

REPORT ON BOILERS.

No. 4503

Port of MIDDLESBROUGH-ON-TEES.Received at London Office 5 APL 1906No. in Survey held at StocktonDate, first Survey 13th Novr '05 Last Survey 23rd March 1906

Reg. Book.

Supplement 48 on the Donkey Boiler (No 3618) for S/S "Eda"(Number of Visits 14)Gross
Tons
NetMaster Built at Stockton By whom built Nicholson Duck & Co When built 1906Engines made at Stockton By whom made Polin & Co Ltd when made 1906Boilers made at Stockton By whom made Riley Bros (Boilermakers) Ltd when made 1905Registered Horse Power Owners Brindick & Clark Port belonging to LondonMULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel J. Spence & Sons Ltd(Letter for record (a)) Total Heating Surface of Boilers 863 ft² Is forced draft fitted No No. and Description ofBoilers One Cyl. Mult. single ended Working Pressure 90 lb Tested by hydraulic pressure to 180 lb Date of test 29.12.05No. of Certificate 3559 Can each boiler be worked separately — Area of fire grate in each boiler 29 ft² No. and Description ofsafety valves to each boiler Two spring Area of each valve 6.44 ft² Pressure to which they are adjusted 90 lbAre they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler NoSmallest distance between boilers or uptakes and bunkers or woodwork 15" Int'l
Mean dia. of boilers 10'-0" Length 10'-0"Material of shell plates Steel Thickness 9/16" Range of tensile strength 27/32 Are the shell plates welded or flanged NoDescrip. of riveting: cir. seams DR lap. long. seams DR S. D. Riv. Diameter of rivet holes in long. seams 13/16" Pitch of rivets 3 1/2"Lap of plates or width of butt straps 8 1/2" x 9/16" Per centages of strength of longitudinal joint rivets 78.8 Working pressure of shell byrules 93.2 lb Size of manhole in shell 16" x 21" Size of compensating ring 9" x 3/4" plate 76.8 No. and Description of Furnaces in eachboiler 2 plain Material steel Outside diameter 3'-0" Length of plain part top 6-6 Thickness of plates crown 9/16"Description of longitudinal joint welded No. of strengthening rings ✓ Working pressure of furnace by the rules 90 lb Combustion chamberplates: Material Steel Thickness: Sides 1/2" Back 1/2" Top 7/16" Bottom 5/8" Pitch of stays to ditto: Sides 7" x 9 1/2" Back 9 1/2" x 8 1/4"Top 7" x 7" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 99 lb Material of stays Iron Diameter atsmallest part 1 3/8" Area supported by each stay 96 1/4 ft² Working pressure by rules 94.7 End plates in steam space: Material Steel Thickness 25/32"Pitch of stays 18" x 17" How are stays secured DR Riv. 10 Working pressure by rules 112 Material of stays Iron Diameter at smallest part 2 1/2"Area supported by each stay 306 ft² Working pressure by rules 120 lb Material of Front plates at bottom Steel Thickness 25/32" Material ofLower back plate Steel Thickness 25/32" Greatest pitch of stays 12" x 9 1/2" Working pressure of plate by rules 80 lb Diameter of tubes 3 1/2"Pitch of tubes 4 1/2" x 4 3/4" Material of tube plates Steel Thickness: Front 25/32" Back 9/16" Mean pitch of stays 9 1/4" Pitch across widewater spaces 13 1/2" Working pressures by rules 124 lb Girders to Chamber tops: Material Steel Depth and thickness ofgirder at centre 5 1/2" x 1 1/4" Length as per rule 2'-3" Distance apart 7" Number and pitch of Stays in each two 7"Working pressure by rules 99 lb Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler workedseparately — Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivetholes 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 VERTICAL DONKEY BOILER— No. Description Manufacturers of steel Made at By whom made When made Where fixed Working pressure tested by hydraulic pressure to No. of Certificate Fire grate area Description of safety valves No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers canenter the donkey boiler Dia. of donkey boiler Length Material of shell plates Thickness Range of tensilestrength Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets Lap of plating Per centage of strength of joint Rivets Working pressure of shell by rules Thickness of shell crown plates Radius of do. No. of Stays to do. Dia. of stays Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Description of joint Working pressure of furnace by rules Thickness of furnace crownplates Stayed by Diameter of uptake Thickness of uptake plates Thickness of water tubes

The foregoing is a correct description,

Manufacturer.

Dates
of Survey
while
buildingDuring progress of
work in shops - - -
During erection on
board vessel - - -
Total No. of visits 14

1905: Novr. 13. 15. 17. 23. 24. Decr. 1. 6. 8. 13. 19. 24

1906: March 13. 19. 23.

Is the approved plan of main boiler forwarded herewith Yes

donkey

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

*This boiler has been built under Special Survey
The materials and workmanship are good and efficient
After satisfactorily withstanding the hydraulic test it
has been secured on board and tried under steam.*

Certificate (if required) to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee...	£	:	:	When applied for,
Special	£	:	:	6. 2. 1906
Donkey Boiler Fee ...	£	2	: 2	When received,
Travelling Expenses (if any) £	:	:	:	23. 2. 1906

R. D. Shilston & Geo. A. Wilner
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

TUES. 10 APR 1906

Assigned

*See Minute
on attached report.*



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Foundation