## **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 that the operation and structural condition of these vessel types has come under close scrutiny. In this respect the surveyor should pay particular attention to the following items:

- Approved Loading manual.
- Loading procedures for previous voyages.
- Loading preparation and procedures of current voyage
- Stability condition for previous voyages. and current voyage within required limits.
- On board hatch/hold inspection programme maintained in accordance with SMS.
- 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 the potential for damage to be caused by cargo handling equipment such as grabs and bulldozers).
- Structural integrity of main bottom plating.
- Structural integrity of hopper frames and plating.
- Corrosion in way of main frames and brackets.
- Condition of bilges and non-return valves
- Corrosion in way of topside tanks.
- Recent repairs being carried out by ships staff, absence of apparent engagement of Class

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