

REPORT ON BOILERS.

Apl. No. 13752
No. 5798
F.M.L. 14 MAY 1909

Date of writing Report 10.5.09 When handed in at Local Office 13th May 1909 Port of MIDDLESBROUGH-ON-TEES.

No. in Survey held at Stockton-on-Tees Date, First Survey 2nd April Last Survey 7th May 1909
Reg. Book. 16 Supp. on the "ARMSTOR" S/S "NAPOLIANA" (Number of Visits 6) Gross 2993.48
Master E. M. Smith Built at W. Hartlepool By whom built Irwin's NB & Day & Co. Ltd When built 1909
Engines made at Hartlepool By whom made Richardson's Newbath & Co. Ltd when made 1909
Boilers made at Stockton By whom made J. Sudron & Co. Ltd (Plr. No. 2518) when made 1909
Registered Horse Power Owners Thomas, Withy & Co. Ltd Port belonging to Hartlepool London

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel J. Spencer & Sons
(Letter for record (S)) Total Heating Surface of Boilers 622 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 Date of test 7.5.09

No. of Certificate 4263 Can each boiler be worked separately - Area of fire grate in each boiler 26.5 sq ft No. and Description of safety valves to each boiler 2, Spring loaded Area of each valve 5.94 sq ft Pressure to which they are adjusted 103 lbs per sq in
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 2'-0" Mean dia. of boilers 9'-0" Length 9'-0"
Material of shell plates Steel Thickness 5/8 Range of tensile strength 28-32 Are the shell plates welded or flanged no
Descrip. of riveting: cir. seams Lap single long. seams Lap. Riv Diameter of rivet holes in long. seams 15/16 Pitch of rivets 3 1/2"
Lap of plates or width of butt straps 6 1/2 Per centages of strength of longitudinal joint rivets 80.4 plate 73.2 Working pressure of shell by rules 112 lbs Size of manhole in shell 16" x 12" Size of compensating ring 5 1/2" x 13/16" No. and Description of Furnaces in each boiler 2 plain Material Steel Outside diameter 2'-9" Length of plain part top 5'-9" bottom 7'-7" Thickness of plates crown 1/2" bottom 1/2"
Description of longitudinal joint welded No. of strengthening rings none Working pressure of furnace by the rules 101 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 1/4" Pitch of stays to ditto: Sides 9 1/2" x 8" Back 9" x 8 1/2"
Top 8 1/2" x 8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 112 Material of stays steel Diameter at smallest part 1.11 Area supported by each stay 76 sq in Working pressure by rules 117 End plates in steam space: Material steel Thickness 25/32"
Pitch of stays 15 1/2" x 16 1/2" How are stays secured Nuts & loose washers Working pressure by rules 112 Material of stays steel Diameter at smallest part 1.84
Area supported by each stay 255.75 sq in Working pressure by rules 108 Material of Front plates at bottom steel Thickness 25/32" Material of Lower back plate steel Thickness 25/32" Greatest pitch of stays 13" x 9" Working pressure of plate by rules 167 Diameter of tubes 3"
Pitch of tubes 4 1/4" x 4 1/4" Material of tube plates steel Thickness: Front 25/32" Back 12/32" Mean pitch of stays 9.6" Pitch across wide water spaces 13 1/2" Working pressures by rules 120 lbs Girders to Chamber tops: Material steel Depth and thickness of girder at centre 5 1/2" x 1 1/4" Length as per rule 20.7" Distance apart 8 1/2" Number and pitch of Stays in each one @ 8"
Working pressure by rules 120 Superheater or Steam chest: none connected to boiler none Can the superheater be shut off and the boiler worked separately - Diameter - Length - Thickness of shell plates - Material - Description of longitudinal joint - Diam. of rivet holes - Pitch of rivets - Working pressure of shell by rules - Diameter of flue - Material of flue plates - Thickness - If stiffened with rings - Distance between rings - Working pressure by rules - End plates: Thickness - How stayed - Working pressure of end plates - Area of safety valves to superheater - Are they fitted with easing gear

The foregoing is a correct description,
THOMAS SUDRON & CO. LIMITED. R. Johnston Manufacturer.

Dates of Survey During progress of 1909 Apr. 2, 7, 15, 23, 29, May 4
while building During erection on board vessel - - -
Is the approved plan of boiler forwarded herewith yes
Total No. of visits 6

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
This boiler has been built under special survey in accordance with the plan forwarded herewith and in general conformity with the Rules. The materials and workmanship are sound and good, and on completion the boiler was tested by hydraulic pressure with satisfactory results. More efficiently fitted in place (at Kettle)

Survey Fee ... £ 2-2-0 When applied for Monthly 1909
Travelling Expenses (if any) £ : : When received 1909

Wm Morrison
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute FRI. 30 JUL 1909

Assigned See minute on
HM RM 13752



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