

Rpt. 4b

Attache to Special Report No 140302.

19/2/59.

Date of writing report 31.1.59 Received London Port LONDON No. 139589
Survey held at Stamford, Lincs. In shops 3 First date 8.1.59 Last date 29.1.59

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. Name Blackmiston C Gross tons 141.
Owners Jas to Cook & Co. Ltd Managers Port of Registry Hull.
Hull built at Wivenhoe, Essex. By James Cook & Co. Ltd. Yard No. 1186 Year Month When 1959 5.
Main Engines made at Stamford, Lincs. By Messrs. Blackstone & Co. Ltd. Eng. No. 86072 When 1959 -1
Gearing made at Slough, Bucks By Modern Wheel & Dr. Co. Ltd.
Donkey boilers made at London By J. Stan v. Co. (Deptford) Ltd. Blr. Nos. 20327 When 1959-3
Machinery installed at Wivenhoe By Jas to Cook & Co. (Wivenhoe) Ltd. When 1959-5
Particulars of restricted service of ship, if limited for classification In service in Thames Line & Estuary
Particulars of vegetable or similar cargo oil notation, if required Carrying oil in bulk flash point above 150°F.
Is ship to be classed for navigation in ice? No Is ship intended to carry petroleum in bulk? No
Is refrigerating machinery fitted? No If so, is it for cargo purposes? Yes Type of refrigerant
Is the refrigerating machinery compartment isolated from the propelling machinery space? Yes 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 1 engine with reverse reduction gearing to single screw

MAIN RECIPROCATING ENGINES. Licence Name and Type No. Lister Blackstone EVMGR4 vertical Diesel oil.
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 180 at 600 RPM of engine and RPM of propeller.
Corresponding MIP 106 psi. (For DA engines give MIP top & bottom) Maximum cylinder pressure 800 psi. Machinery numeral 36.
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? No 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 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? No Are the undersides of the pistons arranged as supercharge pumps? No No. of exhaust gas driven blowers per engine
None No. of supercharge air coolers per engine None Supercharge air pressure Can engine operate without supercharger?

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 Alum. 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? No 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 2-22sq. 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.

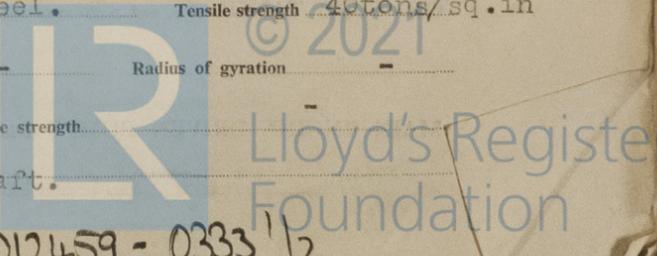
Can the engine be directly reversed? No If not, how is reversing obtained? MWD. MW. 3B. Rev./Reduction gearbox No. 12019.
Has the engine been tested working in the shop? Yes How long at full power? 4 hours plus 1 hour on 10% overload base 431V

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 23.12.58 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? Yes
Where positioned? In Flywheel Coupling Type Viscous 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 Forged
Diameter of journals 6 3/4" Diameter of crankpins Centre 6 1/8" Breadth of webs at mid-throw 7 3/8" Axial thickness of webs 2 25/32"
Side - Pins) Minimum
If shrunk, radial thickness around eyeholes - Are dowel pins fitted? - Crankshaft material Journals) EN8 Approved
Webs) Steel. Tensile strength 40 tons/sq. in

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 Minimum approved tensile strength
Flywheel shaft: separate, integral with crankshaft, integral with thrustshaft. (State which) Integral with crankshaft.

19.1.59



C.D.

012446 - 012459 - 0333 1/2

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 90379, 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 Rules of the Society. Workmanship throughout is good. In my opinion the engine is eligible to be installed in a Classed vessel.

This engine has been installed on the Motor Tank Barge "Blackmaster C" at Wincoburgh in a proper manner, and was found satisfactory on sea trials carried out on 22/5/59

R. J. J. for W. Waddle

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 T95; U15; U28; and T98, WW.LON 8.1.59 covered by batch forging certificates:-

BHAM. C26304; C.27363; C.27208.

CRANKSHAFT ~~OR ROTOR SHAFT~~ 6038 TDS. NOT. WW.LON 8.1.59.

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. 8.1.59.

Is the installation a duplicate of a previous case?

If so, state name of vessel

Date of approval of plans for crankshaft 23.12.58

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
MERIDAY 27 JUL 1959

Steering machinery

Windlass

Date of Committee

Special Survey Fee £20.0.0.

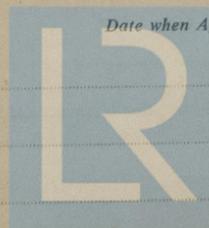
Decision

See Rpt. 1.

Expenses £4.0.0.

Date when A/c rendered

17 FEB 1959



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