Rpt. 5a.

REPORT ON BOILERS.

No. 18303

Received at London Office 15 OCT 1924

Date of writing Report 23rd May, 1924 When handed in at Local Office 9th October 1924 Port of Greenock.

No. in Reg. Book. Survey held at Greenock & Pt Glasgow. Date, First Survey 28th February, 1924 - Last Survey 4th October 1924 (Number of Visits 15)

on the Twin Screw Hopper Barge "M.S.C. BOLLIN". Tons { Gross / Net }

Master Built at Port-Glasgow By whom built Ferguson Bros (269) When built 1924

Engines made at Pt Glasgow By whom made Ferguson Bros (269) When made 1924

Boilers made at Greenock By whom made John G Kincaid & Co Ld (152) When made 1924

Registered Horse Power Owners The Manchester Ship Canal Co. Port belonging to Manchester.

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Pol Tallst. Steel Co of Scotland Lanarkshire

(Letter for record R) **Total Heating Surface of Boilers** 3800 □' Is forced draft fitted No **No. and Description of Boilers** 2 Single Ended 2SB. **Working Pressure** 180 Tested by hydraulic pressure to 320 Date of test 23/5/24

No. of Certificate 1653 Can each boiler be worked separately yes. **Area of fire grate in each boiler** 66 □' No. and Description of safety valves to each boiler Double Spring Area of each valve 7.07 □" Pressure to which they are adjusted 185 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 5'-0" Mean dia. of boilers 14'-6" Length 10'-6"

Material of shell plates S Thickness 13/16" Range of tensile strength 28/32 Are the shell plates welded or flanged

Descrip. of riveting: cir. seams DR long. seams TR1DBS Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 3/4"

~~Lap of plates or~~ width of butt straps 18½" Per centages of strength of longitudinal joint rivets 90.9 % plate 85.7 % Working pressure of shell by rules 182. Size of manhole in shell 20½ x 16½" Size of compensating ring 2'.11 x 2'.7 x 1 1/4 **No. and Description of Furnaces in each boiler** 3 Corrugated 3Cf Material S Outside diameter 48 1/4" Length of plain part top / bottom Thickness of plates crown / bottom 9/16"

Description of longitudinal joint weld No. of strengthening rings — Working pressure of furnace by the rules 181 Combustion chamber plates: Material S Thickness: Sides 21/32" Back 21/32" Top 21/32" Bottom 25/32" Pitch of stays to ditto: Sides 8 5/8 x 9 3/8" Back 9¼ x 8 7/8 Top 9 3/8 x 8 5/8 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 185 Material of stays Iron Area at smallest part 73.203 □" Area supported by each stay 84 □" Working pressure by rules 182 End plates in steam space: Material S Thickness 1 1/4"

Pitch of stays 20 x 20 How are stays secured DN. Working pressure by rules 182 Material of stays S Area at smallest part 7.24 □" Area supported by each stay 400 □" Working pressure by rules 200 Material of Front plates at bottom S Thickness 11/32" Material of Lower back plate S Thickness 13/16" Greatest pitch of stays 13 3/4" Working pressure of plate by rules 187 Diameter of tubes 3 1/4" Pitch of tubes 4 3/8 x 4½" Material of tube plates S Thickness: Front 11/32" Back 3/4" Mean pitch of stays 10.9 Pitch across wide water spaces 14 1/4" Working pressures by rules 187 Girders to Chamber tops: Material S Depth and thickness of girder at centre 4 3/4 x 3/4 (2) Length as per rule 29.93 Distance apart 8 5/8" Number and pitch of Stays in each 2 at 9 3/8

Working pressure by rules 200 Steam dome: description of joint to shell ~~% of strength of joint~~

Diameter Thickness of shell plates Material ~~Description of longitudinal~~ joint Diam. of rivet holes

Pitch of rivets ~~Working pressure of shell~~ by rules Crown plates Thickness How stayed

~~SUPERHEATER.~~ Type Date of Approval of Plan Tested by Hydraulic Pressure to

Date of Test ~~Is a Safety Valve fitted to each Section of the Superheater~~ which can be shut off from the Boiler

Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

The foregoing is a correct description.

FOR JOHN G. KINCAID & CO., LIMITED.

Robert Greer Manufacturer.

Secretary

Dates of Survey while building { During progress of work in shops - - } (1924) Feb 28. Mar. 6.11.24. Apr. 3.9.10.14.22.25.30. May 9.21.23. { During erection on board vessel - - - } October 4.

Is the approved plan of boiler forwarded herewith yes

Total No. of visits 15

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These Boilers have been built under Special Survey in accordance with the Approved Plan & the workmanship & material are of good quality, & they have now been securely fitted on board.

This Rept accompanies that of the Machinery

Survey Fee ... ... £ 25.3 : When applied for, 26th May, 1924

Travelling Expenses (if any) £ : : When received, 30th June, 1924

W. Gordon Mitchell J. Davey

Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 14 OCT 1924

Assigned See accompanying machinery report

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