

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 837

Date of writing Report 3rd March 1953 When handed in at Local Office 3rd March 1953 Port of K I E L Received at London Office

No. in Survey held at Kiel Date, First Survey 29th January Last Survey 23rd February 1953 Number of Visits four

Reg. Book. 64263 on the Single Screw vessel "JAMES J. MAGUIRE" now named "STANVAC NAIROBI" Tons { Gross 10525 Net 6965

Built at Monfalcone By whom built Cantieri Riuniti Dell' Adriatico Yard No. - When built 1939 - 5

Owners Oriental Trade and Transport Co. Ltd. Port belonging to London

Oil Engines made at Kiel By whom made Bohn & Kähler Engine No. 14971 When made 1953

Generators made at Bremen By whom made Lloyd Dynamowerke, Bremen Generator No. 19262 When made 1953

No. of Sets two B.H.P. of each Set 90 M.N. of each Set as per Rule - Capacity of each Generator 50 Kilowatts

Is Set intended for essential services --

OIL ENGINES, &c.—Type of Engines Heavy Oil Makers' Type KR 18 D 2 or 4 stroke cycle 4 Single or double acting S.A.

Maximum pressure in cylinders 56 kg/cm² Diameter of cylinders 190 mm Length of stroke 280 mm No. of cylinders 3 No. of cranks 3

Mean indicated pressure 7.0 kg/cm² Span of bearings (i.e., distance between inner edges of bearings in way of a crank) 233 mm

Is there a bearing between each crank yes Moment of inertia of flywheel (16000 Kg.-cm.²) GD² = 580 Revolutions per minute 600

Flywheel dia. 1075 mm Weight 720 kg Means of ignition compression Kind of fuel used Diesel

Crank Shaft, Solid forged dia. of journals as per Rule -- as fitted 105 mm Crank pin dia 105 mm Crank Webs Mid. length breadth 14.0 mm Thickness parallel to axis -- Mid. length thickness 58 mm Thickness round eyehole --

Flywheel Shaft, diameter as per Rule -- as fitted -- Generator armature, moment of inertia (16 m² or Kg.-cm.²) --

Are means provided to prevent racing of the engine yes Means of lubrication forced Kind of damper if fitted --

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. and how driven one -attach- Is the sea suction provided with an efficient strainer which can be cleared within the vessel --

Lubricating Oil Pumps, No. and size --

Air Compressors, No. -- No. of stages -- Diameters -- Stroke -- Driven by --

Scavenging Air Pumps or Blowers, No. -- How driven --

AIR RECEIVERS:—Have they been made under Survey -- State No. of Report or Certificate --

(other than main engines) State full details of safety devices --

Can the internal surfaces of the receivers be examined and cleaned --

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 --

Starting Air Receivers, No. -- Total cubic capacity -- Internal diameter -- thickness --

Seamless, lap welded or riveted longitudinal joint -- Material -- Range of tensile strength -- Working pressure --

ELECTRIC GENERATORS:—Type G V 53/50

Pressure of supply 115 volts. Full Load Current 435 Amperes. Direct or Alternating Current D.C.

If alternating current system, state the periodicity -- Has the Automatic Governor been tested and found as per Rule when full 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 --

Are all terminals accessible, clearly marked, and furnished with sockets -- Are they so spaced --

Are they shielded that they cannot be accidentally earthed, short circuited, or touched -- Are the lubricating arrangements of the generators as per Rule --

Do the generators are under 100 kw. full load rating, have the makers supplied certificates of test -- and do the results comply with the requirements --

Do the generators are 100 kw. or over have they been built and tested under survey under 100 KW but tested under survey.

State full details of driven machinery other than generator --

Are approved plans forwarded herewith for Shafting no-crankshaft plan A approved with Hambg. letter 5/8/52 Receivers -- Separate Tanks --

Have Torsional Vibration characteristics if applicable been approved not applicable Armature shaft Drawing No. --

Are the spare gear required by the Rules been supplied As per Rule requirements.

The foregoing is a correct description,

J.A. Norder
Bohn & Kähler Manufacturer.
Motoren- und Maschinenfabrik
Aktiengesellschaft



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Dates of Survey while building { During progress of work in shops - -) 1953 Jan: 29; Feb: 4. 20. 23.
 { During erection on board vessel - -) --
 Total No. of visits four

Dates of Examination of principal parts Cylinders 29/1 & 4.2. Covers 29/1 Pistons -- Piston rods --
 Connecting rods -- Crank and Flywheel shafts 29/1 Intermediate shafts --

Crank shaft { Material S.M. Steel Tensile strength 61.4 kg/mm² & 63.0 kg/mm²
 Elongation on 50 mm 32.0 & 27.2% Identification Marks No. 14971 No. 14972
 LLOYD'S 286 LLOYD'S 284
 26.6.52 F.S. 26.6.52 F.S.

Flywheel shaft, Material -- Identification Marks --
 Cyl. Blocks: No. 14971 No. 14972
 Identification marks on ~~XXXXXXXXXX~~ LLOYD'S TEST No. 473 LLOYD'S TEST No. 474
 5 ATM ES 4.2.53 E.S. 5 ATM ES 4.2.53 E.S.

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, &c.)

These generator sets have been constructed under Special Survey, in accordance with the Society's Rules, the Secretary's letters and approved plans. The material and workmanship are good. The generator sets have been tried under full load working conditions on the Makers' test bed, governors tested and all found satisfactory.

These generator sets will be eligible, in my opinion, to be classed with the notation * LMC when satisfactorily installed in the above vessel.

4m.5.52.-T. (MADE AND PRINTED IN ENGLAND)
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Fee ... £ DM : 270,00 { When applied for 19
 Travelling Expenses (if any) £ DM : 20,00 { When received 19

Committee's Minute.....
 Assigned.....

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