



Bundesstelle für Seeunfalluntersuchung
Federal Bureau of Maritime Casualty Investigation
Federal Higher Authority subordinated to the Ministry of Transport
and Digital Infrastructure



Statens haverikommission
Swedish Accident Investigation Authority

Interim Investigation Report

pertaining to the investigation report No. 99/13

Serious Marine Casualty

**Fire on board ConRo vessel
ATLANTIC CARTIER on 1 May 2013
in the Port of Hamburg**

29 April 2014

Under the terms of § 28 Para. 1 sentence 1 of the law to improve safety of shipping by investigating marine casualties and other incidents (Maritime Safety Investigation Law – SUG) of 16 June 2002, as amended in the announcement of 1 March 2012 (Federal Law Gazette I, page 390), last amended by Art. 16 Para. 22 of the decree of 19 October 2013 (Federal Law Gazette I, page 3836) in conjunction with Art. 14 Para. 2 of the directive 2009/18/EC of the European Parliament and the Council of 23 April 2009 establishing the fundamental principles governing the investigation of accidents in the maritime transport sector, the Federal Bureau of Maritime Casualty Investigation publishes an interim report in case an investigation report dealing with very serious or serious accidents cannot be prepared within the term of 12 months.

Issued by:
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Summary

The Swedish flagged ConRo vessel ATLANTIC CARTIER, laden with containers and vehicles, had left the port of Gothenburg at 0356 on 30 April 2013. The vessel made fast in the port of Hamburg at 1345 on 1 May 2013 on schedule after an uneventful voyage. The vessel was subsequently cleared in. Due to a public holiday no cargo handling took place. Apart from the crew six members of a repair team, having embarked in Liverpool and Gothenburg, were onboard the vessel. The welders were assigned to carry out little welding works and repairs and should disembark when the vessels called at the port of Liverpool again.

At about 1925 a member of the repair team recognized formation of smoke and heat on the upper deck of the vessel. The source of the fire was apparently in the closed vehicle deck 3 B, located on the level of Bay 26. 69 brand new vehicles stood on the port side of this deck. They were laden in Gothenburg and designated for the port of New York. The worker immediately informed the vessels chief officer. On his way to the vessels command he met a colleague. This colleague entered the vehicles deck 3 B, which was supposedly the place where the fire broke out, through an emergency exit. There he perceived a vehicle which was aflame and massive smoke emission. He did not succeed in fighting the fire by a portable fire extinguisher.

At about 1930 the fire alarm on the vessel was activated and the crew assembled at the muster station. The extinguisher pumps were activated and a firefighting team started its way to the source of the fire. At about 1954 the firefighting crew reached the source of the fire and attempted to extinguish the fire. The firefighting efforts were suspended at 2005 due to the strong heat and smoke emission. At 2001 the master of the vessel notified the fire brigade of the city of Hamburg and two minutes later Hamburg Port Authority.

The fire brigade of the city of Hamburg reached the vessel around 2012 with the first action forces and assumed the control of firefighting after a shipboard instruction by the vessels command. In the course of the following 8 hours further extensive fire action forces of the fire brigade were deployed to cool the vessels shell plating and to extinguish the fire. Initially the cooling measures carried out particularly from the waterside and the preparations for the original firefighting were given priority. However, at the same time unloading of the containers stowed in close proximity to the source of the fire and predominantly such containers containing dangerous goods, was prepared and ultimately carried out.

At 2200 the vessels command and the head of operations of the fire brigade agreed upon the activation of the shipboard CO₂ fire extinguishing system. Subsequently the vehicles deck affected was sealed off by the so called hydraulically driven sliding door. At 2258 and 2318 CO₂ of both tanks of the system was released into the burning vehicles deck. Afterwards it was not clear whether the fire extinguishing measures succeeded and to what extent. Therefore the head of operations of the fire brigade considered various scenarios for the fire fighters to make their way to the source of the fire and to fight the fire by means of water and foam, respectively.

After the cooling measures had achieved the desired result the aforementioned sliding door could be opened and the normal firefighting could be started at 0344. At 0410 the fire was extinguished.

A total of 296 action forces of the fire brigade were involved. Nobody was injured as a consequence of the fire and the firefighting. Approximately 30 vehicles stowed in vehicles deck 3 B were destroyed due to the fire and/or the strong emission of smoke. Moreover, the strong formation of heat led to massive damage to the ship's hull and the area of the vehicles deck affected.

Due to the fact that Germany is the Coastal State the Federal Bureau of Maritime Casualty Investigation (BSU) launched an investigation the day after the fire broke out on board the ATLANTIC CARTIER. Since then the BSU closely cooperates with the Statens haverikommission (Swedish Accident Investigation Authority) of the Flag State Sweden. The investigation primarily focusses on determining the actual causes of the fire or if not ascertainable the possible causes of the fire. In addition the report deals, secondarily, with the measures associated with firefighting.

With regard to the question of the outbreak of the fire, the welding works which were initially suspected of having caused the accident could be ruled out. Although an expertise commissioned by the BSU is available no final conclusion can be drawn concerning the source of the fire. The BSU does not expect to give a reliable statement. However, nothing shall be left undone to verify various hypotheses for a possible source of fire for their sustainability. This is the basis for the decision as to whether they are taken into account in the investigation report and/or which emphasis is placed on them. Since this process is time consuming and involves external expertise, the time limit of one year set by the European Union and implemented into national law by the Federal Republic of Germany, to publish an investigation report after a very serious or serious marine casualty has occurred, cannot be satisfied without serious losses with respect to the conclusions and safety recommendations giving distinction to the report.

After careful appreciation of all relevant factors, and under the premise that the quality of an investigation report shall be given priority over the time limit for its publication, the BSU has therefore decided to suspend the publication date of the final investigation report, and publish the present preliminary report.