

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 10127

29 JAN 1937

of writing Report 27/1 When handed in at Local Office 37 Port of Copenhagen
 in Survey held at Copenhagen Date, First Survey 4/10 1935 Last Survey 11/1 1937
 Book. Number of Visits 16
 on the Single Screw vessel "T.8." (designated "PENHOET II") Tons { Gross _____ Net _____
 Tilt at H. Vazair By whom built Chantiers & Penhoet Yard No. _____ When built _____
 Owners J. HURET & Cie. Port belonging to _____
 Engines made at Copenhagen By whom made Siemens & Wain ENGINE Contract No. 2671-2 When made 1936
 Generators made at Copenhagen By whom made Siemens & Wain Contract No. _____ When made _____
 No. of Sets 2 Engine Brake Horse Power 2225 Nom. Horse Power as per Rule _____ Total Capacity of Generators 270 Kilowatts.

L ENGINES, &c.—Type of Engines Diesel, TRUNK PISTON, SOLID INJECTION 2 or 4 stroke cycle 2 Single or double acting Single
 Maximum pressure in cylinders 49 kg/cm² Diameter of cylinders 220 mm Length of stroke 370 mm No. of cylinders 4 No. of cranks 4
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 277 mm Is there a bearing between each crank yes
 Revolutions per minute 350 Flywheel dia. 1200 mm Weight 1550 kg Means of ignition compression Kind of fuel used Diesel oil
 Crank Shaft, dia. of journals as per Rule 135 mm Crank pin dia. 150 mm Crank Webs Mid. length breadth 245 mm Thickness parallel to axis 85 mm
 as fitted 150 mm Mid. length thickness 85 mm Thickness around eye hole 67.5 mm
 Flywheel Shaft, diameter as per Rule 135 mm Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 18 mm
 as fitted 150 mm

Is a governor or other arrangement fitted to prevent racing of the engine when disconnected yes Means of lubrication forced
 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. 1 1.8 m³/h. Is the sea suction provided with an efficient strainer which can be cleared within the vessel
 Lubricating Oil Pumps, No. and size 1 rotary 4.8 m³/h.
 Air Compressors, No. 1 each engine No. of stages 2 Diameters 280-250 mm Stroke 190 mm Driven by air engine
 scavenging Air Pumps, No. 1 (each engine) Diameter rotary Stroke 26 m³/min. Driven by chain

AIR RECEIVERS:—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. 1 Total cubic capacity 100 liters Internal diameter 336 mm thickness 10 mm
 Seamless, lap welded or riveted longitudinal joint lap welded Material S.M. steel Range of tensile strength 24.45 Working pressure by Rules 31 kg/cm²

ELECTRIC GENERATORS:—Type D.C. engines, semi-closed, 1 of 100 kwh, 1 of 35 kwh, for each engine
 Pressure of supply 0-220 volts. Load 455-159 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 yes
 Are they over compounded 5 per cent. yes, 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

PLANS. Are approved plans forwarded herewith for Shafting yes Receivers yes Separate Tanks yes
 (If not, state date of approval)

SPARE GEAR 3 fuel injection valves complete, 3 spindles for do., 3 exhaust valves complete,
3 spindles for do., 1 roller with shaft, 1 starting valve complete, 3 spindles for do., 1 safety
valve complete, 1 piston gudgeon pin, 3 sets of piston rings, 1 connecting rod top and bottom,
1 pair of bottom end brasses, 2 crank pin bolts with nuts, 1 pair of main bearing brasses,
2 main bearing slides with nuts, 3 oil feed pressure pumps, springs, bolts, packings etc.
 FOR COMPRESSORS: 1 pair of crank pin brasses, 2 crank pin bolts with nuts, 1 set of LP piston
rings, 2 sets of HP piston rings, valves, springs etc.
 FOR DYNAMOS: 1 set of carbon brushes, 1/2 set of brush holders.

Dates of Survey while building { During progress of work in shops - - 4/10, 10/10/35, 14/11, 16/10, 24/10, 24/11, 31/11, 2/12, 27/12, 25/1, 24/2, 30, 31, 9, 7, 8, 11, 37
During erection on board vessel - - -
Total No. of visits 10

Dates of Examination of principal parts—Cylinders *will* Covers 24/7 2/8 36 Pistons 27/8 36 1/1 37 Piston rods —

Connecting rods 4/10, 10/10/35, 14/11, 36 Crank and Flywheel shaft 16/10, 24/10, 31/11, 27/12 36 Intermediate shaft ✓

Crank and Flywheel shafts, Material *S. M. steel* Identification Mark *LLOYD'S N° 3295 - 3296*
429.8.36

CONN. RODS
Intermediate shafts, Material *S. M. steel* Identification Marks *LLOYD'S N° 3057*
BN 14.1.36

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

General Remarks (State quality of workmanship, opinions as to class, &c.)

The two Dime in engines herein described are of Messrs. Harland & Wolff's standard type and have been constructed under special survey and in accordance with the Society's Rules. The approved plan of crank shaft and the Surveyor's letter dated 30/6/1936. The machine has been tested and examined as per Rules and found satisfactory and the workmanship is of good description.

The two sets of gearwheels have been made by Messrs. Bath & Peck, Ltd. Park Works, Manchester, and have been inspected and tested by the Society's Surveyors at that place.

On completion the engines with their gearwheels were tested under working conditions and found to work satisfactorily.

The amount of Fee ... 14.700.- : When applied for, 28.1.1937.
Travelling Expenses (if any) £ : When received, 20.3.1937 24/3

Chilippi *W. H. Mendenby*
Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI 30 JUL 1937*
Assigned *See Row 1759*