

REPORT ON MACHINERY.

No. 48834

Received at London Office

18 APR 1916

Date of writing Report 18 APR 1916 When handed in at Local Office 18 APR 1916 Port of London
No. in Survey held at *Uxenhoe* Date, First Survey 14 Oct 1915 Last Survey 7th April 1916
Reg. Book. on the *Motor coaster "Gusto"* (Number of Visits 12) Gross Tons 12

Master Built at *Uxenhoe* By whom built *Pennie Fawcett's Shipbuilding & Eng^g* When built 1916

Engines made at *Stockholm* By whom made *J. & B. I. Bolinder's C^o Ltd* when made 1915

Boilers made at *Brake* By whom made *U. Gustafsson* when made 1915
Registered Horse Power 120 Owners *U. Gustafsson* Port belonging to *Swedish*

Nom. Horse Power as per Section 28 ☒ Is Refrigerating Machinery fitted for cargo purposes ☒ Is Electric Light fitted ☒

ENGINES, &c.—Description of Engines *Bolinder two stroke cycle reversible* No. of Cylinders 2 No. of Cranks 2
See Stockholm report No 1441
Dia. of Cylinders 15" Length of Stroke 16 1/2" Revs. per minute 282 Dia. of Screw shaft as per rule 5 1/2" Material of screw shaft *steel*
Is the screw shaft fitted with a continuous liner the whole length of the stern tube *No liner* Is the after end of the liner made water tight in the propeller boss ☒ If the liner is in more than one length are the joints burned ☒ If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive ☒ If two liners are fitted, is the shaft lapped or protected between the liners ☒ Length of stern bush 1-11/2"
Dia. of ~~Propeller~~ *INT* shaft as fitted 5" 4-86" Dia. of Crank shaft journals as per rule 5 1/2" Dia. of Crank pin 6-1" Size of Crank webs 8-11/2" Dia. of thrust shaft under collars ☒ as fitted 5 1/2" No. of Blades 3 State whether moveable *No* Total surface 8-8 sq ft.
Dia. of screw 4-8" Pitch of Screw 3-6" No. of Feed pumps ☒ Diameter of ditto ☒ Stroke ☒ Can one be overhauled while the other is at work ☒
No. of Bilge pumps *one* Diameter of ditto *4* Stroke *5* Can one be overhauled while the other is at work ☒
No. of Donkey Engines *Motor pump attached to winch* Sizes of Pumps *3 1/2 x 3* No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room *Two 2" dia.* In Holds, &c. *Three 2" dia. Aft peak 2" dia.*
No. of Bilge Injections ☒ sizes ☒ Connected to condenser, or to circulating pump ☒ Is a separate Donkey Suction fitted in Engine room & size *Yes 2" dia.*
Are 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 ☒
Are all connections with the sea direct on the skin of the ship *Yes* Are they Valves or Cocks *Lock*
Are 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*
Are 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 ☒
What pipes are carried through the bunkers ☒ How are they protected ☒
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *Yes*
Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges *Yes*
Dates of examination of completion of fitting of Sea Connections 27-10-15 of Stern Tube 27-10-15 Screw shaft and Propeller 27-10-15
Is the Screw Shaft Tunnel watertight ☒ Is it fitted with a watertight door ☒ worked from ☒

BOILERS, &c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers
Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate
Can each boiler be worked separately *Yes* Area of fire grate in each boiler 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
Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates
Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
Per centages of strength of longitudinal joint Working pressure of shell by rules Size of manhole in shell
Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
Length of plain part *top* Thickness of plates *bottom* Description of longitudinal joint No. of strengthening rings
Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules End plates in steam space
Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules Material of stays
Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of Front plates at bottom
Diameter at smallest part Area supported by each stay Working pressure by rules Working pressure of plate by rules
Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
Working pressure by rules Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked separately
Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
If stiffened 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

IS A DONKEY BOILER FITTED? ✓

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— 2 connecting rod top end bolts nuts, 2 connecting rod bottom end bolts nuts, 6 coupling bolts, 2 sets of bilge pump valves, 3 bolts for upper end of cylinder, 1 bolt nut for bottom end of cylinder, 1 bolt nut for the eccentric rod, 1 bolt with nut for telling arm, 1 bolt nut for regulator weight, 2 bolts nuts for main bearing, 1 pressure valve for circulating pump, ditto for suction, + 1 ignition bulb. ✓

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 12
Is the approved plan of main boiler forwarded herewith ✓
" " " donkey " " " ✓

Dates of Examination of principal parts—Cylinders ✓ Slides ✓ Covers ✓ Pistons ✓ Rods ✓
Connecting rods ✓ Crank shaft ✓ Thrust shaft ✓ Tunnel shafts 17-11-15 Screw shaft 7/12/15 Propeller D= 10
Stern tube D= Steam pipes tested ✓ Engine and boiler seatings 17-11-15 Engines holding down bolts 4-12-15
Completion of pumping arrangements 6-7-15 Boilers fixed ✓ Engines tried under working conditions 6-7-15
Main boiler safety valves adjusted ✓ Thickness of adjusting washers ✓

Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do.
Material of Tunnel shafts Steel Identification Marks on Do N° 511/2 Material of Screw shafts N° 78/12 Identification Marks on Do. D=

Material of Steam Pipes Test pressure

Is an installation fitted for burning oil fuel ✓ Is the flash point of the oil to be used over 150°F. ✓

Have the requirements of Section 49 of the Rules been complied with ✓

Is this machinery duplicate of a previous case ✓ If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Engines surveyed whilst being fitted on board, & found satisfactory, the fuel and feed tanks tested by hydraulic pressure to 10 lb per sq inch & found tight.

The Engines tried under full power and worked smoothly & well, the speed of the vessel on trial trip was 8.35 knots, revolutions 282, lowest number of revolutions for manœuvring purposes 120. All the rules requirements for internal combustion engines have been carried out, & is in my opinion eligible for the record of + L.M.C. 4-16 in the Register Book

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 4.16.

Oil engines, 15" - 16 1/8" 2 S.C.S.A. J & G.C. Bolinders Co Ltd. Skm.

(Annual Survey.)

W.D. 25/4/16 J.R.

The amount of Entry Fee ... £ 1-0-0 When applied for, 18 APR 1916
Special ... £ 2-13-4
Donkey Boiler Fee ... £ 2-11-7
Travelling Expenses (if any) £ 2-11-7

A.E. Farmer
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

TUE. 5-JUN. 1917

Committee's Minute WED. 26 APR 1916

Assigned

+ L.M.C. 4.16 (Oil Engine) FRI. 30 NOV. 1917

MACHINERY CERTIFICATE
WRITTEN 26-4-16

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