

Rpt. 4b

Date of writing report 29:12:59 Received London Port Rio de Janeiro No. 7374 F.E.
Survey held at Rio de Janeiro No. of visits In shops none
On vessel 14 First date 26:1:59 Last date 18:8:59

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. 29031 Name "SANTA CECILIA" Gross tons 483
Owners Transportes Maritimos 1001 Ltda. Managers - Port of Registry Rio de Janeiro
Hull built at Got. By A/B Lindholmens Varv. Year 1875
Main Engines made at Frederikshavn, Denmark By Alpha Diesel A/S Eng. No. 8435 When 1958
Gearing made at - By -
Donkey boilers made at - By - Blr. Nos. - When -
Machinery installed at Rio de Janeiro. By Owners. When 1959
Particulars of restricted service of ship, if limited for classification None
Particulars of vegetable or similar cargo oil notation, if required None
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? No 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 One No. of propellers One Brief description of propulsion system Oil engine 2SA 6 Cy. 230x400mm. with hydraulic coupling & reversible propeller.

MAIN RECIPROCATING ENGINES. Licence Name and Type No. B & W ALPHA - Type 406 V0

No. of cylinders per engine 6 Dia. of cylinders 230mm. stroke 400mm. 2 or 4 stroke cycle 2 Single or double acting Single

Maximum approved BHP per engine 120 at 375 RPM of engine and 375 RPM of propeller.

Corresponding MIP 5.05kg/cm² (For DA engines give MIP top & bottom) Maximum cylinder pressure 60kg/cm² Machinery numeral 84

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? ports No. and type of mechanically driven scavenge pumps or blowers per engine and how driven one - crank

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? 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 1 Inlet - Exhaust - Starting 1 Safety 1

Material of cylinder covers cast iron Material of piston crowns cast iron Is the engine equipped to operate on heavy fuel oil? No

Cooling medium for :—Cylinders water 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? no Is the engine of crosshead or trunk piston type? piston Total internal volume of crankcase - No. and total area of explosion relief

devices - 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? Built-up seatg. How is the engine started? Compressed air

Can the engine be directly reversed? No If not, how is reversing obtained? Reversible pitch propeller.

Has the engine been tested working in the shop? Yes How long at full power? Not stated on Bureau Veritas Certificate.

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 11/11/59 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? no

Where positioned? - Type - No. of main bearings 8 Are main bearings of ball or roller

type? no 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) Semi-built.

Diameter of journals 160 mm. Diameter of crankpins Centre 150 mm. Breadth of webs at mid-throw - Axial thickness of webs -

If shrunk, radial thickness around eyeholes - Are dowel pins fitted? no Crankshaft material Journals SM steel Minimum

Webs - Tensile strength

Diameter of flywheel 1650 mm. Weight - Are balance weights fitted? yes Total weight - Radius of gyration -

Diameter of flywheel shaft 160 mm. Material SM steel. Minimum approved tensile strength

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

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 engine has been constructed under the Special Survey of Bureau Veritas, Certificate No BVN 63/1958 Fdn., dated Frederikshavn, 27th August, 1958. Please see Secretary's letter installed dated 10:3:59 Ref. Eng. This machinery has now been satisfactorily/in this ship in accordance with Rule Requirements, Secretary's letters & satisfactorily tested under full working conditions.

In my opinion the machinery ^{is eligible} for the Notation of L.M.C. NE 8,59

Hannes

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.)

~~BOBS~~ Cylinders: BV 19.2.58 ST.

CRANKSHAFT OR ROTOR SHAFT BV 5774 12.7.57 HL BV 14.2.58 ST

FLYWHEEL SHAFT BV 4388 8.3.58 ST.

THRUST SHAFT BV 4394 8.3.58 ST.

GEARING

INTERMEDIATE SHAFTS

SCREW ~~XND TUBE~~ SHAFTS BV 9329 19.8.58 ST ^T

PROPELLERS BV 19.8.58 ST ^T

OTHER IMPORTANT ITEMS Sterntube BV 19.8.58 ST ^T; Service tank, abt. 100 ltrs. BV TP 0,25 ATM 19.8.58 ST.; Starting air receiver 125 ltrs BV TP 60 ATM WP 30 ATM 19.8.58 1867-ST.

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 7:7:59 Fitting of propeller 7:7:59 Completion of sea connections ☐ Alignment of crank shaft in main bearings 12:6:59

Engine chocks & bolts 12:6:59 Alignment of gearing ☐ Alignment of straight shafting 16:7:59 Testing of pumping arrangements ☐

Oil fuel lines ☐ Donkey boiler supports ☐ Steering machinery ☐ Windlass ☐

Date of Committee ☐ Special Survey Fee ☐

Decision ☐

Expenses

Date when A/c rendered



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