

# REPORT ON BOILERS.

No. 9736.

Received at London Office 14 OCT 5

Date of writing Report 8<sup>th</sup> October 1935 When handed in at Local Office 8<sup>th</sup> October 1935 Port of Copenhagen

No. in Reg. Book. 31723 on the Single Screw Motor Vessel PETER MÆRSK Date, First Survey 8<sup>th</sup> July 1935 Last Survey 15<sup>th</sup> October 1935 (Number of Visits 10) Gross 5339 Tons Net 3341

Built at Odense By whom built Odense Staalskibs værft & A. P. Schøller Yard No. 45 When built 1932-33  
Engines made at Copenhagen By whom made Aht. Bumsen & Wain Engine No. - When made 1932  
Boilers made at - By whom made - Boiler No. - When made -  
Owner 7/5 Srensen & 7/5 P's of 1912 (A. P. Schøller Copenhagen Skips) Port belonging to Copenhagen.

## VERTICAL DONKEY BOILER.

Made at Copenhagen By whom made Smith, Mygind & Hillemeier Boiler No. 678 When made 1935 Where fixed in the motor room  
Manufacturers of Steel Plates: Apploy, Frødin, Kram, Søl, & Co. Ltd. Scunthorpe, Linc., The Steel Co. of Scotland  
Tubes: Sandviken Jernværk 3/3 Sweden, Rints: Havn, Bors. Copenhagen.

Total Heating Surface of Boiler 52 m<sup>2</sup> Is forced draught fitted yes Coal or Oil fired oil fired

No. and Description of Boilers one multitubular, with crossed smoke tubes Working pressure 100 lbs/sq. in.

Tested by hydraulic pressure to 200 lbs/sq. in. Date of test 6.9.35 No. of Certificate 575

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler 2 off direct spring loaded, 65 mm diam.

Area of each set of valves per boiler per rule 3025 mm<sup>2</sup> as fitted 6637 mm<sup>2</sup> Pressure to which they are adjusted 100 lbs/sq. in. Are they fitted with easing gear yes

State whether steam from main boilers can enter the donkey boiler - Smallest distance between boiler or uptake and bunkers

or woodwork no woodwork Is oil fuel carried in the double bottom under boiler yes Smallest distance between base of boiler and tank top plating

33" Is the base of the boiler insulated yes Largest internal dia. of boiler 2100 mm Height 4228 mm

Shell plates: Material S. sh. Steel Tensile strength 28.6-29.2 lbs/sq. in. Thickness upper 12 mm lower 16 mm

Are the shell plates welded or flanged no Description of riveting: circ. seams end lap single r. long. seams 266 bolts - 266 rivets

Dia. of rivet holes in circ. seams 20.5 mm Pitch of rivets 50 mm Percentage of strength of circ. seams plate 79 rivets 45 of Longitudinal joint plate 79 rivets 112 combined 85

Working pressure of shell by rules 128 lbs/sq. in. Thickness of butt straps outer 12 mm inner 12 mm

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

Tensile strength 28.8 lbs/sq. in. Thickness 16 mm Radius 1829 mm Working pressure by rules 111 lbs/sq. in.

Description of Furnace: Plain, spherical, or dished crown spherical Material S. sh. Steel Tensile strength 27.8 lbs/sq. in.

Thickness 17 mm External diameter top 1400 mm bottom 2036 mm Length as per rule ab. 825 mm Working pressure by rules 128 lbs

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 32 mm Diameter as per rule D 2100 d 2036 Working pressure by rule as approved 100 lbs

Combustion Chamber: Material - Tensile strength - Thickness of top plate -

Radius if dished - Working pressure by rule - Thickness of back plate - Diameter if circular -

Length as per rule - Pitch of stays - Are stays fitted with nuts or riveted over -

Diameter of stays over thread - Working pressure of back plate by rules -

Tube Plates: Material front S. sh. Steel back S. sh. Steel Tensile strength 28.34 lbs/sq. in. Thickness 17 mm Mean pitch of stay tubes in nests 288 mm

If comprising shell, Dia. as per rule front - back - Pitch in outer vertical rows 200 mm Dia. of tube holes FRONT stay 82 mm plain 79 mm BACK stay 76 mm plain 76 mm

Is each alternate tube in outer vertical rows a stay tube all stay tubes Working pressure by rules front 123 lbs/sq. in. back 123 lbs/sq. in.

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 ☒ 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 ☒ Tensile strength ☒ Diameter { at turned off part, ☒ or over threads ☒ No. of threads per inch ☒

Area supported by each stay ☒ Working pressure by rules ☒ Are the stays drilled at the outer ends ☒

**Tubes:** Material S. M. Steel External diameter { plain 76 mm stay 76 mm Thickness { 3.25 mm (146-18/10) 6.5 mm

No. of threads per inch 11 Pitch of tubes 200 x 107 mm Working pressure by rules 140 lbs/10"

**Manhole Compensation:** Size of opening in shell plate 320 x 420 mm Section of compensating ring (17 x 165) x 2 mm No. of rivets and diameter of rivet holes 40 of 20.5 mm Outer row rivet pitch at ends 100 mm 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 23 inclusive for boilers been complied with yes

The foregoing is a correct description,  
**SMITH, MYOIND & HOTTEMEIER**  
*Quinckey* Manufacturer.

Dates { During progress of work in shops - 8/7-13/7-2/8-13/8-22/8-4/9-1935 Is the approved plan of boiler forwarded herewith yes  
 while building { During erection on board vessel - 11/9-16/9-21/9-28/9 (If not state date of approval.)  
 Total No. of visits 10

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) This donkey boiler has been constructed under special survey in accordance with the Rules, the approved plan, and the requirements contained in the Secretary's Letter E dated 12/7-1935

The material used in construction is in accordance with the rules as per certificates produced and the workmanship is good.  
The boiler was fitted on board by Messrs T. B. Burmeister & Wain to my satisfaction.  
In addition to the old feed pump and the steam injector, a new "Eureka" duplex feed pump 135 x 90 x 125 mm has been fitted

Recommend the vessel's machinery to have notation in the Register Book of DB - 100 lbs

Survey Fee £ 150.00 When applied for 11.10.35  
 Travelling Expenses (if any) £ 5.75 When received 3.12.35

Committee's Minute

Assigned

See Cpn. Rpt. 9736

FRI. 1 NOV 1935

TUE. 24 DEC 1935

FRI. 17 APR 1936

FRI. 8 MAY 1936

Engineer Surveyor to Lloyd's Register of Shipping.

TUE. 15 SEP 1936

FRI. 13 FEB 1937

FRI. 19 FEB 1937

Lloyd's Register  
Foundation