



Norshipping Conference 2007

Evolution in Tanker Management Systems

CAP Surveys

Experience and Practical Advise

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Oslo : 14th June 2007

Condition Assessment Program (CAP)

- **Required by Major Oil Companies (BP, Statoil, Petronas)**
- **Charterer requirements**
- **Insurer requirements**
- **Vessel Owner requirements**
 - **As part of internal policy and procedures**

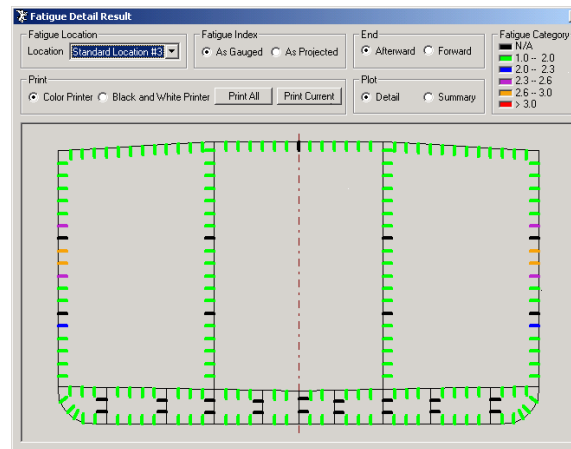
Condition Assessment Program (CAP)

- **Ageing (15+ year old) Vessels**
 - **Lack of maintenance of the Hull Structure, Main Machinery and Equipment – a contributing factor to accidents, failures and pollution**
- **1989 : Condition Assessment Program (CAP)**
- **1995 : Harmonisation of Schemes by CAP Providers**
 - Unified Grading System

Condition Assessment Program (CAP)

Assess the physical condition and maintenance of a vessel above the minimum requirement for Class

2. Review of Class Records
3. Fatigue Analysis
4. Condition Assessment Survey
5. Verification of Gaugings
6. Structural Evaluation
7. CAP Report and Grade



Certificate No. MTS-1041248B1-X Date: 8 April, 2002
Office: Houston

CERTIFICATE OF CONDITION ASSESSMENT

This is to Certify that a condition assessment has been made of the vessel "XXXXX" ABS ID No. XXXXXX at the request of the Owners Representative.

CONDITION ASSESSMENT:

This certification is based on the recent condition assessment survey of the hull and machinery and cargo handling system and equipment Report No. VE7499 dated 18 January 2002 which was performed in accordance with the ABS "Guide for SafeHull Condition Assessment - Tankers," January 1994.

Additionally, the vessel structure was evaluated using the ABS SafeHull Criteria in ABS Rules for Building and Classing Steel Vessels, Part 5/2 "Vessels Intended to Carry Oil in Bulk," and "Guide for Fatigue Strength Assessment of Tankers," as identified in Report No.1042833, dated 28 March 2002.

Based on the condition assessment survey and structural evaluation the vessel has been assigned a Grade of **Two (2)**

This certificate is only valid for the date of issuance.

The users of this certificate are advised to fully review the reports issued in connection with this certificate for a complete description of any conditions of class or any monitoring requirements or limitations on the vessel's service.

Frank Drake
SafeHull Condition Assessment Coordinator

This certificate is granted or issued subject to the condition that it is understood and agreed that nothing contained herein shall be deemed to relieve any designer, manufacturer, seller, supplier, repairer or operator of any warranty, express or implied and ABS Consulting Inc. liability shall be limited to the acts and omissions of its employees, agents, and subcontractors. Under no circumstances whatsoever shall ABS Consulting Inc. be liable for any injury or damage to any person or property occurring by reason of negligent operation, misuse, or any defect in materials, machinery, equipment or other items other than defects in items actually inspected by ABS Consulting Inc. and ascertainable by normally accepted testing standards, or defects reflected in documents reviewed by ABS Consulting Inc. and ascertainable by normally accepted testing standards, or defects reflected in documents reviewed by ABS Consulting Inc. and which are covered by this certificate or report.

Condition Assessment Survey

- 1. Hull Structure**
- 2. Cargo Handling System**
- 3. Equipment**
- 4. Machinery and Plant Operation**
- 5. Spare Parts and Tools**
- 6. Galley and Crew Quarters**
- 7. Safety Equipment**

CAP Survey Process

- **Objective of the CAP Surveyors is to arrive at an unbiased evaluation – together with a Grading System**
 - Grade 1 : Very Good
 - Grade 2 : Good
 - Grade 3 : Satisfactory
 - Grade 4 : Unsatisfactory
 - Grade 5 : Not Examined
- **Vessel surveyed by two (2) approved CAP Surveyors acting concurrently but independent of each other**
- **One Surveyor designated the CAP Lead Surveyor**

References

- 1. IACS and specific Classification Societies Guidelines**
 - IACS Recommendation 87 : Coating Maintenance and Repairs
- 3. Tanker Structure Cooperative Forum (TSCF) Guidelines**
 - Ballast Tanks Coating Systems and Surface Preparation
 - Condition Evaluation and Maintenance of Tanker Structures

CAP Survey : Preparation

1. Preparation of Vessel for Survey

- Plan CAP survey together with Class SSH or IHS
- Outstanding recommendations or statutory deficiencies
- Questions and clarification with CAP provider before Dry Dock

5. Superintendent awareness of Condition of Vessel

- Instruct vessel crew to commence preliminary hull surveys

7. Tank Preparation for Inspection

- Free from water, scale, dirt and oil residue
- Dismantle ballast tank bell mouths in advance (bottom plate)

10. Appoint approved Gauging Company

- Electronic gauging report submission

CAP Surveyors Experience : Survey

- 1. Safety of Personnel: Vessel and Shipyard**
 - Gas free and ventilated clean tank holds and spaces
- 3. Recommend a two (2) stage CAP Survey**
 - Commence CAP before drydock
 - Identify deficiencies early (before drydock)
 - Last day in drydock is the last day for CAP surveys
- 4. Understanding and cooperation from vessel crew**
- 5. Repair identified areas of substantial corrosion early**
- 6. Finish CAP survey straight after drydock (during sea trials)**
- 7. Prepare vessel for photographs (and backup)**

CAP Surveyors Experience : Coatings

Table II IACS Clarifications

	GOOD (3)	FAIR	POOR
Breakdown of coating or area rusted (1)	< 3%	3 – 20 %	> 20 %
Area of hard rust scale (1)	-	< 10 %	~ 10 %
Local breakdown of coating or rust on edges or weld lines (2)	< 20 %	20 – 50 %	> 50 %

Notes

- (1) % is the percentage of the area under consideration or of the “critical structural area”
- (2) % is the percentage of edges or weld lines in the area under consideration or of the “critical structural area”
- (3) spot rusting i.e. rusting in spot without visible failure of coating

CAP Deliverables

- 1. CAP Certificate and Report**
- 2. Validity of CAP Certificate**

CAP Training

- 1. Training for all Personnel**
 - Superintendent : Surveyor : Shipyard : Gauging Company
- 2. ABS Consulting CAP Training Course : Q4-2007**



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