

Rpt. 4b

FOR INSTALLATION SEE LONDON REPORT NO. 142598.

Date of writing report 6.7.59 Received London Port LONDON No. 140638
Survey held at Stamford, Lincs No. of visits 5 In shops 5 First date 20.5.59 Last date 6.7.59

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. Name OIL BARGE "CHARMO". Gross tons
Owners Charrington, Gardner & Lockett, Ltd. Port of Registry LONDON
Hull built at Dartford, Kent. By Charrington Gardner Lockett Ltd. Year Month 1960.4
Main Engines made at Stamford By Blackstone & Co. Yard No. NC.148 Eng. No. EVS4.P.59E.141 When 1959.7
Gearing made at Slough Bucks. By Modern Wheel Drive, Ltd.
Donkey boilers made at None.
Machinery installed at Dartford, Kent. By Cunis & Co., Woolwich. When 1960.
Particulars of restricted service of ship, if limited for classification A1 OIL BARGE "CARRYING OIL FUEL FP ABOVE 150°F. RIVER THAMES SERVICE.

Is ship to be classed for navigation in ice? No. Is ship intended to carry petroleum in bulk? Yes FP ABOVE 150°F.
Is refrigerating machinery fitted? No. If so, is it for cargo purposes? Type of refrigerant
Is the refrigerating machinery compartment isolated from the propelling machinery space? Is the refrigerated cargo installation intended to be classed?

The following particulars should be given as fully and as clearly as possible. Where the answer is "No" or "None", say so! Ticks and other signs of doubtful meaning are not to be used. Where the report need not be repeated below, but the port and report number should be stated.

No. of main engines 2 No. of propellers 1 Brief description of propulsion system

MAIN RECIPROCATING ENGINES. Licence Name and Type No. Lister-Blackstone, EVSMGR4
No. of cylinders per engine 4 Dia. of cylinders 3 3/4 stroke(s) 11 1/2 2 or 4 stroke cycle 4 Single or double acting Single
Maximum approved BHP per engine 248 at 600 RPM of engine and 105.6 240 RPM of propeller.
Corresponding MIP 146 p.s.i. (For DA engines give MIP top & bottom) Maximum cylinder pressure 940 p.s.i. Machinery numeral 52.8 50x2 = 100

Are the cylinders arranged in Vee or other special formation? No. If so, number of crankshafts per engine
TWO STROKE ENGINES. Is the engine of opposed piston type? If so, how are upper pistons connected to crankshaft?
Is the exhaust discharged through ports in the cylinders or through valve(s) in the cylinder covers? No. and type of mechanically driven scavenge pumps or blowers per engine and how driven
No. of exhaust gas driven scavenge blowers per engine Where exhaust gas driven blowers only are fitted, can the engine operate with one blower out of action?
If a stand-by or emergency pump or blower is fitted, state how driven No. of scavenge air coolers Scavenge air pressure at full power

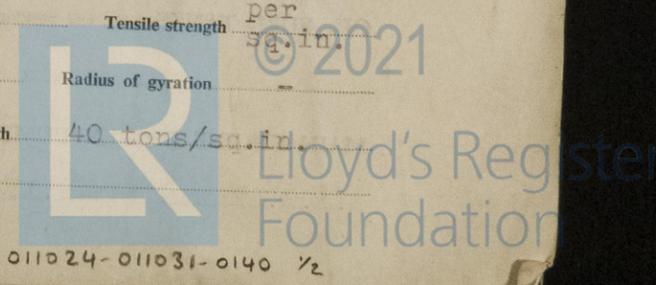
FOUR STROKE ENGINES. Is the engine supercharged? Yes Are the undersides of the pistons arranged as supercharge pumps? No No. of exhaust gas driven blowers per engine 1 No. of supercharge air coolers per engine Supercharge air pressure 4.5/5.5 psi Can engine operate without supercharger? Yes
TWO & FOUR STROKE ENGINES--GENERAL. No. of valves per cylinder: Fuel 1 Inlet 1 Exhaust 1 Starting series Safety 1
Material of cylinder covers Cast iron Material of piston crowns All alloy Is the engine equipped to operate on heavy fuel oil? No
Cooling medium for :-Cylinders Fresh water Pistons None Fuel valves None Overall diameter of piston rod for double acting engines

Is the rod fitted with a sleeve? Is welded construction employed for: Bedplate? No Frames? No Entablature? No Is the crankcase separated from the underside of pistons? No Is the engine of crosshead or trunk piston type? Trunk Total internal volume of crankcase 30 cu.ft. No. and total area of explosion relief devices 2-22 sq.in. Are flame guards or traps fitted to relief devices? Yes Is the crankcase readily accessible? Yes If not, must the engine be removed for overhaul of bearings, etc? Is the engine secured directly to the tank top or to a built-up seating? How is the engine started? Compressed Air
Can the engine be directly reversed? No If not, how is reversing obtained? M.W.D.2.5/1. REV/RED.2MWR. Size 3 Gearbox No.12288
Has the engine been tested working in the shop? How long at full power? Base 443.T Secy. letter 1.6.59

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 1.6.59 State barred speed range(s), if imposed for working propeller For spare propeller Is a governor fitted? Yes Is a torsional vibration damper or detuner fitted to the shafting? No
Where positioned? Type No. of main bearings 6 Are main bearings of ball or roller type? No Distance between inner edges of bearings in way of crank(s) 10.1/16" Distance between centre lines of side cranks or eccentrics of opposed piston engines

Crankshaft type: Built, semi-built, solid. (State which) Solid
Diameter of journals 6 3/8" Diameter of crankpins Centre 6 3/8" Side Breadth of webs at mid-throw 7 1/2 Axial thickness of webs 2.25/32"
If shrunk, radial thickness around eyeholes Are dowel pins fitted? Crankshaft material Journals EN8 Minimum 40 Approved tons per sq.in. Tensile strength
Diameter of flywheel 40" Weight 2180 lbs Are balance weights fitted? No Total weight Radius of gyration
Diameter of flywheel shaft 6 3/8" Material EN8 Steel Minimum approved tensile strength 40 tons/sq.in.

Flywheel shaft: separate, integral with crankshaft, integral with thrustshaft. (State which) Integral with crankshaft.



GENERAL REMARKS

State if the machinery has been constructed and/or installed under special survey in accordance with the Rules, approved plans and Secretary's letters. State quality of materials and workmanship and give recommendations for classification, including any special notation to be assigned. Where existing machinery is submitted for classification the circumstances should be explained as fully as possible.

These engines, BM.90354 and 5, have been built under special survey from materials manufactured under the supervision of Surveyors to the Society in accordance with Approved Plans and the Rules of the Society. Workmanship throughout is satisfactory. In my opinion they are eligible for installation in the classed vessel.

W. Waddle

Engine Surveyor to Lloyd's Register of Shipping.
W. WADDLE.

PARTICULARS OF IDENTIFICATION MARKS (Including Port of origin) of important Forgings and Castings. (Copies of certificates should be forwarded with report.)

RODS Port V64; 4463K362-K322-K320. Star'd. X24; V64; 4463K358; BOX139 covered by hatch certificates BHAM.C29132; C35752; F/752. LDS.C30722; C30251; C30243; C30717. WW. LON.20.5.59
Port 945.721/276. AE75HKS
CRANKSHAFT OR ROTORSHAFT Stbd. 945.716/271. AUG. 30.1.59 W.W. LON. 205.59

FLYWHEEL SHAFT

THRUSTSHAFT

GEARING

INTERMEDIATE SHAFTS

SCREW AND TUBE SHAFTS

PROPELLERS

OTHER IMPORTANT ITEMS Cylinder blocks with liners and heads:- LLOYD'S TEST 100lbs. WW.LON.20.5.59

Is the installation a duplicate of a previous case? If so, state name of vessel

Date of approval of plans for crankshaft 1.6.59 Straight shafting Gearing Clutch

Separate oil fuel tanks Pumping arrangements Oil fuel arrangements

Cargo oil pumping arrangements Air receivers Donkey boilers

Dates of examination of principal parts:-

Fitting of stern tube Fitting of propeller Completion of sea connections Alignment of crankshaft in main bearings

Engine checks & bolts Alignment of gearing Alignment of straight shafting Testing of pumping arrangements

Oil fuel lines Donkey boiler supports Steering machinery Windlass

Date of Committee FRIDAY 17 JUN 1960 Special Survey Fee £51.5.0d.

Decision See Rpt.!

Expenses £10.2.6d.

Date when A/c rendered



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