

REPORT ON MACHINERY.

Hull No 18030

No. 4200

WED. 20 JUN 1906

Port of Grimby Received at London Office 19
 No. in Survey held at Grimby Date, first Survey 20th July 1901 Last Survey May 10th 1906
 Reg. Book. on the Steam trawler ANACRONA (Number of Visits 24)
 Master J. J. J. J. Built at J. J. J. J. By whom built J. J. J. J. Tons { Gross 234
 Engines made at Grimby By whom made J. J. J. J. when made 1906
 Boilers made at Stuttelpore By whom made J. J. J. J. when made 1906
 Registered Horse Power 76 Owners J. J. J. J. 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

ENGINES, &c.—Description of Engines Tip up. Turp. end. 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 7 1/8 Material of Scrap iron
 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 3-0
 Dia. of Tunnel shaft 7 1/4 Dia. of Crank shaft journals 6 7/8 Dia. of Crank pin 7 Size of Crank webs 4 1/2 x 8 Dia. of thrust shaft under
 collars 7 1/4 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 Yes
 No. of Bilge pumps 1 Diameter of ditto 3 Stroke 12 Can one be overhauled while the other is at work Yes
 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 Cocks
 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 hot tunnel Is it fitted with a watertight door Yes worked from Yes

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
 Material 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
 separately 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 an circulating feed & bilge pump valves, feed check valves, Stud iron, bolterants, end cover tubes.*

The foregoing is a correct description,

Manufacturer.

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

| | | |
|--------------------------------|--------------------------------------|---|
| 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. Feb. 21. 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 | 14/8/05 | Slides | 14/8/05 | Covers | 14/8/05 | Pistons | 21/8/05 | Rods | 21/8/05 |
| Connecting rods | 2/9/05 | Crank shaft | 20/10/05 | Thrust shaft | 2/4/06 | Tunnel shafts | ✓ | Screw shaft | 2/3/06 |
| Stern tube | 2/3/06 | Steam pipes tested | 27/4/06 | Engine and boiler seatings | 19+20/4/06 | Engines holding down bolts | 21/24/4/06 | | |
| Completion of pumping arrangements | 9/5/06 | Boilers fixed | 27/4/06 | Engines tried under steam | 9/5/06 | | | | |
| Main boiler safety valves adjusted | 9/5/06 | Thickness of adjusting washers | 3/16 | | | | | | |

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|---------------------------|--------------------------------------|------------------------|--------------------------|---------------------------------------|-----|
| Material of Crank shaft | See spec. Identification Mark on Do. | 447 | Material of Thrust shaft | See spec. Identification Mark on Do. | 487 |
| Material of Tunnel shafts | ✓ Identification Marks on Do. | | Material of Screw shafts | See spec. Identification Marks on Do. | 469 |
| Material of Steam Pipes | Solid drawn Copper 32 line. 6/7/09. | Test pressure 400 lbs. | | | |

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 & bound the vessel & tried under steam and the case is, in my opinion, eligible for record of + due 5-06. (in red)*

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

This machinery is identical with that of the S. S. Arica. See Genl Report 4/54.

It is submitted that
This vessel is eligible for
THE RECORD

ILM.C. 5-06

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

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|--------------------------------|---|---|----|---------------------------|
| 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

MACHINERY CERTIFICATE
WRITTEN.