



Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 769.

Date of writing Report 7-7-1952. When handed in at Local Office 18.7.1952. Port of LEEDS. Received at London Office 19 JUL 1952

No. in Survey held at Leeds. Date, First Survey 9-6-52. Last Survey 3-7-1952. Number of Visits 5

on the ^{Single} ~~Triple~~ ~~Quadruple~~ Screw vessel "CALTEX CALCUTTA" Tons Gross 851 Net 4808

Built at Sunderland By whom built Wm Daxford Sons Ltd Ygrd No. 489 - When built 1951

Oil Engines made at Leeds. By whom made J. & H. McLaren Ltd. Engine No. 50352. Contract No. 30856. When made 1952.

Generators made at Liverpool. By whom made Campbell & Isherwood Ltd. Generator Contract No. 47306. When made 1952.

No. of Sets 1 Engine Brake Horse Power 83 M.N. as per Rule 17 Total Capacity of Generators - Kilowatts

Set intended for essential services -

OIL ENGINES, &c.—Type of Engines McLaren M.5 Mark I. 2 or 4 stroke cycle 4 Single or double acting S.A.

Maximum pressure in cylinders 900 lbs/sq.in Diameter of cylinders 142 mm Length of stroke 200 mm No. of cylinders 5 No. of cranks 5

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 178 mm

Revolutions per minute 750

Weight 184 tons (Rim wt. only) Means of ignition Compression Kind of fuel used Heavy Oil

Crank Shaft, dia. of journals as per Rule approved 85 mm. Crank pin dia. 85 mm. Crank Webs Mid. length breadth 200 mm. Thickness parallel to axis -

Intermediate Shafts, diameter as per Rule - General armature, moment of inertia (16 m² or Kg.-cm.²) -

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 -

Boiling Water Pumps, No. One Centrifugal. Is the sea suction provided with an efficient strainer which can be cleared within the vessel -

Lubricating Oil Pumps, No. and size One Gear Type

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

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

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

Each 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 -

Where a drain arrangement fitted at the lowest part of each receiver -

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

Material - Range of tensile strength - Working pressure by Rules -

Low Pressure Air Receivers, No. - Total cubic capacity - Internal diameter - thickness -

Material - Range of tensile strength - Working pressure by Rules -

ELECTRIC GENERATORS:—Type Campbell & Isherwood No. 47306, Compound wound, Continuous rating, Drip proof. LLOYD'S 7-2-52. H.H.

Voltage of supply 110 volts. Full Load Current 455 Amperes. Direct or Alternating Current D.C.

Is the system an 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 -

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

Are all terminals accessible, clearly marked, and furnished with sockets - Are they so spaced

so that they cannot be accidentally earthed, short circuited, or touched - Are the lubricating arrangements of the generators as per Rule -

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

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

Are there any other driven machinery other than generator -

Are approved plans forwarded herewith for Shafting 22-2-50 Receivers - Separate Tanks -

Torsional Vibration characteristics if applicable been approved No Armature shaft Drawing No. -

RE GEAR As per Rule Requirements.

The foregoing is a correct description,

Wade
J. & H. MCLAREN LTD. Manufacturer.
ENGINEERS, LEEDS, 10



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Lloyd's Register Foundation

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Dates of Survey while building
 During progress of work in shops - - 9-6-52, 10-6-52, 12-6-52, 3-7-52, 2-7-52.
 During erection on board vessel - - -
 Total No. of visits 5

Dates of Examination of principal parts—Cylinders 12-6-52. Covers 12-6-52. Pistons 10-6-52. Piston rods -

Connecting rods 9-6-52. Crank and Flywheel shafts 9-6-52. Intermediate shafts -

Crank shaft
 Material S.M. Steel Tensile strength 45 tons/sq. in.
 Elongation 22% Identification Marks 223883 LLOYD'S 3058/182 HKS. 15-11

Flywheel shaft, Material - Identification Marks -

Identification marks on Air Receivers Engine. LLOYD'S 50352. 3-7-52. T.P.G.

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 heavy oil engine has been constructed under Special Survey in accordance with the approved plans, Secretary's letters and the Requirements of the Rules.
 The materials and workmanship are good, and the set was found satisfactory when tested in the shop under full load conditions, coupled to its generator.
 This unit is, in my opinion, suitable for installation in the vessel for which it is intended.

2013-10-11 (MADE AND PRINTED IN ENGLAND)
 (The Surveyors are requested not to write on or below the space for Committee Minute.)

The amount of Fee ... £ 8 : 6 : 0 When applied for 8-7-19 52
 Travelling Ex. (if any) £ : 8 : 0 When received 19

Committee's Minute TUES. 9 DEC 1952
 Assigned See F.E. mahy, rpt. Sld 35918

Thos. P. Robinson
 Surveyor to Lloyd's Register of Shipping.

