

Rpt. 4b

0.6401

236

Date of writing report 21.10.58.

Received London 28 OCT 1958

Port MANCHESTER.

No. 18617

Survey held at MANCHESTER.

In shops Eight.

21.5.58.

Last date 20.8.58.

No. of visits On vessel

First date

Last date

# FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

No. in R.B. Name 660 DWT Cargo Vessel.

Gross tons

Owners Gdansk.

Managers Stocznia Gdansk.

Port of Registry

Year Month

Hull built at Openshaw.

By Crossley Brothers Ltd.

Yard No. B51/151011.

When

Contract 12030.

When 1958.

Eng. No. 148441.

Main Engines made at

By

Blr. Nos.

When

Gearing made at

By

When

Donkey boilers made at

By

Machinery installed at

By

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?

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 Direct Drive to Propeller.

MAIN RECIPROCATING ENGINES. Licence Name and Type No. HRN8/32 Heavy Oil.

No. of cylinders per engine 8. Dia. of cylinders 10 1/2". stroke(s) 13 1/2". 2 or 4 stroke cycle 2. Single or double acting Single.

Maximum approved BHP per engine 680 at 340. RPM of engine and 340. RPM of propeller.

Corresponding MIP 100 psi. (For DA engines give MIP top & bottom) Maximum cylinder pressure 950 psi. Machinery numeral 136.

Are the cylinders arranged in Vee or other special formation? 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. No. and type of mechanically driven scavenge pumps or blowers per engine and how driven One D.A. 3 Tier Scavenge Pump Driven From Crankshaft.

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 3 psi. 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 One. Inlet - Exhaust - Starting One. Safety One.

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 Water. Pistons Lub.Oil. Fuel valves - 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 78 cu.ft. No. and total area of explosion relief devices 4 - 55 in.². 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? 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? 6 Hours.

CRANK & FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system 5.11.58 State barred speed range(s), if imposed for working propeller 120-145 RPM for spare propeller Is a governor fitted? Is a torsional vibration damper or detuner fitted to the shafting?

Where positioned? Type No. of main bearings 9. Are main bearings of ball or roller type? Plain. Distance between inner edges of bearings in way of crank(s) 14 7/8". Distance between centre lines of side cranks or eccentrics of opposed piston engines

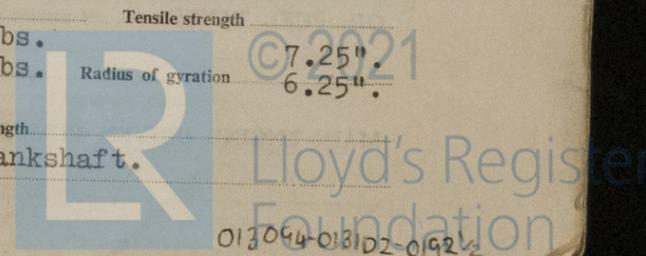
Crankshaft type: Built, semi-built, solid. (State which) Solid. Diameter of journals 7 1/2". Diameter of crankpins Centre 7 1/2". Side Breadth of webs at mid-throw 9 1/4". Axial thickness of webs 3.23/32".

If shrunk, radial thickness around eyeholes Are dowel pins fitted? Crankshaft material ( Pins Journals O.H.Steel. Minimum Approved 35 tpsi.Min. Webs Tensile strength

Diameter of flywheel 37 1/2". Weight 950 lbs. Are balance weights fitted? Yes. Total weight 174 lbs. Radius of gyration 6.25".

Diameter of flywheel shaft. Material Minimum approved tensile strength. Flywheel Bolted to Crankshaft.

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



013094-018102-0192



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 engine has been constructed under Special Survey of tested materials and in accordance with the Rules, approved plans and Secretary's letters. The material is sound and, as far as can be seen, free from defects. The workmanship is good.

The engine, coupled to a dynamometer, was tested at the Engine Builders' Works under the following conditions of loading - 6 hours 100% engine rating, 1 hour 10% overload, governing, manoeuvring, 1/2 hour astern.

Attach hereto Shaft Cert. F.4884.

Con. Rod Certs. ~~XXXXXX~~C.35421.

Thrust Shaft Cert. F.4827.

*L. J. Hauser*

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 Y.87, Y.91, Y.84, Z.32(2), Z.20, Z.17, Z.30 L.V.H. 24.7.58.

CRANKSHAFT OR ROTORSHAFT 3055 LVH 21.5.58.

FLYWHEEL SHAFT

THRUSTSHAFT 5883 LVH 15.4.58.

GEARING

INTERMEDIATE SHAFTS

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

Straight shafting

Gearing

Clutch

Separate oil fuel tanks

Pumping arrangements

Oil fuel arrangements

Cargo oil pumping arrangements

Air receivers

WRE.1051/35-36.

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 17.6.58.

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 15 JAN 1960

Special Survey Fee

£57.10.0d.

Decision

*See Rpt. 1*

Expenses

£1.15.0d.

Date when A/c rendered

22.10.58

