



Marine Safety Forum – Safety Flash 08-09

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Subject: Vessel Makes Contact with Installation

Whilst a vessel was setting course for the next installation, all four diesel electric engines tripped on over-speed and the vessel blacked out and had no propulsion system available. At this point, the vessel was 'beam on' to the wind and sea. This, along with the vessel's momentum and combined with the sail effect of the vessel's superstructure, meant that the vessel was blown in the direction of the installation it had just left.

Emergency power for communications was available to the bridge and the master contacted the installation to advise that they had a complete blackout and that they were drifting towards them. In the engine room, the engineers were trying to restart the main engines and restore power to the switchboard; unfortunately, this could not be achieved before the vessel impacted the installation.

Damage to the installation was confirmed to be minor (paint damage). Damage to the vessel was limited to the port bow area.

Root Causes:

There was slow and interrupted communication between the governors resulting in all four main engines going into over-speed. Under these circumstances, the electronic over-speed protection devices activated (as they are designed to do) causing all four main engines to shut down simultaneously.

Lessons Learned:

1. Closing of the bustie (tie-breaker) on the 690v switchboard is a routine operation for the engineers; however, the philosophy and working knowledge of closing it is not widely understood by the bridge.
2. Engine room did not communicate to the bridge the requirement to hold the engines steady in order to close the bustie. Both the port and starboard 690v switchboards needed to be synchronised, i.e. loads on these boards must be as stable as possible. It is extremely difficult to achieve this if the vessel is also changing course and increasing speed.
3. Although it is common practice to close the bustie following departure of the 500m zone and prior to setting course for the next destination, there are no clear

procedures (industry or otherwise) in place to ensure that this operation is carried out at a safe location.

4. Governor software manufacturer did not communicate subsequent software and cable upgrade requirements to vessel owners.

Actions Taken:

No operation of the 690-volt tie breaker will be carried out without the bridge being consulted and permission granted to operate the breaker.

Should the vessel be at sea, the decision to change the status of this breaker must take into consideration the proximity of the vessel in relation to any offshore structure.

The vessel should not be so near or within a drift-on position in the event that a full blackout should take place. Take into account the vessel course and speed as well as the relevant environmental conditions (she was clear but her inertia took her back into a drift-on position).