

st. 4b  
workmanship as  
ed as fully as possible of writing report

is in  
y held at  
The  
1.8369.0.7036

Received London  
In shops  
No. of visits  
On vessel  
Port  
Köln  
First date  
10.4.63  
Last date  
5.6.63  
No. 843

11.0 OCT 1963

# FIRST ENTRY REPORT ON INTERNAL COMBUSTION MACHINERY

in R.B. Name Gross tons

propellers Managers Port of Registry Year Month

ceive built at Elmshorn By D.W. Kremer & Sohn Yard No. 1101 When

Engines made at Köln-Deutz By Klöckner-Humboldt-Deutz AG Eng. No. 3529667-74 When 6.63

ing made at By

key boilers made at By Blr. Nos. When

inery installed at By When

culars of restricted service of ship, if limited for classification

culars of vegetable or similar cargo oil notation, if required

p to be classed for navigation in ice? Is ship intended to carry petroleum in bulk?

frigerating machinery fitted? If so, is it for cargo purposes? Type of refrigerant

e refrigerating machinery compartment isolated from the propelling machinery space? Is the refrigerated cargo installation intended to be classed?

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  
ing 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  
rt need not be repeated below, but the port and report number should be stated.

egister of Ship of main engines two No. of propellers Brief description of propulsion system

AIN RECIPROCATING ENGINES. Licence Name and Type No. one airless injection heavy oil SBA8M 517

of cylinders per engine 8 Dia. of cylinders 130 mm stroke(s) 170 mm 2 or 4 stroke cycle 4 Single or double acting single

imum approved BHP per engine 230 at 1350 RPM of engine and RPM of propeller.

responding MIP 10.20 kg/cm<sup>2</sup> (For DA engines give MIP top & bottom) Maximum cylinder pressure 70 kg/cm<sup>2</sup> Machinery numeral 46

the cylinders arranged in Vee or other special formation? no If so, number of crankshafts per engine

O STROKE ENGINES. Is the engine of opposed piston type? If so, how are upper pistons connected to crankshaft?

ne exhaust discharged through ports in the cylinders or through valve(s) in the cylinder covers? No. and type of mechanically driven scavenge pumps or blowers per

ne and how driven

of exhaust gas driven scavenge blowers per engine Where exhaust gas driven blowers only are fitted, can the engine operate with one blower out of action?

stand-by or emergency pump or blower is fitted, state how driven No. of scavenge air coolers Scavenge air pressure at full

er Are scavenge manifold explosion relief valves fitted?

UR STROKE ENGINES. Is the engine supercharged? yes Are the undersides of the pistons arranged as supercharge pumps? no No. of exhaust gas driven blowers per

ine one No. of supercharge air coolers per engine none Supercharge air pressure 360 mm Hg at full load Can engine operate without supercharger? yes

VO & FOUR STROKE ENGINES-GENERAL. No. of valves per cylinder: Fuel 1 Inlet 1 Exhaust 1 Starting none Safety none

terial of cylinder covers cast iron Material of piston crowns aluminium Is the engine equipped to operate on heavy fuel oil? no

ne No. ling medium for :Cylinders water Pistons Fuel valves Overall diameter of piston rod for double acting engines

e rod fitted with a sleeve? no Is welded construction employed for: Bedplate? no Frames? no Entablature? no Is the crankcase separated from the

rside of pistons? no Is the engine of crosshead or trunk piston type? trunk Total internal volume of crankcase 240 litres. No. and total area of explosion relief

es none Are flame guards or traps fitted to relief devices? Is the crankcase readily accessible? no If not, must the engine be removed for

haul of bearings, etc? yes Is the engine secured directly to the tank top or to a built-up seating? How is the engine started? electrically

gs the engine be directly reversed? no If not, how is reversing obtained? Reintjes Reversing Gear Type Wuö 180 - 3.5:1

ngements the engine been tested working in the shop? yes How long at full power? 6 hours

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

308. working propeller not to be opened below 500 rpm For spare propeller Is a governor fitted? yes Is a torsional vibration damper or detuner fitted to the shafting? yes

100. e positioned? opposite flywheel Type friction damper No. of main bearings 9 Are main bearings of ball or roller

no Distance between inner edges of bearings in way of crank(s) 137 mm Distance between centre lines of side cranks or eccentrics of opposed piston engines

40. kshaft type: Built, semi-built, solid. (State which) solid

eter of journals 90 mm Diameter of crankpins Centre 85 mm Breadth of webs at mid-throw 130 mm Axial thickness of webs 32.5 mm

Side Crankshaft material Journals Cr. steel Minimum Y.P. 70 kg/mm<sup>2</sup>

656 d trunk, radial thickness around eyeholes Are dowel pins fitted? no Webs Tensile strength 90 kg/mm<sup>2</sup>

eter of flywheel 520 mm Weight 85 kg Are balance weights fitted? no Total weight Radius of gyration

eter of flywheel shaft Material Minimum approved tensile strength

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

011628-011635-0019 1/2

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sonal vibration characteristics (strike out words not applicable)

X Klöcker-Hunzler, Deutz  
Akklinges, Lloyd's Register  
Mühlmann, Deutz  
011628-011635-00192/2



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 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 is in accordance with the Secretary's letters, approved plans and Rules Requirements. The materials and workmanship are good and the engine, when tested in the shops under full and overload conditions was found to function satisfactorily. The governor test were also found satisfactory. This engine, in my opinion, is suitable for main propulsion purposes and when satisfactorily installed and reported will be eligible to receive the notation \* LMC (with date).

*H. Droge*  
Engineer Surveyor to Lloyd's Register of Ships

PARTICULARS OF IDENTIFICATION MARKS ((Including Port of origin) of important Forgings and Castings. (Copies of certificates should be forwarded with report.)

Conn. RODS LLOYD'S KLN. 211/9-16 K.B. 20.3.63

CRANKSHAFT ~~OR ROTOR SHAFT~~ LLOYD'S DSF 518 H.S. 26.2.63 ✓

FLYWHEEL SHAFT -

THRUST SHAFT -

GEARING -

INTERMEDIATE SHAFTS -

SCREW AND TUBE SHAFTS -

PROPELLERS -

OTHER IMPORTANT ITEMS supercharger: G.Fi. - 6.3.63 LR - 27 183.

Is the installation a duplicate of a previous case? yes If so, state name of vessel KLN. Rpt. 816, Engine No.

Date of approval of plans for crankshaft 15.9.62 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 crank shaft in main bearings -

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 - 1 NOV 1963

Decision *Su Han 12987*

Special Survey Fee DM. 308.-

Runn. Test DM. 100.-

Expenses DM. 40.-

Date when A/c rendered KLN. 6657 d



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