

# Technical Bulletin

NUMBER 36 AUGUST 2011

## Quick Closing and Self Closing Valves

*The United States Coast Guard is paying particular to these valves, having discovered a number of problems with function and maintenance*

In the UK Club's recent Loss Prevention Bulletin No 765 we alerted Members that USCG inspections have revealed that some Quick Closing Valves inspected were found to have been intentionally blocked, modified or poorly maintained, thus preventing them from operating as designed during an emergency. The USCG Marine Safety Alert No 01-11 can be found through the USCG website: <http://www.uscg.mil>

This apparent neglect of or disregard for an essential safety item is not only very dangerous but will likely lead to more detailed focus in other areas from any Port State Control authority. Any defects of Quick Closing Valves are likely to be detainable.

**Quick Closing Valves** are fitted to the outlets of lubricating and fuel oil storage, settling and service tanks within the machinery space, boiler room and the emergency generator room. These spring loaded valves



Quick Closing Valve gagged with steel wedge



Quick Closing Valve held open with strop

may be operated locally or remotely by pull wires, hydraulics or compressed air.

The majority of serious engine room fires are fuelled by oil. In the event of fire it is essential that the primary source of the fuel is rapidly isolated. The operation of Quick Closing Valves, either locally or remotely, is one of the most effective (and, sometimes, the only way) of achieving this.

The USCG **strongly** recommends that:

- The Quick Closing Valve operating system is capable of remotely closing all valves as designed; some systems close valves sequentially and others simultaneously.
- There is a maintenance plan in place including technical manuals containing diagrams and information that describe the system components,

required spare parts, operation, maintenance and repair.

- All engine department personnel can identify the location of each valve, the respective remote closure and how to close them locally and remotely in an emergency.

Furthermore, we would suggest that these essential, yet seldom used and often overlooked items are treated as critical equipment.

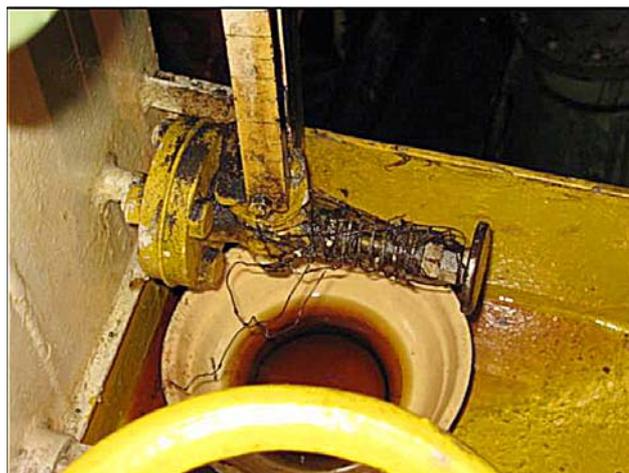
It is suggested that regular operation of these valves not only familiarises staff with the process but helps ensure that the valves do not become seized or stuck. Just because the valve appears to be shut does not necessarily mean that it is properly seated and oil tight and this should be checked whenever practicable.

**Self Closing Valves** are fitted between the lower end of an oil tank and its gauge glass. The purpose of these valves is to isolate the tank gauge glass from the tank.

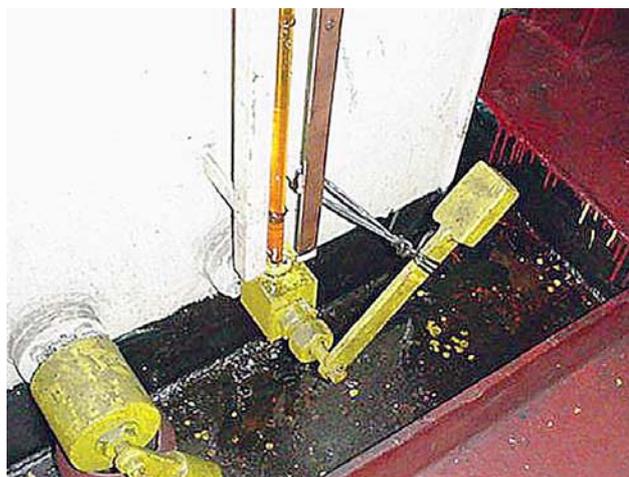
In normal operation they should be shut and only opened to check the tank contents after which they should shut automatically under spring pressure or counter balance gravity.

The Club's ship inspectors regularly find that various, sometimes 'ingenious', methods are used to keep these valves permanently in the open position. Chocks of wood, pieces of wire and purpose made clamps are often seen to be used to keep these valves open.

In such a situation, should the gauge glass fail then the contents of the tank will be free to leak out. In a fire situation, the oil would help feed the fire but, unlike the Quick Closing Valves, would be impossible to stop remotely.



Self Closing Valve gagged with wire



Self Closing Valve held open with string

Even with no fire, the uncontrolled leakage of oil is clearly undesirable in any situation and might even lead to an accident. For example, Self Closing Valves are fitted to the hydraulic header tanks of steering gear systems.

In conclusion, both Quick and Self Closing Valves are essential safety devices. They should be properly maintained and should **never** be tampered with.