

Engine No 3189

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 3646

of writing Report 19-2-1951 When handed in at Local Office 24-2-1951 Port of Glasgow
Size of open in Survey held at Glasgow Date, First Survey 28th June 1950 Last Survey 14-2-1951
Book. Single on the Twin Triple Quadruple Screw vessel
at Sunderland By whom built Messrs Jas. Laing, Ltd Yard No. 791 When built 1951
ers. Messrs British Yawker Co Ltd Port belonging to London.
and diam Engines made at Glasgow By whom made Messrs British Polar Eng. Ltd Contract No. PU165/6 When made 1950
erators made at Sunderland By whom made Messrs Sunderland Forge Ltd Contract No. 40950 When made 1950
t holes and of Sets 2 Engine Brake Horse Power 112 X 2 M.N. as per Rule 56 Total Capacity of Generators 150 Kilowatts.
et intended for essential services. YES

ENGINES, &c.—Type of Engines Heavy Oil Engines H.S. 3.E. Type 2 or 4 stroke cycle 2 Single or double acting Single
imum pressure in cylinders 925 lbs/sq in Diameter of cylinders 180 mm Length of stroke 300 mm No. of cylinders 3 No. of cranks 3
n indicated 83 lbs/sq in Firing order in cylinders 2-1-3 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 220
be shut pressure YES Moment of inertia of flywheel (16 m² or Kg.-cm.²) 240 lb in sec² Revolutions per minute 500
ere a bearing between each crank YES Wheel dia 800 mm Weight 630 lbs Means of ignition COMP Kind of fuel used S.H.O.
pressure as per Rule. 125 mm Crank pin dia 120 mm Crank Webs Mid. length breadth 214 mm Thickness parallel to axis
ic test as fitted. 125 mm Crank Webs Mid. length thickness 56 mm Thickness round eyehole
e drain wheel Shaft, diameter as per Rule. 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 decoupled YES Means of lubrication FORCED Kind of damper if fitted NONE
the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled or lagged with non-conducting material LACED
ing Water Pumps, No. ONE Is the sea suction provided with an efficient strainer which can be cleared within the vessel YES

9.8. Lubricating Oil Pumps, No. and size ONE - 1500 GAL/HK
Compressors, No. NONE No. of stages Diameters Stroke Driven by
enging Air Pumps, No. BLOWER Diameter Stroke Driven by H.E.

R RECEIVERS:—Have they been made under Survey YES State No. of Report or Certificate
ach receiver, which can be isolated, fitted with a safety valve as per Rule YES
the internal surfaces of the receivers be examined YES What means are provided for cleaning their inner surfaces END FLANGE
here a drain arrangement fitted at the lowest part of each receiver YES

h 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
rting Air Receivers, No. TWO Total cubic capacity 200 LITRES Internal diameter 13 1/2 inches thickness 1/2 inch
mless, lap welded or riveted longitudinal joint SEAMLESS Material H.S. Range of tensile strength 36/30 TT Working pressure by Rules 70 lbs/sq in

ELECTRIC GENERATORS:—Type Sunderland Forge Ltd Compound wound, Dist. rating 75 KW.
ssure of supply 110 volts Full Load Current 682 Amperes Direct or Alternating Current D.C.
lternating current system, state the periodicity Has the Automatic Governor been tested and found as per Rule when full load is suddenly thrown
nd 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 Are they so spaced
hielded that they cannot be accidentally earthed, short circuited, or touched Are the lubricating arrangements of the generators as per Rule
he generators are under 100 kw. full load rating, have the makers supplied certificates of test and do the results comply with the requirements
he generators are 100 kw. or over have they been built and tested under survey
ails of driven machinery other than generator

ANS.—Are approved plans forwarded herewith for Shafting 26-4-49 Receivers Separate Tanks
(If not, state date of approval)
ve Torsional Vibration characteristics if applicable been approved 26-4-49 Armature shaft Drawing No.
(state date of approval)
ARE GEAR As per rule requirements.

The foregoing is a correct description,

Thos S. R. R. for B.P.E. LTD Manufacturer.



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004496-004501-016

Dates of Survey while building { During progress of work in shops - - 28th June 1950 Oct 1950 - 4th - 6th - 19th - 20th Nov 6th February 1951 - 9th - 10th - 14th
During erection on board vessel - - -
Total No. of visits Exp. 9.

Dates of Examination of principal parts—Cylinders 6-10-50 Covers 19-10-50 Pistons 19-10-50 Piston rods ✓
Connecting rods 16-7-48 Crank and Flywheel shafts 29-1-48 Intermediate shafts ✓
4-5-48

Crank shaft { Material O.H. STEEL. Tensile strength 33.8 T.T. 34.8 T.T.
Elongation 30% 28% Identification Marks 17189 H.A.1 17515 H.A.1

Flywheel shaft, Material ✓ Identification Marks ✓

Identification marks on Air Receivers. Chesterfield Lub. Co. No 836202 21-4-49 No 836218 26-5-49

Is this machinery duplicate of a previous case YES If so, state name of vessel M.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 letter 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.
They have now been dispatched to Messrs Jas Baird & Co., Sunderland, to be fitted to their yard No 791
The torsional vibration characteristics have been approved for a service speed of 500 R.P.M.

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

Committee's Minute GLASGOW 28 FEB 1951

Assigned Deferred for comp. A. G. Smith.
Surveyor to Lloyd's Register of Shipping

FRI. 27 JUL 1951
Lloyd's Register
Foundation

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