

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 10372

Date of writing Report 4-2-41 When handed in at Local Office 15-2-41 Port of MANCHESTER Received at London Office FEB 19 1941

No. in Survey held at KEIGHLEY Date, First Survey 28-10-40 Last Survey 31-1-1941
 Reg. Book. Number of Visits 3

on the Single Screw vessel "EMPIRE FORD" Tons Gross
Triple
Quadruple

Built at GAINSBOROUGH By whom built J.S. NATION (GAINSBOROUGH) LTD Yard No. 1620 When built 1941

Owners MESSRS RYAN Port belonging to HULL

Oil Engines made at KEIGHLEY By whom made H. WIDDOP & CO LTD ENGINE Contract No. LD58 When made 1941

Generators made at - By whom made - Contract No. - When made -

No. of Sets ONE Engine Brake Horse Power 6 Nom. Horse Power as per Rule 1.70 Total Capacity of Generators - Kilowatts.

OIL ENGINES, &c.—Type of Engines VERTICAL SOLID INJECTION 2 or 4 stroke cycle 4 Single or double acting SINGLE

Maximum pressure in cylinders 700 LBS/SQ IN Diameter of cylinders 4" Length of stroke 4" No. of cylinders ONE No. of cranks ONE

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 5.125" Is there a bearing between each crank -

Revolutions per minute 1800 Flywheel dia. 22.5" Weight 1.4 CWT Means of ignition COMPRESSION Kind of fuel used HEAVY OIL

Crank Shaft, dia. of journals as per Rule APPROVED Crank pin dia. 2.25" Crank Webs Mid. length breadth 3" Thickness parallel to axis SOLID
 as fitted 2.25" Mid. length thickness 1.25" Thickness around eye-hole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 5/16"
 as fitted

Is a governor or other arrangement fitted to prevent racing of the engine when declutched YES Means of lubrication FORCED

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 Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size ONE 5/8" D.A x 1/4" STROKE

Air Compressors, No. ONE No. of stages ONE Diameters 4.5" Stroke 2 1/4" Driven by ADV. ENGINE

Scavenging Air Pumps, No. - Diameter - Stroke - Driven by -

AIR RECEIVERS:—Have they been made under Survey YES 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 YES 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. ONE Cubic capacity of each 1000 Internal diameter 4.5" thickness 5/16"

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

Starting Air Receivers, No. ONE Total cubic capacity 1000 Internal diameter 4.5" thickness 5/16"

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

ELECTRIC GENERATORS:—Type Direct

Pressure of supply 220 volts. Full Load Current 27.3 Amperes. Direct or Alternating Current Direct

If alternating current system, state the periodicity 50 Has the Automatic Governor been tested and found efficient when the whole 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

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

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

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

PLANS. Are approved plans forwarded herewith for Shafting 22.4.40 Receivers - Separate Tanks -
 (If not, state date of approval)

SPARE GEAR As Per Rule REQUIREMENTS.

The foregoing is a correct description.
 For H. WIDDOP & COMPANY LTD.
H. Widdop
 DIRECTOR

Manufacturer.



Dates of Survey while building { During progress of work in shops-- } 1940 OCT 28. 1941 JAN 29. 31
 { During erection on board vessel--- }
 Total No. of visits 3

Dates of Examination of principal parts—Cylinders 28.10.40 Covers 28.10.40 Pistons 28.10.40 Piston rods —
 Connecting rods 28.10.40 Crank and Flywheel shafts 28.10.40 Intermediate shafts —
 Crank and Flywheel shafts, Material O.H. STEEL Identification Marks LLOYDS 1/5 W.T.M. 13.2.40.
 Intermediate shafts, Material — Identification Marks —
 Identification marks on Air Receivers —

Is this machinery duplicate of a previous case YES If so, state name of vessel PIMBLOTT'S JARD N° 635

General Remarks (State quality of workmanship, opinions as to class, &c.)

THIS ENGINE HAS BEEN CONSTRUCTED UNDER SPECIAL SURVEY OF TESTED MATERIALS AND IS IN ACCORDANCE WITH THE SECRETARY'S LETTERS, APPROVED PLANS AND RULE REQUIREMENTS. THE MATERIALS AND WORKMANSHIP ARE OF A GOOD QUALITY AND THE SET WHEN TESTED IN SHOP UNDER FULL LOAD CONDITIONS SHOWN SATISFACTORY RESULTS. IN MY OPINION THIS ENGINE IS SUITABLE TO BE PLACED ON BOARD A VESSEL, CLASSED WITH THIS SOCIETY, FOR THE PURPOSE INTENDED.

This auxiliary set has now been properly fitted on board & tried under working conditions with satisfactory results.

Challis 30/9/41

J. Reister
 Surveyor to Lloyd's Register of Shipping.

The amount of Fee ... £ : : When applied for, M.
 Travelling Expenses (if any) £ : : When received, 9

Committee's Minute

FRI. 24 OCT 1941

Assigned

See Gens. J.E. 21400



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 (The Surveyors are requested not to write on or below the space for Committee Minute.)