

REPORT ON WATER TUBE BOILERS.

No. 105222

Received at London Office

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Port of Newcastle-on-Tyne

No. in Survey held at Blyth Date, First Survey 8th March '48 Last Survey 24th March 1948
Reg. Bk. 24330 on the steel sc. steamer "FREEMAN HATCH" (Number of Visits 8) Gross 1793 Tons Net 995

Built at Sturgeon Bay, Wisconsin, U.S.A. By whom built Leatham D. Smith Shp. Co. When built 1943
Engines made at Gary, PA By whom made Ajax Miffler. When made 1943
Boilers made at Saginaw, Mich. U.S.A. By whom made Mlicker Boiler Co. When made 1943
Nominal Horse Power 394. Owners Ministry of Transport. Port belonging to London.
on bare boat charter from USMC.

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel

Date of Approval of plan _____ Number and Description or Type of Boilers Two, Water Tube, 3 drum (Mlicker) Design Press: 250 LBS/IN² Working Pressure 220 LBS/IN² Tested by Hydraulic Pressure to _____ Date of Test _____

No. of Certificate _____ Can each boiler be worked separately. *yes* Total Heating Surface of Boilers 4800 sq. ft.

Is forced draught fitted. *yes* Area of fire grate (coal) in each Boiler 56 sq. ft.

No. and type of burners (oil) in each boiler each boiler *two on drum, 1 on side* Area of each set of valve $5.52 + 1.23 \text{ sq. ft.} = 6.75 \text{ sq. ft.}$ No. and description of safety valves on *DRUM 245 LBS/IN² SH. 225 LBS/IN²*

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'-9 1/2"* Thickness of plates *15/16"*

Range of Tensile Strength _____ Are drum shell plates welded or flanged *welded* Description of riveting:—

Cir. seams _____ long. seams _____ Diameter of rivet holes in long. seams _____ Pitch of rivets _____

Lap of plate or width of butt straps _____ Thickness of straps _____ Percentage strength of long. joint:—Plate _____ Rivet _____

Diameter of tube holes in drum *2 1/2" x 1 1/2"* Pitch of tube holes *4 1/2" - 2 1/2"* Percentage strength of shell in way of tubes *40*

Working pressure by rules _____ Steam Drum Heads or Ends:—Range of tensile strength _____ Thickness of plates *1 1/8"*

Radius or how stayed *App. 4 ft.* Size of manhole or handhole *16" x 12"* Working pressure by rules _____ Water Drums:—Number

in each boiler *two* Inside Diameter *2'-3"* Thickness of plates *9/16"* Range of tensile strength _____ Are drum shell plates

welded or flanged *welded* Description of riveting:—Cir. seams _____ long. seam _____ 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 *2 1/2" x 1 1/2"* Pitch of tube holes *4 1/2" - 2 1/2"*

Percentage strength of drum shell in way of tubes *40* Working pressure by rules _____ Water Drum Heads or Ends:—Range of

Tensile strength _____ Thickness of plates *1 1/8"* Radius or how stayed _____

Size of manhole or handhole *16" x 12"* Working pressure by rules _____ Headers or Sections:—Number _____

Material _____ Thickness _____ Tested by Hydraulic Pressure to _____ Tubes:—Diameter _____

Thickness _____ Number _____ Steam Dome or Collector:—Description of Joint to Shell _____

Inside diameter _____ Thickness of shell plates _____ Range of tensile strength _____

Description of longitudinal joint _____ Diameter of rivet holes _____ Pitch of rivets _____ Lap of plate or width of

butt straps _____ Thickness of straps _____ Percentage strength of long. joint _____ Plate _____ Rivet _____

Working Pressure of shell by rules _____ Crown or End Plates:—Range of tensile strength _____

Thickness _____ Radius or how stayed _____ Working pressure by rules _____

SUPERHEATER. Drums or Headers:—Number in each boiler *two* Inside Diameter *6 1/2"*

Thickness *3/4"* Material _____ Range of tensile strength _____ Are drum shell plates welded

or flanged _____ 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 _____ Pitch of tube holes _____

Percentage strength of drum shell in way of tubes _____ Working pressure by rules _____ Drum Heads or Ends:—

Thickness _____ Range of tensile strength _____ Radius or how stayed _____ Size of manhole or handhole *Plug*

Working pressure by rules _____ Number, diameter, and thickness of tubes *8 x 1 1/2" x .15"* Tested by Hydraulic Pressure to _____

Date of Test _____ Is a safety valve fitted to each section of the superheater which can be shut off from the boiler

No. and description of Safety Valves *Superheaters can not be shut off.* Area of each set of valves _____

Pressure to which they are adjusted *see above* Is easing gear fitted

Spare Gear. Has the spare gear required by the rules been supplied. *yes.*

The foregoing is a correct description,

Manufacturer.

Dates of Survey } During progress of work in shops - - }
while building } During erection on board vessel - - }

Is the approved plan of boiler forwarded herewith _____

Total No. of visits _____

Is this boiler a duplicate of a previous case *yes* If so, state vessel's name and report No. *"Laban Howes"*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *For the information of the committee*

Survey Fee £ _____ When applied for, 10
LICENCE SUPERVISION £ _____
Travelling Expenses (if any) £ _____ When received, 10

Committee's Minute *FRI. 28 MAY 1948*
Assigned *See F.E. Welch, rpt.*

J. Bowman © 2021
Engineer Surveyor to Lloyd's Register of Shipping.