

Rpt. 4b

Date of writing report 5th November, 1962

GDK 009/62

Survey held at Poznań

Received London

27

Port of Gdańsk

No.

No. of visits

In shops

7-11-61

28-8-62

On vessel

First date

Last date

FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. Name

Owners Djakarta LLOYD

Managers

Gross tons

Hull built at Szczecin

By Stocznia Szczecińska

Port of Registry

Year Month

Main Engines made at Poznań

By Zakłady Przemysłu Metalowego
"H.Cegielski-Poznań"

Yard No. B 454/6

When

Gearing made at

By

Eng. No. 025

When 1962 - 8

Cyl. Nos. 00167-00172

Gear No.

When

Aux./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

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

Is ship an oil tanker?

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 all other relevant particulars must be given and the port and report number should be stated.

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 86.4m³No. 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

Diameter of journals 550mm

Diameter of crankpins 550mm

Centre 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

Webs Steel

Minimum 51.3kg/mm²Actual 53.8kg/mm²Tensile 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

011877-011883-017412

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
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 ROTOR SHAFT 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
THRUST SHAFT 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

Decision

See Rpt. 1.

Special Survey Fee

Construction of Engine £ 563 -10%= £ 507

Trav'g

Expenses

zX 4,820.20



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Date when A/c rendered

31st August, 1965

Lloyd's Register
Foundation