

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 76059

Received at London Office

17 SEP 1950

of writing Report. 5th Sept. 1950 When handed in at Local Office 11.9.1950 Port of Glasgow
 Survey held at Glasgow Date, First Survey 5-6-50 Last Survey 11th Aug. 1950
 Number of Visits 8
 Single on the Twin Triple Quadruple Screw vessel H.V. "British Premier"
 Port Glasgow By whom built Messrs Glasgow's Ltd Yard No. 1052 When built 1950
 Messrs British Tankers Ltd. Port belonging to London
 Engines made at Glasgow By whom made Messrs British Polar Engines Ltd ENG: PU 161 When made 1950
 generators made at Sunderland By whom made The Sunderland Engine Co. Ltd GEN: 40880/1 When made 1950
 of Sets TWO Engine Brake Horse Power 112 x 2 M.N. as per Rule TOTAL 56 Total Capacity of Generators 150 Kilowatts.
 Set intended for essential services. YES.

IL ENGINES, &c.—Type of Engines Heavy Oil Engines W5.3.E Type 2 or 4 stroke cycle 2 Single or double acting Single
 maximum pressure in cylinders 925 lb/sq. in. Diameter of cylinders 180 1/4" Length of stroke 300 1/4" No. of cylinders 3 No. of cranks 3
 an indicated pressure 83 lb/sq. in. Firing order in cylinders 2-1-3 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 220 1/4"
 there a bearing between each crank YES Moment of inertia of flywheel (16 m² or Kg.-cm.²) 240 lb in sec² Revolutions per minute 500
 flywheel dia 800 1/4" Weight 630 lbs. Means of ignition COMP Kind of fuel used DIESEL
 as per Rule Approved. Crank pin dia 120 1/4" Crank Webs Mid. length breadth 2 1/4" Thickness parallel to axis —
 ank Shaft, dia. of journals 125 1/4" as fitted Crank pin dia 120 1/4" Mid. length thickness 56 1/4" Thickness round eye hole —
 as per Rule Intermediate Shafts, diameter as fitted General armature, moment of inertia (16 m² or Kg.-cm.²) —
 e means provided to prevent racing of the engine when declutched YES Means of lubrication FORCED Kind of damper if fitted —
 e the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled or lagged with non-conducting material LAGGED
 ooling Water Pumps, No. ONE Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES
 lubricating Oil Pumps, No. and size ONE — 1500 GALL/HR

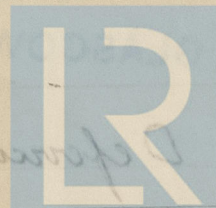
Compressors, No. — No. of stages — Diameters — Stroke — Driven by —
 avenging Air Pumps, No. BLOWER Diameter — Stroke — Driven by ENG.
 IR RECEIVERS:—Have they been made under Survey YES State No. of Report or Certificate ✓
 each receiver, which can be isolated, fitted with a safety valve as per Rule YES
 n the internal surfaces of the receivers be examined YES What means are provided for cleaning their inner surfaces. END FLANGE.
 there a drain arrangement fitted at the lowest part of each receiver YES
 gh Pressure Air Receivers, No. — Cubic capacity of each — Internal diameter — thickness —
 mless, lap welded or riveted longitudinal joint. Material — Range of tensile strength — Working pressure by Rules —
 arting Air Receivers, No. TWO Total cubic capacity 7 COB FT. Internal diameter 18 1/2" thickness 1/2"
 mless, lap welded or riveted longitudinal joint. SEAMLESS Material H.S. Range of tensile strength 26/30 tons Working pressure by Rules 710 lb/sq. in.

ELECTRIC GENERATORS:—Type Sunderland Engine Co. Ltd. Compound, Continuous Rating 75 KW. EACH.
 essage of supply 110 volts. Full Load Current 682 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.
 e all terminals accessible, clearly marked, and furnished with sockets. — Are they so spaced
 shielded that they cannot be accidentally earthed, short circuited, or touched. — Are the lubricating arrangements of the generators as per Rule.
 the generators are under 100 kw. full load rating, have the makers supplied certificates of test. — and do the results comply with the requirements.
 the generators are 100 kw. or over have they been built and tested under survey Generators Nos 40880/1 MARKED LLOYD'S TEST 23-6-50 S.D.B.
 tails of driven machinery other than generator. —

ANS.—Are approved plans forwarded herewith for Shafting 26-4-49 Receivers. — Separate Tanks. —
 ve Torsional Vibration characteristics if applicable been approved 26-4-49 Armature shaft Drawing No. —
 ARE GEAR As per rule requirements

The foregoing is a correct description,

B. Scott B.P.E. Ltd Manufacturer.



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004230-004237-0194

Dates of Survey while building { During progress of work in shops - - 5-6-50, 7-6-50, 9-6-50, 12-6-50, 13-6-50, 14-6-50, 7-8-50, 11-8-50
During erection on board vessel - - -
Total No. of visits 8.

Dates of Examination of principal parts—Cylinders 5-6-50 Covers 5-6-50 13-6-50 Pistons 5-6-50 14-6-50 Piston rods —

Connecting rods 16-7-48 Crank and Flywheel shafts 23-12-48, 23-11-49 Intermediate shafts —

Crank shaft { Material O.H. STEEL. Tensile strength P.U.161 33 Tons/sq. in P.U.162 36.4 Tons/sq. in
Elongation P.U.161 33% on 2" P.U.162 27% on 2" Identification Marks P.U.161. 11040519942/11442R. 23-11-48
P.U.162. 1104055890 23-12-48 R

Flywheel shaft, Material — Identification Marks —

Identification marks on Air Receivers 836171, 836182 Chesterfield Tube Co Ltd. Sheffield.

Is this machinery duplicate of a previous case YES If so, state name of vessel H.V. "BRITISH PEER."

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These engines have been built under Special Survey in accordance with the Secretary's letters and approved plans. The materials and workmanship are good and on completion the engines were tried on the test bed at the makers works with satisfactory results. The generator sets have now been dispatched to Messrs Ritchie & Co. Ltd., Yard No 1052 to be installed on board the H.V. "British Peer" and are eligible in my opinion for the record of LHC (with date) subject to satisfactory governing tests being carried out after installation on board. The torsional vibration characteristics have been approved for a service speed of 500 R.P.M.

These engines have been apparently installed on the vessel & tested under full working conditions with satisfactory results.

Charles H. Hunter
Greenock
12/3/51

The amount of Fee ... £ 11 : 4 : 0 When applied for 19
Travelling Expenses (if any) £ - : - : - When received 19

Committee's Minute GLASGOW 13 SEP 1950
Assigned Deferred for comp

A. G. Smith
Surveyor to Lloyd's Register of Shipping.
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