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1 FEB 1946
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Rpt. 4.

No. 53310.

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

5 FEB 1946

Received at London Office 7 FEB 1946

Date of writing Report 19... When handed in at Local Office 19... Port of Hull

No. in Survey held at Buxley, Hull Date, First Survey 6. 1. 45 Last Survey 4. 1. 1946
 Reg. Book (Number of Visits 42)

on the 'NAVENA' Tons { Gross 361
 Net 139

Built at Buxley By whom built Cook, Welton & Gemmell, Ltd. Yard No. 757 When built 1946

Engines made at Hull By whom made Chas. D. Holmes & Co. Ltd. Engine No. 1715 When made 1946

Boilers made at Hull By whom made Chas. D. Holmes & Co. Ltd. Boiler No. 1715 When made 1946

Registered Horse Power... Owners J. Marx & Sons, Ltd. Fleetwood Port belonging to Fleetwood

M.N. Nom. Horse Power as per Rule 94 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which vessel is intended Steam Trawlers - Ocean going service

ENGINES, &c.—Description of Engines Triple Expansion steam reciprocating Revs. per minute 120

Dia. of Cylinders 2 1/2, 2 1/2, 35 Length of Stroke 26 No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule approx 4 3/8 Crank pin dia. 4 3/8 Crank webs Mid. length breadth 1 1/2 Thickness parallel to axis 4 1/8
as fitted 4 3/8 Mid. length thickness 1 1/8 shrunk 3 5/16

Intermediate Shafts, diameter as per Rule approx 4 1/8 Thrust shaft, diameter at collars as per Rule approx 4 3/8
as fitted 4 1/8 as fitted 4 3/8

Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule approx 4 1/8 Is the { tube } shaft fitted with a continuous liner { yes
as fitted as fitted 4 1/8 top of tube screw

Bronze Liners, thickness in way of bushes as per Rule approx 9/16 Thickness between bushes as per Rule approx 1/2 Is the after end of the liner made watertight in the
as fitted 9/16 as fitted 1/2 propeller boss yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner 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 Is an approved Oil Gland or other appliance fitted at the after end of the tube
 at yes If so, state type yes Length of Bearing in Stern Bush next to and supporting propeller 2'-11 1/2"

Propeller, dia. 9'-8" Pitch 10'-4 1/2" No. of Blades 4 Material C.I. whether Moveable no Total Developed Surface 36 sq. feet

Feed Pumps worked from the Main Engines, No. One Diameter 2 3/4" Stroke 14 1/2" Can one be overhauled while the other is at work yes

Bilge Pumps worked from the Main Engines, No. One Diameter 2 3/4" Stroke 14 1/2" Can one be overhauled while the other is at work yes

Feed Pumps { No. and size One 2 3/4" x 14 1/2" } one 6" x 4 1/2" x 6" Pumps connected to the { No. and size One 2 3/4" x 14 1/2" } one 6" x 4 1/2" x 6" } One 2 1/2"
 { How driven N/E } Ind. Stm. Main Bilge Line { How driven ME } Ind. Stm. } Bilge ejector (Stm.)

Ballast Pumps, No. and size none Lubricating Oil Pumps, including Spare Pump, No. and size none

Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps:—In Engine and Boiler Room E.R. one 2" B.R. one 2"

In Pump Room none In Holds, &c. 1-2" in each of the following spaces:—
fore store room, main fish room, spare fish room, forward slushwell, aft slushwell

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 3 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size One 3 1/2" bilge ejector Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes yes
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes
 Are all Sea Connections fitted direct on the skin of the ship yes Are they fitted with 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 Overboard Discharges 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 pass through the bunkers Forward bilge suction How are they protected heavy wood & steel plates
 What pipes pass through the deep tanks none Have they been tested as per Rule yes
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
 Is the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one
 compartment to another yes Is the Shaft Tunnel watertight Part of E.R. Is it fitted with a watertight door yes worked from yes

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 1710 sq. ft.

Which Boilers are fitted with Forced Draft none Which Boilers are fitted with Superheaters none

No. and Description of Boilers One S.B. Working Pressure 21.0 lbs/sq. in.

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes

IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? yes

Can the donkey boiler be used for domestic purposes only yes

PLANS. Are approved plans forwarded herewith for Shafting 5.3.45 Main Boilers 24.4.45 Auxiliary Boilers yes Donkey Boilers yes
 (If not state date of approval)

Superheaters yes General Pumping Arrangements 17.4.45 Oil fuel Burning Piping Arrangements yes

SPARE GEAR.

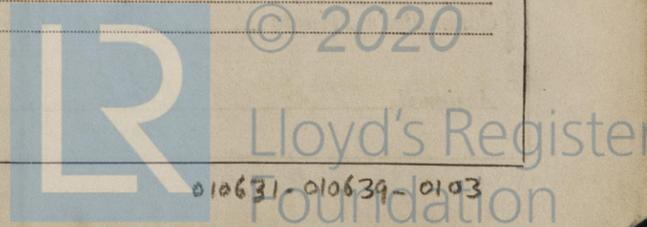
Has the spare gear required by the Rules been supplied yes

State the principal additional spare gear supplied Please see attached list

The foregoing is a correct description.
 FOR CHARLES D. HOLMES & CO., LTD.

W. R. Evans Manager

Manufacturer.



NAVENA

Dates of Survey while building

During progress of work in shops - - { 1945 JUN 6, 13, 16, 27 AUG 14, 21, 24, 29 SEP 7, 11, 17, 28 OCT 1, 2, 15, 16, 18, 22, 23, 25, 31
Nov 5, 14, 19, 28, 29 Dec 6, 10, 12, 20, 28

During erection on board vessel - - { 1945 OCT 15, 22, 25 Dec 2, 28
1946 JAN 1, 2, 4, 5, 6, 7,

Total No. of visits 42.

Dates of Examination of principal parts - Cylinders 1.10.45 Slides 16.10.45 Covers 15.10.45
Pistons 17.9.45 Piston Rods 17.9.45 Connecting rods 16.10.45
Crank shaft 11.9.45 Thrust shaft 16.7.45 Intermediate shafts 21.8.45
Tube shaft ✓ Screw shaft 28-9-45 Propeller 22.10.45
Stern tube 22.10.45 Engine and boiler seatings 2.12.45 Engines holding down bolts 1.1.46
Completion of fitting sea connections 22.10.45
Completion of pumping arrangements 5.1.46 Boilers fixed 1.1.46 Engines tried under steam 5/1/46 7/1/46
Main boiler safety valves adjusted 4.1.46 Thickness of adjusting washers P 5/16 F. S 3/8
Crank shaft material F.I. STL Identification Mark R 5383, CP, 18.5.45 & 4823, CP, 21.3.45 Thrust shaft material F.I. STL Identification Mark R 5382, CP, 22/5/45
Intermediate shafts, material D° Identification Marks R 5381, CP, 22.5.45 21.8.45 WSS Tube shaft, material ✓ Identification Mark ✓
Screw shaft, material D° Identification Mark R 5380, CP, 18.5.45 28.9.45 WSS Steam Pipes, material Copper ✓ Test pressure 500 lb Date of Test 2.1.46
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 the Rules for the use of oil as fuel been complied with ✓
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No ✓ If so, have the requirements of the Rules been complied with ✓
If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with ✓
Is this machinery duplicate of a previous case YES ✓ If so, state name of vessel 'ABY' ✓

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

This vessel's machinery has been built and installed under Special Survey in accordance with the Society's Rules and Regulations and with the Secretary's letters. The workmanship and materials are good. The machinery has been tried under working conditions with satisfactory results. Eligible in my opinion, to be recorded in the Register Book.

* LMC 1,46 CL T 3Cy 12 1/2", 21 1/2", 35" - 26" 210 lb 94 MN.
15B 3Cf G552 φ H51710 φ

The amount of Entry Fee ... £ 2 : 0 :
Special + LMC ... £ 23 : 10 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 5 FEB 1946
When received, 19.

W.S. Shields
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute ... FRI. 15 FEB 1946
Assigned + LMC 1,46
C.H.



Rpt. 58
Date of writ
No. in Reg. Book.
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End plates
How are st
Tube plates
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Girders to
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in each
Tensile stren
Pitch of stay
Front plate
Thickness
Pitch of stay
Main stays :
Diameter { At
Ove
Screw stays
Diameter { At
Ove

Certificate to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minute.)