

REPORT ON OIL ENGINE MACHINERY.

No. 76086.

11 DEC 1950

Received at London Office.

of writing Report 19 When handed in at Local Office 18.9.50 19.10 Port of GLASGOW.

in Survey held at GLASGOW. Date, First Survey 16.9.48 Last Survey 29.8.50

Book. Number of Visits 48

Single on the Main Triple Quadruple Screw vessel. Tons Gross Net

at PORT GLASGOW. By whom built LITHGOWS, L.D. Yard No. 1046 When built 1950

ines made at GLASGOW. By whom made D. ROWAN & CO. LD Engine No. 1218 When made 1950

key Boilers made at GLASGOW By whom made D. ROWAN & CO. LD Boiler No. 1218 When made 1950

ce Horse Power 6800 Owners. Port belonging to

Power as per Rule 1337. Is Refrigerating Machinery fitted for cargo purposes. No Is Electric Light fitted. Yes.

de for which vessel is intended. Carrying Petroleum in Bulk Open Sea Service

ENGINES, &c. — Type of Engines. 2 or 4 stroke cycle. 2 Single or double acting. SINGLE.

imum pressure in cylinders. 600 lbs. Diameter of cylinders. 670 1/2 Length of stroke. 2370 1/2 No. of cylinders. 6 No. of cranks. 18

n Indicated Pressure. 88 lbs. Ahead Firing Order in Cylinders. 1.4.2.6.3.5. Span of bearings, adjacent to the crank, measured

AKES OF SIDE ROOS. 1300 1/2 Is there a bearing between each crank. No. Revolutions per minute. 116.

heel dia. 2500 1/2 Weight. 6 tons. Moment of inertia of flywheel (lbs. in² or Kg. cm.²). 72 ft. lb. Means of ignition. Comp. Kind of fuel used. Diesel

nk ft. dia. of journals. 530 1/2 Crank pin dia. 530 1/2 Crank webs. Mid. length breadth. 754 1/2 Thickness parallel to axis. 300 1/2

as per Rule. 15.7. Thrust Shaft, diameter at collars. 500 1/2

Wheel Shaft, diameter. 460 1/2 Intermediate Shafts, diameter. 16 1/2

as per Rule. 17.2. Screw Shaft, diameter. 18 1/2 Is the (tube) shaft fitted with a continuous liner. Yes.

as per Rule. 13.16. Is the after end of the liner made watertight in the

ze Liners, thickness in way of bushes. 7/8 Thickness between bushes. 13/16

eller 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.

he 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-

osive. 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

of tube shaft. No. If so, state type. Length of bearing in Stern Bush next to and supporting propeller. 6' 2"

eller, dia. 18' 3" Pitch. 13' 3" No. of blades. 4. Material. 3604ZE whether moveable. No Total developed surface. 135 sq. feet

ent of inertia of propeller (lbs. in² or Kg. cm.²). 8.34 lbs. ft.² Kind of damper, if fitted. Bibby Jetone.

hod of reversing Engines. Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched. Yes. Means of

tection. Good. Thickness of cylinder liners. 25 1/2 Are the cylinders fitted with safety valves. Yes. Are the exhaust pipes and silencers water cooled

gged with non-conducting material. Lapped. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

to the engine. Cooling Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel.

e Pumps worked from the Main Engines, No. Diameter. Stroke. Can one be overhauled while the other is at work. Yes.

ps connected to the Main Bilge Line. No. and size. How driven.

e cooling water led to the bilges. If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

gements.

st Pumps, No. and size. Power Driven Lubricating Oil Pumps, including spare pump, No. and size.

uo independent means arranged for circulating water through the Oil Cooler. Suctions, connected to both main bilge pumps and auxiliary

pumps, No. and size:—In machinery spaces. In pump room.

lds, &c.

pendent Power Pump Direct Suctions to the engine room bilges, No. and size.

all the bilge suction pipes in holds and tunnel well fitted with strum-boxes. Are the bilge suction in the machinery spaces led from easily

sible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges.

ll Sea Connections fitted direct on the skin of the Ship. Are they fitted with valves or cocks. Are they fixed

iently high on the ship's side to be seen without lifting the platform plates. Are the overboard discharges above or below the deepwater line.

hey each fitted with a discharge valve always accessible on the plating of the vessel. Are the blow off cocks fitted with a spigot and brass covering plate.

pipes pass through the bunkers. How are they protected.

pipes pass through the deep tanks. Have they been tested as per Rule.

ll pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times.

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

s, or from one compartment to another. Is the shaft tunnel watertight. Is it fitted with a watertight door. worked from.

ood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork.

Air Compressors, No. No. of stages. diameters. stroke. driven by.

liary Air Compressors, No. No. of stages. diameters. stroke. driven by.

hip Auxiliary Air Compressors, No. No. of stages. diameters. stroke. driven by.

provision is made for first charging the air receivers.

nging Air Pumps, No. 3. diameter. 1700 1/2 stroke. 540 1/2 driven by. Main Engine LEVERS.

liary Engines crank shafts, diameter. as per Rule. Position.

the auxiliary engines been constructed under special survey. Is a report sent herewith. Copy Book.

5100-568210-001

AIR RECEIVERS:—Have they been made under survey... *yes* State No. of report or certificate *C 75590 (CL)*
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*
Injection Air Receivers, No... *1* Cubic capacity of each... *1* Internal diameter... *1* thickness... *1*
Seamless, welded or riveted longitudinal joint... *1* Material... *1* Range of tensile strength... *1* Working pressure... *1*
Starting Air Receivers, No... *2* Total cubic capacity... *400 cu ft* Internal diameter... *5'-0"* thickness... *1 3/8*
Seamless, welded or riveted longitudinal joint... *Classified* Material... *Steel* Range of tensile strength... *28-32* Working pressure... *160*
IS A DONKEY BOILER FITTED *Yes (2)* If so, is a report now forwarded... *yes*
Is the donkey boiler intended to be used for domestic purposes only... *no*
PLANS. Are approved plans forwarded herewith for shafting... *yes* (If not, state date of approval) *10.3.49* Receivers... *yes* Separate fuel tanks... *yes*
Donkey boilers... *yes* General pumping arrangements... *yes* Pumping arrangements in machinery space... *14.6.50*
Oil fuel burning arrangements... *14.6.50*
Have Torsional Vibration characteristics been approved... *yes* Date of approval... *10.3.49*
SPARE GEAR.
Has the spare gear required by the Rules been supplied... *As per Rules requirements and attached list.*
State the principal additional spare gear supplied...

The foregoing is a correct description.

For David Ross & Co. Ltd. Manufacturer.
Dates of Survey while building: During progress of work in shops - *1948 Sep 16 1949 Oct 24 Nov 14 22 29 Dec 5 1950 Feb 8 16 21 22 23 28 31 Apr 5 7 11 12 14 17 24 26 28 May 1*
During erection on board vessel - *15.1.49 22.2.49 Jun 1.2.16.20.23.30 Jul 4.7.10 Aug 7.8.11.14.16.21.23.29*
Total No. of visits... *49*

Dates of examination of principal parts—Cylinders... *5.5.50* Covers... *5.5.50* Pistons... *1.5.50* Rods... *1.5.50* Connecting rods... *28.6.50*
Crank shaft... *5.5.50* Flywheel shaft... *5.5.50* Thrust shaft... *5.5.50* Intermediate shafts... *15.5.50* Tube shaft... *15.5.50*
Screw shaft... *23.6.50* Propeller... *23.6.50* Stern tube... *6.6.50* Engine seatings... *20.6.50* Engine holding down bolts... *7.8.50*
Completion of fitting sea connections... Completion of pumping arrangements... Engines tried under working conditions...
Crank shaft, material... *OH 15* Identification mark... *See attached* Flywheel shaft, material... *OH 15* Identification mark... *See attached*
Thrust shaft, material... *OH 15* Identification mark... *See attached* Intermediate shafts, material... *OH 15* Identification marks... *18841-17771*
Tube shaft, material... *1* Identification mark... *1* Screw shaft, material... *OH 15* Identification mark... *18843-17771*

Identification marks on air receivers... *2371*

Welded receivers, state Makers' Name... *Cochran & Co. Amman Rd.*

Is the flash point of the oil to be used over 150°F... *yes*

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with... *yes*

Description of fire extinguishing apparatus fitted... *Steam & Chemical*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo... *tanker* If so, have the requirements of the Rules been complied with... *yes*

If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with... *yes*

Is this machinery duplicate of a previous case... *no* If so, state name of vessel...

General Remarks (State quality of workmanship, opinions as to class, &c.) *This machinery has been constructed under special survey in accordance with the Society's Rules and the approved plans. Materials and workmanship are good. The engine has been efficiently installed on board the vessel which has been towed to Port Glasgow for completion.*

For Recommendations please see G.R.C. & R.P.T. No. 24249.

A. Claxton
Greenock
Oct/50

The amount of Entry Fee... £ *20 SEP 1950*

Special *1/2 Credit* of *Greenock* £309: - When applied for... *19*

Donkey Boiler Fee... £ : When received... *19*

Travelling Expenses (if any) £ : *GLASGOW 20 SEP 1950*

Committee's Minute... *Referred for completion*

Assigned... *Referred for completion*