

Auxiliary

Hamburg Report Nr.

Rpt. 4c.

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 275

Comm. 662044

Received at London Office

JUL -7 1938

Date of writing Report 30. 6. 38 When handed in at Local Office 6.7. 38 Port of Düsseldorf

No. in Survey held at Cologne  
Reg. Book.

Date, First Survey 15.8. 1937

Last Survey 28. 6. 1938

Number of Visits 10

on the <sup>Single</sup>  
~~Triple~~ Screw vessel  
~~Quadruple~~

"ELSA ESSBERGER"

Tons { Gross 6103  
Net 3476

Built at HAMBURG

By whom built Howaldtswerke A.G.

Yard No. 765 When built 1938

Owners JOHN T. ESSBERGER.

Port belonging to HAMBURG

Oil Engines made at Cologne

By whom made Humboldt-Deutzmotoren

Contract No. 474369 When made 1938

Generators made at NÜRNBERG

By whom made SIEMENS-SCHUCKERT WERKE

Contract No. 72 When made 1938

No. of Sets 1. Engine Brake Horse Power 180 Nom. Horse Power as per Rule 51.5 Total Capacity of Generators 120 Kilowatts.

OIL ENGINES, &c.—Type of Engines Heavy Oil Engine V 4 M 345 2 or 4 stroke cycle 4 Single or double acting single  
 Maximum pressure in cylinders 50 kgs/cm<sup>2</sup> Diameter of cylinders 280 mm Length of stroke 450 mm No. of cylinders 4 No. of cranks 4  
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 307.5 mm Is there a bearing between each crank yes  
 Revolutions per minute 350 Flywheel dia. 1500 mm Weight 2700 kgs Means of ignition sol. inject Kind of fuel used on test bed gas oil  
 Crank Shaft, dia. of journals as per Rule 190 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 325 mm Thickness parallel to axis  
 as fitted 190 mm Mid. length thickness 70 mm shrunk Thickness around eyehole  
 Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners  
 as fitted 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 water cooled or lagged with non-conducting material water cooled  
 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 tooth wheel pump capacity 40 lts/min. at 1400 rev. per min.  
 Air Compressors, No. one No. of stages two Diameters Stroke Driven by engine itself  
 Scavenging Air Pumps, No. Diameter Stroke Identif. marks: B.N. 331 N.S. 2.2.38.

AIR RECEIVERS:—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. one Total cubic capacity 250 lts. Internal diameter 450 mm thickness 12 mm

Seamless, lap welded or riveted longitudinal joint lap welded Material S.M. Steel Range of tensile strength 38-44 Working pressure by Rules 30 kg/cm<sup>2</sup>

ELECTRIC GENERATORS:—Type Siemens-Schuckert 450 2392 N G.V. 323 D1

Pressure of supply 230 volts. Full Load Current 520 Amperes. Direct or Alternating Current direct

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 yes

Generators, are they compounded as per rule yes is an adjustable regulating resistance fitted in series with each  
shunt field yes Are all terminals accessible, clearly marked, and furnished with sockets yesare they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched yes Are the lubricating arrangements of the generators as per Rule yes  
If the generators are under 100 kw. full load rating, have the makers supplied certificates of test yes and do the results comply with the requirements approved.

If the generators are 100 kw. or over have they been built and tested under survey yes Ident. marks: LLOYD'S 54/II H.K.S. 16.3.38.

PLANS. Are approved plans forwarded herewith for Shafting 212501 25.2.35 Receivers E 729 3.12.32. Separate Tanks  
(If not, state date of approval)

SPARE GEAR As per Rules

The foregoing is a correct description,  
Humboldt-Deutzmotoren

Manufacturer.



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275  
Dates of Survey while building { During progress of work in shops - - 15.8., 11.3., 24.3., 29.3., 23.5., 30.5., 1.6., 15.6., 27.6., 28.6.19  
During erection on board vessel - - -  
Total No. of visits

Liners 23/5, 1/6, 28/6.

Dates of Examination of principal parts—Cylinders 30/5, 1/6. Covers 1/6, 28/6 Pistons 28/6 Piston rods

Connecting rods 11/3, 29/3, 28/6. Crank ~~and~~ shaft 24/3, 30/5, 28/6. Intermediate shaft

Crank and Flywheel shafts, Material S.M. Steel

Identification Mark LLOYD'S 3096 H.B. 24.3.38.

Intermediate shafts, Material

Identification Marks

Is this machinery duplicate of a previous case yes If so, state name of vessel My. De Noord, Yard No. 571

Düsseldorf Report No. 267

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 instructions thereto. The material used in the construction was found to be good and the workmanship satisfactory.

This auxiliary engine has been tested on Makers' test bed in the presence of the undersigned under full load during 8 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.

A copy of this report has been forwarded to the Hamburg Office.

#### Identification marks of Air Receiver

No. 865

LLOYD'S TEST

60 atm

W.P. 30 atm

H.B. 13.8.37

The amount of Fee ...

RM 150.-

When applied for,

6.7.1938

Düsseldorf  
4.10.1938

Travelling Expenses (if any)

RM 20.-

When received,

25.8.1938

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

Committee's Minute

FRI 14 OCT 1938

Assigned

See minute on H. Mach



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