

# REPORT ON BOILERS.

No. 8970.

Received at London Office OCT. 2 1923

Date of writing Report 191 When handed in at Local Office 191 Port of Belfast

No. in Survey held at Belfast Date, First Survey \_\_\_\_\_ Last Survey \_\_\_\_\_ 191  
 Reg. Book. Steel Y & S "Moottan" (Number of Visits \_\_\_\_\_) Tons } Gross 2084 1/2  
 on the Steel Y & S "Moottan" } Net 1283 1/2

Master \_\_\_\_\_ Built at Belfast By whom built Harland & Wolff Ltd When built 1923  
 Engines made at Belfast By whom made Harland & Wolff Ltd When made 1923  
 Boilers made at Belfast By whom made Harland & Wolff Ltd When made 1923  
 Registered Horse Power \_\_\_\_\_ Owners Peninsular & Oriental Steam Navigation Co Port belonging to Belfast

## MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY OR DONKEY~~—Manufacturers of Steel David Colville & Sons Ltd

(Letter for record S) Total Heating Surface of Boilers 35244 sq ft Is forced draft fitted Yes No. and Description of Boilers 6 Double ended Cylindrical Working Pressure 215 lbs sq in Tested by hydraulic pressure to 3 1/2 lbs sq in Date of test 5-11-23

No. of Certificate 814 3078 Can each boiler be worked separately Yes Area of fire grate in each boiler 146.5 sq ft No. and Description of safety valves to each boiler 4 Spring loaded in one chest Area of each valve 9.62 sq in 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 Yes

Smallest distance between ~~boilers~~ uptakes and bunkers or ~~woodwork~~ 20" Mean dia. of boilers 16'-6" Length 20'-0"

Material of shell plates Steel Thickness 1 1/2" Range of tensile strength 30 to 33 tons Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams Centre T.R. long. seams T.R.D.B.S. Diameter of rivet holes in long. seams 1 9/16" Pitch of rivets 10 1/2"

~~Width of butt straps~~ width of butt straps 1'-11" Per centages of strength of longitudinal joint 87.6 Working pressure of shell by rules 224 lbs Size of manhole in shell 16" x 12" Size of compensating ring 2 @ 36" x 32" x 1 1/4" No. and Description of Furnaces in each boiler 8 Corrugated Material Steel Outside diameter 3'-4 1/2" Length of plain part top 10' 1/2" Thickness of plates crown 5/8" Description of longitudinal joint Weld No. of strengthening rings 1 Working pressure of furnace by the rules 226.5 lbs Combustion chamber plates: Material Steel Thickness: Sides 3/8" Back 3/8" Top 3/8" Bottom 3/4" Pitch of stays to ditto: Sides 8" x 8" Back 8" x 8" Top 4" x 8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 239 lbs Material of stays Steel Area at smallest part 16 x 16 1/2 Area supported by each stay 65 sq in Working pressure by rules 234 lbs End plates in steam space: Material Steel Thickness 1" Pitch of stays 15 x 16 1/2 How are stays secured V.N. Wash Working pressure by rules 226.5 lbs Material of stays Steel Area at smallest part 5.05 Area supported by each stay 248 sq in Working pressure by rules 222 lbs Material of Front plates at bottom Steel Thickness 1/8" Material of Lower back plate Steel Thickness 1/8" Greatest pitch of stays 9" Working pressure of plate by rules 234 lbs Diameter of tubes 2 3/4" Pitch of tubes 8" x 8 1/2" Material of tube plates Steel Thickness: Front 1/8" Back 13/16" Mean pitch of stays 9" Pitch across wide water spaces 13" x 13" Working pressures by rules 254 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 2 @ 8" x 7" Length as per rule 1'-2 1/8" Distance apart 4 3/4", 8", + 9" Number and pitch of Stays in each 6 @ 9 1/4" Working pressure by rules 359 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 Tubular 15" M. BORE x 3" M. THK. Date of Approval of Plan 13.2.22 Tested by Hydraulic Pressure to 430 lbs.

Date of Test 11.5.23, 14.5.23 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes

Diameter of Safety Valve 2" Pressure to which each is adjusted 220 lbs. Is Easing Gear fitted Yes

The foregoing is a correct description,  
 For HARLAND & WOLFF Ltd  
W. Estebbeck Manufacturer.

Dates of Survey: During progress of work in shops - - - Is the approved plan of boiler forwarded herewith \_\_\_\_\_  
 while building) During erection on board vessel - - - Total No. of visits \_\_\_\_\_

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)  
These Boilers have been built under special survey, materials & workmanship good. Hydraulic tests satisfactory.

Survey Fee ... £ \_\_\_\_\_ When applied for, \_\_\_\_\_ 191  
 Travelling Expenses (if any) £ \_\_\_\_\_ When received, \_\_\_\_\_ 191

Committee's Minute \_\_\_\_\_  
 Assigned \_\_\_\_\_  
 FRI. 19 OCT. 1923

William R. Potts  
 Engineer Surveyor to Lloyd's Register of Shipping.  
 Lloyd's Register of Shipping  
 W1650-0384