

# REPORT ON OIL ENGINE MACHINERY.

No. 24025

Received at London Office

Date of writing Report 23<sup>RD</sup> DEC. 1949 When handed in at Local Office 27<sup>TH</sup> DEC. 1949 Port of GREENOCK.

in Survey held at Date, First Survey 25<sup>TH</sup> APRIL 1949. Last Survey 16<sup>TH</sup> DECEMBER 1949.  
Book. Number of Visits 56.

Single  
on the Turn Triple Screw vessel  
Quadruple  
Built at PORT GLASGOW By whom built W<sup>M</sup> HAMILTON & CO L<sup>D</sup> Yard No. 480 When built 1949  
Engines made at GREENOCK By whom made JOHN G. KINCAID & CO L<sup>D</sup> Engine No. 4207 When made 1949  
Boilers made at do By whom made do Boiler No. 4207 When made 1949  
Horse Power 4500 Owners H. KUHNLES REDERI A/S Port belonging to BERGEN  
Horse Power as per Rule 880 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
Use for which vessel is intended OPEN SEA SERVICE

ENGINES, &c. Type of Engines B&W/Kincaid Diesel 2 stroke cycle 4 Single or double acting Single  
Minimum pressure in cylinders 650 lb/sq. in. Diameter of cylinders 740 1/2 Length of stroke 1500 1/2 No. of cylinders 8 No. of cranks 8  
Indicated Pressure 8.542 kg/cm<sup>2</sup> of bearings, adjacent to the Crank, measured from inner edge to inner edge 988 1/2 Is there a bearing between each crank Yes  
Revolutions per minute 115 Flywheel dia. 8.17 ft Weight 2 1/2 tons Means of ignition Compression Kind of fuel used Diesel fuel  
Crankshaft, { Solid forged as per Rule as app.  
Semi built dia. of journals as fitted 525 1/2 Crank pin dia. 525 1/2 Crank Webs Mid. length breadth 980 1/2 Thickness parallel to axis 330 1/2  
All built as fitted 115 hole 230 hole Mid. length thickness 310 1/2 shrunk Thickness around eye hole 277.5 1/2  
Wheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted 20 Thrust Shaft, diameter at collars as per Rule as fitted 510 1/2  
Screw Shaft, diameter as per Rule as fitted 19 1/2 Is the screw shaft fitted with a continuous liner Yes  
Liners, thickness in way of bushes as per Rule as fitted 7/8 Thickness between bushes as per Rule as fitted 7/8 Is the after end of the liner made watertight in the  
After 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  
No 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 5.2  
Propeller, dia. 16.9 Pitch 12.9 No. of blades 4 Material M.A. whether Moveable No Total Developed Surface 88 sq. feet  
Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when detached Yes Means of lubrication  
Oil Thickness of cylinder liners 53 1/2 top 44 1/2 bottom Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with  
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 Yes  
Sinking Water Pumps, No. One M.E. One Stand by Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
Sewage Pumps worked from the Main Engines, No. None Diameter Stroke Can one be overhauled while the other is at work Yes  
Pumps connected to the Main Bilge Line { No. and Size Two 12 100 tons/hr 12 200 tons/hr  
How driven Steam  
Is 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  
Fast Pumps, No. and size One 2 200 tons/hr Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size One M.E. 150 tons/hr One steam 130 tons/hr  
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 Three 2 3 1/2 Two 2 2 (frankwell) One 2 2 Clean One 2 2 dry tank Pump Room  
Holds, &c. Two 2 6  
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Two 2 6  
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 Yes  
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 Above  
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  
Pipes pass through the bunkers None How are they protected  
Pipes pass through the deep tanks None Have they been tested as per Rule  
All Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
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  
partment to another Yes Is the Shaft Tunnel watertight None Is it fitted with a watertight door worked from  
wood 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  
Auxiliary Air Compressors, No. Two No. of stages Two Diameters Stroke Driven by Steam  
No Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by  
Provision is made for first Charging the Air Receivers Steam compressors as above  
Sinking Air Pumps, No. None 1 Extra Suctions Diameter Stroke Driven by  
Auxiliary Engines crank shafts, diameter as per Rule as fitted No. One Position Engine room platform  
The Auxiliary Engines been constructed under special survey Yes Is a report sent herewith See glo op 1 N° 74536  
1/5 cert N° D21183  
D 21258

SWK  
19/1/50



AIR RECEIVERS: - Have they been made under survey *Yes* ✓ State No. of Report or Certificate  
Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Yes* ✓ *relief valve on supply line*  
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. *None* ✓ 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. *Two* ✓ Total cubic capacity *900 cu ft* Internal diameter *6'-0 1/8"* thickness *3/32"*  
Seamless, lap welded or riveted longitudinal joint *TPDBS* Material *S* Range of tensile strength *29/33 tons* Working pressure by Rules *357 lb* Actual *350*

IS A DONKEY BOILER FITTED? *Yes* ✓ 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 *28-10-49* Receivers *9-3-49* Separate Fuel Tanks *5-2-49*  
(If not, state date of approval)  
Donkey Boilers *2-4-49* General Pumping Arrangements *15-6-48* Pumping Arrangements in Machinery Space *22-4-49*  
Oil Fuel Burning Arrangements *9-3-49*

#### SPARE GEAR.

Has the spare gear required by the Rules been supplied *See separate sketch.* T.U.C. app'd *28/10/48*  
State the principal additional spare gear supplied *SPARE SCREW SHAFT LLOYDS 17823 CNH 7-9-49* Service speed of *11.5*

*See letter 17/6/49 for final approval after examining records taken during trials of K199 "BERGLJOT" for 11.5 knots.*  
Final app'd of T.U.C. on "Bergljot" 15/6/49

The foregoing is a correct description.  
For JOHN G. KINCAID & CO., LTD.

*J. Kincaid*  
Chief Draughtsman.

Manufacturer.

Dates of Survey while building { During progress of work in shops - - (1949) APRIL 25, MAY 3, JUNE 22, 24, JULY 21, AUG. 10, 16, 17, 23, 28, 29, 31, SEPT. 7, 13, 14, 16, 19, 23, 26, 29, 30, OCT. 3, 5, 6, 10, 12, 14  
During erection on board vessel - - 24, 27, 28, NOV. 2, 3, 4, 7, 10, 14, 15, 17, 21, 22, 23, 24, 29, 30, DEC. 1, 2, 6, 7, 9, 12, 15, 16  
Total No. of visits *56.*

Dates of Examination of principal parts - Cylinders *26-9-49* Covers *2-10-49* Pistons *19-9-49* Rods *2-11-49* Connecting rods *2-11-49*  
Crank shaft *2-11-49* Flywheel shaft *✓* Thrust shaft *2-11-49* Intermediate shafts *3-10-49* Tube shaft *✓*  
Screw shaft *17-8-49* Propeller *17-8-49* Stern tube *21-7-49* Engine seatings *7-11-47* Engines holding down bolts *24-11-49*  
Completion of fitting sea connections *23-8-49* Completion of pumping arrangements *15-12-49* Engines tried under working conditions *15-12-49*

Crank shaft, Material *S* Identification Mark *17827 CNH 2/11/49* Flywheel shaft, Material *✓* Identification Mark *LLOYDS*  
Thrust shaft, Material *S* Identification Mark *17827 CNH 2/11/49* Intermediate shafts, Material *S* Identification Marks *17827 CNH 3/10/49*  
Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *S* Identification Mark *17827 CNH 17/8*  
Identification Marks on Air Receivers *LLOYDS*

*2560A, 2560B*  
*5844, TP*  
*3564, WP*  
*CNH 18-10-49.*

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 *Steam under bottom of unit & main engine.*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *GIL TANKER* 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 *No*

Is this machinery duplicate of a previous case *Yes* If so, state name of vessel *BERGLJOT GRK op' 23880*

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

*This machinery has been constructed under Special survey in accordance with the Rules & approved plans. The materials & workmanship are sound & good. The engine & boilers have been efficiently installed in the vessel & tested on a trial under full working conditions with satisfactory results. The installation is eligible in my opinion to be classed in the Society's Register book with record + LMC 12-49 & Notation Screw shaft CL 2 DBs 150lb FD fitted for oil fuel FP above 150°F.*

The amount of Entry Fee .. £251 : When applied for,  
Special ... £ : 27 DEC. 1949.  
Donkey Boiler Fee ... £ 58 : 10 : When received,  
AIR RESERVOIRS 16 0 : 30 DEC. 1949.  
Travelling Expenses (if any) £ : :

Committee's Minute *GLASGOW - 5 JAN 1950*

Assigned *-1 LMC 12.49 oil Eng*  
*2 DB 150lb*

*Charles J. Hunter*  
Engineer Surveyor to Lloyd's Register of Shipping



© 2020

Lloyd's Register  
Foundation