

REPORT ON WATER TUBE BOILERS.

No. 17446

Received at London Office

26 JAN 1931

Date of writing Report

19

When handed in at Local Office

24/1/1931

Port of

Antwerp

No. in

Survey held at

Seraing + Hoboken

Date, First Survey

4/2/30

Last Survey

10/1/1931

Reg. Bk.

on the

Steel Twin L. Turbine Steamer "Princes Josephine Charlotte"

(Number of Visits)

15

Gross

Net

Master

Built at

Hoboken

By whom built

Chantier naval J. Lockerill

When built 1930. 12

Engines made at

Seraing

By whom made

J. Lockerill

When made 1930

Boilers made at

Seraing

By whom made

J. Lockerill

When made 1930

Registered Horse Power

Owners

Belgian Government

Port belonging to Ostend.

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel D. Colville & Sons, Mannheim.

(Letter for Record 5.) Date of Approval of plan 4-7-29 Number and Description or Type

of Boilers 6 Babcock & Wilcox Type Working Pressure 370 lb. Tested by Hydraulic Pressure to 605 lb. Date of Test 1-7-30

No. of Certificate 83. Can each boiler be worked separately Yes Total Heating Surface of Boilers 21,300 sq. ft. Bln

Is forced draught fitted Yes Area of fire grate (coal) in each Boiler 41.85 sq. cm. Total grate area of boilers in vessel including

Main and Auxiliary No. and type of burners (oil) in each boiler 4 Babcock burners No. and description of safety valves on

each boiler double spring loaded Area of each valve 31.85 sq. cm. Pressure to which they are adjusted 370 lb. per sq. in.

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 Height of Boiler Width and Length

Steam Drums:—Number in each boiler One Inside diameter 3' 0" Material of plates Steel Thickness 1/16" T.P. 15"

Range of Tensile Strength 28/32 Ton Are drum shell plates welded or flanged no Description of riveting:—

Cir. seams D.R. lap long. seams D.R. D.B. Y. Diameter of rivet holes in long. seams 3 1/32" Pitch of Rivets 3-7"

Lap of plate or width of butt straps 10 3/8" Thickness of straps 1/16" Percentage strength of long. joint:—Plate 73.8 Rivet 85.5

Diameter of tube holes in drum 4 3/8" Pitch of tube holes 7 1/4" Percentage strength of shell in way of tubes 84.3

If Drum has a flat side state method of staying Depth and thickness of girders at centre

(if fitted) Distance apart Number and pitch of stays in each Working pressure

by rules Steam Drum Heads on Ends:—Material Steel Thickness 1 3/16" Radius or how stayed 3' 0"

Size of Manhole or Handhole 15" x 11" Water Drums:—Number in each boiler one Inside Diameter 6" x 6"

Material of plates Steel Thickness 3/4" Range of tensile strength 24.28 tons Are drum shell plates welded

or flanged Solid drawn Description of riveting:—Cir. seams long. seams Diameter of Rivet Holes in

long. seams Pitch of rivets Lap of plates or width of butt straps Thickness of straps

Percentage strength of long. joint:—Plate Rivet Diameter of tube holes in drum 4 3/8" Pitch of tube holes 7 1/4"

Percentage strength of drum shell in way of tubes 42.2 Water Drum Heads or Ends:—Material Steel Thickness 3/4"

Radius or how stayed Flat Size of manhole or handhole Headers or Sections:—Number 24 1/2" x 8" Bln

Material Steel Thickness 1/2" Tested by Hydraulic Pressure to 605 lb. per sq. in. Material of Stays

Area at smallest part 13" x 15.6" Area supported by each stay Working Pressure by Rules 506 lb. Tubes:—Diameter 4 + 1 1/16"

Thickness 13.156" Number 720 4 1/2" Steam Dome or Collector:—Description of Joint to Shell

Percentage strength of Joint Diameter Thickness of shell plates Material

Description of longitudinal joint Diameter of Rivet Holes Pitch of Rivets Working Pressure of shell

by Rules Crown or End Plates:—Material Thickness How stayed

UPERHEATER. Type Babcock Date of Approval of Plan 4-7-29 Tested by Hydraulic Pressure to 605 lb. per sq. in.

Date of Test 1-7-30 Is a safety valve fitted to each section of the superheater which can be shut off from the Boiler Yes

Diameter of Safety Valve 2 1/4" Pressure to which each is adjusted 369 lb. Is easing gear fitted Yes

Is a drain cock or valve fitted at lowest point of superheater Yes Number, diameter, and thickness of tubes 110 off 1 1/2" x 8 25.6

Spare Gear. Tubes 100-26 1/2" Gaskets or joints:—Manhole 24 Handhole 66 for S.H. Handhole plates 32 for S.H.

2 Safety valve springs 6 furnace mouth 10 burners 4 tubes for superheater

SOCIÉTÉ ANONYME JOHN COCKERILL The foregoing is a correct description, Manufacturer.

CHEF DU SERVICE GÉNÉRAL (CONSTRUCTION) DIRECTEUR DES ATELIERS

Dates of Survey During progress of work in shops 4/2/30. 16/5/30. 13/6/30. 1/7/30. Is the approved plan of boiler forwarded herewith Yes.

while During erection on board vessel 14/22/7-4/9-20/10-5/11-10/11-4/12-26/12 6/1-10/11/31 Total No. of visits 15

building board vessel 30 31

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been made under

Special Survey and the materials have been tested by the Society's Surveyors. The

materials and workmanship are good. The boilers satisfactorily fitted in the vessel

and afterwards tried under steam together with the Superheaters, also tested for accumulation

the machinery of this vessel is in good condition, and eligible in my opinion to have

the record of L.M.C. 1-31 in the Society's Register Book (Fitted for oil fuel float point

Survey Fee ... £ When applied for, 19

Travelling Expenses (if any) £ see Machinery Report When received, 19

(See also Glasgow Report No. 49778)

J. L. Rabey

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 30 JAN 1931

Assigned See other Ant. 76 17446