



6 FEB 1948

pt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 271.

Received at London Office

FEB 1948

Date of writing Report 14.5 1948 When handed in at Local Office 14.5 1948 Port of NOTTINGHAM.

No. in Survey held at Lincoln. T. HEBDEN-ON-TYNE Date, First Survey 1948 Last Survey 19
Reg. Book. 88 on the Single Screw vessel M.V. LABIOSA Number of Visits 1
Triple
Quadruple

Built at Newcastle. By whom built Hawthorn Leslie Eng. No. 4047 When built 1948
YADA 692 " " 1948

Owners THE ANGLO-SAXON PETROLEUM Co. Ltd. Port belonging to LONDON
12/460284.

Oil Engines made at Lincoln. By whom made Ruston & Hornsby Ltd. Contract No. 12/460284. When made 1947.

Generators made at Sunderland. By whom made Sunderland Forge & Eng. Co. Ltd. Contract No. 12/460284. When made 1947.

No. of Sets 1 Engine Brake Horse Power 48 M.N. as per Rule 12 Total Capacity of Generators 30 Kilowatts.

Set intended for essential services No.

OIL ENGINES, &c.—Type of Engines 4VPHZ. Eng. No. 256794. 2 or 4 stroke cycle 4 Single or double acting SA

Maximum pressure in cylinders 1000 lbs. Diameter of cylinders 5 5/8" Length of stroke 8" No. of cylinders 4 No. of cranks 4

Mean indicated pressure 109 lbs. Firing order in cylinders 1-3-4-2 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 ~~Horizontal diameter of flywheel~~ 2240 lb. ft. Revolutions per minute 675

Flywheel dia. 2'-8" Weight 510 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 5 3/4" Mid. length breadth 1 3/4" Thickness parallel to axis shrink

Flywheel Shaft, diameter as per Rule. Intermediate Shafts, diameter as per Rule. 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 LAGGED

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

Lubricating Oil Pumps, No. and size one, 376 gals. per hour. Engine driven.

Air Compressors, No. 1 No. of stages 1 Diameters 10" Stroke 10" Driven by Engine

Scavenging Air Pumps, No. 1 Diameter 10" Stroke 10" Driven by Engine

AIR RECEIVERS:—Have they been made under Survey Yes State No. of Report or Certificate 10/148

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 Yes

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

High Pressure Air Receivers, No. 1 Cubic capacity of each 46.2 cu ft Internal diameter 10" thickness 1/4"

Seamless, lap welded or riveted longitudinal joint Yes Material SAE 1020 Range of tensile strength 40,000-50,000 Working pressure by Rules 150

Starting Air Receivers, No. ONE (ALSO FOR MAIN ENGINES) Total cubic capacity 46.2 cu ft Internal diameter 10" thickness 1/4"

Seamless, lap welded or riveted longitudinal joint Yes Material SAE 1020 Range of tensile strength 40,000-50,000 Working pressure by Rules 150

ELECTRIC GENERATORS:—Type Standard Approved. No. G. 7033.

Pressure of supply 110 volts. Full Load Current 273 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 Yes 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 Yes States Sent to Home

Details of driven machinery other than generator Through clutch. Compressor. Reavell No. 100422.

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

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

SPARE GEAR To Rule requirements.

Ruston & Hornsby Limited.
The foregoing is a correct description,

11 hours 28. I.A.S. Engineering Divn. Manufacturer.



005429-005435-0031

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 28.10.47. Covers 28.10.47. Pistons 28.10.47. Piston rods -
 Connecting rods 28.10.47. Crank and Flywheel shafts 28.5.47. 28.10.47. Intermediate shafts -

Crank shaft { Material S.M. Steel. Tensile strength
 Elongation Identification Marks LL.1207. RD.6259. T.D.S.

Flywheel shaft, Material Identification Marks

Identification marks on Air Receivers

Is this machinery duplicate of a previous case. Yes If so, state name of vessel. Standard Type.

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

This engine has been built under Special Survey, in accordance with Approved Plans and regulations of Society, material and workmanship being good.

On completion the set was tried in the Shops under working conditions and found satisfactory.

The set has been forwarded to Newcastle for installation on board the vessel.

SURVEY OF MACHINERY.

FIRST SURVEY 1st NOVEMBER 1946 LAST SURVEY 13th MAY 1948
 No. OF VISITS 96

The generator has been efficiently installed on board examined under working conditions & is in good working order.

J. A. Ord Newcastle-on-Tyne

SURVEYOR TO LLOYD'S REGISTER,
 NEWCASTLE-ON-TYNE.

201,841-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 ... £ 4 : 0 : 0 { When applied for 4-2- 19 48.
 Travelling Expenses (if any) £ : : { When received 19

Committee's Minute

FRI. 4 JUN 1948

Assigned

Su F.E. mchly. rpl.

