

REPORT ON BOILERS.

No. 6081

Received at London Office 17 JAN 1946

Date of writing Report 10.1.1946 When handed in at Local Office 10

Port of Stockholm.

No. in
Reg. Book

Survey held at Varkkipää & Stockholm Date, First Survey 2.12.1944 Last Survey 5.12.1945

on the Steel Hopper-barge "Klöverdus"

(Number of Visits 6)

Gross 221
Net 466

Built at Stockholm By whom built P. Ekensberg & Son Yard No. 185 When built 1945
 Engines made at Stockholm By whom made Alfabataskälen -
 W. Söderström & Söner Engine No. 8600 Z When made 1945
 Boilers made at Varkkipää By whom made U. K. Verstedt & Söner Boiler No. 1505 When made 1945
 Owners The Eastern Shipping Co. Ltd. Port belonging to Oslo.

VERTICAL DONKEY BOILER.

Made at Varkkipää By whom made U. K. Verstedt & Söner Boiler No. 1505 When made 1944 Where fixed Stockholm.

Manufacturers of Steel Oegerdars Jernverk AB, Oegerfors.

Total Heating Surface of Boiler 15 m² Is forced draught fitted No Coal or Oil fired Oil ✓

No. and Description of Boilers One Rapid Donkey Boiler Working pressure 8 kg/cm²

Tested by hydraulic pressure to 16 kg/cm² Date of test 21.12.44. No. of Certificate 114

Area of Firegrate in each Boiler 0.55 m² No. and Description of safety valves to each boiler Double spring-loaded.

Area of each set of valves per boiler { per rule 22.7 cm² 10.11 cm² as fitted 22.7 cm² Pressure to which they are adjusted Are they fitted with easing gear Yes ✓

State whether steam from main boilers can enter the donkey boiler No main boilers Smallest distance between boiler or uptake and bunkers

for woodwork Is oil fuel carried in the double bottom under boiler Yes Smallest distance between base of boiler and tank top plating

680 mm Is the base of the boiler insulated Yes Largest internal dia. of boiler 1000 mm Height 2850 mm

Shell plates: Material S.W. Steel Tensile strength 44-55 kg/cm² Thickness 11 mm

Are the shell plates welded or flanged No Description of riveting: circ. seams { end S.R. ✓ inter. ✓ long. seams D.R. ✓

Dia. of rivet holes in { circ. seams 20 mm ✓ Pitch of rivets { 48 mm ✓ Percentage of strength of circ. seams { plate 58.4 ✓ rivets 45.2 ✓ of Longitudinal joint { plate 20.0 ✓ rivets 64.5 ✓ combined. ✓

Working pressure of shell by rules 15.2 kg/cm² Thickness of butt straps { outer ✓ inner ✓

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Dished partial sphere Material S.W. Steel

Tensile strength 41-42 kg/cm² Thickness 12 mm Radius 800 mm Working pressure by rules 14.1 kg/cm²

Description of Furnace: Plain, spherical, or dished crown Dished crown Material S.W. Steel Tensile strength 41-42 kg/cm²

Thickness 14 mm External diameter { top 810 mm ✓ bottom 265 mm ✓ Length as per rule Working pressure by rules 10 kg/cm²

Pitch of support stays circumferentially ✓ and vertically ✓ Are stays fitted with nuts or riveted over ✓

Diameter of stays over thread Radius of spherical or dished furnace crown Working pressure by rule

Thickness of Ogee Ring 11 mm Diameter as per rule { D 950 mm ✓ d 820 mm ✓ Working pressure by rule 8.6 kg/cm²

Combustion Chamber: Material S.W. Steel Tensile strength 41-42 kg/cm² Thickness of top plate 14 mm

Radius if dished Not dished Working pressure by rule Thickness of back plate 11 mm Diameter if circular 380-400 mm

Length as per rule Pitch of stays 225 x 129 mm Are stays fitted with nuts or riveted over Riveted & E.W.

Diameter of stays over thread 32 mm Working pressure of back plate by rules 10.1 kg/cm²

Tube Plates: Material { front S.W. Steel ✓ back - Tensile strength { 41-42 kg/cm² ✓ Thickness { 14 mm ✓ Mean pitch of stay tubes in nests 160 mm

If comprising shell, Dia. as per rule { front ✓ back ✓ Pitch in outer vertical rows { Dia. of tube holes FRONT { stay 54.5 mm ✓ plain - BACK { stay 51 mm ✓ plain -

Is each alternate tube in outer vertical rows a stay tube No Working pressure by rules { front 11.4 kg/cm² ✓ back 11.4 -

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 rule

Crown stays: Material *None* 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 *S.S. Steel* Tensile strength *41-42 kg/cm²* Diameter *✓* { at turned off part, *28 mm* *✓*
or
over threads *32* *✓* No. of threads per inch *9*

Area supported by each stay *225 x 170 mm* Working pressure by rules *9.6 kg/cm²* Are the stays drilled at the outer ends *no*

Tubes: Material *S.S. Steel* External diameter *✓* { plain *51 mm* *✓*
stay *51 mm* *✓* Thickness *✓* { *3 mm* *✓*
6.5 *✓*

No. of threads per inch *9* Pitch of tubes *90 x 80 mm* Working pressure by rules *11 kg/cm²*

Manhole Compensation: Size of opening in shell plate *300 x 400 mm* Section of compensating ring *100 x 15 mm* No. of rivets and diameter

of rivet holes *E.W.* Outer row rivet pitch at ends *E.W.* Depth of flange if manhole flanged *✓*

Uptake: External diameter *✓* Thickness of uptake plate *✓*

Cross Tubes: No. *✓* External diameters *✓* Thickness of plates *✓*

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *Yes*.

The foregoing is a correct description,
W. Söderströms Gjuteri & Mek. Verkstads A.-B.
Gustav J. Johansson Manufacturer.

Dates of Survey *✓* { During progress of work in shops - *2-21/12-1944*
while building { During erection on board vessel - *12/1-5/2-1945*

Is the approved plan of boiler forwarded herewith *Yes* *17.5.44*
(If not state date of approval.)

Total No. of visits *6*

Is this Boiler a duplicate of a previous case *Yes* If so, state Vessel's name and Report No. *"Horsmann", No. 5258*

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

This Donkey Boiler has been built under Special Survey and all the requirements of the Rules which are applicable have been complied with. The workmanship is good and the material fulfils the requirements of the Rules. The dimensions are as specified and in accordance with the Rules and approved plan.

The boiler has been fitted onboard under my supervision and to my satisfaction.

The material for this boiler is made and tested in Sweden.

Survey Fee ... *46.80:-* When applied for, *10.1.1946*
Travelling Expenses (if any) *42.85* When received, *19*

Committee's Minute *FRI. 1 MAR 1946*

Assigned *See F.E. machy, spt.*

Shankar P. Chow.
Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register
Foundation