

Rpt. 4b

27 APR 1964

Date of writing report 10.4.1964 Received London Hamburg Port Hamburg No. 13516
Survey held at Hamburg No. of visits In shops 10 First date 18.9.63 Last date 23.3.64
On vessel

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. Name Double ended twin screw car ferry "SAPELE" Gross tons
Owners Inland Waterway Dept. Nigeria Managers - Port of Registry Lagos/Nigeria
Hull built at Hamburg-Altenwerder By Messrs. R. Meier & Sohn Yard No. 65 Year 1964
Main Engines made at Paticroft By Messrs. Gardner & Sons Eng. No. 140519/140521 When 1963
Gearing made at Paticroft By Messrs. Gardner & Sons Gear No. 15260/1-15264/5 When 1963
Aux./donkey boilers made at none By Blr. Nos. When
Machinery installed at Hamburg-Altenwerder By Messrs. R. Meier & Sohn When 1963

Particulars of restricted service of ship, if limited for classification four screw car ferry on River Niger

Particulars of vegetable or similar cargo oil notation, if required -

If ship is to be classed for navigation in ice, state whether Class 1, 2 or 3 no Is ship an oil tanker? 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 should 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 all other relevant particulars must be given and the port and report number should be stated.

No. of main engines four No. of propellers four Brief description of propulsion system 4 oil engines, each geared to screw shaft

MAIN RECIPROCATING ENGINES. Licence Name and Type No. "Gardner" 6 LW vertical solid injection

No. of cylinders per engine 6 Dia. of cylinders 4 1/4" stroke(s) 6" 2 or 4 stroke cycle 4 SCSA Single or double acting S.A.

Maximum BHP per engine approved for this installation 78.2 at 1300 RPM of engine and 665 RPM of propeller.

Corresponding MIP 120 psi (For DA engines give MIP top & bottom) Maximum cylinder pressure 900 psi Machinery numeral 15.62.4

Are the cylinders arranged in Vee or other special formation? 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?

TWO AND 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?

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 F.W. 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? Entablature? 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? Is the engine secured directly to the tank top or to a built-up seating? built up seating How is the engine started? El. motor + by hand

Can the engine be reversed? If not, how is reversing obtained?

Has the engine been tested working in the shop? How long at full power? 28/11/63

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system not required 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

Side Pins Minimum

If shrunk, radial thickness around eyeholes Are dowel pins fitted? Crankshaft material: Journals Approved

Webs Tensile strength

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

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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 has been constructed under Special Survey in conformity with the Society's Rules and Regulations, the approved plans and the Secretary's letters.

The material and workmanship are good.

The machinery has been examined during construction, properly installed in the above ship, found satisfactory under working conditions and is eligible, in my opinion, for classification with the notation

See Survey
at Lloyd's Survey *LMC 2.64 4 oil engines, each 6 cyl.

TS(OG) subject to satisfactory examination at the port of destination.

For identification purposes the ship's side, where one fire- and bilge pump and one bilge pump are fitted, is called "port side".

Note:- No gear hammer was found whilst the ship was on sea trials.

B. J. Jones
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

See Manchester F.E. Report No. 867

THRUSTSHAFT

GEARING

INTERMEDIATE SHAFTS

SCREW AND TUBE SHAFTS

LLOYD'S HAM 3111 A/B/C/D 15.11.63 EA ✓

PROPELLERS

LLOYD'S HAM 3112 ✓ 3113 ✓ 3114 ✓ 3115 15.11.63 EA ✓ Spare: None

OTHER IMPORTANT ITEMS

stern tubes LLOYD'S TEST HAM 2592/1-2-3-4- 25-10.63 EA ✓

Is the installation a duplicate of a previous case? no

If so, state name of vessel

Date of approval of plans for cranksaft

see Manchester F.E. Rpt. 22.10.63

See Manchester F.E. Rpt.

Separate oil fuel tanks

12.9.63

Pumping arrangements

12.9.63

Oil fuel arrangements

12.9.63

Cargo oil pumping arrangements

Air receivers

Aux./donkey boilers

Dates of examination of principal parts:-

Fitting of stern tube

5.11.63

Fitting of propeller

18.11.63

Completion of sea connections

20.11.63

Alignment of cranksaft in main bearings

20.11.63

Engine checks & bolts

2.12.63

Alignment of gearing

2-12.63

Alignment of straight shafting

2.12.63

Testing of pumping arrangements

20.11.63

Oil fuel lines

15.12.63

Donkey boiler supports

Steering machinery

7.2.64

Windlass

7.2.64

Date of Committee

TUESDAY 2 JUN 1964

Special Survey Fee

DM 272.--

Decision

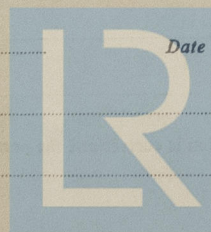
Deferred for Gen. Ex.

Expenses

DM 80.--

Date when A/c rendered

2021 2446443, cl. 23

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