

## REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 16184

Received at London Office

- 4 SEP 1945

Date of writing Report 19th July 1945 When handed in at Local Office 19 Port of BRISTOL

No. in Survey held at Reg. Book. Date, First Survey 5th June, 1945 Last Survey 2nd July 1945 Number of Visits 2

on the <sup>Single</sup> ~~Twin~~ <sup>Triple</sup> ~~Quadruple~~ Screw vessel "CATO" Tons { Gross Net

Built at Gool By whom built Govt Ship Building Corp. Yard No. 442 When built 1946

Owners The Bristol Ship. Nav. Co. Ld. Port belonging to Bristol

Oil Engines made at Dursley Glos. By whom made R.A. Lister &amp; Co., Ltd. Engine No. 60/24587/27/3 When made 1945

Generators made at By whom made Contract No. When made

No. of Sets 1 Engine Brake Horse Power 27 Nom. Horse Power as per Rule Total Capacity of Generators Kilowatts

OIL ENGINES, &amp;c. Type of Engines Heavy Oil, Airless injection 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 800 lbs Diameter of cylinders 4 1/2" Length of stroke 5 1/2" No. of cylinders 3 No. of cranks 3

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 14 5/16" Is there a bearing between each crank Yes

Revolutions per minute 1000 Flywheel dia. 26" Weight 301 lbs Means of ignition compression Kind of fuel used Heavy Oil

Crank Shaft, dia. of journals as per Rule 3" Crank pin dia. 3" Crank Webs Mid. length breadth 3 1/2" Thickness parallel to axis Mid. length thickness 1.11/16" Thickness around eyehole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 5/16"

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 Are the exhaust pipes and silencers water cooled or lagged with non-conducting material Yes

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

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

Scavenging Air Pumps, No. Diameter Stroke Driven by

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. 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 Load Amperes Direct or Alternating Current

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

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

are they over compounded 5 per cent. if not compound wound state distance between each generator

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

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

SPARE GEAR

The foregoing is a correct description,

Manufacturer.



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Foundation

003154-003161-0166



Dates of Examination of principal parts  
Cylinders 5.6.45 Covers 5.6.45 Pistons 5.6.45 Piston rods  
Connecting rods 5.6.45 Crank and Flywheel shaft 5.6.45 Intermediate shaft  
Crank and Flywheel shafts, Material Steel Identification Mark Lloyd's 1095 L.K.D.R.W.2.7.42  
Intermediate shafts, Material Identification Marks

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, etc.)

This Auxiliary Oil Engine has been built under Special Survey. Water jackets tested with hydraulic pressure 100 lbs. per sq. inch and found sound and tight. The workmanship and materials have been found good. Crankshaft taken from Maker's tested stock. After assembly the engine examined during a full load test bed running trial of several hours duration; governor tried and found satisfactory.  
Identification Marks M.1464 S. Engine made to the order of Messrs. Goole Shipbuilding Co., Ltd.

R. A. LISTER (MARINE SALES) LTD  
Memo. Requirements of Cir 1803 not complied with  
AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve?  
AIR COMPRESSORS:—Is the cylinder fitted with safety valves?  
LUBRICATING OIL PUMPS:—Is the oil pump fitted with safety valves?  
SCAVENGING AIR PUMPS:—Is the scavenging air pump fitted with safety valves?

ABOVE AUXILIARY OIL ENGINE INSTALLER IN C.A.T.O. at Goole  
on starboard side of engine room aft and drives auxiliary  
air compressor and generator.  
W. S. Shields. Hull.

PLANS: Are approved plans forwarded herewith for Shipping?  
SPARE GEAR  
The following is a correct description of the machinery:  
Is the machinery necessary, clearly marked, and furnished with sockets?  
Are the lubricating arrangements of the generators as per Rule?  
Are the scavenging air pumps fitted with safety valves?  
Is the scavenging air pump fitted with safety valves?  
Is the scavenging air pump fitted with safety valves?

The amount of Fee ... £ 4 : 0 : 0  
Travelling Expenses (if any) £ : 15 : 0  
When applied for, 19...  
When received, 19...