

REPORT ON OIL ENGINE MACHINERY.

No. 3308

Received at London Office

21 AUG 1930

Date of writing Report 18. 8. 1930 When handed in at Local Office

Port of Stockholm

No. in Survey held at Stockholm

Date, First Survey 8 Jan 1930 Last Survey 11 Aug 1930

Single on the Twin Triple Quadruple } Screw vessel

Tons } Gross } Net

By whom built Yard No. 1386 When built

Engines made at Stockholm By whom made J. & C. G. Bolander's Co. Ltd. Engine No. When made 1930

By whom made Boiler No. When made

Owners Messrs. James Pollock, Sons & Co. Ltd. Port belonging to London

Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

Trade for which vessel is intended

ENGINES, &c.—Type of Engines *Cylinder Oil Engine (Type B30M20)* 2 or 4 stroke cycle *Single or double acting*

Maximum pressure in cylinders *21 kg/cm²* Diameter of cylinders *330 mm* Length of stroke *340 mm* No. of cylinders *2* No. of cranks *2*

Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge *387 mm* Is there a bearing between each crank *yes*

Revolutions per minute *375* Flywheel dia. *710 mm* Weight *387 kg* Means of ignition *hot bulb* Kind of fuel used *brude oil*

Crank Shaft, dia. of journals *125 mm* Crank pin dia. *130 mm* Crank Webs Mid. length breadth *180 mm* Thickness parallel to axis *shrunk*

Flywheel Shaft, diameter *125 mm* Intermediate Shafts, diameter *90.2 mm* Thrust Shaft, diameter at collars *100 mm*

Tube Shaft, diameter *as per Rule* Screw Shaft, diameter *as per Rule* Is the tube shaft fitted with a continuous liner *yes*

Bronze Liners, thickness in way of bushes *as per Rule* Thickness between bushes *as per rule* 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 *yes*

Does the liner do 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*

When 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 shaft *yes*

Propeller, dia. *41-30* Pitch *Timing* No. of blades *3* Material *Cast Iron* whether Moveable *no* Total Developed Surface *1.5* sq. feet

Method of reversing Engines *Timing* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *yes* Means of lubrication *oil*

Pumps Thickness of cylinder liners *more fitted* Are the cylinders fitted with safety valves *no* Are the exhaust pipes and silencers water cooled or lagged with insulating material *no*

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine *yes*

Working Water Pumps, No. *1* 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. *1* Diameter *100 mm* Stroke *100 mm* Can one be overhauled while the other is at work *yes*

Pumps connected to the Main Bilge Line No. and Size *1 100 mm* How driven *Electric*

Lubricating Oil Pumps, including Spare Pump, No. and size *1 100 mm*

Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces *1 100 mm*

Oil Cooler Holds, &c. *1*

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *1 100 mm*

Special 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*

Sea Connections All Sea Connections fitted direct on the skin of the ship *yes* Are they fitted with Valves or Cocks *yes*

Overboard Discharges 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 *yes*

Blow Off Cocks 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*

Protection of Pipes How are they protected *as per Rule*

Testing Have they been tested as per Rule *yes*

Accessibility Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *yes*

Watertightness 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*

Woodwork Are the means provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork *yes*

Air Compressors in Air Compressors, No. *None fitted* No. of stages *None* Diameters *None* Stroke *None* Driven by *None*

Auxiliary Air Compressors, No. *None* No. of stages *None* Diameters *None* Stroke *None* Driven by *None*

All Auxiliary Air Compressors, No. *None* No. of stages *None* Diameters *None* Stroke *None* Driven by *None*

Reversing Air Pumps, No. *None fitted* Diameter *None* Stroke *None* Driven by *None*

Auxiliary Engines crank shafts, diameter *as per Rule* *125 mm* *as fitted*

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *yes*

Are the internal surfaces of the receivers be examined *yes* What means are provided for cleaning their inner surfaces *mudhole 180 mm*

Pressure Air Receivers, No. *None fitted* Cubic capacity of each *None* Internal diameter *None* thickness *None*

Material *None* Range of tensile strength *None* Working pressure by Rules *None*

Testing Are they tested as per Rule *yes*

Working Air Receivers, No. *2* Total cubic capacity *209 litres* Internal diameter *284 mm* thickness *8 mm*

Material *S. M. Steel* Range of tensile strength *36 kg/cm²* Working pressure by Rules *2/3 kg/cm²*



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting *E 1.7.27.*
(If not, state date of approval)

Receivers *E 8.3.16*

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR *To be supplied and inspected on delivery.*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
 During progress of work in shops - *8/7, 3/4, 13/6, 4, 7 & 11/8 1930*
 During erection on board vessel - -
 Total No. of visits *in shop 6.*

Dates of Examination of principal parts - Cylinders *7 & 11/8 30* Covers *7 & 11/8 30* Pistons *11/8 30* Rods Connecting rods *13 & 4/6*
 Crank shaft *8/7, 3/4, 4 & 11/8 30* Flywheel shaft Thrust shaft *11/4, 4 & 11/8 30* Intermediate shafts Tube shaft
 Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts
 Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions *in shop 7/8*
 Crank shaft, Material *S. M. Steel* Identification Mark *LLOYD'S N:03695 AI. 11.8.30 A* Flywheel shaft, Material Identification Mark
 Thrust shaft, Material Identification Mark *LLOYD'S N:03721 AI. 11.8.30 A* Intermediate shafts, Material Identification Marks
 Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

Is the flash point of the oil to be used over 150° F.

Is this machinery duplicate of a previous case *yes* If so, state name of vessel *See Gen. Report no. 2991.*

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

I am of opinion, that this motor is of superior material and workmanship, and as it has been designed and constructed under special survey, I have respectfully to submit that it will be eligible to be classed LMC, as soon as it has been fitted in a classed vessel to the satisfaction of the Society's Surveyors.

Certificate (if required) to be sent to
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee ... £	:	:	When applied for,
Special Survey in shop No. 182: 00	:	:	18. 8. 1930
Donkey Boiler Fee ... £	:	:	When received,
Travelling Expenses (if any) £	:	:	17. 11. 1930

R. J. Andersson
 Acting Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 9 DEC 1930

TUE. 17 FEB 1931

Assigned

See Lon. F.C. 95774



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