

Rpt. 4b

ALPHA DIESEL A/S O/N 3371.

17735

Date of writing report 12-8-1959 Received London Port Aalborg No. ABG
Survey held at Frederikshavn No. of visits In shops 10 First date 15-5-59 Last date 14-7-59

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. Name To the order of Messrs. Centromor, Warsaw, Poland. Gross tons
Owners Managers Port of Registry Year Month
Hull built at Gdynia, Poland By Stocznia im Kommuony Paryskieij Yard No. B57/1-4 or B471/1-4 When
Main Engines made at Frederikshavn By Alpha Diesel A/S Eng. No. 8575 When 1959-7

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? yes, Class 3 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.

No. of main engines 1 No. of propellers 1 Brief description of propulsion system reversible oil engine, direct to propeller

MAIN RECIPROCATING ENGINES. Licence Name and Type No. Alpha Diesel A/S, type 498 R.

No. of cylinders per engine 8 Dia. of cylinders 290 mm stroke(s) 490 mm 2 or 4 stroke cycle 2 Single or double acting single

Maximum approved BHP per engine 960 at 310 RPM of engine and 310 RPM of propeller.

Corresponding MIP 6.46 kg/cm2 Maximum cylinder pressure 60 kg/cm2 Machinery numeral 192

Are the cylinders arranged in Vee or other special formation? no, vertical 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 cyls. No. and type of mechanically driven scavenge pumps or blowers per engine and how driven 1 off double acting piston pump driven by the main engine.

No. of exhaust gas driven scavenge blowers per engine none 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 none Scavenge air pressure at full power 0.115 kg/cm2 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 1 off Inlet none Exhaust none Starting 1 off Safety 1 off

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 fresh water Pistons lub. oil Fuel valves fuel oil 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 4.06 m3 No. and total area of explosion relief devices 4 - 720 cm2

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? -

Is the engine secured directly to the tank top or to a built-up seating? - How is the engine started? by 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? 6 hours. base 435 F

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 25-2-59 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 9 Are main bearings of ball or roller type? no

Distance between inner edges of bearings in way of crank(s) 385 mm 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 200 mm Diameter of crankpins Centre 195 mm Breadth of webs at mid-throw 370 mm Axial thickness of webs 105 mm

Side Pins cast steel Minimum Tensile strength 44 kg/mm2

Web shrunk, radial thickness around eyeholes 116 mm Are dowel pins fitted? no Crankshaft material Journals SMI Approved Tensile strength 44 kg/mm2

Web Diameter of flywheel 870 mm Weight 440 kg. Are balance weights fitted? yes GD2 56 kgm2 GD2 flywheel 180 kgm2

Diameter of flywheel shaft Material Minimum approved tensile strength GD2 flywheel flange 120 kgm2

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.

The engine has been built under Special Survey in accordance with the requirements of the Rules, the approved plans and the Secretary's letters.

The material used has been examined and tested as required by the Rules, and the workmanship is good.

Crank case explosion relief devices have been fitted.

On completion the engine was tested in the shop under full power working conditions and under manoeuvrings and found satisfactory.

Accordingly in my opinion this engine is eligible to be fitted in a vessel classed with this Society.

The air receivers will not be delivered by Messrs.

Alpha Diesel A/S.

The propeller equipment to be delivered by The Gdynia Shipyard.

*J. Müller*

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 connecting rods: Lloyds CPN 3379 GS 1-6-59. ABG

CRANKSHAFT ~~CRANKSHAFT~~ " " 4148 GS 15-5-59 ABG

FLYWHEEL SHAFT

THRUSTSHAFT " " 8775 GS 1-6-59 ABG

GEARING

INTERMEDIATE SHAFTS

SCREW AND TUBE SHAFTS

PROPELLERS

OTHER IMPORTANT ITEMS 8 cylinders: Lloyds test ABG 7 atm. GS 15-5-59.

8 cyl.covers: " " " 7 " GS 1-6-59

8 pistons: " " " 7 " GS 15-5-59 (1 off) GS 1-6-59 (7 off)

1 FW cooler:Lloyds test ABG 5 atm. GS 14-7-59. 1 HP comp.: Lloyds test ABG 60/7 atm. GS 15-5-59

1 lub.oil cooler:Lloyds test ABG 5 atm.MN 21-5-59. 2 plunger pumps:Lloyds test ABG 5 atm.MN 21-5-59

1 cooler for fuel valves: Lloyds test ABG 5 atm. GS 14-7-59.

Is the installation a duplicate of a previous case? yes If so, state name of vessel Eng. Nos. 8517-8534-8546 under same Yar Nos

Date of approval of plans for crankshaft 4-12-58 Straight shafting - Gearing - Clutch -

Separate oil fuel tanks Pumping arrangements Oil fuel arrangements

Cargo oil pumping arrangements Air receivers 4-12-58 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

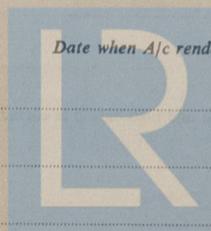
Oil fuel lines Donkey boiler supports Steering machinery Windlass

Date of Committee FRIDAY 28 OCT 1960 Special Survey Fee Kr. 1770,-

Decision See Rpt. 1. Expenses Kr. 40,-

Date when A/c rendered

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