

REPORT ON WATER TUBE BOILERS.

Received at London Office

JAN 14 1939

Date of writing Report 19 _____ When handed in at Local Office 19 _____ Port of Shanghai

"No. in" Survey held at Shanghai Date, First Survey March 2nd. Last Survey July 16th. 19 37
 Reg. Bk. 27862 on the "KIA WO" (Number of Visits 8) Tons { Gross 1311
 Net 694

Master _____ Built at Shanghai By whom built Kiangnan Dock & Eng. Works When built 1925
 Engines made at Shanghai By whom made Kiangnan Dock & Eng. Works When made 1925
 Boilers made at Glasgow By whom made Fairfield & Co. When made 1917
 Registered Horse Power _____ Owners Indo-China S.N. Co., Ltd. Port belonging to Shanghai

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Unknown

(Letter for Record _____) Date of Approval of plan _____ Number and Description or Type

of Boilers Two Garrow type Working Pressure 235 lbs Tested by Hydraulic Pressure to 360 lbs Date of Test Mar. 1935

No. of Certificate _____ Can each boiler be worked separately Yes Total Heating Surface of Boilers 6990 sq. ft. (2 boilers)

Is forced draught fitted _____ Area of fire grate (coal) in each Boiler Oil fuel Total grate area of boilers in vessel including

Main and Auxiliary _____ No. and type of burners (oil) in each boiler 5 Walkend Howden No. and description of safety valves on

each boiler 1 7/8" double full bore type Area of each valve _____ Pressure to which they are adjusted 225 LBS sq"

Are they fitted with easing gear Yes In case of donkey boilers state whether steam from main boilers can enter the donkey boiler _____

Smallest distance between boilers or uptakes and bunkers or woodwork 1'-3" Height of Boiler 10'-8" Width and Length 15'-11 1/2" x 11'-8 5/8"

Steam Drums:—Number in each boiler one Inside diameter 4'-2" Material of plates S.M.M.S. Thickness 5/8" & 1 1/2"

Range of Tensile Strength Tube plates 26-30 Shell plates 28-32 Are drum shell plates welded or flanged No Description of riveting:—

Cir. seams D.R. long. seams D.R. double butt strap Diameter of rivet holes in long. seams 27/32 Pitch of Rivets 3 5/16

Lap of plate or width of butt straps 8 1/2" Thickness of straps 1/2" Percentage strength of long. joint:—Plate 74.50 Rivet 89.7

Diameter of tube holes in drum 1 1/8" & 1 1/2" Pitch of tube holes 1 1/16" & 2 1/16" Percentage strength of shell in way of tubes 33 & 27.41%

If Drum has a flat side state method of staying _____ Depth and thickness of girders at centre

(if fitted) _____ Distance apart _____ Number and pitch of stays in each _____ Working pressure

by rules _____ Steam Drum Heads or Ends:—Material S.M.M.S. Thickness min. 1 1/16" F. End. 1 3/16" B. End. Radius or how stayed 4'-3" (outside)

Size of Manhole or Handhole 16" x 12" Water Drums:—Number in each boiler Two Inside Diameter 2'-6"

Material of plates S.M. Mild Steel Thickness 5/8" & 1 1/2" Range of tensile strength 26-30 Are drum shell plates welded

or flanged No Description of riveting:—Cir. seams D.R. S.R. long. seams D.R. double butt strap Diameter of Rivet Holes in

long. seams 27/32 Pitch of rivets 3 5/16 Lap of plates or width of butt straps 8 1/2" Thickness of straps 1/2"

Percentage strength of long. joint:—Plate 72.3 Rivet 99 Diameter of tube holes in drum 1 1/8" & 1 1/2" Pitch of tube holes 1 1/16" & 2 1/16"

Percentage strength of drum shell in way of tubes 33 & 27.41% Water Drum Heads or Ends:—Material S.M.M.S. Thickness F.E.I. B.E. 1 5/16"

Radius or how stayed 2'-7" (outside) Size of manhole or handhole 16" x 12" Headers or Sections:—Number _____

Material _____ Thickness _____ Tested by Hydraulic Pressure to _____ Material of Stays _____

Area at smallest part _____ Area supported by each stay _____ Working Pressure by Rules _____ Tubes:—Diameter _____

Thickness _____ Number _____ Steam Dome or Collector:—Description of Joint to Shell _____

Percentage strength of Joint _____ Diameter _____ Thickness of shell plates _____ Material _____

Description of longitudinal joint _____ Diameter of Rivet Holes _____ Pitch of Rivets _____ Working Pressure of shell

by Rules _____ Crown or End Plates:—Material _____ Thickness _____ How stayed _____

SUPERHEATER. Type _____ Date of Approval of Plan _____ Tested by Hydraulic Pressure to _____

Date of Test _____ Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler _____

Diameter of Safety Valve _____ Pressure to which each is adjusted _____ Is easing gear fitted _____

Is a drain cock or valve fitted at lowest point of superheater _____ Number, diameter, and thickness of tubes _____

Spare Gear. Tubes _____ Gaskets or joints:—Manhole _____ Handhole _____ Handhole plates _____

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
 { During erection on board vessel - - - }

Is the approved plan of boiler forwarded herewith Yes

Total No. of visits _____

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have worked satisfactorily since being installed in the vessel. They have been examined from time to time over a period of years by Surveyors to this Society. The workmanship is sound. See Report & also correspondence between Mr. Cox & the Secretary regarding Classification of Indo-China S.N. Co's River steamers.

Survey Fee ... £ : : } When applied for, 19 _____
 Travelling Expenses (if any) £ : : } When received, 19 _____

See Rpt. 1, & correspondence between Mr. Cox & the Secretary

H. P. ...
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 21 FEB 1939

Assigned noted

