

This investigation is being carried out by the UK Marine Accident Investigation Branch (MAIB) on behalf of the Isle of Man Administration. Extract from the Isle of Man Merchant Shipping (Accident Reporting and Investigation) Regulations 2001 – Regulation 4:

“The fundamental purpose of investigating a casualty, an accident, or an incident under these Regulations is to determine its circumstances and the causes with the aim of improving the safety of life at sea and the avoidance of accidents in the future. It is not the purpose to apportion liability, nor, except so far as is necessary to achieve the fundamental purpose, to apportion blame.”

As the full investigation report will not be published by the MAIB within 12 months of the accident date, this interim report is published, pursuant to Regulation 14(2)(b) of the UK Merchant Shipping (Accident Reporting and Investigation) Regulations 2012.

NOTE

This report is not written with litigation in mind and, under Section 4 of the Isle of Man Merchant Shipping Act 1985, shall be inadmissible in any judicial proceedings whose purpose, or one of whose purposes is to attribute or apportion liability or blame.

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Interim report on the investigation into the deaths of three shore workers in a cargo hold access space on board the bulk carrier *Berge Mawson* at Bunyu Island anchorage, Indonesia on 27 June 2022

The information contained in this interim report is based on the various aspects of the investigation completed to date. Readers are cautioned that there is the possibility new evidence may become available that might alter the circumstances as depicted in this report.

FACTUAL INFORMATION

On 27 June 2022, three shore workers collapsed in a cargo hold access space on board the bulk carrier *Berge Mawson*; atmosphere tests carried out 40 minutes after the accident recorded oxygen levels in the space to be close to zero, causing almost instant death.

The Isle of Man registered bulk carrier *Berge Mawson* anchored off Bunyu Island, Indonesia on 19 June, to load a cargo of coal. The vessel had nine cargo holds, each fitted with a single hatch cover and the coal was loaded from barges by a floating crane into the holds. The cargo was trimmed (levelled) within each hold using a bulldozer that was supplied and driven by shore staff, who accessed the holds via booby hatches¹ on *Berge Mawson*'s main deck. Below each booby hatch was a vertical ladder that led to a cargo hold access space.



Berge Mawson

¹ A small hatch giving access to a ladder from the weather deck of a vessel to the interior of the hull.

Cargo loading began on 19 June and continued during the following week, with frequent stops due to barge logistics and heavy rain showers that required *Berge Mawson's* hatch covers to be closed to prevent the cargo becoming saturated. By the morning of 27 June, loading to hold numbers 2, 4, 6 and 8 had been completed and their respective hatch covers had been closed for at least 24 hours. At this time, all other cargo hold hatches were closed due to heavy rain and the bulldozer was in No.7 hold.

At about 1230, once the rain had stopped, a bulldozer operator requested that *Berge Mawson's* crew open No.7 cargo hold hatch so that the operator could continue to trim the cargo. The bulldozer operator then opened several cargo hold booby hatches, sometimes descending into their access spaces in unsuccessful attempts to find the bulldozer. At about 1300, the bulldozer operator opened and descended, unsupervised, into the No.8 cargo hold forward booby hatch; he was quickly overcome by the oxygen depleted atmosphere and fell to the deck of the cargo hold access space.

Shortly afterwards, the shore assistant foreman decided to check on the trimming operation. He searched for the bulldozer operator and noticed that the No.8 cargo hold forward booby hatch was open. At about 1324, the assistant foreman saw the unconscious bulldozer operator by the ladder under the booby hatch and raised the alarm.

As *Berge Mawson's* crew mustered and collected rescue equipment, more shore workers gathered on the main deck at the No.8 cargo hold forward booby hatch. At 1328, two shore workers, having seen their stricken colleague, descended into the cargo hold access space and also collapsed. Shortly afterwards, *Berge Mawson's* rescue team donned breathing apparatus and recovered the three casualties to the main deck. Despite prompt medical attention, none of the casualties regained consciousness and were declared deceased.

INVESTIGATION

This investigation is being carried out by the UK Marine Accident Investigation Branch (MAIB) on behalf of the Isle of Man Administration in accordance with the Memorandum of Understanding between the MAIB and the Red Ensign Group Category 1 registries of Isle of Man, Cayman Islands, Bermuda and Gibraltar. The MAIB's investigation has considered various aspects of the accident to determine the causes and circumstances of the three fatalities. These include the assessment of the risks associated with cargo operations on board bulk carriers and the operational procedures for ship and shore personnel.

ONGOING ACTION

The MAIB investigation is complete and a draft of the report is being prepared and will be distributed to stakeholders for a 30-day consultation period in due course.

VESSEL PARTICULARS

Vessel's name	<i>Berge Mawson</i>
Flag	Isle of Man
Classification society	Lloyd's Register
IMO number/fishing numbers	9738868
Type	Bulk carrier
Registered owner	Berge Mawson Co Inc
Manager(s)	Berge Bulk Maritime Pte Ltd
Construction	Steel
Year of build	2015
Length overall	291.98m
Registered length	284.28m
Gross tonnage	92,732
Minimum safe manning	15
Authorised cargo	Solid bulk cargoes

VOYAGE PARTICULARS

Port of departure	Gangavaram, India
Port of arrival	Bunyu Island anchorage, Indonesia
Type of voyage	International
Cargo information	Coal
Manning	20

MARINE CASUALTY INFORMATION

Date and time	27 June 2022 at about 1300
Type of marine casualty or incident	Very Serious Marine Casualty
Location of incident	Bunyu Island, Indonesia
Place on board	Main deck
Injuries/fatalities	3 fatalities
Damage/environmental impact	None
Ship operation	Cargo loading: ship-to-ship
Voyage segment	Anchored or alongside
External & internal environment	Daylight; wind north-north-westerly force 3; clear visibility; slight seas.
Persons on board	20 crew, unknown number of shore personnel