

REPORT ON MACHINERY.

TUE. 10 OCT. 1917

Received at London Office

When handed in at Local Office 15 OCT 1917 Port of NEWCASTLE-ON-TYNE

Survey held at South Shields Date, First Survey 23 Oct 1916 Last Survey 28 Apr 1917

on the Steel Screw Steamer Henri le Cour (Number of Visits 1)

Builder Built at Alloa By whom built Forth Shipbuilding Co Ltd Tons Gross 2740 Net 1540

Engines made at South Shields By whom made G.T. Grey & Co Ltd (no 575 engine) when made 1917-9

Boilers made at Hebburn By whom made Palmers S.B. & Co Ltd when made 1917-9

Registered Horse Power (1200) Owners Port belonging to Nantes

nom. Horse Power as per Section 28 234 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

Dia. of Cylinders 20 1/2 - 33 - 54 Length of Stroke 39 Revs. per minute 80 Dia. of Screw shaft as per rule 11-09 as fitted 12 1/2 Material of screw shaft steel

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

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 4-3

Dia. of Tunnel shaft as per rule 10-32 as fitted 10-5 Dia. of Crank shaft journals as per rule 10-83 as fitted 11 Dia. of Crank pin 11 Size of Crank webs 5 1/2 x 7 1/2 Dia. of thrust shaft under rollers 11 Dia. of screw 14-0 Pitch of Screw 14-0 No. of Blades 4 State whether moveable no Total surface 68 sq ft

No. of Feed pumps 2 Diameter of ditto 3 5/8 Stroke 20 Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 3 7/8 Stroke 20 Can one be overhauled while the other is at work yes

No. of Donkey Engines 2 Sizes of Pumps one 1 1/2 hp no 2 1/2 hp No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 30 1/2 x 3" dia and 19 3/4" dia In Holds, &c. fore hold 29 3/4" dia aft hold 29 3/4" dia

Tunnel 1 of 2 1/4" dia

No. of Bilge Injections 1 sizes 4 1/2 Connected to condenser, or to circulating pump C-P Is a separate Donkey Suction fitted in Engine room & size yes 3 1/2

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 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 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 yes

What pipes are carried through the bunkers none 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 17.9.17 of Stern Tube 17.9.17 Screw shaft and Propeller 17.9.17

Is the Screw Shaft Tunnel watertight yes as per ship Is it fitted with a watertight door yes worked from Top platform

BOILERS, &c.—(Letter for record S) Manufacturers of Steel J Spencer & Sons Ltd

Total Heating Surface of Boilers 4104 Is Forced Draft fitted no No. and Description of Boilers 2 Cyl. multitubular scudid

Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 18.4.14 No. of Certificate 8977

Can each boiler be worked separately yes Area of fire grate in each boiler 63 sq feet No. and Description of Safety Valves to each boiler two direct spring Area of each valve 12-56 Pressure to which they are adjusted 185 lb Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 12 Please see report appended no 70067 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 rivets 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 crown 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

Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space

Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays

Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom

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 pressure 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? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: - *two top end bolts & nuts. two bottom end bolts & nuts, Main bearing bolts & nuts, Spare Coupling bolts & nuts. 1 set pump ring bolts. 1 set feed Valves. 1 feed pump escape Valve Spring. 1 set Bilge pump Valves. 1 set air pump Valves. 1 set Circulating pump Valves. 1 set piston Springs Springs for each Cylinder, 1 Spring for safety Valve one spare propeller. 1 set of fire bars, assorted iron bolts and nuts. Various Cogs Room Stores -*

The foregoing is a correct description,

Geo. T. Grey & Co., Ltd.

Manufacturers of Main Engines

Dates of Survey while building	{	During progress of work in shops - - -	1916
		During erection on board vessel - - -	1917
		Total No. of visits	40

Oct. 23. 24. Nov. 27. Jan. 5. 9. Feb. 2. 7. Mar. 9. 26. 27. Apr. 27. May. 3. 10. 24. 25. 14. 19. Jul. 5. 19. 30. Aug. 3. 9. 10. 17. 20. 21. 29. 30. Sep. 5. 6. 7. 13. 14. 15. 17. 18. 21. 28.

Is the approved plan of main boiler forwarded herewith ☒

Dates of Examination of principal parts -	Cylinders	5. 7. 17.	Slides	5. 7. 17.	Covers	30. 7. 17.	Pistons	5. 7. 17.	Rods	5. 7. 17.	
Connecting rods	5. 7. 17.	Crank shaft	14. 6. 17.	Thrust shaft	14. 6. 17.	Tunnel shafts	21. 8. 17.	Screw shaft	10. 8. 17.	Propeller	10. 8. 17.
Stern tube	10. 8. 17.	Steam pipes tested	30. 8. 17.	Engine and boiler seatings	6. 9. 17.	Engines holding down bolts	5. 9. 17.	Engines tried under steam	28. 9. 17.		
Completion of pumping arrangements	28. 9. 17.	Boilers fixed	28. 9. 17.	Thickness of adjusting washers	16. 5. 17.	Material of Thrust shaft	Steel	Identification Mark on Do.	836 RDS	Material of Screw shafts	Steel
Main boiler safety valves adjusted	15. 9. 17.	Material of Crank shaft	Steel	Identification Mark on Do.	836 RDS	Material of Thrust shaft	Steel	Identification Mark on Do.	836 RDS	Material of Screw shafts	Steel
Material of Tunnel shafts	Steel	Identification Marks on Do.	836 RDS	Material of Thrust shaft	Steel	Identification Mark on Do.	836 RDS	Material of Screw shafts	Steel	Identification Marks on Do.	
Material of Steam Pipes	S. D. Copper	Test pressure	360 lbs. (mantle works)	30. 8. 17.							

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 48 of the Rules been complied with ☒

Is this machinery duplicate of a previous case

If so, state name of vessel *Cylinders duplicate of Kaur...*

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

The machinery built under Special Survey the material and workmanship found good and efficient,

The machinery and Boilers fitted up on board, Tested under Steam (Vessel at moorings) also while manoeuvring in River &c.

Surveyor's Opinion this Vessel is now eligible for the notification + L.M.C. 9. 17 to be made in the Register Book - (The machinery surveyed by British Corporation and Bureau Veritas Surveyors)

Note The Steering Engine Control gear was found when tested too stiff for efficient working, on the 14th was sailing by the early morning tide to join Convoy. It was left with the Captain to satisfy himself before the vessel sailed, that the overhaul as recommended, was done to his satisfaction.

The Dynamo Engine slows down considerably when the Steam Steering is started. The Steam & electric from the Steering Engine & Dynamo Engine, lead from & into the same line of piping & this arrangement appears to choke the Dynamo engine. It has been recommended to the owners & shipbuilders that satisfactory alterations should be made, and an opportunity be given for these machines to be tested under working conditions by one of the Society's Surveyors - at the owners convenience.

The amount of Entry Fee	£ 20 : 10 : 0	When applied for,	1.5 OCT 1917
Special	£ 2 : 0 : 0	When received,	20/10/17
Donkey Boiler Fee	£		
Travelling Expenses (if any)	£		

Leonard Shallcross

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

Committee's Minute

FRI OCT 26 1917

TUE 30 OCT 1917

Assigned

+ L.M.C. 9. 17

MACHINERY CERTIFICATE
WRITTEN 24/10/17

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Foundation