

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 51028
26 NOV 1930

Date of writing Report 20-11-30 When handed in at Local Office 26-11-30 Port of Glasgow
No. in Survey held at GLASGOW Date, First Survey 9-11-30 Last Survey 18-11-1930
Reg. Book.

Single
on the Twin
Triple
Quadruple
Screw vessel MV "POLARTANK."

Tons Gross 6356
Net 3872

Built at GLASGOW By whom built BARCLAY CURLE & CO LD. Yard No. 645 When built 1930
Engines made at GLASGOW By whom made BARCLAY CURLE & CO LD Engine No. 645 When made 1930
Donkey Boilers made at GLASGOW By whom made BARCLAY CURLE & CO LD Boiler No. 645 When made 1930
Horse Power 3150. Owners HVALFANGERSELSKAPET - POLARIS A/S
Horse Power as per Rule 686 MANAGERS - MELSON & MELSON. Port belonging to LARVIK.
Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES
Trade for which vessel is intended 687.

ENGINES, &c.—Type of Engines BARCLAY-CURLE-DOXFORD. 2 or 4 stroke cycle 2 Single or double acting SINGLE
Maximum pressure in cylinders 45 KGS/cm² Diameter of cylinders 23.6" Length of stroke 91.4" No. of cylinders 4 No. of cranks 4.
An of bearings, adjacent to the Crank, measured from inner edge to inner edge 86.445" Is there a bearing between each crank YES.
Revolutions per minute 93. Flywheel dia. 89.75" Weight 6T.-1CWT. Means of ignition COMPRESSION Kind of fuel used DIESEL.
Crank Shaft, dia. of journals as per Rule AS APP^d CENTRE 18.7" Crank pin dia. 18.1" Crank Webs Mid. length breadth 25.6" Thickness parallel to axis
as fitted 16.95" Sides 18.1" M d. length thickness 10.2" shrunk Thickness around eyehole 7.6"
Flywheel Shaft, diameter as per Rule SEE THROST Intermediate Shafts, diameter as per Rule 14.8" Thrust Shaft, diameter at collars as per Rule 16.95"
as fitted 15.2" as fitted 14" as fitted 14"
Tube Shaft, diameter as per Rule 16.25" Is the shaft fitted with a continuous liner YES.
as fitted 18" as fitted 18" as fitted 18"

Ronze Liners, thickness in way of bushes as per Rule 25/32" Thickness between bushes as per rule 19/32" Is the after end of the liner made watertight in the
as fitted 7/8" as fitted 1/16" 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
NO If so, state type YES Length of Bearing in Stern Bush next to and supporting propeller 5'-8"

Propeller, dia. 17'-6" Pitch 14'-0" No. of blades 4 Material BRONZE whether Moveable NO Total Developed Surface 96 sq. feet
Method of reversing Engines CAMS Is a governor or other arrangement fitted to prevent racing of the engine when disengaged YES Means of lubrication
FORCED Thickness of cylinder liners 1" Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled or lagged with
non-conducting material LAGGED If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine
Cooling Water Pumps, No. 1. ME. 1. STAND-BY. Is the sea suction provided with an efficient strainer which can be cleared within the vessel NO.

Bilge Pumps worked from the Main Engines, No. 1. Diameter 4" Stroke 24" Can one be overhauled while the other is at work YES
Pumps connected to the Main Bilge Line No. and Size 3-(4"x24") (9 1/2"x8 1/2"x8") (11"x13"x24") How driven ME STEAM STEAM.

Ballast Pumps, No. and size 1@ (11"x13"x24") Lubricating Oil Pumps, including Spare Pump, No. and size 2-(4"x24") (7"x8"x18")
Are 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 3@ 3 1/2" 1@ 2 1/2"
In Holds, &c. COFFERDAM - 3 1/2"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1@ 5 1/2"
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-bones YES Are the Bilge Suctions in the Machinery Spaces
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 platform plates YES Are the Overboard Discharges above or below the deep water line BOTH
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 How are they protected
What pipes pass through the deep tanks 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 YES

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
Main Air Compressors, No. 1 No. of stages 3 Diameters 11 1/2"x9 1/4"x2 7/8" Stroke 4" Driven by STEAM.
Auxiliary Air Compressors, No. 1 No. of stages 3 Diameters 8 1/2"x6 3/4"x2 1/4" Stroke 6" Driven by STEAM.

Small Auxiliary Air Compressors, No. 1 No. of stages 1 Diameters 7.75" Stroke 24" Driven by M.E.
Scavenging Air Pumps, No. 1 Diameter 7.75" Stroke 24" Driven by M.E.

Auxiliary Engines crank shafts, diameter as per Rule
as fitted

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 YES What means are provided for cleaning their inner surfaces MANHOLES
Is there a drain arrangement fitted at the lowest part of each receiver YES

High Pressure Air Receivers, No. 1 Cubic capacity of each 220 c.f. Internal diameter 4'-1 1/2" thickness 1 1/8"
Seamless, lap welded or riveted longitudinal joint RIVETED Material STEEL Range of tensile strength 28/32 Tons Working pressure by Rules 600 LBS.

Starting Air Receivers, No. 2 Total cubic capacity 220 c.f. Internal diameter 4'-1 1/2" thickness 1 1/8"
Seamless, lap welded or riveted longitudinal joint RIVETED Material STEEL Range of tensile strength 28/32 Tons Working pressure by Rules 600 LBS.

IS A DONKEY BOILER FITTED?

yes (2)

If so, is a report now forwarded?

yes

PLANS. Are approved plans forwarded herewith for Shafting (If not, state date of approval)

16/8/30 (dup 639) Receivers

yes

Separate Tanks

yes

Donkey Boilers

yes

General Pumping Arrangements

22/3/30

Oil Fuel Burning Arrangements

5/4/30

SPARE GEAR

All as per Rule Requirements

The foregoing is a correct description,

FOR BARCLAY, CURLE & CO., LTD.

John Ryan Dor

Manufacturer.

GENERAL MANAGER ENGINE WORKS

Dates of Survey while building
During progress of work in shops - 1930 Apr 9 11 16 20 23 June 23 25 27 July 2 7 14 16 30 Aug 6 7 14 13 16 18 20 22 25 27
During erection on board vessel - Sep 3 8 10 12 16 19 23 24 26 Oct 8 15 16 24 27 31 Nov 12 18
Total No. of visits 41

Dates of Examination of principal parts - Cylinders 23-6-30 Covers 13-8-30 Pistons 20-8-30 Rods 20-8-30 Connecting rods 7-7-30

Crank shaft 6-8-30 Flywheel shaft 13-8-30 Thrust shaft 13-8-30 Intermediate shafts 13-8-30 Tube shaft 26-9-30

Screw shaft 26-9-30 Propeller 8-9-30 Stern tube 26-9-30 Engine seatings 24-9-30 Engines holding down bolts 24-10-30

Completion of fitting sea connections 24-9-30 Completion of pumping arrangements 12-11-30 Engines tried under working conditions 18-11-30

Crank shaft, Material Steel Identification Mark 2984 GOC Flywheel shaft, Material Steel Identification Mark 3635 AF

Thrust shaft, Material Steel Identification Mark 3635 AF Intermediate shafts, Material Steel Identification Mark 3635 AF

Tube shaft, Material Steel Identification Mark 3635 AF Screw shaft, Material Steel Identification Mark 3635 AF

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

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

Is this machinery duplicate of a previous case yes If so, state name of vessel Alcides - Gb Rpt 50775

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

This machinery has been built under special survey, to approved plans in accordance with the Society's Rules.

Materials and workmanship are good.

It has been properly fitted on board the vessel, tried under working conditions and found satisfactory.

It is eligible to be classed with record of +LMC 11.30. oil engines - C.L. 2 D.B.

It is submitted that this vessel is eligible for THE RECORD. +LMC 11.30 C-L

Oil Engines 2 SCSA. 4 Cy 23 5/8 - 9 1/16

2 DB 120 lb

NHP 687

J. Sutherland

H. Sutherland

Engine Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 6

Special ... £ 109-6-0

Donkey Boiler Fee ... £ 24-10-0

Travelling Expenses (if any) £ 4-4-0

Committee's Minute GLASGOW 25 NOV 1930

Assigned +LMC 11.30

Lloyd's Register Foundation