

REPORT ON BOILERS.

No. 22962.

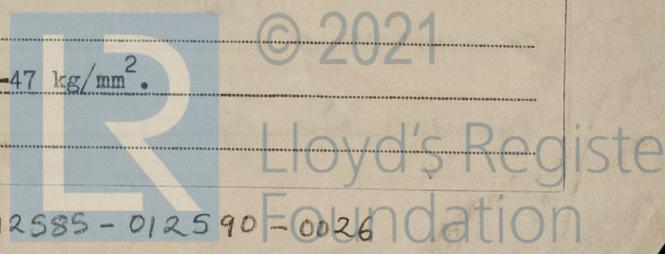
21 JAN 1957

Received at London Office.....

Writing Report 14/1 1957. When handed in at Local Office 18/1 1957. Port of GOTHENBURG.
 Survey held at GOTHENBURG. Date, First Survey 10/11-1956. Last Survey 12/1 1957.
 (Number of Visits 24.) Tons { Gross 13,200
 Net.....
 Malmö. By whom built Kockums Mek. Verkstads A.-B. Yard No. 394 When built.....
 Malmö. By whom made Kockums Mek. Verkstads A.-B. Engine No. When made.....
 Gothenburg. By whom made A.-B. Lindholmens Varv Boiler No. 3210/11 When made 1956-7.
 Owners Rederi A.-B. Clipper Port belonging to Malmö.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Mannesmann Hüttenwerke AG.; A.-B. Storfors Rörverk; A.-B. Motala Verkstad.
 Heating Surface of Boilers 2x2710 = 5420 sq.ft. 5423 Of Superheaters ---
 Is forced draught fitted Yes. Coal or Oil fired Oil fired.
 Description of Boilers 2 single - ended multitubular, Scotch Working Pressure 180 lbs/sq".
 Tested by hydraulic pressure to 320 lbs/sq" Date of test 31/12-56. No. of Certificate 758 Can each boiler be worked separately ---
 Firegrate in each Boiler --- No. and Description of safety valves to each boiler ---
 Pressure to which they are adjusted --- Are they fitted with easing gear ---
 Distance between boilers or uptakes and bunkers or woodwork --- Is oil fuel carried in the double bottom under boilers ---
 Is the bottom of the boiler insulated ---
 internal dia. of boilers 4200 mm. Length 3520 mm. Shell plates: Material S.M. Steel Tensile strength 44-50 kg/mm².
 Have all the requirements of the Rules for Class I vessels Yes.
 Thickness 28,5 mm. Are the shell plates welded or flanged EW. Description of riveting circ. seams { end EW.
 inter.....
 Diameter of rivet holes in { circ. seams.....
 long. seams..... Pitch of rivets {
 Percentage of strength of circ. intermediate seam { plate.....
 rivets.....
 Description of riveting long. joints { plate.....
 rivets.....
 combined.....
 No. and Description of Furnaces in each Boiler 3 Morison corrugated.
 Material S.M. Steel Tensile strength 41-47 kg/mm² Smallest outside diameter 1026 mm.
 Thickness of plates 13 mm. Description of longitudinal joint EW.
 Material S.M. Steel Tensile strength 41-47 kg/mm² Thickness 25 mm. Pitch of stays 535x410 mm.
 stays secured EW. with outside washers.
 Material { front S.M. Steel Tensile strength { 41-47 kg/mm²
 back S.M. Steel Tensile strength { 41-47 kg/mm² Thickness { 25 mm.
21 mm.
 Pitch of stay tubes in nests 271 mm. Pitch across wide water spaces 350 mm.
 Material S.M. Steel Tensile strength 44-50 kg/mm² Depth and thickness of girder
200x28,5 mm. Length as per Rule 812 mm. Distance apart 200 mm. No. and pitch of stays
 Cont. EW. Combustion chamber plates; Material S.M. Steel.
 Tensile strength 41-47 kg/mm² Thickness: Sides 17 mm. Back 17 mm. Top 17 mm. Bottom 17 mm.
 Sides 165x215 mm. Back 190x184 mm. Top 200xC.E.W. Are stays fitted with nuts or riveted over EW.
 Material S.M. Steel Tensile strength 41-47 kg/mm²
 Lower back plate: Material S.M. Steel Tensile strength 41-47 kg/mm² Thickness 25 mm.
 stays at wide water space 350 mm. Are stays fitted with nuts or riveted over EW.
 Material S.M. Steel. Tensile strength 44-50 kg/mm²
 No. of threads per inch EW.
 Material S.M. Steel. Tensile strength 41-47 kg/mm²
 No. of threads per inch EW.



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Are the stays drilled at the outer ends Yes. Margin stays: Diameter ~~40 mm.~~ 47 mm.
 No. of threads per inch EW.
 Tubes: Material S.M. Steel External diameter { Plain 63.5 mm. Thickness 3.65 mm. No. of threads per inch 9.
 { Stay 63.5 mm. Thickness 9 mm.
 Pitch of tubes √92 x 87 mm. Manhole compensation: Size of shell plate √477 x 377 mm. Section of compensating ring 9234 mm² 162 x 28.5 No. of rivets and diameter of rivet holes EW.
 Outer row rivet pitch at ends --- Depth of flange if manhole flanged --- Steam Dome: Material S.M. Steel
 Tensile strength 41-47 kg/mm² Thickness of shell √15 mm. Description of longitudinal joint EW.
 Diameter of rivet holes E.W. Pitch of rivets --- Percentage of strength of joint { Plate ---
 { Rivets ---
 Internal diameter 820 mm. Thickness of crown √15 mm. No. and diameter of stays None. Inner radius of crown 680 mm.
 How connected to shell EW. Size of doubling plate under dome √20 x 160 mm. Diameter of rivet holes of rivets in outer row in dome connection to shell EW.
 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 from the boiler ---
 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 ---
 Pressure to which the safety valves are adjusted --- Hydraulic test ---
 tubes --- forgings and castings --- and after assembly in place --- Are drawn ---
 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,
 AKTIEBOLAGET LINDHOLMENS VARV
 ANGEFÖRENDE
 [Signature]

Dates of Survey { During progress of work in shops - - } 10/11-1956 - 12/1-1957. Are the approved plans of boiler and superheater forwarded herewith 29/1
 { During erection on board vessel - - - } --- (If not state date of approval.)
 Total No. of visits 24.

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 built under Special Survey in accordance with the Rules for Welded Pressure Vessels Class I and the approved plans.
 The workmanship is good.
 All welded parts of the boilers have been stress-relieved in accordance with the Rules.
 The material fulfills the requirements of the Rules. Test sheets attached.
 Routine tests of welding have been carried out with satisfactory results. Plans showing the position number of X-ray films and on which it is indicated the category in which each film was placed by Tekniska Röntgencentralen are attached.

The Donkey Boilers have been marked:-

NO. 758 GOT.	NO. 760 GOT.
LLOYD'S TEST 320 lbs.	LLOYD'S TEST 320 lbs.
WP. 180 lbs.	WP. 180 lbs.
SJ. 31.12.56	SJ. 12.1.57
LV. No. 3210	LV. No. 3211

Survey Fee ... Kr. : 1.400:- } When applied for 18/1 1957.
 Travelling Expenses (if any) £ : : } When received 19.....

[Signature]
 Engineer Surveyor to Lloyd's Register of Shipping

TUESDAY - 4 MAR 1958

Committee's Minute ---

Assigned See Rpt. 1.

