

Rpt. 4b

Date of writing report 5th November, 1962

GDK 009/62

Received London 27 Port of Gdańsk No. 7-11-61 28-8-62
Survey held at Poznań No. of visits In shops - On vessel - First date - Last date -

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. Name Gross tons

Owners Djakarta LLOYD Managers Port of Registry Szczecin Stocznia Szczecińska B 454/6

Hull built at Poznań By Zakłady Przemysłu Metalowego Yard No. B 454/6 Year Month 1962 - 8

Main Engines made at Poznań By "H.Cegielski-Poznań" Eng. No. 025 Cyl. Nos. 00167-00172

Gearing made at By Gear No. Blr. Nos. When

Aux./donkey boilers made at By 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

If ship is to be classed for navigation in ice, state whether Class 1, 2 or 3 Ice Class 3

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 One No. of propellers One 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 76

No. of cylinders per engine 6 Dia. of cylinders 760mm stroke(s) 1550mm 2 or 4 stroke cycle 2 Single or double acting single

Maximum BHP per engine approved for this installation 7,800 at 119 RPM of engine and 119 RPM of propeller.

Corresponding MIP 7.8kgs/cm2 (For DA engines give MIP top & bottom) Maximum cylinder pressure 61kgs/cm2 Machinery numeral 1560

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? -

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 none

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 0.46kgs/cm2

Are scavenge manifold explosion relief valves fitted? yes

TWO AND FOUR STROKE ENGINES. Is the engine supercharged? yes Are the undersides of the pistons arranged as supercharge pumps? yes No. of exhaust gas driven blowers per engine 2

No. of supercharge air coolers per engine 2 Supercharge air pressure 0.46kgs/cm2 Can engine operate without supercharger? yes

No. of valves per cylinder: Fuel one Inlet none Exhaust none Starting one Safety one

Material of cylinder covers cast steel Material of piston crowns forged steel Is the engine equipped to operate on heavy fuel oil? yes

Cooling medium for: Cylinders fresh water Pistons lub oil 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 86.4m3 No. and total area of explosion relief devices 6 with 19,380cm2

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? compressed air at 30kg/cm2

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

Has the engine been tested working in the shop? yes How long at full power? 4 hours and one hour at 110% load

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 13-12-61 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 7 Are main bearings of ball or roller type? no

Distance between inner edges of bearings in way of crank(s) 1010mm Distance between centre lines of side cranks or eccentrics of opposed piston engines -

Crankshaft type: Built, semi-built, solid. (State which) Semi-built Centre 550mm

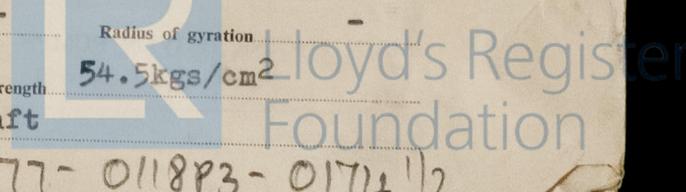
Diameter of journals 550mm Diameter of crankpins 550mm Breadth of webs at mid-throw 899 mm Axial thickness of webs 340mm

If shrunk, radial thickness around eyeholes 252.5mm Are dowel pins fitted? no Crankshaft material: Journals B.O.H. Steel Minimum 51.3kg/mm2 Actual 53.8kg/mm2 Webs Steel Tensile strength 51.3kg/mm2

Diameter of flywheel 2390 mm Weight 1300 kgs Are balance weights fitted? no Total weight - Radius of gyration -

Diameter of flywheel shaft 550mm Material B.O.H. Steel actual Minimum 54.5kgs/cm2

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



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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.

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 satisfactory tested on the Maker's test bed during 4 hours on full load and 1 hour overload. 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 fitted in a ship intended to be classed with this Society.

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-1885/155; K-1122/229; K-2011/222; K-1123/230; K-1884/154; K-1143/228; all stamped POZ BL 14.6.62
 CON-RODS: -K-1943/172; K-1782/262; K-1777/265; K-1935/113; K-1893/114; K-2100/271; all stamped POZ BL 18 or 27.4.
 CRANKSHAFT OR ROTORS: LLOYD'S VNA 14808 WMS 15.2.62 No. 023
 PISTON-CROWNS: K-2152/282; K-2051/269; K-2051/265, K-2151/281; K-2155/285; K-2024/208; all stamped POZ BL 12.4.62 LR
 THRUSTSHAFT: LLOYD'S VNA 14809 WMS 15.2.62 No. 023
 CYLINDER COVERS: -369-588/139; 374-663/151; 288-164/43; 366-546/130; 283-88/19; 367-574/132; all stamped POZ BL 27.6.62 LR
 CROSSHEAD PINS: - K-1725/44; K-1833/48; K-1934/102; K-1936/194; K-1727/46; K-1937/195; all stamped POZ BL 12.4.62 LR
 SCREW AND TUBE SHAFTS
 PROPELLERS
 OTHER IMPORTANT ITEMS

Is the installation a duplicate of a previous case? If so, state name of vessel
 Date of approval of plans for crankshaft 12-5-60 Straight shafting Gearing Clutch
 Separate oil fuel tanks Pumping arrangements Oil fuel arrangements
 Cargo oil pumping arrangements Air receivers Aux. 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 24-8-62
 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 8 JAN 1965
 Decision See Rpt.-1. Special Survey Fee Construction of Engine £ 563 -10%= £ 50
 Trav'g Expenses zX 4,820.20

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 31st August, 1965
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