

CE 15

6 JUL 1949

Rpt. 4c.

N.D.S.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 5225

JUN 1949

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
Reg. Book. Number of VisitsSingle
on the Twin
Triple
Quadruple
Screw vessel S/T, PRINCESS ELIZABETH
Built at Hull By whom built M. Broady & Sons Ltd. Yard No. 824 When built
Cook Walter & Gemmell

Owners. Port belonging to 53129/17/480408. When made 1949.

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

Generators made at Chelmsford. By whom made Grompton Parkinson. Contract No. When made

No. of Sets 1 Engine Brake Horse Power 30 M.N. as per Rule 7.5 Total Capacity of Generators 15 Kilowatts.

Is Set intended for essential services.

OIL ENGINES, &c.—Type of Engines 3VHZ. Eng. No. 266496. 2 or 4 stroke cycle 4 Single or double acting SA

Maximum pressure in cylinders 800 lbs. Diameter of cylinders 4 1/2" Length of stroke 5 1/2" No. of cylinders 3 No. of cranks 3

Mean indicated pressure 112.5 Firing order in cylinders 1.3.2. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 6.15/16"

Is there a bearing between each crank Yes Moment of inertia of flywheel (16 m² or Kg.-cm.²) 1164 lbs. ft. revolutions per minute 1000

Flywheel dia. 26" Weight 420 lbs. Means of ignition Compression Kind of fuel used Diesel Oil.

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

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 No 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, 150 gals./ 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. CW.C.R. Machine No. F102.A.5809.

Pressure of supply 110 volts. Full Load Current 136.5 Amperes. Direct or Alternating Current

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 Yes

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. Applied for Yes

If the generators are 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 13.4.43. 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.

002320-002329-0073

Lloyd's Register

Foundation

Dates of Survey while building During progress of work in shops - - 21.2.49. 30.5.49.
During erection on board vessel - - -
Total No. of visits 2

Dates of Examination of principal parts—Cylinders 21.2.49. Covers 21.2.49. Pistons 21.2.49. Piston rods

Connecting rods 21.2.49. Crank and Flywheel shafts 21.2.49. Intermediate shafts -

Crank shaft Material Tensile strength 40/45 Tons/sq.inch.
Elongation Identification Marks LL.K181. TDS. BW.3647.

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.

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

This engine has been built under Special Survey, in accordance with the approved plans and the rules of the Society, materials and workmanship being good.

On completion, the generating set was tested under working conditions in the shop and the governing tested with satisfactory results.

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

This diesel engine generating set satisfactorily installed in the S.T. PRINCESS ELIZABETH.

M. Chambers.
Hull

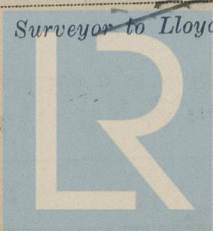
20-9-50.

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

Committee's Minute
Assigned Sa F.E. Welch. 1st.

FRI. 27 OCT 1950

Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation