

REPORT ON BOILERS.

No. 16773

Received at London Office

8 JUN 1929

Date of writing Report 25th May 1929 When handed in at Local Office 1.6.1929 Port ofNo. in Survey held at West Hartlepool Date, First Survey 21st Nov/28 Last Survey 29th Dec/28

Reg. Book. S.S. "HAXBY" (Number of Visits 50) Gross Tons 50 Net

Master Built at West Hartlepool By whom built Wm Gray & Co Ltd Yard No. 1016 When built 1929

Engines made at West Hartlepool By whom made Central Marine Engine Engine No. 1016 When made 1929

Boilers made at ditto By whom made Works Boiler No. 1016 When made 1929

Nominal Horse Power Owners Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel D Colville & Pons Ltd (Letter for Record S)

Total Heating Surface of Boilers 7932 sq. ft Is forced draught fitted yes Coal or Oil fired Coal

No. and Description of Boilers Three, single ended. 3 c.f. Working Pressure 180 lbs

Tested by hydraulic pressure to 320 lb Date of test 8.3.29 No. of Certificate 3755. Can each boiler be worked separately yes

Area of Firegrate in each Boiler 57.5 sq. ft No. and Description of safety valves to each boiler 2 Cockburns improved high lift.

Area of each set of valves per boiler {per Rule 8.48 sq. ft as fitted 9.82 sq. ft} Pressure to which they are adjusted 185 lb 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 18" Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated yes

Largest internal dia. of boilers 15'-9 1/2" Length 11'-6" Shell plates: Material Steel Tensile strength 29/33

Thickness 1 1/4" Are the shell plates welded or flanged no Description of riveting: circ. seams end 2 R 8 x 8 inter. —

long. seams J.R. D.B.S. Diameter of rivet holes in {circ. seams 1 5/16" long. seams 1 5/16" Pitch of rivets 4" 9 1/8"

Percentage of strength of circ. end seams {plate 67.2 rivets 43 Percentage of strength of circ. intermediate seam {plate 85.6 rivets 88.2 combined 86.9

Percentage of strength of longitudinal joint {plate 85.6 rivets 88.2 combined 86.9 Working pressure of shell by Rules 181 lbs

Thickness of butt straps {outer 1" inner 1 1/8" No. and Description of Furnaces in each Boiler 3 Deightons 3 c.f.

Material Steel Tensile strength 26/30 Smallest outside diameter 46 1/8"

Length of plain part {top 19" bottom 32" Thickness of plates {crown 19" bottom 32" Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 188 lbs

End plates in steam space: Material Steel Tensile strength 26/30 Thickness 1 1/4" Pitch of stays 21" x 21 1/2"

How are stays secured Double nuts & washers Working pressure by Rules 183 lbs

Tube plates: Material {front Steel back Steel Tensile strength {26/30 Thickness {7/8" 13/16"

Mean pitch of stay tubes in nests 13 1/2" x 9" Pitch across wide water spaces 14 1/4" Working pressure {front 185 lbs back 187 lbs

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

at centre 9 1/4" x 1 1/2" Length as per Rule 35 17/32" Distance apart 9" No. and pitch of stays

in each 3 9" Working pressure by Rules 180 lbs Combustion chamber plates: Material Steel

Tensile strength 26/30 Thickness: Sides 2 1/32" Back 2 1/32" Top 2 1/32" Bottom 3/4"

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

Working pressure by Rules 180 lbs Front plate at bottom: Material Steel Tensile strength 26/30

Thickness 7/8" Lower back plate: Material Steel Tensile strength 26/30 Thickness 7/8"

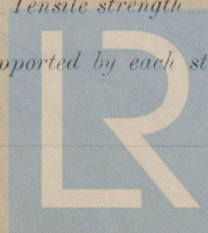
Pitch of stays at wide water space 14" x 8 1/2" Are stays fitted with nuts or riveted over nuts

Working Pressure 190 lbs Main stays: Material Steel Tensile strength 28/32

Diameter {At body of stay, 3 3/8" No. of threads per inch 6 Area supported by each stay 21 1/2" x 21"

Working pressure by Rules 194 lbs Screw stays: Material Steel Tensile strength 26/30

Diameter {At turned off part, 1 5/8" No. of threads per inch 9 Area supported by each stay 9" x 9 1/4"



Working pressure by Rules 183 lbs Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 1/8"
 No. of threads per inch 9 Area supported by each stay 8 1/2" x 11 1/4" Working pressure by Rules 222 lbs
 Tubes: Material Iron External diameter { Plain 3 1/4" Stay 3 1/4" Thickness { 3/16" 1/4" 5/16" No. of threads per inch 9
 Pitch of tubes 4 1/2" x 4 1/2" Working pressure by Rules 180 lbs Manhole compensation: Size of opening
 shell plate 16" x 20" Section of compensating ring 24" x 1 1/4" No. of rivets and diameter of rivet holes 28 1 1/2"
 Outer row rivet pitch at ends 10" Depth of flange if manhole flanged ✓ 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
 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 yes.

The foregoing is a correct description,
 FOR THE CENTRAL MARINE ENGINE WORKS.
 (W. Gray & Co. Ltd.) Manufacturer

Dates of Survey { During progress of work in shops - - - See Machinery Rep. 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 ✓

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

See accompanying Machinery report.

Survey Fee ... £ : : When applied for, 192
 Travelling Expenses (if any) £ : : When received, 192

R.D. Shilston
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 11 JUN 1929

Assigned See Minute on Hpl Rpt 16773 attached