

REPORT ON BOILERS.

No. 354
TUE. FEB. 3 - 1914

Received at London Office

Date of writing Report 27th Jan 1914 When handed in at Local Office

Port of Bremen.

No. in Survey held at Bremen
Reg. Book.

Date, First Survey 23rd April 1913 Last Survey 27th Jan 1914
(Number of Visits 9) Gross 5854
Tons Net 3672

on the steel sc sr "FRANKENFELS"

Master K. v. Thülen Built at Bremen By whom built Act. Ges. Weser When built 1914
Engines made at Bremen By whom made Act. Ges. Weser When made 1914
Boilers made at Bremen By whom made Act. Ges. Weser When made 1914
Registered Horse Power 520 Owners Deutscher Dampf-fabrik Ges. Weser Port belonging to Bremen

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Friedr. Krupp, Essen

(Letter for record 8) Total Heating Surface of Boilers 1026 sq ft Is forced draft fitted no No. and Description of Boilers 1 cylindrical multitubular Working Pressure 121 lbs Tested by hydraulic pressure to 182 lbs Date of test 3.10.13

No. of Certificate 70 Can each boiler be worked separately yes Area of fire grate in each boiler 45.3 sq ft No. and Description of safety valves to each boiler 2 spring loaded Area of each valve 2.4 sq in Pressure to which they are adjusted 121 lbs

Are they fitted with easing gear yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no

Smallest distance between boilers or uptakes and bunkers or woodwork 20 in Mean dia. of boilers 144 in Length 120 in

Material of shell plates 1/2 in steel Thickness .29 in Range of tensile strength 28-33 tons Are the shell plates welded or flanged yes

Descrip. of riveting: cir. seams double long. seams double Diameter of rivet holes in long. seams 1 in Pitch of rivets 6.55 in

Lap of plates or width of butt straps 14.6 in Per centages of strength of longitudinal joint rivets 130 plate 85 Working pressure of shell by rules 132 lbs Size of manhole in shell 11.8 x 15.8 in Size of compensating ring 33.9 x 29.2 in No. and Description of Furnaces in each boiler 3 plain Material 1/2 in steel Outside diameter 32.6 in Length of plain part 40 in Thickness of plates crown .62 in bottom .62 in

Description of longitudinal joint welded No. of strengthening rings 1 Working pressure of furnace by the rules 143 lbs Combustion chamber plates: Material 1/2 in steel Thickness: Sides .52 in Back .53 in Top .52 in Bottom .83 in Pitch of stays to ditto: Sides 8.2 x 2.5 in Back 8.8 x 2.1 in

Top 8.2 x 2.5 in If stays are fitted with nuts or riveted heads nuts Working pressure by rules 132 lbs Material of stays steel Diameter at smallest part 2.25 in Area supported by each stay 68.60 sq in Working pressure by rules 136 lbs End plates in steam space: Material 1/2 in steel Thickness .79 in

Pitch of stays 5.8 x 13.8 in How are stays secured double nuts Working pressure by rules 129 lbs Material of stays steel Diameter at smallest part 2.25 in

Area supported by each stay 216 sq in Working pressure by rules 138 lbs Material of Front plates at bottom 1/2 in steel Thickness .88 in Material of Lower back plate 1/2 in steel Thickness .21 in Greatest pitch of stays 15.3 x 6.3 in Working pressure of plate by rules 123 lbs Diameter of tubes 3.25 in

Pitch of tubes 4.4 x 4.5 in Material of tube plates 1/2 in steel Thickness: Front .88 in Back .29 in Mean pitch of stays 8.9 in Pitch across wide water spaces 14.4 in Working pressures by rules 125 lbs Girders to Chamber tops: Material 1/2 in steel Depth and thickness of girder at centre 2.2 x 1.01 in Length as per rule 22 in Distance apart 2.9 in Number and pitch of Stays in each 2-8.2 in

Working pressure by rules 161 lbs Superheater or Steam chest; how connected to boiler yes Can the superheater be shut off and the boiler worked separately yes Diameter yes Length yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet holes yes Pitch of rivets yes Working pressure of shell by rules yes Diameter of flue yes Material of flue plates yes Thickness yes

If stiffened with rings yes Distance between rings yes Working pressure by rules yes End plates: Thickness yes How stayed yes

Working pressure of end plates yes Area of safety valves to superheater yes Are they fitted with easing gear yes

VERTICAL DONKEY BOILER—

No. Description Manufacturers of steel

Made at By whom made When made Where fixed Working pressure

Tested by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of safety valves

No. of safety valves Area of each Pressure to which they are adjusted If fitted with easing gear If steam from main boilers can enter the donkey boiler

Dia. of donkey boiler Length Material of shell plates Thickness Range of tensile strength

Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets

Lap of plating Per centage of strength of joint Rivets Plates Working pressure of shell by rules Thickness of shell crown plates

Radius of do. No. of Stays to do. Dia. of stays Diameter of furnace Top Bottom Length of furnace

Thickness of furnace plates Description of joint Working pressure of furnace by rules Thickness of furnace crown plates

plates Radius of do. Stayed by Diameter of uptake Thickness of uptake plates

Thickness of water tubes

The foregoing is a correct description,
ACTIEN-GESELLSCHAFT "WESER" Manufacturer.
W. H. Luff pp number

Dates of Survey while building: During progress of work in shops -- 1913: - April 23, May 17, 23, June 10, July 18, 23, Oct 3
During erection on board vessel -- 1913: Dec 30, Jan 27
Total No. of visits 9

Is the approved plan of main boiler forwarded herewith yes
" " " donkey " " yes



GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

See Report on Machinery.

Bremen Office

Certificate (if required) to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee .. £	<i>See</i>	:	When applied for.
Special	<i>Report</i>	:18.....
Donkey Boiler Fee	<i>on</i>	:	When received,
Travelling Expenses (if any) £	<i>machinery</i>	:18.....

Committee's Minute FRI. FEB. 6 1914

Assigned

W. H. G. Adams

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping



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Foundation