Rpt. 5a.

REPORT ON BOILERS.

No. 9643

Received at London Office 6 DEC 1926

Date of writing Report ____ 191__ When handed in at Local Office 4 - 12 - 1926 Port of Belfast

No. in Reg. Book. 75761 on the STEEL TWIN SC. LLANDAFF CASTLE Survey held at Belfast Date, First Survey see mchy. report Last Survey ____ (Number of Visits ____) 191__ Tons Gross 10900 Net 6700

Master ____ Built at Belfast By whom built Workman Clark & Co. Ld. When built 1926

Engines made at Belfast By whom made Workman Clark & Co. Ld. When made 1926

Boilers made at Belfast By whom made Workman Clark & Co. Ld. When made 1926

Registered Horse Power ____ Owners Union Castle Mail S. S. Co. Ld. Port belonging to London

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY OR DONKEY~~ DOUBLE-ENDED.—Manufacturers of Steel Dd. Colville & Sons Ld.

(Letter for record S. 3DB) **Total Heating Surface of Boilers** 14508 Is forced draft fitted No. **No. and Description of Boilers** 3 Double-ended Cylindrical **Working Pressure** 220 lbs. Tested by hydraulic pressure to 380 lbs. Date of test 7. 8. 26

No. of Certificate 886 Can each boiler be worked separately Yes **Area of fire grate in each boiler** 126.50 □ft No. and Description of safety valves to each boiler 2 Spring-loaded High-lift Area of each valve 9.620 □" Pressure to which they are adjusted 220 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 4'-0" Mean dia. of boilers 15'-8" Length 19'-10¾"

Material of shell plates Steel Thickness 1½" Range of tensile strength 30 to 34 Tons Are the shell plates welded or flanged No.

Descrip. of riveting: cir. seams Ends D.R. Middle S.R. long. seams T.R. D.B.S. Diameter of rivet holes in long. seams 1⅝" Pitch of rivets 10½"

~~Lap of plates or~~ width of butt straps 23¾" Per centages of strength of longitudinal joint rivets 94.5 plate 84.57 Working pressure of shell by rules 225 lbs. Size of manhole in shell 16"x12" Size of compensating ring 36"x32"x1¼" Iron **No. and Description of Furnaces in each boiler** 6 Suspension bell Material Steel Outside diameter 46⅝" Length of plain part top / bottom / Thickness of plates crown bottom 21/32"

Description of longitudinal joint Weld No. of strengthening rings — Working pressure of furnace by the rules 220 lbs. Combustion chamber plates: Material Steel Thickness: Sides 21/32" Back — Top 21/32" Bottom Outside 1 1/32" Inside ¾" Pitch of stays to ditto: Sides 8x8¼" Back — Top 8x8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 234 lbs. Material of stays Steel Area at smallest part 1.760" Area supported by each stay 66 □" Working pressure by rules 230 lbs. End plates in steam space: Material Steel Thickness 1⅛"

Pitch of stays 16½"x16¾" How are stays secured screwed in plate with check nut Working pressure by rules 242 lbs. Material of stays Steel Area at smallest part 7.068□"

Area supported by each stay 272.20" Working pressure by rules 286 lbs. Material of Front plates at bottom Steel Thickness ⅞" Material of Lower back plate — Thickness — Greatest pitch of stays — Working pressure of plate by rules — Diameter of tubes 2¾"

Pitch of tubes 4"x4" Material of tube plates Steel Thickness: Front ⅞" Back 13/16" Mean pitch of stays 8" Pitch across wide water spaces 14" Working pressures by rules 267 lbs. Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 10"x1¾" Length ~~as per rule~~ between hangers 32" Distance apart 8" Number and pitch of Stays in each Side 8"

Working pressure by rules ____ 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,

FOR WORKMAN, CLARK & CO., LIMITED.

F. Cunningham

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 been constructed under Special Survey. The materials & workmanship are sound & good. They have been efficiently installed and fastened in the vessel and the safety valves have been adjusted under steam

Survey Fee ... ... £ See Mchy Report: ____ When applied for, ____ 191__

Travelling Expenses (if any) £ ____ : ____ When received, ____ 191__

R. Lee Ames

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 7 DEC 1926

Assigned See G.E. rpt. attached

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