

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

Date of writing Report 19... When handed in at Local Office 19... Port of NOTTINGHAM. 30 JAN 1948

No. in Survey held at Lincoln Date, First Survey... Last Survey 19... Number of Visits...

Single on the Twin Triple Quadruple Screw vessel... Tons {Gross... Net...}

Built at Goole By whom built Goole Shpbdg. Co. Ltd., Yard No... When built... Owners... Port belonging to 13/450232-35.

Oil Engines made at Lincoln By whom made Ruston & Hornsby Ltd., Contract No... When made 1947

Generators made at Sunderland By whom made Sunderland Forge & Eng. Co. Contract No... When made... No. of Sets 4 Engine Brake Horse Power 170 M.N. as per Rule 42.5 Ltd. Total Capacity of Generators 400 Kilowatts.

Is Set intended for essential services... per engine per engine

OIL ENGINES, &c.—Type of Engines 5VCBZ. Nos. 247220, 247222, 247221, 247223. 2 or 4 stroke cycle 4 Single or double acting SA

Maximum pressure in cylinders 750 lbs. Diameter of cylinders 8" Length of stroke 10 3/4" No. of cylinders 5 No. of cranks 5

Mean indicated pressure 104 lbs. Firing order in cylinders 1.3.5.4.2. Span of bearings... 9.3/16" Is there a bearing between each crank Yes

Flywheel dia. 31-9" Weight 12.3 cwt. Means of ignition Compression Kind of fuel used Diesel Oil.

Crank Shaft, dia. of journals 6" Crank pin dia. 4 3/4" Crank Webs Mid. length breadth 8" Thickness parallel to axis -

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

Are means provided to prevent racing of the engine when declutched 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 -

Cooling Water Pumps, No. one, engine driven 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.

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

Scavenging Air Pumps, No. Diameter Stroke Driven by

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

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. 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. 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 Drip proof, compound wound, Machine Nos. G.6407A, G.6407B, G.6408A, G.6408B.

Pressure of supply 220 volts Full Load Current 455 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 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

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

If the generators are 100 kw. or over have they been built and tested under survey Yes Stamped LLOYDS TEST S.D.B. with date.

Details of driven machinery other than generator

PLANS.—Are approved plans forwarded herewith for Shafting Standard. 20.12.38. Receivers Standard. Separate Tanks

Have Torsional Vibration characteristics if applicable been approved Yes 30.4.47. Armature shaft Drawing No. 42479.

SPARE GEAR To rule requirements.

Ruston & Hornsby Limited, The foregoing is a correct description, Manufacturer. Oil & Gas Engine Dept.



262-40

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

Dates of Examination of principal parts—Cylinders 21.5.47. Covers 21.5.47. Pistons 21.5.47.
15.9.47. 15.9.47. 15.9.47. Piston rods. -
7.5.47, 20.8.47,
Connecting rods 21.5.47. 15.9.47. Crank and Flywheel shafts 21.5.47. 15.9.47. Intermediate shafts.....

Crank shaft { Material..... Tensile strength..... LL.1318. TDS. RD.6040.
Elongation..... Identification Marks..... LL.1319. TDS. RD.6041.
LL.1448. TDS. RD.6676.
Flywheel shaft, Material..... Identification Marks..... LL.1449. TDS. RD.6677.

Identification marks on Air Receivers.....

Is this machinery duplicate of a previous case..... Yes If so, state name of vessel..... David Rowan & Co. Ltd., Not. Rpt. 187.

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

This machinery has been built under Special Survey in accordance with the approved plans and the regulations of this Society, materials and workmanship being good.
These generating sets are identical with those installed in Alex. Stephens & Sons No. 613 for which Torsional Vibration Characteristics were approved 16.2.46.
On completion the generating sets were submitted to full load tests in the shops with satisfactory results.
The generating sets are being forwarded to Goole for installation on board the vessel.

101,646-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 ... £ 26 : 0 : 0 { When applied for 20-1- 19 48.
(4 engines)
Travelling Expenses (if any) £ : : { When received..... 19.....

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



RE
Da
M
Re
Ba
Ou
Oil
Ge
No
Is
OL
Ma
Me
Is
Fly
Cr
Fly
Ar
Ar
Co
Lu
Air
Sea
AL
Is
Can
Is
Hig
Sea
Sta
Sea
EL
Pre
If
on
Are
or
If
If
Det
PL
Hav
SPA