

## Stranding of the Motor Vessel Vine 3 off Maiden Island, Antigua 1 May 2015



Photo; Teddy Thomas

This report should not be considered as a full casualty investigation in accordance with IMO MSC 255(86), however it aims to highlight the pertinent aspects of this incident with the objective of preventing re-occurrence.

The information used in the report was gained during a Port State Control Inspection of the Vessel following the grounding.

The timings are approximate and local (UTC +4)

It not the objective of this report to determine liability or apportion blame.

It is understood that the vessels operator is conducting their own investigation and the Flag State of the vessel has been informed.

### **Synopsis**

The Cement Carrier Vine 3 became stranded to the west of maiden island Antigua whilst making approach to the Crabbs Cement Facility to the north of Parham harbor in Antigua.

The vessel subsequently refloated in the early hours of the following morning and resumed passage.

There was no significant damage to the vessel or environment and there were no injuries or loss of life.

The vessel was under pilotage at the time and the effective available width of the approach channel was reduced by the presence of a motor yacht at anchor.

A preliminary casualty investigation was conducted by the Antigua and Barbuda Defense Force Coastguard and the Antigua and Barbuda Department of Marine Services and Merchant Shipping (ADOMS).

#### **Factual Information;**

Name;	Vine 3
IMO;	9397494
Flag;	Malta
Ship Type ;	General cargo ( Cement Carrier)
Classification Society;	Registro Italiano Navale (RINA)
Gross Tonnage;	4073
Length;	102.4m
Beam;	17m
Year Built;	2007
Owner;	Vine Shipping Inc. Hong Kong China
Manager	Wallem Shipmanagement GmbH, Germany

#### **Voyage Particulars**

Port of departure	Sint Maarten
Port of arrival	Crabbs/Parham harbour, Antigua
Cargo Information	Cement (approximately 1500 t)
Damage	Minor abrasion of bottom paint
Environmental conditions	Wind ESE force 3 sea state rippled Daylight with good visibility
Tidal stream	Negligible,
Tidal height	mid tide tidal range 0.2 m

## **Background**

This vessel operates regular service around Caribbean distributing cement.

Due to draft restrictions Antigua is normally the last discharge port.

This vessel had already called at Antigua three times during 2015

## **Narrative**

The vessel had an arrival draft of 3.49metres forward and 4.1metres aft.

The pilot boarded at 0640hrs. and proceeded around the north of the Island. When the approaches to Parham harbor became visible it was noted that a motor yacht was anchored in the Maiden Island channel in approximate position 17°08.9'N 061°46.1'W. As the vessel passed Prickly Pear Island at 0718 hrs. attempts were made to contact the Motor Yacht by VHF radio and also at a later stage when passing Shoal Point by use of the vessel's whistle. At 0725 the vessel slowed down to minimum speed to maintain steerage way (approximately 4 knots) to allow further time for communication. Once communication was established at 0734hrs. the Motor Yacht offered to move but as the action of picking up anchor may have resulted in movement to the East it was requested that the Motor Yacht did not raise anchor but instead operated astern propulsion to move further to the West so that the vessel would pass to the east of it. Because of the reduced speed a greater allowance for leeway was also made when passing the fairway buoy which helps to mark a shoal area to the North of the channel.

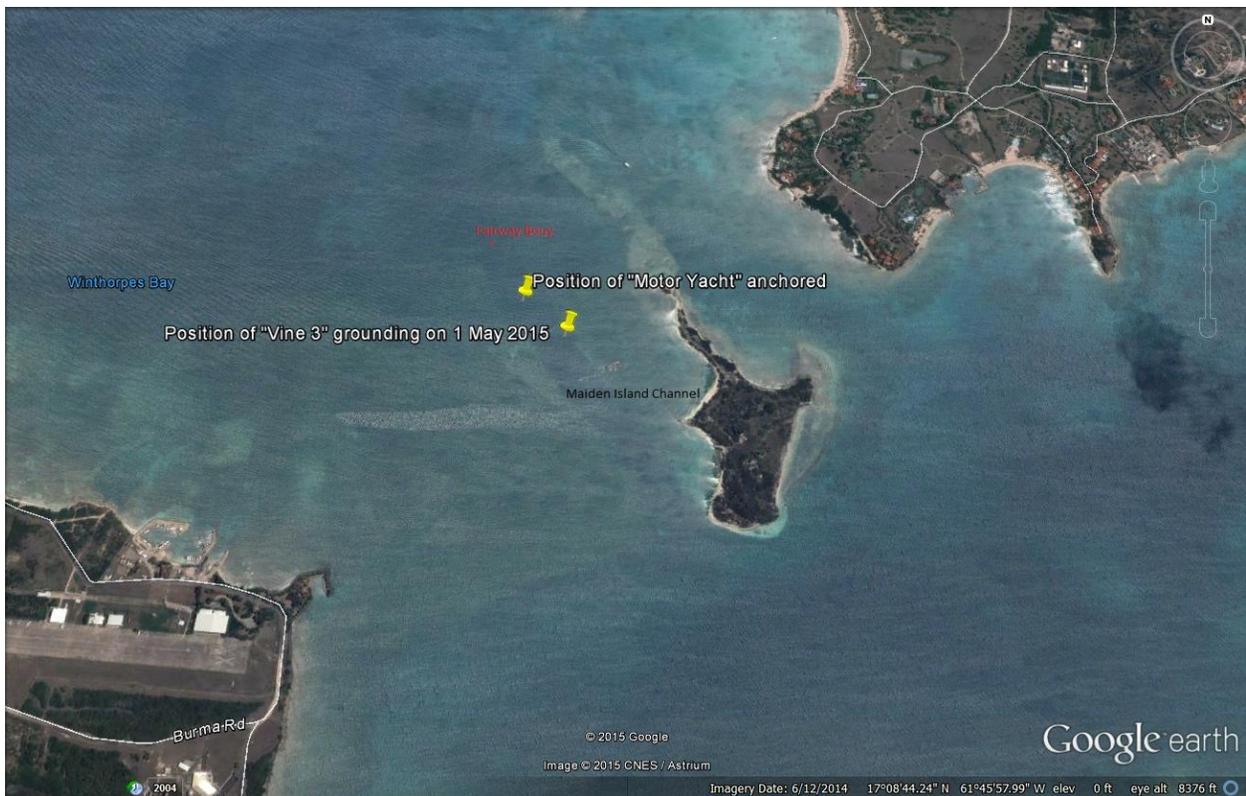
As the vessel passed the anchored Motor Yacht the course was altered to Starboard in order to regain the line of the channel. Increasing the speed of the vessel to improve steerage was also commenced. At 0739 the echo-sounder alarm sounded (set at 2 metre under keel clearance) and at 0741 the engine was stopped. The vessel grounded at 0744hrs. in approximately 3.4metres of water on the Port Forward Shoulder and the Port Anchor was initially dropped. The echo sounder was observed to show 0 metres at this stage and immediately the vessels engines and rudder movements were used to try to free the vessel, until 0750hrs. This being unsuccessful the appropriate company and port personnel were contacted to report the incident.

Soundings of tanks were taken and attempts to re-float using the Vessels' engines were unsuccessful and assistance was sought from a local Tug, the Port Anchor was recovered. At 1100 hours the vessels drafts were 3.4meters forward and 4.3metres aft. Further assistance was also sought from the St John's Port Tug, however although there was slight movement of the Vessel it did not refloat. Both anchors were then lowered, with the Tug laying the Starboard Anchor in the channel to the west before returning to St John's port.

At 0230hrs. the following morning the Vessel re-floated and then remained anchored in the vicinity until daylight, with the anchors being weighed at 0740hrs. and Vessel secured alongside by 0824hrs.

The Vessel was attended by representative of the Classification Society and an inspection by Diver was undertaken which revealed no structural damage had been sustained and only slight damage to paintwork.

Overview of the area



## **Analysis**

The Vine 3 had already visited the Port 3 times in 2015, and this was the Masters 4<sup>th</sup> visit, the Pilot had some 24 years of experience and carried out pilotage in these waters numerous times, thus both were well experienced and familiar with the waters.

As well as the Master and Pilot the Second Officer, Cadet, Helmsman and Chief Engineer were on the Bridge for the passage.

The Vessels' progress was being monitored by the Cadet overseen by the Second Officer and mainly consisted of fixes by GPS and radar plotted at 6 minute intervals. Parallel Indexing and Clearing Bearings were however not being used to establish the Vessel's position relative to the approach channel.

Communication with the Motor Yacht was not established until rather late, by which time there was insufficient time to weigh anchor and move, therefore the Vessel opted to keep to Eastern side of the channel having rounded the shallow spot to the North of the channel. Allowance was made for leeway so as not pass too close to the Motor Yacht, in this instance the allowance was too great and resulted in the Vessel being positioned too much to the East. The helm and engine orders were insufficient to prevent Vessel touching bottom.

The maneuverability would not have been optimum due to the light draft and slowed approach speed.

The Motor Yacht regularly sought anchorage near Shell Beach prior to and after trips with the Owner to Barbuda. On this occasion the Motor Yacht had moved from usual more Westerly anchorage to be more in the shelter of Maiden Island (to reduce exposure to waves) whilst undertaking hull maintenance. The Motor Yacht was a private Vessel with a Professional Crew on board, including a Master and Mate. The Electronic Charts in use did not clearly show the Maiden Island Channel and the paper Yachting Chart on board indicated a privately maintained buoyed Channel to exist. The fact that there were no channel marking buoys may have led to a belief that the Channel was no longer in use as the calls by larger ships are relatively infrequent. It appears that the detailed requirements of the Port Act and Regulations are not widely promulgated to the Yachting Community.

The charted depth of the Maiden Island channel is 5.5m, with a narrowest width of 50 metres. It was noted that the location of the Eastern side of the Channel appeared slightly more to the East on the AIS data obtained from IHS Maritime & Trade's AIS live site than is indicated on the Admiralty Chart Number 2065.

## **Conclusions**

Because of the presence of the Motor Yacht restricting the channel width the Master and Pilot endeavored to navigate to the East side of the Channel. The Vessel was proceeding slower than normal due to allowing time to assess the situation with the obstructing Motor Yacht.

Despite both Master and Pilot being experienced in Navigating the Channel, the decision to navigate to the East of normal approach for a mid-channel route may have led to some loss of orientation, in that the usual visual cues to navigation would be slightly different. The lack of Channel marking Buoyage further inhibits full situational awareness especially once past the Fairway Buoy.

The scale of chart available made it difficult to adequately plan and monitor the Vessels' passage. Parallel indexing techniques were not being utilized by the radar observers.

The necessary maneuvering, to avoid the shallow patch in the approach to the North of the channel was undertaken at slower speed than usual hence differing reactions of the Vessel

The allowance for leeway to avoid a close quarters situation with the Moor Yacht and Fairway buoy was too great which resulted in Vessel being further to East than necessary

Navigating to the side of the channel increases the interaction between Vessel and bottom due to less under keel clearance which will also effect maneuvering characteristics, although the slow speed would minimize these effects

The necessary draft restriction for entering this Port meant that the Vessel had the minimum practical draft; which will reduce maneuverability due to the reduction in propeller and rudder immersion and also the increased windage.

The Vessels' maneuverability would have been further reduced by the speed reduction, to allow time to assess the situation with the Motor Yacht.

Alcohol testing was conducted on the Vessel's bridge team at 1000hrs. which indicated that alcohol consumption was not a factor in this incident.

The Bridge Team's hours of rest records were examined and it was concluded that fatigue was unlikely to have been a factor and the Pilot also appeared to have been well rested prior to joining the Vessel.

### **Actions Taken**

Coastguard and ADOMS have met with Port Management to discuss this incident and advise of any recommendations.

The company's Superintendent attended the Vessel at the next port and conducted an enquiry into the incident.

### **Recommendations**

The Port authority is recommended to consider the following issues and how best to address them:

- The requirements for Navigation Channels to be kept clear and better promulgation of that to visiting Yachts;
- Possible use of an Escort Boat or other suitable means to ensure that the channel is kept clear for deep draft vessels;
- Reinstatement of the buoyage marking the Channel;
- Provision of clear leading marks for the approach channel to the West of Maiden Island; and
- Dredging and widening of the Channel and approaches to it.

The Antigua and Barbuda Hydrographic Office is recommended to consider:

- Arranging for the production of a larger scale chart of the Parham Harbor and approach area.