

REPORT ON WATER TUBE BOILERS.

No. *7063*

27 JAN 1947

Received at London Office

Date of writing Report **16th Dec. 1946** When handed in at Local Office **17th Dec. 1946** Port of **QUEBEC, P.Q.**
 No. in Survey held at **Quebec, P.Q.** Date, First Survey **16th August** Last Survey **7th Dec. 1946**
 Reg. Bk. on the **Steel Single Screw Steamer "TA SHUN" (ex Corvette "Bowmanville")** (Number of Visits) **Six** } Gross **1387.27**
 Tons } Net **793.08**
 Built at **Sunderland** By whom built **Wm. Pickersgill** When built **1944**
 Engines made at **Sunderland** By whom made **Geo. Clark (1938) Ltd.** When made **1944**
 Boilers made at **Woolston & Southampton** By whom made **Thornycroft Co. Ltd.** When made **1944**
 Nominal Horse Power **374** Owners **Chinese Government Supply Agency** Port belonging to **Shanghai**

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel. **No Certificates available**

Date of Approval of plan **--** Number and Description or Type of Boilers **Three drum small tube type** Working Pressure **225 lbs** Tested by Hydraulic Pressure to **387 lbs** Date of Test **--**

No. of Certificate **--** Can each boiler be worked separately **Yes** Total Heating Surface of Boilers **6300 sq. ft.**
 Is forced draught fitted **Yes** Area of fire grate (coal) in each Boiler **--**

No. and type of burners (oil) in each boiler **3 - Admiralty Type** No. and description of safety valves on each boiler **One x 2 1/2" H.L. double** Area of each set of valves per boiler { per rule **10.76 sq. in.** as fitted **9.8 sq. in.** Pressure to which they are adjusted **225 lbs.** 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 **--** Height of boiler **8'-8 1/2"**

Width and Length **9'10" x 8'9 1/4"** Steam Drums:—Number in each boiler **One** Inside diameter **3'7"**
 Thickness of plates **9/16" and 1-3/8"** Range of Tensile Strength **--** Are drum shell plates welded or flanged **No** If fusion welded, state name of welding firm **--** Have all the requirements of the rules for Class I vessels been complied with **--** Description of riveting:—Cir. seams **Double** long. seams **D.B.S.D.R.**

Diameter of rivet holes in long. seams **29/32"** Pitch of rivets **3.5687"** Thickness of straps **1/2"** Percentage strength of long. joint:—Plate **74.60** Rivet **94.67** Diameter of tube holes in drum **1", 1-1/8", 1 1/2"** Pitch of tube holes **1 1/2", 1-11/16", 2 1/4"**
 Percentage strength of shell in way of tubes **32.3** Steam Drum Heads or Ends:—Range of tensile strength **--**
 Thickness of plates **1" x 7/8"** Radius ~~xxxxxxx~~ **3.6"** Size of manhole ~~xxxxxxx~~ **16" x 12"** Water Drums:—Number in each boiler **Two** Inside Diameter **22 3/4"** Thickness of plates **1 1/2"** Range of tensile strength **--** Are drum shell plates welded or flanged **Seamless forged** fusion welded, state name of welding firm **--** Have all the requirements of the rules for Class I vessels been complied with **--** Description of riveting:—Cir. seams **Single** long. seam **--**

Diameter of rivet holes in long. seams **--** Pitch of rivets **--** Thickness of straps **--**
 Percentage strength of long. joint:—Plate **--** Rivet **--** Diameter of tube holes in drum **1", 1-1/8", 1 1/2"** Pitch of tube hole **1 1/2", 1-11/16", 2 1/4"**
 Percentage strength of drum shell in way of tubes **32.3** Water Drum Heads or Ends:—Range of Tensile strength **--**
 Thickness of plates **7/8"** Radius ~~xxxxxxx~~ **23"** Size of manhole or handhole **16" x 12"**

Headers or Sections:—Number **--** Material **--** Thickness **1078 @ 1"** Tested by Hydraulic Pressure to **--**
 Tubes:—Diameter **1", 1-1/8", 1 1/2"** Thickness **.104", .116", .116"** Number **1068 @ 1-1/8" 258 @ 1-1/8" 138 @ 1 1/2"** Steam Dome or Collector:—Description of joint to shell **--** Inside diameter **--** Thickness of shell plates **--** Range of tensile strength **--** Description of longitudinal joint **--** If fusion welded, state name of welding firm **--** Have all the requirements of the rules for Class I vessels been complied with **--** Diameter of rivet holes **--**

Pitch of rivets **--** Thickness of straps **--** Percentage strength of long. joint **--** Plate **--** Rivet **--**
 Crown or End Plates:—Range of tensile strength **--** Thickness **--** Radius or how stayed **--**

SUPERHEATER. Drums or Headers:—Number in each boiler **--** Inside Diameter **--**

Thickness **--** Material **--** Range of tensile strength **--** Are drum shell plates welded or flanged **--** If fusion welded, state name of welding firm **--** Have all the requirements of the rules for Class I vessels been complied with **--** Description of riveting:—Cir. seams **--** long. seams **--**

Diameter of rivet holes in long. seams **--** Pitch of rivets **--** Thickness of straps **--** Percentage strength of long. joint:—Plate **--** Rivet **--** Diameter of tube holes in drum **--** Pitch of tube holes **--** Percentage strength of drum shell in way of tubes **--** Drum Heads or Ends:—Thickness **--** Range of tensile strength **--**

Radius or how stayed **--** Size of manhole or handhole **--** Number, diameter, and thickness of tubes **--**
 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 **--** No. and description of Safety Valves **--** Area of each set of valves **--** Pressure to which they are adjusted **--** Is easing gear fitted **--**

Spare Gear. Has the spare gear required by the rules been supplied **--**

The foregoing is a correct description.

Audreyman Manufacturer

Dates of Survey **16th Aug., 20th Sept., 22nd Oct., 11th Nov., 5th and 7th Dec., 1946.** Is the approved plan of boiler forwarded herewith **No**
 No. of visits **Six**

Is this boiler a duplicate of a previous case **Yes** If so, state vessel's name and report No. **"Castle" Type Corvette**

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) **These Boilers were built under survey of the British Corporation Register of Shipping and Aircraft, and have been opened up, examined, closed in good order, and now hydrostatically tested in conformity with the Rules of Lloyd's Register of Shipping and tried under full working conditions. The workmanship and materials are good. It is recommended for the favourable consideration of the Committee that these Boilers be now classed in the Society's Register Book.**
 Survey Fee **Include d in: Mach. Rpt.** When applied for **5th Dec 1946**
 Travelling Expenses (if any) **£** When received **27th Dec 1946**

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRL 14 FEB 1947

See Rpt 9

