

REPORT ON OIL ENGINE MACHINERY.

No. 6166.

Received at London Office 11 OCT 1948

Date of writing Report 25-9-48. When handed in at Local Office 27-9-48. Port of Osl.
 Name of vessel Tromdheim Date, First Survey 9-7-47 Last Survey 9-4-1948
 No. in Survey held at Tromdheim Number of Visits 14
 No. on the 6969 on the Single Screw vessel "UDDU" Ex. M.M.S. 1013 Tons Gross 313
7-48 Triple Quadruple Net 109
 Built at Peterhead By whom built Geo. Forbes & Co (Peterhead) Ltd. Yard No. 832382 When built 1943
 Engines made at Chicago, U.S.A. By whom made Fairbanks Morse Incorporated Engine No. - When made 1943
 Monkey Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓
 Brake Horse Power 500 ✓ Owners Skips Als Tempe Port belonging to Tromdheim
 Nom. Horse Power as per Rule 1127 = MN. Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which vessel is intended The British Isles, The Continent of Europe and Iceland.

ENGINES, &c. Type of Engines Heavy oil, pump scavenging diesel - 37 F12 2 or 4 stroke cycle 2 Single or double acting single
 Maximum pressure in cylinders 860 lb/sq. in. Diameter of cylinders 12" ✓ Length of stroke 15" ✓ No. of cylinders 5 ✓ No. of cranks 15
 Mean Indicated Pressure 75 Flywheel dia. 38" ✓ Weight 2400 lb Means of ignition Solid Kind of fuel used diesel oil
 Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 15.78" ✓ Is there a bearing between each crank yes ✓
 Revolutions per minute 400 ✓ Crank pin dia. 203 mm = 8" ✓ Crank Webs Mid. length breadth 282 mm ✓ Thickness parallel to axis ✓
 as per Rule 203 mm = 8" ✓ as fitted Crank pin dia. 203 mm = 8" ✓ Mid. length thickness 113 mm ✓ Thickness around eyehole ✓
 Flywheel Shaft, diameter as per Rule 203 mm = 8" ✓ Intermediate Shafts, diameter as per Rule 210 mm = 8 1/4" ✓ Thrust Shaft, diameter at collars as per Rule ✓
 as fitted 203 mm = 8" ✓ as fitted 210 mm = 8 1/4" ✓ as fitted ✓
 Propeller Shaft, diameter as per Rule ✓ Screw Shaft, diameter as per Rule 215 mm = 8 1/2" ✓ Is the tube screw shaft fitted with a continuous liner no ✓
 as fitted ✓ as fitted 215 mm = 8 1/2" ✓ AT BEARINGS: 8 3/4" ✓
 Bronze Liners, thickness in way of bushes as per Rule ✓ Thickness between bushes as per rule ✓ Is the after end of the liner made watertight in the
 as fitted ✓ as fitted ✓
 Propeller boss ✓ If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ✓
 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 ✓ Is an approved Oil Gland or other appliance fitted at the after end of the tube ✓
 If yes, state type newark - Patish patent Length of Bearing in Stern Bush next to and supporting propeller 2'-6" ✓
 Propeller, dia. 44 1/2" ✓ Pitch 3'-11" ✓ No. of blades 4 ✓ Material brass whether Moveable ✓ Total Developed Surface 120 sq. feet

Method of reversing Engines direct reversible Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes ✓ Means of lubrication oil
 Thickness of cylinder liners ab. 1/2" ✓ Are the cylinders fitted with safety valves yes ✓ Are the exhaust pipes and silencers water cooled or lagged with
 conducting material water cooled If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine ✓
 Bilge Water Pumps, No. ME 1-FW, EL.M. 1-FW Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes ✓
 Bilge Pumps worked from the Main Engines, No. 1 Diameter 3" ✓ Stroke 3 1/4" ✓ Can one be overhauled while the other is at work ✓
 Pumps connected to the Main Bilge Line { No. and Size 1-1148 GALLS 1-Centr. 2 stage log rpm.
 How driven M.E. ✓ 5th. aux. eng.
 Is the cooling water led to the bilges no ✓ If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping
 arrangements ✓
 Lubricating Pumps, No. and size none ✓ Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1-M.E. driven 7960 GALLS ✓
1-Aux. eng. " 10800 - " ✓
1-ELECTRICAL " 5200 - " ✓
 Two independent means arranged for circulating water through the Oil Cooler yes ✓ Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
 Pumps, No. and size:—In Machinery Spaces 2 (4) - 2 1/2" x 1-2 1/2" from stergland space. In Pump Room ✓
 Folds, &c. 2-fold hold 1/2" - 1-fold peak space 2 1/2" ✓

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-M.E. Bilge pump 1 1/2" ✓ ? @ 25 ft to GS pump
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes ✓ Are the Bilge Suctions in the Machinery Spaces
 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 valves ✓
 Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates yes ✓ Are the Overboard Discharges above or below the deep water line below ✓
 Are they each fitted with a Discharge Valve always accessible on the planking of the vessel yes ✓ Are the Blow Off Cocks fitted with a spigot and brass covering plate ✓
 Do pipes pass through the bunkers none ✓ How are they protected ✓
 Do pipes pass through the deep tanks ✓ Have they been tested as per Rule ✓
 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 no. 2 hold flat to T. ✓ Is it fitted with a watertight door no worked from ✓
 On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork drip trays with draining as per Rules.
 Air Driven Air Compressors, No. 1 ✓ No. of stages 1 Diameters 8" ✓ Stroke 3 1/4" ✓ Driven by ME, 26.3 43/250 10 1/2" ✓
 Auxiliary Air Compressors, No. 1 ✓ No. of stages 2 Diameters 1 1/8" - 3 1/4" ✓ Stroke 3 3/4" ✓ Driven by Stb. aux. engine ✓
 All Auxiliary Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓
 Ventilating Air Pumps, No. 1 ✓ Diameter 28" ✓ Stroke 11" ✓ Driven by M.E. ✓
 Auxiliary Engines crank shafts, diameter as per Rule 2. Gardner & Sons 4 1/2" x 6" - 6 cyl. - 4 1/2" ✓
 as fitted R.A. Foster 4 1/2" x 5 1/2" - 6 cyl. - 2 3/4" ✓

W1026-0183

22/1/48

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule. *yes.*

Can the internal surfaces of the receivers be examined and cleaned. *yes* Is a drain fitted at the lowest part of each receiver. *yes.*

High Pressure Air Receivers, No. *✓* Cubic capacity of each *✓* Internal diameter *✓* thickness *✓*

Seamless, lap welded or riveted longitudinal joint. *✓* Material *✓* Range of tensile strength *✓* Working pressure by Rules *✓*

Starting Air Receivers, No. *3* Total cubic capacity *ab. 120 ft.³* Internal diameter *2'-5"* thickness *SHELL: 3/8" HEADS: 9/16"*

Seamless, lap welded or riveted longitudinal joint. *E.W.* Material *Steel* Range of tensile strength *✓* Working pressure by Rules *Actual 250 lb/ft*

IS A DONKEY BOILER FITTED? *no.* If so, is a report now forwarded? *✓*

Is the donkey boiler intended to be used for domestic purposes only. *✓*

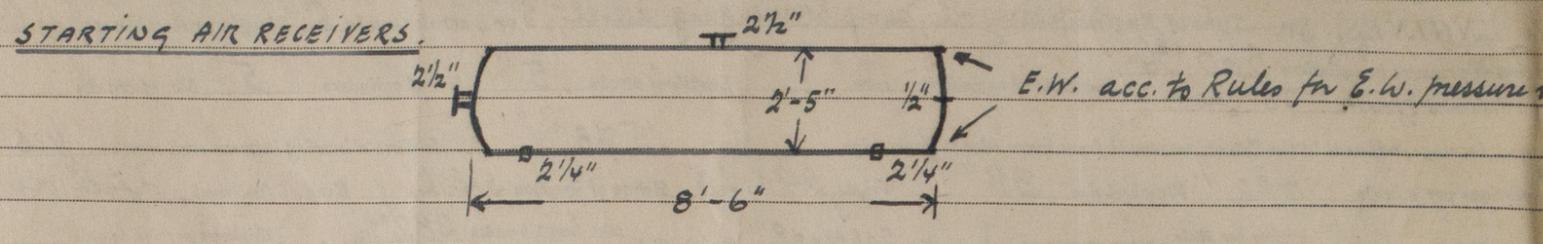
PLANS. Are approved plans forwarded herewith for Shafting *London 16/4-48.* Receivers *See sketch below* Separate Tanks *✓*

Donkey Boilers *✓* General Pumping Arrangements *London 30/3-48.* Oil Fuel *P/D/104* Arrangements *London 30/3.*

SPARE GEAR.

Has the spare gear required by the Rules been supplied. *not complete.*

State the principal additional spare gear supplied



The foregoing is a correct description, *✓*

Manufacturer.

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

~~Dates of Examination of principal parts—Cylinders Covers Pistons Rods Connecting rods
 Crank shaft Flywheel shaft Thrust shaft Intermediate shafts Tube shaft
 Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts
 Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions
 Crank shaft, Material Identification Mark Flywheel shaft, Material Identification Mark
 Thrust shaft, Material Identification Mark Intermediate shafts, Material Identification Marks
 Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark~~

~~Is the flash point of the oil to be used over 150° F.
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo 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 If so, state name of vessel~~

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

This vessel is a work motor ship built in 1943 under the Supervision of Surveyors to this Society for the Admiralty as a Müesmeper M.M.S. 1013.

The vessel has now been converted for cargo carrying purposes and the necessary amendments have been effected in accordance with the approved plans, Secretary's letters and the Rule requirements to the satisfaction of the Surveyors. The main engine found marked:— Classification of American Bureau of Shipping certifying that this Fairbanks Morse engine has been built, tested and inspected in full compliance with the requirements of the Rules and is entitled to the highest classification +AMS in the record of this class.

Additional power bilge pump not yet fitted. Spare gear to be brought up to Rule requirements.

It is recommended that this vessel's machinery be classed in the Society's Register Book, L.M.C. 4.48, a screw shaft seen 10147, subject to an additional power bilge pump being supplied and spare gear being brought up to Rule requirements at Owner's earliest opportunity.

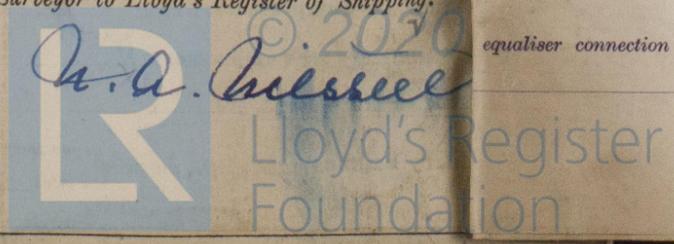
The amount of Entry Fee **CHARGED ON RPT. 9**

Special	£	10/5	1948.
Donkey Boiler Fee	£		
Travelling Expenses (if any)	£	23/9	1948.

B. S. Witomsky
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 26 NOV 1948**

Assigned



Rpt. 13.

Date of writing Rep

No. in Survey Reg. Book. *16969*

Built at

Owners

Electrical Insta

Is vessel fitted

Have plans been s

Heating *220* Po

has the governing b

trip switch as per

if not compound w

arranged to run in

in negative

test for machines un

of the generators as

engine room

near unprotected com

injury and damage f

contact *yes*

are they in accessible

and oil *yes*

material is used for

semi-insulating materi

Is the construction a

to pilot and earth lan

side of switches *no*

fuses on ea

April refer

and for each outgoing

Are compartments con

ammeters *2*

equaliser connection