

## REPORT ON BOILERS.

No. 38589<sup>c</sup>

Received at London Office. 29 NOV 1954

Date of writing Report 19... When handed in at Local Office 19... Port of Rotterdam

No. in Reg. Book. Survey held at Wardrecht Date, First Survey 9.4.54 Last Survey 1.9.1954

on the Floating Steamer "YESILIRMAK" (Number of Visits... 26) Tons { Gross 278.20 Net 212.69

Master — Built at Utrecht By whom built H. Nedeh. Kraanbouw Ing. N. 4506-2 When built 1954

Engines made at — By whom made — Engine No. — When made —

Boilers made at Wardrecht By whom made Machiniefabriek R. Straatman Boiler No. 92 When made 1954

Nominal Horse Power — Owners Turkish Ministry of Public Works Port belonging to Istanbul

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Messrs. Ruhrstahl A.G. Henrichshütte, Hattingen (Letter for Record 5)

Total Heating Surface of Boilers 74 m<sup>2</sup> Is forced draught fitted no Coal or Oil fired coal fired

No. and Description of Boilers One multitubular marine type boiler Working Pressure 140 lbs

Tested by hydraulic pressure to 260 lbs Date of test 10.6.54 No. of Certificate 1183 Can each boiler be worked separately —

Area of Firegrate in each Boiler 2.6 m<sup>2</sup> No. and Description of safety valves to each boiler double, spring loaded, high lift.

Area of each set of valves per boiler { per Rule 27.2 cm<sup>2</sup> as fitted 39.3 cm<sup>2</sup> Pressure to which they are adjusted 140 lbs 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 — Is oil fuel carried in the double bottom under boilers —

Smallest distance between shell of boiler and bottom plating 450% Is the bottom of the boiler insulated no

Largest internal dia. of boilers 2750% Length 3000% Shell plates: Material S.M. steel Tensile strength 44/50 kg/mm<sup>2</sup>

Thickness 18% Are the shell plates welded or flanged no Description of riveting: circ. seams { end double riveted inter —

Long. seams double butt strap Diameter of rivet holes in { circ. seams 23% long. seams 25% Pitch of rivets { 79% 149%

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

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

Thickness of butt straps { outer 15% inner 18% No. and Description of Furnaces in each Boiler 2 corrugated furnaces

Material S.M. steel Tensile strength 41/47 kg/mm<sup>2</sup> Smallest outside diameter 820%

Length of plain part { top 10% bottom 10% Thickness of plates { crown 10% bottom 10% Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom not fitted Working pressure of furnace by Rules App'd

Plates in steam space: Material S.M. steel Tensile strength 41/47 kg/mm<sup>2</sup> Thickness 19, 22% Pitch of stays 400, 450%

Are stays secured Outside nuts Working pressure by Rules App'd

End plates: Material { front S.M. steel back S.M. steel Tensile strength { 41/47 kg/mm<sup>2</sup> 41/47 kg/mm<sup>2</sup> Thickness { 22% 22%

Pitch of stay tubes in nests 202 x 202% Pitch across wide water spaces 380% Working pressure { front App'd back App'd

Boilers to combustion chamber tops: Material S.M. steel Tensile strength 44/50 kg/mm<sup>2</sup> Depth and thickness of girder

Centre 200 x 18% Length as per Rule 638% 600 Distance apart 210% No. and pitch of stays

Each welded girders Working pressure by Rules App'd Combustion chamber plates: Material S.M. steel

Tensile strength 41/47 kg/mm<sup>2</sup> Thickness: Sides 16% Back 16% Top 16% Bottom 16%

Pitch of stays to ditto: Sides 190 x 185% Back 190 x 185% Top — Are stays fitted with nuts or riveted over riveted over

Working pressure by Rules App'd Front plate at bottom: Material S.M. steel Tensile strength 41/47 kg/mm<sup>2</sup>

Thickness 22% Lower back plate: Material S.M. steel Tensile strength 41/47 kg/mm<sup>2</sup> Thickness 19%

Pitch of stays at wide water space 380% Are stays fitted with nuts or riveted over margin stays with nuts outside, 2 comb. chambers riveted over

Working pressure App'd Main stays: Material S.M. steel Tensile strength 44/50 kg/mm<sup>2</sup>

At body of stay 70, 60% No. of threads per inch 6 Area supported by each stay 400 x 450%

Over threads 76, 70% Screw stays: Material S.M. steel Tensile strength 41/47 kg/mm<sup>2</sup>

Working pressure by Rules App'd At turned off part 1 1/4", 1 1/2" No. of threads per inch 9 Area supported by each stay 190 x 185% & 165 x 185%

95  
13/12/54  
from  
Suez  
vessel



Working pressure by Rules App'd Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part 1 1/2" or Over threads 1 1/2" }  
No. of threads per inch 9 Area supported by each stay 255 x 185 7/8 Working pressure by Rules App'd  
Tubes: Material SM steel External diameter { Plain 7 1/2" Stay 7 1/2" } Thickness { 3.25 7/8 8 7/8 } No. of threads per inch 9  
Pitch of tubes 10 1/2 x 10 1/2 7/8 Working pressure by Rules App'd Manhole compensation: Size of opening  
shell plate 320 x 425 7/8 Section of compensating ring 7 1/2 x 18 7/8 No. of rivets and diameter of rivet holes 34 x 23 7/8  
Outer row rivet pitch at ends 1 1/2 7/8 Depth of flange if manhole flanged — Steam Dome: Material SM steel  
Tensile strength 48/48 kg/cm<sup>2</sup> Thickness of shell 13 7/8 Description of longitudinal joint Class I welded  
Diameter of rivet holes — Pitch of rivets — Percentage of strength of joint { Plate — Rivets — }  
Internal diameter 662 7/8 Working pressure by Rules App'd Thickness of crown 19 7/8 No. and diameter  
stays — Inner radius of crown R = 700 7/8 Working pressure by Rules App'd  
How connected to shell fusion welded Size of doubling plate under dome — Diameter of rivet holes and pitch  
of rivets in outer row in dome connection to shell 23 x 8 3/8

Type of Superheater Not fitted 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 or  
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  
Rules — Pressure to which the safety valves are adjusted — Hydraulic test pressure  
tubes — forgings and castings — and after assembly in place — Are drain cocks  
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,  
H. Machiniefabriek en Ketelmakerij  
Manufactured by

Dates of Survey while building { During progress of work in shops - - - 1953: April 9-29, May 16, July 21, Sept 1-20, Oct 8-12, 19, 26, 28, 30, Dec 15, 1954: Jan 8-13, 22, Feb 2, 9, 24, March 9, April 16-20, May 10, 1954: July 24, Aug 8, Sept 1 } Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) 23-10-52  
Total No. of visits 26

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

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

This boiler has been constructed under Special Survey in accordance with the approved plans, Secretary's letters and Society's Rules. Materials have been tested as required and the workmanship is good. The boiler has been satisfactory fitted in the vessel and the safety valves adjusted under steam to the approved working pressure. In my opinion this boiler merits the approval of the Committee.  
Thickness of adjusting washers: P 14.4 7/8 - S 17.2 1/8

Survey Fee ... £ 137.50 } When applied for 23.11.1954  
Travelling Expenses (if any) £ 40. = } When received 19.11.1954

Cont. No 21422.

E. M. Dunder  
Engineer Surveyor to Lloyd's Register of Ship

Committee's Minute FRIDAY - 4 FEB 1955

Assigned See F.E. Kpl. 1.