

# REPORT ON OIL ENGINE ~~ELECTRIC GENERATOR SETS~~ No. 297.

Received at London Office DEC 30 1938

Date of writing Report 15.12. 1938 When handed in at Local Office 22.12. 1938 Port of Düsseldorf

No. in Survey held at Cologne Reg. Book. Date, First Survey 11.9.37 Last Survey 15.12. 1938 Number of Visits 6

Single  
Twin  
Triple  
Quadruple  
Screw vessel

"PETRO"

Tons { Gross  
Net

Built at Port Glasgow By whom built Ferguson Brothers Yard No. 341 When built

Oil Engines made at Cologne By whom made Humboldt-Deutzmotoren A.G. Eng. 567888 Contract No. 567889 When made 1938

Generators made at By whom made Contract No. When made

No. of Sets 2 aux. Engine Brake Horse Power 2x8 Nom. Horse Power as per Rule 2x23 Total Capacity of Generators Kilowatts.

OIL ENGINES, &c.—Type of Engines Heavy oil engine MAH 714 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 50 kg/cm<sup>2</sup> Diameter of cylinders 100 mm Length of stroke 140mm No. of cylinders 1 No. of cranks 1

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 252 mm 195 mm Is there a bearing between each crank (yes)

Revolutions per minute 1250 Flywheel dia. 2x650 mm 2x600 mm Weight 2x64 kg 2x45 kg Means of ignition sol. inject Kind of fuel used on test bed gas oil

Crank Shaft, dia. of journals as per Rule 60 mm Crank pin dia. 62 mm Crank Webs Mid. length breadth 95 mm Thickness parallel to axis 39 mm shrunk Thickness around eyehole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners

Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication forced

Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material

Cooling Water Pumps, No. none Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size 1 pump driven by an eccentric capacity 43 lts/h.

Air Compressors, No. No. of stages Diameters Stroke Driven by

Scavenging Air Pumps, No. Diameter Stroke Driven by

AIR RECEIVERS:—Have they been made under Survey State No. of Report or Certificate

Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces

Is there a drain arrangement fitted at the lowest part of each receiver

High Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

Starting Air Receivers, No. Total cubic capacity Internal diameter thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

ELECTRIC GENERATORS:—Type

Pressure of supply volts. Full Load Current Amperes. Direct or Alternating Current

If alternating current system, state the periodicity Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on and off

Generators, are they compounded as per rule is an adjustable regulating resistance fitted in series with each shunt field

Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Are the lubricating arrangements of the generators as per Rule

If the generators are under 100 kw. full load rating, have the Makers supplied certificates of test and do the results comply with the requirements

If the generators are 100 kw. or over have they been built and tested under survey

PLANS. Are approved plans forwarded herewith for Shafting 214038A 1.10.37 Receivers Separate Tanks

SPARE GEAR As per Rules

2/4  
9/1/39

The foregoing is a correct description,

Klöckner-Humboldt-Deutz AG

*[Signature]*

Manufacturer.



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Dates of Survey while building { During progress of work in shops - - ) 11.9.- 10.12.- 14.12.37.- 8.12.- 14.12.- 15.12.38.  
 { During erection on board vessel - - - )  
 Total No. of visits

Liner: 8.12.-15.12.

Dates of Examination of principal parts—Cylinders 8.12. Covers 8.12.-15.12. Pistons 15.12. Piston rods

Connecting rods 10.12.-14.12.37-15.12. Crank ~~xxxxxxx~~ shafts 11.9.37-8.12.-15.12.38 Intermediate shafts

Crank and Flywheel shafts, Material Mangan Steel Identification Marks Lloyd-s 3627 H.B.8.12.38.

Intermediate shafts, Material connect.rods Identification Marks 139 H.B.

Identification marks on Air Receivers

Is this machinery duplicate of a previous case  yes If so, state name of vessel Messrs. Victoria Shipyards Yard 237 Düsseldorf Report 144.

General Remarks (State quality of workmanship, opinions as to class, &c.)

This auxiliary engine has been constructed under special survey in accordance with the Society's Rules and Regulations as well as with the approved plan and the instruction thereto. The material used in the construction was found to be good and the workmanship satisfactory. This auxiliary engine has been tested on Maker's test bed in the presence of the undersigned under full load during 7 hours and 10% overload during 1 hour and was found working satisfactorily during these trials. After trials all working parts have been opened out for examination and were found in good condition.

The main engine is also being built by Messrs. Humboldt-Deutzmotoren.

A copy of this report has been sent to Glasgow.

*This set has been fitted in the vessel at Port Glasgow.*  
*J. King*  
 23/6/39.

The amount of Fee ... .. £ : : When applied for, ..... 19.....  
 Travelling Expenses (if any) £ : : When received, ..... 19.....

*J. King*  
 Surveyor of Lloyd's Register of Shipping.

TUE 27 JUN 1939

Committee's Minute

Assigned

*See Book No. 76. 20771*



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