

Rpt. 4b

Date of writing report

3rd June 1959.
Lowestoft

Received London

Port

Ipswich

No.

140122.

Survey held at

No. of visits

In shops

5

On vessel

12.

First date

15.1.59

Last date

5.2.59

3.6.59

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. Name **MOTOR TUG "KANCHADEVA"** Gross tons **44.**
Owners **CROWN AGENTS FOR THE COLONIES.** Managers **-** Port of Registry **Colombo.**
Hull built at **LOWESTOFT.** By **BROOKE MARINE LIMITED.** Yard No. **269.** Year Month **1959.5.**
Main Engines made at **KEIGHLEY** By **H. WIDDOP & CO LTD.** Eng. No. **5807** When **1958.**
Gearing made at **-** By **-** Blr. Nos. **-** When **-**
Donkey boilers made at **-** By **-** Blr. Nos. **-** When **-**
Machinery installed at **LOWESTOFT.** By **BROOKE MARINE LTD** When **1959.**
Particulars of restricted service of ship, if limited for classification **FOR TOWING SERVICES WITHIN 10 MILES OF THE CEYLON COAST.**

Particulars of vegetable or similar cargo oil notation, if required

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

No. of propellers

Brief description of propulsion system

Direct Reversing Diesel Oil Engine.

MAIN RECIPROCATING ENGINES. Licence Name and Type No.

WIDDOP E.M.B. 5.

No. of cylinders per engine

Dia. of cylinders

stroke(s)

2 or 4 stroke cycle

Single or double acting

Maximum approved BHP per engine

at

RPM of engine and

RPM of propeller.

Corresponding MIP

(For DA engines give MIP top & bottom)

Maximum cylinder pressure

Machinery numeral

Are the cylinders arranged in Vee or other special formation?

Vertical in line

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?

Ports in cyl. covers

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

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

Inlet

Exhaust

Starting

Safety

Material of cylinder covers

Material of piston crowns

Is the engine equipped to operate on heavy fuel oil?

Cooling medium for: Cylinders

Pistons

Fuel valves

Overall diameter of piston rod for double acting engines

Is the rod fitted with a sleeve?

Is welded construction employed for: Bedplate?

Frames?

Is the crankcase separated from the

underside of pistons?

Is the engine of crosshead or trunk piston type?

Total internal volume of crankcase

No. and total area of explosion relief devices

Are flame guards or traps fitted to relief devices?

Is the crankcase readily accessible?

If not, must the engine be removed for overhaul of bearings, etc?

Can the engine be directly reversed?

If not, how is reversing obtained?

Has the engine been tested working in the shop?

How long at full power?

4 hours, full power ahead.

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system

Y. 10.58

State barred speed range(s), if imposed

for working propeller

for spare propeller

Is a governor fitted?

Is a torsional vibration damper or detuner fitted to the shafting?

Where positioned?

Type

No. of main bearings

Are main bearings of ball or roller type?

Distance between inner edges of bearings in way of crank(s)

Distance between centre lines of side cranks or eccentrics of opposed piston engines

Crankshaft type: Built, semi-built, solid. (State which)

Diameter of journals

Diameter of crankpins

Centre

Breadth of webs at mid-throw

Axial thickness of webs

If shrunk, radial thickness around eyeholes

Are dowel pins fitted?

Crankshaft material

Minimum

Diameter of flywheel

Weight

Are balance weights fitted?

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.

Diameter of flywheel shaft

Material

Minimum approved tensile strength

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

Integral with crankshaft.

Diameter of flywheel shaft

Material

Minimum approved tensile strength

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

Integral with crankshaft.

Diameter of flywheel shaft

Material

Minimum approved tensile strength

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

Integral with crankshaft.

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Lloyd's Register
Foundation

0263

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.

This machinery installation has been installed under Special Survey in accordance with the Rules, the approved plans and the Secretary's letters.

The materials are sound and so far as can be seen, free from visible defects.

The workmanship throughout is good

The completed installation was examined and tested and found satisfactory on sea trials carried out on the 5th May 1959.

Torsiograph readings have been taken off the forward end of the engine and results submitted to London. Please see Secretary's letter dated 8.1.59.

A notice board is fitted at the control platform stating that the engine is not to be operated continuously below 105 rpm and the tachometer marked accordingly.

In my opinion this installation is eligible to have the notation *LMC and TSOG(N) with date to be assigned on arrival at Colombo to which port the ship is proceeding as deck cargo.

G. Tawot.

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

CRANKSHAFT OR ROTORSHAFT

FLYWHEEL SHAFT

THRUSTSHAFT

GEARING

INTERMEDIATE SHAFTS

SCREW AND TUBE SHAFTS

PROPELLERS

OTHER IMPORTANT ITEMS

✓ LR. 4275 LVH 20.2.59

✓ LR 4272 " "

✓ RH 4848 Heyds F.C.L. 20.2.59.

✓ Stern tube - Heyds Test 30th LVH 20.2.59.

Is the installation a duplicate of a previous case?

NO

If so, state name of vessel

Date of approval of plans for crankshaft

Straight shafting

12.1.59

Gearing

Clutch

Separate oil fuel tanks

30.12.58

15.4.59.

Pumping arrangements

19.12.58

3.3.59

Oil fuel arrangements

19.12.58

Cargo oil pumping arrangements

Air receivers

Donkey boilers

Dates of examination of principal parts:-

Fitting of stern tube

1.3.59.

Fitting of propeller

9.3.59.

Completion of sea connections

9.3.59

Alignment of crank shaft in main bearings

4.5.59

Engine chocks & bolts

4.5.59

Alignment of gearing

Alignment of straight shafting

4.5.59.

Testing of pumping arrangements

5.5.59

Oil fuel lines

4.5.59

Donkey boiler supports

Steering machinery

5.5.59.

Windlass

5.5.59.

Date of Committee

MONDAY 20 JUL 1959

Special Survey Fee

£ 25.0.0

Decision

Deferred

Expenses

£ 3.12.0

Date when A/c rendered

15 JUN 1959

