

pt. 4b

of writing report 8/8/1958.  
Ship held at MANCHESTER.

Received London 12 AUG 1958  
Port MANCHESTER.  
No. 18507  
In shops 6  
First date 21.4.58.  
Last date 4.7.58.  
No. of visits  
On vessel

## FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

Name 660 DWT Cargo Vessel. KRD-Y NIA Gross tons  
in R.B.  
Managers  
Port of Registry  
Year Month  
By Stocznia Gdansk  
Yard No. B51/151010. When  
Contract 12029  
By Crossley Bros. Ltd., Eng. No. 148440 When 1958  
By  
Blr. Nos. When  
By When  
Machinery installed at

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 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 Direct drive to propeller.

MAIN RECIPROCATING ENGINES. Licence Name and Type No. HRN8/34 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 22.8.58

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

Corresponding MIP 100 p.s.i. (For DA engines give MIP top & bottom) Maximum cylinder pressure 950 p.s.i. 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 P.S.I. 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 C.I. Material of piston crowns C.I. 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<sup>2</sup> 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.

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 &amp; FLYWHEEL SHAFTING. Date of approval of torsional vibration characteristics of the propelling machinery system State barred speed range(s), if imposed

for working propeller 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 1/4" 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 Journals OH Steel. Approved 35 t.p.s.i. min.

Web Tensile strength 174 lbs 7.25" Diameter of flywheel 37 1/2" Weight 950 lbs. Are balance weights fitted? Yes Total weight 33 lbs. Radius of gyration 6.25"

Diameter of flywheel shaft Material Minimum approved tensile strength

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

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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 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 Builder's works under the following conditions of loading - 6 hours 100% engine rating, 1 hour 10% overload, governing, manoeuvring,  $\frac{1}{2}$  hour astern.

Attached hereto Shaft Cert. C.14966.

Connecting Rod Certs. C.35421, C.35411.

Thrust Shaft Cert. F.4827.

*Annandale*

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.91 (2), Y.84 (2), Y.85 (2), Y.87, Y.82.

CRANKSHAFT OR ROTORSHAFT 5867 LVH 5/5/58. Bhm.

FLYWHEEL SHAFT

THRUSTSHAFT 5883 LVH. 21/3/58.

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

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 16.5.58.

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 13 NOV 1959

Special Survey Fee £57.10. Od.

Decision

*See Rpt. 1.*

Expenses

£ 1.15. Od.

Date when A/c rendered

9/8/58



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