

17 MAY 1930

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 49937

Received at London Office 15 DEC 1929

Date of writing Report 19 When handed in at Local Office 14.12.19 Port of Glasgow.

No. in Survey held at Glasgow. Date, First Survey 26.7.29 Last Survey 3rd Dec 1929.

Reg. Book. Number of Visits 25

on the Single Twin Triple Quadruple Screw vessel M.V. "IRISBANK" Tons { Gross Net

Built at Belfast By whom built Workman Clark (1928) Yard No. 510 When built 1930.

Owners Messrs Andrew Weir & Co. Port belonging to Belfast.

Oil Engines made at Glasgow. By whom made Fiat British Auxiliaries Ltd Contract No. 180 When made 1929

Generators made at Sunderland. By whom made Sunderland Forge & Eng Co Ltd Contract No. When made 1929

No. of Sets 2 Engine Brake Horse Power 200 Nom. Horse Power as per Rule 52 Total Capacity of Generators 135 Kilowatts.

OIL ENGINES, &c.—Type of Engines Fiat British Diesel 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 500. Diameter of cylinders 255 mm Length of stroke 450 mm No. of cylinders 3 No. of cranks 3

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 334 mm Is there a bearing between each crank Yes.

Revolutions per minute 310 Flywheel dia. 1800 mm Weight 2.5 tons Means of ignition Compression Kind of fuel used Diesel oil

as per Rule 148.5 mm Crank pin dia. 160 mm Mid. length breadth 212 mm Thickness parallel to axis ✓

Crank Shaft, dia. of journals 160 mm as fitted ✓ Crank Webs shrunk Mid. length thickness 92 mm Thickness around eye hole ✓

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 15 mm

as fitted Crank Shaft. as fitted ✓

Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes. Means of lubrication Mechanical

Are the cylinders fitted with safety valves Yes. Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Lagged.

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

Lubricating Oil Pumps, No. and size One each engine, gear wheel type 45 x 40 Suction & discharge

Air Compressors, No. One each engine No. of stages 3 Diameters 260. 232. 56 Stroke 335 mm Driven by Crank Shaft

Scavenging Air Pumps, No. One each engine Diameter 370 mm Stroke 410 mm Driven by Crank Shaft.

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes.

Can the internal surfaces of the receivers be examined Yes. What means are provided for cleaning their inner surfaces Screwed cover

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

High Pressure Air Receivers, No. One each engine Cubic capacity of each 40 litres Internal diameter 210 mm thickness 11 mm

Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 3/35 tons Working pressure by Rules 1533 lb

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 Open compound wound.

Pressure of supply 220 volts. Load 614 Amperes. Direct or Alternating Current Direct

If alternating current system, state frequency of periods per second ✓

Has the Automatic Governor been tested and found efficient when the whole load is suddenly thrown on or off Yes.

Generators, do they comply with the requirements regarding rating Yes. are they compound wound

are they over compounded 5 per cent. No Level Compounded if not compound wound state distance between each generator

is an adjustable regulating resistance fitted in series with each shunt field Yes. Are all terminals accessible, clearly marked, and furnished with sockets Yes.

are they so spaced or shielded that they cannot be accidentally earthed, short circuited, or touched Yes. Are the lubricating arrangements of the generators as per Rule Yes.

LANDS. Are approved plans forwarded herewith for Shafting No Receivers No Separate Tanks No

PAIRE GEAR 2 main bearing studs. 1 cylinder cover. 1 Set of engine connecting rod bolts and bushes, 2 gudgeon pins, 1/2 Set of engine piston rings See list 31/10/29

1 Set of fuel pump working parts, 3 fuel valve spindles, 1 relief valve, 1 air starting valve, 1 set of compressor piston rings,

1 set of cylinder cover studs, 1/2 set compressor valves complete

2 fuel injection valves.

The foregoing is a correct description,

For FIAT BRITISH AUXILIARIES, LIMITED,

John Rogers
WORKS MANAGER.

Manufacturer.

Lloyd's Register
Founded 1825

002938-002946-00294

Dates of Survey while building { During progress of work in shops - - } 1929 July 26 Aug 2 12 20 Sep 5 11 13 16 19 Oct 2 8 11 14 15 22 25 30 Nov 1 6 13 19 22 23 Dec 2 3
 { During erection on board vessel - - - }
 Total No. of visits 25

Dates of Examination of principal parts—Cylinders 19-9-29 14-10-29 Covers 30-10-29 Pistons 30-10-29 Piston rods Trunk type
 Connecting rods 19-9-29 30-10-29 Crank and Flywheel shaft 30-10-29 Intermediate shaft ✓
 Crank and Flywheel shaft, Material S. Identification Mark 1553 R. 30-8-29 1555 G. 22-9-29 Intermediate shafts, Material ✓ Identification Marks ✓
 Is this machinery duplicate of a previous case No If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c.)
 These engines have been constructed under special survey, the dimensions being as approved. The materials and workmanship employed in their construction so far as can be seen are sound and good, and the engines proved satisfactory on a working running test. In my opinion, these engines will be eligible for inclusion in the classification and record of + L.M.C of the vessel for which they are intended.
 They have been dispatched to Belfast to be fitted on board the M.V. IRIS BANK.

These auxiliary engines have been efficiently installed & tried out under working conditions.

A. L.
 10/12/29.
 John. K. Williams.
 Belfast.

RR.

1m. 7. 28—Transfer.
 (The Surveyors are requested not to write on or below the space for Committee's Minutes.)

The amount of Fee ... 2/3 £ 10 : 8 :
 Travelling Expenses (if any) £ : :
 When applied for 17 DEC 1929
 When received, 24th March 1930.

Robert Rae
 Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 17 DEC 1929
 Assigned Deferred.

