

# REPORT ON BOILERS.

No. 12346

13 AUG 1931

Received at London Office

Date of writing Report 5 Aug 1931. When handed in at Local Office

Port of AMSTERDAM

No. in Survey held at AMSTERDAM

Date, First Survey 4 April 1930 Last Survey 29 June 1931

(Number of Visits 9) Gross Tons - Net -

13. 59517 on the Steel Twin Screw M.V. "A POLLONIA"

Master - Built at ~~AMSTERDAM~~ Rotterdam By whom built N.V. Werf v. Rijkse & Co. Yard No. 202 When built 1931

Engines made at Amsterdam By whom made N.V. Werkspoor Engine No. - When made 1931

Boilers made at Amsterdam By whom made N.V. Werkspoor Boiler No. - When made 1931

Indicated Horse Power 2 X 143 Owners Nederlandsch-Indische Tank Stoomboot My. Port belonging to 's-Gravenhage

## MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Glenshel. (Letter for Record L)

Total Heating Surface of Boilers 925 sq. ft. Is forced draught fitted Yes Coal or Oil fired Oil fired

No. and Description of Boilers 1 Horizontal main boiler Working Pressure 150 lb

Tested by hydraulic pressure to 240 lb. Date of test 21.8.30 No. of Certificate 364 Can each boiler be worked separately L

Area of Firegrate in each Boiler L No. and Description of safety valves to each boiler Two Spring loaded.

Area of each set of valves per boiler (per Rule 8.4 sq. inch) (as fitted 9.4 sq. inch) Pressure to which they are adjusted 150 lb Are they fitted with easing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler L

Smallest distance between boilers or uptakes and bunkers or woodwork 12" Is oil fuel carried in the double bottom under boilers No. Oil bottom

Smallest distance between shell of boiler and tank top plating L 6" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 9' 10" Length 9' 8" Shell plates: Material Steel Tensile strength 29.55 ton

Thickness 25/32" Are the shell plates welded or flanged No Description of riveting: circ. seams end All riveted

Long. seams All butt straps, all riveted Diameter of rivet holes in (circ. seams 1" (long. seams 1" Pitch of rivets 5/16"

Percentage of strength of circ. end seams (plate 40% rivets 44% Percentage of strength of circ. intermediate seam (plate 4% rivets 2%

Percentage of strength of longitudinal joint (plate 80.8% rivets 80.5% combined 82% Working pressure of shell by Rules 165 lb

Thickness of butt straps (outer 25/32" inner 25/32" No. and Description of Furnaces in each Boiler 1 main furnace

Material Steel Tensile strength 26.30 ton Smallest outside diameter 32 1/2"

Length of plain part (top 2" bottom 2" Thickness of plates (crown 3/16" (bottom 3/16" Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom L Working pressure of furnace by Rules 190 lb

End plates in steam space: Material Steel Tensile strength 26.30 ton Thickness 1/16" Pitch of stays 15" x 15"

How are stays secured All nutted Working pressure by Rules 180 lb

End plates: Material (front Steel (back Steel Tensile strength 26.30 ton Thickness 15/16" 3/4"

Lean pitch of stay tubes in nests 10 1/4" Pitch across wide water spaces 14 1/4" Working pressure (front 165 lb (back 180 lb

Orders to combustion chamber tops: Material Steel Tensile strength 28.152 ton Depth and thickness of girder

centre 16 x 1 1/4" Length as per Rule 23 1/2" Distance apart 4 1/2" No. and pitch of stays

each 8 x 4 7/16" Working pressure by Rules 190 lb Combustion chamber plates: Material Steel

Tensile strength 26.30 ton Thickness: Sides 21.5/32" Back 21.5/32" Top 21.5/32" Bottom 21.5/32"

Pitch of stays to ditto: Sides 4 7/16" x 4 7/16" Back 8 1/4" x 4 7/16" Top 4 7/16" x 4 7/16" Are stays fitted with nuts or riveted over riveted over

Working pressure by Rules 150 lb Front plate at bottom: Material Steel Tensile strength 26.30 ton

Thickness 15/16" Lower back plate: Material Steel Tensile strength 26.30 ton Thickness 15/16"

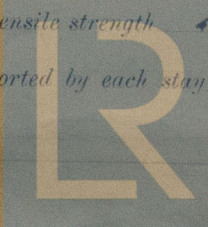
Pitch of stays at wide water space 4 7/16" x 15" Are stays fitted with nuts or riveted over nutted

Working Pressure 300 lb Main stays: Material Steel Tensile strength 28.35 ton

Diameter (At body of stay 2 3/8" (Over threads 2 3/8" No. of threads per inch 8 Area supported by each stay 225 sq. inch.

Working pressure by Rules 185 lb Screw stays: Material Steel Tensile strength 26.30 ton

Diameter (At turned off part 1 7/8" (Over threads 1 7/8" No. of threads per inch 11 Area supported by each stay 65 sq. inch.



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Foundation

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Working pressure by Rules 145 lb. Are the stays drilled at the outer ends Yes Margin stays: Diameter 1 1/2"  
 No. of threads per inch 11 Area supported by each stay 81 sq. inch. Working pressure by Rules 165 lb.  
 Tubes: Material iron (open ended) external diameter 2 3/4" Thickness 5/16" No. of threads per inch 11  
 Pitch of tubes 3 5/16" x 3 5/16" Working pressure by Rules 215 lb. Manhole compensation: Size of open  
 shell plate 14 1/2" x 18 1/2" Section of compensating ring 16 sq. inch No. of rivets and diameter of rivet holes 40 - 1 1/8"  
 Outer row rivet pitch at ends 4 1/2" Depth of flange if manhole flanged 3" Steam Dome: Material iron  
 Tensile strength 23,000 Thickness of shell 1 1/2" Description of longitudinal joint butt  
 Diameter of rivet holes 1 1/8" Pitch of rivets 2 1/2" Percentage of strength of joint 100%  
 Internal diameter 24" Working pressure by Rules 215 lb. Thickness of crown 1 1/2" No. and diameter  
 stays 12 Inner radius of crown 12" Working pressure by Rules 215 lb.  
 How connected to shell by 4 stays Size of doubling plate under dome 16 sq. inch Diameter of rivet holes and  
 of rivets in outer row in dome connection to shell 1 1/8"

Type of Superheater dry Manufacturers of Werkspoor N.V.  
 Number of elements 2 Material of tubes iron Internal diameter and thickness of tubes 2 3/4" x 5/16"  
 Material of headers iron Tensile strength 23,000 Thickness 1 1/2" Can the superheater be shut off  
 the boiler be worked separately Yes Is a safety valve fitted to every part of the superheater which can be shut off from the boiler Yes  
 Area of each safety valve 10 sq. inch Are the safety valves fitted with easing gear Yes Working pressure at  
 Rules 215 lb. Pressure to which the safety valves are adjusted 215 lb. Hydraulic test pressure  
 tubes 215 lb. and after assembly in place 215 lb. Are drain cocks or valves  
 to free the superheater from water where necessary Yes

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

The foregoing is a correct description,  
**WERKSPoor N.V.** Manufactured by

Dates of Survey 4/4, 21/4, 24/5, 3/6, 16/7, 18/8, 24/8, 1934 Are the approved plans of boiler and superheater forwarded herewith Yes  
 while building 18/7, 29/7, 2/8 (If not state date of approval.) And E. S. S. 30 London  
 Total No. of visits 9

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)  
This boiler has been constructed under special survey in accordance with the Rules, Surveyor's letter and approved plans. Material tested & required and workmanship good.

Survey Fee £ 100 When applied for 192  
 Travelling Expenses (if any) £ 100 When received 192

H. W. Bernadine  
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute TUE. 13 AUG 1934  
 Assigned Lee J. E. Rpt.