

Writing report 21.2.61 Received London Helsingfors Port No. 7891
 In shops 78 8.1.1960 6.7.60
 No. of visits On vessel First date Last date
 held at Vasa

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

R.B. Name Gross tons

Managers Port of Registry Year Month
 Helsingfors By Wärtsilä-koncernen Ab, Sandvikens Skeppsdocka No 366

Engines made at Vasa By Wärtsilä-koncernen Ab, Wasa Mekaniska Verkstad Eng. No. 188 When 1960

By Blr. Nos. When

By When

Particulars of restricted service of ship, if limited for classification

Particulars of vegetable or similar cargo oil notation, if required

Is ship intended to carry petroleum in bulk?

Refrigerating machinery fitted? If so, is it for cargo purposes? Type of refrigerant

Refrigerating machinery compartment isolated from the propelling machinery space? Is the refrigerated cargo installation intended to be classed?

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 tick 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 Diesel Electric

INTERNAL RECIPROCATING ENGINES. Licence Name and Type No. Wärtsilä-Sulzer 9MH51/55

No. of cylinders per engine 9 Dia. of cylinders 510 mm stroke(s) 550 mm 2 or 4 stroke cycle 2 Single or double acting single

Minimum approved BHP per engine 3250 at 330 RPM of engine and RPM of propeller.

Responding MIP 5.3 (For DA engines give MIP top & bottom) Maximum cylinder pressure 65 kg/cm² Machinery numeral

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? -

Are 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 9 lever driven scavenge pumps (piston pumps)

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?

Stand-by or emergency pump or blower is fitted, state how driven 0.22 atm. No. of scavenge air coolers Scavenge air pressure at full

Are scavenge manifold explosion relief valves fitted?

THREE 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 steel Material of piston crowns cast steel Is the engine equipped to operate on heavy fuel oil? no

Lubricating medium for: Cylinders fresh water Pistons oil Fuel valves fresh water Overall diameter of piston rod for double acting engines -

Is the piston rod fitted with a sleeve? - Is welded construction employed for: Bedplate? no Frames? no Entablature? no Is the crankcase separated from the

Inside of pistons? no Is the engine of crosshead or trunk piston type? trunk Total internal volume of crankcase 8.5 m³ No. and total area of explosion relief

Are flame guards or traps fitted to relief devices? no Is the crankcase readily accessible? yes If not, must the engine be removed for

haul of bearings, etc? - Is the engine secured directly to the tank top or to a built-up seating? How is the engine started? by air

Can the engine be directly reversed? no If not, how is reversing obtained? No reversing required

Has the engine been tested working in the shop? yes How long at full power? 8 hours 9.6.60 CONFIRMED. 23.4.57 16.4.57 State barred speed range(s), if imposed

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 23.4.57

Working propeller For spare propeller Is a governor fitted? yes Is a torsional vibration damper or detuner fitted to the shafting? no

Are bearings positioned? Type No. of main bearings 11 Are main bearings of ball or roller

Distance between inner edges of bearings in way of crank(s) 570 mm Distance between centre lines of side cranks or eccentrics of opposed piston engines

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

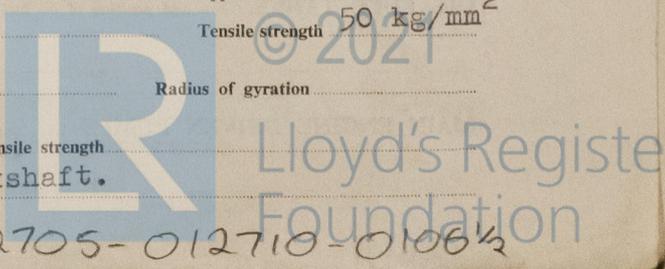
Diameter of journals 310 mm Diameter of crankpins 120 mm Centre 310 mm Breadth of webs at mid-throw 450 mm Axial thickness of webs 163 mm

Are dowel pins fitted? Crankshaft material Journals Pins Minimum 23.4.57

Radial thickness around eyeholes Are balance weights fitted? Total weight Tensile strength 50 kg/mm²

Diameter of flywheel 1030 mm Weight 455.5 kg Are balance weights fitted? Total weight Radius of gyration

Diameter of flywheel shaft Material Minimum approved tensile strength 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, 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 Diesel Engine has been constructed under Special Survey in accordance with the Rules, approved plans and Secretary's letters. Quality of materials and workmanship found good.

A. Sutor
 Engineer Surveyor to Lloyd's Register of

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 IF ANY

Is the installation a duplicate of a previous case? yes If so, state name of vessel _____
 Date of approval of plans for crankshaft 13.6.55 Straight shafting 15.5.57 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 FRIDAY 16 FEB 1962 Special Survey Fee Fmk. 267.000
 Decision See App 8382

Expenses Fmk. 12.800

Date when A/c rendered 4.10.60



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