

REPORT ON BOILERS.

No. 18730.

Received at London Office

17 JAN 1952

by R. Writing Report 5th Jan. 1951 When handed in at Local Office 14th Jan. 1952. Port of Gothenburg

by R. Survey held at Gothenburg Date, First Survey 15th August Last Survey 19th December 1951.

on the Single Screw Motortanker "S H E T L A N D" (Number of Visits 42) Tons {Gross 10560 Net 6170

--- Built at Gothenburg By whom built AB Lindholmens Varv Yard No. 1017 When built 1951

s made at Kristinehamn By whom made AB Karlstads Mek. Verkstad Engine No. 20 When made 1951

made at Gothenburg By whom made AB Lindholmens Varv Boiler No. 2886 2887 When made 1951

1949 al Horse Power 357.5 Owners A/S Det Dansk-Franske Dampskibs- Port belonging to Copenhagen sellskaab.

TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel The Broomside Boiler Works Co. Ltd. (Letter for Record S.)

Heating Surface of Boilers $2 \times 200.2 \text{ m}^2 = 4310 \text{ sq. ft.}$ Is forced draught fitted No Coal or Oil fired Oil

Description of Boilers 2 single ended Multitubular Working Pressure 170 lbs

by hydraulic pressure to 305 lbs Date of test 19/9 51. No. of Certificate 588/589 Can each boiler be worked separately Yes

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

of each set of valves per boiler {per Rule 9350 mm² as fitted 15700 mm Pressure to which they are adjusted 170 lbs Are they fitted with easing gear Yes

of donkey boilers, state whether steam from main boilers can enter the donkey boiler No main boiler

rods distance between boilers or uptakes and bunkers or woodwork 1300 mm. Is oil fuel carried in the double bottom under boilers ---

raft distance between shell of boiler and tank top plating Boilers fitted on a platform Is the bottom of the boiler insulated Yes

olts internal dia. of boilers 3945 mm. Length 3370 mm. Shell plates: Material SM steel Tensile strength 44-50 kg/mm²

ons. ess 27.5 mm. Are the shell plates welded or flanged E.W. Description of riveting: circ. seams {end E.W. inter. E.W.

k. seams E.W. Diameter of rivet holes in {circ. seams --- long. seams --- Pitch of rivets {plate --- rivets ---

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

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

ess of butt straps {outer --- inner --- No. and Description of Furnaces in each Boiler 2 Morison corrugated

al. S.M. steel Tensile strength 41-47 kg/mm² Smallest outside diameter 1178

of plain part {top 180 mm. Thickness of plates {crown 14 mm. bottom 14 mm. Description of longitudinal joint E.W.

with. sions of stiffening rings on furnace or c.c. bottom --- Working pressure of furnace by Rules ---

ates in steam space: Material SM steel Tensile strength 41-47 Thickness 25 mm. Pitch of stays 540x430 mm.

re stays secured E.W. with outside washers Working pressure by Rules ---

plates: Material {front SM steel Tensile strength 41-47 kg/mm² Thickness 25 mm. back SM steel Tensile strength 41-47 kg/mm² Thickness 20 mm.

nd. ap. pitch of stay tubes in nests 252.5 mm. Pitch across wide water spaces 360 mm. Working pressure {front --- back ---

p. was to combustion chamber tops: Material SM steel Tensile strength 44-50 kg/mm² Depth and thickness of girder

ched. are 210 x 25 mm. Length as per Rule 684 mm. Distance apart 215 No. and pitch of stays

lder. Cont. E.W. Working pressure by Rules --- Combustion chamber plates: Material SM steel

this. e strength 41-47 kg/mm² Thickness: Sides 17.6 mm. Back 16 mm. Top 17.6 mm. Bottom 17.6 mm.

rvey. of stays to ditto: Sides 220 x 205 mm. Back 245 x 205 mm. Top 25 x cont. E.W. Are stays fitted with nuts or riveted over E.W. in shell R.O.

ng pressure by Rules --- Front plate at bottom: Material SM steel Tensile strength 41-47 kgs/mm²

ess. 25 mm. Lower back plate: Material SM steel Tensile strength 41-47 kgs/mm² Thickness 25 mm.

of stays at wide water space 360 x 205 mm Are stays fitted with nuts or riveted over E.W.

ng Pressure --- Main stays: Material SM steel Tensile strength 44-50 kgs/mm²

ter {At body of stay 70 mm No. of threads per inch E.W. Area supported by each stay 540 x 430 mm.

ister of {XXXXXX No. of threads per inch 9 Area supported by each stay 205 x 220 mm.

ng pressure by Rules --- Screw stays: Material SM steel Tensile strength 41-47 kgs/mm²

er {XXXXXX No. of threads per inch 9 Area supported by each stay 205 x 220 mm.

Over threads 38 mm.

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Working pressure by Rules Are the stays drilled at the outer ends No Margin stays: Diameter { 40 mm.
No. of threads per inch E.W. ✓ Area supported by each stay 302.5 x 205 mm. Working pressure by Rules
Tubes: Material SM steel External diameter { Plain 76 mm. ✓ Thickness { 3.65 mm. ✓ No. of threads per inch 9
Stay 76 mm. ✓ Thickness { 8.0 mm. ✓
Pitch of tubes 101 x 101 ✓ Working pressure by Rules Manhole compensation: Size of
shell plate 570 x 455 Section of compensating ring 10235 mm² ✓ No. of rivets and diameter of rivet holes E.W.
Outer row rivet pitch at ends Depth of flange if manhole flanged 90 mm. ✓ 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 d
stays Inner radius of crown Working pressure by Rules
How connected to shell Size of doubling plate under dome Diameter of rivet holes
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
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 press
Rules Pressure to which the safety valves are adjusted Hydraulic test
tubes forgings and castings and after assembly in place Are drain
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

ÅKERSTRAK 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

Dates { During progress of 15/8 - 19/12 1951 Are the approved plans of boiler and superheater forwarded herewith
of Survey { work in shops - -
while { During erection on
building { board vessel - -
Total No. of visits 42

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. M/t "SLIEDRECHT". Got. F.E. rpt. No.
M/t "NERMA DAN". Got. F.E. rpt. No.
M/t "CHRISTIANSBORG". Got. F.E. rpt. No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These donkey boilers have been built under s
survey in accordance with the Rules for Welded Pressure Vessels Class I and the approved plans. The workmanship
good. All welded parts of the boilers have been stress-relieved in accordance with the Rules. The material fulf
requirements of the Rules. Test sheets of the material attached. Chalmers' certificate of routine test of weldin
out in my presence and plan showing the number and position of X-ray films on which it is indicated the category
each film was placed by Tekniska Röntgencentralen and four representative films are attached. Macro test have be
carried out at the works of AB Lindholmens Varv with satisfactory result. The boilers have been marked:

No. 588
Lloyd's test 305 lbs
WP 170 lbs
SJ 19.9.51

No. 589
Lloyd's test 305 lbs
WP 170 lbs
SJ 19.9.51

Survey Fee Kr. 1090:- } When applied for, 14/1 19 52
Travelling Expenses (if any) £ :-- :- } When received, 19 --

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 19 FEB 1952

Assigned

See F.E. mch. spk.