



PORTS and MARITIME AFFAIRS

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Directive No. SOLAS/06

IN-WATER SURVEY IN LIEU OF DRY DOCKING

Issued under the enabling power of the Ministerial Resolution 20/2016

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1 Introduction

(1) With reference to;

- Regulation 1 of ministerial resolution no. 20/2016: Implementation of Conventions related to marine navigation.
- PMA resolution no. 8/2016: regarding the implementation of the requirements of the International Convention for the Safety of Life at Sea, 1974 and its amendments
- SOLAS, International Convention for the Safety of Life at Sea, Consolidated Edition 2014, Chapter I, Regulation 10 a (v), as amended
- IMO Assembly Resolution A.1104(29): Survey Guidelines Under the Harmonized System of Survey and Certification (HSSC), 2015
- IMO MSC.1/Circ.1348 issued June 2010: Guidelines for the assessment of technical provisions for the performance of an in-water survey in lieu of bottom inspection in dry-dock to permit one dry-dock examination in any five-year period for passenger ships other than Ro-Ro passenger ships.
- Guidelines for pre-planning of surveys in dry dock of ships which are not subject to the enhanced programme of inspections (MSC.1/Circ.1223).
- International code on the enhanced programme of inspections during surveys of bulk carriers and oil tankers, 2011 (2011 ESP Code) adopted by resolution A.1049(27), as amended.



- (2) This directive provides guidance on the conduct of In-Water Survey (IWS) inspection of the ships bottom in lieu of inspection out of the water (dry Dock). It specifies which ships may be eligible and the limits between surveys. It details the preparations required prior to embarking on IWS, the procedures to follow before, during and after the IWS.

2 Application

The directive applies to In-Water Surveys of Bahraini ships, primarily those conducted by authorised certifying authorities when conducting surveys on behalf of PMA.

3 In-Water Survey (IWS)

- (1) In reference to the Survey Guidelines under the Harmonized System of Survey and Certification (HSSC Guidelines), resolution A.1104 (29), there should be a minimum of two inspections of the outside of the ship's bottom during any five-year period (*Any five-year period* is the five-year period of validity of the Cargo Ship Safety Construction Certificate or the Cargo Ship Safety Certificate), except where SOLAS 74/88 regulation I/14(e) or (f) is applicable. One such inspection should be carried out on or after the fourth annual survey in conjunction with the renewal of the Cargo Ship Safety Construction Certificate or the Cargo Ship Safety
- (2) It is recognized that technological advances have been made in regard to corrosion resistant materials, quality, endurance and effectiveness of hull coatings, repair in water by means of protected environment such as temporary cofferdam, implementation of effective five-year maintenance regimes and also the effectiveness of in-water survey technology overall.
- (3) It is therefore quite possible to carry out a survey, to the extent required by the HSSC Guidelines, with the ship in the water. It may be expected that the intermediate bottom inspection in dry dock could be converted to a survey in water to the same extent as an inspection in dry dock, as required by the HSSC Guidelines. This is referred to hereafter as an in-water survey (IWS). The in-water survey is to provide the information normally obtained from the dry-docking survey.
- (4) The IWS will be regarded as an acceptable alternative to a survey in a dry dock only if it is comprehensive and carried out in an efficient manner. The owner must appreciate that the principal condition of the PMA acceptance



of any proposed IWS is that a survey in dry dock is to be arranged if the IWS is not to the surveyor's satisfaction.

4 Intervals at which an IWS may be undertaken

For ships (other than passenger ships) subject to the international SOLAS or Load Line Conventions, two inspections of the ship's bottom are required within a period of 5 years, and the maximum interval between these inspections is 36 months. One of these inspections shall be conducted out of the water, which should coincide with the renewal survey for Safety Construction or Load Line. Other intermediate inspections of the ship's bottom may be carried out in the water. Dredgers issued with Load Line Exemption Certificates shall continue to be surveyed in dry-dock twice in a five-year period.

5 Vessels Covered Under Enhanced Survey Program (ESP) (Age Limits of Ships Eligible of IWS)

- (1) Special consideration must be given before IWS can be considered for ships which are more than 15 years of age. A submission to the certifying authority may be made for special consideration if fully justified and supported by their surveyors' reports concerning the condition of the hull.
- (2) Oil Tankers and Bulk Carriers, to which Enhanced Survey Program (ESP) applies, over 15 years of age will not be considered for IWS. Inspection of the outside of the vessel's bottom during intermediate surveys and renewal surveys shall be carried out with the vessel in dry dock.
- (3) For ESP vessels of less than 15 years of age, alternative inspections of the vessels bottom, not conducted in conjunction with its renewal survey, may be carried out by an IWS with vessel afloat. Based on a request from the vessel owner (s), the RO concerned may carry out the IWS after obtaining PMA approval, in accordance with the "International Code on the Enhanced Programme of Inspection during Surveys of Bulk Carriers and Oil tankers, 2011 (ESP Code) as amended, and the provisions / guidelines applicable as per the rules of the respective RO.



6 Application for Permission to Undertake IWS

- (1) Application should be made by the vessel's owner(s) through the appropriate certifying authority. The RO concerned may after obtaining PMA approval, carryout the IWS in accordance with the applicable rules/procedures/ guidelines of the respective RO, and subject to the following conditions;
- (2) the vessel is surveyed in dry dock at least once in each five-year period. The dry- dock inspection should coincide (within 153 months) with the renewal survey required for Safety Construction or Load Line (i.e. Special Survey).
- (3) The vessel has an appropriate and valid notation from the vessel's RO for carrying out an IWS in lieu of dry docking.
- (4) The underwater portion of the hull structure is protected by a suitable coating of adequate thickness, valid till the dry docking during renewal survey.
- (5) Class requirements for an intermediate survey, should be preferably completed before an IWS. If not possible, an endorsement towards intermediate docking survey shall be done only after these activities are completed with satisfactory results, within the due date for docking survey.
- (6) No Condition of Class (CoC) exists on the hull structure or fittings.
- (7) Vessel's owner should seek class notation from the RO at the time of dry docking, to avail the benefit of an IWS during intermediate surveys.

7 In-Water Survey (IWS) Requirements

- (1) Prior to each IWS, application should be made by the vessel's owner (s) through the appropriate certifying authority.
- (2) The application should indicate, and give the followings:
 - (a) The date and venue of the IWS.
 - (b) general information on the diving company and a schedule of the detailed proposal for undertaking the IWS, and
 - (c) A signed statement from the owners confirming that the vessel has not knowingly suffered any grounding or contact below the waterline since the last inspection, or provide details of the nature of any contact confirming that there is no known damage.



- (d) An undertaking that the vessel will be dry docked if necessary following the survey, within 3 months, or sooner if considered necessary.

8 Conduct of In-Water Survey (IWS);

The IWS should be conducted in accordance with the following requirements;

- (1) At the time of an IWS, a declaration to the RO by the vessel Master or owner's representative should provide, indicating;
 - (a) all suspected or actual damage to the hull that has occurred since last dry-docking.
 - (b) that the underwater portion of the hull structure is protected by a suitable paint scheme of an adequate thickness, valid till the in dry dock renewal survey.
- (2) The proposed survey site should be;
 - (a) in a protected location, with calm clear water providing good underwater visibility to enable the Surveyor to ascertain if the hull requires repairs/renewals that necessitate the bottom survey in a dry-dock.
 - (b) Special attention should also be given to the effects of current and tides.
 - (c) The IWS should not be conducted while the ship is doing cargo operations.
 - (d) It is preferable that the ship is at anchor for IWS but if the proposal is that she should be alongside then there should be sufficient clearance from the quay using adequate fenders to allow, suitable and safe access for divers around the hull. Penetration of natural light through the water and the movement and attendance of a survey tender, if used should be considered.
- (3) An examination of the entire vessel below the waterline should be carried out by an approved diving company acceptable to the RO, using closed circuit television with a two-way communication capable of being monitored by the Surveyor as required.
- (4) The hull should be clean for an external survey and the RO Surveyor should be satisfied that the method and quality of pictorial presentation is satisfactory and enables a reliable assessment to be made of the



condition of the hull and fittings to decide whether dry-docking is needed or not.

- (5) The survey should be discontinued if the pictures and/or communications are no longer acceptable.
- (6) Where practicable, the IWS should be carried out while the vessel is in a light operating condition to facilitate the survey.
- (7) An examination of the outside of the shell plating above the waterline and exposed portions of appendages should be carried out by the Surveyor.
- (8) The extent of underwater inspection by RO Surveyor should be sufficient to include all items which would normally be examined if the vessel was in dry-dock.
- (9) When a defect or deterioration or damage is detected or suspected as a result of an IWS, or subsequent to an internal examination of spaces, or thickness measurement, or from the Master's statement, the internal structure should be examined as considered necessary to clarify or confirm the findings. In such cases, the Surveyor may require that the vessel be dry-docked to undertake a detailed survey, or to carry out necessary repairs/renewal to the satisfaction of the attending Surveyor.

9 Endorsement of Statutory Certificates and Reporting

On satisfactory completion of an IWS, the statutory certificate (Cargo Ship Safety Construction certificate) may be endorsed towards the completion of an intermediate bottom survey. Thereafter, the RO shall forward a detailed report regarding the condition of the vessel, along with the survey findings and its recommendation for an acceptance of IWS, in lieu of intermediate dry docking, to PMA for their information and record.

10 Revision History:

Revision No. 1 of the present Directive is the first revision.

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Undersecretary for Ports and Maritime Affairs
25th December 2016