

REPORT ON BOILERS.

No. 17739

Received at London Office

WED. NOV. 17 1920

Date of writing Report 13th Nov. 1920 When handed in at Local Office 13/11/1920 Port of Greenock.

No. in Survey held at Port-Glasgow. Date, First Survey 19th July, 1920 Last Survey 12th Nov. 1920
Reg. Book. (Number of Visits 15)

on the Steel screw Steamship "ELLEN STUB" Tons { Gross 2637.
Net 1545.

Master C. J. Meyer Built at Port-Glasgow. By whom built Ferguson Brothers (Port-Glasgow) Ltd. When built 1920.

Engines made at Ditto By whom made Ditto When made 1920.

Boilers made at Port-Glasgow. By whom made The Clyde Shipbuilding & Engine Works Ltd. When made 1920.

Registered Horse Power 183. Owners K. J. A. L. De Stub. Port belonging to Christiania.

MULTITUBULAR BOILERS — MAIN, AUXILIARY OR DONKEY. — Manufacturers of Steel D. Colville & Sons Ltd.

Letter for record S Total Heating Surface of Boilers 627.5 sq. ft. Is forced draft fitted No. No. and Description of Boilers One, single ended. Working Pressure 100 lbs. Tested by hydraulic pressure to 200 lbs. Date of test 27/9/20.

No. of Certificate 1495. Can each boiler be worked separately - Area of fire grate in each boiler 24.75 sq. ft. No. and Description of Safety valves to each boiler Two, spring loaded. Area of each valve 4.9 sq. in. Pressure to which they are adjusted 105 lbs.

Are they fitted with easing gear Yes. In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No.

Smallest distance between boilers or uptakes and bunkers or woodwork 16". ^{Inside} ~~Main~~ dia. of boilers 9'-0" Length 9'-0 3/4"

Material of shell plates Steel Thickness 3/2" Range of tensile strength 28/32 tons. Are the shell plates welded or flanged -

Descrip. of riveting: cir. seams D.R. with straps long. seams Double rivets. Diameter of rivet holes in long. seams 3/4" Pitch of rivets 4.06"

Gap of plates or width of butt straps 8" Per centages of strength of longitudinal joint rivets 91.48% Working pressure of shell by rules 108 lbs. Size of manhole in shell 16" x 12" Size of compensating ring 33 1/2 x 27 x 13 1/2 No. and Description of Furnaces in each boiler Two, plain

Description of longitudinal joint with straps No. of strengthening rings Nil. Working pressure of furnace by the rules 106 lbs. Combustion chamber plates: Material Steel Thickness: Sides 1 1/2" Back 1/2" Top 1 1/2" Bottom 1 1/2" Pitch of stays to ditto: Sides 7 1/2 x 8 1/2" Back 9 x 8 1/2"

Top 8 1/2 x 7 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 102 lbs. Material of stays Steel Area at smallest part 96 sq. in. Area supported by each stay 8525 sq. in. Working pressure by rules 104 lbs. End plates in steam space: Material Steel Thickness 3/4"

Pitch of stays 17 x 18 1/2" How are stays secured with nuts. Working pressure by rules 107 lbs. Material of stays Steel Area at smallest part 2.31 sq. in.

Area supported by each stay 2295 sq. in. Working pressure by rules 104 lbs. Material of Front plates at bottom Steel Thickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 9 x 8 1/2" Working pressure of plate by rules 100 lbs. Diameter of tubes 3 1/2"

Pitch of tubes 4 1/2 x 4 1/2" Material of tube plates Steel Thickness: Front 3/4" Back 7/8" Mean pitch of stays 10 1/2 x 8 1/2" Pitch across wide water spaces 14 1/2" Working pressures by rules 103 lbs. Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 5 1/2 x 3 1/2 x 1 1/4" Length as per rule 25 7/8" Distance apart 8 1/2" Number and pitch of Stays in each Two, 7 1/2"

Working pressure by rules 107 lbs. Steam dome: description of joint to shell _____ % of strength of joint _____

Diameter _____ Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diam. of rivet holes _____

Pitch of rivets _____ Working pressure of shell by rules _____ Crown plates _____ 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 _____

The foregoing is a correct description,

Jama Murray Manufacturer.

Is the approved plan of boiler forwarded herewith Yes.

Dates of Survey } During progress of work in shops - - }
while building } During erection on board vessel - - - }
See accompanying Boiler Report.

Total No. of visits 15.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) Workmanship good.

"This Donkey Boiler has been constructed under special survey and in accordance with the Society's rules & the approved plan, tested by hydraulic pressure and found tight & sound. It is fitted in stockhold, forward of main boilers."

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

Erasmus Robertson 2020
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute Glasgow 16 NOV 1920

Assigned See attached machinery report W.M.

