

AQEC MEMORANDUM 2015-002

INERTIA

QUESTION:

“Since there are no brakes on vessels, what is the best practices method to stop a vessel that continues to make way after all way is taken off?”

AQEC/SNC RESPONSE:

If you are in neutral and your momentum continues to make way after all way is taken off, make certain you are clear in the stern, then use reverse gear for a couple of seconds to stop forward momentum (way). If you continue to make way, you may have to do this procedure a few times until you are completely stopped (keeping station).

INERTIA: *Sir Isaac Newton discovered the tendency of a body at rest will remain at rest and a body in motion will stay in motion in a straight line unless affected by an outside force (wind, current, steerage, throttle control, etc.); there is resistance to changes in momentum.*

The goal is to make certain you know how your vessel will react to a change in motion and be able to act accordingly to stop momentum. A freighter, tanker or any large ship may not be able to see a smaller vessel, so don't get in its way in the first place. As a result of inertia, the captain of the larger vessel may not be able to stop the vessel in time for you to get out of its way. Always be prepared to stop and apply stern propulsion when necessary.

"Research indicates that large ships which can carry 150-300,000 tons of cargo have enormous inertia. At a speed of 20kts with the engine thrown into reverse, super tankers and cargo ships need a mile or more to come to a stop and are equally hard to turn around."

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From Quotations with Character by W. David Edman

“Teaching mariners about risk assessment is to explain their actions may affect their life expectancy.”

