

RECEIVED

1950

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 734

D.O.

Received at London Office

11 FEB 1950

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... Number of Visits...

on the Tug Triple Screw vessel "WAZIRISTAN" Oil Eng TANKER Tons Gross... Net...

built at Glasgow By whom built Lithgows Ltd., Yard No. 1051 When built 1950

owners COMMON BRAS Port belonging to SUNDERLAND

Engines made at Lincoln By whom made Ruston & Hornsby Ltd., Contract No. 12/480187 When made...

Generators made at Liverpool By whom made Campbell & Isherwood. Contract No. When made...

Number of Sets 1 Engine Brake Horse Power 72 M.N. as per Rule 18 Total Capacity of Generators 40 Kilowatts.

Set intended for essential services...

OIL ENGINES, &c.—Type of Engines 6VPHZ. Engine No. 283227. 2 or 4 stroke cycle 4 Single or double acting SA

Maximum pressure in cylinders 1000 lbs. Diameter of cylinders 5 3/8" Length of stroke 8" No. of cylinders 6 No. of cranks 6

Mean indicated pressure 109 lbs. Firing order in cylinders 1.2.4.6.5.3. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 6.25/32"

Is there a bearing between each crank Yes Moment of inertia of flywheel 4190 lbs.ft. Revolutions per minute 600

Flywheel dia. 2'10" Weight 829 lbs. Means of ignition Compression Kind of fuel used Diesel Oil

Crank Shaft, dia. of journals 4.3/16" Crank pin dia. 3 1/2" Crank Webs Mid. length breadth 5 3/4" Thickness parallel to axis

Flywheel Shaft, diameter C' shaft Intermediate Shafts, diameter General armature, moment of inertia (16 m^2 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 No Are the exhaust pipes and silencers water cooled or lagged with non-conducting material

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 one 334 gals./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 D.P. CW. CR. Machine No. 43571.

Pressure of supply 110 volts. Full Load Current 364 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 Applied for

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. Yes

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

Details of driven machinery other than generator 13.4.43.

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

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

SPARE GEAR To Rule Requirements. ✓

The foregoing is a correct description,

Ruston & Hornsby Limited. Manufacturer.

Engineering Divn.



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Lloyd's Register Foundation

010640-010651-0055

Dates of Survey while building { During progress of work in shops - - } 28.9.49., 10.10.49., 4.1.50.  
 { During erection on board vessel - - }  
 Total No. of visits 3

Dates of Examination of principal parts—Cylinders 10.10.49. Covers as cyls. Pistons as cyls. Piston rods -  
 Connecting rods as cyls. Crank and Flywheel shafts 28.9.49. Intermediate shafts

Crank shaft { Material Tensile strength  
 Elongation Identification Marks LL.3875, RE.1401.

Flywheel shaft, Material Identification Marks

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.)

This machinery has been built under Special Survey in accordance with Approve Plans and the Rules of the Society, materials and workmanship being good.

On completion, the generating set was tried in the shops under working conditions, and the governor tested, with satisfactory results.

The set has been despatched to Glasgow.

*This engine has been efficiently installed in the vessel & tested out on full load with satisfactory results*

*Charles J Hunter  
 Greenock*

The amount of Fee ... £ 4 : 0 : 0 When applied for 9.2.1950  
 Travelling Expenses (if any) £ : : When received 19

Committee's Minute **GLASGOW 17 MAY 1950**

Assigned

SEE ACCOMPANYING MACHINERY



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