

REPORT ON BOILERS.

28 OCT 1947

Received at London Office.....

Date of writing Report 10th Oct. 1947. When handed in at Local Office 27th Oct. 1947. Port of Gothenburg.

No. in Reg. Book 36434 Survey held at Gothenburg Date, First Survey 27th June Last Survey 17th October 1947.

on the Motor Tanker "ARABIAN QUEEN" (Number of Visits 37) Gross 11173 Tons Net 6665

Master --- Built at Gothenburg By whom built A-B. Götaverken Yard No. 609 When built 1947

Engines made at Gothenburg By whom made A-B. Götaverken Engine No. 1855 When made 1947

Donkey Boilers made at Gothenburg By whom made A-B. Lindholmens Varv Boiler No. 2751-2 When made 1946

Nominal Horse Power --- Owners Rederi A-B. Kungsoil Port belonging to Kungsbacka

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Avesta Jernverks A-B., Avesta, Sweden. (Letter for Record S)

Total Heating Surface of Boilers 2 x 1838 square feet Is forced draught fitted Yes Coal or Oil fired Oil

No. and Description of Boilers 2 Scotch Donkey Boilers Working Pressure 150 lbs/in²

Tested by hydraulic pressure to 275 lbs/in² Date of test 13.11.1946 No. of Certificate 504-5 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler --- No. and Description of safety valves to each boiler Double spring loaded

Area of each set of valves per boiler per Rule 8650 mm. 8970 mm. as fitted 11350 mm. Pressure to which they are adjusted 150 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 main boilers fitted

Smallest distance between boilers or uptakes and bunkers or woodwork from A.P. Bd. About 1 Metre Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating Boilers on a platform aft in ER Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers Length Shell plates: Material Tensile strength

Thickness Are the shell plates welded or flanged Description of riveting: circ. seams { end inter

long. seams Diameter of rivet holes in { circ. seams long. seams Pitch of rivets {

Percentage of strength of circ. end seams { plate rivets Percentage of strength of circ. intermediate seam { plate rivets

Percentage of strength of longitudinal joint { plate rivets combined Working pressure of shell by Rules

Thickness of butt straps { outer inner No. and Description of Furnaces in each Boiler

Material Tensile strength Smallest outside diameter

Length of plain part { top bottom Thickness of plates { crown bottom Description of longitudinal joint

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules

End plates in steam space: Material Tensile strength Thickness Pitch of stays

How are stays secured Working pressure by Rules

Tube plates: Material { front back Tensile strength Thickness {

Mean pitch of stay tubes in nests Pitch across wide water spaces Working pressure { front back

Girders to combustion chamber tops: Material Tensile strength Depth and thickness of girder

at centre Length as per Rule Distance apart No. and pitch of stays

in each Working pressure by Rules Combustion chamber plates: Material

Tensile strength Thickness: Sides Back Top Bottom

Pitch of stays to ditto: Sides Back Top Are stays fitted with nuts or riveted over

Working pressure by Rules Front plate at bottom: Material Tensile strength

Thickness Lower back plate: Material Tensile strength Thickness

Pitch of stays at wide water space Are stays fitted with nuts or riveted over

Working pressure Main stays: Material Tensile strength

Diameter { At body of stay or Over threads No. of threads per inch Area supported by each stay

Working pressure by Rules Screw stays: Material Tensile strength

Diameter { At turned off part or Over threads No. of threads per inch Area supported by each stay



Working pressure by Rules..... Are the stays drilled at the outer ends..... Margin stays: Diameter { At turned off part..... or Over threads.....

No. of threads per inch..... Area supported by each stay..... Working pressure by Rules.....

Tubes: Material..... External diameter { Plain..... Stay..... Thickness { No. of threads per inch.....

Pitch of tubes..... Working pressure by Rules..... Manhole compensation: Size of opening in shell plate..... Section of compensating ring..... No. of rivets and diameter of rivet holes.....

Outer row rivet pitch at ends..... 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 forgings..... 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..... Is a safety valve fitted to every part of the superheater which can be shut off from the boiler.....

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..... forgings and 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 22 inclusive for boilers been complied with..... Yes.....

The foregoing is a correct description,

ARTIFABLAGET GÖTAVERKEN

W. J. Gunnarsson Manufacturer

Manufacturer

Dates of Survey while building { During progress of work in shops - - } Are the approved plans of boiler and superheater forwarded herewith..... Got. 6.3.45 (If not state date of approval.)

{ During erection on board vessel - - - } 27th June - 17th Oct., 1947. Total No. of visits..... Thirtyseven.

Is this Boiler a duplicate of a previous case..... No..... If so, state Vessel's name and Report No.....

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.).....

These donkey boilers have been securely fitted in the vessel under my inspection and to my satisfaction and the safety valves adjusted under steam to 150 lbs. per square inch.

The plan for these boilers was approved in Gothenburg on the 6th March, 1945, for A-B. Götaverken's Yard No. 604 for which vessel the boilers were intended, but they have now been fitted in this vessel. Please also see Gothenburg report No. 15065.

An exhaust gas economiser of A-B. Götaverken's tubular type has been fitted in the vessel. The economiser has been built under special survey of tested material, tested hydraulically to 19.5 kg/cm² (WP 10.55 kg. per cm²) on the 16th September, 1947, and stamped:

LLOYD'S TEST 19.5 KGS.
WP 10.55 KGS.
TÖ 16.9.47

The safety valves have been adjusted under steam to 150 lb. per sq. inch.

Survey Fee £ -- : -- : -- } When applied for.....19.....

Travelling Expenses (if any) £ -- : -- : -- } When received.....19.....

Yonatan Östberg
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute.....

Assigned *FN minute see J.E. Kelly, Rfl*

28 NOV 1947

