REPUBLIC OF TURKEY
MINISTRY OF TRANSPORT
AND INFRASTRUCTURE

**Transport Safety Investigation Board**

Marine Casualty Investigation Report
Fatal Accident due to the Fall Down of A Seafarer into the Cargo Hold

# M/V FİDAN

Rapor No: 11/2015

Port of İskenderun Anchorage Area
20th February 2015
Report No: 11/2015

## PURPOSE

This marine accident was investigated in accordance with the Bylaw on the Investigation of Marine Accidents and Incidents which came into force after being published at the Official Gazette No.29056 on 10th July 2014.

Investigation procedures and principles are further applied by considering Resolutions of International Maritime Organization concerning International Standards and Recommended Applications for Safety Investigations Directed to MSC 255(84) (Accident Investigation Code) and Resolution A.1075(28) Marine Accidents or Incidents, and European Union Directive 2009/18/EC.

Marine accident investigation shall be inadmissible in any judicial and administrative proceedings whose purpose or one of whose purposes is to attribute or apportion liability or blame.

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## SUMMARY

Figure 1: Location of Accident

On 20th February 2015, a marine accident occurred on board M/V FİDAN, which was waiting at anchor at İskenderun Port No.1 anchorage area for loading her cargo, where a seaman fell down into the hold of the ship and lost his life.

The seaman fell down to the hold's surface which is approximately 8 metres below, how it happened being unclear. The gap at the hatchcover was measured as 1,5 metres approximately.

There wasn't any eye-witness to the accident, including the Captain and the probable causes are thought to be that;

- The seaman could have fallen down while he was trying to pass from over the hatchcover to the platform where the windlass was positioned, by holding on to the guard rails,
- The seaman could have lost his balance and fallen down while he was making use of the hatch coaming to climb over to the platform,
- Another possibility is thought to be that prior to the hatch cover's opening operation, while the seaman was on the hatchcovers, right in front of the platform, he might have lost his balance and fallen down into the hold.

The issues that the hatchcovers were being opened while the seaman was on the

hatchcovers, safety being ignored and the upper structure causing a shadow over the deck are considered to be the contributing factors to the accident.

Recommendations were made to the Administration to extend the scope of the By-Law on the Implementation of the International Safety Management Code to Turkish Ships and Their Operators to encompass the vessels on cabotage voyages or to implement an alternative regulation, and also to the ship's operator to establish a written procedure for the opening and closing operations of the hatch covers and training all the ship's crew on the opening and closing operations of the hatch covers in a safe manner and to make sure that the subject matter is fully understood by the crew.

# 1. FINDINGS

## 1.1. Information on MV FİDAN and the Accident

| **Ship Particulars** | |
|---|---|
| Owner | : Haşlaman Deniz Tic. Ltd. Şti |
| Operator | : Haşlaman Deniz Tic. Ltd. Şti |
| Flag and Port of Registry | : Turkish / İstanbul |
| Ship Type | : General Cargo |
| Year and Place of Build | : 1978 / Günsin Shipyard TURKEY |
| IMO Number | : 7806166 |
| Classification Society | : Not subject to Classification |
| LOA / Width | : 73,2 m / 11,5 m. |
| Gross Tonnage / Net Tonnage | : 974,29 / 432,40 |
| Main Engine, Type and Power | : SKL - 1320 Bhp |
| **Accident Information** | |
| Type of Accident | : Very serious marine casualty |
| Date and Time | : 20th February 2015 / 17:30 |
| Location of Accident | : No. 1 anchorage area / İskenderun |
| Number of people on board | : 7 ship crew |
| Injury / Fatality / Loss | : 1 fatality |
| Damage | : None |
| Pollution | : None |

## 1.2. General Specifications of the Vessel

MV FİDAN was built in Turkey in 1978. She is a General Cargo vessel with two holds and has a loading capacity of 2116 DWT.

Hold's height from the deck is approximately 7 meters. Holds are equipped with McGregor type single pull hatch covers. Hatch covers are opened and closed by means of steel wires that are connected to a windlass. One of the windlasses is positioned in front of the accomodation and the other is positioned at the platform at midships.

## 1.3. Environmental Conditions

At the time of the accident, the sea was calm and weather partly cloudy. However it is stated that after the accident wind force increased to 30-35 knots and wave height reached nearly 2,5 metres.

## 1.4. Course of Events

Close to evening hours on 20th February 2015, Captain, Chief Engineer and the oiler who had completed the welding jobs at the hatchcover and the seaman who had completed to clean the hold were gathered at the windlass.

The Captain and the Chief Engineer ordered the seaman and the oiler to pause for rest after tidying up the welding equipment and closing the oxygen tubes. The oiler and the seaman proceeded to the store at the midship area in order to carry out the task they were given. The Chief Engineer, on the other hand, went to his cabin to take a rest.

Captain wanted to open the hatchcover which was closed at that time to some extent in order to ventilate the hold.

Figure 2. Hatchcovers

The seaman that the Captain had assigned took out the wire from the eyebolt over the hold in order to bring the wire from the position of closing the hatchcover to the opening position. The seaman pulled the wire towards the forward part of the ship and at that time after the wire was wound over the pulley with the help of an A/B, the seaman moved aftwards in order to fix the wire to the eye bolt over the hatchcover and fixed the wire to the eye bolt and brought the hatchcover to opening position. At this time the Captain was at the windlass waiting to open the hatchcover.

Right after this time, around 17:40, the seaman fell down to the bottom of the hold, approximately 8 metres below, how it happened being unidentified. The hatchcover gap was measured as 1,5 metres approximately.

Realising that the seaman fell down into the hold, the Captain shouted and rushed from the port side of the ship towards the forward part.

Upon hearing the voices, the other three crew members on deck headed towards the hold. Captain and the other two crew members went down into the hold. Upon reaching the seaman who fell down into the hold, they saw that the seaman was on the floor his face being upside down, his right ear touching the surface, blood coming from his mouth and nose, unconcious and breathing hardly.

Captain went out of the hold and informed the ship's agent at 18:04. Around 18:20, the accident was notified by the agent to the Coast Guard Operation Center.

Around 18:30, Coast Guard control boat left the port, with the medical personnel on board and headed towards the ship. The boat reached the ship at 18:40 and the medical personnel boarded the vessel.

Around 18:50, the TCSG-81 Boat which was underway, tried to come alongside the vessel in order to pick up the casualty. However, as the sea condition which was calm at the time of the incident deteriorated, the boat could not come alongside the vessel and the casualty could not be picked up. As it was understood that it would not be possible to transfer the injured to the boat, it was decided to berth the vessel alongside at Limak Port berth to transfer the injured crew.

The vessel berthed at the port at around 20:25 and around 20:30, the injured was carried to the ambulance at the berth. Despite the medical attentions, the casualty lost his life around 20:50.

### 1.5. The Deceased Seaman

The seaman completed his first contract on board between 13/08/2014 and 23/12/2014. Having started his 2nd contract on 24/01/2015, he continued his service up until the day of the accident.

### 1.6. Ship's Captain

Ship's Captain had been working on board ships for nearly 20 years as a Captain and has a competency to work as a captain on board ships of up to 1250 GT on near coastal voyage. He had joined the ship one week before the accident.

### 1.7. Opening and Closing Operation of the Hatchcover

Ship's holds have been rigged with McGregor single pull type hatchcovers. The hatchcovers at the ship's aft part are opened and closed by the windlass at the forward platform whereas the hatchcovers at the forward part are opened and closed by the windlass at the middle platform of the vessel.

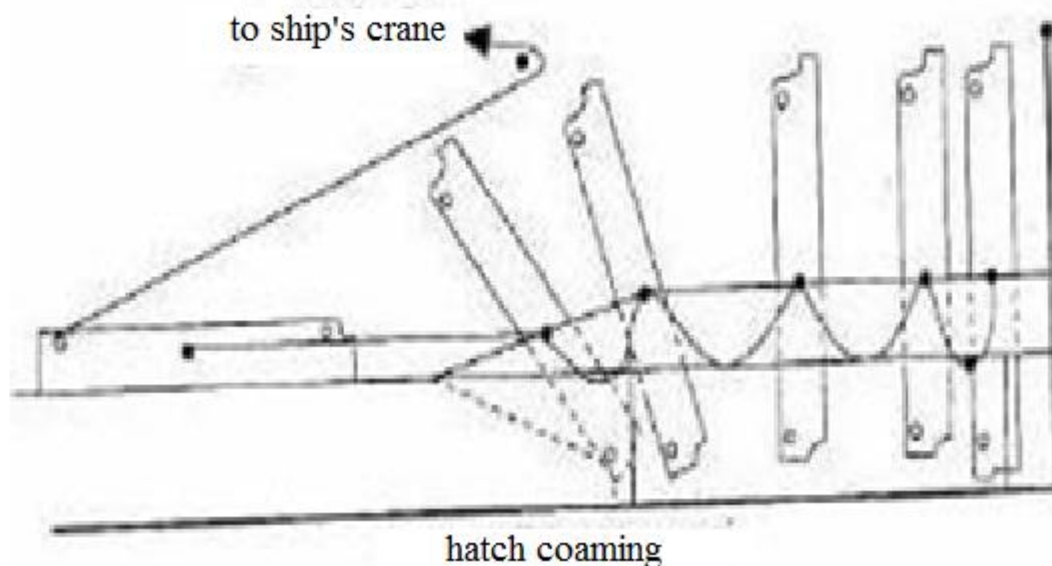


Figure 3. McGregor Single Pull Type Hatchcover

The hatchcovers are closed in a sequence by releasing the wire rope over the windlass drum as appropriate and directly attaching to the eyebolts over the hatchcovers and then enrolling the wire rope over the drum.

And in order to open the hatchcovers, after taking the wire through the tackle on its opposite side, the wire shall be attached to the eyebolt over the hatchcover and the windlass shall start to enroll the wire over the drum.

## 2. ANALYSIS

### 2.1. The Accident

Neither the Captain who was at the windlass controls nor the ship's crew who were on deck stated that they didn't see the incident. Therefore, as there were no eyewitnesses for the time when the seaman fell into the hold, it is not sharply clear how he fell into the hold.

According to the autopsy records, there are serious injuries and breaks on his left shoulder and skull and there aren't any breaks on the feet and arms other than small scratches. In addition, after he fell down, the seaman was found face down approximately 1,3 metres from the hatch opening towards the aft of the ship.

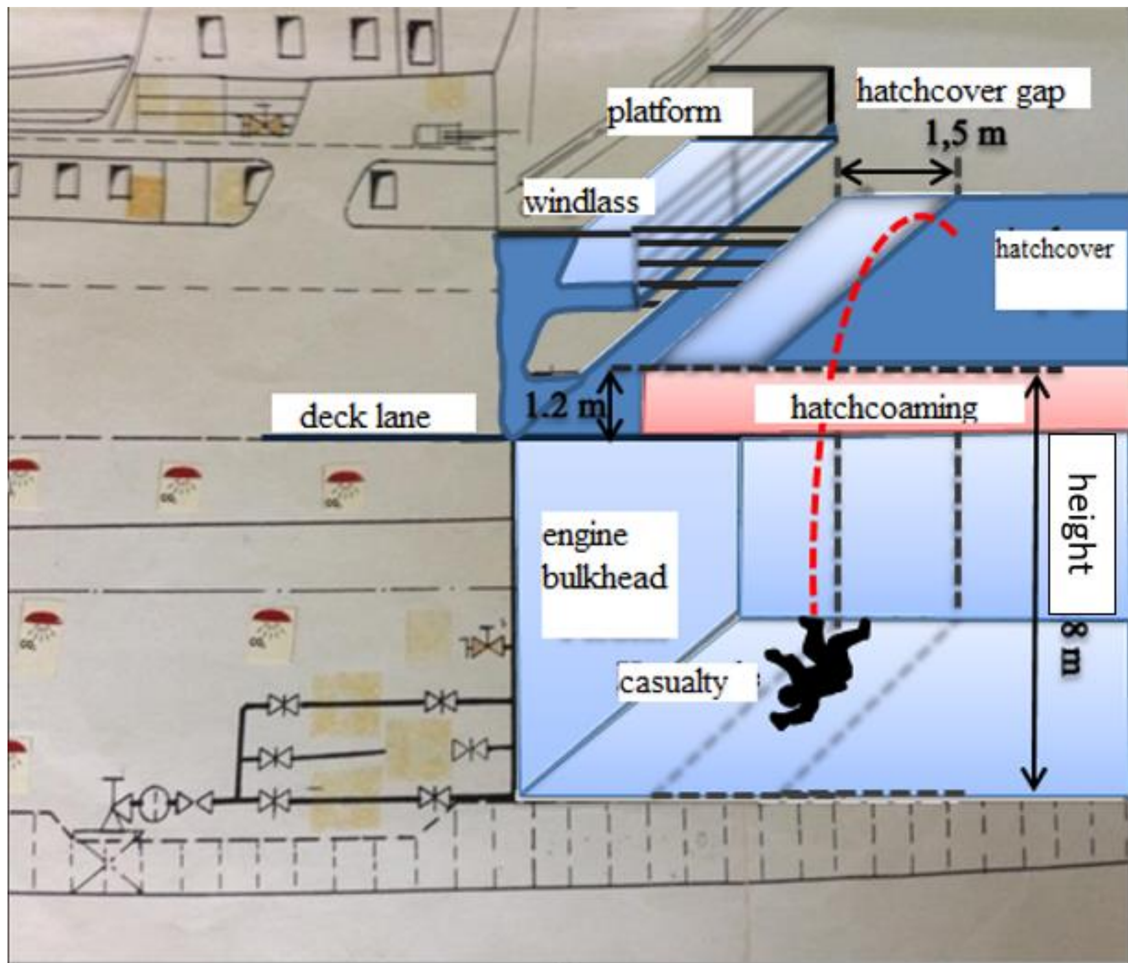


Figure 4. The Sketch of the Accident

In the light of the findings in hand, it is one of the probabilities that, assessing the gap of the hatchcover as a little distance, as he was holding to the handrails and trying to pass to the platform where the windlass was mounted. Another probability is that the seaman might have wanted to climb over to the hatch coaming and at that time might have lost his balance and fallen down into the hold. It is assessed to be among the probabilities that prior to the opening of the hatchcovers, while the seaman was over the hatchcovers and right in front of the platform and as the hatchcovers were being opened, he might have lost his balance and fallen into the hold.

The accident occurred right after the sunset. Therefore it is considered that the shade of the upper structure might have been one of the contributing factors of the accident.

## 2.2. Safety of Work

As has been previously stated, exact information regarding the cause of the fall of the seaman into the hold is not available. However, it is for sure that, the person was over the hatchcovers during the hatchcover opening operation.

Although hatchcover opening/closing operation is considered as a routine and frequent task, in fact it poses serious risks to the ship's crew and it is known that many accidents occur resulting with serious injuries and fatalities. In this accident, however, the safety issue was disregarded and the hatchcovers were started to be opened while the seaman was still over the hatchcover. As the answer to the question, "Could the accident have been prevented, if the seaman had come down after he brought the hatchcovers to opening position and before hatchcovers were started to be opened", is certainly yes, this action has contributed to the occurrence of the accident.

On the other hand, the vessel had left the previous port Aliağa and reached İskenderun without the Chief Officer and the Second Engineer being on board the ship. This issue, although not being directly related with the accident, is a sign that there is not an established safety culture on board the vessel and at the company.

## 2.3. ISM Code

The By-Law on the Implementation of the International Safety Management Code (ISM Code) on Turkish Flag Ships and Their Operators was published and put into effect on 27th October 2009.

The purpose of this Regulation is to determine the procedures and principles regarding the establishment, implementation and proper pursuance of the operational and ship-based Safety Management System by the operators and their control by the Administration; in order to ensure that Turkish flag ships and other sea crafts and their operators comply with the International Safety Management Code, to prevent pollution from ships and other sea crafts and to operate and manage the ships safely.

Since M/V FİDAN is a general cargo ship operating on cabotage voyages, it is outside the scope of the By-Law. Therefore, a safety management system is not implemented on board and there is also no written procedure for opening and closing the hatch covers.

Even if there is no written procedure and the provisions of the By-Law are not applied to the ship, a comprehensive risk assessment should be carried out for the works carried out and steps should have been taken to eliminate the dangers. If such an approach was exhibited, the accident might have been prevented.

Although it is not possible to claim that the accident could have certainly been prevented if the provisions of the By-Law on the Implementation of the International Safety Management Code for Turkish Flag Ships and Their Operators would have covered M/V FİDAN, it is considered that the extension of the scope of the said Regulation to cover the types of ships engaged in cabotage voyage or the implementation of an alternative regulation would contribute to safety.

# 3. CONCLUSIONS

## 3.1. Findings

- Accident occurred due to the negligence of safety. [2.2]
- There aren't any eye-witnesses to the accident. [2.1]
- It is not known how the seaman had fallen into the hold. [2.1]
- The hatchcovers were opened while the seaman was over the hatchcovers. [2.2]
- There were findings which indicate that there is not an established safety culture on board the vessel and at the company. [2.2]

## 3.2. Causes of the Accident

In this accident, where there were no eye-witnesses including the Captain, the probable causes might be as follows;

- The seafarer might have fallen down while he was holding to the guardrails and trying to pass to the platform where the windlass was mounted.
- The seafarer might have intended to climb over to the platform from over the hatchcoaming and at that time he might have lost his balance and fallen down.
- Another probability is, before the opening of the hatchcovers, while the seaman was standing over the hatchcovers and right in front of the platform and at the instance where the hatchcovers were started to be opened, he might have lost his balance and fallen into the hold.

## 3.3. Contributing Factors to the Accident

It is considered that the following issues might have contributed to the occurrence of the accident;

- Not showing due regard to work safety,
- Opening of the hatchcovers while the seaman was standing over them,
- Accident occurred right after the sunset. Therefore, it is considered that, the shade of the upper structure over the deck may be one of the contributing factors of the accident.

## 4. RECOMMENDATIONS

It is recommended that;

**The General Directorate for the Regulation of Maritime and Inland Waters should;**

1. Consider to extend the scope of the By-Law on the Implementation of the International Safety Management Code to Turkish Ships and their Operators so as to involve ship types on cabotage voyages or to implement an alternative regulation.

**Haşlaman Deniz Tic. Ltd. Şti. (Company) should;**

1. Prepare and implement procedures for the opening and closing of hatchcovers and for other shipboard operations which may present risks
2. Train all the ship’s crew for the safe conduct of the opening and closing operations of the hatchcovers and ensure that the importance of the matter is totally understood.