

REPORT ON BOILERS.

DONKEY.

No. 95349.

AUG 27 1937

Received at London Office

NEWCASTLE-ON-TYNE

Date of writing Report 16/8/37 19 When handed in at Local Office 16/8/37 19 Port of

No. in Survey held at Newcastle on Tyne

Date, First Survey 18 Feb 31 Last Survey 13/8/37 19

on the Steel Motor Tanker "YENANGYAUNG"

(Number of Visits)

Gross 5447
Net 3031

Built at Newcastle on Tyne By whom built Swan, Hunter & Wigham Richardson Ltd Ward No. 1531 When built 1937

Engines made at Sunderland By whom made Wm Duxford & Sons Engine No. 198 When made 1937

Boilers made at Newcastle on Tyne By whom made Swan, Hunter & Wigham Richardson Ltd Boiler No. 1538 When made 1937

Nominal Horse Power $\frac{1715}{15} = 115$. Owners Burma Oil Co.,Port belonging to RANGOON
NEWCASTLE

Two FURNACE OIL FIRED

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR, DONKEY.

Manufacturers of Steel Steel Coy of Scotland + Furnace plates by Parkhead I.S.C. Rotherham (Letter for Record S.)

Total Heating Surface of Boilers 1715 sq. ft. Is forced draught fitted Yes Coal or Oil fired Oil fired

No. and Description of Boilers One Single Ended "Scotch" Multitubular Working Pressure 150 lb.

Tested by hydraulic pressure to 275 lb. Date of test 18/5/37 No. of Certificate 717 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler Oil fired No. and Description of safety valves to each boiler Two 2 1/2" Cockburn's Improved High Lift Spring Loaded

Area of each set of valves per boiler per Rule 7.58 sq. ins. as fitted 7.96 sq. ins. Pressure to which they are adjusted 150 lb. Are they fitted with easing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No main boilers are fitted.

Smallest distance between boilers or uptakes and bunkers or woodwork 3' 2 7/8" Is oil fuel carried in the double bottom under boilers Yes

Smallest distance between shell of boiler and tank top plating 3' 2 7/8" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 12' 1 3/8" Length 11' 6" Shell plates: Material Steel Tensile strength 30/34 tons

Thickness 13/16" Are the shell plates welded or flanged No. Description of riveting: circ. seams end D.R. Lap. inter. none

Long. seams T.R. Dble butt strap Diameter of rivet holes in circ. seams 15/16" Pitch of rivets 3.082"

Percentage of strength of circ. end seams plate 69.58 rivets 42.25 Percentage of strength of circ. intermediate seam plate None. rivets

Percentage of strength of longitudinal joint plate 85.71 rivets 86.80 combined 88.78 Working pressure of shell by Rules 154 lb.

Thickness of butt straps outer 5/8" inner 3/4" No. and Description of Furnaces in each Boiler Two - Deighton Corrugated 24

Material Steel Tensile strength 26/30 tons Smallest outside diameter 14 1/2"

Length of plain part top 4" at throat bottom 2' 6" c.c. bott. Thickness of plates crown 15/32" (furnace) bottom 5/8" c.c. bottom Description of longitudinal joint fire welded

Dimensions of stiffening rings on furnace or c.c. bottom none Working pressure of furnace by Rules 159 lb.

End plates in steam space: Material Steel Tensile strength 26/30 tons Thickness 29/32" Pitch of stays 16 x 15 1/2" max

How are stays secured Nuts inside & outside Working pressure by Rules 151 lb.

Tube plates: Material front back Steel Tensile strength 26/30 tons Thickness 29/32" 11/16"

Lean pitch of stay tubes in nests 9 1/16" max Pitch across wide water spaces 13 1/2" Working pressure front 171 lb. back 178 lb.

Girders to combustion chamber tops: Material Steel Tensile strength 28/32 tons Depth and thickness of girder

at centre 8" x 5/8" x 2 Length as per Rule 32 19/32" Distance apart 8 7/16" No. and pitch of stays

in each 2 at 10" Working pressure by Rules 153 lb. Combustion chamber plates: Material Steel

Tensile strength 26/30 tons Thickness: Sides 5/8" Back 23/32" Top 5/8" Bottom 5/8"

Pitch of stays to ditto: Sides 10" x 8 3/8" Back 8 1/2" x 9 1/4" Top 10" x 8 1/2" Are stays fitted with nuts or riveted over with nuts

Working pressure by Rules 153 lb. Front plate at bottom: Material Steel Tensile strength 26/30 tons

Thickness 29/32" Lower back plate: Material Steel Tensile strength 26/30 tons Thickness 29/32"

Pitch of stays at wide water space 15 3/4" x 8 1/2" Are stays fitted with nuts or riveted over NUTS: BOTH ENDS. REMAINDER OF BACK STAYS ARE RIVETED INSIDE C.C. & NUTS OUTSIDE.

Working Pressure 209 lb. Main stays: Material Steel Tensile strength 28/32 tons

Diameter top centre 2 1/2" others 2 3/8" No. of threads per inch Six Area supported by each stay (17 x 15 3/8") - 3.67

Working pressure by Rules 151 lb. Screw stays: Material Steel Tensile strength 26/30 tons

Diameter Over threads 1 1/2" No. of threads per inch 9 Area supported by each stay (10 x 8 7/16") - 1.45

Working pressure by Rules 151 lb Are the stays drilled at the outer ends No Margin stays: Diameter 1 5/8"
No. of threads per inch 9 Area supported by each stay (11 3/8 x 8 1/2) - 1.73 Working pressure by Rules 160 lb
Tubes: Material IRON External diameter { Plain 2 1/2 Thickness 10 W.G.
Stay 2 1/2 No. of threads per inch 9
Pitch of tubes 3 3/4" x 3 3/4" Working pressure by Rules 166 lb Manhole compensation: Size of opening in
shell plate 20" x 16" Section of compensating ring 8 1/4" x 1 3/16" x 2" No. of rivets and diameter of rivet holes 32 of 1 1/4"
Outer row rivet pitch at ends 8 3/4" Depth of flange if manhole flanged 2 1/2" Steam Dome: Material None

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 pitch
of rivets in outer row in dome connection to shell _____

Type of Superheater None Manufacturers of { Tubes _____
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 off and
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 easing gear _____ Working pressure as per
Rules _____ Pressure to which the safety valves are adjusted _____ Hydraulic test pressure
tubes _____, castings _____ and after assembly in place _____ Are drain cocks or 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 _____

The foregoing is a correct description, _____

Manufacture _____

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

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

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

The Boiler has been built under Special Survey in accordance with the Rules & approved plans, and the materials & workmanship are good.

The Boiler is installed on top of the O.F. double bottom tank in stokehold forward of Engine Room, and is fitted for burning oil fuel.

The safety valves were adjusted under steam as stated overleaf and the accumulation test was satisfactory.

Survey Fee ... £ See Machy When applied for, 19
Travelling Expenses (if any) £ Rpt. When received, 19

A. Watt & W. Nicholson
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 3 SEP 1937

Assigned

See New J.E. 95379



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Foundation