

REPORT ON OIL ENGINE MACHINERY.

30 JUL 1953

Date of writing Report **8th July 1953** When handed in at Local Office **19** Port of **HAMBURG**
 Received at London Office
 No. in Survey held at **LÜBECK** Date, First Survey **9th October,** Last Survey **22nd June 1953**
 Reg. Book Supplement **91652** on the **Back** Screw vessel **M. V. "DALKEY COAST"** Number of Visits **34**
 Tons Gross **616,29** Net **251,71**
 Built at **Lübeck** By whom built **Travewerft Ebschner & Gabler** Yard No. **194** When built **1953**
 Engines made at **Alphen a/d Rijn** By whom made **N.V. Motorenfab. "De Industrie"** Engine No. **4053** When made **1952**
 Donkey Boilers made at **-** By whom made **-** Boiler No. **-** When made **-**
 Brake Horse Power { Maximum } **800** Owners **Coastal Shipping Ltd.** Port belonging to **Dublin**
 { Service }
 I.N. as per Rule **160** Is Refrigerating Machinery fitted for cargo purposes **no** Is Electric Light fitted **yes**
 Trade for which vessel is intended **International**

IL ENGINES, &c. — Type of Engines **Heavy oil engine, Type 8D 70 D** 2 or 4 stroke cycle **4** Single or double acting **single**
 Maximum pressure in cylinders **55 kg/cm²** Diameter of cylinders **-** Length of stroke **-** No. of cylinders **8** No. of cranks **8**
 Mean Indicated Pressure **9,17 kg/cm²** Span of bearings (i.e., distance between inner edges of bearings in
 of a crank) **369 mm** Is there a bearing between each crank **yes** Revolutions per minute { Maximum **-** Service **350**
 Flywheel dia. **1130 mm** Weight **1500 kgs** Moment of inertia of flywheel (lbs. in² or Kg. cm.²) **-** Means of ignition **compr.** Kind of fuel used **Diesel oil**
 " " " " balance wts. (" " " ") **-**
 Crankshaft, { Solid forged } dia. of journals as per Rule **-** Crank pin dia. **-** Crank webs Mid. length breadth **-** Thickness parallel to axis **-**
 { Semi built } as fitted **-** Mid. length thickness **-** shrunk Thickness around eye-hole **-**
 { All built }
 Flywheel Shaft, diameter as per Rule **-** Intermediate Shafts, diameter as per Rule **as approved** Thrust Shaft, diameter at collars as per Rule **as approved**
 as fitted **-** as fitted **155 mm** as fitted **160 mm**
 Main Shaft, diameter as per Rule **-** Screw Shaft, diameter as per Rule **as approved** Is the { ~~rod~~ } shaft fitted with a continuous liner { **yes** }
 as fitted **-** as fitted **170 mm** **screw**
 Bronze Liners, thickness in way of bushes as per Rule **17 mm** Thickness between bushes as per Rule **-** Is the after end of the liner made watertight in the
 as fitted **as approved** as fitted **8 mm**
 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 **-**
 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-
 rosive **-** If two liners are fitted, is the shaft lapped or protected between the liners **-** Is an approved Oil Gland fitted at the after
 of stern tube **no** If so, state type **-** Length of bearing in Stern Bush next to and supporting propeller **755 mm**
 Propeller, dia. **1940 mm** Pitch **1164 mm** No. of blades **3** Material **Bronze** whether moveable **solid** Total developed surface **1,37 sq. ft.**
 Moment of inertia of propeller including entrained water (~~kgm²~~) **370 cm²** Kind of damper, if fitted **-**
 Method of reversing Engines **direct** Is a governor or other arrangement fitted to prevent racing of the engine **yes** Means of
 operation **forced** Thickness of cylinder liners **-** Are the cylinders fitted with safety valves **yes** Are the exhaust pipes and silencers ~~waterproof~~
 lagged with non-conducting material **yes** 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. and how driven **2 M.E., 1 belt driven** Working F.W. **2 M.E.**
 Spare F.W. **1 E.D.** S.W. **2 E.D.** 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. and capacity **none** Can one be overhauled while the other is at work **-**
 Pumps connected to the Main Bilge Line No. and capacity of each **2 - 60 and 36 m³/h**
 How driven **E.D.**
 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 **-**
 Lubricating Pumps, No. and capacity **2 - 60 & 36 m³/h** Power Driven Lubricating Oil Pumps, including spare pump, No. and size **2 - 5,4 m³/h & 4,8 m³/h**
 Two independent means arranged for circulating water through the Oil Cooler **yes** Branch Bilge Suctions **-**
 and size:—In machinery spaces **2 - 60 mm dia.** In pump room **-**
 diameters, &c. **4 - 2 x 70 mm dia. and 2 x 60 mm dia.**
 Bilge Suctions to the engine room bilges, No. and size **2 - 100 & 60 mm dia.**
 Are all the bilge suction pipes in holds ~~waterproof~~ fitted with strum-boxes **yes** Are the bilge suction pipes 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 Sea Connections fitted direct on the skin of the Ship **yes** Are they fitted with valves or cocks **valves** Are they fixed
 entirely 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 plating 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 **no deep tanks** Have they been tested as per Rule **-**
 Are pipes, cocks, valves and pumps in connection with the machinery ~~waterproof~~ accessible at all times **yes**
 Is an 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
 or from one compartment to another **yes** Is the shaft tunnel watertight **none** Is it fitted with a watertight door **-** worked from **-**
 Are means provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork **-**
 Air Compressors, No. **1** Capacity **18 m³/h** No. of stages **2** diameters **114/70 mm** stroke **90 mm** driven by **M.E.**
 Auxiliary Air Compressors, No. **1** Capacity **34 m³/h** No. of stages **2** diameters **130/50 mm** stroke **70 mm** driven by **Diesel engine**
 Auxiliary Air Compressors, No. **-** No. of stages **-** diameters **-** stroke **-** driven by **-**
 Is provision made for first charging the air receivers **Diesel engine driving compressor is of hand starting type**
 Charging Air ~~Pumps or~~ Blowers, No. **1** - **B.B.C. turbo blower** How driven **by exhaust gas** **emergency**
 Have they been made under survey **yes** Engine Nos. **91310 & 91311 & 2750/113**
 Makers name **Motorenwerke Mannheim** Position of each in engine room **pt. side aft stbd. side forward**
& forwd. (emergency)
 Report No. **-**

792
790
592
593



AIR RECEIVERS:—Have they been made under survey yes State No. of report or certificate Amsterdam C. 6436

State full details of safety devices ordinary spring loaded Is a drain fitted at the lowest part of each receiver yes

Can the internal surfaces of the receivers be examined and cleaned yes Injection Air Receivers, No. - Cubic capacity of each - Internal diameter - thickness -

Seamless, welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure -

Starting Air Receivers, No. 939 & 940 Total cubic capacity 1,0 m³ Internal diameter 547 mm thickness 9,00 mm

Seamless, welded or riveted longitudinal joint welded Material SM steel Range of tensile strength 44,2 Working pressure 20 Atm.

IS A DONKEY BOILER FITTED no If so, is a report now forwarded -

Are approved plans forwarded herewith for shafting no (if not, state date of approval) Receivers - Separate fuel tanks no

Donkey boilers - General pumping arrangements no Pumping arrangements in machinery space no

Oil fuel burning arrangements Plans will be forwarded on completion of Yard No. 195

Have Torsional Vibration characteristics been approved provisionally Date and particulars of approval 3.12.1952

SPARE GEAR. Has the spare gear required by the Rules been supplied yes State if for "short voyages" only no, international

State the principal additional spare gear supplied Screw shaft, LLOYDS HS 3 30.1.53/17.6.53 W.F.C.

Travewerff
Ebschner & Gabler

The foregoing is a correct description, *[Signature]* Manufacturer.

Dates of Survey while building	During progress of work in shops - -	-
During erection on board vessel - -	1952 - Oct. 9, Dec. 9, 1953 - Jan. 30, Mar. 11, 16, 17, 18, 20, 21, 23, 26, Apr. 2, 7, 9, 14, 20, 22, 23, 29, May, 5, 7, 11, 13, 19, 21, 26, June, 1, 3, 5, 9, 11, 15, 17, 18, 20, 22.	
Total No. of visits	35	
Dates of examination of principal parts	Cylinders - Covers - Pistons - Rods - Connecting rods -	
Crank shaft	30.1.53	Flywheel shaft - Thrust shaft 6.8.52 Intermediate shafts 20.3.53 Tube shaft -
Screw shaft	9.3.53	Propeller 9.3.53 Stern tube 5.3.53 Engine seatings 29.4.53 Engine holding down bolts 11.5.53
Completion of fitting sea connections	11.3.53	17.3.53 Completion of pumping arrangements 18.6.53 Engines tried under working conditions 18. & 22.
Crank shaft, material	-	Identification mark - Flywheel shaft, material, - Identification mark -
Thrust shaft, material	S.M. steel	Identification mark 462 HS/EMD Intermediate shafts, material S.M. steel Identification marks 6 HS -
Tube shaft, material	-	Identification mark - Screw shaft, material S.M. steel Identification mark HS 2 W.F.C.
Identification marks on air receivers	939 & 940 LLOYDS TEST 60 Atm. W.P. 30 Atm. C.L. 25.11.52	

Welded receivers, state Makers' Name De Plaatwellerij - Velsen

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

Full description of fire extinguishing apparatus fitted in machinery spaces 5 - 2 Gall. foam extinguishers and 2 hose connections to fire

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo no If so, have the requirements of the Rules been complied with -

What is the special notation desired -

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 no If so, state name of vessel -

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c. These heavy oil engines were constructed under Special Survey in conformity with the Society's Rules as reported in the Amsterdam Report No. 106 and the Augsburg Report No. 187. The materials and workmanship are good. They have been properly installed in the vessel, examined under working conditions and were found good. The Machinery is eligible, to be classed with record " + LMC 6,53 Oil Engine 4 SC SA 8 Cyl. 12" - 18 1/8 - 160 MN & TS CL ". A temporary notice board fitted at the control station stating "ME is not to be operated continuously between 225 and 275 R.P.M. and the tachometer marked accordingly. (Torsiographs taken during trials are attached herewith).

The amount of Entry Fee ...	DM. 480.-	When applied for	19
Special ...	£	When received	19
Donkey Boiler Fee...	£		
Travelling Expenses (if any) £	DM. 340.-		

Committee's Minute Assigned Deferred for payment of Fees.



(The Surveyors are requested not to write on or below the space for Committee's Minute.)
 4.8.53
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