

REPORT ON OIL ENGINE MACHINERY.

No. 22829

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Date of writing Report 5th July 1938 When handed in at Local Office 19 Port of HAMBURG

No. in Survey held at HAMBURG and Mannheim Date, First Survey 23rd April Last Survey 21st June 1938
Reg. Book. 11 Number of Visits 11

on the Single } Screw vessel
Triple }
Quadruple }

GOLDFINDE

Tons } Gross
Net

Built at Hamburg - Harburg By whom built G. Renck Lun. K.G. Yard No. 636 When built 1938
Engines made at Mannheim By whom made Motorenwerke Mannheim K.G. Engine No. 39474 When made 1938
Donkey Boilers made at - By whom made - Boiler No. - When made -
Brake Horse Power 250 Owners A/S Nortrade Port belonging to Trondheim
Nom. Horse Power as per Rule 64 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
Trade for which vessel is intended General trade

IL ENGINES, &c.—Type of Engines Heavy Oil - Makers type R. H. 135 A₂ or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 45 kg/cm² Diameter of cylinders 230 mm Length of stroke 350 mm No. of cylinders 8 No. of cranks 8

Mean Indicated Pressure 6.65 kg/cm² Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 267 mm Is there a bearing between each crank yes

Revolutions per minute 350 Flywheel dia. 880 mm Weight 780 kg Means of ignition diesel syst. Kind of fuel used diesel oil

Crank Shaft, { Solid forged dia. of journals as per Rule 136 mm Crank pin dia. 150 mm Crank Webs Mid. length breadth 210 mm Thickness parallel to axis -
{ Some built as fitted 150 mm Mid. length thickness 70 mm Thickness around eyehole -
{ All built

Flywheel Shaft, diameter as per Rule - Intermediate Shafts, diameter as per Rule - Thrust Shaft, diameter at collars as per Rule 98 mm
as fitted - as fitted - as fitted 136 mm

Tube Shaft, diameter as per Rule - Screw Shaft, diameter as per Rule 109 mm Is the { tube } shaft fitted with a continuous liner { -
as fitted - as fitted 115 mm { screw } as fitted no

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

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

If two liners are fitted, is the shaft lapped or protected between the liners - Is an approved Oil Gland or other appliance fitted at the after end of the tube
shaft yes If so, state type Cedarwall Length of Bearing in Stern Bush next to and supporting propeller 460 mm

Propeller, dia. 1580 mm Pitch 920 mm No. of blades 4 Material Brass whether Moveable no Total Developed Surface 0.96 sq. feet

Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racking of the engine when declutched yes Means of lubrication
forced Thickness of cylinder liners 13 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with
insulating material yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine -

Cooling Water Pumps, No. 1 of 7.8 m³/h main drives the sea suction provided with an efficient strainer which can be cleared within the vessel yes
(2 pumps for spare)

Bilge Pumps worked from the Main Engines, No. 1 Diameter 85 mm Stroke 65 mm Can one be overhauled while the other is at work -

Pumps connected to the Main Bilge Line { No. and Size 1 bilge pump 7.8 m³/h } a general service pump 38 m³/h (self priming)
{ How driven main engine } auxiliary oil engine

Is the cooling water led to the bilges no If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping
arrangements -

Ballast Pumps, No. and size 1 of 38 m³/h Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 of 3.1 m³/h driven by
two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
Pumps, No. and size:—In Machinery Spaces 2 — one of 55 mm diam frame 7-8, one of 55 mm diam frame 19/20 In Pump Room -

In Holds, &c. 3 one of 50 mm diam port and stb frame 20/21, one of 50 mm diam frame 64/65
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one of 55 mm diameter frame 13/14

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces
fitted from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes

Are all Sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks yes
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates - Are the Overboard Discharges above or below the deep water line above

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel yes Are the Blow Off Cocks fitted with a spigot and brass covering plate -
That pipes pass through the bunkers - How are they protected -

That pipes pass through the deep tanks - Have they been tested as per Rule -

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes

Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one
compartment to another yes Is the Shaft Tunnel watertight mach. alt Is it fitted with a watertight door - worked from -

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

Main Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -
Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 115 / 45 mm Stroke 70 mm Driven by aux. oil engine

Small Auxiliary Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by -
What provision is made for first Charging the Air Receivers the aux. oil engine to which the comp. is clutched can be started by hand
Savenging Air Pumps, No. - Diameter - Stroke - Driven by -

Auxiliary Engines crank shafts, diameter as per Rule - No. one two cyl. heavy oil eng.
as fitted journals 65 mm, pins 70 mm Position port side engine room
Have the Auxiliary Engines been constructed under special survey yes Is a report sent herewith by Augsburg Surveyors

AIR RECEIVERS:—Have they been made under survey yes State No. of Report or Certificate Copies of Certificates attached
 Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes
 Can the internal surfaces of the receivers be examined and cleaned yes Is a drain fitted at the lowest part of each receiver yes
Injection Air Receivers, No. _____ Cubic capacity of each _____ Internal diameter _____ thickness _____
 Seamless, lap welded or riveted longitudinal joint _____ Material _____ Range of tensile strength _____ Working pressure _____
Starting Air Receivers, No. two Total cubic capacity each 0.25 m³ Internal diameter 377 mm thickness 6.5 mm
 Seamless, lap welded or riveted longitudinal joint seamless Material S-M-Steel Range of tensile strength 51.6-56.2 kg/mm² Working pressure _____
 by Rules 32.86 kg/sq. cm
 Actual 30 kg/sq. cm

IS A DONKEY BOILER FITTED? no 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 4. 10. 1937. Receivers 24. 8. 37, 6. 11. 37. Separate Fuel Tanks yes
 (If not, state date of approval)
 Donkey Boilers _____ General Pumping Arrangements yes Pumping Arrangements in Machinery Space yes
 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,
G. Benck jun. 5th July 1938 Manufacturer.
 Kohn & Witzsch

Dates of Survey while building { During progress of work in shops - - } Please see Augsburg Report No. 2024. Shafting 21. 2. 38.
 { During erection on board vessel - - } April 27th, May 6th, 16th, 21st, 24th, June 1st, 7th, 15th, 17th, 18th, 21st.
 Total No. of visits 11.
 Dates of Examination of principal parts—Cylinders Please Covers see Pistons Augsburg Rods Report Connecting rods No. 2024
 Crank shaft dated 10.5.38. Flywheel shaft _____ Thrust shaft _____ Intermediate shafts _____ Tube shaft _____
 Screw shaft 21. 2. 38. Propeller 21. 2. 38, 6. 4. 38 Stern tube 21. 2. 38, 6. 4. 38 Engine sealings 27. 4. 38. Engines holding down bolts 1. 6. 38.
 Completion of fitting sea connections 6. 5. 38. Completion of pumping arrangements 7. 6. 38 Engines tried under working conditions 17. 6. 18. 6. 38.
 Crank shaft, Material S-M-Steel Identification Mark LLOYD'S 118 W.P. 25. 2. 38 Flywheel shaft, Material _____ Identification Mark _____
 Thrust shaft, Material S-M-Steel Identification Mark LLOYD'S 2854 H.B. 23. 12. 38 Intermediate shafts, Material _____ Identification Marks _____
 Tube shaft, Material _____ Identification Mark _____ Screw shaft, Material S-M-Steel Identification Mark LLOYD'S 113 W.F.C. 21. 2. 38.
 Identification Marks on Air Receivers 1113 LLOYD'S TEST No. 90.
854 LBS 60 ATM
W.P. 42.7 LBS W.P. 30 ATM.
H.K. 12. 2. 38. W.P. 5-5-38

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 yes
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo no 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 no If so, state name of vessel _____

General Remarks (State quality of workmanship, opinions as to class, &c.) The main- and auxiliary heavy oil engines have been built at Mannheim under Special Survey of the Society's Surveyors. Material and workmanship of this machinery are of good quality and the outfit is ample. It has been fitted under Special Survey at Hamburg in accordance with the approved plans, the Secretary's letters and otherwise in conformity with the requirements of the Rules. During the trial trip the machinery has given satisfaction under full working and manoeuvring conditions.

The machinery is eligible in my opinion to be classed and to have notations in the Society's Register Book of **LMC 6,38 - Oil eng - TS (OG)**

Certificate (if required) to be sent to _____
 (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee 1/5 x RMC : 8 - When applied for, _____
 Special ... 1/5 £ " " : 64 - _____
 Donkey Boiler Fee ... £ : : _____
 Travelling Expenses (if any) £ RM : 18 - : 28-12-38 _____

H. Röhrs
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 15 JUL 1938
 Assigned + LMC 6.38 by OG

