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1951

D.O.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 122948
AUG 1952

Received at London Office

Surveying Report 15781 19.5 When handed in at Local Office 15781 19.5 Port of London
 Survey held at Bedford Date, First Survey 22 June Last Survey 26 July 19.5
 Number of Visits 5
 Single on the Twin Triple Quadruple Screw vessel S.S. BRITISH CROWN Tons Gross 1208 Net 1208
 By whom built Cammell Laird & Co. Ltd Yard No. 1208 When built 1951
 Port belonging to British Tanker Co Ltd
 By whom made W. H. Allen Sons & Co. Ltd Contract No. K2485783 When made 1951
 By whom made " Contract No. E2485787 When made "
 Engine Brake Horse Power 240 M.N. as per Rule 60 Total Capacity of Generators 150 Kilowatts.
 Intended for essential services Yes

ENGINES, &c.—Type of Engines Diesel 2 or 4 stroke cycle 4 Single or double acting Single
 Pressure in cylinders 750 lb/in² Diameter of cylinders 240 mm Length of stroke 300 mm No. of cylinders 6 No. of cranks 6
 Indicated pressure 85.3 psi Firing order in cylinders 1.2.4.6.5.3 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 282 mm
 Bearing between each crank yes Moment of inertia of flywheel ($16 \text{ m}^2 \text{ or Kg.-cm.}^2$) 4750 Revolutions per minute 600
 Shaft dia 1200 mm Weight 1780 lbs Means of ignition Compression Kind of fuel used —
 Shaft, dia. of journals as per Rule 132 mm Crank pin dia. 150 mm Crank Webs Mid. length breadth 204 mm Thickness parallel to axis shrunk
 as fitted 140 mm Mid. length thickness 70 mm Thickness round eye-hole —
 Shaft, diameter as per Rule 132 mm Intermediate Shafts, diameter as per Rule 150 mm General armature, moment of inertia ($16 \text{ m}^2 \text{ or Kg.-cm.}^2$) 1490
 as fitted —

Means provided to prevent racing of the engine when declutched Yes Means of lubrication Forced Kind of damper if fitted —
 Cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material —
 Water Pumps, No. 1 Salt + 1 Fresh Water or engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel —
 Operating Oil Pumps, No. and size one Rotary Gear Type

Compressors, No. — No. of stages — Diameters — Stroke — Driven by —
 Sucking Air Pumps, No. — Diameter — Stroke — Driven by —

RECEIVERS:—Have they been made under Survey — 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 —

A drain arrangement fitted at the lowest part of each receiver —

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

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

Sucking Air Receivers, No. one Total cubic capacity 11.2 Cuft Internal diameter 2'-0" thickness 5/16"

Seams, lap welded or riveted longitudinal joint Lap Welded Material Steel Range of tensile strength 26/30 tons Working pressure by Rules 300 lb/sq in

ELECTRIC GENERATORS:—Type —

Voltage of supply 440 volts. Full Load Current — Amperes. Direct or Alternating Current A.C.

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

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

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

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

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 yes

Is of driven machinery other than generator —

NS.—Are approved plans forwarded herewith for Shafting — Receivers — Separate Tanks —

Torsional Vibration characteristics if applicable been approved 2-5-50 Armature shaft Drawing No. E/139305

RE GEAR Spur Gear supplied as per rule requirements

The foregoing is a correct description,

W. H. ALLEN, SONS & Co., Ltd. Manufacturer.

K. Clarke 26/7/51.



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Dates of Survey while building { During progress of work in shops - -) 1951 June 22. 26 27 July 25. 26
{ During erection on board vessel - -)
Total No. of visits 5 (In shops)

Dates of Examination of principal parts—Cylinders 26-6-51 Covers 22-6-51 Pistons 26-6-51 Piston rods
Connecting rods 27-6-51 Crank and Flywheel shafts 26-6-51 Intermediate shafts

Crank shaft { Material Steel Tensile strength
Elongation Identification Marks LLOYDS E.B. 2368 5-12-50 26-6-51

Flywheel shaft, Material Identification Marks

Identification marks on Air Receivers 11/51/500106 LLOYDS TEST 11.4.51 T.O.S. HT. 600lb WP300lb N°EW 2644

Is this machinery duplicate of a previous case Yes If so, state name of vessel N° 749 British Tanker A K2

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The Diesel Generator has been constructed under special survey in accordance with the requirements of Rules; The steel was made at works approved by the Committee; The workmanship is good; on completion the Diesel Generator set was tested upon the bench under full and overbush conditions with satisfactory results.

The Diesel Generator has been dispatched to Cammell Laird for fit on board the vessel

This set has been properly installed in the vessel and tried full working conditions with satisfactory results.

L. Pinner
Liverpool 11/7/52.

Attached Bhm No. 7.2136. N° C. 12661.

The amount of Fee ... £ 12 : 0 : 0 When applied for 15/8/51 1951
Travelling Expenses (if any) £ 1 : 3 : 6 When received 19

Committee's Minute

Assigned

R.W. Boomer
Surveyor to Lloyd's Register of Shipping.



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