REPUBLIC OF THE MARSHALL ISLANDS

Maritime Administrator

DS WISCONSIN CASUALTY INVESTIGATION REPORT

Fatal Fall Overboard

Visakhapatnam, Republic of India | 8 August 2019

Official Number: 90535

IMO Number: 9283966

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DISCLAIMER

In accordance with national and international requirements, the Republic of the Marshall Islands Maritime Administrator (the "Administrator") conducts marine safety investigations of marine casualties and incidents to promote the safety of life and property at sea and to promote the prevention of pollution. Marine safety investigations conducted by the Administrator do not seek to apportion blame or determine liability. While every effort has been made to ensure the accuracy of the information contained in this Report, the Administrator and its representatives, agents, employees, or affiliates accept no liability for any findings or determinations contained herein, or for any error or omission, alleged to be contained herein.

AUTHORITY

An investigation, under the authority of the Republic of the Marshall Islands laws and regulations, including all international instruments to which the Republic of the Marshall Islands is a Party, was conducted to determine the cause of the casualty.

Maritime Administrator

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PART 1: EXECUTIVE SUMMARY

On 8 August 2019, the Republic of the Marshall Islands-registered general cargo ship DS WISCONSIN, managed by DS Schiffahrt GmbH & Co. KG (the "Company"), was moored alongside a lay berth in Visakhapatnam, Republic of India to complete repairs to the Cargo Hold No. 2 aft hatch cover.

At about 1924,[1] while climbing down to the main deck, Able Seafarer Deck (ASD) 1 fell from a hatch cover access ladder located on the port side hatch coaming of Cargo Hold No. 2. The ASD1 fell overboard and into the water between the ship and the quay. At some point during the fall, he was rendered unconscious.

The ASD1 was quickly recovered from the water and resuscitation efforts were started. He was transported to a local hospital, where he was determined to be deceased. A postmortem examination determined that the cause of death was "asphyxia due to drowning associated with a head injury."

The marine safety investigation conducted by the Republic of the Marshall Islands Maritime Administrator (the "Administrator") was unable to determine the cause of the ASD1's fall from the access ladder.

1. Causal factors that likely contributed to this very serious marine casualty include:
   (a) the ASD1 striking the guard rail and/or quay, rendering him unconscious as he fell into the water;
   (b) the height of the hatch coamings and its close proximity to the guard rail; and
   (c) the means of access to the ladder from the hatch coaming.

1 Unless otherwise stated, all times are ship's local time (UTC +5.5).

PART 2: FINDINGS OF FACT

The following Findings of Fact are based on the information obtained during the Administrator's marine safety investigation.

1. Ship particulars: *see* chart to right.

2. DS WISCONSIN has three cargo holds, each fitted with folding hatch covers *(see Figure 1)*.

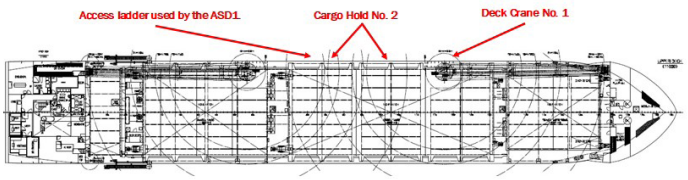

Figure 1: General arrangement for the upper deck of DS WISCONSIN.

Damage to Cargo Hold No. 2 Hatch Cover

3. On 1 July 2019, DS WISCONSIN was moored at Visakhapatnam, Republic of India and discharging bags of ammonium nitrate from all holds. During the discharge, panels 2-3 and 2-4 of the Cargo Hold No. 2 aft hatch cover were damaged. It was reported this damage occurred during frequent opening and closing of the hatch covers to protect the cargo from the periodic rainfall that was occurring at the time.[2]

4. On 19 July 2019, DNV GL issued a Condition of Class requiring that the damaged hatch cover panels be repaired and water tightness be verified prior to departure from Visakhapatnam. DS WISCONSIN shifted to a lay berth, where shore-based workers started to repair the damage.

5. DS WISCONSIN was moored port side alongside the lay berth. Fixed fendering was holding the ship about 1.5 meters (m) off the quay *(see Figure 2)*.

SHIP PARTICULARS

Ship Name
DS WISCONSIN

Registered Owner
ROSS WISCONSIN AS

ISM Ship Management
DS Schiffahrt GmbH & Co. KG

Flag State
Republic of the Marshall Islands

IMO No.	Official No.	Call Sign
9283966	90535	V7PO3

Year of Build	Gross Tonnage
2004	9,611

Net Tonnage	Deadweight Tonnage
4,260	12,806

Length x Breadth x Depth
130.7 x 21 x 11 meters

Ship Type
General Cargo

Document of Compliance Recognized Organization
DNV GL

Safety Management Certificate Recognized Organization
DNV GL

Classification Society
DNV GL

Persons on Board
17

2 The International Maritime Organization (IMO) International Maritime Solid Bulk Cargoes (IMSBC) Code requires that ammonium nitrate be kept as dry as practicable and that the cargo shall not be handled during precipitation.

Figure 2: DS WISCONSIN (looking aft) moored port side to the quay at Visakhapatnam lay berth. This shows the approximate distance of the ship off the quay.

Incident

6. At about 1800 on 8 August 2019, the ASD1 took over as the Duty Rating and the Third Officer (3/O) took over as the Duty Officer.

7. At about 1920, the Duty Officer called the ASD1 and told him to go on deck to assist with closing the Cargo Hold No. 2 hatch cover.

8. The ASD1 proceeded on deck to Cargo Hold No. 2 and climbed the port side hatch cover access ladder, at the aft end of the hold (the "access ladder"). The Bosun and the ASD2 were already standing on top of the hatch cover when the ASD1 arrived.

9. The Bosun then directed the ASD1 to secure the cargo block of Deck Crane No. 1. As the block was not accessible from Cargo Hold No. 2 hatch cover, the ASD1 returned to the port side access ladder to climb down to the main deck.

10. At about 1924, the Bosun saw the ASD1 beginning to descend the access ladder. He then saw the ASD1 falling from the ladder and into the water between the ship and the quay. The Bosun did not see the start or the cause of the ASD1's fall.

11. The Bosun immediately went to the nearest lifebuoy and threw it towards the ASD1, who was seen floating motionless on the water's surface. He also used his very high frequency (VHF) radio to notify the Duty Officer that the ASD1 had fallen overboard.

12. The Master and the Duty Officer both reported hearing the Bosun's call. The Master then ordered that the pilot ladder be lowered to the water and requested emergency medical assistance through the local Agent.

13. An excavator, being operated by shore personnel, was used to hold the ship away from the quay while the rescue was conducted. Two members of the repair team that were on board DS WISCONSIN climbed down the pilot ladder and tied a rope around the ASD1.

14. At about 1935, the ASD1 was hoisted from the water by the crew. The Chief Officer (C/O) assessed his condition and found that he was not breathing and did not have a pulse. Cardiopulmonary resuscitation (CPR) was immediately started by the crew.

15. At about 1948, the ASD1 was transferred to the local Agent's car[3] to be taken to a local hospital, and the C/O continued CPR on the ASD1 while en route. The ASD1 was determined to be deceased by the doctors upon arrival at the hospital.

16. A postmortem examination of the ASD1, conducted in Visakhapatnam, determined that the cause of death was "asphyxia due to drowning associated with head injury."

Access Ladder

17. The vertical access ladder used by the ASD1 is on the port side, aft end of the Cargo Hold No. 2 hatch coaming. The ladder for Deck Crane No. 1 is accessed from the main deck, forward of Cargo Hold No. 2 *(see Figures 1, 3, and 4)*.

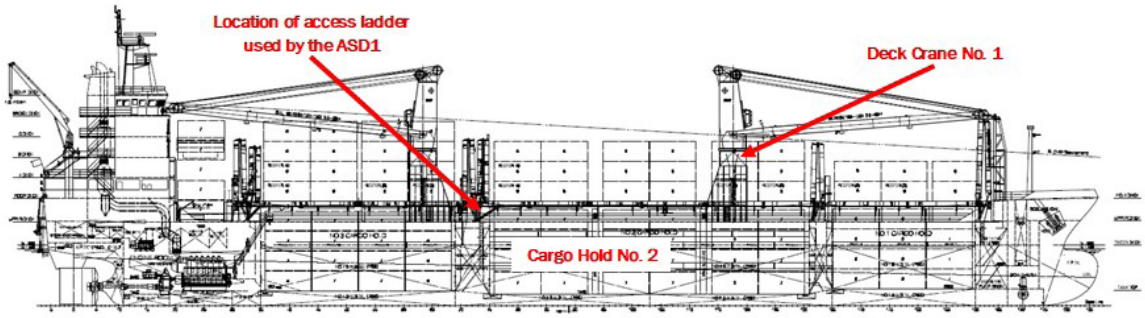

Figure 3: Location of the access ladder that the ASD1 fell from and Deck Crane No. 1. The locations of these are the same on the port side of DS WISCONSIN.

Figure 4: Dimensions of the access ladder.

3 Emergency medical responders had not yet arrived at DS WISCONSIN when the ASD1 was transported to the hospital by the local Agent.

18. The access ladder is about 1.9 m in height and located about 0.7 m from the guard rail *(see Figure 5)*.

19. The top of the guard rail was about 5.4 m above the water. The access ladder ends below the top of the hatch cover and there are no handrails on the hatch cover top *(see Figures 4 and 5)*.

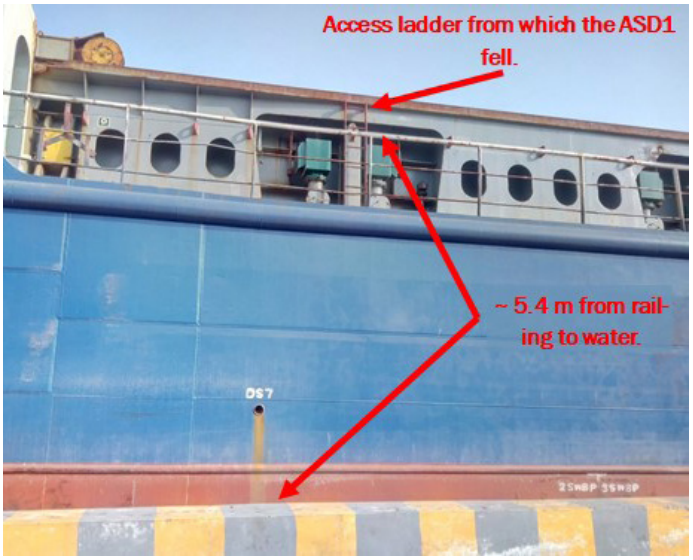

Figure 5: Port side of DS WISCONSIN while moored at the Visakhapatnam lay berth.

20. An inspection of the access ladder following the incident did not find any evidence of damage, foreign objects, or contamination of the stringers or rungs.

DS WISCONSIN Crew

21. DS WISCONSIN had a complement of 17 crewmembers, one more than required by the Minimum Safe Manning Certificate issued by the Administrator.

22. All involved crewmembers held the appropriate Republic of the Marshall Islands-issued seafarer documentation for their positions.

23. The Administrator did not observe any indication that the ASD1 had failed to receive the amount of rest mandated by the IMO's Seafarers Training, Certification and Watchkeeping (STCW) Code, Section A-VIII/1, paragraphs 2 and 3 and the International Labour Organization's Maritime Labour Convention, 2006, Regulation 2.3.

24. The ASD1's most recent medical evaluation found him fit for duty, without any restrictions.

25. The ASD1 had been sailing as an ASD for over 10 years before the incident. This was his first contract on DS WISCONSIN.

26. The ASD1 was wearing the personal protective equipment required by the Company's Safety Management System, which included a boiler suit, safety shoes, and a safety helmet.

PART 3: ANALYSIS

The following Analysis is based on the above Findings of Fact.

Cause of the ASD1's Fall

The Bosun saw the ASD1 begin to climb down the access ladder and a few moments later saw when he was falling. However, the Bosun did not see the start or cause of the ASD1's fall. Based on the information available to the Administrator, the cause of the ASD1's fall could not be definitively determined. It is possible that he lost his grip or slipped from a rung while on the upper half of the access ladder and fell backwards over the guard rail. Only about 0.7 m separates the rail from the access ladder.

Additionally, the access ladder terminates below the top of the hatch cover and there are no handrails on the hatch cover top. It is possible that the ASD1 lost his balance while attempting to transition from the hatch cover to the access ladder.

Mechanism of Injury

The postmortem examination determined that the ASD1's cause of death was asphyxia due to drowning following a head injury. DS WISCONSIN was only about 1.5 m off the quay when moored at the lay berth. It is likely that the ASD1's fall trajectory caused his head to hit the guard rail and/or concrete quay as he was falling. This would have rendered him unconscious and unable to keep his head above water.

Proximity to Guard Rail

The distance between the access ladder and the guard rail is about 0.7 m, increasing the risk of going overboard if a crewmember falls from the ladder. This is especially true when transferring from the hatch cover onto the ladder, which is well above the height of the guard rail.

PART 4: CONCLUSIONS

The following Conclusions are based on the above Findings of Fact and Analysis and shall in no way create a presumption of blame or apportion liability. The exact cause of the ASD1's fall from the access ladder is not known since it was not witnessed.

1. Causal factors that likely contributed to this very serious marine casualty include:
   (a) the ASD1 striking the guard rail and/or quay, rendering him unconscious as he fell into the water;
   (b) the height of the hatch coamings and its close proximity to the guard rail; and
   (c) the means of access to the ladder from the hatch coaming.

PART 5: PREVENTIVE ACTIONS

In response to this very serious marine casualty, the Company has taken the following Preventive Actions.

1. A special training session was held with the crew of DS WISCONSIN to raise awareness of the need to always exercise caution when moving about the deck and when using ladders.
2. A fleet memo was issued to all ships in the Company's managed fleet to share the lessons learned.

PART 6: RECOMMENDATION

The following Recommendation is based on the above Conclusions and in consideration of the Preventive Actions taken.

1. It is recommended that the Company review the design and placement of hatch cover access ladders on ships in their managed fleet to assess the risk of going overboard in the event of a fall from the ladder.

The Administrator's marine safety investigation is closed. It will be reopened if additional information is received that would warrant further review.