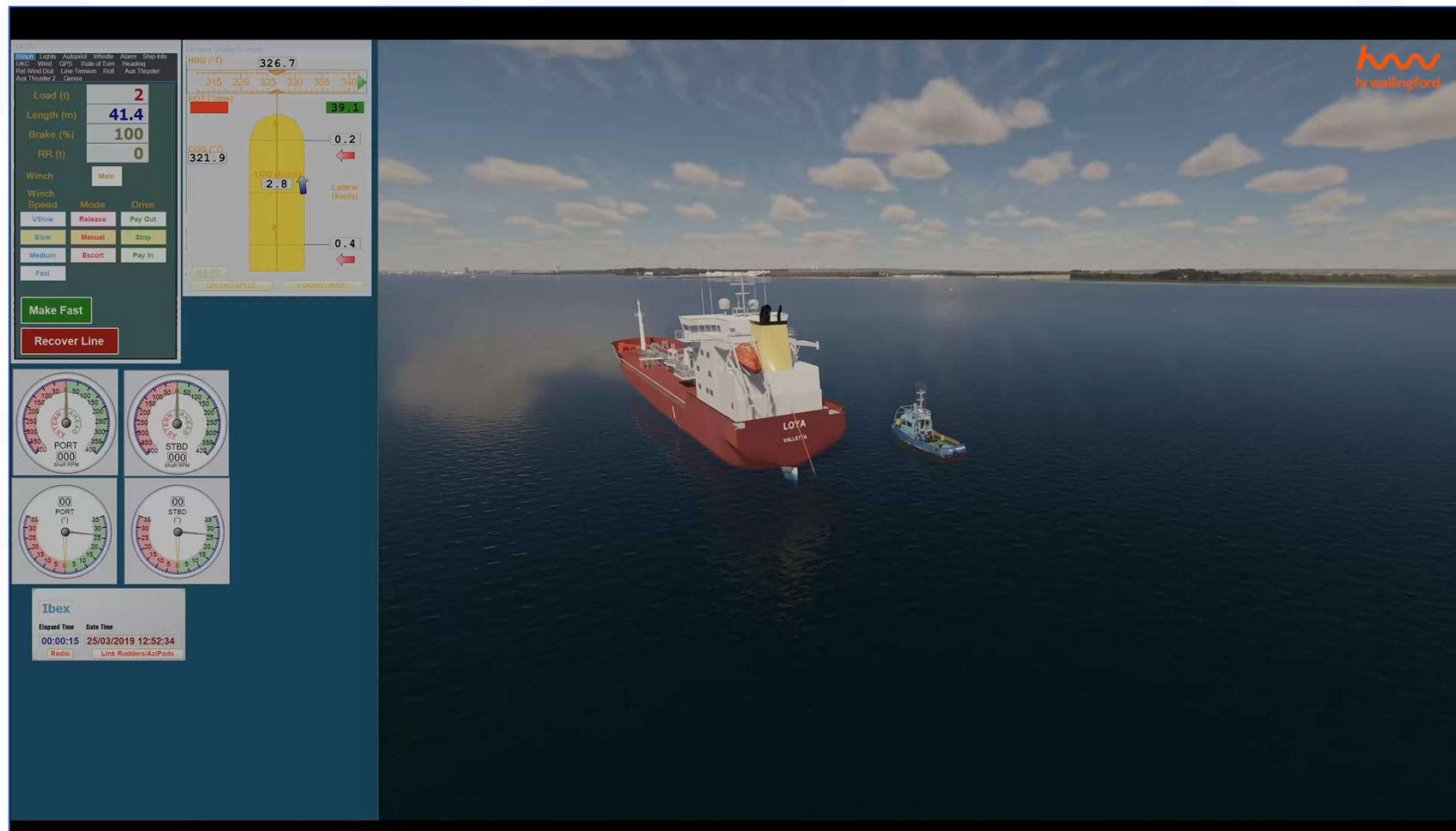


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Slack Gog - 3 knots - Risk of Girting



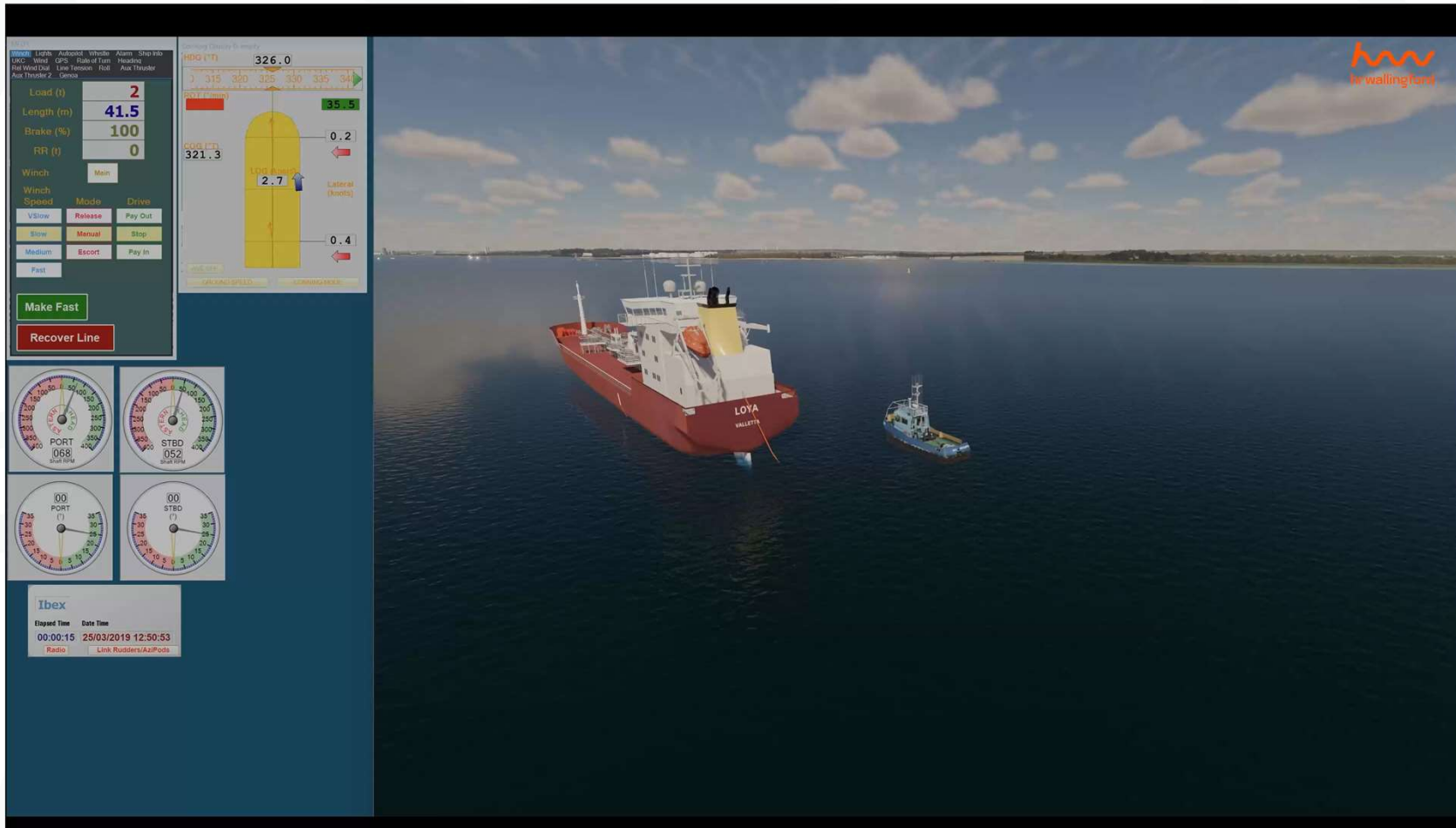
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Slack Gog - 4 knots - Risk of Girting



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Slack Gog - 2-3 knots - Safe Manoeuvre



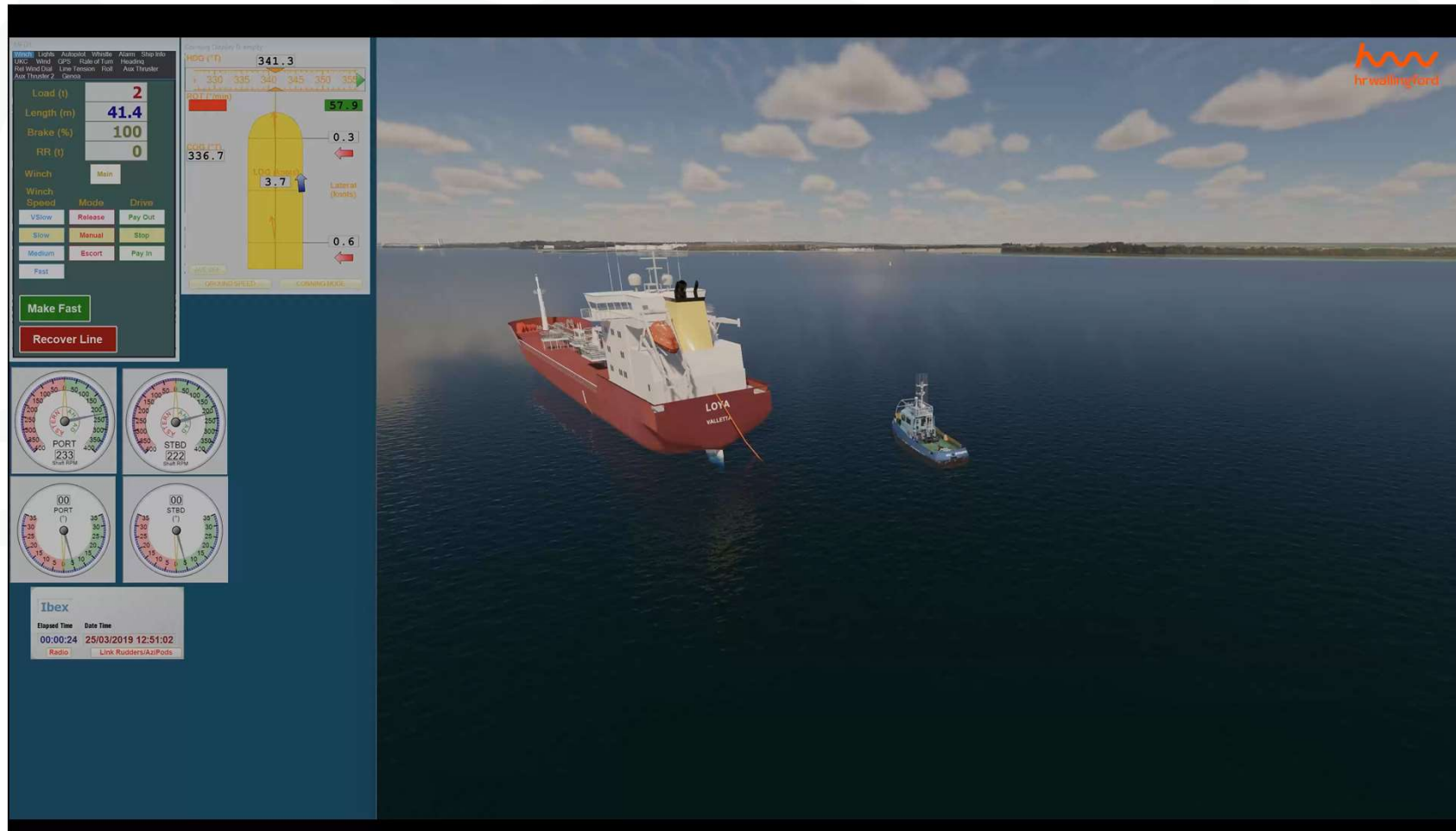
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Tight (0.1m) Gog - 3-4 knots - Safe Manoeuvre



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