

REPORT ON MACHINERY.

No. 2940

Port of *Mayord*
 Survey held at *Mayord Haven* Date, first Survey *16 April* Last Survey *12 Oct 15 1920*
 Book. *47* on the *5th Trawler "James Cope"* (Number of Visits *15*)
 Built at *Greenock* By whom built *Geo Brown & Co L* Tons { Gross *281*
 Lines made at *Glasgow* By whom made *Gauldie Gillespie & Co* Net *1918*
 When built *1918*
 When made *1918*
 When made *1918*
 Owners *As W. Dalglish* Port belonging to
 Horse Power as per Section 28 *87* Is Refrigerating Machinery fitted for cargo purposes *no* Is Electric Light fitted *yes*

Engines, &c.—Description of Engines *Triple Expansion* No. of Cylinders *3* No. of Cranks *3*
 of Cylinders *12½" x 21" x 35* Length of Stroke *26* Revs. per minute *110* Dia. of Screw shaft as per rule *7.56* Material of screw shaft *iron*
 as fitted *7.7*
 Is the after end of the liner made water tight
 If the liner is in more than one length are the joints burned *—* If the liner does not fit tightly at the part
 Is the space charged with a plastic material insoluble in water and non-corrosive *—* If two
 Length of stern bush *34"*
 Dia. of Crank shaft journals as per rule *6.9* Dia. of Crank pin *7½* Size of Crank webs *13½ x 4½* Dia. of thrust shaft under
 as fitted *7.8*
 No. of Blades *4* State whether moveable *no* Total surface *35.5 sq*
 of Feed pumps *2* Diameter of ditto *2½* Stroke *12"* Can one be overhauled while the other is at work *yes*
 of Bilge pumps *2* Diameter of ditto *2½* Stroke *12"* Can one be overhauled while the other is at work *yes*
 of Donkey Engines *Two* Sizes of Pumps *6" x 3 x 6, 6" x 4 x 6"* No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room *12" forward 1.2" aft, 12" Separate legs* In Holds, &c. *from Hold, and stow well*
 also *Separate 2" ejectors from all parts*
 of Bilge Injections *1 size 3½* Connected to condenser, or to circulating pump *—* Is a separate Donkey Suction fitted in Engine room & size *yes 2"*
 all the bilge suction pipes fitted with roses *yes* Are the roses in Engine room always accessible *yes* Are the sluices on Engine room bulkheads always accessible *none*
 all connections with the sea direct on the skin of the ship *yes* Are they Valves or Cocks *Both*
 they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *yes* Are the Discharge Pipes above or below the deep water line *above*
 they each fitted with a Discharge Valve always accessible on the plating of the vessel *yes* Are the Blow Off Cocks fitted with a spigot and brass covering plate *yes*
 pipes are carried through the bunkers *Forward Suction* How are they protected *Wood casing*
 all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *yes*
 the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges *yes*
 of examination of completion of fitting of Sea Connections *—* of Stern Tube *—* Screw shaft and Propeller *—*
 Is it fitted with a watertight door *—* worked from *—*

Boilers, &c.—(Letter for record *S*) Manufacturers of Steel
 Heating Surface of Boilers Is Forced Draft fitted *no* No. and Description of Boilers *Single ended*
 Working Pressure *180* Tested by hydraulic pressure to *360 lb* Date of test *8-11-17* No. of Certificate *—*
 each boiler be worked separately *—* Area of fire grate in each boiler *50 sq* No. and Description of Safety Valves to
 boiler *2 Spring loaded* Area of each valve *4.9* Pressure to which they are adjusted *180* Are they fitted with easing gear *yes*
 least distance between boilers or uptakes and bunkers or woodwork *8"* Mean dia. of boilers *162* Length *10½* Material of shell plates *S*
 thickness *1½"* Range of tensile strength *28.32* Are the shell plates welded or flanged *no* Descrip. of riveting: cir. seams *double*
 seams *T.R.D.B.S* Diameter of rivet holes in long. seams *1½"* Pitch of rivets *8"* Lap of plates or width of butt straps *double*
 percentages of strength of longitudinal joint rivets *89.3* Working pressure of shell by rules *180* Size of manhole in shell *16" x 12"*
 plate *86.5*
 of compensating ring *9 1½* No. and Description of Furnaces in each boiler *3 plain* Material *S* Outside diameter *40 9/16*
 top *81½* Thickness of plates crown *25* Description of longitudinal joint *Welded* No. of strengthening rings *—*
 bottom *76* bottom *32*
 Working pressure of furnace by the rules *188* Combustion chamber plates: Material *S* Thickness: Sides *1½"* Back *21/32* Top *1½"* Bottom *7/8"*
 of stays to ditto: Sides *9 x 9* Back *8 x 9* Top *10 x 8 1/4* If stays are fitted with nuts or riveted heads *nut* Working pressure by rules *181*
 Material of stays *S* Diameter at smallest part *2.07* Area supported by each stay *90 26* Working pressure by rules *206* End plates in steam space:
 Material *S* Thickness *1½* Pitch of stays How are stays secured *DNW* Working pressure by rules *181* Material of stays *S*
 Diameter at smallest part *2 1/16* Area supported by each stay *29* Working pressure by rules *215* Material of Front plates at bottom *S*
 thickness *3/16* Material of Lower back plate *S* Thickness *15/16* Greatest pitch of stays *14' x 9* Working pressure of plate by rules *219*
 Diameter of tubes *3½* Pitch of tubes *5 x 4 1/4* Material of tube plates *S* Thickness: Front *3/16* Back *7/8* Mean pitch of stays *10"*
 across wide water spaces *14"* Working pressures by rules *184* Girders to Chamber tops: Material *S* Depth and
 thickness of girder at centre *8½ x 1¾* Length as per rule *32* Distance apart *9½* Number and pitch of stays in each *29½*
 Working pressure by rules *—* Superheater or Steam chest; how connected to boiler *—* Can the superheater be shut off and the boiler worked
 Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet
 Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
 fitted with rings Distance between rings Working pressure by rules End plates: Thickness How stayed
 Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

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VERTICAL DONKEY BOILER— Manufacturers of Steel

No. Description
 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 Date of adjustment
 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
 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 Stayed by
 Diameter of uptake Thickness of uptake plates Thickness of water tubes Dates of survey

SPARE GEAR. State the articles supplied:— 2 top end bolts, 9 nuts 2 bottom end bolts and
 2 main bearing nuts & bolts 4 Coupling bolts and 5 nuts 1 Complete set of
 valves for feed, and bilge pumps 5 escape valve springs, Air pump valves
 4 boiler tubes, and tube stoppers 3 Condenser tubes, and bolt-shut-asses
 The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - -
 Total No. of visits

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods

Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller

Stern tube Steam pipes tested Engine and boiler seatings Engines holding down bolts

Completion of pumping arrangements Boilers fixed Engines tried under steam 24-9-20

Main boiler safety valves adjusted 24-9-20 Thickness of adjusting washers P 3/8" S 3/8"

Material of Crank shaft Iron Identification Mark on Do. Material of Thrust shaft Iron Identification Mark on Do.

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Iron Identification Marks on Do.

Material of Steam Pipes S D Cooper Test pressure

General Remarks (State quality of workmanship, opinions as to class, &c.) The workmanship of
 the machinery of this vessel appears good
 having been built under British Corporation
 Survey to plans, and Specification mutually
 approved by this Society and B.C., and
 in my opinion merits LMC 10.20 Assigned

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.. £ : : When applied for.
 Special £ : :
 Donkey Boiler Fee £ : :
 Travelling Expenses (if any) £ : : When received,
 See: 1919

Committee's Minute

FRI. NOV. 19 1920

Assigned

LH 6 10 20

J. W. Johnstone
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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