

REPORT ON MACHINERY

No. 29650

SAT. NOV. 18. 1916

Received at London Office

Writing Report 8-11-16 When handed in at Local Office 13-11-16 Port of Hull
 Survey held at Hull Date, First Survey 7-1-16 Last Survey 6-11-16 19
 Book. on the Steel screw trawler "Topaz" (Number of Visits 47) Gross 251
 Built at Leby By whom built Cochrane & Sons Ltd Tons 98
 By whom made C. D. Holmes & Co Ltd when made 1916-11
 By whom made C. D. Holmes & Co Ltd when made 1916-11
 Owners Kingston Trawling Co Ltd Port belonging to Hull

Horse Power as per Section 28 76 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

NES, &c. Description of Engines Triple expansion No. of Cylinders Three No. of Cranks 3
 of Cylinders 13" 2 1/2" - 35" Length of Stroke 24" Revs. per minute 7 1/2 Dia. of Screw shaft 7 1/2" Material of Iron
 as fitted 7 1/2" screw shaft

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
 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
 the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes If two

are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 35 1/2"
 Tunnel shaft as per rule 6 7/8" Dia. of Crank shaft journals as per rule 7 1/2" Dia. of Crank pin 7 1/4" Size of Crank webs 4 3/8" x 1 1/4" Dia. of thrust shaft under
 as fitted 7 1/4" Dia. of screw 9'-0" Pitch of Screw 10'-7 1/2" No. of Blades 4 State whether moveable no Total surface 31 1/2 sq ft

Feed pumps one Diameter of ditto 2 1/2" Stroke 14 1/4" Can one be overhauled while the other is at work yes
 Bilge pumps one Diameter of ditto 2 1/2" Stroke 14 1/4" Can one be overhauled while the other is at work yes
 Donkey Engines one 3 1/2" dia Sizes of Pumps 6", 4 1/2" x 6" duplex No. and size of Suctions connected to both Bilge and Donkey pumps
 In Holds, &c. One 2 1/2" dia in each compartment

gine Room Two 2 1/2" dia Suctions also connected to ejecta yes Is a separate Donkey Suction fitted in Engine room of size 3" ejecta
 Bilge Injections one sizes 3 1/2" Connected to condenser, or to circulating pump yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible no
 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 no

connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both
 ey 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
 ey 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 Toward suction How are they protected strong wooden casings

l Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
 e 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 19-1-16 of Stern Tube 19-1-16 Screw shaft and Propeller 19-1-16

Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from yes

ERS, &c. (Letter for record S) Manufacturers of Steel A. Colville & Sons

Heating Surface of Boilers 1250 sq ft Is Forced Draft fitted no No. and Description of Boilers one single ended
 ing Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 16-10-16 No. of Certificate 3167

ach boiler be worked separately yes Area of fire grate in each boiler 43 sq ft No. and Description of Safety Valves to
 boiler two spring loaded Area of each valve 49 sq in Pressure to which they are adjusted 205 lbs Are they fitted with easing gear yes
 at distance between boilers on upstokes and bunkers on woodwork 7" Mean dia. of boilers 150" Length 10'-3" Material of shell plates steel

ess 1 1/8" Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double
 seams J.P.A.B. Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 7 3/8" Lap of plates or width of butt straps 17"

stages of strength of longitudinal joint 86.16 Working pressure of shell by rules 200 Size of manhole in shell 16" x 12"
 compensating ring 7" x 1 1/8" No. and Description of Furnaces in each boiler one plain Material steel Outside diameter 36"
 of plain part 76 1/2" Thickness of plates 3 13/16" Description of longitudinal joint welded No. of strengthening rings yes
 bottom 69" crown 13 1/16" bottom 11/16" Top 11/16" Bottom 11/16"

ing pressure of furnace by the rules 232 Combustion chamber plates: Material steel Thickness: Sides 11/16" Back 3/4" Top 11/16" Bottom 11/16"
 of stays to ditto: Sides 9 1/4" x 8" Back 10" x 8" Top 10" x 8" Bottom 10" x 8" Working pressure by rules 220 End plates in steam space
 al of stays steel Diameter at smallest part 1-76" Area supported by each stay 64 sq in Working pressure by rules 220 Material of stays steel

ial steel Thickness 1 3/32" Pitch of stays 17" x 16 1/2" How are stays secured by nuts Working pressure by rules 226 Material of stays steel
 at smallest part 6 1/4" Area supported by each stay 200.5 sq in Working pressure by rules 240 Material of Front plates at bottom steel
 ess 1" Material of Lower back plate steel Thickness 1 5/16" Greatest pitch of stays 16" x 11" Working pressure of plate by rules 209

er of tubes 3 1/2" Pitch of tubes 5" x 4 1/16" Material of tube plates steel Thickness: Front 1" Back 7/8" Mean pitch of stays 9 7/8"
 across wide water spaces 13 3/4" Working pressures by rules 203 Girders to Chamber tops: Material steel Depth and
 ss of girder at centre 10" x 1 3/4" Length as per rule 33 3/4" Distances apart 10" Number and pitch of stays in each three 8"

ing pressure by rules 220 Superheater or Steam chest; how connected to boiler yes Can the superheater be shut off and the boiler worked
 ely yes Diameter yes Length yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet
 Pitch of rivets yes Working pressure of shell by rules yes Diameter of flue yes Material of flue plates yes Thickness yes

ened with rings yes Distance between rings yes Working pressure by rules yes End plates: Thickness yes How stayed yes
 ing pressure of end plates yes Area of safety valves to superheater yes Are they fitted with easing gear yes

Lloyd's Register
 W1238 0100

REPORT

IS A DONKEY BOILER FITTED? *no*

If so, is a report now forwarded? *✓*

SPARE GEAR. State the articles supplied: *Two top end bolts & nuts, two bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set of air pump bilge pump valves, one main & one donkey chest valve seat, 12 junking stem & nuts, one impeller shaft for circulating pump, one feed or bilge pump plug, one set of donkey pump valves, one safety valve spring & a quantity of bolts & nuts of various sizes.*

The foregoing is a correct description,

Richard Holmes

Manufacturer.

Dates of Survey while building { During progress of work in shops - *1916: Jan 7, 10, 14, 17, 19, Feb 22, Mar 31, Jun 12, 22, 27, Jul 4, 10, 17, 21, 24, 28, 31, Aug 8, 9, 14, 15, 19, 23, 28*
During erection on board vessel - *Sep 1, 2, 5, 7, 9, 12, 19, 20, 23, 27, 29, Oct 6, 10, 13, 16, 19, 24, 25, 27, 31, Nov 2, 6.*
Total No. of visits *47*

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

Dates of Examination of principal parts - Cylinders *9-8-16* Slides *5-9-16* Covers *23-8-16* Pistons *9-8-16* Rods *2-9-16*
Connecting rods *7-9-16* Crank shaft *19-8-16* Thrust shaft *31-3-16* Tunnel shafts *✓* Screw shaft *17-1-16* Propeller *17-1-16*
Stern tube *14-1-16* Steam pipes tested *25-10-16* Engine and boiler seatings *19-1-16* Engines holding down bolts *20-9-16*
Completion of pumping arrangements *6-11-16* Boilers fixed *24-10-16* Engines tried under steam *6-11-16*
Main boiler safety valves adjusted *27-10-16* Thickness of adjusting washers *7/32" & 5/16"*
Material of Crank shaft *Iron* Identification Mark on Do. *1720 FLS* Material of Thrust shaft *Iron* Identification Mark on Do. *1565*
Material of Tunnel shafts *✓* Identification Marks on Do. *✓* Material of Screw shafts *Iron* Identification Marks on Do. *1554*
Material of Steam Pipes *solid drawn copper* Test pressure *410 lb.*
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 *Ruby, Garnet.*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been constructed under special survey, in accordance with the approved plans & the rules of this Society, the materials & workmanship are good. The Boiler & steam pipes have been tested as above & found sound & good. The machinery has been properly fitted & secured on board the vessel & on completion was tried under steam under full working conditions & found satisfactory. The safety valves have been adjusted under steam & tested for accumulation which did not exceed 210 lbs. In my opinion the vessel is eligible for the next L.M.C. 11-16.*

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 11-16.

The amount of Entry Fee ... £ 1 : 0 :
Special ... £ 11 : 8 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : 8/2 :
When applied for, 17/11/16
When received, 2/12/16

Committee's Minute TUE. 21 NOV. 1916

Assigned

Frank L. Stanger

Engineer Surveyor to Lloyd's Register of British & Foreign Ships



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MACHINERY CERTIFICATE WRITTEN.

Report of Hull
No. in Book
Built at
Kingston
No. 662
Elec
DESCRIPTION OF DYNAMO
Robey high pressure compound
Capacity of Dynamo
There is Dynamo fixed
Position of Main Switch Board
Positions of auxiliary switches to main
Wheelhouse,
switches to main
fuses are fitted on main
circuits
vessel is wired on the d
the fuses of non-oxidiz
all fuses fitted in easi
are permanent instrum
all switches and fuses
al number of lights pro
10
5
25
11
13
3 Mast head light
2 Side light
3
are lights, what protect
ere are the switches c
DESCRIPTION OF CABLES
in cable carrying
each cables carrying
each cables carrying
to lamps carrying
go light cables carrying
DESCRIPTION OF INSULATION
enley's cable
ts in cables, how made
all the joints of cable
positions, none being
there any joints in o
are the cables led to
bulkhead

Hull

Certificate (if required) to be sent to