

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Received at London Office OCT 21 1937

Date of writing Report 15.10. 1937 When handed in at Local Office 19.10. 1937 Port of Düsseldorf

No. in Survey held at Cologne
Reg. Book.

Date, First Survey 30.7.37. Last Survey 14.10. 1937.

Number of Visits 7

Single
on the Twin } Screw vessel
Triple
Quadruple }

M.S. "MARALI"

Tons { Gross
Net

Built at Westerbroek

By whom built N.V. Smit Zn.

Yard No. 653 When built 1937.

Owners

Port belonging to

Oil Engines made at Cologne

By whom made Humboldt-Deutzmotoren AG Contract No. 473606-72 yard # 653 When made 1937.

Generators made at 2 sets fitted in Hamburg By whom made each

Contract No. 4736102-24 yard # 653 When made

No. of Sets 4 Aux. Engine Brake Horse Power 710 Nom. Horse Power as per Rule 2.86 Total Capacity of Generators (stock engines) Kilowatts.

OIL ENGINES, &c.—Type of Engines Heavy Oil Engines M.A.H. 716 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 50 kgs/cm² Diameter of cylinders 120 mm Length of stroke 160 mm No. of cylinders 1 No. of cranks 1

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 296 mm each Is there a bearing between each crank yes

Revolutions per minute 1000 Flywheel dia. 2x730 mm Weight 115 kgs./ Means of ignition solid inj. Kind of fuel used on test bed gas oil

Crank Shaft, dia. of journals as per Rule 70 mm as fitted Crank pin dia. 75 mm Crank Webs Mid. length breadth 100 mm Thickness parallel to axis 42 mm shrunk Thickness around eyehole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as fitted Thickness of cylinder liners 15 mm

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 no

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 37 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 all terminals accessible, clearly marked, and furnished with sockets

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 214039 28.11.35 Receivers

Separate Tanks

SPARE GEAR As per Rules.

The foregoing is a correct description,

Humboldt-Deutzmotoren

Aktiengesellschaft

Manufacturer.



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011079-011088-0155

30.7., 4.10., 7.10., 9.10., 12.10., 13.10., 14.10. 1937.

Dates of Survey while building { During progress of work in shops - - }
 { During erection on board vessel - - - }
 Total No. of visits

Liners: 4/10., 7/10, 12/10, 14/10
 4/10, Covers 4/10, 7/10, 12/10, 14/10, Pistons 7/10, 12/10, 14/10, Piston rods

Dates of Examination of principal parts—Cylinders

Connecting rods 30/7, 7/10, 12/10, 14/10 Crank ~~and~~ shafts 4/10, 12/10, 7/10, 14/10 Intermediate shafts

Crank and Flywheel shafts, Material Manganese Steel Identification Mark LLOYD'S 2677 H.B. 4.10.37 2676 2678 2675 2878 2879 2886 2887

Intermediate shafts, Material Identification Marks See Lh. 3-6-38.

Identification marks on Air Receivers

Is this machinery duplicate of a previous case yes If so, state name of vessel R. & W. Hawthorn Leslie & Co., Yard No. 603 (Düsseldorf Rept.No.108)

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

These auxiliary engines have been constructed under special survey in accordance with the Society's Rules and Regulations as well as with the approved plans and the instructions thereto. The material used in the construction was found to be good and the workmanship satisfactory. The auxiliary engines have been tested on Maker's test bed in the presence of the undersigned under full load and 10 % overload during 8 hours and ~~was~~ were 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 has already been built by Messrs. Humboldt-Deutzmotoren A.G., The copy of this report was forwarded to the Rotterdam Surveyors.

The amount of Fee ... £

Travelling Expenses (if any) £

When applied for,

When received,

Committee's Minute

Assigned

See Gro. J.E. 5

H. Brüggemann
 Surveyor to Lloyd's Register of Shipping.



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