

# Technical Bulletin

## Oxy/Acetylene equipment

*The Club's Inspectors see many instances where the Oxy/Acetylene equipment is either improperly set up, stored, or in poor overall condition*

The hoses, pressure regulation valves and flash back arrestors are often in a poor condition and in some instances flash back arrestors are not fitted at all.

Oxy/acetylene gas equipment has many uses – welding, cutting, heating and de-scaling. It is so widely used that at times people forget that gas cylinders and lighted torches are potentially, very dangerous. Many people are injured each year and some are even killed by the incorrect and careless use of this equipment.

For the safe operation of this equipment it is essential that all crew who are authorized to use it are properly trained and that the equipment itself is correctly set up and well maintained.



**Flashback arrestor fitted**

On deck, gas cylinders must be correctly stowed in separate lockers (one for oxygen cylinders and one for acetylene cylinders) with valves and flashback arrestors fitted to those in use. In the engine room, class approved hard piping together with a gas welding

cabinet should be fitted in the workshop, again with the required valves and flashback arrestors.

Portable equipment on trolleys should be also be fitted with the necessary valves and flashback arrestors. When not in use the cylinders should be off loaded from the trolley and re-stowed in the safe lockers on deck.



**Good stowage – segregated and well marked lockers on deck.**

### Simple steps to avoid accidents

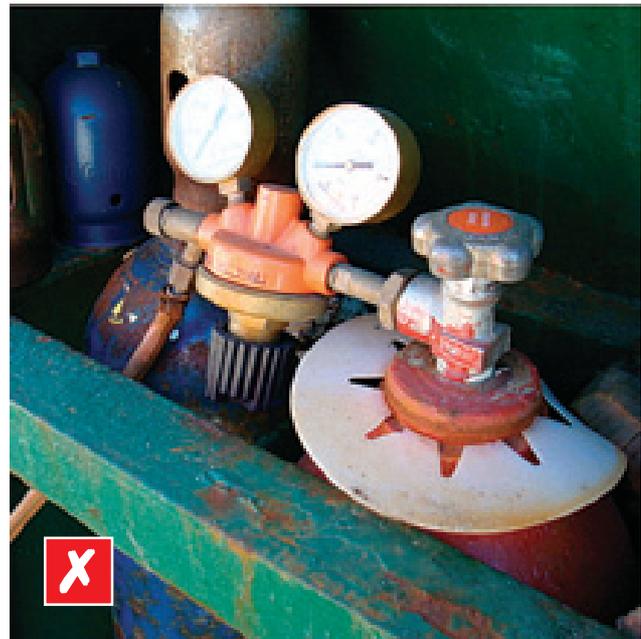
- Regular inspection, thorough examination and testing of all components to ensure that all the oxy/acetylene equipment in use on board is in a safe operational condition. This should be undertaken at least annually by a competent engineer from the manufacturer of the equipment and should also include pressure testing of on board piping systems. An appropriate certificate should be issued.
- The crewmember authorized to use the equipment on board should also carry out an inspection of all parts prior to use.
- When not in use, oxygen and acetylene should

always be segregated on board in suitably constructed lockers.

- Ensure that a proper Permit to Work for hot work has been issued and approved taking into consideration all of the dangers to be encountered in the vicinity of where the work is being carried out.
- Checks should be made to ensure that the item being heated is not under pressure or in contact with or adjacent to flammable or explosive materials.
- The area where the work is carried out should be made as safe as possible and to be avoided by other crewmembers not involved.
- Correct protective clothing must be worn at all times.
- The flexible hoses should be kept clear of flames and sparks.
- A lighted torch should never be left unattended.
- After use the gas cylinder isolation valves must be shut and the cylinders should be disconnected from the piping.



Interior of good welding cabinet in Engine Room workshop



No flash back arrestor fitted, and poor stowage could lead to explosion



Bad stowage – mixed cylinders in enclosed locker