

RECEIVED

8 DEC 1950

N.D.O.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 904
15 DEC 1950

Received at London Office
Date of writing Report 19 When handed in at Local Office 19 Port of NOTTINGHAM
No. in Survey held at Lincoln Date, First Survey Last Survey 19
eg. Book. Single on the Twin Triple Quadruple Screw vessel British Lady
Sunderland South Bank
By whom built Sunderland Forge & Eng. Co. Ltd. Yard No. 1211 When built
British Tanker Co. Ltd. Port belonging to 4819/T/13
Engines made at Lincoln By whom made Ruston & Hornsby Ltd. Contract No. 480027/8 When made 1950.
Generators made at Sunderland By whom made Sunderland Forge & Eng. Co. Ltd. Contract No. When made 1950.
of Sets 2 Engine Brake Horse Power 142 M.N. as per Rule 30.5 Total Capacity of Generators 150 Kilowatts.
Set intended for essential services per engine. per engine.

ENGINES, &c.—Type of Engines 5VCBZ. Engines Nos. 275872-3. 2 or 4 stroke cycle 4 Single or double acting SA
Maximum pressure in cylinders 750 lb. Diameter of cylinders 8" Length of stroke 10 5/8" No. of cylinders 5 No. of cranks 5
Indicated pressure 104 lb. Firing order in cylinders 1.3.5.4.2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 9.3/16"
Where a bearing between each crank Yes Moment of inertia of flywheel 16 m² or Kg.-cm.² 5.3 tons. Revolutions per minute 500
Wheel dia. 3' 9" Weight 12.3 cwt. Means of ignition Compression Kind of fuel used Diesel Oil.
Crank Shaft, dia. of journals as per Rule 6" Crank pin dia. 4.3/4" Crank Webs Mid. length breadth 8" Thickness parallel to axis
as fitted 6" Mid. length thickness 2 1/2" shrunk Thickness round eyehole
Wheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule General armature, moment of inertia (16 m² or Kg.-cm.²)

Means provided to prevent racing of the engine when declutched Yes Means of lubrication Forced Kind of damper if fitted
The cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material
Cooling Water Pumps, No. one Is the sea suction provided with an efficient strainer which can be cleared within the vessel
Lubricating Oil Pumps, No. and size One - 480 gals. per hour. Engine driven.
Compressors, No. No. of stages Diameters Stroke Driven by
Suctioning Air Pumps, No. Diameter Stroke Driven by

RECEIVERS:—Have they been made under Survey State No. of Report or Certificate
Which receiver, which can be isolated, fitted with a safety valve as per Rule
The internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces.
Are a drain arrangement fitted at the lowest part of each receiver
Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness
Joints, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules
Suctioning Air Receivers, No. Total cubic capacity Internal diameter thickness
Joints, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

ELECTRIC GENERATORS:—Type Open canopy DP, CW, CR, Nos. 4 1272-3.
Voltage of supply 110 volts. Full Load Current 682 Amperes. Direct or Alternating Current D.C.
Regulating current system, state the periodicity Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown
off Yes Generators, are they compounded as per Rule Yes is an adjustable regulating resistance fitted in series with each shunt field Yes
Terminals accessible, clearly marked, and furnished with sockets Yes Are they so spaced
That they cannot be accidentally earthed, short circuited, or touched Yes Are the lubricating arrangements of the generators as per Rule
Generators are under 100 kw. full load rating, have the makers supplied certificates of test and do the results comply with the requirements
Generators are 100 kw. or over have they been built and tested under survey Yes
Of driven machinery other than generator

Are approved plans forwarded herewith for Shafting 13.5.48.20.12.38. Receivers Separate Tanks
(If not, state date of approval)
Resonant Vibration characteristics if applicable been approved 13.5.48. ✓ Armature shaft Drawing No.

GEAR To Rule Requirements.

The foregoing is a correct description,

Ruston & Hornsby, Limited.

Manufacturer.

47. Burckhall



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Lloyd's Register
Foundation

003233-003239-0134

4^c

904.

27.3.50. 8.11.50. 3.4.50.

Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - -
 Total No. of visits

3

27.3.50.
3.4.50.

Cylinders Covers as cyls. Pistons as cyls. Piston rods

Dates of Examination of principal parts - Cylinders as cyls. Crank and Flywheel shafts as cyls. Intermediate shafts

Connecting rods

Tensile strength

LL.4543. RE.2488.

Crank shaft

Material

Identification Marks

LL.4607. RE.2607.

Elongation

Identification Marks

Flywheel shaft, Material

Identification marks on Air Receivers

Is this machinery duplicate of a previous case If so, state name of vessel

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

These engines have been built under special survey in accordance with the

approved plans and rules of the Society, materials and workmanship being good.

On completion, the generating sets were tried in the shops under working

conditions and governing tried with satisfactory results.

The sets have been despatched to Sunderland for installation on board the

vessel.

2019.10.11 - T. (MADE AND PRINTED IN ENGLAND)
 (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ...

... £ 7 : 1 : 0

per engine.

Travelling Expenses (if any) £

When applied for 14/12/1950

When received 19

Committee's Minute

FRI. 10 AUG 1951

Assigned

See F. E. Welch, spk.

Surveyor to Lloyd's Register of Shipping

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 Foundation