

REPORT ON BOILERS.

No. 38385

Received at London Office

-6 OCT 1927

5 OCT 1927

Date of writing Report

When handed in at Local Office

6 Oct 1927 Port of HULL

No. in Reg. Book

Hull

Date, First Survey

20 May

Last Survey

1 Oct 1927

(Number of Visits

24)

Gross Tons

358

Net Tons

153

12705 on the

Ship S.T. 'ST. MELANTE'

Master

Built at

Bursley

By whom built

Cook, Dalton & Gemmell Ltd

Yard No.

489

When built

1927

Engines made at

Hull

By whom made

Charles D. Holmes & Co Ltd

Engine No.

1315

When made

1927

Boilers made at

Hull

By whom made

do

Boiler No.

1315

When made

1927

Nominal Horse Power

96.4

Owners

T. Hamling & Co Ltd

Port belonging to

Hull

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Hammesmännischen Werke, Hastingen (Letter for Record S)

Total Heating Surface of Boilers 1699 sq ft Is forced draught fitted no Coal or Oil fired Coal

No. and Description of Boilers one single ended Working Pressure 200 Lbs

Tested by hydraulic pressure to 350 Lbs Date of test 7/8/27 No. of Certificate 3617 Can each boiler be worked separately yes

Area of Firegrate in each Boiler 49.2 sq ft No. and Description of safety valves to each boiler 2 Spring loaded

Area of each set of valves per boiler {per Rule 4.9 sq ft as fitted 4.9 Pressure to which they are adjusted 200 Lbs Are they fitted with easing gear yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no

Smallest distance between boilers or uptakes and bunkers or woodwork 4" Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating no Is the bottom of the boiler insulated no

Largest internal dia. of boilers 14'-0" Length 10'-8" Shell plates: Material Steel Tensile strength 78/32 Tons

Thickness 1 1/32" Are the shell plates welded or flanged no Description of riveting: circ. seams {end D.R. inter. no

long. seams T.R. S.B.S. Diameter of rivet holes in {circ. seams 1 1/32" long. seams 1 1/32" Pitch of rivets {circ. 3 3/4" long. 8 7/8"

Percentage of strength of circ. end seams {plate 65.83 rivets 51.2 Percentage of strength of circ. intermediate seam {plate 85.03 rivets 90.8

Percentage of strength of longitudinal joint {plate 85.03 rivets 90.8 combined 88.83 Working pressure of shell by Rules 201 Lbs

Thickness of butt straps {outer 1" inner 1 1/8" No. and Description of Furnaces in each Boiler three plain

Material Steel Tensile strength 78/30 Tons Smallest outside diameter 4 1/2"

Length of plain part {top 76 bottom 69 Thickness of plates {crown 13/16" bottom 13/16" Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom no Working pressure of furnace by Rules 219 Lbs

End plates in steam space: Material Steel Tensile strength 78/30 Thickness 1 1/16" Pitch of stays 18"

How are stays secured AN. & W Working pressure by Rules 210

Tube plates: Material {front Steel back no Tensile strength {front 78/30 Tons back no Thickness {front 15/16" back 4/8"

Mean pitch of stay tubes in nests 10.97 Pitch across wide water spaces 13 3/4" Working pressure {front 211 Lbs back 230

Girders to combustion chamber tops: Material Steel Tensile strength 78/32 Tons Depth and thickness of girder

at centre 10 1/2 x 13 1/4 Length as per Rule 36 3/16" Distance apart 9" No. and pitch of stays

in each 3 @ 8 3/4" Working pressure by Rules 210 Lbs Combustion chamber plates: Material Steel

Tensile strength 78/30 Tons Thickness: Sides 3/4" Back 23/32" Top 3/4" & 23/32" Bottom 3/4"

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

Working pressure by Rules 230 Front plate at bottom: Material Steel Tensile strength 78/30

Thickness 15/16" Lower back plate: Material Steel Tensile strength 78/30 Tons Thickness 29/32"

Pitch of stays at wide water space 14 x 8 3/4" Are stays fitted with nuts or riveted over nuts

Working Pressure 228 Main stays: Material Steel Tensile strength 28/32 Tons

Diameter {At body of stay, 3/4" or no No. of threads per inch 8 Area supported by each stay 324 sq in

Working pressure by Rules 240 Lbs Screw stays: Material Steel Tensile strength 78/30

Diameter {At turned off part, 1 1/8" & 1 3/4" or no No. of threads per inch 10 Area supported by each stay 78.9

If a Report also sent on the Hull of the Ship? If not, state whether, and when, one will be sent?

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REPORT ON BOILERS

Working pressure by Rules 230 Lbs Are the stays drilled at the outer ends ho Margin stays: Diameter ^{At turned off part,} 1 1/8" or ^{Over threads} 1 1/8"

No. of threads per inch 10 Area supported by each stay 99.75 sq Working pressure by Rules 218

Tubes: Material Iron External diameter ^{Plain} 3 1/2 ^{Stay} 3 1/2 Thickness 5/16 + 3/16 No. of threads per inch 9

Pitch of tubes 4 7/8" Working pressure by Rules 215 Manhole compensation: Size of opening in shell plate 16 x 12 Section of compensating ring 34 x 24 x 1 3/2 No. of rivets and diameter of rivet holes 32 @ 1 1/4

Outer row rivet pitch at ends 8 7/8 Depth of flange if manhole flanged ✓ 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 pitch of rivets in outer row in dome connection to shell _____

Type of Superheater _____ 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 _____

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 23 inclusive for boilers been complied with _____

The foregoing is a correct description,
F. PROBY CHARLES J. LEMES & Co., Ltd.
 Manufacturer.

Harold Sheard
 DIRECTOR

Dates of Survey ^{During progress of work in shops - -} _____ ^{During erection on board vessel - - -} _____

See attached reports on Machinery

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) ✓

Total No. of visits _____

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This boiler has been built under special survey & in accordance with the approved plan. The materials & workmanship are sound & good; the boiler has been satisfactorily fitted on board, tried under steam, and its safety valves adjusted as above.*

Charge on engine report sent herewith

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

John Shuckirdy
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 7 OCT 1927

Assigned see Minute on Hull R/R
38385 attached