

# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 22128

Received at London Office 24 DEC 1936

Date of writing Report 12.12.36 19 When handed in at Local Office 19 Port of Hamburg

No. in Survey held at Kiel Date, First Survey 10-1-36 Last Survey 27-11-36 19  
Reg. Book. Number of Visits 20

on the <sup>Single</sup> Twin <sup>Triple</sup> Screw vessel "Don Esteban" Tons { Gross 1616  
Net 900

Built at Kiel By whom built Fried. Krupp Germaniawerft A.G. Yard No. 560 When built 1936

Owners Hijos de J. de la Rama y Cia. Port belonging to Laiba

Oil Engines made at Kiel By whom made Fr. Krupp Germaniawerft A.G. Contract No. 5390/3 When made 1936

Generators made at Bremen By whom made A.G. Elektrizitäts-Ges. Contract No. 523521/2 When made 1936

No. of Sets 2 Engine Brake Horse Power 2x130 Nom. Horse Power as per Rule 242 Total Capacity of Generators 160 Kilowatts.

## OIL ENGINES, &c.—Type of Engines Krupp's S 16 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 41 1/2 lbs. Diameter of cylinders 250 mm Length of stroke 350 mm No. of cylinders 3 each No. of cranks 3 each

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 270 mm Is there a bearing between each crank yes

Revolutions per minute 450 Flywheel dia. 1430 mm Weight 2700 lbs Means of ignition Diesel system Kind of fuel used Diesel Oil

Crank Shaft, dia. of journals as per Rule 134 mm as fitted 145 mm Crank pin dia. 145 mm Crank Webs Mid. length breadth 217 mm Mid. length thickness 69 mm Thickness parallel to axis solid shrunk Thickness around eyehole

Flywheel Shaft, diameter as per Rule 134 mm as fitted 158 mm Intermediate Shafts, diameter as per Rule as fitted Thickness of cylinder liners 21.5 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 silencers water cooled or lagged with non-conducting material yes, silencers lagged

Cooling Water Pumps, No. 1 to each motor Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

Lubricating Oil Pumps, No. and size 1 gear wheel pump to each motor of 1.3 m<sup>3</sup>/h capacity

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 A.G. Elektrizitäts-Gesellschaft's type A 114

Pressure of supply 230 volts Load 348 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 20.11.35 Receivers Separate Tanks

## SPARE GEAR

As per Rules

The foregoing is a correct description,  
**FRIED. KRUPP**  
**GERMANIAWERFT**  
Aktiengesellschaft.

Manufacturer.



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Foundation

w161-0041

1936:  
 Dates of Survey while building  
 During progress of work in shops - Jan: 10, 21, 26, 31 Feb: 4, 28 Mar: 3, 10, 25, 27 April: May: 18 June: 30 Aug: 18  
 During erection on board vessel - Sept: 1, 18 Oct: 13 Nov: 10, 25, 27  
 Total No. of visits 20

Dates of Examination of principal parts - Cylinders 4-28/2/36 Covers 3/3/36 Pistons 3/3/36 Piston rods

Connecting rods 14/4/36 Crank and Flywheel shaft 25/3/36 Intermediate shaft

Crank and Flywheel shafts, Material D.H. Steel. Identification Mark LLOYD'S 16217, 16224, 16225, 16226, 16227, 16228, 16229, 16230, 16231, 16232, 16233, 16234, 16235, 16236, 16237, 16238, 16239, 16240, 16241, 16242, 16243, 16244, 16245, 16246, 16247, 16248, 16249, 16250, 16251, 16252, 16253, 16254, 16255, 16256, 16257, 16258, 16259, 16260, 16261, 16262, 16263, 16264, 16265, 16266, 16267, 16268, 16269, 16270, 16271, 16272, 16273, 16274, 16275, 16276, 16277, 16278, 16279, 16280, 16281, 16282, 16283, 16284, 16285, 16286, 16287, 16288, 16289, 16290, 16291, 16292, 16293, 16294, 16295, 16296, 16297, 16298, 16299, 16300

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.)

These auxiliary air engine generating sets are built under Special Survey in accordance with the Society's Rules, the approved plans and the instructions thereto. Workmanship and material are of good quality. They have been satisfactorily fitted on board, tested under working conditions and were found in order. On my opinion they are eligible to be included in the notation of +LME-11,36 in the Society's Register Book.

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The amount of Fee ... .. £	:	:	When applied for,
19	:	:	19
Travelling Expenses (if any) £	:	:	When received,
19	:	:	19

*J.A. [Signature]*  
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned See other F.E. rpt

FRI. JAN 8 1937



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