

# REPORT ON BOILERS.

No. 23351

Received at London Office 15 OCT 1948

Date of writing Report 22. 9. 19 48 When handed in at Local Office 16.10. 19 48. Port of GRIMSBY.

No. in Survey held at GRIMSBY. Date, First Survey 12. 11. 47. Last Survey 6. 8. 19 48.

on the Steam Trawler "SLETNES" (ex "P.V.6111") (Number of Visits 7.) Gross 523.55 Tons Net 209.29

built at Hamburg By whom built Norderwerft Koser U. Meyer Yard No. - When built 1940

engines made at Hamburg By whom made Howaldtserrke Aktiengesellschaft. Engine No. 814 When made 1940

boilers made at Hamburg By whom made Howaldtswerke. Boiler No. 1575 When made 1940

nominal Horse Power 142.6 Owners Rinovia Steam Fishing Co., Ltd. Port belonging to Grimsby.

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel - (Letter for Record "S")  
Total Heating Surface of Boilers 2390 sq.ft. Is forced draught fitted Yes.  
Coal or Oil fired Oil  
No. and Description of Boilers One. S.B. Working Pressure 227 lbs/sq.in.

Tested by hydraulic pressure to - Date of test - No. of Certificate - Can each boiler be worked separately -

Area of Firegrate in each Boiler None. No. and Description of safety valves to each boiler 2 Springloaded.

Area of each set of valves per boiler {per Rule 17.00 sq.in. as fitted 16.6 sq.in. Pressure to which they are adjusted 227 lbs. Are they fitted with easing gear Yes.

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler -

Smallest distance between boilers or uptakes and bunkers or woodwork 2'0" Is oil fuel carried in the double bottom under boilers No.

Smallest distance between shell of boiler and tank top plating Open floors. Is the bottom of the boiler insulated Yes.

Largest internal dia. of boilers 14'4 1/2" Length 11'2 1/2" Shell plates: Material Steel Tensile strength -

Thickness 1 1/2" Are the shell plates welded or flanged No. Description of riveting: circ. seams {end D.R. inter. None.

Long. seams T.R. - D.B.S. Diameter of rivet holes in {circ. seams 1.3/8" long. seams 1.5/8" Pitch of rivets {4 1/2" 10 1/4"

Percentage of strength of circ. end seams {plate - rivets - Percentage of strength of circ. intermediate seam {plate - rivets -

Percentage of strength of longitudinal joint {plate - rivets - combined -

Thickness of butt straps {outer 1.3/8" inner 1.3/8" No. and Description of Furnaces in each Boiler 3 c.f. (Morison Section)

Material Steel Tensile strength - Smallest outside diameter 3'7"

Length of plain part {top - bottom - Thickness of plates {crown 3/4" bottom 3/4" Description of longitudinal joint Weld.

Dimensions of stiffening rings on furnace or c.c. bottom None.

End plates in steam space: Material Steel Tensile strength - Thickness 1.1/4" Pitch of stays 16" x 16"

How are stays secured Nuts inside and out. outside washers.

Tube plates: Material {front Steel. back Steel Tensile strength - Thickness {1.1/4" 1"

Mean pitch of stay tubes in nests 9 1/2" Pitch across wide water spaces 15"

Girders to combustion chamber tops: Material Steel Tensile strength - Depth and thickness of girder

at centre 9 3/4" x 1 1/2" = 2 3/16" thick Length as per Rule 2'7 1/2" Distance apart 8" No. and pitch of stays

in each 3 at 7 1/2" Combustion chamber plates: Material Steel

Tensile strength - Thickness: Sides 3/4" Back 3/4" Top 3/4" Bottom 1"

Pitch of stays to ditto: Sides 7 1/2" x 7 1/2" Back 7 1/2" x 7 5/8" Top 8" x 7 1/2" Are stays fitted with nuts or riveted over Nuts.

Front plate at bottom: Material Steel Tensile strength -

Thickness 1 1/4" Lower back plate: Material Steel Tensile strength - Thickness 1 1/4"

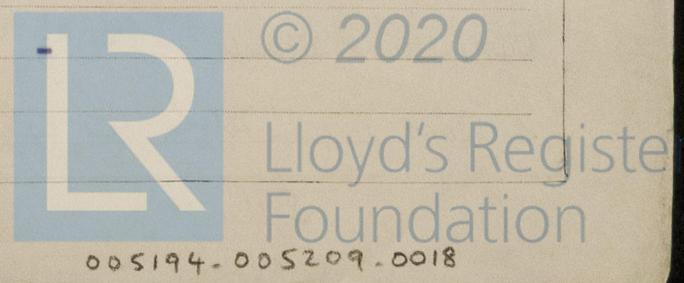
Pitch of stays at wide water space 7 1/2" x 15 1/2" Are stays fitted with nuts or riveted over Nuts.

Main stays: Material Steel Tensile strength -

Diameter {At body of stay, 2 3/4" Over threads - No. of threads per inch 6.

Screw stays: Material Steel Tensile strength -

Diameter {At turned off part, 1 3/8" and 1 1/4" Over threads - No. of threads per inch 9.



Are the stays drilled at the outer ends  No.  Yes. Margin stays: Diameter  $\left\{ \begin{array}{l} \text{At turned off part, } 1.15/16'' \\ \text{or} \\ \text{Over threads } - \end{array} \right.$

No. of threads per inch 9.

Tubes: Material Steel External diameter  $\left\{ \begin{array}{l} \text{Plain } 3\frac{1}{2}'' \\ \text{Stay } 3\frac{1}{2}'' \end{array} \right.$  Thickness  $\left\{ \begin{array}{l} 3/16'' \\ 11/32'' \end{array} \right.$  No. of threads per inch 9.

Pitch of tubes  $4\frac{3}{4}'' \times 4\frac{5}{8}''$  Section of compensating ring  $1\frac{3}{8}'' \times 16''$  Manhole compensation: Size of opening  $12'' \times 16''$  No. of rivets and diameter of rivet holes 24 at  $1\frac{1}{2}''$

shell plate  $12'' \times 16''$  Section of compensating ring  $1\frac{3}{8}'' \times 16''$  No. of rivets and diameter of rivet holes 24 at  $1\frac{1}{2}''$

Outer row rivet pitch at ends  $6\frac{1}{2}''$  Depth of flange if manhole flanged - Steam Dome: Material Steel

Tensile strength - Thickness of shell  $3/4''$  Description of longitudinal joint D.R. - Lap.

Diameter of rivet holes  $1''$  Pitch of rivets  $3.1/8''$  Percentage of strength of joint  $\left\{ \begin{array}{l} \text{Plate } - \\ \text{Rivets } - \end{array} \right.$

Internal diameter  $31\frac{1}{2}''$  Thickness of crown  $1''$  No. and diameter of stays None. Inner radius of crown  $2\frac{1}{2}''$

How connected to shell D.R. flanged ring. Size of doubling plate under dome None. Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell  $1.1/8'' \times 3\frac{1}{2}''$

Type of Superheater Smoke-tube type. Manufacturers of  $\left\{ \begin{array}{l} \text{Tubes } - \\ \text{Steel forgings } - \\ \text{Steel castings } - \end{array} \right.$

Number of elements 50 Material of tubes Steel Internal diameter and thickness of tubes  $3/4'' - 1/8''$

Material of headers Steel Tensile strength - Thickness - Can the superheater be shut off from the boiler  Yes.

the boiler be worked separately  Yes. Is a safety valve fitted to every part of the superheater which can be shut off from the boiler  Yes.

Area of each safety valve 1.8 sq.ins. Are the safety valves fitted with easing gear  Yes.

Pressure to which the safety valves are adjusted 232 lbs/sq.in. Hydraulic test pressure 1000 lbs/sq.in.

tubes 1000 lbs/sq.in. forgings and castings 220 lbs/sq.in. and after assembly in place - Are drain cocks fitted to free the superheater from water where necessary  Yes.

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  $\left\{ \begin{array}{l} \text{During progress on } 1947 \text{ Nov. 12, 13.} \\ \text{on board vessel } 1948 \text{ Jan. 1, Feb. 19, Mar. 8, Apr. 12, Aug. 6.} \end{array} \right.$  Are the approved plans of boiler and superheater forwarded herewith  Yes. (If not state date of approval.)

Total No. of visits 7.

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.) This boiler was examined internally and externally with the safety valves, mountings, and manhole doors, the scantlings were found to be in accordance with plans submitted (See Lon.ltr."E" dated 29th December, 1947).

The Superheat elements and headers were examined and hydraulically tested (Certificate attached).

The boiler was later examined under steam and the safety valves adjusted to 227 lbs/sq.in.

The material and workmanship are good, the boiler, in our opinion, is in a satisfactory condition for a working pressure of 227 lbs/sq.in and the notation 1 SB (Spt) F.D.

See Rpt. 9.

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

G. V. D. & W. P. Watson.  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 19 NOV 1948

Assigned L.M.C. 10 48

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