

# REPORT ON BOILERS.

No. 46366

Received at London Office 28 NOV 1935

Port of HULL

Date, First Survey 11th Sept. 1935 Last Survey 18th Nov. 1935

No. in Survey held at Hull

on the Steam Trawler "Cape Corrientes"

Built at Selly By whom built Cochrane & Son Ltd Yard No. 1146 When built 1935

Engines made at Hull By whom made C.D. Holmes & Co Ltd. Engine No. 1484 When made 1935

Boilers made at do By whom made do Boiler No. 1484 When made 1935

Nominal Horse Power 105. Owners Charleston Steam Fishing Co Ltd. Port belonging to Hull.

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

Manufacturers of Steel The Steel Company of Scotland Ltd. (Letter for Record S)

Total Heating Surface of Boilers 1940 sq. ft. Is forced draught fitted No Coal or Oil fired Coal.

No. and Description of Boilers One Single-ended. Working Pressure 200 lbs.

Tested by hydraulic pressure to 350 lbs. Date of test 30/10/35 No. of Certificate 3921 Can each boiler be worked separately ✓

Area of Firegrate in each Boiler 53.7 sq. ft. No. and Description of safety valves to each boiler Double 2 3/4" dia spring loaded.

Area of each set of valves per boiler {per Rule 11.3 sq. ins. as fitted 11.9 sq. ins. Pressure to which they are adjusted 200 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 or uptakes and bunkers or woodwork ✓ Is oil fuel carried in the double bottom under boilers ✓

Smallest distance between shell of boiler and tank top plating ✓ Is the bottom of the boiler insulated No

Largest internal dia. of boilers 14-6" Length 10'-8" Shell plates: Material Steel Tensile strength 29/33 Tons

Thickness 1 1/2" Are the shell plates welded or flanged No Description of riveting: circ. seams {end DR inter. ✓

Long. seams T.R. DBS. Diameter of rivet holes in {circ. seams 1 1/2" long. seams 1 1/2" Pitch of rivets {plate 3 3/4" rivets 9 1/4"

Percentage of strength of circ. end seams {plate 64.3% rivets 46.8% Percentage of strength of circ. intermediate seam {plate 85.5% rivets 88.5% combined 88.7% Working pressure of shell by Rules 202 lbs.

Thickness of butt straps {outer 1" inner 1 1/8" No. and Description of Furnaces in each Boiler 3 Plain

Material Steel. Tensile strength 26/30 Tons Smallest outside diameter 3'-6 1/2"

Length of plain part {top 6'-3" bottom 5'-6" Thickness of plates {crown 13/16" bottom 11/16" Description of longitudinal joint Welded.

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 206 lbs.

End plates in steam space: Material Steel. Tensile strength 26/30 Tons Thickness 1 1/4" Pitch of stays 19 3/4" x 18 1/2"

How are stays secured Double nuts and washers. Working pressure by Rules 203 lbs.

Tube plates: Material {front Steel back " Tensile strength {26/30 Tons Thickness {15/16" 7/8"

Mean pitch of stay tubes in nests 10.7" Pitch across wide water spaces 14" Working pressure {front 209 lbs. back 242 lbs.

Girders to combustion chamber tops: Material Steel. Tensile strength 29/33 Tons Depth and thickness of girder

at centre 10" x (7/8" x 2) Length as per Rule 36 1/4" Distance apart 9" wide 9 1/2" centre No. and pitch of stays

in each 3 @ 8" Working pressure by Rules 233 lbs. Combustion chamber plates: Material Steel.

Tensile strength 26/30 Tons Thickness: Sides 23/32" Back 11/16" Top 11/16" Bottom 23/32"

Pitch of stays to ditto: Sides 10" x 8 1/2" Back 9" x 9" Top 9 1/2" x 8" Are stays fitted with nuts or riveted over nuts.

Working pressure by Rules 204 lbs. 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 7/8"

Pitch of stays at wide water space 14 1/4" Are stays fitted with nuts or riveted over nuts.

Working Pressure 26/30 Tons Main stays: Material Steel Tensile strength 28/32 Tons

Diameter {At body of stay, 3 1/4" No. of threads per inch 8 Area supported by each stay 361 sq. ins.

Working pressure by Rules 203 lbs. Screw stays: Material Steel Tensile strength 26/30 Tons

Diameter {At turned off part, 2 1/8" & 1 3/4" No. of threads per inch 10 Area supported by each stay 85 & 81 sq. ins.



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Working pressure by Rules 225 lb/sq in Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, or Over threads 2" x 1 1/8"  
No. of threads per inch 10 Area supported by each stay 106 sq in Working pressure by Rules 203 lb/sq in  
Tubes: Material Iron External diameter { Plain 3 1/2" Thickness 8 W.G. No. of threads per inch 9  
Pitch of tubes 4 3/4" x 4 3/4" Working pressure by Rules 215 lb/sq in Manhole compensation: Size of opening  
shell plate 16 x 12" Section of compensating ring 57 1/2" dia x 1 3/32" No. of rivets and diameter of rivet holes 122 @ 1 1/2"  
Outer row rivet pitch at ends 10.45" Depth of flange if manhole flanged ✓ Steam Dome: Material Steel  
Tensile strength 26/30 Tons/sq in Thickness of shell 3/4" Description of longitudinal joint S.R. Lap  
Diameter of rivet holes 1 1/2" Pitch of rivets 2 1/4" Percentage of strength of joint { Plate 54.4%  
Internal diameter 2'-9" Working pressure by Rules 231 lb/sq in Rivets 44%  
stays 2 @ 2 1/4" dia Inner radius of crown ✓ Working pressure by Rules ✓ Thickness of crown 7/8" No. and diameter  
How connected to shell D.R. lap joint Size of doubling plate under dome 57 1/2" dia x 1 3/32" Diameter of rivet holes and pitch  
of rivets in outer row in dome connection to shell 1 1/2" dia pitch 10.45"  
Type of Superheater Smoke tube Type Manufacturers of { Tubes The Superheater Co. Ltd., Manchester  
Number of elements 26 Material of tubes Steel Steel castings do do do  
Material of headers Forged Steel Tensile strength 28 Tons/sq in Internal diameter and thickness of tubes 17/23 mm dia  
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 Can the superheater be shut off  
Area of each safety valve 1.77 sq in (valve 1 1/2" dia) Are the safety valves fitted with easing gear Yes Working pressure as per  
Rules 396 lb/sq in Pressure to which the safety valves are adjusted 200 lb/sq in Hydraulic test pressure  
tubes 1000 lb/sq in, castings 600 lb/sq in and after assembly in place 600 lb/sq in Are drain cocks or valves fitted  
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,  
For CHARLES D. HOLMES & CO., LTD.  
*J. D. Cooper* Manufacturer

Dates of Survey { During progress of work in shops - - - }  
while building { During erection on board vessel - - - }  
See Mch Report. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval) Yes  
Total No. of visits ✓

Is this Boiler a duplicate of a previous case No 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 survey and in accordance with the approved plan. It has been satisfactorily fitted on board, examined under steam, and safety valves adjusted as above.

Charged on engine Rpt herewith.  
Survey Fee ... .. £ :  
Travelling Expenses (if any) £ :  
When applied for, 19  
When received, 19

Committee's Minute TUE. 3 DEC 1935  
Assigned See minute on J.E. Rpt

*H. W. B. Edwards*  
Engineer Surveyor to Lloyd's Register of Shipping.  
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