

**Interim Report of the investigation of
the accident resulting in one fatality
during anchoring operations on board the private yacht**

OCEAN VICTORY

**in Koh Tachai, Thailand
on 13 March 2016.**

Important Notes:

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

***This interim report consists of factual information only. The analysis of events, conclusions
reached and any recommendations made will be included in the final report which will be
published after consultation with interested parties on the conclusion of the investigation.***

**The sole objective of the investigation of any accident conducted under the Cayman Islands Merchant
Shipping Law (2012 Revision) is the prevention of future accidents through the ascertainment of its
causes and circumstances.**

It is not the purpose of an investigation to determine liability nor to apportion blame.



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Factual Information

(all times local, UTC +7)

Narrative

On the afternoon of 13 March 2016, the private motor yacht OCEAN VICTORY was *en route* from Similian Island No 8 to Koh Tachai in Thailand. On arrival at Koh Tachai, the yacht made preparations to anchor in approximately 34m of water about 0.6 nautical miles east of the coastline of Koh Tachai.

The third officer and a deckhand were assigned to the forward mooring station to let go the anchor on the command of the master. Communication was established between the mooring station and the bridge by radio. In addition, the master could observe activity in the mooring station via the ship's CCTV system.

The third officer was operating the anchor windlass with the deckhand on the forward mooring platform monitoring the aspect of the anchor chain in the water.

The first shackle (27.5m) of chain for the starboard anchor was "walked out" and the windlass brake was applied and the clutch disengaged in preparation for "letting go" the anchor. The anchor was then let go with the third officer controlling the paying out of the chain with the windlass brake, while the deck hand monitored the orientation of the chain in the water. Due to the light winds and lack of current it was necessary to apply small astern movements to the ship to lay the chain on the seabed. With 4 shackles in the water the chain was stopped while lying "Up & Down" or on a slight "Short Stay".

The master requested a total of 5 shackles in the water and the third officer continued paying out the anchor chain, controlling the chain with the windlass brake.

While paying out the anchor chain the windlass brake failed catastrophically and the chain started to run out in an uncontrolled manner. The third officer made several unsuccessful attempts to arrest the chain by engaging the chain stopper¹. When all 9 shackles of chain had run out, the bitter end failed and the loose end of the chain left the chain locker at considerable speed striking the third officer. The third officer sustained extremely severe injuries due to being struck by the anchor chain.

The accident occurred at 13:46h.

The yacht's emergency response team, including a fully qualified nurse, arrived quickly at the scene of the accident and began to administer first aid to the third officer. A request for assistance was made by the yacht on VHF Channel 16, which was not answered. Telephone contact was then made to the yacht's agents in Phuket to request a medical evacuation from the Thai Search and Rescue Services.

¹ A "hook" device that secures the anchor chain when the anchor has been raised or lowered thereby taking the strain of the anchor and chain from the windlass brake and foundations.

At 14:14h, and with no update on whether a helicopter evacuation could be expected, the decision was made to move the third officer ashore with OCEAN VICTORY. The yacht then proceeded to the nearest land fall with suitable hospital facilities (Ban Thap Lamu on the Thai Mainland) where an ambulance had been arranged to collect the third officer and transport him to hospital for treatment. The distance from the accident location to Ban Thap Lamu is approximately 40 nautical miles.

With OCEAN VICTORY approximately 17 nautical miles from Ban Thap Lamu, the third officer was transferred to the largest of the yacht's tenders to continue the journey to shore, arriving at the Tub Lamu pier in Ban Thap Lamu at 17:00. From the time of the accident to arrival in Ban Thap Lamu the third officer was attended at all times by the yacht's emergency response team and qualified nurse administering first aid.

The third officer was transferred to the waiting ambulance and taken to Ta Kua Pa Hospital. Unfortunately, and despite the comprehensive and professional medical care administered by the on board emergency response team and the shore based medical professionals, the third officer died shortly afterwards from the injuries he sustained when he was struck by the anchor chain.

The Investigation

The subsequent investigation has looked at all aspects of the accident, including the post accident response (both on board and ashore). The investigation has identified the following factors and circumstances as relevant to the accident. A full analysis of the circumstances and the conclusions reached during the investigation will be included in the final report.

The Anchor Windlass

The anchor windlasses on board OCEAN VICTORY of twin vertical access windlass and capstans; as shown in figures 1 and 2.

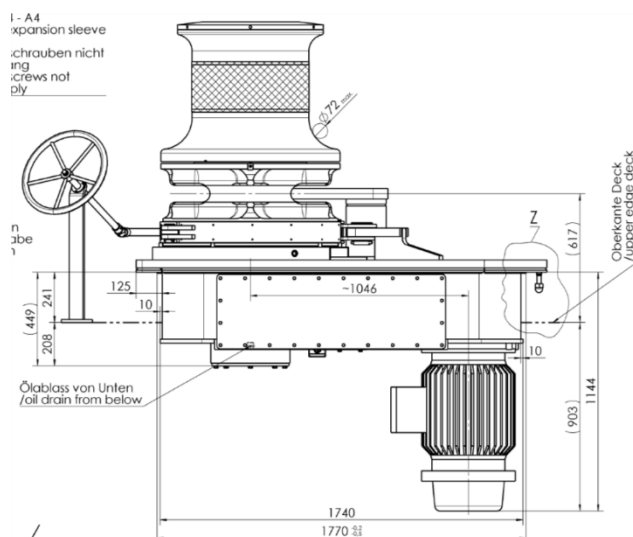


Figure 1 & 2: Anchor windlass

The windlass incorporates a clutch whereby the anchor windlass can be connected to or disconnected from the driving motor. With the clutch engaged, the windlass is connected to the driving motor and the anchor can be raised or lowered using the power of the motor. With the clutch disengaged the windlass is disconnected from the driving motor and the anchor may be dropped by force of gravity. With the clutch disengaged, the speed of decent of the anchor and chain is controlled by the mechanical brake.

The Windlass Brake

The windlass brake consists of a band of friction material running around the circumference of the anchor windlass. The force applied by the brake is controlled by a hand wheel which tightens the friction material onto the brake drum, as shown in figure 3.

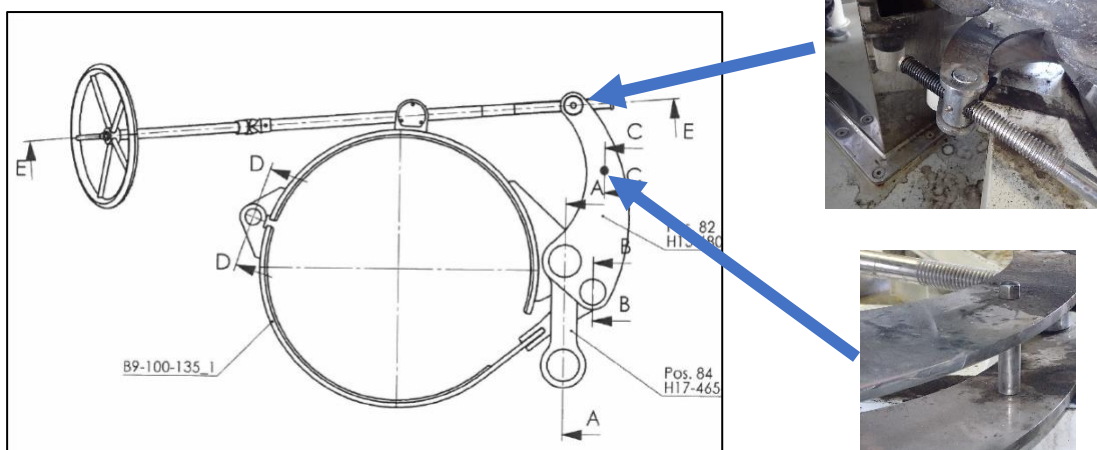


Figure 3: Windlass Brake

The Brake Failure

Prior to the accident occurring, the integrity of the brake mechanism was maintained by a single cap nut, allen bolt and spacer arrangement which held the upper and lower brake lever arms in place. (See figure 4).

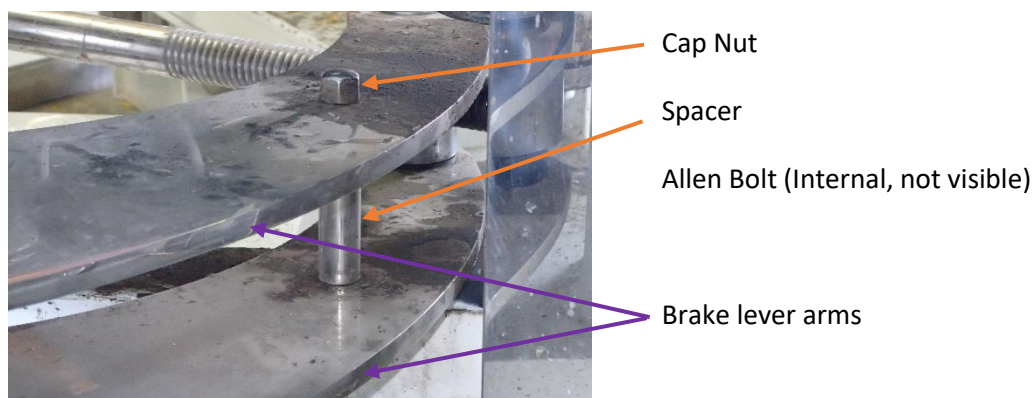


Figure 4: Cap nut, spacer and bolt arrangement

While dropping the anchor, the cap nut became detached from the allen bolt and integrity of the braking system was lost. Without the nut, spacer and bolt arrangement in place the brake lever arms moved apart and the brake hand wheel and shaft became detached from the braking mechanism. With the brake wheel and shaft detached from the lever arms, the brake could not function and there was no other method of effectively controlling the speed of the anchor chain.

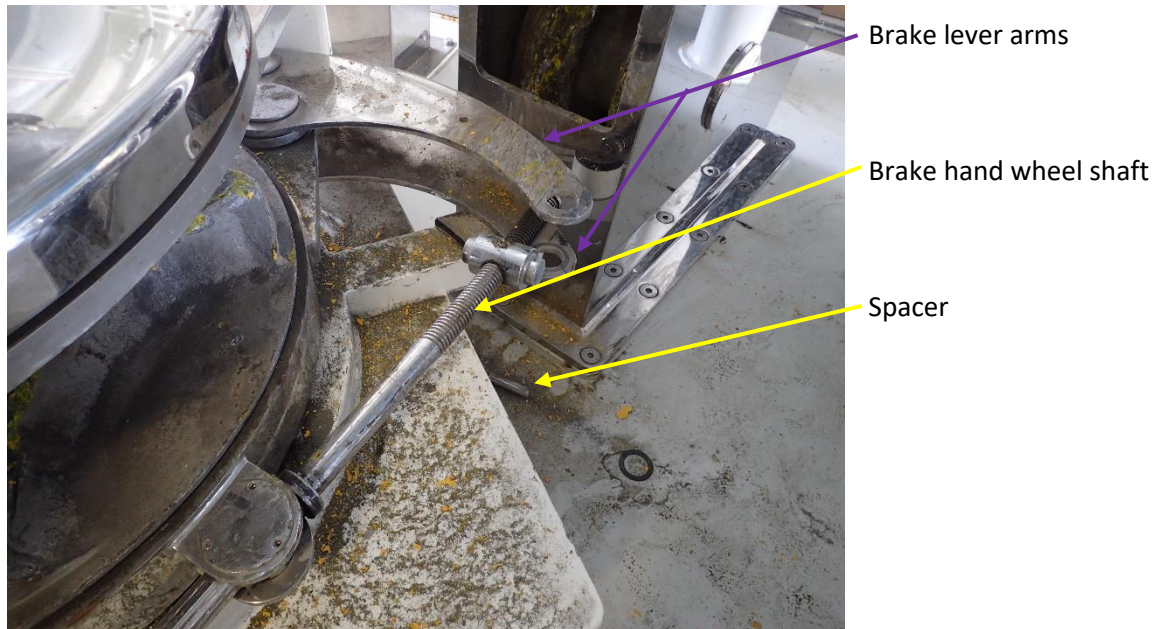


Figure 5: Brake arrangement after failure

The cap nut, spacer and allen bolt were recovered after the accident and, rather than a failure of any single component, it was found that the cap nut had unscrewed from the allen bolt.



Figure 6: Cap nut, spacer and allen bolt, as recovered.



Figure 7: Cap nut, spacer and allen bolt, reassembled post-accident.

The Availability of Evacuation by Helicopter

Direct from OCEAN VICTORY

OCEAN VICTORY is equipped with a helideck and was carrying a helicopter at the time of the accident. However, there was no qualified pilot on board to fly the helicopter. The helicopter itself was stored in a non operational state and could not have been made “air ready” in the time available.

Evacuation by Thailand Search and Rescue Services

Communications between OCEAN VICTORY and the local Search and Rescue Services (Third Naval Area Command) were conducted through intermediaries in the yacht's shore based agency and the Similan National Park. The Search and Rescue Services were made aware of the accident at 14:30h (some 44minutes after the accident occurred) by the staff of the Similan National Park. At this time OCEAN VICTORY was already proceeding to Ban Thap Lamu.

After assessing the information available to them, the Search and Rescue Services were unable to arrange for a helicopter evacuation for the following reasons:

The helideck on OCEAN VICTORY was considered too small to accommodate a landing by the SAR Helicopter without posing an unreasonable risk to both the helicopter and to OCEAN VICTORY;

The SAR Helicopter was already on a mission to the South of OCEAN VICTORY;

Due to the lack of suitable helicopter landing areas on small adjacent islands it was considered quicker to transfer the casualty to hospital by sea and road.

On reaching this decision, the Search and Rescue authorities arranged for a medical team and ambulance from Bangkok Hospital in Phuket to receive the casualty on arrival at Ban Thap Lamu.

Incident Particulars

Vessel details:

Vessel Name	:	OCEAN VICTORY
IMO Number	:	1011850
Port of Registry	:	The Creek
Flag	:	Cayman Islands
Type	:	Pleasure Yacht
Year of Build	:	2008
Year of Delivery	:	2014
Length	:	124 m
Gross Tonnage	:	8,506
Engine Power	:	10,400 kW

Accident Details

Time and Date	:	1346L on 13 March 2016
Location	:	Kohi Tachai, Thailand
Fatalities	:	One (Third Officer)
Damage	:	Damage to anchor windlass Loss of on anchor Loss of anchor chain