

E-2 FEB 1959

Date of writing report 21-1-59. Received London Port LEEDS. No. 1330. Survey held at Keighley. In shops Nine. 13-5-58. 28-10-58. No. of visits First date Last date

On vessel Brooke Marine Ltd - Yard No 269 - Ipswich Rpt No 140122. FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. Name M.T. KANCHADEVA Gross tons 40 Owners Brown Agents for the Colonies Managers Port of Registry Colombo Year Month Hull built at Lowestoft. By Brooke Marine Ltd. Yard No. 269. When Main Engines made at Keighley. By H. Widdop & Co. Ltd. Eng. No. 5807. When 1958. Gearing made at By 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 No. of propellers Brief description of propulsion system

MAIN RECIPROCATING ENGINES. Licence Name and Type No. H. Widdop & Co. Ltd. EMB. 5. No. of cylinders per engine 5 Dia. of cylinders 8.1/2" stroke(s) 13.1/2" 2 or 4 stroke cycle 2 Single or double acting Single Maximum approved BHP per engine 275 at 440 RPM of engine and 440 RPM of propeller. Corresponding MIP 81.25 (For DA engines give MIP top & bottom) Maximum cylinder pressure 850 lbs. Machinery numeral 55

Are the cylinders arranged in Vee or other special formation? Vertical in Line. If so, number of crankshafts per engine One

TWO STROKE ENGINES. Is the engine of opposed piston type? No If so, how are upper pistons connected to crankshaft? liner Is the exhaust discharged through ports in the cylinders or through valve(s) in the cylinder covers? Ports in Cyl. No. and type of mechanically driven scavenge pumps or blowers per engine and how driven One Double Acting, 90° Vee, Two Cylinders, Chain 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 1.4 lbs/sq. in. Are scavenge manifold explosion relief valves fitted? Yes

FOUR STROKE ENGINES. Is the engine supercharged? Are the undersides of the pistons arranged as supercharge pumps? No. of exhaust gas driven blowers per engine No. of supercharge air coolers per engine Supercharge air pressure Can engine operate without supercharger?

TWO & FOUR STROKE ENGINES-GENERAL. No. of valves per cylinder: Fuel One Inlet None Exhaust None Starting One Safety One Material of cylinder covers Steel Material of piston crowns Cast Iron Is the engine equipped to operate on heavy fuel oil? No

Cooling medium for :-Cylinders 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 33 cu. ft. No. and total area of explosion relief devices 2 Crankcase 32 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? No Is the engine secured directly to the tank top or to a built-up seating? - How is the engine started? Direct Comp. Air.

Can the engine be directly reversed? Yes If not, how is reversing obtained? - Has the engine been tested working in the shop? Yes How long at full power? 4 hours, full power ahead base 420K

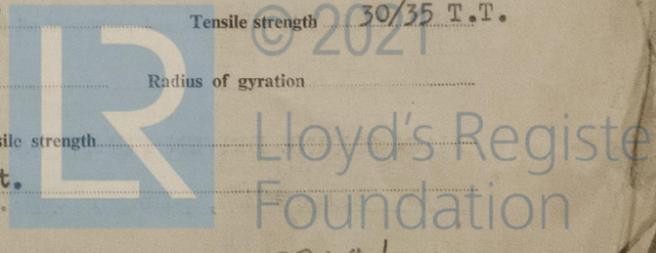
CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 7-10-58. State barred speed range(s), if imposed continuously for working propeller below 105 RPM For spare propeller - Is a governor fitted? Yes Is a torsional vibration damper or detuner fitted to the shafting? -

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) 12" Distance between centre lines of side cranks of eccentrics of opposed piston engines

Crankshaft type: Built, semi-built, solid. (State which) Solid Diameter of journals 5.3/4" Diameter of crankpins 5.3/4" Breadth of webs at mid-throw 7.1/2" Axial thickness of webs 3.3/16" Pins - Minimum If shrunk, radial thickness around eyeholes - Are dowel pins fitted? - Crankshaft material Journals S.M. Steel Approved Webs - Tensile strength 30/35 T.T.

Diameter of flywheel 30.1/4" Weight 940 lbs. Are balance weights fitted? No Total weight Radius of gyration Diameter of flywheel shaft - Material - Minimum approved tensile strength Flywheel shaft: separate, integral with crankshaft, integral with thrustshaft (State which) Integral with Crankshaft.

PLEASE RETURN THIS REPORT WITH YOUR FIRST ENTRY.



012711-012715-0264 1/2

T. Shetty Rev'd 14/11

5.3.59

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.

The machinery described herein has been built under Special Survey in accordance with the plans, the Secretary's letters and the Requirements of the Rules. The material and workmanship has been found good throughout. The engine was subsequently tested under full power test bed trials, coupled to a brake, and afterwards opened out and examined, and found satisfactory.

The torsional vibration characteristics, London letter dated 7-10-58 states "The engine is approved for a service speed of 440 R.P.M., provided a notice board be fitted at the control station stating that the engine is not to be operated continuously below 105 R.P.M., and the engine tachometer be marked accordingly.

On satisfactory installation, the machinery is eligible, in my opinion, to be classed in the Register Book with the record of + L.M.C.

Note. Torsiograph records should be taken on trials from forward end of engine, and results submitted to Head Office. See London letter dated 8-1-59.

This engine has been installed on the M/T Kauchadava at Lowestoft in a proper manner and was found satisfactory on sea trials carried out on 6.5.59. Torsiograph records have been taken & results submitted to London

G. Talbot

J. P. Carter
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 Conn. Rods. LLOYD'S NOT. 4042, 3964. 13-1-55 T.D.S. or 13-12-54 T.D.S. 20-6-58 J.P.G. 24-6-55 F.L.G.

Conn. Rod Caps. LLOYD'S 20-A1. 552. F.S. 7-2-55. T.P.G. 31-3-55.

CRANKSHAFT ~~OR ROTOR SHAFT~~ LLOYD'S NOT. 5886. 30-6-58 T.D.S.

FLYWHEEL SHAFT

THRUSTSHAFT LLOYD'S 3300. 2-7-54 T.P.G.

Scavenge Shaft. ~~GEARING~~ LLOYD'S NOT. 4646 5-3-56 T.D.S. 27-12-56 J.P.G.

INTERMEDIATE SHAFTS

SCREW AND TUBE SHAFTS

PROPELLERS

OTHER IMPORTANT ITEMS Cylinders. 13-6-58 & 1-7-58 J.P.G. Cylinder Liners. 18-7-58 J.P.G.

Cylinder Heads. 4-9-58 & 12-9-58 J.P.G. Compressor Cyl. & Head. LLOYD'S TEST. 18-7-58 & 13-5-58 J.P.G.

Air Receivers Nos. 11/6440 and 11/6441. 8-10-57 A.T.R. Lds.

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

Special Survey Fee

£25. 12. 6.

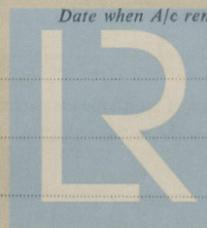
Decision

Expenses

£2. 14. 0.

Date when A/c rendered

21-1-59.



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