

REPORT ON OIL ENGINE MACHINERY.

No 78018

Received at London Office

28 JUL 1948

Date of writing Report 9/7/48 When handed in at Local Office 12/7/1948 Port of Glasgow.
No. in Survey held at Glasgow. Date, First Survey (1941) Apr 23 Last Survey 30/6/1948.
Reg. Book. Number of Visits 47
on the Single Tern Triple Quadruple Screw vessel M.V. DARA.
Built at Glasgow By whom built Barclay Currie & Co. Ltd. Yard No. 711 When built 1948.
Engines made at Glasgow By whom made Barclay Currie & Co. Ltd. Engine No. 711 When made 1948.
Donkey Boilers made at Glasgow By whom made Barclay Currie & Co. Ltd. Boiler No. 711 When made 1948.
Brake Horse Power 4800 Owners Brit. India Ste. Nav. Co. Ltd. Port belonging to London.
Nom. Horse Power as per Rule 895 Is Refrigerating Machinery fitted for cargo purposes Yes. Is Electric Light fitted Yes.
Trade for which vessel is intended Open Sea Service.

IL ENGINES, &c. Type of Engines 2 or 4 stroke cycle 2 Single or double acting Single
Maximum pressure in cylinders 460 lbs. Diameter of cylinders 610 7/8 Length of stroke 21 3/4 No. of cylinders 5 No. of cranks 15.
Mean Indicated Pressure 88 lbs. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 120 7/8 Is there a bearing between each crank No.
Revolutions per minute 125 Flywheel dia. 170 1/2 Weight 21000 lbs. Means of ignition Comp. Kind of fuel used Oil.
Crank Shaft, Solid forged dia. of journals as per Rule 438 7/8 as fitted 450 7/8 Crank pin dia. 96 7/8 Mid. length breadth 650 Thrunk Thickness parallel to axis 255
Flywheel Shaft, diameter as per Rule 438 7/8 Intermediate Shafts, diameter as per Rule 13 1/2 fitted 14 0 Thrust Shaft, diameter at collars as per Rule 35 1/2
Screw Shaft, diameter as per Rule 14 1/4 as fitted 15 7/8 Is the shaft fitted with a continuous liner Yes
Bronze Liners, thickness in way of bushes as per Rule 1/4 Thickness between bushes as fitted 9/16 Is the after end of the liner made watertight in the
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
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
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
If so, state type Yes Length of Bearing in Stern Bush next to and supporting propeller 5 3/4
Propeller, dia. 15 3/4 Pitch 12 6 No. of blades 4 Material H.B. Steel Other Moveable Yes Total Developed Surface 85 sq. feet
Method of reversing Engines Reversing Is a governor or other arrangement fitted to prevent racing of the engine when disengaged Yes Means of lubrication
Pump. Thickness of cylinder liners 25 7/8 Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with
conducting material Lagged the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Yes
Cooling Water Pumps, No. 2 F.W. 2 P.W. 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. 4 H.M. Diameter 10 1/2 Stroke 10 Can one be overhauled while the other is at work Yes
Pumps connected to the Main Bilge Line No. and Size (1 @ 200 T/H.R. 2 @ 60 T/H.R. 1 @ 80 T/H.R.) How driven Steam Electric
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 Yes
Ballast Pumps, No. and size 1 @ 200 T/H.R. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 @ 42 T/H.R.
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 4 @ 3 1/2, 1 @ 2 1/2, 2 @ 1 1/2, 1 @ 1 1/2 Pump Room 1 @ 2 1/2 TUNNEL WELL 1 @ 2 1/2
Holds, &c. 11 1-2 @ 3, 11 2-2 @ 3, 11 3-2 @ 3, 11 4-1 @ 3, 2 @ 2 1/2, F.D.S. 1 @ 2 1/2
dependent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 3 @ 5, 1 @ 8, 1 @ 5 1/2 on S.O.S. Line. 1 @ 2 1/2
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
all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Valves & Cocks
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
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
at pipes pass through the bunkers Yes How are they protected Yes
at pipes pass through the deep tanks Yes 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 Yes Is it fitted with a watertight door Yes worked from Upper deck
If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork E.R.
Main Air Compressors, No. 2 No. of stages 3 Diameters 10 5/8 - 2 5/8 Stroke 6 Driven by Steam
Auxiliary Air Compressors, No. 2 No. of stages 3 Diameters 10 5/8 - 5 1/8 Stroke 6 Driven by Steam
Small Auxiliary Air Compressors, No. 1 No. of stages 1 Diameters 2 1/8 Stroke 6 Driven by Steam
That provision is made for first Charging the Air Receivers Steam driven compressor
Lubricating Air Pumps, No. 1 Diameter 15 5/8 Stroke 1200 Driven by Main engine
Auxiliary Engines crank shafts, diameter as per Rule 11 1/2 as fitted 11 1/2 Position F.S. 11 1/2 F.S. 11 1/2 F.S. 11 1/2
Have the Auxiliary Engines been constructed under special survey Yes Is a report sent herewith Yes

AIR RECEIVERS: — Have they been made under survey

State No. of Report or Certificate

Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Is a drain fitted at the lowest part of each receiver

Can the internal surfaces of the receivers be examined and cleaned

Injection Air Receivers, No.

Cubic capacity of each

Internal diameter

thickness

by Rules

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

Actual

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

by Rules

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure

Actual

IS A DONKEY BOILER FITTED?

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

PLANS. Are approved plans forwarded herewith for Shafting

(If not, state date of approval)

Receivers

Separate Fuel Tanks

Donkey Boilers

General Pumping Arrangements

Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

The foregoing is a correct description and the particulars of the installation as fitted are as approved for torsional vibration characteristics.

The foregoing is a correct description.

A. Macneil

Manufacturer.

Dates of Examination of principal parts — Cylinders 5/3/48 Covers 17/2/48 Pistons 17/2/48 Rods 17/2/48 Connecting rods 17/2/48 Crank shaft 2/3/48 Flywheel shaft 3/2/48 Thrust shaft 3/2/48 Intermediate shafts 17/11/47 Tube shaft 17/11/47 Propeller 17/11/47 Stern tube 12/11/47 Engine seatings 1/3/48 Engines holding down bolts 20/4/48 Completion of filling sea connections 10/6/48 Engines tried under working conditions 30/6/48

Identification Marks on Air Receivers 711 - LLOYDS TEST 950 LBS. W.P. 600 LBS. A.R.S. 19/12/47.

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

Description of fire extinguishing apparatus fitted

If so, have the requirements of the Rules been complied with

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo

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, etc.)

The Machinery of this vessel has been built under Special Survey in accordance with the Rules & the approved plans & the materials & workmanship are good. The machinery has been efficiently installed, examined under full working conditions & found satisfactory. The machinery in my opinion is eligible to be classed with record of 711 LMC 6-48, OIL ENGINE, 2 Aux. Boilers 120 LBS, T.S. - C.

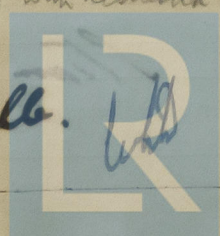
A notice board has been fitted at the Control Station stating that the main engine is not to be run continuously between the range 30 to 46 R.P.M. (Torsional characteristics approved in Glasgow letter 22/3/46).

The amount of Entry Fee £ 17.7.48 Special £ 164.10.19 (2) Donkey Boiler Fee £ 65.11.6 Travelling Expenses (if any) £ 17.5.0

Committee's Minute

Assigned - 1- Lmc 6.48 2 Aux. Boilers 120 LBS. (with endorsement)

A. R. Lonsdale Engineer Surveyor to Lloyd's Register of Shipping.



© 2020

Lloyd's Register Foundation