

Rpt. 4b

Date of writing report 23.5.59 Received London Port LONDON No. 140359
 Survey held at Stamford, Lincs. In shops 4 First date 16.4.59 Last date 20.5.59.
 No. of visits On vessel

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. Name Gross tons

Owners Managers Port of Registry Year Month

Hull built at Wallsend By Clelands (Successors) Ltd. Yard No. 239 When

Main Engines made at Stamford. By Blackstone & Co.Ltd. Eng. No. M. 86415 When 1959 5

Gearing made at By Modern Wheel Drive.

Donkey boilers made at By Blr. Nos. When

Machinery installed at By When

Particulars of restricted service of ship, if limited for classification

Particulars of vegetable or similar cargo oil notation, if required

Is ship to be classed for navigation in ice? Is ship intended to carry petroleum in bulk?

Is refrigerating machinery fitted? 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 wording is not applicable to the installation, a black line may be inserted. If the main engines have been constructed at another port and are covered by a separate report, the particulars given in that report need not be repeated below, but the port and report number should be stated.

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

MAIN RECIPROCATING ENGINES. Licence Name and Type No. Lister-Blackstone EVSMGR 4 type vertical diesel.

No. of cylinders per engine 4 Dia. of cylinders 8 3/4 stroke(s) 11 1/2 2 or 4 stroke cycle 4 Single or double acting Single

Maximum approved BHP per engine 264 at 600 RPM of engine and 296 RPM of propeller.

Corresponding MIP 146 psi. (For DA engines give MIP top & bottom) Maximum cylinder pressure 940 psi. Machinery numeral 52.8

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

Are scavenge manifold explosion relief valves fitted?

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 None Supercharge air pressure 4 1/2 / 5 1/2 psi. Can engine operate without supercharger? Yes

TWO & FOUR STROKE ENGINES-GENERAL. No. of valves per cylinder: Fuel 1 Inlet 1 Exhaust 1 Starting 2 in 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.ins 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. Rev/Red. Gearbox type MWKR3A No.12005.

Has the engine been tested working in the shop? Yes How long at full power? 4 hours plus 1 hour on 10% overload.

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 19.6.59 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 3/4 Diameter of crankpins Centre 6 1/8 Breadth of webs at mid-throw 7 3/4 Axial thickness of webs 2 25/32

If shrunk, radial thickness around eyeholes Are dowel pins fitted? Crankshaft material Journals EN8 Approved Minimum 40 tons/sq.in. Webs Steel Tensile strength

Diameter of flywheel 40 Weight 2180 lbs. Are balance weights fitted? No Total weight Radius of gyration

Diameter of flywheel shaft 6 3/4 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.

BM. 90392 This Engine has 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 is good throughout.

Subject to the approval of the torsional vibration characteristics by the Society the engine is eligible for installation in a classed vessel in my opinion.

W. Waddle

W. WADDLE.

Engineer Surveyor to Lloyd's Register of Shipping.

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

RODS BCX 24; 4463K362; BCX95; X23. WW.LON 16.4.59 covered by batch certificates.

BHAM. C.19234; LDS. C30722; BHAM.C.27772 & BHAM F.753.

CRANKSHAFT OR ROTORSHAFT 864.482/252 HKS.AUG. 29.1.58 WW.LON 16.4.59.

FLYWHEEL SHAFT

THRUSTSHAFT

GEARING

INTERMEDIATE SHAFTS

SCREW AND TUBE SHAFTS

PROPELLERS

OTHER IMPORTANT ITEMS Cylinder block with liners and heads - Lloyds test 100lbs. WW.LON. 16.4.59.

Is the installation a duplicate of a previous case?

If so, state name of vessel

Date of approval of plans for crankshaft

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 chocks & 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 19 FEB 1960

Special Survey Fee

£25.12.6.

Decision

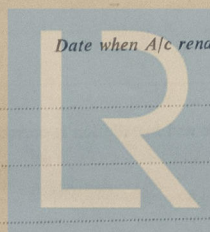
See Rpt. 1.

Expenses

£5.2.6.

Date when A/c rendered

20 JUN 1959



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