

**INLAND ONLY: Signals shall be sounded by a power-driven vessel intending to overtake \_\_\_\_\_.**

Note: This question pertains to Inland Rule 34, "Maneuvering and Warning Signals." The paragraphs of this rule that govern the conduct of power-driven vessels (PDVs) must not be confused with the paragraphs that govern the conduct of all vessels.

**A. any vessel when within half a mile of that vessel**

Incorrect: Maneuvering signals are sounded and acknowledged in an overtaking situation only when both vessels are power-driven and in sight of one another, regardless of distance apart.

**B. another power-driven vessel when both power-driven vessels are in sight of one another**

Correct Answer: A power-driven vessel intending to overtake another PDV shall indicate its intention and await the acknowledgement before overtaking.

**C. any vessel when both are in sight of one another**

Incorrect: Both vessels must be power-driven. For instance, a PDV would not sound a signal when overtaking a sailing vessel. The vessel under power would simply keep well clear of the vessel under sail.

**D. another power-driven vessel only when within half a mile of that power-driven vessel**

Incorrect: The "half mile" rule applies only to PDVs meeting or crossing. In an overtaking situation, maneuvering signals are to be sounded and acknowledged when PDVs are in sight of one another, regardless of distance apart.

**Which type of vessel shall be required to have an emergency towing arrangement fitted at both ends?**

Note: Logically, a large self-propelled vessel is towing-equipped at the stern so it can tow a disabled vessel and at the bow so it can be towed if it should become disabled.

**A. A 30,000 dwt ton oil barge**

Incorrect: An emergency towing arrangement is not required at both ends of a barge, as a barge is not powered and unable to tow another vessel in an emergency.

**B. An 18,000 dwt ton tanker constructed in 1998**

Incorrect: The regulation requiring towing arrangements at both ends of a tanker only applies to tankers over 20,000 deadweight tons.

**C. A 5,000 dwt ton coastal tanker**

Incorrect: Same as for "B." The vessel's area of operation is not a requisite condition for this requirement.

**D. A 22,000 dwt ton tanker operated after January 1, 1999**

Correct Answer: All oil tankers (of at least 20,000 dwt) in service since January 1, 1999 are required to have emergency towing arrangements fitted at both ends of the vessel. (33 CFR 155.235)

Spring-loaded towing hooks are used in towing to \_\_\_\_\_.

**A. absorb and cushion the shocks of towing**

Incorrect: The absorption and cushioning of the shocks of towing is accomplished by having a significant catenary in the towline. This is standard procedure when towing astern at sea.

**B. prevent whiplash**

Incorrect: Whiplash can be prevented by using a heavy nylon “shock line” fitted between the wire towline and the vessel being towed or simply by using heavy nylon for a harbor tow. Nylon is used because of its ability to stretch without sustaining damage. The “shock line” compliments the effect of the catenary.

**C. trip and release when the pull of the towing hawser exceeds a predetermined limit**

Correct Answer: Spring-loaded towing hooks can be used for harbor work, i.e., docking and undocking. The eye of the towline is secured in the hook by fastening the bail over the tip of the hook. This device trips when the strain on it reaches the predetermined limit.

**D. make it easier to attach and release the tow**

Incorrect: It is more time consuming to attach a towline to a spring-loaded towing hook and is not any easier to tie-up or release the tow.

Which tanker discharge pattern would be the safest and most efficient?

Note: Title 33 (part 155) of the Code of Federal Regulations requires a “Transfer Procedures” manual to be available to the Person-in-Charge of the transfer. However, this document is not required to outline any specific loading or discharge pattern for the vessel. Discharging from the forward tanks first will develop a trim by the stern and gravity can now aid the flow of cargo aft. The objective is to minimize the transfer time without compromising safety and pollution prevention criteria. Good seamanship mandates the specific pattern.

**A. Empty the forward tanks and start working aft, emptying each tank in sequence.**

Incorrect: This would cause excessive trim by the stern and excessive stresses on the ship’s structure. False tank levels could be indicated. Depending on the depth of the water, the stern could go aground. The worst-case scenario is the aftermost tanks overflowing.

**B. Start discharging with most of the discharge coming from forward, but include some from midships and after tanks.**

Correct Answer: On a modern tanker where the pumproom is located all the way aft, discharging the vessel in this pattern helps maintain a steady discharge rate and helps minimize the amount of oil left in the tanks. Be aware that some cargo should be discharged from all of the tanks to ensure that the vessel does not become over-trimmed by the stern to avoid the possibility of tank overflow.

**C. Start pumping from forward, midships, and aft with the discharge distributed equally among the tanks.**

Incorrect: This would not be the most efficient since it would not create the desired trim by the stern and is undesirable from a ship’s business point of view. Once the oil level is lowered to the point that it can no longer be pumped by a high-capacity centrifugal pump, you must resort to pumping with a low-capacity positive-displacement pump (or an eductor) which is a slow process known as “stripping.” It’s undesirable to be stripping more than one large tank at a time because of the time factor.

**D. Start pumping from midships and then work forward and aft simultaneously as the midships tank is emptied**

Incorrect: This discharge pattern should be avoided since emptying the midships tanks while leaving the tanks forward and aft full would create extreme “hogging” i.e., the main deck would be under tension and the bottom plating in a dangerous state of compression.