

REPORT ON MACHINERY.

No. 11

Received at London Office

THU. 5-OCT. 1916

Date of writing Report Sept. 6. 1916 When handed in at Local Office Sept. 19. 1916 Port of Detroit, Mich.
 No. in Survey held at Detroit, Mich. Date, First Survey Aug. 12. 1915 Last Survey Aug. 9. 1916
 Reg. Book. on the Single screw steamer "GAUTE" (Number of Vials 24) Tons { Gross 2118
 Net 1239
 When built 1916

Master C. Paaske Built at Wyandotte By whom built Detroit S. B. Coy.
 Engines made at Detroit By whom made Detroit S. B. Coy. when made 1916
 Boilers made at Detroit By whom made Detroit S. B. Coy. when made 1916
 Registered Horse Power 1200 Owners Burns, Birnstad & Co. Port belonging to Christiania

Nom. Horse Power as per Section 28 244 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expanding No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 20" - 33" - 54" Length of Stroke 40" Revs. per minute 110 Dia. of Screw shaft 11" Material of Iron
 as per rule 11.221 as fitted 11.2 screw shaft

Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight

in the propeller boss Yes If the liner is in more than one length, are the joints burned Yes 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 Yes If two

liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 4'-3"

Dia. of Tunnel shaft 10.2 as per rule 10.2 Dia. of Crank shaft journals 10.815 as per rule 11 Dia. of Crank pin 11" Size of Crank webs 7x21" Dia. of thrust shaft under

collars 11.5 as fitted 10.2 Dia. of screw 12'-6" Pitch of Screw 13'-3" No. of Blades 4 State whether moveable No Total surface 60 sq

No. of Feed pumps 2 Diameter of ditto 3.5" Stroke 20" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 3.5" Stroke 20" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps 7x7x10" - 6x4x6" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2-3" engine room, 2-3" boiler room, 1-3" turn in Holds, &c. 3-3" after hold 2-3" fore hold

No. of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes-3"

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 Yes

Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both

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 Below

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 Yes

What pipes are carried through the bunkers None How are they protected Yes

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 27.5.16 of Stern Tube 27.5.16 Screw shaft and Propeller 27.5.16

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper deck

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

Total Heating Surface of Boilers 5246 sq Is Forced Draft fitted No No. and Description of Boilers 2 single mild.

Working Pressure 180 lbs. Tested by hydraulic pressure to 270 lbs. Date of test 8.7.16 No. of Certificate 8

Can each boiler be worked separately Yes Area of fire grate in each boiler 63 sq No. and Description of Safety Valves to

each boiler 2 spring loaded Area of each valve 7.06 sq Pressure to which they are adjusted 185 lbs. Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 8" Mean dia. of boilers 14'-6" Length 11'-0" Material of shell plates S

Thickness 1.76" Range of tensile strength 28-32 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams S. R. L.

long. seams S. R. L. Diameter of rivet holes in long. seams 1.5" Pitch of rivets 8.5" Lap of plates or width of butt straps 19.5"

Per centages of strength of longitudinal joint rivets 99.7 plate 84.6 Working pressure of shell by rules 181 lbs. Size of manhole in shell 11"x15"

Size of compensating ring 31"x31"x1.76" No. and Description of Furnaces in each boiler 3 corrugated Material S Outside diameter 46.76"

Length of plain part top bottom Thickness of plates top bottom Description of longitudinal joint width No. of strengthening rings Yes

Working pressure of furnace by the rules 215 lbs. Combustion chamber plates: Material S Thickness: Sides 5.8" Back 5.8" Top 5.8" Bottom 5.8"

Pitch of stays to ditto: Sides 7.7"x7.7" Back 7.7"x7.7" Top 8"x7.7" If stays are fitted with nuts or riveted heads R. H. Working pressure by rules 180 lbs.

Material of stays S Diameter at smallest part 1.26" Area supported by each stay 5.53 sq Working pressure by rules 182 lbs. End plates in steam space:

Material S Thickness 1.76" Pitch of stays 17"x15" How are stays secured R. H. Working pressure by rules 188 lbs. Material of stays S

Diameter at smallest part 4.92" Area supported by each stay 267.75 sq Working pressure by rules 190 lbs. Material of Front plates at bottom S

Thickness 1.76" Material of Lower back plate S Thickness 5.8" Greatest pitch of stays 12.5"x6.5" Working pressure of plate by rules 194 lbs.

Diameter of tubes 3.4" Pitch of tubes 4.4"x4.4" Material of tube plates S Thickness: Front 3.4" Back 1.76" Mean pitch of stays 10.4"

Pitch across wide water spaces 13.5" Working pressures by rules 190 lbs. Girders to Chamber tops: Material S Depth and

thickness of girder at centre 8.3" 1.5" Length as per rule 31" Distance apart 8" Number and pitch of stays in each 3-4.5"

Working pressure by rules 227 lbs. Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked

separately Yes 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 Yes

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear Yes

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? ☒

SPARE GEAR. State the articles supplied:— *Two each top and bottom end connecting rod bolts and nuts, two main bearing bolts and nuts, one set of clamping bolts and nuts, one set each fuel and bilge pump valves, piston springs, set of various sizes, a quantity of assorted bolts, nuts etc. One propeller, one propeller shaft, condenser tubes, boiler tubes.*

The foregoing is a correct description,

DETROIT SHIPBUILDING CO.

Frank Jeffrey *Chief Super.*

Manufacturer.

Dates of Survey while building { During progress of work in shops - - Dec. 12 Jan. 13 July 19 March 3 April 24 26 May 6 16 19 28 June 12 13 15 28 29 July 8 10 18 25 27 Aug. 7 9
During erection on board vessel - - -
Total No. of visits *24*

Is the approved plan of main boiler forwarded herewith *Yes*

" " " donkey " " "

Dates of Examination of principal parts—Cylinders *6.5.16* Slides *1.6.16* Covers *1.6.16* Pistons *1.6.16* Rods *1.6.16*

Connecting rods *6.5.16* Crank shaft *28.5.16* Thrust shaft *19.6.16* Tunnel shafts *19.5.16* Screw shaft *19.5.16* Propeller *19.5.16*

Stern tube *19.5.16* Steam pipes tested *24.4.16* Engine and boiler seatings *24.4.16* Engines holding down bolts *25.7.16*

Completion of pumping arrangements *9.8.16* Boilers fixed *18.7.16* Engines tried under steam *9.8.16*

Main boiler safety valves adjusted *9.8.16* Thickness of adjusting washers *PORT FOR 1 1/2" AFT 1 3/8" ST 2" FOR 2" AFT*

Material of Crank shaft *2* Identification Mark on Do. *N° 27.62* Material of Thrust shaft *2* Identification Mark on Do. *N° 27.6*

Material of Tunnel shafts *2* Identification Marks on Do. *N° 27.62* Material of Screw shafts *2* Identification Marks on Do. *N° 27.6*

Material of Steam Pipes *Solid drawn steel* Test pressure *540 lbs. hydraulic*

Is an installation fitted for burning oil fuel *No* 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 *Yes* If so, state name of vessel *S/S "Gilda"*

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines and boilers of this vessel have been constructed under special survey in accordance with the Rules. The materials and workmanship are sound and good. The boilers tested by hydraulic pressure and with the engines secured on board and tested under steam they are now in good order and safe working condition and respectfully submitted as being eligible in my opinion to be classed with the notation of L.M.C. 8.16 in the Register Book.*

It is submitted that this vessel is eligible for THE BROOD. + L.M.C. 8.16.

The amount of Entry Fee ... £ *\$10.00*

Special ... £ *\$170.00*

Donkey Boiler Fee ... £

Travelling Expenses (if any) £ *\$19.60*

When applied for,

When received,

Engineer-Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute *New York SEP 21 1916*

Assigned *+ Lmb 8.16*



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