

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 and cleaned Is a drain 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. three Total cubic capacity 3 x 500 lts. Internal diameter 450 mm thickness 12 mm

Seamless, lap welded or riveted longitudinal joint welded Material S.M. Steel Range of tensile strength 38-44 kg/cm² Working pressure Actual 30 kgs/cm²

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shifting 219409 7.2.36. Receivers G.O.244 21.7.32 Separate Fuel Tanks

Donkey Boilers General Pumping Arrangements Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes.

State the principal additional spare gear supplied

The foregoing is a correct description.

Humboldt-Deutzmotoren

Aktiengesellschaft

Manufacturer.

Dates of Survey while building 13.1., 25.1., 22.3., 10.4., 14.4., 16.4., 19.4., 22.4., 23.4., 10.5., 13.5., and 14.5.1937

Dates of Examination of principal parts—Cylinders 10.4., 22.3.37 Covers 14.4., 12.5.37 Pistons 13.5.37 Rods Connecting rods 13.4., 25.1., 13.5.37

Is the flash point of the oil to be used over 150° F.

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo

If so, have the requirements of the Rules been complied with

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with

Is this machinery duplicate of a previous case yes If so, state name of vessel Hy. Robb (Id.) (Incorporating Ramage & Ferguson (Id.) Yard No. 242 Düsseldorf Report No. 168

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

These heavy oil engines have been constructed under special survey in accordance with

the Society's Rules and Regulations as well as in accordance with the approved plans and instructions thereto. The material used in the construction is good and the workmanship is satisfactory.

The engines have been tested on the Maker's test bed in the presence of the undersigned during 10 hours consecutively running under full load and 10 % overload and was found to be in safe

working condition during these trials. After the trials all working parts of the engines have been opened out for inspection and were found in good condition. In my opinion the vessel for

which these engines are intended will be eligible for the notation of + L.M.E. (with date)

when the whole machinery has been fitted satisfactorily on board and tried under full working

conditions. It has been recommended that safety valves are to be fitted to the cylinder heads.

A copy of this report has been transmitted to the Leith Surveyors.

The amount of Entry Fee .. RM 30.- When applied for, Dismissed
Special ... RM 520.- 3.6.1937 % 12.10.10
Donkey Boiler Fee ... £ : When received, 16.7.37
Travelling Expenses (if any) RM 60.- 16.7.37

Committee's Minute

FRI. 8 JUN 1938

Assigned

See lth. 26. 19587

Rpt. 4c.

REPORT ON OIL ENGINE ELECTRIC GENERATOR SETS

No. 169

Date of writing Report 3.5.37 When handed in at Local Office 5.5.37 Port of Düsseldorf.

No. in Survey held at Oberursel Date, First Survey 26.2.1937. Last Survey 22.4.1937.

Reg. Book. Single on the Twin Triple Quadruple Mola Screw vessel Joseph Hint "A. A. bowan" Tons Gross 242 Net

Built at Leith By whom built Hy. Robb, (Id.) (Incorporating Ramage & Ferguson (Id.) Yard No. 242 When built 1937

Owners United Africa Co. Ltd. Port belonging to 432574/75 for 242

Oil Engines made at Oberursel By whom made Humboldt-Deutzmotoren AG Contract No. 438985/86 When made 1937

Generators made at By whom made Contract No. 438985/86 When made 1937

No. of Sets Engine Brake Horse Power 2 x 30 Nom. Horse Power as per Rule 2 x 8.6 Total Capacity of Generators Kilowatts.

OIL ENGINES, &c.—Type of Engines Heavy Oil Engines A 2 M 317 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 50 kgs/cm² Diameter of cylinders 120 mm Length of stroke 170 mm No. of cylinders 2 No. of cranks 2

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 412 mm, from centre to centre of ball bearing Is there a bearing between each crank no

Revolutions per minute 1350 Flywheel dia. 550 mm Weight 210 kgs. Means of ignition dir. inject Kind of fuel used gas oil on test

Crank Shaft, dia. of journals as per Rule 75 mm Crank pin dia. 85 mm Crank Webs Mid. length breadth 120 mm Thickness parallel to axis as fitted 61 mm shrunk Thickness around eye hole

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thickness of cylinder liners 22 mm

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

Cooling Water Pumps, No. 1, cog wheel type Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Lubricating Oil Pumps, No. and size 1, 220 lts/h.

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. 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 Shifting yes, 217 005 A Receivers Separate Tanks

(If not, state date of approval) 8.5.35.

SPARE GEAR as required by the Rules

The foregoing is a correct description.

Humboldt-Deutzmotoren

Manufacturer.



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Dates of Survey while building { During progress of work in shops - - } 26.2.37., 1.3.37., 3.3.37., 22.4.37.
 { During erection on board vessel - - - }
 Total No. of visits
 Dates of Examination of principal parts—Cylinders 22.4.37. Liners 22.4.37. Covers 22.4.37. Pistons 22.4.37. Piston rods
 Connecting rods 26.2.37., 22.4.37. Crank and Flywheel shaft 1.3.37., 3.3.37., 22.4.37. Intermediate shaft
 Crank and Flywheel shafts, Material Chrome molybdenum Identification Mark 152 H.B. Connecting rods: 170 H.B.
 Intermediate shafts, Material Identification Marks
 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.)

These two auxiliary engines have been constructed under special survey in accordance with the Society's Rules and Regulations as well as with the approved plan and the instructions thereto.

The material used in the constructed was found to be good and the workmanship satisfactory. The auxiliary engines have been tested on Maker's test bed in the presence of the undersigned under full load and 10 % overload during 8 hours and were found working satisfactorily during these trials. After trials all working parts of these engines have been opened out for examination and were found in good condition.

The main engine for the same vessel will also be constructed at the works of Messrs. Humboldt-Deutzmotoren A.G., Köln-Deutz.

A copy of this report has been forward to the Leith Surveyors.

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

Committee's Minute

Assigned

L. Shawcross
Surveyor to Lloyd's Register of Shipping.



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