

Rpt. 4b

31.1.59

Received London

Port LONDON

No. 139589

Survey held at Stamford, Lincs.

In shops 3

8.1.59

29.1.59.

No. of visits

On vessel

First date

Last date

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. Name *"Blackmiston C"* Gross tons *141.*
Owners *James 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 *Stamph. Bucks* By *Modern Wheel & Dr. Co. Ltd.*
Donkey boilers made at *London* By *J. Stan v. (Deptford) Ltd.* Blr. Nos. *20327* When *1959-3*
Machinery installed at *Wivenhoe* By *James Cook & Co. (Wivenhoe) Ltd.* When *1959-5*
Particulars of restricted service of ship, if limited for classification *In service in Humber 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? *✓* 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 *1/2 hp. 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? *—* 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? *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 *2 in* 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? *—* 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*

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 *6 1/8"* Breadth of webs at mid-throw *7 3/8"* Axial thickness of webs *2 25/32"*

If shrunk, radial thickness around eyeholes *—* Are dowel pins fitted? *—* Crankshaft material Journals *EN8* Pins *—* Minimum

Webbs *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.*

C.D.

012446 - 012459 - 0333 1/2

Lloyd's Register
Foundation

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.

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

R. Roth for J. W. L. L. L.

W. S. Saddle

Engineer Surveyor to Lloyd's Register of Shipping.

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

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

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

Steering machinery

Windlass

Date of Committee

See Rpt. 1.

Special Survey Fee £20.0.0.

Expenses £4.0.0

Date when A/c rendered

17 FEB 1959

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