

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 11295

22 DEC 1942 9 AUG 1943

Received at London Office

Date of writing Report 23-11-1942 When handed in at Local Office 19 Port of Manchester

No. in Survey held at Manchester Date, First Survey 20-10-42 Last Survey 17-11-1942
 Reg. Book. Number of Visits 4

on the Single Twin Triple Quadruple Screw vessel "EMPIRE RANCHER" Tons 147
 Gross 147
 Net 147

Built at John Harber By whom built John Harber Yard No. 146 When built 1942

Owners Port belonging to

Oil Engines made at Manchester By whom made Crossley Bros. ENGINE Contract No. 131931 When made 1942

Generators made at ✓ By whom made ✓ Contract No. ✓ When made ✓

No. of Sets One Engine Brake Horse Power 8 Nom. Horse Power as per Rule 2.3 Total Capacity of Generators 4.5 Kilowatts.

OIL ENGINES, &c.—Type of Engines Vertical Solid Injection 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 900 lb/sq in Diameter of cylinders 4" Length of stroke 4 1/2" No. of cylinders One No. of cranks one

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 3 3/4" Is there a bearing between each crank ✓

Revolutions per minute 1250 Flywheel dia. 19" Weight 178 lbs Means of ignition Compression Kind of fuel used Heavy oil

Crank Shaft, dia. of journals as per Rule Approved Crank pin dia. 2 3/8" Crank Webs Mid. length breadth 4 1/2" Thickness parallel to axis skunk
as fitted 3 1/2" Mid. length thickness 1 3/8" Thickness around eye hole Solid

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners ✓
as fitted as fitted as fitted

Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication Forced

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

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

Lubricating Oil Pumps, No. and size One 9/16" dia x 1/2" stroke at 625 Revs per min.

Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓

Scavenging Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓

AIR RECEIVERS:—Have they been made under Survey

State No. of Report or Certificate

Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined

What means are provided for cleaning their inner surfaces

Is there a drain arrangement fitted at the lowest part of each receiver

High Pressure Air Receivers, No.

Cubic capacity of each

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

Starting Air Receivers, No.

Total cubic capacity

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

ELECTRIC GENERATORS:—Type

Pressure of supply volts. Full Load Current

Amperes.

Direct or Alternating Current

If alternating current system, state the periodicity ✓Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on and off ✓Generators, are they compounded as per rule ✓

is an adjustable regulating resistance fitted in series with each

shunt field

Are all terminals accessible, clearly marked, and furnished with sockets ✓Are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched ✓Are the lubricating arrangements of the generators as per Rule ✓If the generators are under 100 kw. full load rating, have the Makers supplied certificates of test ✓and do the results comply with the requirements ✓If the generators are 100 kw. or over have they been built and tested under survey ✓PLANS. Are approved plans forwarded herewith for Shafting Approved 8-8-42 Receivers ✓Separate Tanks ✓

SPARE GEAR

As per Rule Requirements ✓

The foregoing is a correct description.

CROSSLEY BROTHERS LIMITED.

Manufacturer.



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Foundation

004387-004393-0018

Dates of Survey while building

20-10-42; 21-10-42, 11-11-42, 17-11-42

Dates of Examination of principal parts—Cylinders 20-10-42 Covers 21-10-42 Pistons 21-10-42 Piston rods ✓

Connecting rods 21-10-42 Crank and Flywheel shafts 20-10-42 Intermediate shafts ✓

Crank and Flywheel shafts, Material O.H. Ingot Steel Identification Marks LLOYDS M96. E.G. 20/10/42.

Intermediate shafts, Material ✓ Identification Marks ✓

Identification marks on Air Receivers ✓

Is this machinery duplicate of a previous case Yes If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) This Engine has been constructed under Special Survey, of listed Materials and in accordance with the Secretary's letter, approved plans and Rule Requirements.

The materials and workmanship are of good quality, and the engine when listed in the shop under full load conditions, showed satisfactory results.

In my opinion this engine is suitable to be placed on board a vessel, classed with this Society, for the purpose intended.

This machine installed on board EMPIRE RANCHER at Knottingly & Goolie under Special Survey to drive the windlass

W.S.S. 4/43

The amount of Fee ...

£ 2 : 2 :

When applied for,

21-12-1942

Travelling Expenses (if any) £

: 5 :

When received,

19.....

E. Greaves pp S. Newton

Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 17 AUG 1943

Assigned

See minute on Steel J.E.R. pl.



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