PART XIII

ANNUAL SURVEYS

13.1 General

13.1.1 Surveyors should satisfy themselves at the annual surveys that the hulls and skin fittings of passenger ships are in good condition, the principal structural scantlings are maintained, the arrangements and details are in accordance with the MCA's requirements, and the ship is in all respects fit for the service intended.

13.1.2 Any proposals for altering the structure which may affect the main or local strength of the ship, should be submitted for consideration. In the case of a Classed ship, the surveyor should obtain a copy of the Classification Society's letter to the owner or ship-repairer approving the proposals for the alteration, and place it on the ship's file for record purposes together with a stamped approved copy of any associated drawing.

13.2 Examination of the Outside of the Hull etc.

13.2.1 The outside of the hull, rudder, and all outside fittings are to be thoroughly examined by the surveyor at each annual survey when the ship is presented in dry dock, or on blocks or on a grid.

13.2.2 The surveyor should make his inspection of the outside of the hull after it has been cleaned and before it has been painted, cemented or otherwise coated.

13.2.3 Sufficient clearance should be arranged under the hull to allow ease of access with adequate artificial lighting provided to the surveyors satisfaction.

13.2.4 Access to the upper parts of the outside of the hull and around the rudder should be by means of a safe arrangement of scaffolding and associated ladders securely fastened in way to meet statutory safety standards.

13.3 Inside the Hull

13.3.1 A surveyor has the authority to, and may at his discretion, require any part of the ships deck and side linings, deck coverings etc., to be removed, and any tank opened up and cleaned as he considers necessary, to enable him to ascertain the condition of the ships internal structure. However, unless the surveyor decides otherwise the frequency of inspection of the various items should be as follows:-

13.3.2 Ships of subdivision length over 75 metres

13.3.2.1

(i) All internal structure of holds, voids, machinery spaces, between deck spaces, superstructures etc., and tanks used exclusively for fresh or salt water, or used alternatively for salt water and any other liquid should be surveyed every five years, except that where the MCA agrees to the ship being surveyed on a continual basis (running surveys) then at least 20% of the above items should be surveyed each year during the five year period.

(ii) All tanks used exclusively for oil fuel should, between the first to the tenth year since the building of the ship, be opened up and cleaned out for internal inspection at least once in rotation. From the eleventh to the twentieth year inclusive no internal inspection need be made.

(iii) After the twentieth year all such tanks should be opened up and cleaned out for inspection in rotation so that each tank is seen at least one in every five years.

13.3.2.2 During the periods when tanks are opened up less frequently than once every five years, the surveyor should satisfy himself over a five year period that all valves associated with cross flooding arrangements are in good working order.

13.3.2.3 To enable proper records to be kept for each new ship and for existing ships where this has not already been done, the surveyor should raise a file on which is placed the agreed hull survey schedule complying with the guidelines set out earlier in this paragraph.

13.3.2.4 On completion of the survey the surveyor should sign and date the schedule against the items he has surveyed. Where running survey arrangements are adopted within the cycle survey period, a record book should be maintained on board the ship as well as on the file and each item surveyed signed by the surveyor.

13.3.2.5 Where a survey is carried out by an appointed surveyor (usually from one of the Classification Societies) details of the survey carried out are to be recorded in the record book on board the ship. On the next visit to the ship by a MCA surveyor these details are to be transferred to, the copy of the record book kept in the MCA's file.

13.3.2.6 The responsibility for ensuring that surveys are carried out on their due dates rests with the owner, but the Marine Office holding the file (normally at the port where the ship is based or from which most of the survey work is carried out), should monitor the hull survey schedule and if any item

is not surveyed by its due date, the owner should be informed and proposals to rectify the situation requested.

13.3.3 Ships of subdivision length 75 metres or less

13.3.1 All internal structures of holds, voids, machinery spaces, between deck spaces, superstructures etc., and tanks used exclusively for fresh or salt water, or used alternatively for either salt water and any other liquid, should be examined each year.

13.3.2 All tanks used exclusively for oil fuel should be cleaned out and examined once every five years, and at least one tank should be cleaned out and examined each year.

13.3.3 When the ship is subdivided in accordance with the Regulations, the surveyor should sign and date the record of surveys on the ship's file against the items he has examined at each survey. Items examined in open boats should also be recorded in the ship's file.

13.3.4 Pressure testing of tanks

13.3.4.1 All tanks referred to in paragraphs 13.3.1 and 13.3.2 should be pressure tested with a head of water in the same year in which they are opened up for internal examination.

13.3.4.2 In the case of oil fuel storage tanks, settling or service tanks the pressure should be equal to a head of water 300mm greater than the greatest head to which the tank may be subject when in service, but in the case of a settling tank in which oil fuel is heated in the course of its preparation for combustion in boilers or machinery and which is situated in, or forms part of, the boundary of any machinery space, to not less than 1 bar.

13.3.4.3 All other tanks should be tested with a head of water to the top of the air or overflow pipe.

13.4 Watertight Bulkheads, Decks, Tunnels etc.

13.4.1 The surveyor should examine and confirm the watertightness of all watertight bulkheads, decks, tunnels etc. with special attention being given to the lower portions of the bulkheads below platforms and in the bilges. The surveyor should satisfy himself that the approved subdivision arrangement and details, including piping, valves and fittings which affect these arrangements, remain in a satisfactory operational condition. For this purpose he should compare the arrangements and details in the ship with those recorded in the ship's file.

13.4.2 Any proposals for alterations in the subdivision arrangements and details must be submitted to the MCA for consideration.

13.4.3 All the plans and papers relating to the ship should be up-dated by the surveyor after each survey.

13.5 Plate Thickness Gauging

13.5.1 At intervals not exceeding every five years, or if during the course of any survey the surveyor considers that deterioration of shell, watertight bulkhead or deck plating has taken place, plating thicknesses should be ascertained by drilling holes, or by ultrasonic testing provided that:-

13.5.1.1 The ultrasonic measurements are obtained by skilled and experienced operators of the apparatus.

13.5.1.2 The calibration of the measuring instrument is checked both before and after the thickness readings have been taken.

13.5.1.3 The surveyor is present when the thicknesses are being gauged and is satisfied with the position of the test readings.

13.5.1.4 In general the minimum number of readings to be taken shall not be less than 3 circumferential bands measured down from the bulkhead deck to the keel port and starboard at amidships and at one quarter of the ship's length from the stem and stern together with readings along the full length of the wind and water strake or strakes port and starboard.

13.5.2 A signed copy of the results should be obtained from the operator and placed on the ship's file for record purposes together with the surveyor's report on any action which may have been taken as a result of obtaining the plate thickness readings.

13.6 Openings in Watertight Bulkheads etc.

13.6.1 All watertight doors (including their operating mechanism), and other means for closing openings in watertight bulkheads etc., are to be inspected. Any defects must be made good.

13.6.2 Sliding watertight doors are to be opened and closed by hand and by power.

13.6.3 In the case of hinged and rolling watertight doors, these should be inspected and tried, and the surveyor should ensure that any lever operated clips are in order and that the joints are watertight.

13.6.4 The surveyor should confirm by test that the door position indicators at all remote operating positions register correctly and that the warning signals are adequate taking into account local noise levels.

13.6.5 Surveyors should pay special attention to the type and condition of any cable transit fitted in watertight divisions and in particular to those incorporating compound as sealant.

13.6.6 Where practicable the improvement of such transits by the fitting of approved cable transits incorporating a patented transit frame and compressed insert blocks should be recommended to the owner where modifications require new cable transits or their substantial amendment.

13.6.7 As far as practicable cable transits should be fitted in the highest possible position in a watertight bulkhead.

13.6.8 The surveyor should also pay special attention to the location of pipework passing through watertight bulkheads to eliminate the risk of inter-compartmental flooding through an open ended pipe on one side of the bulkhead, in the event of flooding damage incurred in the adjacent compartment e.g. bilge piping, CO_2 piping.

13.7 Openings in Ships' Sides and Bottoms etc.

13.7.1 All side scuttles, valves and other fittings for preventing the accidental admission of water into the ship should be examined to ensure that they are effective for their purpose. It is important that not only should the closing appliances of scuppers, sanitary and other discharges be examined, but also the discharging pipes, particularly the lower lengths, whether or not fitted with valves at the ship's sides.

13.7.2 In ships having a large number of scuppers, sanitary and other discharges, the surveyor need not insist upon the withdrawal of all valves etc. for examination at any one survey, apart from those in connection with the main and auxiliary machinery.

13.7.3 The valves should be individually recorded in the record of surveys on the ship's file and it should be ensured that each valve is withdrawn for examination at least once in every five years.

13.8 Load Line Markings

At each survey the surveyor should confirm that the subdivision load line markings are in accordance with those assigned in connection with the accepted subdivision arrangements. Other load line markings should also be inspected to confirm that they are in accordance with the current Load Line Certificate/Load Line Exemption Certificate as the case may be.

13.9 Stability Information

13.9.1 The surveyor should ensure that the approved stability information booklet is available on board for the guidance of the master of ship.

13.9.2 Where ballast is removed to facilitate structural survey, the surveyor must confirm that it is replaced in the same position. The type (solid or liquid), quantity and distribution of any permanent ballast carried by the ship should be confirmed by the surveyor and noted accordingly on the ship's file.

13.9.3 Additionally, on those ships fitted with approved loading and stability computers, the surveyor should ask the ships master and/or chief officer, to demonstrate the simple check procedure built in to the calculation system which can be readily employed to show that the computer is operating satisfactorily. Loading and stability computers approved by the MCA have built-in alarms to indicate excessive draught, excessive trim or excessive KG. Each alarm should be demonstrated to the surveyor's satisfaction.