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# REPORT ON BOILERS.

No. 16574

Received at London Office

7 JUL 1927

of writing Report 12.6.27 When handed in at Local Office 1927 Port of Rotterdam

Survey held at Rotterdam Date, First Survey 20.5.27 Last Survey 4.2.1926

on the donkey boiler MV, TROCAS (Number of Visits 18) Tons { Gross Net

Built at Rotterdam By whom built Rottdroogd My Yard No. 99 When built 1927

plates made at New Castle By whom made North Eastern Marine Engine No. 298/99 When made 1926

boilers made at Rotterdam By whom made Rottdroogd My Boiler No. When made 1926

nominal Horse Power 1200 Owners Anglo Saxon Petroleum Co Port belonging to London

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel David Colville & Sons Ltd (Letter for Record S)

Heating Surface of Boilers 2452 sq ft Is forced draught fitted Yes Coal or Oil fired Oil

Description of Boilers Single ended Multitubular marine busbars Working Pressure 12.65 kg

Tested by hydraulic pressure to 320 lbs Date of test 4.2.26 No. of Certificate 8334 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler 2 high lifting spring loaded

Pressure of each set of valves per boiler per Rule - Pressure to which they are adjusted 100 lbs Are they fitted with easing gear Yes

Use of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes

Least distance between boilers or uptakes and bunkers or woodwork Over 24" Is oil fuel carried in the double bottom under boilers Yes

Least distance between shell of boiler and tank top plating As per top of engine room Is the bottom of the boiler insulated Yes

Least internal dia. of boilers 350 mm Length 3250 mm Shell plates: Material J.M. Steel Tensile strength 29.5-33 Tons

Thickness 25 mm Are the shell plates welded or flanged No Description of riveting: circ. seams { end lap 2 x riv inter. -

Seams Double butt 5 x riv Diameter of rivet holes in { circ. seams 25 mm Pitch of rivets { 85.5 mm { long. seams 25 mm { 170 mm

Percentage of strength of circ. end seams { plate 70% rivets 51% Percentage of strength of circ. intermediate seam { plate - rivets -

Percentage of strength of longitudinal joint { plate 85.5% rivets 86.5% combined 87.8% Working pressure of shell by Rules 13.2 kg

Thickness of butt straps { outer 21 mm inner 21 mm No. and Description of Furnaces in each Boiler 2 Morrison patent

Material J.M. Steel Tensile strength 26.30 Tons Smallest outside diameter 874 mm

Thickness of plates { crown 12 mm bottom 12 mm Description of longitudinal joint Welded

Dimensions of stiffening rings on furnace or c.c. bottom - Working pressure of furnace by Rules 13.5 kg

plates in steam space: Material J.M. Steel Tensile strength 26.30 Tons Thickness 25 mm Pitch of stays 400x400 mm

Are stays secured Screwed in plates with nuts outside Working pressure by Rules 12.6 kg

plates: Material { front J.M. Steel back J.M. Steel Tensile strength { 26.30 Tons Thickness { 25 mm { 20 mm

pitch of stay tubes in nests 300x200 mm Pitch across wide water spaces 860 mm Working pressure { front 12.6 kg back -

Stays to combustion chamber tops: Material J.M. Steel Tensile strength 20.32 Tons Depth and thickness of girder

centre 160x2x19 mm Length as per Rule 650 mm Distance apart 200 mm No. and pitch of stays

pitch 2 in 210 mm Working pressure by Rules 17.7 kg Combustion chamber plates: Material J.M. Steel

Tensile strength 26.32 Tons Thickness: Sides 10 mm Back 10 mm Top 10 mm Bottom 10 mm Top solid heads

pitch of stays to ditto: Sides 210x183 mm Back 213x189 mm Top 210x200 mm Are stays fitted with nuts or riveted over riveted over

Working pressure by Rules 13.6 kg Front plate at bottom: Material J.M. Steel Tensile strength 26.30 Tons

Thickness 25 mm Lower back plate: Material J.M. Steel Tensile strength 26.30 Tons Thickness 25 mm

pitch of stays at wide water space 350 mm Are stays fitted with nuts or riveted over Fitted with nuts

Working Pressure 17.7 kg Main stays: Material J.M. Steel Tensile strength 20.32 Tons

At body of stay, 60 mm No. of threads per inch 9 Area supported by each stay 160000 mm<sup>2</sup>

Over threads 70 mm Working pressure by Rules 16.6 kg Screw stays: Material J.M. Steel Tensile strength 20.32 Tons

At turned off part, 24 mm No. of threads per inch 9 Area supported by each stay 40251 mm<sup>2</sup>

Over threads 1 1/4" 38 mm 39450 mm<sup>2</sup>

