

REPORT ON BOILERS.

No. 27570

Received at London Office

WED. 23 JUL. 1919

Date of writing Report

191

When handed in at Local Office

22. 7

1919

Port of Sunderland

No. in Survey held at Sunderland

Date, First Survey

15 Aug 1918

Last Survey

17 Jul.

1919

Reg. Book.

on the S/S 'HARESFIELD'

(Number of Visits

17

Gross 5298.89

Tons

Net

Master

Built at Sunderland

By whom built W. Doxford & Sons Ltd (532)

When built 1919

Engines made at Sunderland

By whom made W. Doxford & Sons Ltd (529)

When made 1919

Boilers made at Sunderland

By whom made W. Doxford & Sons Ltd (532)

When made 1919

Registered Horse Power N.H.P. 517

Owners British India Steam Nav. Co. Ltd Port belonging to Glasgow

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY. Manufacturers of Steel Spencer & Sons

(Letter for record 5) Total Heating Surface of Boilers 7668 sq ft Is forced draft fitted 410 No. and Description of

Boilers Three single ended Working Pressure 180 lbs Tested by hydraulic pressure to 260 lbs Date of test 12.5.19 17.5.19

No. of Certificate 3557 Can each boiler be worked separately 410 Area of fire grate in each boiler 63 sq ft No. and Description of

safety valves to each boiler Three spring valves Area of each valve 9.6 sq in Pressure to which they are adjusted

Are they fitted with easing gear 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 Mean dia. of boilers 15.6 in Length 11.6 in

Material of shell plates 5 Thickness 1 1/4 in Range of tensile strength 28-32 Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams Lap 1 1/2 in long. seams 2. 1/2 in riv. Diameter of rivet holes in long. seams 1 5/16 in Pitch of rivets 9 1/8 in

Lap of plates or width of butt straps 19 1/2 in Per centages of strength of longitudinal joint rivets 88-3 Working pressure of shell by

rules 182 Size of manhole in shell 16 x 12 in Size of compensating ring Flanged No. and Description of Furnaces in each

boiler 3 Duplex Material 5 Outside diameter 4.2 3/4 in Length of plain part top Thickness of plates crown 1 1/2 in

Description of longitudinal joint welded No. of strengthening rings Working pressure of furnace by the rules 187 Combustion chamber

plates: Material 5 Thickness: Sides 23/32 Back 1/4 in Top 23/32 Bottom 23/32 Pitch of stays to ditto: Sides 10 5/8 x 9 1/4 Back 8 3/4 x 10 1/4

Top 10 5/8 x 9 1/4 If stays are fitted with nuts or riveted heads 2 nuts Working pressure by rules 180 Material of stays 5 Area at

smallest part 2.36 sq in Area supported by each stay 98.2 sq in Working pressure by rules 216 End plates in steam space: Material 5 Thickness 1 1/2 in

Pitch of stays 21 3/4 x 10 1/2 How are stays secured 2 nuts Working pressure by rules 190 Material of stays 5 Area at smallest part 6.29 sq in

Area supported by each stay 432 sq in Working pressure by rules 186 Material of Front plates at bottom 5 Thickness 3/2 in Material of

Lower back plate 5 Thickness 27/32 Greatest pitch of stays 13 5/8 x 8 3/4 Working pressure of plate by rules 183 Diameter of tubes 2 3/4 in

Pitch of tubes 4 x 3 7/8 Material of tube plates 5 Thickness: Front 31/32 Back 3/4 Mean pitch of stays 9 13/16 Pitch across wide

water spaces 13 5/8 Working pressures by rules 181 Girders to Chamber tops: Material 5 Depth and thickness of

girder at centre 10 1/2 x 1 3/4 Length as per rule 2-11 9/16 Distance apart 10 5/8 Number and pitch of Stays in each 3, 9 1/4 in

Working pressure by rules 187 Steam dome: description of joint to shell 2 nuts % 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

WILLIAM DOXFORD & SONS, Limited

The foregoing is a correct description,

Askswell

Manufacturer.

Dates of Survey During progress of 1918 Aug. 15. 16. 21. Jan. 29. Mar. 11. 19. Apr. 15. Is the approved plan of boiler forwarded herewith 410

while building During erection on board vessel 1. 2. 8. 24. 30 May. 5. 12. 16 Jul. 10. 11. 17

Total No. of visits 17

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

The Boilers for this vessel have been built under special survey. The materials and workmanship are sound and good. They have been fitted in the vessel with engines built under B.C. Survey. The diameters of cylinders are 27", 44", 73" & length of stroke 48" N.H.P. 517

Survey Fee £ 29:8:9

When applied for, 22 JUL 1919

Travelling Expenses (if any) £

When received, 12.8. 1919

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 29 JUL. 1919

Assigned

L.M.B. 7.19

F.D.

MANUFACTURER'S
WRITTEN

W173-0111

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Lloyd's Register
Foundation