

REPORT ON WATER TUBE BOILERS.

Received at London Office - 4 NOV 1941

of writing Report April 24th, 41 When handed in at Local Office 19 Port of Cleveland, Ohio.

No. in Survey held at Barberton, Ohio. Date, First Survey February 11th Last Survey March 26th 19 41.

eg. Bk. on the (Sun Shipbuilding & Dry Dock Company's Hull No. 210) (Number of Visits 9) Tons { Gross - Net -

uilt at - By whom built - When built -

ines made at - By whom made - When made -

ilers made at Barberton, Ohio. By whom made Babcock & Wilcox Co. When made 1941

ominal Horse Power - Owners (M.B. 1494 1 & 2) Port belonging to -

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

ate of Approval of plan October 1940. Number and Description or Type 950 &

Boilers (2) Water Tube (Single Drum Type) Working Pressure 475 lbs Tested by Hydraulic Pressure to 713 lbs Date of Test March 1941.

o. of Certificate - Can each boiler be worked separately - Total Heating Surface of Boilers -

forced draught fitted - Area of fire grate (coal) in each Boiler -

o. and type of burners (oil) in each boiler - No. and description of safety valves on

ch boiler - Area of each set of valves per boiler { per rule - as fitted - Pressure to which they

re adjusted - Are they fitted with easing gear - In case of donkey boilers state whether steam from main boilers can enter

e donkey boiler - Smallest distance between boilers or uptakes and bunkers or woodwork - Height of boiler 20' 11"

Width and Length 9'10 1/2" & 13'11" Steam Drums:—Number in each boiler One Inside diameter 42-11/16"

Thickness of plates 3/4" & 1-17/32" Range of Tensile Strength 70,000 to 82,000 lbs. Are drum shell plates welded

r flanged Fusion Welded If fusion welded, state name of welding firm - Have all the requirements of the rules

or Class I vessels been complied with - Description of riveting:—Cir. seams - long. seams -

Diameter of rivet holes in long. seams - Pitch of rivets - Thickness of straps - Percentage strength of

ng. joint:—Plate 90% Rivet - Diameter of tube holes in drum 4-1/32" Pitch of tube holes 7"

Percentage strength of shell in way of tubes 42.41 Steam Drum Heads or Ends:—Range of tensile strength

Thickness of plates 1-7/32" Radius ~~xxxxxx~~ 33-3/8" Size of manhole or handhole 12" x 16" Water Drums:—Number

n each boiler - Inside Diameter - Thickness of plates - Range of tensile strength - Are drum shell plates

welded or flanged - If fusion welded, state name of welding firm - Have all the requirements of the rules

or Class I vessels been complied with - Description of riveting:—Cir. seams - long. seam -

Diameter of rivet holes in long. seams - Pitch of rivets - 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 - Water Drum Heads or Ends:—Range of Tensile strength -

Thickness of plates - Radius or how stayed - Size of manhole or handhole -

Headers or Sections:—Number (13) Material Steel Thickness 19/32" Tested by Hydraulic Pressure to 713 lbs.

Tubes:—Diameter 1-1/4" & 2" Thickness .095" & .134" Number 51 - 2" Steam Dome or Collector:—Description of

Joint to Shell - Inside diameter - Thickness of shell plates - Range of tensile

strength - Description of longitudinal joint - If fusion welded, state name of welding

firm - Have all the requirements of the rules for Class I vessels been complied with - Diameter of rivet holes -

Pitch of rivets - Thickness of straps - Percentage strength of long. joint - Plate - Rivet -

Crown or End Plates:—Range of tensile strength - Thickness - Radius or how stayed -

SUPERHEATER. Drums or Headers:—Number in each boiler (2) Upper & (2) Lower Inside Diameter 5-1/2" Square

Thickness 7/8" Material Steel Range of tensile strength 62,000 to 72,000 lbs. Are drum shell plates welded

or flanged - If fusion welded, state name of welding firm - Have all the requirements of the rules

for Class I vessels been complied with Yes Description of riveting:—Cir. seams - long. seams -

Diameter of rivet holes in long. seams - Pitch of rivets - Thickness of straps - Percentage strength of

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

drum shell in way of tubes - Drum Heads or Ends:—Thickness - Range of tensile strength -

Radius or how stayed - Size of manhole or handhole - Number, diameter, and thickness of tubes (192) 1 1/4", .120"

Tested by Hydraulic Pressure to 713 lbs. Date of Test March 1941. 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 - Area of each set

of valves - Pressure to which they are adjusted - Is easing gear fitted -

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

The foregoing is a correct description,

Babcock & Wilcox Co. Manufacturer.

Dates of Survey { During progress of work in shops - Feb. 11th, 17th, 27th; March 4th, 5th, 6th, 11th, 20th and 26th, 1941. Is the approved plan of boiler forwarded herewith No

while building { During erection on board vessel - Total No. of visits

Is this boiler a duplicate of a previous case? If so, state vessel's name and report No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers, unassembled, comprising steam drums and headers for boilers and superheaters, were built to this Society's Special Survey and approved plans, also in conformity with the Regulations of the U. S. Department of Commerce & Bureau of Marine Inspection & Navigation. The workmanship, materials, X Ray examinations, tension and bend tests of fusion welded joints and hydraulic tests, were found satisfactory.

Survey Fee Travelling Expenses (if any) \$18.00 When received, 19

Committee's Minute Assigned *See Pl. Rpt. No. 8120.* NEW YORK OCT 1 1941 *J.G.J.* Engineer Surveyor to Lloyd's Register of Shipping.

