

REPORT ON MACHINERY.

Hull No 18030

No. 4200

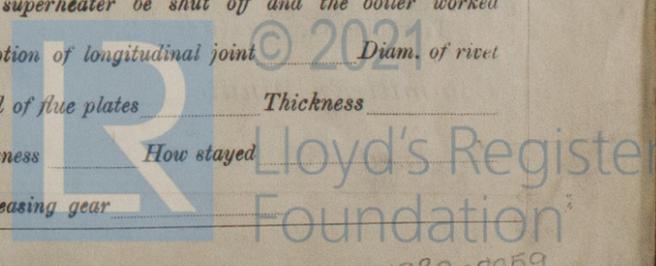
WED. 20 JUN 1906

Port of Grimby Received at London Office _____
 No. in Survey held at Grimby Date, first Survey 20th July 1901 Last Survey May 10th 1906
 Reg. Book. on the Steam trawler ANAETHON (Number of Visits 24)
 Master J. J. Alward Ltd Built at Goole By whom built Goole & R. Co. Ltd Tons Gross 234 Net 87
 Engines made at Grimby By whom made J. C. Cooper & Co. Ltd When built 1906
 Boilers made at Stuttford By whom made Central Marine Co when made 1906
 Registered Horse Power _____ Owners J. J. Alward Ltd Port belonging to Grimby
 Nom. Horse Power as per Section 28 76 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

Gauges 33

ENGINES, &c.—Description of Engines Triplex. Surf. cond. No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 12 1/4 - 22 - 35 Length of Stroke 24 Revs. per minute 109 Dia. of Screw shaft as per rule 7.07 Material of screw shaft Scraper
 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 _____
 If two liners are fitted, is the shaft lapped or protected between the liners _____ Length of stern bush 3-0
 Dia. of Tunnel shaft as per rule 6-7 Dia. of Crank shaft journals as per rule 6-7 Dia. of Crank pin 7 Size of Crank webs 4x18 Dia. of thrust shaft under collars 7-2 Dia. of screw 8-6 Pitch of Screw 11-0 No. of Blades 4 State whether moveable no Total surface 28 1/2
 No. of Feed pumps 1 Diameter of ditto 2 1/4 Stroke 12 Can one be overhauled while the other is at work _____
 No. of Bilge pumps 1 Diameter of ditto 3 Stroke 12 Can one be overhauled while the other is at work _____
 No. of Donkey Engines 1 Sizes of Pumps 3 1/2 x 6 stroke No. and size of Suctions connected to both Bilge and Donkey pumps _____
 In Engine Room Sea bilge, hotwell, 2 bore. In Holds, &c. Fish room, 2 bore.
 No. of Bilge Injections 1 sizes 2 1/4 Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size 2 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 no
 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 Fish room suction How are they protected Wood casing
 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 9/3/06 of Stern Tube 9/3/06 Screw shaft and Propeller 9/3/06
 Is the Screw Shaft Tunnel watertight no tunnel Is it fitted with a watertight door no worked from _____

OILERS, &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 _____ 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 _____ Thickness of plates _____ 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 _____ Sides _____ Back _____ Top _____ If stays are fitted with nuts or riveted heads _____ Working pressure by rules _____
 Diameter of stays _____ Diameter at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ End plates in steam space: _____
 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 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 _____
 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 _____
 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 _____



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 _____ Plates _____

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: *Two each of top & bottom end & main bearing bolts, a set of coupling bolts, one set each of air circulating feed & bilge pump valves, feed check valves, studs iron, bolts & nuts, end cover tubes.*

For the GREAT CENTRAL CO-OPERATIVE ENGINEERING & SHIP REPAIRING COMPANY, LTD

The foregoing is a correct description,

Manufacturer.

J. P. Ritchie

Dates of Survey while building	During progress of work in shops - -	1905. July 20. 27. Aug. 14. 21. Sep. 2. 5-6. 18. Oct. 30. 27. Nov. 2-10. 14. 1906. Feb. 21. 24. Apr. 4.
	During erection on board vessel - -	1906. Apr. 19. 20. 21. 24. 27. May. 9. 10.
	Total No. of visits	24

Is the approved plan of main boiler forwarded herewith *no.*

Dates of Examination of principal parts—	Cylinders <i>14/8/06</i>	Slides <i>14/8/06</i>	Covers <i>14/8/06</i>	Pistons <i>2/18/06</i>	Rods <i>2/18/06</i>
Connecting rods	<i>2/9/06</i>	Crank shaft <i>20/10/06</i>	Thrust shaft <i>2/14/06</i>	Tunnel shafts	Screw shaft <i>2/3/06</i>
Stern tube	<i>2/3/06</i>	Steam pipes tested <i>27/4/06</i>	Engine and boiler seatings <i>19+20/4/06</i>	Engines holding down bolts <i>21+24/4/06</i>	Propeller <i>2/3/06</i>
Completion of pumping arrangements	<i>9/5/06</i>	Boilers fixed <i>27/4/06</i>	Engines tried under steam	<i>9/5/06</i>	
Main boiler safety valves adjusted	<i>9/5/06</i>	Thickness of adjusting washers	<i>3/16</i>		
Material of Crank shaft	<i>See spec. Identification Mark on Do. 447.</i>	Material of Thrust shaft	<i>See spec. Identification Mark on Do. 487.</i>		
Material of Tunnel shafts	<i>See spec. Identification Marks on Do.</i>	Material of Screw shafts	<i>See spec. Identification Marks on Do. 469.</i>		
Material of Steam Pipes	<i>Solid drawn Copper 32 line. 6/7/06. Test pressure 400 lbs.</i>				

General Remarks (State quality of workmanship, opinions as to class, &c. *These engines have been constructed under special survey, materials & workmanship, they have been satisfactorily secured on board the vessel & tried under steam and the case is, in my opinion, eligible for record of + class 5-06.*)

The Committee have approved in this instance of one feed pump and one bilge pump being fitted. See Secretary's letter E. 22nd March 1906.

This machinery is identical with that of the S. S. Aris. See Genl Report 4/574.

It is submitted that this vessel is eligible for THE RECORD

J. P. Ritchie
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

The amount of Entry Fee..	£	When applied for.
Special	£	1 st June 1906
Donkey Boiler Fee .. .	£	When received.
Travelling Expenses (if any) £	8 : 12	25/7/06

Committee's Minute **FRI. 22 JUN 1906**

Assigned *+ L.M.C. 5.06*

MACHINERY CERTIFICATE WRITTEN.



This office. Certificates Issued. 26.7.06

No. in Reg. Book
Master
Engines
Boilers
Registered
MULTI
(Letter fo
Boilers
No. of Ce
safety val
Are they f
Smallest d
Material o
Descrip. of
Lap of pla
rules 18
boiler 14
Description
plates: Ma
Top 9 1/2
smallest pa
Pitch of sta
Area suppo
Lower back
Pitch of tub
water spaces
girder at ce
Working pre
separately
holes
If stiffened w
Working pre
VERTICA
Made at
Working pres
No. of safety v
enter the donke
strength
Lap of plating
Radius of do.
Thickness of j
plates FOR THE
The
Dues wor
of Survey Duri
while boar
building Total