

REPORT ON WATER TUBE BOILERS.

No. 8541

Rpt. 5c.

Received at London Office

APR 12 1940

Date of writing Report 4th Mar. 1940 When handed in at Local Office 4th Mar. 1940 Port of Hongkong
 No. in Survey held at Hongkong Date, First Survey 19th Dec. 1939 Last Survey 2nd Mar. 1940
 Reg. Blk. on the Steel Single Screw Steamer "HARVAH" (Number of Visits 12) Tons { Gross 1341.90
 Net 514.55
 Master By whom built The H.K. & Whampoa Dock Co. Ltd When built 1940
 Engines made at Wallsend By whom made North Eastern Mar. Eng. Co. (1938) Ltd When made 1939
 Boilers made at Renfrew By whom made Babcock & Wilcox Ltd When made 1939
 Registered Horse Power Owners The Newcastle & Hunter River S.S. Co. Ltd Port belonging to Newcastle, N.S.W.

WATER TUBE BOILERS—MAIN, AUXILIARY, OR DONKEY.—Manufacturers of Steel Steel Co. of Scotland
 (Letter for Record W.T. Spt) Date of Approval of plan 30/3/39 + 19/4/39 Number and Description or Type 19-6-39
 of Boilers 2 Babcock & Wilcox type Working Pressure 235 lbs. Tested by Hydraulic Pressure to 405 lbs. Date of Test 31-1-40
 No. of Certificate Can each boiler be worked separately yes Total Heating Surface of Boilers 3576 sq. ft.
 Is forced draught fitted yes Area of fire grate (coal) in each Boiler 67 sq. ft. Total grate area of boilers in vessel including
 Main and Auxiliary 134 sq. ft. No. and type of burners (oil) in each boiler none No. and description of safety valves on
 each boiler one - 2" double spring, Improved high lift Area of each valve 3.14 sq. in. Pressure to which they are adjusted 235 lbs.
 Are they fitted with easing gear yes In case of donkey boilers state whether steam from main boilers can enter the donkey boiler none
 Smallest distance between boilers or plates and bunkers or woodwork 21' 0" approx Height of Boiler 11' 0" approx Width and Length 8' x 10' approx
 Steam Drums:—Number in each boiler one Inside diameter 3' 6" Material of plates Steel Thickness 9/16 + 1/16
 Range of Tensile Strength 28-32 Tons Are drum shell plates welded or flanged no Description of riveting:—
 Cir. seams D.R. Lap long. seams D.R. DBS Diameter of rivet holes in long. seams 29/32 Pitch of Rivets 3.4801"
 Lap of plate or width of butt straps 9 3/8 out 9 1/2 in Thickness of straps 9/16" Percentage strength of long. joint:—Plate 73.96 Rivet 97.08
 Diameter of tube holes in drum 4.047" Pitch of tube holes 7" Percentage strength of shell in way of tubes 42
 If Drum has a flat side state method of staying yes Depth and thickness of girders at centre
 (if fitted) yes Distance apart yes Number and pitch of stays in each yes Working pressure
 by rules 235 lbs. Steam Drum Heads or Ends:—Material Steel Thickness 7/8" Radius or how stayed 3' 0" rad.
 Size of Manhole or Handhole 15" x 11" Water Drums:—Number in each boiler yes Inside Diameter yes
 Material of plates yes Thickness yes Range of tensile strength yes Are drum shell plates welded
 or flanged yes Description of riveting:—Cir. seams yes long. seams yes Diameter of Rivet Holes in
 long. seams yes Pitch of rivets yes Lap of plates or width of butt straps yes Thickness of straps yes
 Percentage strength of long. joint:—Plate yes Rivet yes Diameter of tube holes in drum yes Pitch of tube holes yes
 Percentage strength of drum shell in way of tubes yes Water Drum Heads or Ends:—Material yes Thickness yes
 Radius or how stayed yes Size of manhole or handhole yes Headers or Sections:—Number 12 per boiler
 Material Steel Thickness 1 1/2" + 7/16" Tested by Hydraulic Pressure to 405 lbs. Material of Stays yes
 Area at smallest part yes Area supported by each stay yes Working Pressure by Rules yes Tubes:—Diameter 4" 9/16 + 1 3/16"
 Thickness yes Number yes Steam Dome or Collector:—Description of Joint to Shell one
 Percentage strength of Joint Solid drawn Diameter 6" x 6" Thickness of shell plates 3/4" Material Steel
 Description of longitudinal joint yes Diameter of Rivet Holes yes Pitch of Rivets yes Working Pressure of shell
 by Rules 235 lbs. Crown or End Plates:—Material yes Thickness yes How stayed yes
 UPPER HEATER. Type Babcock & Wilcox Date of Approval of Plan 30/3/39 Tested by Hydraulic Pressure to 405 lbs.
 Date of Test 12-9-38 + 31-1-40 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" Single, Improved high lift Pressure to which each is adjusted 225 lbs. Is easing gear fitted yes
 Is a drain cock or valve fitted at lowest point of superheater yes Number, diameter, and thickness of tubes 104 @ 1 1/2" 9 w.g. (per btr)
 Spare Gear. Tubes 8-1 1/2" Gaskets or joints:—Manhole 6 Handhole 900-4 1/2" Handhole plates 6-3 5/8"
4-4" 10-3 3/4" 2-3 3/4"
2-4"
 HONGKONG & WHAMPOA DOCK CO. LTD
 The foregoing is a correct description,
Loch. Manufacturer.
 CHIEF MANAGER

Dates of Survey { During progress of { See Glasgow Report No 61661 Is the approved plan of boiler forwarded herewith no
 while { work in shops - - Dec. 19, 27, Jan. 2, 5, 10, 16, 23, 29, 31 Total No. of visits Hongkong, 12
 building { During erection on { Feb 22, 26 - March 7
 board vessel - - -

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed
in accordance with the Rules & approved plans (See Glasgow Report No 61661) & have been
re-assembled & tested by hydraulic pressure as a whole, & fitted on board the vessel
in accordance with the Rules. Boilers examined under full working conditions, safety valves
adjusted & accumulation tests carried out with satisfactory results. Boilers fitted with Frith-
Babcock Mechanical Stokers.

Survey Fee as per Machinery Report. When applied for, 4th Mar. 1940
reassembly & test of boiler When received, 2.5.40
 Travelling Expenses (if any) £1-18/- = 812.8

J. S. Morrison

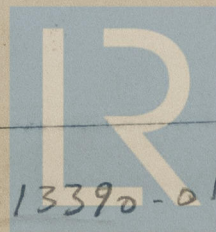
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

APR 19 1940

See Hkg. J.C. 8541



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