

Rpt. 4b

Date of writing report 20-6-63

Received London

Port of Gdansk

No. GDK 013/63

Survey held at Poznan

No. of visits In shops 28

First date 14-3-62

Last date 26-4-63

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. 42711

Name "FRANCESCO NULLO"

Gross tons 9668

Owners Polish Government

Managers Polish Ocean Lines

Port of Registry Gdansk

Hull built at Gdynia

By Stocznia im. Komuny Paryskiej

Yard No. B 41/1

Year Month 1964-1

Main Engines made at Poznan

By Zaklady Przemyslu Metalowego "H.Cegielski-Poznan"

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

F.E. FROM ACCTS.	26/5/64
F.E. FROM ADMIN/F	5/6/64
PLANS RECD.	21/5
CERTS RECD.	
TO RPTS. DEPT.	

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 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

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 relief

devices 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 for

overhaul 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?

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 528 D

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 Centre 500 mm Breadth of webs at mid-throw 950mm Axial thickness of webs 315mm

If shrunk, radial thickness around eye-holes 222.5mm Are dowel pins fitted? no Crankshaft material Journals Forged Steel Minimum Actual Tensile strength 52.6kgs/mm2 53.8kgs/mm2 52.6kgs/mm2

Diameter of flywheel 2421mm Weight 5300 Kgs Are balance weights fitted? no Total weight Radius of gyration

Diameter of flywheel shaft 500 mm Material Forced steel Minimum Actual tensile strength 52.0 kgs/mm2

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

Lloyd's Register Foundation

01271-012760-00231

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 LR POZ"
 { 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 ~~BE ROTORSHAFT~~ LLOYD'S VNA No. 14986 RC 25.6.62 VZKG 15236 ✓

Piston Crowns:- FLYWHEEL SHAFT 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:- GEARING POZ 594, 1562/312; POZ 761, 2034/421; POZ 597, 1608/326; POZ 226, 2396/332; POZ 762, 2054/421; POZ 598, 1602/327- all stamped: "BL LR 14.12.62"

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

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 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 19 JUN 1964 Special Survey Fee z/ 27,805.-

Decision See Sdk Rpt 46. less 10%= £ 531-5-0 £ 478-5-0

Expenses z/ 5,143.10

Date when A/c rendered 29-6-63 (Acc)
 Rec. z/ amount 12.8.63
 £ amount Aug. 1963
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