

REPORT ON BOILERS.

No. 1424

Received at London Office

17 FEB 1949

Writing Report... 20.12.48 When handed in at Local Office... 19... Port of Karachi

Survey held at East Wharf Date, First Survey 15.1.47 Last Survey 19
(Number of Visits... 4...)

on the steel screw steamer FRITHA (ex HMIS Agra) Tons Gross 411 Net 239

Built at Calcutta By whom built Hooghly Dock Eng. Yard No. When built 1942

Engines made at Benapur By whom made Labutz & Co Engine No. When made 1942

Boilers made at Glasgow By whom made John Thomson & Co Boiler No. When made 1942

Indicated Horse Power 150 MN Owners East & West Steamship Co Port belonging to Karachi

WATER TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel No Record (Letter for Record No Record)

Heating Surface of Boilers 2606 sq ft Is forced draught fitted Yes Coal or Oil fired Oil

Description of Boilers One Marine Multitubular Working Pressure 200 lb/sq in

Tested by hydraulic pressure to 350 lb/sq in Date of test 2.11.48 No. of Certificate Can each boiler be worked separately Yes

Number of Firegrate in each Boiler No. and Description of safety valves to each boiler Two 3 1/4" D. Lam spring loaded

Pressure to which they are adjusted 200 lb/sq in Are they fitted with easing gear Yes

Use of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes

Least distance between boilers or uptakes and bunkers or woodwork 2'-6" to Bunker Is oil fuel carried in the double bottom under boilers No

Least distance between shell of boiler and tank top plating Single bottom vessel Is the bottom of the boiler insulated No

Least internal dia. of boilers 177 5/8" Length 136 1/4" Shell plates: Material Steel Tensile strength 29.6 33 tons

Thickness 1 3/8" Are the shell plates welded or flanged End plates flanged Description of riveting: circ. seams Double

seams Triple riveted Diameter of rivet holes in circ. seams 1 3/8" Pitch of rivets 9 1/2"

Percentage of strength of circ. end seams plate 65.6% rivets 53.6% Percentage of strength of circ. intermediate seam plate 85.5% rivets 88.5%

Percentage of strength of longitudinal joint plate 88.5% rivets 88.5% Working pressure of shell by Rules 203.3 lb/sq in

Thickness of butt straps outer 1" inner 1 1/8" No. and Description of Furnaces in each Boiler 3 Doughton Type

Material Steel Tensile strength No record Smallest outside diameter 42 7/16"

Thickness of plain part top 12 23/32" bottom 12 23/32" Thickness of plates crown 1 9/32" bottom 1 9/32"

Description of longitudinal joint Welded

Provisions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 203 lb/sq in

Plates in steam space: Material Steel Tensile strength 29.6 33 tons Thickness 1 1/32" Pitch of stays 20 1/2"

Are stays secured Double Nuts Working pressure by Rules 225 lb/sq in

End plates: Material front Steel back Steel Tensile strength 29.6 33 tons Thickness 7/8"

Pitch of stay tubes in nests 7 3/4" Pitch across wide water spaces 13 7/8" Working pressure front 226 lb/sq in back 226 lb/sq in

Boilers to combustion chamber tops: Material Steel Tensile strength 28.6 32 tons Depth and thickness of girder

centre 8 1/4" x 15/16" Length as per Rule 31" Distance apart 10 3/4" No. and pitch of stays

each 2 at 9 7/8" Working pressure by Rules 213 lb/sq in Combustion chamber plates: Material Steel

Tensile strength 26.6 30 tons Thickness: Sides 25/32" Back 3/4" Top 25/32" Bottom 25/32"

Number of stays to ditto: Sides 9 7/8" Back 9 1/2" Top 9 7/8" Are stays fitted with nuts or riveted over Nuts fitted

Working pressure by Rules Front plate at bottom: Material Steel Tensile strength 29.6 33 tons

Thickness 7/8" Lower back plate: Material Steel Tensile strength 29.6 33 tons Thickness 7/8"

Number of stays at wide water space 18" Are stays fitted with nuts or riveted over Nuts fitted

Working pressure Main stays: Material Steel Tensile strength 28.6 32 tons

At body of stay 3 1/8" No. of threads per inch 6 Area supported by each stay 410 sq ins

Over threads 3 1/2" Screw stays: Material Steel Tensile strength 26.6 30 tons

Working pressure by Rules 208 lb/sq in No. of threads per inch 9 Area supported by each stay 93.8 sq in

At turned off part 1 7/8" Over threads

Working pressure by Rules 213 1/2/sq. in Are the stays drilled at the outer ends Yes Margin stays: Diameter { At turned off part, 2" or Over threads 2"
No. of threads per inch 9 Area supported by each stay 10.6 Working pressure by Rules 245 1/2/sq. in
Tubes: Material Seamless steel External diameter { Plain 2 3/4" Stay 2 3/4" Thickness { 8 s.w.g 5/16" No. of threads per inch 9
Pitch of tubes 3 7/8" Working pressure by Rules 245 1/2/sq. in Manhole compensation: Size of opening shell plate 18 1/2" x 14 1/2" Section of compensating ring 1 15/16" No. of rivets and diameter of rivet holes 32 x 1 13/32"
Outer row rivet pitch at ends 10 1/8" Depth of flange if manhole flanged 3 1/4" Steam Dome: Material ✓
Tensile strength ✓ Thickness of shell ✓ Description of longitudinal joint ✓
Diameter of rivet holes ✓ Pitch of rivets ✓ Percentage of strength of joint { Plate ✓ Rivets ✓
Internal diameter ✓ Working pressure by Rules ✓ Thickness of crown ✓ No. and diameter of stays ✓
Inner radius of crown ✓ Working pressure by Rules ✓
How connected to shell ✓ Size of doubling plate under dome ✓ Diameter of rivet holes and of rivets in outer row in dome connection to shell ✓

Type of Superheater None Manufacturers of { Tubes ✓ Steel forgings ✓ Steel castings ✓
Number of elements ✓ Material of tubes ✓ Internal diameter and thickness of tubes ✓
Material of headers ✓ Tensile strength ✓ Thickness ✓ Can the superheater be shut the boiler be worked separately ✓ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler ✓
Area of each safety valve ✓ Are the safety valves fitted with casing gear ✓ Working pressure Rules ✓ Pressure to which the safety valves are adjusted ✓ Hydraulic test pressure tubes ✓ forgings and castings ✓ and after assembly in place ✓ Are drain valves fitted to free the superheater from water where necessary ✓

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes

The foregoing is a correct description,

Dates of Survey { During progress of work in shops - - } Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
while building { During erection on board vessel - - } Total No. of visits ✓

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. FARISHTA No Kish 139

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

The Boiler was supplied to the Admiralty & stated to have been built to Lloyd's Requirements

The Boiler was tested to 350 lbs/sq. in Hydraulic pressure & found satisfactory.

The Boiler is eligible in my opinion to be classed.

Survey Fee (including Rs 1001-0-0) When applied for 19
Travelling Expenses (if any) Rs 60 : When received 19

Engineer Surveyor to Lloyd's Register of Ships

Committee's Minute

FRI. 13 MAY 1949

Assigned

See minute on F.E. Rpt (hull)



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