40775.

Rpt. 5.

REPORT ON BOILERS.

No. 40501 attach to

WED. OCT 27 1920

Received at London Office

WED DEC 29 1920

Date of writing Report 18th Oct 1920 When handed in at Local Office 23. 10. 1920 Port of Glasgow

No. in Reg. Book. Survey held at Glasgow Date, First Survey 19th May 1920 Last Survey 18th Oct 1920 (Number of Visits 10.)

on the Boiler No "B135" for S.S. CLARA MONKS. Tons Gross 577 Net 232

Master Built at Ayr By whom built Ailsa S.B. Co Ld No 375 When built 1920.

Engines made at Govan By whom made Ailsa S.B.C. Ld Engs No 110 When made 1920

Boilers made at Glasgow By whom made Dunsmuir & Jackson. B135 When made 1920

Registered Horse Power Owners Jas H. Monks (Preston) Ltd Port belonging to Liverpool.

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY OR DONKEY~~.—Manufacturers of Steel D. Colville & Sons. J. Spencer & Sons

(Letter for record) **Total Heating Surface of Boilers** 1872 ft ✓ Is forced draft fitted **No. and Description of Boilers** 1 Single ended Multitubular **Working Pressure** 180 ✓ Tested by hydraulic pressure to 360 lbs ✓ Date of test 18-10-20

No. of Certificate 15541 Can each boiler be worked separately **Area of fire grate in each boiler** 56.5 ft No. and Description of safety valves to each boiler Area of each valve Pressure to which they are adjusted

Are they fitted with easing gear 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 ~~Mean~~ INT dia. of boilers 14'-3" ✓ Length 10'-6" ✓

Material of shell plates S ✓ Thickness 15/32" Range of tensile strength 28/32 tons Are the shell plates welded or flanged No ✓

Descrip. of riveting: cir. seams L.D.R long. seams T.R. D.S. Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 8 5/16" ✓

~~Lap of plating~~ width of butt straps 18" ✓ Per centages of strength of longitudinal joint rivets 85.5 plate 85.6 Working pressure of shell by rules 181 lbs Size of manhole in shell 16"×12" Size of compensating ring 36¼"×30¼" **No. and Description of Furnaces in each boiler** 3 Corrugated Material S ✓ Outside diameter 45" ✓ Length of plain part top ✓ bottom ✓ Thickness of plates crown bottom 17/32" ✓

Description of longitudinal joint Weld No. of strengthening rings None Working pressure of furnace by the rules 182 Combustion chamber plates: Material S ✓ Thickness: Sides 5/8" ✓ Back 5/8" Top 5/8" ✓ Bottom 25/32" Pitch of stays to ditto: Sides 9"×7 11/16" Back 8 5/16"×8 5/8" Top 9¼"×7⅞" If stays are fitted with nuts or riveted heads Nuts ✓ Working pressure by rules 184 Material of stays S ✓ Area at smallest part 1.69 □" Area supported by each stay 12.7 □" ✓ Working pressure by rules 186 End plates in steam space: Material S ✓ Thickness 17/32" ✓ Pitch of stays 20×17 7/8" 22×17 7/8" 15¼" How are stays secured D. Nuts ✓ Working pressure by rules 208 Material of stays S ✓ Area at smallest part 6.09 □" Area supported by each stay 343 □" Working pressure by rules 182 Material of Front plates at bottom S ✓ Thickness 1 1/32" Material of Lower back plate S ✓ Thickness 29/32" Greatest pitch of stays 14¾"×8 5/8" Working pressure of plate by rules 194 Diameter of tubes 3½" Plot Pitch of tubes 4¾"×4 5/8" Material of tube plates S ✓ Thickness: Front 1 1/32" ✓ Back 27/32" ✓ Mean pitch of stays 12 5/12 Pitch across wide water spaces 14½" ✓ Working pressures by rules 181 Girders to Chamber tops: Material Iron ✓ Depth and thickness of girder at centre 9"×2" ✓ Length as per rule 33 17/32" ✓ Distance apart 9¼" ✓ Number and pitch of Stays in each 3 @ 7⅞" ✓

Working pressure by rules 182 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 ✓

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

Survey request form No. 2445. attached

The foregoing is a correct description,

DUNSMUIR & JACKSON, Limited.

Manufacturer.

James Hutchison Director.

Dates of Survey while building: During progress of work in shops - - 1920 May 19 Jun 4, 9, 17, 29 July 14, 27 Sep 17, Oct 6, 18. During erection on board vessel - - - Total No. of visits 10.

Is the approved plan of main boiler forwarded herewith Yes ✓

" " " donkey " " " "

003006-003012-0085

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

This boiler has been built under Special Survey and in accordance with the Rules; the materials and workmanship are sound and good, on completion it was tested to 360 lbs per sq inch water pressure and found tight and satisfactory in all respects.

It has been securely fitted on board and tried under steam with satisfactory results.

Certificate (if required) to be sent to

(*The Surveyors are requested not to write on or below the space for Committee's Minute.*)

H.C. 22-10-20

The amount of Entry Fee .. £	6 : 5 :	When applied for.	
Special .. .. .. £	:	25-10-1920.	
Donkey Boiler Fee .. .. £	: :	When received,	
Travelling Expenses (if any) £	: :	30-10-1920	

J. Kelles. D. C. Barr.

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute Glasgow 26 OCT 1920

Assigned TRANSFERRED TO LONDON

See Gls. Rpt. 40715