



# ST. VINCENT AND THE GRENADINES

## MARITIME ADMINISTRATION

### CIRCULAR N° PSC 009

#### GUIDANCE FOR CHECKING THE STRUCTURES OF BULK CARRIERS

**TO: SHIPOWNERS & SHIPS' OPERATORS & MANAGERS  
SURVEYORS TO FLAG STATE ADMINISTRATION**

Monaco, 26 April 2005.

The aim of this Circular is to support Shipowners, ship's Operators and Managers to be prepared for Port State Control Inspections (Paris MOU).

A Bulk carrier is a targeted ship. Her structures are the regular object of a PSC inspection.

When a PSC Officer approaches/boards the ship, he already has his first impression: hull maintenance, condition of main deck, condition of deck in way of the windlasses, condition of ladders, condition of the air pipes, condition of the pipings, condition of the guard-rails, condition of the hatch comings (brackets included), condition of the hatch covers (structure included) and their closing devices, condition of the bulwark stays, condition of the weather tight doors and their closing devices, visible evidence of previous repairs (inserts, doublers, weldings), visible deformations, visible cracks, painting, visible corrosion (pitting) and cleaning.

Normally the first impression influences the PSC Officer's decision to proceed with an expanded/enhanced inspection.

The check of the ship's "Survey Report File" takes place, within the purpose to identify possible suspected areas which require inspection.

The "Survey Report File" should be on board. It consists of:

- The Report of structural surveys (drawn and issued by the Classification Society which carried out the Class Renewal Surveys).
- Hull Condition Evaluation Report (drawn and issued by the Classification Society which carried out the Class Renewal Surveys – this document summarizes the Class Renewal Surveys).
- Thickness measurement report (this document is annexed to the report of structural surveys).
- Main structural plans of cargo holds and ballast tanks.
- Previous repair history.
- Cargo and ballast history.

- Ship's crew report on: structural deterioration/defects in general; leakage in bulkheads and piping systems, condition of coatings or corrosion prevention system, if any.
- Survey program (this document is known also as "Survey Planning" and it is prepared in co-operation with the Owners and the Classification Society before the Class Renewal Surveys are carried out).

Common deficiencies detected by PSCO during inspections (this list is not and cannot be considered as exhaustive).

#### Main deck area

- Buckling of cross deck plates between hatches.
- Cracking/corrosion of hatch coming's brackets (lower part).
- Cracking/corrosion of bulwarks' stays (lower part).
- Corrosion/hole of the air vent pipes and ventilators.
- Cracks/corrosion on main deck plating.
- Cracks on main deck plating in way of hatch coming and corners.
- Cracks/deformation/corrosion of the hatch covers plating and structures.
- Hatch covers' closing devices.
- Hatch covers' watertight.
- Corrosion and waste of weather tight doors and their closing appliances.
- Deck plate corrosion in way of the windlasses foundation.

#### Cargo holds (transverse bulkheads area)

- Cracks initiating at the connections of the stool sloping plating to the inner bottom.
- Cracks initiating at the weld of corrugation to shelf plate and/or stool sloping plating to shelf plate.
- Cracks initiating at the corner of the shedder plate connections to the shelf plate and corrugation.
- Cracks initiating at connection to side shell.
- Cracks initiating at connections of stool/hooper sloping plating.

#### Cargo holds (frames/shell plating area)

- Side shell plating: cracks in welds or plates; leaks in welds or plates; deformation of plating.
- Connection of bulkhead plating to side shell: punctured plating; cracked plating; heavily indented plating; buckled plating; corrosion and wastage.
- Connection of side shell frames and end brackets to the shell plating and topside tank plating: cracks; corrosion and wastage; deformed frames and/or brackets; grooving effect; detached frames and/or brackets.

#### Ballast tanks area

- Topside wing tanks
- under deck longitudinal : corroded/detached; cracks
- side longitudinal : corroded/detached; cracks
- shell frames/web frames : corroded/detached; cracks
- Coating in poor condition.

- Forward/aft bulkhead: corroded; cracks.
- Presence/condition of anodes.

#### Fore & Aft peaks

- Coating in poor condition.
- Presence of anodes.
- Corrosion/wastage.
- Stiffeners and brackets: corroded; cracks.

If relevant, the PSC officer may check that the necessary calculations have been made to ensure bending and shear stresses are maintained within maximum limits both during loading/unloading operations. This is particularly important where high density cargoes are carried or where the loading/ballasting arrangement is of a different configuration from what is described in the ship's loading manual.