



## STEAMSHIP MUTUAL

### **Cargoworthiness (Bulk Carriers)**

In addition to the general points set out in the section covering Dry Cargo vessels, the surveyor should be aware that there has been a number of bulk carrier losses in the last few years and their operation and structural condition have come under scrutiny. In this respect the surveyor should pay particular attention to the following items:-

- Loading manual
- Loading procedures for previous voyages
- Stability condition for previous voyages
- On board hatch/hold inspection programme
- Structural integrity of hatch coamings and corners
- Structural integrity of main frames in way of lower web-frame brackets and bracket toes (having in mind also damage caused by cargo handling equipment such as grabs and bulldozers)
- Structural integrity of main bottom plating
- Structural integrity of hopper frame plating and plating
- Corrosion in way of main frames and brackets
- Corrosion in way of topside tanks

It is important that the surveyor pays particular attention to any localised corrosion in areas identified above and takes appropriate measures to remove same in order to examine closely for cracks.