

REPORT ON BOILERS.

No. 14287
1026

Received at London Office 28 NOV 1930

pt. 5a.

10-4-31. 11-4-31.
26. 11. 1930 When handed in at Local Office 26. 11. 1930 Port of MIDDLESBROUGH. 25th July. 4th April, 31. Malmö.
No. in Survey held at STOCKTON. Date, First Survey 23 Sept. Last Survey 26. 11. 1930
on the boiler for KOCKUMS MEK VERKSTADS AKT. "FALKEFJELL" (Number of Visits 9 8) Gross 7927 Tons Net 4603
Built at Malmö By whom built Kockums M. V. A. B. Yard No. 168 When built 1931.
Engines made at Malmö By whom made Kockums M. V. A. B. Engine No. 63264 When made 1931.
Boilers made at Stockton By whom made Riley Bros. (Boilermakers) Ltd Boiler No. 6021 When made 1930.
Horse Power 778 Owners Akties. Falkefjell Port belonging to Oslo.

ULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Vereinigte Stahlwerke Thyssen of Mulheim. (Letter for Record S.)
Total Heating Surface of Boilers 1315 sq. ft. Is forced draught fitted Yes. Coal or Oil fired oil
Pressure and Description of Boilers 1 S.B. Working Pressure 171 lbs.
Tested by hydraulic pressure to 307 lbs. Date of test 26. 11. 30 No. of Certificate 6834 Can each boiler be worked separately
Area of Firegrate in each Boiler No. and Description of safety valves to each boiler Two direct spring loaded.
Area of each set of valves per boiler per Rule 10.6 sq. in. as fitted 11.9 sq. in. Pressure to which they are adjusted 175 lbs. Are they fitted with easing gear Yes.
In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler
Smallest distance between boilers on uptake and bunkers on woodwork 3'-8" Is oil fuel carried in the double bottom under boilers Yes
Smallest distance between shell of boiler and tank top plating 1'-8" Is the bottom of the boiler insulated Yes
Largest internal dia. of boilers 11'-2 1/4" Length 11'-2" Shell plates: Material steel Tensile strength 29/33 D.R.
Thickness 7/8" Are the shell plates welded or flanged no. Description of riveting: circ. seams end inter. 3/4" 6 3/4"
Pitch of rivets 3/4" 6 3/4"
Percentage of strength of circ. end seams plate 68.2. rivets 46.8. Percentage of strength of circ. intermediate seam plate rivets 86.1 86.8
Percentage of strength of longitudinal joint plate rivets 86.8 combined 89.5 Working pressure of shell by Rules 171 lbs.
Thickness of butt straps outer 31/32" inner 25/32" No. and Description of Furnaces in each Boiler 2 c.f.
Material steel Tensile strength 26/30 Smallest outside diameter 3'-6 5/16"
Length of plain part top bottom 17" 32" Description of longitudinal joint weld.
Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 181 lbs.
End plates in steam space: Material steel Tensile strength 26/30 Thickness 27/32 Pitch of stays 16" x 13 3/4"
How are stays secured D.N.W. Working pressure by Rules 176 lbs.
End plates: Material steel Tensile strength 26/30 Thickness 27/32 13/16 Working pressure front 223 lbs. back 297"
Pitch of stay tubes in nests 8 7/8" Pitch across wide water spaces 13" x T" Depth and thickness of girder
Orders to combustion chamber tops: Material steel Tensile strength 28/32 Distance apart 8 1/4" No. and pitch of stays
Centre 8 1/2" x 3/4" (double). Length as per Rule 2'-5" Working pressure by Rules 269 lbs. Combustion chamber plates: Material steel
Each 2'-9" Tensile strength 26/30 Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 5/8"
Pitch of stays to ditto: Sides 8 1/4" x 9" Back 8" x 8 1/2" Top 8 1/4" x 9" Are stays fitted with nuts or riveted over nuts
Working pressure by Rules 181 lbs. Front plate at bottom: Material steel Tensile strength 26/30 Thickness 27/32
Lower back plate: Material steel Tensile strength 26/30 Thickness 27/32
Pitch of stays at wide water space 13" x 8 1/2" Are stays fitted with nuts or riveted over nuts
Working Pressure 241 lbs. Main stays: Material steel Tensile strength 28/32
Diameter At body of stay, or Over threads 2 3/8" No. of threads per inch 6 Area supported by each stay 215.5 sq. in.
Working pressure by Rules 182 lbs. Screw stays: Material steel Tensile strength 26/30
Diameter At turned off part, or Over threads 1 1/2" No. of threads per inch 9 Area supported by each stay 66.2 sq. in.

003106-003115-0203

Lloyd's Register
Foundation

Working pressure by Rules 189 lbs. Are the stays drilled at the outer ends no. Margin stays: Diameter ^{At turned off part,} 1 1/8"
No. of threads per inch 9. Area supported by each stay 87.2 sq Working pressure by Rules 174 lbs.
Tubes: Material iron External diameter ^{Plain} 2 1/2" to 2 3/4" Thickness ^{Stay} 5/16" No. of threads per inch 9.
Pitch of tubes 3 1/2" x 3 7/8" Working pressure by Rules p. 175 lbs. s. 213 lbs. Manhole compensation: Size of opening 44 - 1 1/2"
shell plate 20" x 16" Section of compensating ring 7 1/2" x 1" No. of rivets and diameter of rivet holes 44 - 1 1/2"
Outer row rivet pitch at ends 7 1/2" Depth of flange if manhole flanged ✓ Steam Dome: Material iron
Tensile strength _____ Thickness of shell _____ Description of longitudinal joint _____
Diameter of rivet holes _____ Pitch of rivets _____ Percentage of strength of joint ^{Plate} _____
Internal diameter _____ Working pressure by Rules _____ Thickness of crown _____ No. and diameter _____
stays _____ Inner radius of crown _____ Working pressure by Rules _____
How connected to shell _____ Size of doubling plate under dome _____ Diameter of rivet holes and _____
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 _____ 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 from the boiler _____
Area of each safety valve _____ Are the safety valves fitted with easing gear _____ Working pressure as _____
Rules _____ Pressure to which the safety valves are adjusted _____ Hydraulic test pressure _____
tubes _____ castings _____ and after assembly in place _____ Are drain cocks or valves fitted _____
to free the superheater from water where necessary _____

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

The foregoing is a correct description.

J. H. Shields
SECRETARY,

Dates of Survey ^{During progress of work in shops - -} 1930: Sep 23, 29 Oct 31 Nov 4, 10, 14, 19 Are the approved plans of boiler and superheater forwarded herewith 10-5.
while building ^{During erection on board vessel - -} 25/2, 27/3, 29/3, 31/3, 2/4, 23/3, 28/3, 30/3, 4/4-1931 Total No. of visits 8.

Is this Boiler a duplicate of a previous case Yes. If so, state Vessel's name and Report No. Riley 6020 Ind. Rpt. 14281

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

The materials and workmanship are good.
This boiler has been built under special survey in accordance with the Rules and Approved Plans. It is being sent to Sweden.
This donkey boiler has been installed onboard under my supervision and to my satisfaction.
The safety valves have been adjusted under steam to 175 lbs.
The oil fuel burning installation is a single as steam is not required any essential use at sea.

Abundin

Survey Fee ... £ 8-16-0. When applied for, Monthly
Travelling Expenses (if any) £ _____ When received, 19

P. J. Ma...

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

TUE. 21 APR 1931

Assigned

See F. E. Rpt.



© 2020

Lloyd's Register Foundation