

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 130194

of writing Report Oct 13th 54 When handed in at Local Office Oct 13th 54 Port of London
 Date, First Survey Aug 13th Last Survey Oct 13th 1954
 Number of Visits 10
 on the Single Screw vessel Scottish Hawk
 at Greenock Dockyard
 By whom built Greenock Shipways & Eng Co Ltd Yard No. 1058 When built -
 Engines made at Bedford By whom made W. H. Allen & Sons & Co Ltd Contract No. K3/54689 When made 1954
 Generators made at Bedford By whom made W. H. Allen & Sons & Co Ltd Contract No. E3/54693 When made 1954
 of Sets 2 Engine Brake Horse Power 225 h.p. as per Rule - Total Capacity of Generators 300 Kilowatts.
 Set intended for essential services Yes

L ENGINES, &c.—Type of Engines Vertical airless injection diesel 4 stroke cycle 4 Single or double acting Single
 Maximum pressure in cylinders 800 lb/sq in Diameter of cylinders 9" Length of stroke 12" No. of cylinders 6 No. of cranks 6
 Indicated pressure 97.2 lb/sq in Firing order in cylinders 135642 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 10 9/16"
 Is there a bearing between each crank Yes Moment of inertia of flywheel 16 ft² 5200 Revolutions per minute 550
 Wheel dia. 42 1/2" Weight 2600 lb Means of ignition Compression Kind of fuel used Pool Good
 Crank Shaft, dia. of journals 5.19" as per Rule 6.75" Crank pin dia. 6.125" Crank Webs 10.125" Mid. length breadth 2.75" shrunk Thickness parallel to axis -
 Wheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule General armature, moment of inertia 16 ft² 1600
 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 Yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Yes
 Cooling Water Pumps, No. ONE Independent of the E. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
 Lubricating Oil Pumps, No. and size One off engine driven rotary type gear oil pump per engine
 Compressors, No. - No. of stages - Diameters - Stroke - Driven by -
 Sucking Air Pumps, No. - Diameter - Stroke - Driven by -

RECEIVERS:—Have they been made under Survey Yes State No. of Report or Certificate -
 Each receiver, which can be isolated, fitted with a safety valve as per Rule Yes
 Are 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 Yes

High Pressure Air Receivers, No. Yes Cubic capacity of each 10 cu ft Internal diameter 18" thickness 5/16"
 Seamless, lap welded or riveted longitudinal joint Seamless Material OH Steel Range of tensile strength 85,000 lb/sq in Working pressure by Rules 300 lb/sq in
 Sucking Air Receivers, No. Yes Total cubic capacity 10 cu ft Internal diameter 18" thickness 5/16"
 Seamless, lap welded or riveted longitudinal joint Seamless Material OH Steel Range of tensile strength 85,000 lb/sq in Working pressure by Rules 300 lb/sq in

ELECTRIC GENERATORS:—Type Form 1B
 Voltage of supply volts Full Load Current Amperes Direct or Alternating Current Direct
 Alternating current system, state the periodicity Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown
 and off Generators, are they compounded as per Rule is an adjustable regulating resistance fitted in series with each shunt field
 All terminals accessible, clearly marked, and furnished with sockets Yes Are they so spaced Yes
 Shielded 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 h.p. full load rating Yes Are the maker's supplied certificates of test Yes and do the results comply with the requirements Yes
 Are the generators 100 h.p. or over have they been built and tested under survey Yes
 Details of driven machinery other than generator -

ANS.—Are approved plans forwarded herewith for Shafting Yes Receivers Yes Separate Tanks Yes
 Torsional Vibration characteristics if applicable been approved 20th August 1953 Armature shaft Drawing No. E/146282
 ARE GEAR As per attached list

The foregoing is a correct description,

W. H. ALLEN, SONS & CO. LD.

Manufacturer.

A. H. Clarke.



© 2021

Lloyd's Register Foundation

014734-014743-014752

Dates of Survey while building During progress of work in shops - Aug. 13-18-20-26-30 Sept. 3-29. Oct. 1-12-13. 1954
During erection on board vessel - ✓
Total No. of visits 10.

Dates of Examination of principal parts - Cylinders Aug. 13th HEADS. 18-20/8/54 Pistons 16-20/8/54 LINERS. 18-20/8/54
FRAMES. ✓
Connecting rods 18/8/54. Crank and Flywheel shafts. 18-20/8/54. Intermediate shafts ✓

Crank shaft Material S.M.O.H. Steel. Tensile strength 33.2 TKS D.
Elongation 28% in 2" Identification Marks A. LLOYD'S (B.H.M.) 58.4761-144/54-204/54
CONNECTING RODS. SM Steel. Identification Marks LLOYD'S J.H. D13(1). D15(6) 18/8/54 J.
Flywheel shaft, Material SM Steel. Identification Marks D24(3) C2(2)

Identification marks on Air Receivers 9/520381. LLOYD'S TEST T.D.S. (NOT) H.T. 600 W.P. 300 160 19/7/54 H. 2881-2.
Fitting. LLOYD'S TEST-600 LBS D. 29/9/54 JLS.

Is this machinery duplicate of a previous case Yes. If so, state name of vessel Turner S.B. Co. No 466.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

The above engines have been constructed under special Survey from materials made at works approved by the Committee. The workmanship throughout is considered satisfactory. Ship trials under full overload conditions were witnessed with satisfactory results - Governors tried & found to Rule Requirements.

100,500.-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 ... £ 35 : - : - When applied for 21 OCT 1954
Travelling Expenses (if any) £ 3 : 15 : 0 When received 19

Committee's Minute GLASGOW 26 APR 1955
Assigned SEE ACCOMPANYING MACHINERY REPORT

J. L. Smith.
Surveyor to Lloyd's Register of Shipping.
© 2021
Lloyd's Register
Foundation