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# REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 488

17 MAY 1949

Received at London Office

Date of writing Report 9.5. 19 49. When handed in at Local Office 19 Port of NOTTINGHAM

No. in Survey held at Derby. Date, First Survey 3.3.49. Last Survey 27.4. 19 49.  
 No. of Visits

556 on the Single Screw vessel "ROY" Tons Gross  
Triple Net  
Quadruple

Built at Middlesbrough By whom built Messrs. Smith's Dock Co. Ltd. Yard No. Unknown When built 1930

Surveyors A/S. D/S Ask (A. Kjerland Mgr.) Port belonging to

Engines made at Derby By whom made Felapone Engines Ltd. Contract No. When made 1949

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

No. of Sets One Engine Brake Horse Power 20 M.N. as per Rule 5 Total Capacity of Generators 12 Kilowatts.

Set intended for essential services

**ENGINES, &c.**—Type of Engines 4S.C.S.A. Engine No. 529385 2 or 4 stroke cycle 4 Single or double acting S.A.

Minimum pressure in cylinders 800 Diameter of cylinders 4.7/16" Length of stroke 6" No. of cylinders 2 No. of cranks 2

Indicated pressure 85.5 Firing order in cylinders 1-2 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 11"

Is there a bearing between each crank No Moment of inertia of flywheel ( $16m^2$  or  $Kg.-cm.^2$ ) 5.6 lbs. ft. sec.<sup>2</sup> Revolutions per minute 1000

Flywheel dia. 22" Weight 559 lbs. Means of ignition Compression Kind of fuel used Diesel Oil

Crank Shaft, dia. of journals as per Rule App. Crank pin dia. 2.7/8" Crank Webs shrunk Mid. length breadth shrunk Thickness parallel to axis shrunk  
 as fitted 3.1/8" Mid. length thickness shrunk Thickness round eyehole shrunk

Wheel Shaft, diameter as per Rule G/shaft Intermediate Shafts, diameter as per Rule G/shaft General armature, moment of inertia ( $16m^2$  or  $Kg.-cm.^2$ ) G/shaft

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

No. of 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 90 gals. per hour.

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

Enging Air Pumps, No. Diameter Stroke Driven by

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

Is there a receiver, which can be isolated, fitted with a safety valve as per Rule

Are the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces

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

Pressure Air Receivers, No. Cubic capacity of each Internal diameter thickness

Material Range of tensile strength Working pressure by Rules

Are the joints lap welded or riveted longitudinal joint

Enging Air Receivers, No. Total cubic capacity Internal diameter thickness

Material Range of tensile strength Working pressure by Rules

**ELECTRIC GENERATORS:**—Type No. 42216

Voltage of supply 110 volts. Full Load Current 109 Amperes. Direct or Alternating Current D.C.

Is there an alternating current system, state the periodicity Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown off Yes

Are the Generators, are they compounded as per Rule Yes is an adjustable regulating resistance fitted in series with each shunt field Yes

Are the terminals accessible, clearly marked, and furnished with sockets Yes Are they so spaced

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 Yes

Are the generators under 100 kw. full load rating, have the makers supplied certificates of test Yes Applied for Yes and do the results comply with the requirements Yes

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

Are there any other driven machinery other than generator

5.—Are approved plans forwarded herewith for Shafting (If not, state date of approval) Receivers Separate Tanks

Are the torsional Vibration characteristics if applicable been approved (state date of approval) Not applicable. Armature shaft Drawing No.

**GEAR**

The foregoing is a correct description,

S. Hill A.M.I.R.A.C.E. Manufacturer.  
 FOR AND ON BEHALF OF  
**FELAPONE ENGINES LTD.**



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 Foundation

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Dates of Survey while building  
 During progress of work in shops - - 3.3.49. 18.3.49. 27.4.49.  
 During erection on board vessel - - -  
 Total No. of visits 3

Dates of Examination of principal parts—Cylinders 3.3.49. Covers 3.3.49. Pistons 3.3.49. Piston rods

Connecting rods 3.3.49. Crank and Flywheel shafts Intermediate shafts

Crank shaft { Material Drop forged Tensile strength  
 Elongation Identification Marks L.R.J. 3929 - 18.3.49. W.K.

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 the Approved Plans and Regulations of the Society, materials and workmanship being good.

On completion the engine was run in the shops under working conditions and found satisfactory.

The engine has been despatched to Messrs. Tyne Dock Engineering Co. at South Shields.

LLOYD'S REGISTER OF SHIPPING

The amount of Fee ... £ 4 : 0 : 0 { When applied for 16/5/ 19 49.  
 Travelling Expenses (if any) £ : : { When received 19

*H. Thorburn*  
 Surveyor to Lloyd's Register of Shipping.

FRI. 1 JUL 1949

Committee's Minute  
 Assigned See Bms 3244



20.8.47.-T. (MADE AND PRINTED IN ENGLAND)