

From: aifi02@sealeaders.com
Sent: Saturday, September 07, 2019 9:27 AM
Cc: dma@sealeaders.com; FLINSPECT; gm1@sealeaders.com; gm2@sealeaders.com; gm3@sealeaders.com; gm4@sealeaders.com; gm5@sealeaders.com; gm6@sealeaders.com; md; s_a_hosseini_343@yahoo.com; shipmanagement3@sealeaders.com; SM1; SM2; SM4; SM5; SM6; Valfajr ; Valfajr
Subject: [dma] ALL FLEET VESSELS/ DA-11, At Anchor During a Typhoon Resulting in a Grounding and Total Loss
Attachments: 2019_September_At_anchor_during_typhoon.pdf

Ref : DMA/AIFI/98/C 1054

Date: 07/09/2019

Dear Captain
Good Day,

Kindly find the attached informative document titled "**At Anchor During a Typhoon Resulting in a Grounding and Total Loss**" for your kind attention and necessary precaution measures.

You are requested to confirm receipt, discuss the contents in the next consolidated meeting on board & keep a copy in the file DA-11 .

Best Regards,
Capt. A. Amini
Accident Investigation / Fleet Inspection Expert
Department of Maritime Affairs
ROD Ship Management Co.
Dept. Tel No. : +98-21-26100357
Dept. Fax No.: +98-21-26100356
Direct Tel No.: +98-21-23843207
Please reply to dma@sealeaders.com

(Note: This e-mail has been sent as BCC <blind carbon copy to : All R.O.D.-SMC Vessels, to eliminate the lengthy list that would result if this e-mail is printed)

At anchor during a typhoon resulting in a grounding and total loss



The laden 45,000MT deadweight tanker had anchored in a bay outside an Asian port. It was late summer and the vessel was waiting for a berth to discharge its cargo.

Weather warnings about an approaching typhoon for the area where the tanker was anchored had been broadcast for two days prior to the vessel arriving at the anchorage. The tanker had anchored with 7 shackles of chain in the water. There were some islands around the anchorage and the Master considered the anchorage would be a suitable place to ride out the approaching typhoon, which had been upgraded to a category 2 typhoon.

Around 04.00 the following morning the wind increased to Beaufort scale 9 and the Master told the Chief Officer to pay out 2 more shackles of chain in the water, making a total of 9. During the morning the wind continued to increase to Beaufort scale 12 which caused the anchor to drag.

The Master tried to manouver the vessel into the wind using the engines. However, two hours later the wind had increased even further, and it was not possible to turn the bow into the wind with the vessel at anchor. The vessel was now turned so that the wind was acting on the broadside of the dragging vessel.

The Master ordered the Chief Officer to heave up the anchor. However, this was not possible as the vessel was dragging. The windlass was not designed for these environmental loads and is only designed to lift the weight of the anchor and three shackles of chain (82.5m) in calm water.

At this point there was nothing the crew could do, and the vessel ran aground on one of the islands surrounding the anchorage.

The Master sent a distress signal and the crew

abandoned the vessel. Shortly after abandoning the vessel the crew was rescued by a local tug. Fortunately, there was no pollution or injuries to crew.

In our experience, it is not uncommon for crews to be unaware of the environmental loads for which anchoring equipment is designed. Class societies have unified rules for the design of anchoring equipment, and it is essential that the crew is aware of these limits. The maximum environmental loads for which anchoring equipment is designed are, current velocity: max. 2.5m/s (about 4.8 knots), wind velocity: max. 25m/s (about 48 knots or about force 10 on the Beaufort scale), no waves (sheltered waters).

A category 2 typhoon, as in this case, will have a predicted wind velocity of about 45 m/s (about 87 knots) which is almost twice the load the anchoring equipment is designed for.

Make sure that the deck officers know the maximum environmental loads the anchoring equipment is designed for, and make sure this is reflected in the shipboard's anchoring procedures.