

REPORT ON OIL ENGINE MACHINERY

No. 109

Received at London Office
Köln

19 JUL 1956

Yes 5.6. 1956 When handed in at Local Office 19 Port of Köln

ting Report 5.6. 1956 Date, First Survey 28.3.56 Last Survey 4.6. 1956

Survey held at Köln-Deutz Number of Visits 9

by Single on the Twin Triple Screw vessel Tons Gross Net

by Hongkong By whom built Cheoy Lee Shipyard Yard No. 652 When built 1952

by Köln-Deutz By whom made Klöckner-Humboldt-Deutz AG. Engine No. 2081505-112 When made 6.56

by Boilers made at By whom made Boiler No. When made

12-horse Power {Maximum 910 Service 182 Owners Port belonging to

er Rule Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

which vessel is intended with supercharging

GINES, &c. Type of Engines Airl. Inj. Heavy Oil Eng. RBV8M 545 2 or 4 stroke cycle Single or double acting single

n pressure in cylinders 60 kg/cm² Diameter of cylinders 320 mm Length of stroke 450 mm No. of cylinders 8 No. of cranks 8

ndicated Pressure 9.06 kg/cm² Span of bearings (i.e., distance between inner edges of bearings in crank) 346 mm Is there a bearing between each crank yes

Revolutions per minute {Maximum 275 Service 275

Means of ignition compr Kind of fuel used Diesel

Weight 3300 kg Moment of inertia of flywheel (lbs. in² or Kg.cm²) 5000

balance wts. (" " " ")

as per Rule 210 mm Crank webs Mid. length breadth 350 mm Thickness parallel to axis

as fitted 220 mm Crank pin dia. 210 mm Mid. length thickness 93 mm Thickness around eyehole

el Shaft, diameter as per Rule 225 mm Intermediate Shafts, diameter as fitted 225 mm Thrust Shaft, diameter at collars as per Rule

as fitted and of crankshaft

shaft, diameter as per Rule Screw Shaft, diameter as fitted Is the {tube screw} shaft fitted with a continuous liner

Liners, thickness in way of bushes as per Rule Thickness between bushes as fitted Is the after end of the liner made watertight in the

er boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-

Is an approved Oil Gland fitted at the after

If two liners are fitted, is the shaft lapped or protected between the liners

Length of bearing in Stern Bush next to and supporting propeller

whether moveable Total developed surface sq. feet

Kind of damper, if fitted vibration damper

Is a governor or other arrangement fitted to prevent racing of the engine yes

Means of

Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled

Thickness of cylinder liners 20 mm

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

One by M.E. Working F.W.

3/10/56

Cooling Water Pumps, No. and how driven

Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Can one be overhauled while the other is at work

Pumps worked from the Main Engines, No. and capacity One capacity 15 m³/h.

No. and capacity of each No other information than above.

s connected to the Main Bilge Line How driven

If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

cooling water led to the bilges

Power Driven Lubricating Oil Pumps, including spare pump, No. and size One driven by main engine 180 ltr.p.min.at 310 rpm.

Branch Bilge Suctions In pump room

two independent means arranged for circulating water through the Oil Cooler

Are the bilge suction pipes in holds and tunnel well fitted with strum-boxes

Are they fixed

Are they fitted with valves or cocks

Are the overboard discharges above or below the deep water line

Are the blow off cocks fitted with a spigot and brass covering plate

How are they protected

Have they been tested as per Rule

all pipes, cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times

Is the shaft tunnel watertight Is it fitted with a watertight door worked from

wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

n Air Compressors, No. One on main engine No. of stages two diameters 60x145 mm stroke 85 mm driven by main engine

Secondary Air Compressors, No. No. of stages diameters stroke driven by

all Auxiliary Air Compressors, No. No. of stages diameters stroke driven by

at provision is made for first charging the air receivers blower No. B 25974

enging Air Pumps or Blowers, No. One exhaust turbine How driven Engine Nos.

Have they been made under survey Main engine only supplied

Position of each in engine room

Report No.

Makers name

012744-012751-0157

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Foundation

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Cert.HNO.
Cert.HNO.
Cert.DF.

AIR RECEIVERS:—Have they been made under survey... yes State No. of report or certificate.
State full details of safety devices. Each receiver head has been equipped with a safety valve.
Can the internal surfaces of the receivers be examined and cleaned... yes Is a drain fitted at the lowest part of each receiver.
Injection Air Receivers, No. — Cubic capacity of each — Internal diameter — thickness —
Seamless, welded or riveted longitudinal joint — Material — Range of tensile strength — Working pressure —
Starting Air Receivers, No. Three Total cubic capacity 1250 ltr. Internal diameter 460 mm thickness 10 mm
Seamless, welded or riveted longitudinal joint welded Material SM. Steel Range of tensile strength 4753 kg/mm Working pressure —
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 shafting appr. 6.3.53 Receivers 17.9.51 Separate fuel —
(If not, state date of approval)
Donkey boilers — General pumping arrangements — Pumping arrangements in machinery space —
Oil fuel burning arrangements —
Have Torsional Vibration calculations are in preparation and will be forwarded as soon as possible.
characteristics been approved Date and particulars of approval 20/8/56

SPARE GEAR.

Has the spare gear required by the Rules been supplied... yes State if for "short voyages" only —
State the principal additional spare gear supplied —

Klöckner-Humboldt-Deutz

[Signature]
The foregoing is a correct description.

Manufacturer.

Dates of Survey while building
During progress of work in shops - - 1956 March 28. April 11.13.16. 27.30. May 16.17. June 4.
During erection on board vessel - - -
Total No. of visits 9
Dates of examination of principal parts—Cylinders 11.4.16.4 Covers 30.4.17.5 Pistons 17.5. Rods — Connecting rods —
Crank shaft 13.4.17.5. Flywheel shaft — Thrust shaft — Intermediate shafts — Tube shaft —
Screw shaft — Propeller — Stern tube — Engine seatings — Engine holding down bolts —
Completion of fitting sea connections — Completion of pumping arrangements — Engines tried under working conditions —
Crank shaft, material SM. Steel 2 Identification mark 1.3.56 Flywheel shaft, material — Identification mark —
Thrust shaft, material — Identification mark — Intermediate shafts, material — Identification marks —
Tube shaft, material — Identification mark — Screw shaft, material — Identification mark —
Identification marks on air receivers LLOYD'S TEST HNO. T.P. 60 ATM.W.P. 30 ATM. H.L. 12.6.56 No. 14896
LLOYD'S TEST HNO. T.P. 60 ATM.W.P. 30 ATM. H.L. 12.6.56 No. 14898
LLOYD'S TEST DSF. T.P. 60 ATM.W.P. 30 ATM. K.M. 12.11.52 No. 1658
Welded receivers, state Makers' Name Ruhrstahlwerk A.G. Brackwede

Is the flash point of the oil to be used over 150°F yes
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with —
Full description of fire extinguishing apparatus fitted in machinery spaces —
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 —
What is the special notation desired —
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 no If so, state name of vessel —

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c. —
This engine has been constructed under special survey of tested materials and is in accordance with the Secretary's letters, approved plans and Rule Requirements. The materials and workmanship are good and the engine when tested in the shops under full and overload conditions, was found to function satisfactorily. The governor tests were also satisfactory. This engine, in my opinion, is suitable for main propelling purpose and when satisfactorily installed and reported will be allowed to receive the notation LMC. (with date).
Explosion relief devices have been fitted in accordance with the Rules Chapter H. Section 8, Part 1.

The amount of Entry Fee ... £ 975.-
Running Tests ... £ 100.-
Special ... £ —
Donkey Boiler Fee... £ 108.-
Travelling Expenses (if any) £ —
When applied for 19 —
When received 19 —

[Signature]
Engineer Surveyor to Lloyd's Register of Shipping



Lloyd's Register Foundation

FRIDAY 23 AUG 1957

See HNS Rpt 46 No 13532

Committee's Minute
Assigned