

REPORT ON BOILERS.

No. 61247.

Received at London Office JUN 21 1939.

Date of writing Report

19

When handed in at Local Office

19

Port of Glasgow

No. in Survey held at
Reg. Book.

Glasgow

Date, First Survey 14th April 1939 Last Survey 2-6 1939

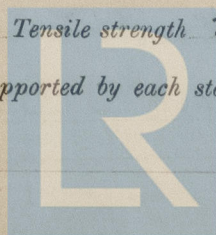
on the Non-propelling dredger "FOREMOST CLAN"

(Number of Visits 8)
Tons { Gross 314.4
Net 190.0

Master _____ Built at Aberdeen By whom built A. Hall & Co Yard No. 664 When built 1939
Engines made at _____ By whom made _____ Engine No. _____ When made _____
Boilers made at Glasgow By whom made David Rowan & Co Ltd Boiler No. 435 When made 1939
Nominal Horse Power _____ Owners James Fanning & Dredging Co. Ltd Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel B. Hillier Ltd (Letter for Record S)
Total Heating Surface of Boilers (coal 12230 oil 13150) Is forced draught fitted No Coal or Oil fired Oil
No. and Description of Boilers one single ended Working Pressure 140
Tested by hydraulic pressure to 260 Date of test 31-5-39 No. of Certificate 20395 Can each boiler be worked separately -
Area of Firegrate in each Boiler Oil only No. and Description of safety valves to each boiler 2 Improved high lift
Area of each set of valves per boiler { per Rule 5.34
as fitted 6.28 Pressure to which they are adjusted 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 Is oil fuel carried in the double bottom under boilers
Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated
Largest internal dia. of boilers 11'-6" Length 10'-6" Shell plates: Material S Tensile strength 29-33 tons
Thickness 20/32 Are the shell plates welded or flanged No Description of riveting: circ. seams { end 10/8
inter. 10/8
long. seams 10/8 TR Diameter of rivet holes in { circ. seams } 39/32 Pitch of rivets { 2.506"
long. seams } 32/32 5 15/16
Percentage of strength of circ. end seams { plate 63.76
rivets 52.4 Percentage of strength of circ. intermediate seam { plate
rivets 84.7
Percentage of strength of longitudinal joint { rivets 82.2
combined 89.7 Working pressure of shell by Rules 144
Thickness of butt straps { outer 19/32
inner 20/32 No. and Description of Furnaces in each Boiler Two Deighton
Material S Tensile strength 26-30 tons Smallest outside diameter 3'-3 7/8"
Length of plain part { top
bottom Thickness of plates { crown 7/16
bottom Description of longitudinal joint welded
Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 156
End plates in steam space: Material S Tensile strength 26-30 tons Thickness 13/16 Pitch of stays 16" x 13 3/8"
How are stays secured 10/8 Working pressure by Rules 140
Tube plates: Material { front S
back S Tensile strength { 26-30 tons
26-30 tons Thickness { 13/16
45/64
Mean pitch of stay tubes in nests 11 1/8" Pitch across wide water spaces 14" Working pressure { front 140
back 142
Girders to combustion chamber tops: Material S Tensile strength 28-32 tons Depth and thickness of girder
at centre 2 @ 7 1/8" x 6" Length as per Rule 28 45/64 Distance apart 9 1/2" No. and pitch of stays
in each 2 @ 9 1/8" Working pressure by Rules 141 Combustion chamber plates: Material S
Tensile strength 26-30 tons Thickness: Sides 19/32 Back 19/32 Top 19/32 Bottom 19/32
Pitch of stays to ditto: Sides 9 1/2" x 9 1/8" Back 8 1/2" x 10" Top 9 1/8" x 9 1/2" Are stays fitted with nuts or riveted over nuts
Working pressure by Rules 140 Front plate at bottom: Material S Tensile strength 26-30 tons
Thickness 13/16 Lower back plate: Material S Tensile strength 26-30 tons Thickness 13/16
Pitch of stays at wide water space 13 1/2" Are stays fitted with nuts or riveted over nuts
Working Pressure 140 Main stays: Material S Tensile strength 28-32 tons
Diameter { At body of stay, 2"
or
Over threads No. of threads per inch 6 Area supported by each stay 214 sq"
Working pressure by Rules 156 Screw stays: Material S Tensile strength 26-30 tons
Diameter { At turned off part,
or
Over threads 1 1/2" No. of threads per inch 9 Area supported by each stay 850

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Working pressure by Rules 145 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part. or Over threads 1 5/8" }
No. of threads per inch 9 Area supported by each stay 99.8 sq. Working pressure by Rules 152
Tubes: Material 2in External diameter { Plain 3 1/4" Stay 3 1/4" } Thickness { 9 w.s. 1/4" 9/16" } No. of threads per inch 9
Pitch of tubes 4 1/2" x 4 3/8" Working pressure by Rules 180 Manhole compensation: Size of opening in
shell plate 15" x 19" Section of compensating ring 7" x 29 3/32" No. of rivets and diameter of rivet holes 40 @ 29/32"
Outer row rivet pitch at ends 5 1/5" Depth of flange if manhole flanged 3" 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 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 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 forgings and 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,
for David Rowan & Co. Ltd. Manufacturer.
Archd. H. Grierson

Dates of Survey { During progress of work in shops - - April 14, May 2, 17, 22, 26, 29, 31, June 2 1939 } the approved plans of boiler and superheater forwarded herewith yes
while building { During erection on board vessel - - - } (If not state date of approval.)
Total No. of visits 8

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 materials and workmanship are good
The boiler has been constructed under special survey and will be sent to
Aberdeen to be fitted in the vessel.

Sub
19/6/39

Survey Fee ... £ { 4 : 7 : } When applied for, 20 JUN 1939
Travelling Expenses (if any) £ : : When received, 19

Sh. Davis
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 20 JUN 1939

Assigned TRANSMIT TO LONDON

FRI 18 AUG 1939

See Abn 20035
FE 2/1
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