

Form 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 22052

Received at London Office

5 OCT 1936

Date of writing Report 11/10/36 19 36 When handed in at Local Office Hamburg 19 36 Port of Hamburg

No. in Survey held at Hamburg Reg. Book. 41171 Date, First Survey 14/7/36 Last Survey 29/9/36 19 36 Number of Visits 5

Single on the Twin Triple Quadruple Screw vessel Tons Gross Net

Built at Hamburg By whom built Deutsche Werft A.G. Yard No. 176 When built 1936 Port belonging to

Owners Oil Engines made at Fick By whom made Bohn & Kähler A.G. Contract No. 10014 When made 1936

Generators made at Bremen By whom made Allg. Elektr. Gesellschaft Contract No. When made 1936

No. of Sets 1 Engine Brake Horse Power 50 Nom. Horse Power as per Rule 14.3 Total Capacity of Generators 33 Kilowatts.

OIL ENGINES, &c.—Type of Engines Bohn & Kähler's type KR 10 V 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 20 kg/cm² Diameter of cylinders 110 mm Length of stroke 110 mm No. of cylinders 4 No. of cranks 4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 180 mm Is there a bearing between each crank yes

Revolutions per minute 750 Flywheel dia. 300 mm Weight 312 kg Means of ignition direct ign. Kind of fuel used gas oil

Crank Shaft, dia. of journals as per Rule 25.1 mm as fitted 25 mm Crank pin dia. 78 mm Crank Webs Mid. length breadth 110 mm Thickness parallel to axis solid Mid. length thickness 42 mm Thickness around eye-hole

Flywheel Shaft, diameter as per Rule 25.1 mm as fitted 25 mm Intermediate Shafts, diameter as per Rule 25.1 mm as fitted 25 mm Thickness of cylinder liners 11 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 yes

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

Lubricating Oil Pumps, No. and size 1 log wheel of 500 cc/hour

Air Compressors, No. 1 No. of stages 1 Diameters 100 mm Stroke 100 mm Driven by electric

Scavenging Air Pumps, No. 1 Diameter 100 mm Stroke 100 mm Driven by electric

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes

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

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

High Pressure Air Receivers, No. 1 Cubic capacity of each 1000 litres Internal diameter 100 mm thickness 3 mm

Seamless, lap welded or riveted longitudinal joint yes Material steel Range of tensile strength 40-50 kg/cm² Working pressure by Rules 10 kg/cm²

Starting Air Receivers, No. 1 Total cubic capacity 1000 litres Internal diameter 100 mm thickness 3 mm

Seamless, lap welded or riveted longitudinal joint yes Material steel Range of tensile strength 40-50 kg/cm² Working pressure by Rules 10 kg/cm²

ELECTRIC GENERATORS:—Type Allgemeine Elektrizitäts-Gesellschaft's type A.N. 89 spec.

Pressure of supply 115 volts. Load 237 Amperes. Direct or Alternating Current DC

If alternating current system, state frequency of periods per second 50

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off yes

Generators, do they comply with the requirements regarding rating yes are they compound wound yes

are they over compounded 5 per cent. yes, if not compound wound state distance between each generator 200 mm

is an adjustable regulating resistance fitted in series with each shunt field yes Are all terminals accessible, clearly marked, and furnished with sockets yes

are 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

PLANS. Are approved plans forwarded herewith for Shafting 3-5-35 Receivers yes Separate Tanks no

SPARE GEAR None to be supplied as required by the Rules

The foregoing is a correct description,

Bohn & Kähler
Motoren- und Maschinenfabrik
Aktiengesellschaft

Manufacturer.

Diessel



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Lloyd's Register
Foundation
009962-009975-0244

1936
 Dates of Survey while building
 During progress of work in shops - - - Aug: 14, 18, 28 Sept: 15, 29
 During erection on board vessel - - -
 Total No. of visits 5

Dates of Examination of principal parts—Cylinders 15/9/36 Covers 15/9/36 Pistons 12/8/36 Piston rods ✓
 Connecting rods 12/8/36 Crank and Flywheel shaft 15/9/36 Intermediate shaft ✓
 Crank and Flywheel shafts, Material O.H. Steel Identification Mark LLOYD'S F.S. 3142 30.7.36
 Intermediate shafts, Material ✓ Identification Marks ✓

Is this machinery duplicate of a previous case *yes* If so, state name of vessel *m. v. "Marina", Ham. Rpt. no. 21567*

General Remarks (State quality of workmanship, opinions as to class, &c.)
This auxiliary oil engine has been built under special Survey in accordance with the Society's Rules, the approved plan and instructions thereto. Material and workmanship are of good quality. In my opinion this generating set is eligible to be classed in the Society's Register Book with notation of +LMC—with date as part of the machinery of the vessel for which it is intended, provided it be satisfactorily fitted on board.

The approved plan has been retained for further reference.

1m.6.31—Transfer. (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee *Rm 10 & 7s -* : When applied for, *11/10/36*
 Travelling Expenses (if any) *£ 20.-* : When received, *31.10.36*

J. A. Mitchell
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned *See Ham. J.E. 22126*

