

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 22009

Received at London Office

Date of writing Report 12-8-36 19 19 When handed in at Local Office 19 Port of Hamburg

No. in Survey held at Kiel Date, First Survey 2-4-36 Last Survey 3-8-36 19
Reg. Book. Number of Visits 7

on the Single Twin Triple Quadruple Screw vessel MS Tarifa Tons 155 Gross Net

Built at Danzig By whom built F. Schichau G.m.b.H. Yard No. 1357 When built 1936

Owners Wilhelm Habelmann Port belonging to Tönning

Oil Engines made at Kiel By whom made Deutsche Werke Kiel A.G. Contract No. 3207-10 When made 1936

Generators made at Bremen By whom made Allg. Elektr. Gesellschaft Contract No. 523615 When made 1936

No. of Sets 1 Engine Brake Horse Power 235 Nom. Horse Power as per Rule 67 Total Capacity of Generators 155 Kilowatts.

OIL ENGINES, &c. — Type of Engines Deutsche Werke's type 4M 421 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 46 kg/cm² Diameter of cylinders 280 mm Length of stroke 420 mm No. of cylinders 4 No. of cranks 4
M.E.P. = 6.5 kg/cm² = M.I.P.

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 311 mm Is there a bearing between each crank yes

Revolutions per minute 360 Flywheel dia. 1200 mm Weight 1745 kgs Means of ignition Spark Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule 158 mm - 5% as fitted 170 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 250 mm Thickness parallel to axis solid Mid. length thickness 87.5 mm Thickness around eyehole shrunk

Flywheel Shaft, diameter as per Rule 158 mm - 5% as fitted 180 mm Intermediate Shafts, diameter as per Rule ✓ as fitted ✓ Thickness of cylinder liners 17.5 mm tapered to 12.5 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 cylinders 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 ✓

Lubricating Oil Pumps, No. and size 1 rotary of 1285 liters per hour.

Air Compressors, No. none No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓

Scavenging Air Pumps, No. none 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. none 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. none 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 Allgemeine Elektrizitäts-Gesellschaft's type A 126 spec.

Pressure of supply 230 volts. Load 674 Amperes. Direct or Alternating Current D.C.

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

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 ✓

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 26-10-35 Receivers 26-10-35 Separate Tanks ✓
(If not, state date of approval)

SPARE GEAR

Will be supplied as required by the Rules.

The foregoing is a correct description,

Deutsche Werke Kiel
Aktengesellschaft

Manufacturers.

J. J. J.



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Lloyd's Register
Foundation

W264-0286.1

1936:
 Dates of Survey while building { During progress of work in shops - - } Apr: 2, 14, 17 May: 5, 12 July: 12 Aug: 3
 { During erection on board vessel - - - }
 Total No. of visits 7

Dates of Examination of principal parts—Cylinders 2.4.36. Covers 2.4.36. Pistons 17.4.36 Piston rods ✓
 Connecting rods 2.4.36 Crank and Flywheel shaft 2.4.36 Intermediate shaft ✓

Crank and Flywheel shafts, Material O.H. steel Identification Mark LLOYD'S

Intermediate shafts, Material Identification Marks ✓

Is this machinery duplicate of a previous case *no* If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, etc.)
 This auxiliary oil engine generating set 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 +1 MC—with date as part of the machinery of the vessel for which intended when it has been satisfactorily fitted on board.

Modjoko
Modjoko 1922

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

The amount of Fee ... *See Ham. Report No 22007* : When applied for, 19.....
 Travelling Expenses (if any) £ : When received, 19.....

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

Committee's Minute TUE. 22 DEC 1936
 Assigned *See Div. 7E 12*

FRI 5 MAR 1937
 FRI 7 MAY 1937
 FRI 6 AUG 1937

