



**MARINE ACCIDENT REPORT
DIVISION FOR INVESTIGATION OF MARITIME ACCIDENTS**

**MAERSK LANCER
Accident to seafarer
13 November 2010**

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Photo on front page: André Kempe

The casualty report is available from the webpage of the Danish Maritime Accident Investigation Board www.dmaib.dk

Division for Investigation of Maritime Accidents/Danish Maritime Accident Investigation Board

The Division for Investigation of Maritime Accidents investigated maritime accidents and serious occupational accidents on Danish merchant and fishing vessels. The Division also investigated maritime accidents in Danish waters involving foreign ships.

On 15 June 2011, the Division for Investigation of Maritime Accidents was discontinued and its tasks were taken over by the Danish Maritime Accident Investigation Board. This report has been finalised by the Danish Maritime Accident Investigation Board in agreement with the Danish Maritime Authority in accordance with the guidelines that applied to the Division for Investigation of Maritime Accidents of the Danish Maritime Authority.

Purpose

The purpose of the investigation of the Division for Investigation of Maritime Accidents and the Danish Maritime Accident Investigation Board is to procure information about the actual circumstances of the accident and to clarify the reasons and the sequence of events leading to the accident for preventive purposes.

The aim of the investigation is not to establish criminal or economic liability.

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1 Summary

ALL TIMES ARE IN LOCAL TIMES (GMT -1)

On 13 November 2010, MAERSK LANCER was to depart from Esbjerg. While taking in the gangway, the lifting wire got stuck in one of the stanchions on the handrail on the gangway.

To get it loose two ship's assistants entered the gangway and worked with the wire. When it got loose, the handrail to the shore side fell in a sudden move into stowage position. One of the ship's assistants lost his balance and fell off the gangway. He was not wearing a safety harness and fall arrest system. He fell approximately 5 metres to the pier.

2 Conclusion/Findings

- It is the assessment of the Division for Investigation of Maritime Accidents that the well known problem with the lifting wire getting caught on an eye of one of the station was not solved and thus was a contributing factor to the accident.
- It is the assessment of the Division for Investigation of Maritime Accidents that the departure earlier than scheduled stressed the ship's assistants as they felt in a hurry resulting in lack of compliance with safety regulations.
- It is the assessment of the Division for Investigation of Maritime Accidents that the fall of the IP from the gangway to the ground was possible because he did not wear a safety harness and fall arrest system.
- It is the assessment of the Division for Investigation of Maritime Accidents that the lifting wire getting stuck in a stanchion on the gangway caused disturbance and made it necessary to derogate from normal procedures and thus was a contributing factor to the accident.
- It is the assessment of the Division for Investigation of Maritime Accidents that the removal of the pin holding the handrail in an upright position before the problem with the lifting wire was solved was a contributing factor to the accident.
- It is the assessment of the Division for Investigation of Maritime Accidents that MAERSK LANCER has a well functioning safety system and that a good safety culture prevails on board.

3 Recommendation

The shipping company is recommended to look into the well known problem with the lifting wire getting caught on the stanchions when taking in the gangway.

4 The investigation

On 16 November 2010, the Division for Investigation of Maritime Accidents took a statement from the injured seafarer at Esbjerg Centralsygehus.

The Division for Investigation of Maritime Accidents went on board MAERSK LANCER on 26 November 2010 in Peterhead to take statements from the master and the ship's assistant who was on watch on the evening of the accident.

Furthermore, information has been obtained from:

- Maersk Supply Service A/S.
- The Police of Syd- og Sønderjylland.

5 Factual information

5.1 Accident data

Type of accident	Accident to seafarer
Time and date of the accident	Esbjerg on 13 November 2010 at 23:08
Injured person	A ship's assistant
IMO casualty class	Serious

5.2 Navigation data

Stage of navigation	Departure
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5.3 Ship data

Name	MAERSK LANCER
Home port	Odense
Call sign	OUIX2
IMO no.	9425849
Flag State	Denmark
DOC holder	Maersk Supply Service A/S
IMO company no. (DOC)	1045146
Construction year	2010
Type of ship	Anchor handling tug supply
Tonnage	6,821 GT
Classification	Lloyd's Register
Length overall	90.29 m
Engine power	17,280 kW

5.4 Crew

Number of crewmembers	14
Occupation on board the ship at the time of the accident (Crew members relevant to the accident)	Age, certificate of competence, other relevant certificates, training and service at sea.
Master	Age 41. Holder of certificate as master mariner. Has been the master of MAERSK LANCER since it came in op-

	eration on 31 May 2010. Has been working in Maersk Supply since 1997.
Ship's assistant The injured person (IP)	Age 43. Passed examination as mechanist, 2 nd class. Holder of certificate as ship's assistant. Has served in supply ships since 2005.
Watch keeping ship's assistant	Age 40. Holder of certificate as ship's assistant. Has served at sea since 1984. In Maersk Supply since 1992.

Narratives

5.5 Before departure

On the evening of 13 November 2010, MAERSK LANCER was safely moored in Esbjerg. The ship had its starboard side to the pier and the gangway was rigged.

At approximately 21:30, the watch keeping ship's assistant heaved up the gangway leaving the lower platform about 3 metres above the pier in order not to have to keep watch at the gangway. In the time up to departure he made ready for sea.

The ship was scheduled to depart at 23:45 and was waiting for the pilot. The pilot was ordered for 23:45 but arrived at 22:40. He embarked the ship over the gunwale in the aft end of the ship as the gangway was raised half-way. The watch keeping ship's assistant informed the bridge about the arrival of the pilot.

After consultation between the master and pilot it was decided to depart earlier than scheduled. All crew members were on board and no further activities were outstanding.

Shortly after the watch keeping ship's assistant was called on the VHF and informed that the ship was going to depart. He was asked to take in the gangway. He asked whether other crew members were roused as two men were needed to take in the gangway. It was confirmed that the necessary crew members were roused. At 22:50 the OOW called for an extra ship's assistant (IP) to take part in the departure operations.

5.6 Procedure for taking in the gangway

According to the procedure, two crew members are needed for taking in the gangway at departure.

To take in the gangway it is first lowered to the pier.

The safety net is then removed.

The stanchions on the lower and upper platforms are removed.

After having removed the safety net, the handrails on the gangway have to be placed in stowage position. A handrail is lowered to stowage position by removing a split, which can be done from the deck. After having removed the split, the rails are lowered slowly into stowage position. To prevent the handrails from falling violently down, the hand

ropes are held back. The handrail closest to the ship's side is lowered first. The gangway is then lifted about a foot and the lower platform is placed in recovery position. Then the outer handrail is lowered to stowage position.

The gangway is then raised by help of a lifting wire operated by winch and finally secured.

To ensure the safety of persons working on the gangway, a fall arrest is mounted at the gangway. The system contains a wire to be hooked to a safety harness worn by persons working on the gangway.

The safety harness itself is placed at an entrance in the immediate proximity of the gangway. It is thus possible in an easy way to put on the harness when entering the deck.

Procedures prescribe the use of fall arrest and safety harness when rigging the gangway.

5.7 The accident

While the watch keeping ship's assistant waited for the IP, he removed the safety net attached to the gangway assisted by a cadet.

They removed the stanchions on the lower platform and the inner handrail was lowered into stowage position. Subsequently, the gangway was lifted about a foot above the pier and the lower platform was put in recovery position.

The stanchions on the upper platform were removed and the watch keeping ship's assistant removed a split pin in order to lower the outer handrail, but the rail did not fall down in stowage position.

The reason for this was that the lifting wire had caught an eye on one of the stanchions preventing the handrail from falling down in stowage position. The lifting wire was caught approximately half-way up the gangway.



The watch keeping ship's assistant went down the gangway in order to free the lifting wire from the eye on the stanchion, but was unable to do so on his own.

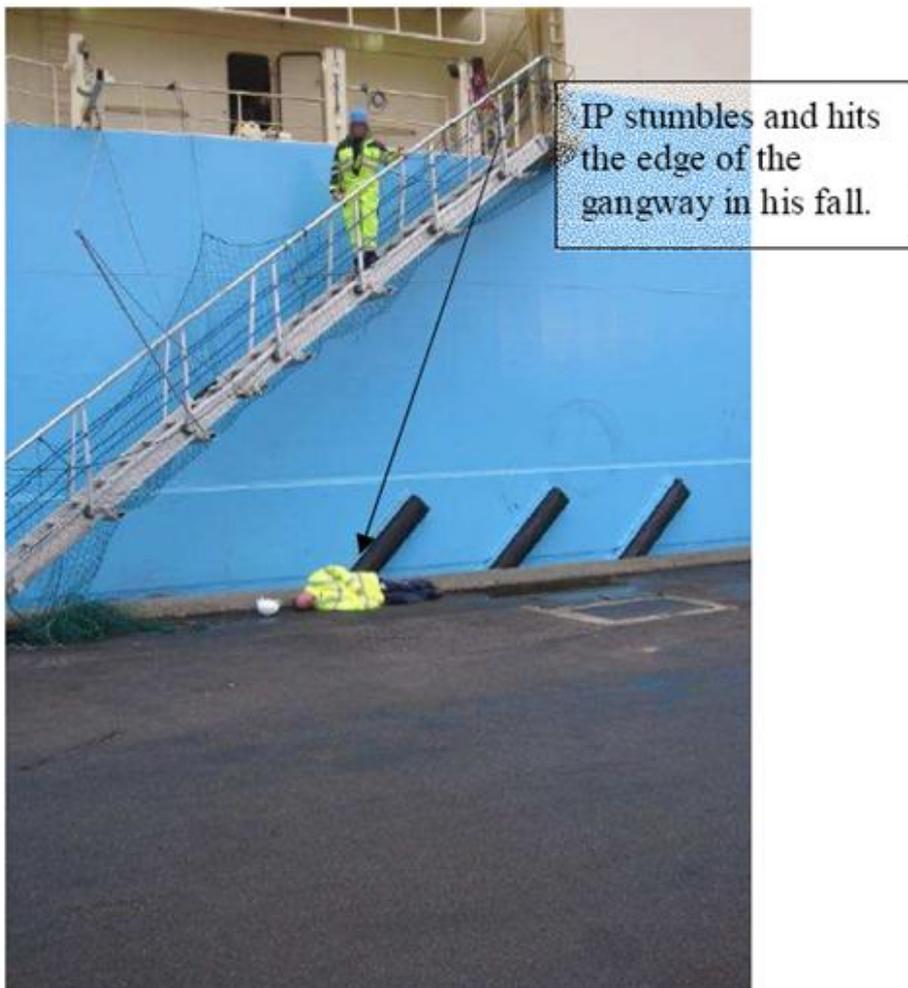
At 23:07, the IP showed up. The ship's assistant noticed that the IP did not wear a safety harness attached to the fall arrest system.

The cadet asked about the procedure for wearing a safety harness and was told that it was prescribed that a safety harness be worn, but that it was not necessary as one of the handrails on the gangway was raised.

The watch keeping ship's assistant asked the IP to pull the handrail forth and back while he attempted to free the wire.

The IP stepped out on the gangway facing aft and looking down. He went some steps down the gangway and pulled the handrail forth and back. Simultaneously the watch keeping ship's assistant pushed the lifting wire. At the same moment as the watch keeping ship's assistant managed to clear the lifting wire from the eye on the stanchion, the handrail fell down in stowage position with a sudden movement. The IP did not let go of the rail and was probably pulled forward and he lost his balance and stumbled off the gangway on the side facing the pier. In the fall he hit the gangway.

He fell to the pier and landed on his right-hand side close to the edge of the pier. The distance he fell was approximately 5 metres.



Figurants showing the position of the falling IP

The watch keeping ship's assistant immediately ran to help the IP and a cadet came a few moments later. The IP was given first aid and was stabilized.

The bridge was called over the VHF at 23:09 and informed about the accident. The bridge immediately called for an ambulance.

In the accident, the injured ship's assistant fractured a thighbone and a kneecap.

5.8 The injured ship's assistant

The injured ship's assistant has been working in supply ships since 2005. He was thus an experienced seafarer. He joined MAERSK LANCER two weeks prior to the accident. He received familiarization instructions about the ship the day he signed on.

He worked the 00-04 shift. The 3-shift watch was maintained during the stay in Esbjerg.

He was designated to take part in the departure on 13 November 2010. He had slept for a couple of hours in the evening and did not feel tired when he was roused shortly before departure.

Normally, he took part in rigging and stripping the gangway. His normal task was to operate the winch lifting the gangway.

The IP was aware of the existence of a Safe Job Analysis "Deck-Rigging Gangway". He had read and understood similar SJAs on other supply ships on which he had worked. He cannot remember whether he had seen the SJA on board MAERSK LANCER.

The winch used to lift the gangway is operated from the deck. Therefore he did not wear a safety harness when operating the winch as there was no call for it.



6 Analysis

6.1 The accident

The ship was scheduled to depart at 23:45. The pilot was ordered for 23:45 but arrived earlier at 22:40.

After consultation between the master and pilot, it was decided to depart earlier than scheduled.

Shortly after this decision, the watch keeping ship's assistant was called on the VHF and informed that the ship was going to depart and was asked to take in the gangway. He asked whether other crew members were roused as two men were needed to take in the gangway. It was confirmed that the necessary crew members were roused. Approximately at 22:50 the OOW called for the IP.

According to the scheduled departure, the IP would have been roused later having suitable time to get up and prepare for work. 17 minutes passed from the time that he was roused until he reported on work. Due to the earlier departure, the IP and the watch keeping ship's assistant felt they were in a hurry and under stress.

It is the assessment of the Division for Investigation of Maritime Accidents that the departure earlier than scheduled stressed the ship's assistants as they felt in a hurry resulting in lack of compliance with safety regulations.

The IP did not put on a harness attached to the fall arrest system as prescribed in the Safe Job Analysis.

When working on the gangway, the IP normally used a safety harness and fall arrest, but he did not do so on this occasion due to stress and the problem with the lifting wire.

It is the assessment of the Division for Investigation of Maritime Accidents that the fall of the IP from the gangway to the ground was possible because he did not wear a safety harness and fall arrest system.

6.2 The gangway

Due to a problem with the lifting wire getting caught on an eye of one of the stanchions on the gangway, the IP and the ship's assistant had to derogate from normal procedures.

The problem with the lifting wire getting stuck on an eye on a stanchion has occurred frequently on MAERSK LANCER and is well known in other supply vessels in the company's fleet using the same gangway system. The problem is usually solved without any problems.

It is the assessment of the Division for Investigation of Maritime Accidents that the well known problem with the lifting wire getting caught on an eye of one of the station was not solved and thus was a contributing factor to the accident.

It is the assessment of the Division for Investigation of Maritime Accidents that the lifting wire getting stuck in a stanchion on the gangway caused disturbance and made it necessary to derogate from normal procedures and thus was a contributing factor to the accident.

When the lifting wire was loosened, the handrail fell down with a sudden movement. This caused the IP to lose his balance and stumble off the gangway. The handrail fell down because the pin holding the handrail in the upright position was removed.

It is the assessment of the Division for Investigation of Maritime Accidents that the removal of the pin holding the handrail in an upright position before the problem with the lifting wire was solved was a contributing factor to the accident.

6.3 Safety system and safety culture

Crew members not familiar with the ship are given familiarization when signing on.

Safety meetings are held at least once every time there is a shift of crew. All crew members participate in these meetings.

Safety Operation Cards for reporting observations made in relation to safety on board are used. All crewmembers making such safety observations are encouraged to fill in safety observation cards. When a card is filled in, it is registered within the shipping company and the observations are discussed at safety meetings on board. Approximately 10 cards are filed on board every week.

Toolbox meetings are held whenever the ship is going to make a non-routine operation. The relevant Safety Job Analyses are gone through.

According to the crew members, the master of the ship is focused on safety informing about aspects of safety frequently. Whenever he observes any breach of the safety procedures, he calls attention to the error.

A safety meeting was held on 18 November 2010 where the accident was on the agenda. An extraordinary safety meeting was held before the change of crew.

It is the assessment of the Division for Investigation of Maritime Accidents that MAERSK LANCER has a well functioning safety system and that a good safety culture prevails on board.