Cargoworthiness (Tankers)

The predominant sources of claims in tankers are cargo contamination and pollution. Cargo contamination claims are most commonly caused by faults in the vessel's cargo pipeline system, but there are many other causes, such as defective packing in tank openings and poor operating procedures. 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 measuring 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

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 to be carried out 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, and any specific concerns the surveyor may have. The surveyor should agree a programme with the ship's staff that will allow him to conduct as many of the following and any other tests as are appropriate and practicable:

- Pressure test of the cargo pipeline system to check for leaks and to check that the tank, cross-over and manifold 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.

The surveyor should also check compliance with:

- Marpol
- Relevant IMO Pollution and Dangerous Cargo Regulations.
- Mooring gear as per O.C.I.M.F. Code (Oil Companies International Maritime Forum

The surveyor should attach a copy or sketch of the plan layout of cargo tanks and the pipeline system.