



INSPECTION & INVESTIGATION DIVISION

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**INDEPENDENT INVESTIGATION REPORT
INTO THE VERY SERIOUS MARINE
CASUALTY**

OF

MV “HANSE FORTUNE”

AT BARCELONA

ON the 12.09.2015

Flag: Antigua and Barbuda W.I.

IMO No.: 9316103 / Official No.: 4023 / Call sign: V2BJ2



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OBJECTIVE

Maritime Safety Committee MSC.255(84)

CODE OF THE INTERNATIONAL STANDARDS AND RECOMMENDED PRACTICES FOR A SAFETY INVESTIGATION INTO A MARINE CASUALTY OR MARINE INCIDENT

This code recognizes that under IMO conventions each flag State has a duty to conduct an investigation into any casualty occurring to any of its ships when it judges that such an investigation may assist in determining what changes in the present regulations may be desirable or if such casualty has produced a major deleterious effect upon the environment (SOLAS, chapter I, part C, regulation 21).

The Government of Antigua and Barbuda W.I. is signatory to the major international shipping conventions. The Antigua and Barbuda Department of Marine Services and Merchant shipping (ADOMS) constitutes the flag State Administration together with the Inspection and Investigation Division (ADOMS IID), which is the marine safety investigation Authority, with the chief casualty investigator (CCI).

DISCLAIMER

This report is not written with liability in mind and should not be used in court for the purpose of litigation. It endeavours to identify and analyse the relevant safety issues pertaining to the specific accident, and to make recommendations aimed for preventing reoccurrence of similar accidents in the future.

At all times the ADOMS IID chief casualty investigator strives to balance the use of material that could imply adverse comments with the need to properly explain what happened, and why, in a fair and unbiased manner.



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PART A – THE OCCURRENCE

1. Executive summary

MV HANSE FORTUNE had just ceased with cargo operations in the port of Barcelona, Spain, when the crew commenced preparing the vessel for sea. All containers had been stowed at their intended position and the own on board cargo handling spreader was to be stowed in its designated position and the ship's crane no. 1 to then be secured. In order to bring the spreader to its designated position, the cargo crane no. 1 was used operated by an able seaman (AB) from the vessel's crew. The crane operator was instructed and given directions by another crew member, an ordinary seaman (OS) who had positioned himself in vicinity of the intended spreader stowage position in front of the forward ship's bulkhead on the cargo hatch.

The OS was giving directions to the crane operator by handheld VHF only as he was out of sight to the AB operating the crane. Just before the spreader reached the position, a loud banging noise and scream was heard by another AB on deck near to the forward bulkhead but behind a container stack not in sight of the OS directing the crane. He immediately rushed to the scene where the spreader was being positioned and found the OS lying on the hatch cover of bay 1 on starboard side. The AB immediately informed the duty deck officer (3rd officer) of the situation. Emergency actions were directly initiated including the calling of an ambulance by the shore stevedores.

Tragically the OS succumbed to his injuries before he could be assisted by the crew at the accident site.

2. The aftermath

As the injured must have immediately died after being struck by the spreader the present crew and also the very quickly arriving ambulance could not do anything. The deceased was declared dead on scene by a doctor and later brought ashore to the local morgue.

2.1 Fatalities and injuries

The accident led to the fatal injury of one crew member (OS).



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2.2 Impact on the surrounding environment

No impact to the environment was assessed.

2.3 Extent of the damage

No notable damage to the equipment or the vessel as such was noted.

PART B – GENERAL

1. Regulatory requirements

Other than the SOLAS Part C, Regulation 21 regulatory requirement and the Casualty Investigation Code Part II Chapter 6 Rule 6.1 to investigate into every very serious marine casualty (IMO resolution MSC.255(84), the Antigua and Barbuda W.I. Merchant Shipping Act 2006 (as amended), Part X Chapter

252 demands an investigation where any of the following casualties occur, that is to say:

(b) a loss of life or serious injury to any person, caused by fire on board, or by any accident to a ship or ship's boat, or by any accident occurring on board a ship or ship's boat; or any damage caused by a ship.

Furthermore, the Antigua and Barbuda flag State Administration is guided by Chapter 17 of the Casualty Investigation Code where the objective is defined to investigate into an even not very serious marine casualty (e.g. near-miss incidents) if it is considered likely that the investigation will provide information that can be used to prevent marine casualties and incidents in the future as lesson to learn.

2. Assessment of the occurrence

With the aim to identify lessons to learn the accident was assessed in the light of what evidence could be collected and the consequent restructuring of the run of events leading to the very serious casualty.

The fatally injured crew member was not visible to his colleagues when the incident occurred. Only after the accident did they find the OS lying on the hatch cover, with visibly heavy injuries to his head and not breathing. As the crane operator had immediately stopped operation when he noticed that something had happened, the spreader was nearly in the position where it must have struck the OS. It could be assessed that during the crane operating crew member was positioning the spreader, he could at no point see the OS, who was giving him directions only verbally over the handheld VHF.



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3. Instructions

Basis for the investigation into this very serious marine casualty are stipulated in the Antigua & Barbuda Merchant Shipping Act 2006 (as amended).

Captain Nils Beyersdorff located with ADOMS Inspection and Investigation Division (ADOMS IID) in Elsfleth, Germany, vested with the powers as per the Antigua and Barbuda Shipping Act 2006 (as amended) Part II 6.2 is the Chief Casualty Investigator (CCI) of the flag State marine safety investigation Authority. In this commission he initiated a full and separate investigation into this very serious marine casualty. Relevant notifications as per Chapters 5 and 20 of the Casualty Code have been distributed accordingly.

An on scene investigation including the interviewing of crew was conducted by the port authority of Barcelona Port only, as the Spanish investigation bureau, Comisión Permanente de Investigación de Accidentes e Incidentes Marítimos (CIAIM), was not informed through local channels and the vessel's managing company failed to report the very serious accident as per ADOMS requirements laid down in ***Circular 2012-002 (Rev 3) Reporting of Accidents.***

4. Cooperation

While being in process of acquiring evidence, efforts were successfully applied to liaise with all interested parties involved including the Spanish Maritime Accident Investigation Office CIAIM in Madrid and the vessel's managing company, Johs. Thode GmbH & Co KG Hamburg.

PART C – FACTUAL INFORMATION

1. The M.V. “HANSE FORTUNE”



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1.1 Ship particulars

Name of Vessel	HANSE FORTUNE
Company (ISM Code 1.2)	Johs. Thode GmbH & Co KG Hamburg
Flag State	Antigua & Barbuda
Port of Registry	St John's
IMO Number	9316103
Type of Vessel	Cargo Ship
Classification Society	DNV GL Hamburg Germany
Year built	2004
Ship Yard	Jinling Shipyard P.R. of China
Loa (Length over all)	147,86 m
Boa (Breadth over all)	23,25 m
Deadweight	13.715 t
Moulded Draft	8,51 m
Gross Tonnage	9957 t
Net Tonnage	5032 t
Main Engine	MAN B&W Diesel AG, Augsburg
Engine Power /Speed	9730 kW
Crew as per MSM Cert.	12
Crew on board	18
Safety Management Cert. (Date of Issue)	08.12.2011
Trading Area	International



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1.2 Crew particulars

The crew of MV HANSE FORTUNE were of many nationalities, but consisted mostly of Russian and Ukrainian deck and engine senior officers and junior officers and ratings from Myanmar. One so called repairman originating from Estonia was mustered.

All crew were certified and mustered according to their on board duties.

1.3 The voyage pattern

The MV HANSE FORTUNE was on a tight schedule in in the Mediterranean Feeder Trade. Port calls were planned and executed in an efficient and effective way to limit time spent alongside and keep to the set sailing schedule. In the port of Barcelona the crew was supervising the shore stevedores tasked with loading and lashing the cargo transferred by shore container gantry. The next intended port of call was Algeciras, Spain.

1.4 The cargo

MV HANSE FORTUNE was a full container ship carrying shipping containers of various lengths and heights. The cargo carried was as usual very different in nature and played no role in the accident as such.

2. The environmental condition

The vessel was berthed safely alongside the pier and according to records and taken crew statements showed no movements. A wind from northerly direction with less than force 3 was noted in the deck logbook. The deck area was well lit as all deck and cargo space lights were on due to the evening darkness having set in.

PART D – NARRATIVE

1. MV HANSE FORTUNE

On the evening of the 12.09.2015 the crew of the container feeder vessel HANSE FORTUNE concluded discharge and loading operations with the local shore contracted stevedores. Being on a well-known itinerary the crew was well versed with the expected routine operations and commenced readying the vessel for departure from the terminal in the port of Barcelona, Spain. The involved deck crew busied themselves with clearing up the equipment used during the last hours alongside, including the own cargo spreader (a frame containing four twist locks on its bottom corners which fit into the top container castings).

The spreader, used for lifting standard ship cargo containers, is a steel frame with steel wire attached to the top side and twist lock connections to the bottom corners to connect to containers and lift them by the on board or, in some situations shore cranes. The spreader weighs over 2 t and is designed to lift a maximum of 32 t. Due to the own weight it can only be moved by lifting and positioning by crane, in the case of the accident the on board cargo crane.

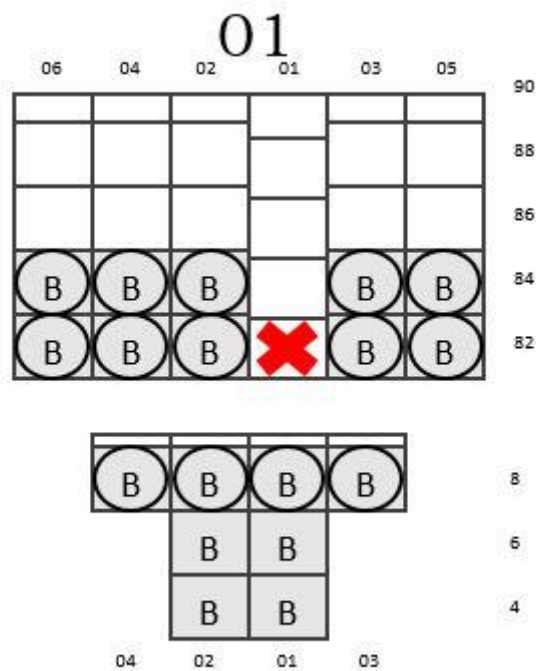


Source: Made-in-China website

The spreader is attached to the crane hook by a single point connection of four wires attached to the corners of the spreader (see above image). To position the spreader at the designated agreed position, the crew attached it to the forward ship's crane and the crane operating crew member lifted and swung as per the directions given by the OS positioned on deck, proceeding to the forward of the vessel.

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The position on the forward hatch cover chosen was between containers secured to the port and starboard, starboard of the centre of the first forward row right behind the vessel's focsle (Bay 01, row 01). The spreader was to be secured by its twist locks directly to the hatch cover.



MV Hanse Fortune Bay 1 (most forward bay)

The OS, when near the intended stowage position could not be seen by the crane operating crew member, who in consequence operated only by verbal instruction over the handheld VHF. This also meant that the crane operator could not see the spreader when lowered between the adjacent container stacks. It was established from later statements that, when the spreader was being lowered, it got caught on one corner on the starboard adjacent container stack.

The OS directing only by handheld VHF informed the crane operator that the spreader had gotten caught and instructed him to lower the crane's jib and swing a bit to port.

Most probably to have a clear view of the situation the directing OS positioned himself in front of the stuck spreader with the forward bulkhead behind him. When the crane operator swung the crane a bit to port, the spreader came free from the container on port and swung towards the OS who was then struck on the head and was in consequence squashed between spreader and the ship's structure just below the forward mast.



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The evidently sudden forward swinging movement of the suspended spreader was of such force that the OS had no chance to escape his dangerous position and immediately succumbed to his heavy injuries to the head.

According to a later statement taken, at the moment of the accident, a fellow crew member also busy on deck heard a short scream followed by a bang. This prompted him to immediately run to where he knew the spreader was to be positioned. On arrival, seconds after running to the vessel's forward he found the OS lying on deck heavily bleeding from the head. He alerted the vessel's officers and the crane operator, who had stopped the crane and was making his way to the accident scene.

The immediately attending 2nd officer checked the injured OS for signs of breathing or pulse without success and reported this to the arriving master.

Local port emergency services alerted confirmed the death on scene and brought the crew members body ashore.

PART E – ANALYSIS AND COMMENTS

1. The aim

The purpose of the investigation is to determine the circumstances of the accident and safety factors leading to the death of the seafarer. Further it is the intention to be able to make recommendations in order to prevent similar accidents in the future.

2. Causal factor

The investigation conducted and documents and statements collected showed that the accident was in a first instance caused by the non-adherence to given safety procedures.

On board Antigua and Barbuda registered vessels the standard reference for work safety is the Code of Safe Working Practices for Merchant Seafarers published by the United Kingdom Maritime & Coastguard Agency in its latest edition, also referred to as the COSWP.

In chapter 19, Lifting Equipment and Operations, under 19.11, clear and practical instructions are given what operational safety measures are to be put in place when working with any lifting appliance.

Under 19.11.3 to 19.11.8 the following guidance is given:

-Quote-

19.11.3 *The person operating any lifting equipment should have no other duties that might interfere with their primary task. They should be in a proper and protected position, facing the controls and, so far as is practicable, **with a clear view of the whole operation.***

19.11.4 *Where the operator of the lifting equipment does not have a clear view of the whole of the path of travel of any load carried by that equipment, appropriate precautions should be taken to prevent danger. **Generally this requirement should be met by the employment of a competent and properly trained signaller designated to give instructions to the operator.** A signaller includes any person who gives directional instructions to an operator while they are moving a load, whether by manual signals, by radio or otherwise.*

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19.11.5 *The signaller should have a clear view of the path of travel of the load where the operator of the lifting equipment cannot see it.*

19.11.6 *Where **necessary, additional signallers should be employed to give instructions to the first signaller.***

19.11.7 *Every signaller should be in a position that is: safe and in plain view of the person to whom they are signalling **unless an effective system of radio or other contact is in use.***

19.11.8 *All signallers should be instructed in and should follow a clear code of signals, agreed in advance and understood by all concerned in the operation. Examples of hand signals recommended for use with lifting equipment on ships are shown in Annex 19.3, Code of hand signals.*

-Unquote-

During the lifting operations of stowing the cargo spreader the crane operator and selected signaller were, at the deciding point of operation, not in sight of each other. Further the crane operator did not have the spreader in his sight as it was in between two container stacks nearly in the designated stowage position. Even though the directing OS was using a handheld VHF radio to instruct the crane operating colleague, as recommended in 19.11.7 of the MCA COSWP, the missing visual contact contributed to the loss of situational awareness of the crane operator.

Further the OS on deck had no guide rope attached to the spreader in order to maybe limit the turning movement causing the spreader to touch and get caught on the adjacent container.

The space chosen to stow the cargo spreader can be described as confined to all directions, causing the signalling crew member to be limited in his options to find a safe position with a clear view. Having to direct the crane operator on how to move the crane to free the spreader from its jammed position caused him to position himself in clear view of the situation but dangerously in the path of the then forward swinging spreader once freed as per his given instructions.

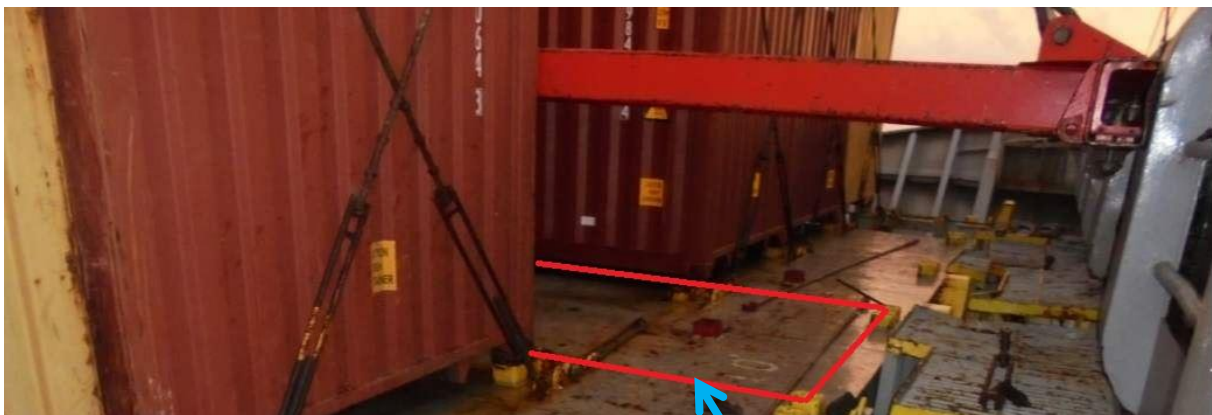
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Ship's forward mast



Source: vessel company, taken on scene

Point of fatal strike between spreader and ship's construction



Source: vessel company, taken on scene

Intended spreader position

As no risk assessment or safety meeting protocol could be provided it is evident that apparently no preparation of the operation in regard to safety was conducted. The two crew members busy with stowing the spreader were left to themselves with the planning and execution without any supervision conducted by the officer on duty in the hectic environment of pre-sailing preparation.



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In consequence, the following causal factors were established:

- No prior safety risk assessment or meeting conducted
- No supervision during preparation or execution of the designated task by the responsible officer on deck
- No adherence to given procedures in regard to lifting equipment and operations, especially in regard to clear unobstructed view of the operation by the crane operator, including the signaller
- The lifted object was not attached to a guide or securing rope to limit its movement in the very limited space available
- The chosen confined area between the container stacks and ships forward bulkhead gave the signalling crew member no safe option to position himself in case of an unintended movement of the suspended spreader

PART F – FINDINGS

1. Safety issues

The preparation for sea after concluding cargo operations showed that the management procedures in practice left the involved crew not sufficiently prepared and unsupervised. Each duty or assigned work was executed as done in well-established routine, possibly giving the personnel a too high sense of security and causing an underestimation of the involved risks. This underestimation was evident by the ignoring of standard risk assessment and other safety relevant procedures which would have had to be implemented.

2. Lesson to learn

- Routine tasks performed under time constrained conditions should be conducted under the given safety regime, implementing set safety barriers.
- Operational planning should also include post cargo handling ship operations such as preparing the vessel for sea. This is not only limited to duty assignment but also ensuring each task can be performed under the required supervision with the trained and experienced staff available.
- Not only the crane operator but also the signalling person must be well trained and confident in required communication, risk awareness and situational environment (such as around lifting equipment).

3. Recommendations

The importance of timely reporting of accidents was communicated to fleet management companies to ensure a worthwhile on scene investigation is possible to be conducted.

Also the management company of MV HANSE FORTUNE was recommended to review its training in relation to lifting appliances and safety during working on deck.

Elsfleth, 23.03.2020

Nils Beyersdorff
Chief Casualty Investigator



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PART G – ATTACHMENTS

1. Documents and certificates

none

2. Addresses and contacts

Marine Safety Investigation Authority
Antigua and Barbuda W.I. Flag State Administration

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