

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 698.

Reporting Report 19-2-1952. When handed in at Local Office 6.3.1952. Port of LEEDS. Received at London Office 7-MAR 1952

Survey held at Leeds. Date, First Survey 9-1-52. Last Survey 10-2-1952. Number of Visits 6

on the ^{Single} ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel "M.T. CALTEX-TANGANYIKA"

Tons { Gross - Net -

By whom built Messrs. Wm. Doxford & Sons, O/n. E3468 (Contract No. 30256.) McLaren Port belonging to - Yard No. - When built -

Engines made at Leeds. By whom made J. & H. McLaren Ltd. Engine Contract No. 50323. When made 1952.

Engines made at Liverpool. By whom made Campbell & Isherwood Generator Contract No. 46686. When made 1951.

Engines 1. Engine Brake Horse Power 83 M.N. as per Rule 17 Total Capacity of Generators 50 Kilowatts.

Engines provided for essential services -

Engines, &c. Type of Engines Heavy Oil M.5 Mk. I. 2 or 4 stroke cycle 4 Single or double acting Single.

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

Order in cylinders 1, 3, 5, 4, 2. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 178 mm.

bearing between each crank Yes. Moment of inertia of flywheel (16 m² or Kg.-cm.²) 347 lbs./ft.² Revolutions per minute 750

Weight Rim .184 Tons Means of ignition Compression Kind of fuel used Heavy Oil

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

as fitted 85 mm. Crank pin dia. 85 mm. Crank Webs Mid. length thickness 38 mm. Thickness round eye-hole -

Shaft, diameter as per Rule - Intermediate Shafts, diameter as per Rule - General armature, moment of inertia (16 m² or Kg.-cm.²) 16,677 lbs/in.²

provided to prevent racing of the engine when declutched Yes Means of lubrication Forced Kind of damper if fitted -

Cylinders fitted with safety valves No Are the exhaust pipes and silencers water cooled or lagged with non-conducting material No

Water Pumps, No. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel -

Oil Pumps, No. and size One Gear Type

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

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

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

Receiver, which can be isolated, fitted with a safety valve as per Rule -

Internal surfaces of the receivers be examined - What means are provided for cleaning their inner surfaces -

Drain arrangement fitted at the lowest part of each receiver -

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

Cap welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure by Rules -

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

Cap welded or riveted longitudinal joint - Material - Range of tensile strength - Working pressure by Rules -

ELECTRIC GENERATORS: - Type Compound wound, Continuous rating, Drip Proof, No. 46686. LLOYD'S TEST 2-10-51, H.H.

Supply 110 volts. Full Load Current 450 Amperes. Direct or Alternating Current D.C.

Operating current system, state the periodicity - Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown

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

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

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

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

Generators are 100 kw. or over have they been built and tested under survey -

Driven machinery other than generator None.

Are approved plans forwarded herewith for Shafting No 22-2-50 Receivers - Separate Tanks -

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

GEAR As per Rule Requirements.

The foregoing is a correct description,

J. & H. McLAREN LTD
ENGINEERS, LEEDS.

Manufacturer.



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Lloyd's Register
Foundation

004003-004002-0168

Dates of Survey while building { During progress of work in shops - - 9-1-52, 10-1-52, 18-1-52, 8-2-52, 15-2-52, 16-2-52
 { During erection on board vessel - - - }
 Total No. of visits 6

Dates of Examination of principal parts—Cylinders 18-1-52. Covers 9-1-52, 10-1-52. Pistons Piston rods.

Connecting rods 8-2-52. Crank and Flywheel shafts 8-2-52. Intermediate shafts

Crank shaft { Material S.M. Steel Tensile strength 45 tons/sq.in.
 { Elongation 22% Identification Marks 8915/18 LR.4622 C.D. 13-2-52

Flywheel shaft, Material Identification Marks

Identification marks on Engine Air Receivers LLOYD'S TEST
 No. 50323
 T.P.G.
 16-2-52

Is this machinery duplicate of a previous case No. 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.

The complete unit is, in our opinion, suitable for installation in the vessel for which it is intended.

2m. 3. 4. 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 ... £ 8 : 6 : 0 { When applied for 19-2-1952.
 Travelling Expenses (if any) £ : 8 : 0 { When received 19

TUES. 8 JUL 1952

Committee's Minute

Assigned

See F.E. incl. rpt. Sld. 35815

Wm. P. Robinson & Son
 Surveyors to Lloyd's Register of Shipping



Lloyd's Register Foundation