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REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 13254.

Received at London Office 14 NOV 1950
Date of writing Report 6th Nov 1950 When handed in at Local Office 19 Port of Copenhagen

No. in Survey held at Copenhagen Date, First Survey 23rd August 50 Last Survey 11th October 1950
g. Book. Number of Visits 17

Single on the Twin Triple Quadruple Screw vessel
Tons Gross Net

uilt at By whom built P. Smith Yard No. 598 When built

Port belonging to

Eng. 4633 Contract No. 4634 When made 1950
By whom made A/S Burmeister & Wain's Maskin- & Skibsbyggeri

By whom made Contract No. When made

o. of Sets 2 Engine Brake Horse Power 2x345 M.N. as per Rule 2x86 Total Capacity of Generators Kilowatts

Set intended for essential services yes

OIL ENGINES, &c.—Type of Engines Heavy oil engines, vertical, trunk pistons type 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 49 kg/cm² Diameter of cylinders 245 mm Length of stroke 400 mm No. of cylinders 7 No. of cranks 7

Mean indicated pressure 7.2 kg/cm² Firing order in cylinders 1-2-4-6-7-5-3 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 315 mm

Is there a bearing between each crank yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) 1135 kgm² Revolutions per minute 425

Flywheel dia. 1300 mm Weight 1226 kg Means of ignition compression Kind of fuel used Heavy oil

Crank Shaft, dia. of journals as per Rule 151 mm as fitted 170 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 278 mm Thickness parallel to axis 90 mm

Mid. length thickness 90 mm Thickness round eye-hole 72.5 mm

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

Are means provided to prevent racing of the engine when disconnected 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 lagged

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

Lubricating Oil Pumps, No. and size 1 off 7.3 tons/hour

Air Compressors, No. 1 off 250 m³/hour No. of stages 2 Diameters 216 mm - 198 mm Stroke 160 mm Driven by the engine

Scavenging Air Pumps, No. Diameter Stroke Driven by

AIR RECEIVERS:—Have they been made under Survey yes State No. of Report or Certificate 1031

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

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

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. 1 Total cubic capacity 350 litres Internal diameter 410 mm thickness 10 mm

Seamless, lap welded or riveted longitudinal joint Material cast steel Range of tensile strength Working pressure by Rules 30.0 kg/cm²

cast steel ends: 28.5 tons/sq. in.

ELECTRIC GENERATORS:—Type

Pressure of supply volts Full Load Current Amperes Direct or Alternating Current

Is an 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 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

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

Are the generators 100 kw. or over have they been built and tested under survey

Details of driven machinery other than generator

PLANS.—Are approved plans forwarded herewith for Shafting No. E 11/7-49 Receivers No. 22/10-48 Separate Tanks

Have Torsional Vibration characteristics if applicable been approved yes E 11/7-49 Armature shaft Drawing No. 209902

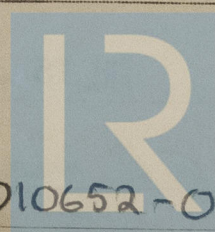
(state date of approval)

SPARE GEAR

The foregoing is a correct description,

BURMEISTER & WAIN'S MASKIN- & SKIBSBYGGERI

Manufacturer.



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Lloyd's Register

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Dates of Survey while building { During progress of work in shops - - 23/8 - 25/8 - 1/9 - 5/9 - 12/9 - 18/9 - 19/9 - 25/9 - 27/9 - 28/9 - 30/9 - 5/10 - 6/10 - 7/10 - 9/10 - 10/10 - 11/10 - 50
During erection on board vessel - -
Total No. of visits 17.

Dates of Examination of principal parts—Cylinders 27/9 - 28/9 Covers 27/9 - 28/9 Pistons 30/9 - 5/10 Piston rods.

Connecting rods 5/10 Crank and Flywheel shafts 25/9 Intermediate shafts.

Crank shaft { Material Journals: Siemens Martin Ingot Steel. Crank throws: Cast Siemens Martin Steel. Tensile strength Journals: 32,2 tons/sq. Crank throws: 29,3 tons/sq.
Elongation Journals: 39,4 Crank throws: 39,4 Identification Marks Lloyd's No. 8029-8030 GS. 25.

Flywheel shaft, Material. Identification Marks.

Identification marks on Air Receivers. No. 1031 Lloyd's Test 60 Altm. WP. 30 Altm. GS. 18-9-50.

Is this machinery duplicate of a previous case. yes If so, state name of vessel. (Yard No. 596 Gen. Rep. No. 12939) and (Yard No. 597 Gen. Rep. No. 13139)

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These engines have been constructed under special survey in accordance with the requirements of the Rules, the approved plans and the Secretary's letters E dated 22/10-48 and 11/7-49 and 3/8-49. The material has been tested as required by the Rules and the workmanship is good. The engines have been tested under working conditions in the shop and found to work satisfactorily.

The amount of Fee ... £1032.00
Air receiver. £80.00
Travelling Expenses (if any) £ : :
When applied for 19
When received 19

Committee's Minute FRI. 15 JUN 1951
Assigned See R. E. Mckay, rpt.

G. Surin.
Surveyor to Lloyd's Register of Shipping.
Lloyd's Register Foundation