

Rpt. 4c.

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 254

Comm. 683582.

Date of writing Report 24.5.1938 When handed in at Local Office 7.6.1938 Port of

Received at London Office  
Düsseldorf

JUN 10 1938

No. in Survey held at Cologne  
Reg. Book.

Date, First Survey 9.11.37.

Last Survey 24.1.1938

Number of Visits 6

Single  
on the Twin  
Triple  
Quadruple  
Screw vessel

SURIGAO

Tons { Gross  
Net

Built at Hongkong

By whom built Hongkong &amp; Whampoa Dock Co. Yard No. 782 When built 1938

Owners

Port belonging to

Oil Engines made at Cologne

By whom made Humboldt-Deutzmotoren A.G.

Eng. 480311-12

Contract No.

When made 1938

Generators made at

By whom made

Contract No.

When made

No. of Sets 1 Aux-Engine Brake Horse Power 27

Nom. Horse Power as per Rule 7.7

Total Capacity of Generators

Kilowatts.

## OIL ENGINES, &amp;c.

Type of Engines

Heavy oil engine A2M 220

2 or 4 stroke cycle 4

Single or double acting

single

Maximum pressure in cylinders 50 kg/cm<sup>2</sup>

Diameter of cylinders 170 mm

Length of stroke 200 mm

No. of cylinders 2

No. of cranks 2

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 191 mm

Is there a bearing between each crank yes

Revolutions per minute 750

Flywheel dia. 850 mm

Weight 1420 kg

Means of ignition sol. inject.

Kind of fuel used on test bed gas oil

Crank Shaft, dia. of journals

as per Rule 120 mm

Crank pin dia. 110 mm

Crank Webs

Mid. length breadth 150 mm

Thickness parallel to axis

Mid. length thickness 42,5 mm

Thickness around eyehole

Flywheel Shaft, diameter

as per Rule

Intermediate Shafts, diameter

as per Rule

Thickness of cylinder liners 16 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. no

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 24 ltrs/min. at 990 r.p.m.

Air Compressors, No.

No. of stages

Diameters

Stroke

Driven by

Scavenging Air Pumps, No.

Diameter

Stroke

Driven by

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.

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

209856 6.12.37.

Receivers

Separate Tanks

SPARE GEAR as per Rules

The foregoing is a correct description,

Humboldt-Deutzmotoren

Aktiengesellschaft

Manufacturer.



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Lloyd's Register  
Foundation

11075-0105

Dates of Survey while building { During progress of work in shops - - 9.11.- 15.11.- 19.11.- 24.11.- 8.1.- 24.1.  
During erection on board vessel - - -  
Total No. of visits \*  
Liners: 19.11.- 24.1.  
19.11. 24.1.  
Dates of Examination of principal parts - Cylinders 19.11.- 24.1. Covers 19.11.- 24.1. Pistons 24.1. Piston rods  
Connecting rods 9.11.-24.11.- 24.1. Crank and Flywheel shaft 15.11.-8.1.-24.1. Intermediate shaft  
Crank and Flywheel shafts, Material S.M.Steel Identification Mark Lloyd's 2904 H.B. 8.1.38.  
Intermediate shafts, Material S. M. Steel Identification Marks Sample No 242 H.B.  
Is this machinery duplicate of a previous case yes If so, state name of vessel My.De Noord Alblasserdam Yard 527  
Düsseldorf Report No.92

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 fusion welded bed plate has been manufactured under survey in accordance with the approved plan No.714902 date of approval 3.6.38  
Identification marks: 3253 H.B.20.5.38.  
A copy of this report has been sent to Hongkong Office.✓

The amount of Fee ... Rm 80  
Travelling Expenses (if any) 15  
When applied for, 19...  
When received, 8.7.19.38  
ES 18.7

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

Committee's Minute  
Assigned  
TUE 22 NOV 1938  
See HKg. JE 8190