

Rpt. 4b

Date of writing report 20-6-63

Received London

Port of Gdańsk

No. GDK 013/63

Survey held at Poznań

In shops 28

First date 14-3-62

Last date 26-4-63

No. of visits

On vessel

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. 42711

Name "FRANCESCO NULLO"

Owners Polish Government

Managers Polish Ocean Lines

Port of Registry Gdańsk

Hull built at Gdynia

By Stocznia im. Komuny Paryskiej

Hull No. B 41/1

Year Month 1964-1

Main Engines made at Poznań

By Zakłady Przemysłu Metalowego

Eng. No. 001

When 1963-2

Gearing made at

By

Cyl. Nos. 00226-00231

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, Ice 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 Heavy Oil Engine direct coupled to line shafting

MAIN RECIPROCATING ENGINES. Licence Name and Type No. "H. Cegielski-Sulzer"- Type 6 RD 68

No. of cylinders per engine 6 Dia. of cylinders 680mm stroke(s) 1250mm 2 or 4 stroke cycle 2 Single or double acting single

Maximum approved BHP per engine 7,200 at 139 RPM of engine and 139 RPM of propeller.

Corresponding MIP 9.7kgs/cm² (For DA engines give MIP top & bottom) Maximum cylinder pressure 72kgs/cm² Machinery numeral 1440

Are the cylinders arranged in Vee or other special formation? no, in line 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 under sides of all six pistons

No. of exhaust gas driven scavenge blowers per engine 2 Where exhaust gas driven blowers only are fitted, can the engine operate with one blower out of action? yes

If a stand-by or emergency pump or blower is fitted, state how driven none No. of scavenge air coolers 2 Scavenge air pressure at full

power 0.81kgs/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 Inlet none Exhaust none 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? yes

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

Is the rod fitted with a sleeve? Is welded construction employed for: Bedplate? yes Frames? yes Entablature? Is the crankcase separated from the

underside of pistons? yes Is the engine of crosshead or trunk piston type? x-head Total internal volume of crankcase 65m³ No. and total area of explosion reliefdevices 6 with 7,500cm² Are flame guards or traps fitted to relief devices? yes Is the crankcase readily accessible? yes If not, must the engine be removed foroverhaul of bearings, etc? Is the engine secured directly to the tank top or to a built-up seating? tank-top How is the engine started? Compressed air at 30kgs/cm²

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

17/ Has the engine been tested working in the shop? yes How long at full power? 6 hours and 1 hour at 110% load

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 9-4-63 State barred speed range(s), if imposed

for working propeller none 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 7 Are main bearings of ball or roller

type? no Distance between inner edges of bearings in way of crank(s) 930mm 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 500 mm Diameter of crankpins 500 mm Breadth of webs at mid-throw 950mm Axial thickness of webs 315mm

If shrunk, radial thickness around eyeholes 222.5mm Are dowel pins fitted? no Crankshaft material Journals Forged Steel Minimum 52.6kgs/mm²Diameter of flywheel 2421mm Weight 5300 Kgs Are balance weights fitted? no Total weight Actual 53.8kgs/mm²Diameter of flywheel shaft 500 mm Material Forced steel Minimum approved tensile strength 52.0 kgs/mm²

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

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012751-012760-0023 1/4

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 Main Engine has been constructed under Special Survey in accordance with the Rules, approved plans and Secretary's letters. The quality of materials and workmanship are good.

On completion the engine was satisfactorily tested on the Makers' test bed during 6 hours developing 6,600 BHP at 135 R.P.M. and during one hour developing 7,200 BHP running at 139 R.P.M.

After the test run, the engine was opened up, all components examined and found good.

This Main Engine is eligible, in my opinion, to be classed with this Society after satisfactory installation and testing on board.

B. Langhammer
B. Langhammer
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.)

Piston- RODS:- K-2188/104, K-2214/124, K-4150/211, K-4171/200, K-2236/210, K-2215/125- all stamped: "BL 28.11.62"
(Connecting Rods K-2183/22, K-2208/120; K-2207/119; K-2206/118; K-2182/21; K-2184/23; -all stamped: "BL 28.11.62" LR POZ

CRANKSHAFT BY ROTORSHAFT LLOYD'S VNA No. 14986 RC 25.6.62 VZKG 15236 ✓

Piston Crowns:- 691-2-2; 739-2-1; 1221-4; 653-2-1; 694-2-2; 655-2-2; -all stamped: " BL.14.1.63 LR POZ

THRUSTSHAFT LLOYD'S VNR RC 25.6.62 15237 ✓

Cylinder Covers:- POZ 594, 1562/312; POZ 761, 2034/421; POZ 597, 1608/326; POZ 226, 2396/332; POZ 762, 2054/332; -all stamped: "BL LR 14.12.62"

Crosshead Pins:- K-2194/122, POZ 598, 1602/327- all stamped: "BL LR 14.12.62"
INTERMEDIATE SHAFTS K-2193/121, K-4063/33, K-4063/35, K-4063/36, K-2195/123; -all stamped: "BL 28.11.62"

SCREW AND TUBE SHAFTS

PROPELLERS

OTHER IMPORTANT ITEMS

Is the installation a duplicate of a previous case?

If so, state name of vessel

Sulzer Drwg No. 732.0.310.011

Date of approval of plans for crankshaft 16-8-62

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

28-12-62

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 19 JUN 1964

Special Survey Fee £ 27,805.-

£ 531-5-0

less 10%= £ 478-5-0

Decision

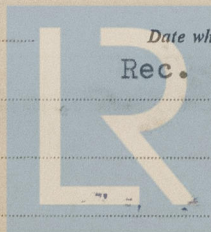
See Sdk Rpt 46.

Expenses £ 5,143.10

Date when A/c rendered

Rec. £ 12.8.63

£ amount Aug. 1963



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