

REPORT ON BOILERS.

No. 10742.

Received at London Office

DEC 10 1938

Date of writing Report 29/11 1938 When handed in at Local Office 19 Port of Copenhagen
 No. in Survey held at Copenhagen & Odense Date, First Survey 11th June Last Survey 24th Nov 1938
 No. of Book 364 on the Single Se. Motor Vessel "HULDA MERSK" (Number of Visits 12) Gross Tons 5601
 Net Tons 3390
 Built at Odense By whom built L. Odense Staalskibsværkt Card No. 75 When built 1938
 Engines made at Copenhagen By whom made Apf. Bunnies & Waini Engine No. 2834 When made 1938
Martin og Steenbyggeri
 Boilers made at Copenhagen By whom made as Smiths, Olygin & Hillomier Boiler No. 719 When made 1938
 Owners 4th of "Sundborg" og "S of 1912" of "S" Port belonging to Copenhagen

MULTITUBULAR BOILERS MAIN, AUXILIARY OR DONKEY.

Tubes: Stillerdunkels-Steelwerke of G. Pies a

Plates: Deutsche Rohrenwerke of G. Werk Thymer. Rivets: Lehr Bros Copenhagen

Yuted at base of funnel

Heating Surface of Boilers 60 m² Is forced draught fitted no Coal or Oil fired oil & gas
 and Description of Boilers 1 off vertical, multitubular Working Pressure 7 kg/cm²
 Tested by hydraulic pressure to 4 kg/cm² Date of test 8.8.38 No. of Certificate 628 Can each boiler be worked separately yes
 No. of Firegrate in each Boiler - No. and Description of safety valves to each boiler 2 off 2" diam. direct spring loaded
 of each set of valves per boiler { per Rule 2280 as fitted 4057 Pressure to which they are adjusted 100 lb/sq" Are they fitted with easing gear yes
 Use of donkey boilers, state whether steam from main boilers can enter the donkey boiler no main boilers

Least distance between boilers or uptakes and bunkers or woodwork - Is oil fuel carried in the double bottom under boilers -
 Least distance between shell of boiler and tank top plating boiler placed in funnel Is the bottom of the boiler insulated -
 Internal dia. of boilers 2000 Length 2182 Shell plates: Material S. M. Steel Tensile strength 44/50 kg/cm²
 Thickness 11 Are the shell plates welded or flanged no Description of riveting: circ. seams { end single inter. -
 Diameter of rivet holes in { circ. seams 20.5 long. seams 20.5 Pitch of rivets { 45 90
 Percentage of strength of circ. end seams { plate 54.5 rivets 54.5 Percentage of strength of circ. intermediate seam { plate - rivets -
 Percentage of strength of longitudinal joint { plate 77.2 rivets 130 combined 81.8 Working pressure of shell by Rules 118 lb/sq"
 Thickness of butt straps { outer 11 inner 11

No. and Description of Furnaces in each Boiler -
 Tensile strength - Smallest outside diameter -
 Thickness of plates { crown - bottom - Description of longitudinal joint -
 Working pressure of furnace by Rules -

Plates in steam space: Material - Tensile strength - Thickness - Pitch of stays -
 Working pressure by Rules -
 Material { front S. M. Steel back - Tensile strength 41/47 kg/cm² Thickness 19
 Pitch of stay tubes in nests - Pitch across wide water spaces D = 405 Working pressure { front 10.35 back -

Plates to combustion chamber tops: Material - Tensile strength - Depth and thickness of girder -
 Length as per Rule - Distance apart - No. and pitch of stays -
 Working pressure by Rules - Combustion chamber plates: Material -
 Thickness: Sides - Back - Top - Bottom -

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 -
 Lower back plate: Material - Tensile strength - Thickness -

Stays at wide water space - Are stays fitted with nuts or riveted over -
 Working pressure - Main stays: Material - Tensile strength -
 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 -
 At turned off part, or Over threads - No. of threads per inch - Area supported by each stay -



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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 No. of threads per inch 11

Tubes: Material *S. C. H. Steel* External diameter { Plain *89 mm* Stay *89 mm* Thickness *1/4"* Working pressure by Rules *8.5 kg/cm²* Manhole compensation: Size of opening *40 of 20.5 mm*

Pitch of tubes *120 mm* Working pressure by Rules *8.5 kg/cm²* No. of rivets and diameter of rivet holes *40 of 20.5 mm*

shell plate *320 x 420 mm* Section of compensating ring *flat 15 mm thick* Steam Dome: Material

Outer row rivet pitch at ends *100 mm* Depth of flange if manhole flanged

Tensile strength Thickness of shell Description of longitudinal joint

Diameter of rivet holes Pitch of rivets Percentage of strength of joint { Plate Rivet

Internal diameter Working pressure by Rules Thickness of crown No. and diameter

stays Inner radius of crown Working pressure by Rules Diameter of rivet holes and

How connected to shell Size of doubling plate under dome

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 Thickness Can the superheater be shut off

Material of headers Tensile strength

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 casing gear Working pressure

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,

SMITH, MÖRNING & HÜTTEMEIER Manufaktur

Dates of Survey while building { During progress of work in shops - - - } *11/6-4/7-14/7-18/7-8/8-1938* Are the approved plans of boiler and superheater forwarded herewith *16/3* (If not state date of approval.)

{ During erection on board vessel - - - } *27/9-11/10-17/10-24/10-2/11-4/11-24/11-1938* Total No. of visits *12.*

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.) *This boiler has been constructed and fitted on board the vessel under special survey in accordance with the Rules, the approved plans and the Section letters.*

The material used in construction has been tested as required by the Rules and the workmanship is good

Survey Fee ... *Fr. 94.08* : } When applied for, *9.12.1938*

Travelling Expenses (if any) *Fr. 4.70* : } When received, *16.1.1939*

J. Langhild Jensen
Engineer Surveyor to Lloyd's Register of

Committee's Minute **TUE 31 JAN 1939**

Assigned *See FE machy etc*

