Cargoworthiness - Tankers

Frequent sources of claims in tankers are cargo contamination and pollution. Cargo contamination claims most commonly arise through faults in the vessel's cargo system such as passing cargo valves, a failure to follow good tanker practices and procedures and defective packing in tank openings. The surveyor should pay particular attention to the following items when inspecting the vessel's cargo arrangements:

- Condition of manifold installations, including drip trays and save-alls.
- Condition of valve stems and extended spindles.
- Labelling and colour coding of manifolds, pipe lines, valves, sighting ports, tank hatch lids and coamings.
- Type and condition of tank coatings.
- Type and condition of manual and automatic cargo gauging devices.
- Condition of pumproom, with special regard to cleanliness, lighting, ventilation, access and communication arrangements and warning notices.
- Description and condition of tank venting system.
- Tank cleaning arrangements.
- Inert Gas System.
- Availability of robust pre-cargo transfer checklists and procedures

As well as inspecting the vessel's cargo arrangements as described above, the surveyor should conduct a series of tests to establish the integrity of the cargo containment system. The extent and sequence of testing will depend on such factors as the vessel's condition and schedule, whether or not the cargo and ballast tanks are empty, gas free and safe for entry and whether the vessel is loading or discharging cargo, together with any other specific concerns that the surveyor may have. Upon boarding the vessel the surveyor should meet with ship’s staff in order to agree a programme of practicable, applicable and appropriate tests, such as:

- Pressure test of cargo pipeline system to check for leaks and that tank, cross-over and manifold and other cargo valves are sealing properly.
- Test of cargo tank bulkheads by filling/emptying of alternate tanks during cargo/ballasting operations.
- Pressure test of heating coils.
- Hose test of tank and butterworth lids and sounding pipes/ullage ports.
- Function test of high level alarms and gauging system.
- Determine the number of products that can be carried through any one system, or multi delivery ports / points.

Check compliance with:

- MARPOL
- Relevant IMO Pollution and Dangerous Cargo Regulations.
- Mooring and manifold layout as per O.C.I.M.F. guidance (Oil Companies International Maritime Forum).

Attach a copy or sketch of the plan layout of cargo tanks and the pipeline system.