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REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS.

No. 118268

Received at London Office 1 DEC 1950

Date of writing Report 11-5-1949. When handed in at Local Office 30 May 1949 Port of Ipswich.

No. in Reg. Book. Survey held at Colchester Date, First Survey 17 Mar 1949 Last Survey 10-5-1949.

Number of Visits TWO

Single / Twin / Triple / Quadruple Screw vessel 'MILFORD KNIGHT' Tons Gross. Net.

Built at Selby By whom built Cochrane Yard No. 1357 When built

Owners Port belonging to

Oil Engines made at Colchester By whom made Davey, Paxman & Co. Ltd Contract No 283119 When made 1949.

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

No. of Sets One Engine Brake Horse Power 3 M.N. as per Rule ✓ Total Capacity of Generators ✓ Kilowatts.

Is Set intended for essential services ✓

OIL ENGINES, &c.—Type of Engines Heavy Oil (I.V.T.H Type) 2 or 4 stroke cycle 4 Single or double acting S

Maximum pressure in cylinders 850 lbs. Diameter of cylinders 4" Length of stroke 4" No. of cylinders One No. of cranks One

Mean indicated pressure 98.5 lbs Firing order in cylinders ✓ Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 4 7/8

Is there a bearing between each crank ✓ ~~Moment of inertia~~ WD² of flywheel (16 m² or Kg.-cm.²) 353 lb. ft.² Revolutions per minute 600

Flywheel dia. 19 1/2" Weight 213 lb. Means of ignition Compression Kind of fuel used Diesel

Crank Shaft, dia. of journals as per Rule app. 2 1/8" as fitted 2 1/8" Crank pin dia. 2 1/2" Crank Webs Mid. length breadth 3 3/8" Mid. length thickness 1 1/4" shrunk Thickness parallel to axis Thickness round eyehole ✓

Flywheel Shaft, diameter as per Rule as fitted ✓ Intermediate Shafts, diameter as per Rule as fitted ✓ General armature, moment of inertia (16 m² or Kg.-cm.²) ✓

Are means provided to prevent racing of the engine when declutched Yes Means of lubrication Forced Kind of damper if fitted ✓

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 Geared.

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 as per Rule when full 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

Details of driven machinery other than generator

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

Have Torsional Vibration characteristics if applicable been approved (state date of approval) ✓ Armature shaft Drawing No. ✓

SPARE GEAR

DAVEY, PAXMAN & CO LTD ENGINEERS COLCHESTER, ENGLAND

The foregoing is a correct description,

[signature] Manufacturer.

CONTRACTS MANAGER

9.5 21/6/49.

Dates of Survey while building { During progress of work in shops - - } 1949: MAR 17 MAY 10
{ During erection on board vessel - - - }
{ Total No. of visits 2 (In shops) }

Dates of Examination of principal parts—Cylinders 17-3-49 Covers 17-3-49 Pistons 17-3-49 Piston rods

Connecting rods 17-3-49. Crank and Flywheel shafts 17-3-49. Intermediate shafts ✓

Crank shaft { Material Steel. Tensile strength 40 tons.
{ Elongation ✓ Identification Marks No. 647.

Flywheel shaft, Material ✓ Identification Marks ✓

Identification marks on Air Receivers ✓

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 Engine has been constructed under Special Survey in accordance with the approved plans Rule Requirements & Secretary's letter
The materials & workmanship are sound
The Engine has been tested on the brake under full load conditions & found satisfactory and have been despatched to Hamworthy, Poole

The amount of Fee ... ... £ 4 : 0 : 0 When applied for 31 MAY 1949
Travelling Expenses (if any) £ : 10 : 0 When received 19

Committee's Minute TUES. 9 JAN 1951

Assigned No Action / See F.E. early 1951.

Joysell.
Surveyor to Lloyd's Register of Shipping.

5m.1.48.—T. (MADE AND PRINTED IN ENGLAND)

(The Surveyors are requested not to write on or below the space for Committee Minute.)