

REPORT ON BOILERS.

No. 6186

Received at London Office

THE 25 JUL 1922

Date of writing Report 12 July 1921 When handed in at Local Office 101 Port of PLYMOUTH

No. in Survey held at Devonport Date, First Survey March 23rd Last Survey 9th October 1921

Reg. Book. on the Donkey Boiler for the steel S.S. "Nobia" (Number of Visits 6) } Gross Tons } Net

Master Built at By whom built When built

Engines made at By whom made When made

Boilers made at Devonport By whom made Ami Dockyard When made 1921

Registered Horse Power Owners Port belonging to

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

(Letter for record S) Total Heating Surface of Boilers 1203.5 Is forced draft fitted No. No. and Description of Boilers One-Cylindrical Return Tube Working Pressure 120 lbs Tested by hydraulic pressure to 230 lbs Date of test 19-10-21

No. of Certificate 207 Can each boiler be worked separately ✓ Area of fire grate in each boiler 33 No. and Description of safety valves to each boiler 2 in No. in one box 3" dia. S.L. Area of each valve 7.070 Pressure to which they are adjusted 120 lbs per sq

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 1'-9" Mean dia. of boilers 11'-0" Length 10'-3"

Material of shell plates Steel Thickness 3/4" Range of tensile strength 28-32 Are the shell plates welded or flanged Flanged

Descrip. of riveting: cir. seams Dble 4g-tag long. seams Trble 4g-tag Diameter of rivet holes in long. seams 7/16" Pitch of rivets 6"-7/16"

Lap of plates or width of butt straps 12 7/8" Per centages of strength of longitudinal joint rivets 101-84 Working pressure of shell by rules 143-4 Size of manhole in shell 16"x12" Size of compensating ring 2'-6"x2'-2" No. and Description of Furnaces in each boiler 2-Morrison Pat. Material Steel Outside diameter 3'-5 7/8" Length of plain part top Thickness of plates bottom 9 7/16"

Description of longitudinal joint ✓ No. of strengthening rings ✓ Working pressure of furnace by the rules 210-6 Combustion chamber plates: Material Steel Thickness: Sides 7/16" Back 7/16" Top 7/16" Bottom 7/16" Pitch of stays to ditto: Sides 7 3/8"x8" Back 7 3/4"x7 5/8"

Top 8"x8" If stays are fitted with nuts or riveted heads Riveted Sides & Back Working pressure by rules 140 lbs Material of stays Steel Area at smallest part 96 Area supported by each stay 59-10 Working pressure by rules 188 lbs End plates in steam space: Material Steel Thickness 13/16"

Pitch of stays 15 3/4"x15" How are stays secured Dble Nuts Working pressure by rules 160-8 Material of stays Steel Area at smallest part 3.55

Area supported by each stay 237 Working pressure by rules 126-8 lbs Material of Front plates at bottom Steel Thickness 13/16" Material of Lower back plate Steel Thickness 13/16" Greatest pitch of stays 13 1/2"x7 5/8" Working pressure of plate by rules 223 Diameter of tubes 2 3/4" Ext

Pitch of tubes 4"x3 7/8" Material of tube plates Steel Thickness: Front 13/16" Back 7/16" Mean pitch of stays 9" Pitch across wide water spaces 13 5/8" Working pressures by rules 163 lbs per sq Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 7 1/2"x5 7/8"x2 Length as per rule 2'-6" Distance apart 8" Number and pitch of Stays in each 3'-8"

Working pressure by rules 158-2 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,
W. B. Alderson Manufacturer.
MANAGER, ENGINEERING DEPT.

Dates of Survey } During progress of 1921 - Mar 23 April 6 22 26 May 11 Oct 18 Is the approved plan of boiler forwarded herewith ✓
while building } work in shops - - -
 } During erection on board vessel - - -
 } Total No. of visits 6.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) Boiler surveyed during construction
Workmanship very good. Boiler on completion forwarded to Portsmouth
Dockyard to be fitted up on board the S.S. "Nobia"
This boiler has been satisfactorily fitted on board in
accordance with the requirements of the Rules.

Survey Fee £ 10 : 14 : 3 When applied for, 3/10/22
Travelling Expenses (if any) £ : When received, 10/11/22

Committee's Minute TUE. OCT. 3 1922 FRI. MAR. 2 1923 W. B. Alderson & Co. Young
Assigned See Jour. Rpt. 11350 Engineer Surveyor to Lloyd's Register of Shipping
 Lloyd's Register Foundation