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The Federal Bureau of Maritime Casualty Investigation (BSU) published the investigation report No. 439/16 on 29 November 2017. The report deals with the stranding of CMV HANNI off the Mühlenberger Loch in Hamburg on 4 December 2016. Upon request the report will be forwarded. Alternatively, this report – as well as all previous reports – is available on the website www.bsu-bund.de for download.

Short version:

Serious marine casualty – stranding of CMV HANNI

At 0628 on 041216, the German-flagged container vessel MV HANNI grounded off the Mühlenberger Loch in Hamburg while heading to Bremerhaven. The master and the chief officer were on the bridge. At 0621 an engine overspeed protection alarm sounded. The main engine stopped afterwards automatically. After the main engine failed, the HANNI drifted

to the other side of the fairway in an arc toward her port side and ran aground within seven minutes. The main engine could only be started again 1 minute before and both anchors were ready to be dropped. However, this period of time was not sufficient to prevent the ship from grounding. At 0700 the first salvage attempt with two tugs in the already prevailing ebb tide failed. At 1830, the

second attempt made at high tide succeeded. Nobody was harmed and no harmful substances spilled.

The investigation report was published on 29 November 2017 by the Federal Bureau of Maritime Casualty Investigation and can be downloaded at www.bsu-bund.de.

Long version:

Serious marine casualty – stranding of CMV HANNI

At 0628 on 4 December 2016, the German-flagged container ship ran aground off Mühlenberger Loch in Hamburg while heading to Bremerhaven. The master and the chief officer were on the bridge. An overspeed protection alarm was issued for the main engine at 0621. The main engine then stopped automatically. They were only operating with starboard rudder and the main engine did not start until 0626, now controlled from the bridge again. At 0628, the HANNI's speed over ground stood at zero and she was grounded to the south of the other side of the fairway with a draught of 6.1 m fore and 6.9 m aft. The Vessel Traffic Service, VTS Hamburg port, was notified of the accident, which ordered the two tugs RASANT and PROMPT, each with a bollard pull of 71 t maximum, as well as a harbour pilot. The pilot pursued a strategy of hauling the HANNI off the sandbank at an angle to the fairway. This involved him using the generalized sounding chart on his portable pilot unit (PPU). Even with each tug's bollard pull of 65 t (taking into account the HANNI's maximum bollard load), the HANNI barely moved in the hour that followed. Therefore the first attempt to salvage the HANNI was aborted at 0800.

At the invitation of the harbour master's office of the HPA, a meeting was held in the VTS at Bubendey-Ufer at 1500. In addition to the harbour master and a representative of the department responsible for shore-based port infrastructure, salvage experts from Lütgens & Reimers and Bugsier, the HANNI's owner, a representative of the Association of Hanseatic Marine Underwriters (Verein Hanseatischer Transportversicherer e.V. – VHT), and a harbour pilot were present. A salvage conception was devised. The BUGSIER 11 made fast aft on the port side at 1720 with a draught of 6.0 m and bollard pull of 85.5 t, the BUGSIER 22 on the starboard side (spring forward) at 1754 with a draught of 5.35 m and bollard pull of 70.0 t, the BUGSIER 9 on the starboard side (spring aft) at 1755 with a draught of 6.11 m and bollard pull of 84.5 t, and the Bugsier 7 forward in the middle at 1811 with a draught of 6.20 m and bollard pull of 72.0 t. In the process, the towing supply vessel STUBBENUK transferred the tow lines due to her shallow draught. At 1815, the water level stood at 3.38 m based on CD. In addition, using the HPA's up-to-date sounding chart the bed leveller KEES JR cleared a channel in front of the HANNI to allow her to be hauled back into the fairway. The KEES JR (see Fig. 3) lowers a plough bar into the water to churn up segments. The natural flow then carries the segments into deeper water, thus creating a channel. At 1818, the attempt to re-float the ship started according to plan, initially astern with the help of the main engine. At 1830, the HANNI moved, was afloat again and could be tugged through the cleared channel. After the tanks and cargo holds were sounded, the HANNI was towed to Ellerholzhafen port, where she made fast at Berth 77a at 1942. Nobody was harmed during the grounding and salvage and no pollutants escaped.

The grounding was triggered by an overspeed protection alarm causing the main engine to stop automatically, similar to a crash-stop, so as to avoid potential mechanical or thermal damage resulting from excessive centrifugal forces, which could lead directly to the total loss of the engine. The alarm was due to a defective pickup. The rated speed is measured with two independent Hall generators. In the event of excessive deviations in the rated speed measured or overspeed, the main engine's rated speed is slowly reduced, the CPP's pitch is adjusted to zero, and the shaft generator is automatically disconnected from the on-board power supply network. In estuary trading, as was the case here, only the two diesel generators, which also drive the steering gear, are then running. Without a shaft generator, there is not enough power to operate the bow thruster.

Ulf Kaspera
Director