

SERIOUS MARITIME INCIDENT INTERIM INVESTIGATION REPORT:

Fire and explosion aboard pleasure vessel INNER MEETING (JY 384) in Saint Helier Harbour

30th December 2021



The Jersey Administration, on behalf of the appointed Minister, conducts marine safety and other investigations on ships flying the flag of the Bailiwick of Jersey and ships which are not flying the Jersey flag which are within Jersey waters in accordance with the obligations set forth in international conventions to which Jersey is a party (either directly or through the United Kingdom).

In accordance with the IMO Casualty Investigation Code, mandated by the International Convention for the Safety of Life at Sea (SOLAS) Regulation XI-1/6, investigations have the objective of preventing marine casualties and marine incidents in the future and do not seek to apportion blame or determine liability.

It should be noted that provisions in the Shipping (Jersey) Law 2012 require Masters, Officers and Owners of vessels to provide such information as is reasonably required by those appointed to conduct such investigations.

If the contents of a report were subsequently submitted as evidence in court proceedings relating to an accident there is a risk that this could offend the principle that individuals cannot be required to give evidence against themselves.

It is for this reason that the Minister is prevented under the above law from authorising publication of a report until a decision has been made not to prosecute any individual in connection with the incident concerned or any prosecution including any appeal has been completed.

The Jersey Administration makes this report available to any interested individuals, organizations, agencies or States on the strict understanding that it will not be used as evidence in any legal proceedings anywhere in the world. You must re-use it accurately and not in a misleading context. Any material used must contain the title of the source publication.

The obligation to publish accident and incident reports in accordance with the IMO Casualty Investigation Code and the International Convention for the Safety of Life at Sea (SOLAS) Regulation XI-1/6, is an acceptable reason for publication of this report in its current format under data protection legislation.

1.0 Summary & sequence of events:

“INNER MEETING” (JY 384) was a Rinker Speedboat/motor cruiser of 8.23m in length constructed in 1995. The vessel was powered by a petrol driven engine and propulsion was provided via a Sterndrive. At the time of the incident, the vessel was moored on a drying berth in the Inner harbour at Saint Helier, the fuel tank was about a quarter full and contained an estimated 50 Litres of Petrol.

On the morning of 30th December 2021 the vessel’s owner and his seven-year-old son were onboard the vessel with the father working on a water pump in the cockpit and his son in the cabin. The tide was out, and the pair had boarded the vessel via a ladder. A relatively new plastic cockpit cover was in place only partially open on one side and was providing shelter, the weather was fine and the wind light.

At about 0950 there was an explosion and the vessel either at the forward end of the cockpit or the aft end of the cabin and the vessel burst into flames. The father rushed to collect his son from the cabin and the pair, both suffering from significant burns, were helped from the vessel by passers-by who had descended into the empty harbour.

Two separate passers by saw the explosion and notified the emergency services: Fire ambulance and Coastguard were advised. Two fire tenders, a command vehicle, two ambulances, and the Coastguard emergency Response vehicle with the Duty Acting Harbourmaster embarked, were dispatched to the scene.

Passer’s-by administered first aid to the owner and his son, including cooling application of sea water from a trough on the slipway, until relieved by Paramedics; both casualties were then transferred to Hospital and the son was then airlifted to a specialist unit in the United Kingdom.

Both subsequently made a full recovery.

The Fire and rescue services set up on the adjacent roadway and initially tackled the fire from the quayside successfully bringing the fire under control and preventing it spreading to adjacent moored vessels which, apart from some scorching, were undamaged. With the fire under control fire fighters descended to the harbour floor, accessed the vessel using ladders and extinguished the fire.

The fact that the vessel was aground at the time due to low tide and was also located in a position close to the main road and a slipway both facilitated the evacuation of the casualties and the firefighting operations, preventing the fire spreading to adjacent vessels.

Arrangements were made for the vessel to be lifted out of the water by mobile crane, prior to the tide coming in, and transferred to a boat park where it was examined. Quickly declared a constructive total loss, the vessel was immediately scrapped.

Potential causes of the fire/explosion and sources of ignition.

Although a detailed forensic analysis of the cause of the fire was not carried out; investigations on the vessel, CCTV footage and questioning of witnesses has provided the following likely scenario.

There was a build up of flammable vapour which was a mix of petrol vapour from the petrol of the fuel tanks and additionally from the highly flammable lacquer paint that had been used the previous day in the accommodation. This had built up in the hull adjacent to the fuel tank; and also in the cabin and under the canopy in the cockpit where there was little ventilation.

The owner had isolated the engine ignition, believing this made the whole of the vessel electrics safe, prior to working on the pump. There were however two remaining potential sources of ignition, the wires to the pump itself; and an old refrigerator at the after end of the cabin on the port side, which at the time of the explosion had the door open. A spark from either of these sources would have been sufficient to ignite the fumes.

Contributory Factors:

In common with many small craft the vessel refurbishment was mainly being carried out by the owner. This included the choice of paints and the work on the electrics and mechanicals.

The cockpit cover provided protection from the elements and is similar to that used on many other vessels in the winter or in lay-up. The cover, especially when almost fully closed, however prevented effective ventilation from the fuel tank spaces and of the fumes from the cabin (especially as all the cabin hatches were closed). There have been many similar incidents, some with fatal results, where restricted ventilation when such covers have been used allowed a build-up of Carbon Monoxide when engines or heaters have been operated. The same can happen when flammable vapours are being produced. The need for effective ventilation had not been fully understood.

The principal source for the continuation of the fire was the remaining 50 litres of highly flammable petroleum fuel.

On this occasion the vessel's electrical systems had not been completely isolated and thus there remained two potential sources of ignition. This was due to a less than comprehensive knowledge of the vessel systems by the owner, who believed that the systems were fully isolated when they were not.

Photographs:



External Photographs after the accident





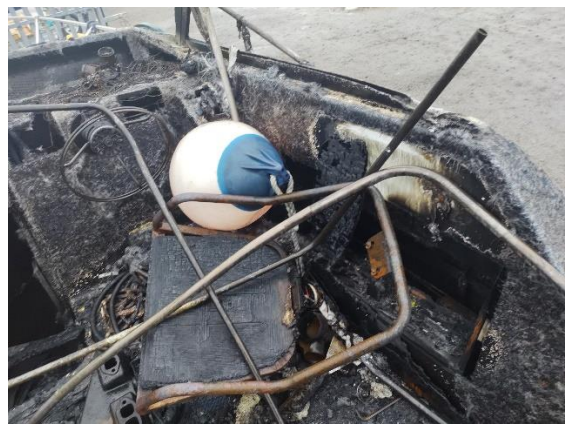
Starboard side view



Transom view



Foredeck port hatch melted starboard hatch opened



Control position (cockpit starboard side)



Cockpit looking forward



Cabin including fridge with door open



Cockpit looking forward including area where pump was being worked on



Fire Fighting from quayside walkway - showing proximity of adjacent vessels on both sides

Conclusion:

During self-refit work on the small motor cruiser “Inner Meeting” an electrical spark ignited a build up of petrol and paint vapours causing an explosion and fire which left both persons on board with significant burns. Both those involved subsequently made a full recovery.

The build up of vapours was facilitated by the relatively new plastic cockpit cover being in place and restricting ventilation

Prompt action by passers by helped those aboard to escape and notified the emergency services who attended promptly.

The fact that the vessel was aground at the time due to low tide and was also located in a position close to the main road and a slipway both facilitated the evacuation of the casualties and the firefighting operations, preventing the fire spreading to adjacent vessels.

The fire was extinguished by the Jersey Fire and Rescue Services, but the vessel was so severely damaged that it was scrapped.

Recommendations:

- 1) Consideration should be given to the issue of a Safety Bulletin drawing the attention to the maritime community to the risks of inadequate ventilation. It should also cover the need for a comprehensive isolation of electrical equipment before any work is carried out.
- 2) The Ports of Jersey - Tactical Navigational Risk Assessment for the Marinas, Old Harbours and outlying harbours should be reviewed to reassess the risks of a fire on a moored vessel spreading to adjacent vessels.