

Rpt. 4b

ALPHA DIESEL A/S O/N 3476.

GRANSK

20. FEB. 1961

Date of writing report 13-7-60 Received London _____ Port Aalborg No. ABG 18403
 Survey held at Frederikshavn In shops 13 30-10-59 16-6-60 20 JUL 1960
 No. of visits _____ First date _____ Last date _____
 On vessel _____

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 Komuny Paryskiej Yard No. 13 When _____
 Main Engines made at Frederikshavn By Alpha Diesel A/S Eng. No. 8742 When 1960-6
 Gearing made at _____ By _____
 Donkey boilers made at _____ By _____ Blr. Nos. _____ When _____
 Machinery installed at _____ By _____ When _____

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. 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 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 B.
 No. of cylinders per engine 3 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 6.4 kg/cm² (For DA engines give MIP top & bottom) Maximum cylinder pressure 60 kg/cm² Machinery numeral 12
 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 cvls. No. and type of mechanically driven scavenge pumps or blowers per engine and how driven 1 off double acting piston pump driven by the 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 0.13 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 4.05 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? 4 1/2 hours.
 CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 23-7-59 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 _____
 If shrunk, radial thickness around eyeholes 116 mm Are dowel pins fitted? no Crankshaft material Journals SMI steel Approved _____
 Webs cast steel Tensile strength _____
 Diameter of flywheel 870 mm Weight 440 kg Are balance weights fitted? yes Total weight 56 kgm² Radius of gyration GD² flywheel 150 kgm²
 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 oil engine has been built under Special Survey in accordance with 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.

Crankcase 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 and propeller equipment will not be delivered by the engine builders.

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 3026 GS 31-3-60 ABG(1 off) 4646 GS 31-3-60 ABG(1 off) 1313 GS 11-4

CRANKSHAFT OR ROTORSHAFT : " " 5341 MN 2-4-60 ABG

FLYWHEEL SHAFT

THRUSTSHAFT : " " 4931 GS 12-5-60 ABG

GEARING

INTERMEDIATE SHAFTS

SCREW AND TUBE SHAFTS

PROPELLERS

OTHER IMPORTANT ITEMS cylinders: Lloyds test ABG 7 atm. GS 30-10-59(1 off) GS 10-11-59(1 off) GS 5-2-60

cyl. covers: " " " 7 " GS 3-5-60.

pistons: " " " 7 " GS 15-1-60.

ME lub. oil cooler: Lloyds test ABG 5 atm. GS 30-4-60. 2 piston pumps: Lloyds test ABG 5 atm. GS 5-2-60

fuel valve " : " " 5 " GS 16-6-60. 1 ME air. comp.: " " " 60/7 " GS 12-60

FW cent. cool. pump: " " " 5 " GS 31-3-60. 1 fuel oil pump: " " " 5 " GS 26-60

Is the installation a duplicate of a previous case? yes If so, state name of vessel Centromor, yard 11. Engine 8728.

Date of approval of plans for crankshaft 14-10-59 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:—

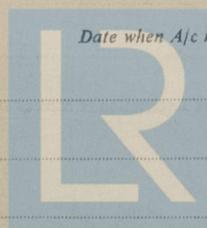
Fitting of stern tube _____ Fitting of propeller _____ Completion of sea connections _____ Alignment of crankshaft in main bearings _____

Engine checks & 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 12 MAY 1961 Special Survey Fee Rs. 1770.-

Decision See Grand over Expenses Rs. 85.-



Date when A/c rendered 15/7-1960
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