

REPORT ON OIL ENGINE MACHINERY.

No. 107095

Received at London Office 18 MAR 1950

Date of writing Report 19 When handed in at Local Office 14 MAR 1950 19 Port of NEWCASTLE-on-TYNE
 Date, First Survey 3-11-49 Last Survey 23-2-1950
 Number of Visits 15
 Single on the Twin Triple Quaduple
 Type of vessel MV "SLANEY"
 Tons Gross 990 approx Net 540 approx
 Built at Wallsend-on-Tyne By whom built C. Lelands (Successors) Ltd. Yard No. 147 When built 1950
 Engines made at Stockport By whom made Mirless, Bickerton & Day Ltd. Engine No. 33521 When made 1949
 Monkey Boilers made at 729 aff² By whom made Boiler No. When made
 Brake Horse Power 810 (12 h. rating) Owners H. Wilson, Esq. Port belonging to London
 N. Power as per Rule 177.152 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Made for which vessel is intended NHP-110 Ocean going

ENGINES, &c. — Type of Engines Mirless, Type HFRS-6 Heavy Oil 2 or 4 stroke cycle 4 Single or double acting Single
 Maximum pressure in cylinders 750/62" Diameter of cylinders 13.75" Length of stroke 21" No. of cylinders 6 No. of cranks 6
 Indicated Pressure 145/62" (12 h. rating) Ahead Firing Order in Cylinders 1-3-5-6-4-2 Span of bearings, adjacent to the crank, measured
 inner edge to inner edge 15.25" Is there a bearing between each crank Yes Revolutions per minute 390
 Wheel dia. 4'-6" Weight 2460 lbs Moment of inertia of flywheel (lbs. in² or Kg. cm.²) 2900 lbs/rev. sec² Means of ignition Compression Kind of fuel used Diesel
 Crank pin dia. 8 3/4" Crank webs Mid. length breadth 11 1/4" Thickness parallel to axis
 Mid. length thickness 4 5/8" shrunk Thickness around eye hole
 Wheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as fitted as per Rule as fitted
 Propeller Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the screw shaft fitted with a continuous liner No
 Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per Rule as fitted 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
 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 tube shaft Yes If so, state type Newark No 2 Length of bearing in Stern Bush next to and supporting propeller 2'-5 3/4"
 Propeller, dia. 6'-3" Pitch 54" No. of blades 4 Material M. Bronze whether moveable No Total developed surface 16 sq. feet
 Moment of inertia of propeller (lbs. in² or Kg. cm.²) 1120 lbs/rev. sec² Kind of damper, if fitted
 Method of reversing Engines Direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of
 indication Forced Thickness of cylinder liners 7/8" Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled
 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 Yes Cooling Water Pumps, No One F.W. P. 1st + M.E. bilge (Sw. 1st + Ballast) Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
 Pumps worked from the Main Engines, No One Diameter 4 1/2" Stroke 5 1/2" Can one be overhauled while the other is at work
 Pumps connected to the Main Bilge Line No. and size 1-4 3/4" x 5 1/2" Port Ballast Pump Starboard Ballast Pump
 How driven M.E. Electric motor electric motor
 Is 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
 Main Pumps, No. and size 2- 500 gal./min. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2- 3" x 3 5/8"
 Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both main bilge pumps and auxiliary
 pumps, No. and size: — In machinery spaces 2- 2", 1- 3", 2- 3 1/2" In pump room
 Valves, &c. Aft Cold 2-3", Forward Cold 2-3"
 Independent Power Pump Direct Suctions to the engine room bilges, No. and size 2- 3 1/2"
 Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes Yes Are the bilge suction 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 Yes 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 Above
 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 all pipes pass through the bunkers None How are they protected
 Do all pipes pass through the deep tanks Have they been tested as per Rule
 Are all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times
 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 Is it fitted with a watertight door worked from
 Is the 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 2 diameters 5" x 5 3/8" stroke 5 1/2" driven by Main engine
 Auxiliary Air Compressors, No. 1 No. of stages 2 F.A.D. 18.4 cub. ft./min. driven by electric motor
 All Auxiliary Air Compressors, No. No. of stages diameters stroke driven by
 Is provision made for first charging the air receivers Air air compressed run off batteries
 Revolving Air Pumps, No. diameter stroke driven by
 Auxiliary Engines crank shafts, diameter as per Rule as fitted See attached Reports Position 2 Port side, 1 Starboard side
 Have the auxiliary engines been constructed under special survey Yes Is a report sent herewith Yes

AIR RECEIVERS:—Have they been made under survey *Yes*
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. *✓* Cubic capacity of each *✓* Internal diameter *✓* thickness *✓*
Seamless, welded or riveted longitudinal joint *✓* Material *✓* Range of tensile strength *✓* Working pressure *✓*
Starting Air Receivers, No. *Two* Total cubic capacity *40 cu. ft.* Internal diameter *2 1/2"* thickness *1/2"*
Seamless, welded or riveted longitudinal joint *Welded* Material *M.S.* Range of tensile strength *26-30* Working pressure *Actual 300*

IS A DONKEY BOILER FITTED *No* If so, is a report now forwarded *✓*
Is the donkey boiler intended to be used for domestic purposes only *✓*

PLANS. Are approved plans forwarded herewith for shafting *22-7-49* Receivers *✓* Separate fuel tanks *✓*
(If not, state date of approval)
Donkey boilers *✓* General pumping arrangements *12-4-49* Pumping arrangements in machinery space *14-7-49*
Oil fuel burning arrangements *✓*
Have Torsional Vibration characteristics been approved *Yes* Date of approval *22-7-49*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes, except Spare Propeller*
State the principal additional spare gear supplied *None*

FOR AND ON BEHALF OF
GLELANDS (SUCCESSORS) LIMITED.

The foregoing is a correct description, *A. H. Briggs* Manufacturer.

Dates of Survey while building
During progress of work in shops - - *13.2*
During erection on board vessel - - *3.11-18.11-30.11-1.12-5.12-12.1-17.1-20.1-31.1-9.2-14.2-20.2-21.2-23.2*
Total No. of visits *15*
Dates of examination of principal parts—Cylinders *✓* Covers *✓* Pistons *✓* Rods *✓* Connecting rods *✓*
Crank shaft *✓* Flywheel shaft *✓* Thrust shaft *✓* Intermediate shafts *12-1* Tube shaft *✓*
Screw shaft *12-1* Propeller *18.11* Stern tube *18.11* Engine seatings *12-1* Engine holding down bolts *20.1*
Completion of fitting sea connections *31.1* Completion of pumping arrangements *14.2* Engines tried under working conditions *21.2*
Crank shaft, material *✓* Identification mark *✓* Flywheel shaft, material *✓* Identification mark *✓*
Thrust shaft, material *✓* Identification mark *✓* Intermediate shafts, material *Forged S.M. Steel* Identification marks *2701 C.P.*
Tube shaft, material *✓* Identification mark *✓* Screw shaft, material *Forged S.M. Steel* Identification mark *2702 C.P.*
Identification marks on air receivers (Port Receiver) A.S.R. B. 30x54 OS. W.P. 300 lbs T.P. 600 lbs O.N. 1009 N°5. LLOYDS E.R.H.(?) 24-11
(Starboard Receiver) A.S.R. B. 30x54 OS. W.P. 300 lbs T.P. 600 lbs O.N. 1009 N°4. LLOYDS E.R.H.(?) 24-11

Welded receivers, state Makers' Name *✓*
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 *2-2" hose connections, hoses with nozzles, 1 gal. box 1-10 gal. 2-2 gal. foamers, 1-1st P.*
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 *✓*
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 *No* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c.)
The machinery of this vessel has been constructed under Special Survey and in accordance with the Approved Plans & the Society's Rules. The material and workmanship are good.
The machinery has been installed in an efficient manner and examined under working conditions alongside the quay and at sea and proved satisfactory and eligible in my opinion to be classed with record of +LMC 250 and TS/09. with notation "Oil Engine" and "Neb. aft."
Torsional vibration characteristics of shafting installation for service speed of 300 R.P.M. 22-7-49 13/10/4
Class subject to spare propeller being supplied on board at earliest opportunity

The amount of Entry Fee *1/3* ... £ *23 : 12*
Special ... £ :
Donkey Boiler Fee... £ :
Travelling Expenses (if any) £ :
When applied for *19*
When received *19*

(Committee's Minute)
Assigned *+LMC 250 Oil Eng. O.G.*
Engineer Surveyor *R. Monte...* Lloyd's Register of Shipping
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