

REPORT ON OIL ENGINE MACHINERY.

19 OCT 1954

Received at London Office

NEWCASTLE-ON-TYNE

Date of writing Report 19 When handed in at Local Office 12.10.1954 Port of NEWCASTLE-ON-TYNE
No. in Reg. Book. Survey held at WALLSEND ON TYNE. Date, First Survey 25.8.54 Last Survey 10.9.54 Number of Visits 4
Single on the Main Engine Triple Quadruple Screw vessel MOTOR BARGE B'PHEDJUFF Tons Gross 44.46 Net 50.33
Built at WALLSEND By whom built CHELANDS (SUCCESSORS) LTD. Yard No. 201 When built 1954
Engines made at REDDISH By whom made MESSRS CROSSLEY BROS. LTD. Engine No. 146362 When made 1954
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power 62 Owners BRITISH TANKER CO. LTD. Port belonging to LONDON
M.N. Power as per Rule 13 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted YES
Trade for which vessel is intended HARBOUR SERVICE.

OIL ENGINES, &c. —Type of Engines ONE B.W.A. HEAVY OIL 2 or 4 stroke cycle H Single or double acting SINGLE
Maximum pressure in cylinders 850 LBS. Diameter of cylinders 5" Length of stroke 6 1/4" No. of cylinders 4 No. of cranks 4
Mean Indicated Pressure Ahead Firing Order in Cylinders Span of bearings, adjacent to the crank, measured from inner edge to inner edge Is there a bearing between each crank Revolutions per minute
Flywheel dia. Weight Moment of inertia of flywheel (lbs. in² or Kg. cm.²) 16105 Means of ignition Kind of fuel used
Crank Shaft, Solid forged dia. of journals as per Rule Crank webs Mid. length breadth shrunk Thickness parallel to axis
Semi built as fitted Crank webs Mid. length thickness Thickness around eyehole
All built as fitted
Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as fitted
as fitted as fitted as fitted
Tube Shaft, diameter as per Rule Screw Shaft, diameter as fitted APPROVED 2 1/2" Is the tube screw shaft fitted with a continuous liner No.
as fitted as fitted
Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as fitted Is the after end of the liner made watertight in the propeller boss
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
If two liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after end of tube shaft YES
If so, state type M.B. shaft DRG. NO. 3A/2884A. 6.5.54 Length of bearing in Stern Bush next to and supporting propeller 10"

Propeller, dia 33" Pitch 22" No. of blades 4 Material M.BRONZE whether moveable No Total developed surface sq. feet
Moment of inertia of propeller (lbs. in² or Kg. cm.²) Kind of damper, if fitted
Method of reversing Engines UNIDIRECTIONAL Is a governor or other arrangement fitted to prevent racing of the engine when declutched YES Means of lubrication FORCED Thickness of cylinder liners 5/16 Are the cylinders fitted with safety valves No 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. TWO 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. ONE EMERGENCY BILGE LINE (2") CONNECTED TO 600 G.P.A. CENTRIFUGAL C.W. PUMP. Diameter Stroke Can one be overhauled while the other is at work
Pumps connected to the Main Bilge Line No. and size How driven
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

Ballast Pumps, No. and size Power Driven Lubricating Oil Pumps, including spare pump, No. and size ONE - 124 G.P.H.
Are two independent means arranged for circulating water through the Oil Cooler No Suctions, connected to both main bilge pumps and auxiliary bilge pumps, No. and size:—In machinery spaces In pump room

In holds, &c. HAND OPERATED
Independent Pump Direct Suctions to the engine room bilges, No. and size 2" (SEMI-ROTARY PUMP)
Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes 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 SEA BOX Are they fitted with valves or cocks VALVE 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
What pipes pass through the bunkers NONE How are they protected
What pipes pass through the deep tanks NONE 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 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 Is it fitted with a watertight door worked from
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. NONE MAIN ENGINE IS BATTERY STARTING. No. of stages diameters stroke driven by
Auxiliary Air Compressors, No. No. of stages diameters stroke driven by
Small Auxiliary Air Compressors, No. No. of stages diameters stroke driven by
What provision is made for first charging the air receivers
Scavenging Air Pumps, No. diameter stroke driven by
Auxiliary Engines crank shafts, diameter as per Rule APPROVED 2 1/2" No. ONE (BATTERY CHARGING & LIGHTING GENERATOR) Position STARBOARD FORWARD
as fitted
Have the auxiliary engines been constructed under special survey YES Is a report sent herewith YES

AIR RECEIVERS:—Have they been made under survey. NONE. State No. of report or certificate. ✓ 4b.

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

Can the internal surfaces of the receivers be examined and cleaned. ✓ Is a drain fitted at the lowest part of each receiver. ✓

Injection Air Receivers, No. ✓ Cubic capacity of each. ✓ Internal diameter. ✓ thickness. ✓ by Rules. ✓ Actual. ✓

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

Starting Air Receivers, No. ✓ Total cubic capacity. ✓ Internal diameter. ✓ thickness. ✓ by Rules. ✓ Actual. ✓

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

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. DRG. NO. 3A/2887A (6.5.54) Receivers. ✓ Separate fuel tanks. 22.2.54

Donkey boilers. ✓ General pumping arrangements. YES 1.6.54 Pumping arrangements in machinery space. YES. 1.6.54

Oil fuel burning arrangements. ✓

Have Torsional Vibration characteristics been approved. NOT REQUIRED (SECRETARY'S LETTER 6.5.54) Date of approval. ✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied. YES (HARBOUR SERVICE).

State the principal additional spare gear supplied. ✓

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building. During progress of work in shops - -

During erection on board vessel - - (1954) AUG. 25. 27. SEP. 7. 10.

Total No. of visits. 4.

Dates of examination of principal parts—Cylinders. ✓ Covers. ✓ Pistons. ✓ Rods. ✓ Connecting rods. ✓

Crank shaft. ✓ Flywheel shaft. ✓ Thrust shaft. ✓ Intermediate shafts. ✓ Tube shaft. ✓

Screw shaft. 25.8.54 Propeller. 25.8.54 Stern tube. 25.8.54 Engine seatings. 4.9.54 Engine holding down bolts. 4.9.54

Completion of fitting sea connections. 27.8.54 Completion of pumping arrangements. 10.9.54 Engines tried under working conditions. 10.9.54

Crank shaft, material. ✓ Identification mark. ✓ Flywheel shaft, material. ✓ Identification mark. ✓

Thrust shaft, material. ✓ Identification mark. ✓ Intermediate shafts, material. ✓ Identification marks. ✓

Tube shaft, material. ✓ Identification mark. ✓ Screw shaft, material. H. BRONZE Identification mark. ✓

Identification marks on air receivers. ✓

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 GAL PHOSPHENE (E.R.) 20" x 20" x 20" SAND BINS.

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

Is this machinery duplicate of a previous case. YES. If so, state name of vessel. ✓

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

The machinery of this vessel has been installed under Special Survey in accordance with the Secretary's letters, approved plans & Rule requirements.

A Lohmann reverse reduction (2 to 1) gear box has been installed between the main engine & screw shafts & permanently locked in the ahead position as reversal of the vessel is effected by means of the Kitchen's rudder.

On completion of installation the machinery was examined & tested under working condition & subsequent trial trials carried out with satisfactory results.

So far as could be seen the materials & workmanship are good & the machinery is, in my opinion, eligible to have a record of F LMC 8.54 & TSOG 8.54.

The amount of Entry Fee INSTANT. £ 20 : 0

Special £ : When applied for 18 OCT 1954

Donkey Boiler Fee... .. £ : When received 19

Travelling Expenses (if any) £ : FRIDAY 18 FEB 1955

Committee's Minute 11. 11. 54

Assigned Deferred See Actn Rpt. 1964.

W. L. Taylor.

Engineer Surveyor to Lloyd's Register of Shipping.



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