

Rpt. 5a.

REPORT ON BOILERS.

No. 12375^c

Received at London Office 13 AUG 1931

Date of writing Report 7th Aug 1931 When handed in at Local Office 19 Port of AMSTERDAM.

No. in Reg. Book. Survey held at AMSTERDAM Date, First Survey 14th Febr 1930 Last Survey 30th July 1931

14007 on the Twin Screw Motor vessel "ANGELINA" (Number of Visits 39) Tons {Gross 2086 Net 1028

Master Built at Amsterdam By whom built N.V. Ned Dok My Yard No. 38 When built 1931

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

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

Nominal Horse Power 2 x 143 Owners Ned Ind Tank Steomboot My Port belonging to s'Gravenhage

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel *Thenschel* (Letter for Record *S*)

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

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

Tested by hydraulic pressure to *275 lb* Date of test *21.8.30* No. of Certificate *349* Can each boiler be worked separately *Yes*

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 *8.44 sq in* as fitted *9.44 sq in* 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 *over 12"* Is oil fuel carried in the double bottom under boilers *None*

Smallest distance between shell of boiler and tank top plating *4 inches* Is the bottom of the boiler insulated *Yes*

Largest internal dia. of boilers *9'10"* Length *9'0"* Shell plates: Material *Steel* Tensile strength *29-33 tons*

Thickness *25/32"* Are the shell plates welded or flanged *No* Description of riveting: circ. seams {end *All rivets* inter. *L*

long. seams *All butt strap* Diameter of rivet holes in {circ. seams *1"* long. seams *1"* Pitch of rivets {*3 1/4"* *5 1/8"*

Percentage of strength of circ. end seams {plate *74%* rivets *44%* Percentage of strength of circ. intermediate seam {plate *L* rivets *L*

Percentage of strength of longitudinal joint {plate *80.8%* rivets *80.5%* combined *82.0%* Working pressure of shell by Rules *165 lb*

Thickness of butt straps {outer *23/32"* inner *23/32"* No. and Description of Furnaces in each Boiler *2 Marine furnaces*

Material *Steel* Tensile strength *26/30 tons* Smallest outside diameter *32 1/2"*

Length of plain part {top *L* bottom *L* Thickness of plates {crown *7/16"* bottom *7/16"* 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 tons* Thickness *17/16"* Pitch of stays *15" x 15"*

How are stays secured *All riveted* Working pressure by Rules *180 lb*

Tube plates: Material {front *Steel* back *Steel* Tensile strength {*26/30 tons* Thickness {*15/16"* *3/4"*

Mean pitch of stay tubes in nests *10 1/2"* Pitch across wide water spaces *14 1/4"* Working pressure {front *165 lb* back *180 lb*

Girders to combustion chamber tops: Material *Steel* Tensile strength *28/32 tons* Depth and thickness of girder

at centre *6 x 1 1/4"* Length as per Rule *23 1/2"* Distance apart *7 1/2"* No. and pitch of stays

in each *2 x 4 1/4"* Working pressure by Rules *190 lb* Combustion chamber plates: Material *Steel*

Tensile strength *26-30 tons* Thickness: Sides *21.5/32"* Back *21.5/32"* Top *21.5/32"* Bottom *21.5/32"*

Pitch of stays to ditto: Sides *4 1/16" x 4 1/16"* Back *8 1/4" x 4 5/8"* Top *4 5/8" x 4 1/2"* 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 tons*

Thickness *15/16"* Lower back plate: Material *Steel* Tensile strength *26/30 tons* Thickness *15/16"*

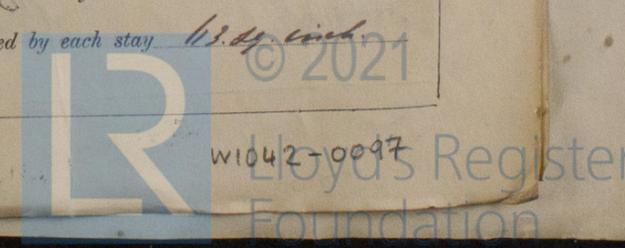
Pitch of stays at wide water space *4 5/8" x 13"* Are stays fitted with nuts or riveted over *riveted*

Working Pressure *300 lb* Main stays: Material *Steel* Tensile strength *28/32 tons*

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

Working pressure by Rules *185 lb* Screw stays: Material *Steel* Tensile strength *26/30 tons*

Diameter {At turned off part *1 5/8"* or Over threads *1 5/8"* No. of threads per inch *11* Area supported by each stay *113 sq. in.*



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 21.4 sq. inch Working pressure by Rules 165 lb
 Tubes: Material Wimpey Internal diameter 2 3/4" Thickness 5/16" No. of threads per inch 11
 Pitch of tubes 3 15/16 x 3 15/16" Working pressure by Rules 115 lb Manhole compensation: Size of opening in
 shell plate 14 1/2 x 18 1/2" Section of compensating ring 16 1/4 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 <
 Tensile strength < Thickness of shell < Description of longitudinal joint <
 Diameter of rivet holes < Pitch of rivets < Percentage of strength of joint <
 Internal diameter < Working pressure by Rules < Thickness of crown < No. and diameter of
 stays < Inner radius of crown < Working pressure by Rules <
 How connected to shell < Size of doubling plate under dome < Diameter of rivet holes and pitch
 of rivets in outer row in dome connection to shell <
 Type of Superheater < Manufacturers of < Tubes <
 Number of elements < Material of tubes < Steel castings <
 Material of headers < Tensile strength < Thickness < Internal diameter and thickness of tubes <
 the boiler be worked separately < Is a safety valve fitted to every part of the superheater which can be shut off and
 Area of each safety valve < Are the safety valves fitted with easing gear < Can the superheater be shut off and
 Rules < Pressure to which the safety valves are adjusted < Working pressure as per
 tubes < castings < and after assembly in place < Hydraulic test pressure:
 to free the superheater from water where necessary < Are drain cocks or valves fitted
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with <

The foregoing is a correct description,
WERKSPOR N.V. Manufacturer.

Dates of Survey 7/4, 21/4, 29/5, 3/6, 16/4, 2/6 Retained in London office
 while building 29/6, 30/6 Are the approved plans of boiler and superheater forwarded herewith
 (If not state date of approval.) See letter 2.5.30
 Total No. of visits 8

Is this Boiler a duplicate of a previous case < 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 under special
 supervision to accordance with the Rules and approved
 plans. Material tested as required and workmanship
 good.*

Survey Fee £ See in memorandum : : When applied for, 19
 Travelling Expenses (if any) £ Prepaid : : When received, 19

H. V. Newman
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 25 AUG 1931

Assigned See other Rpt No. 12375