

## Acetylene quad fire on quayside

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**A Member reports an acetylene gas quad fire which occurred on the quayside. No injuries occurred during the event.**

### What happened?

The incident occurred during a project vessel demobilisation when sub-contracted welders were being employed to remove sea-fastenings.

Both the oxygen and acetylene gases were supplied via 2 x 16 cylinder gas quads sited on the quayside. The vessel was berthed starboard side to, and gas hoses were run from the quads over the bulwark and onto the main deck.

At 16:10 the firewatcher noticed fire coming from the top of the acetylene cylinders and informed the vessel bridge. The marine crew immediately contacted the local fire bridge and mustered all the crew into the galley. The local fire brigade arrived and applied water for approx. 10 minutes before pulling back to a safe distance of 300 metres allowing the acetylene quad to steadily burn.

At 19:00 the emergency services took the decision to use police marksmen to puncture the cylinders by shooting at them to aid the release of gas. 12 shots were fired resulting in 6 of the cylinders being punctured.

At 20:15, on recommendation from the emergency services, all non-essential personnel were evacuated via the Port lifeboat and transferred to a rescue boat and then taken ashore to a safe location for the night. The acetylene quad was allowed to burn off through the night and following further cooling with water the quad was lowered into the sea to bring it to ambient temperature. The quad is currently available for further investigation.

### What went right?

The following preliminary and positive findings were identified:

- The fire watchers monitoring the work on deck raised the alarm quickly.
- The marine crew acted swiftly and decisively contacting the fire brigade and mustering all crew into the galley.
- There was good separation between the oxygen and acetylene quads.
- Both oxygen and acetylene quads were situated approx. three metres away from the vessel.

## What were the causes?

This incident is currently under investigation – no causes are discerned at present.

The local fire brigade employed a 300-metre exclusion zone; it should be noted that the vessel was unable to move away from the quayside due to a safety exclusion zone.

The situation was managed by emergency services working closely with the vessel Master.

### Actions

- Ensure thorough pre-use inspections are performed on all oxygen/acetylene equipment.
- Ensure there is an appropriate storage area for gas quads on the quayside.
- Carefully check your emergency response procedures for gas cylinder and gas quad fires.

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