

REPORT ON OIL ENGINE MACHINERY.

No. 2158

DEC -4 1939

Received at London Office

Date of writing Report 12th Sept 1939. When handed in at Local Office 27. 9. 1939 Port of Bremen
No. in Survey held at Reg. Book. *Arystemy* Date, First Survey 23rd June 1939 Last Survey 15th Sept 1939
Number of Visits 25

Single }
Twin }
Triple }
Quadruple }
Screw vessel

"EMINENT"

Tons {
Gross
Net

Built at *Marsushock* By whom built *Messrs. Schiffswerft 3 Bahnen* Yard No. *511630* When built
Engines made at *Arystemy* By whom made *Messrs. M. G. U.* Engine No. (When made 1939)
Donkey Boilers made at *Arystemy* By whom made *Arystemy* Boiler No. - When made -
Brake Horse Power *400* Owners *Kapitein de Winter* Port belonging to *Groningen*
Nom. Horse Power as per Rule *97,8* Is Refrigerating Machinery fitted for cargo purposes *11 1/4* Is Electric Light fitted *16 1/8*
Trade for which vessel is intended

IL ENGINES, &c. Type of Engines *98 Vn 42* 2 or 4 stroke cycle *4* Single or double acting *single*

Maximum pressure in cylinders *50 kg/cm²* Diameter of cylinders *285 mm* Length of stroke *420 mm* No. of cylinders *8* No. of cranks *8*

Mean Indicated Pressure *6,8* Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *352/354 mm* Is there a bearing between each crank *yes*

Revolutions per minute *300* Flywheel dia. *1200 mm* Weight *800 kgs* Means of ignition *dis. ign.* Kind of fuel used

Crank Shaft, { Solid forged
Semi built dia. of journals as per Rule
All built as fitted *185 mm* Crank pin dia. *175 mm* Crank Webs Mid. length breadth *280 mm* Thickness parallel to axis *shrunk*
Mid. length thickness *89,5* Thickness around eye-hole

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted

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

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

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 *✓* If so, state type *✓* Length of Bearing in Stern Bush next to and supporting propeller *✓*

Propeller, dia. *✓* Pitch *✓* No. of blades *✓* Material *✓* whether Moveable *✓* Total Developed Surface *✓* sq. feet

Method of reversing Engines *by hand* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *yes* Means of lubrication

forced Thickness of cylinder liners *20 mm* Are the cylinders fitted with safety valves *yes* Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material *no* 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; 18,7 m³/h* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *✓*

Bilge Pumps worked from the Main Engines, No. *1* Diameter *105 mm* Stroke *120 mm* Can one be overhauled while the other is at work *✓*

Pumps connected to the Main Bilge Line { No. and Size *✓*
How driven *✓*

Is the cooling water led to the bilges *✓* 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 *Main engine* Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size *2; 5,24 m³/h*

Are two independent means arranged for circulating water through the Oil Cooler *✓* Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces *✓* In Pump Room *✓*

In Holds, &c. *✓*

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *✓*

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes *✓* Are the Bilge Suctions in the Machinery Spaces

led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges *✓*

Are all Sea Connections fitted direct on the skin of the ship *✓* Are they fitted with Valves or Cocks *✓*

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 *✓*

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel *✓* Are the Blow Off Cocks fitted with a spigot and brass covering plate *✓*

What pipes pass through the bunkers *✓* How are they protected *✓*

What 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 *✓*

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 *✓* Is the Shaft Tunnel watertight *✓* Is it fitted with a watertight door *✓* worked from *✓*

If 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. *✓* No. of stages *✓* Diameters *✓* Stroke *✓* Driven by *✓*

Small Auxiliary Air Compressors, No. *1* No. of stages *2* Diameters *80/(80-70) mm* Stroke *80 mm* Driven by *main engine*

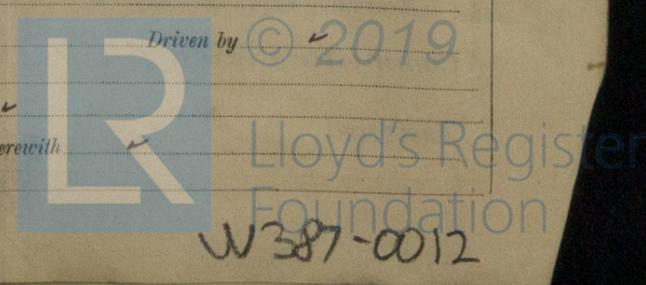
What provision is made for first Charging the Air Receivers *✓*

Scavenging Air Pumps, No. *✓* Diameter *✓* Stroke *✓* Driven by *✓*

Auxiliary Engines crank shafts, diameter as per Rule as fitted No. Position *✓*

Have the Auxiliary Engines been constructed under special survey *✓* Is a report sent herewith *✓*

BELONGS TO GRONINGEN Rpt No. "EMINENT" VESSEL'S NAME.



W 387-0012

AIR RECEIVERS:—Have they been made under survey Are reports or certificates now forwarded
 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
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. Total cubic capacity Internal diameter thickness
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength 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 *25th Jan. 1939* Receivers *25th Jan 1939* Separate Fuel Tanks
 (If not, state date of approval) *M 9197/400/3165*

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 *as per Rules.*

Note: The air receivers as per drawing above shall be delivered by the owners in Holland themselves.

The foregoing is a correct description,
Maschinenfabrik Augsburg-Nürnberg A.G.

Dr. Hermann Manufacturer.

Dates of Survey while building
 During progress of work in shops-- *1939. June 23. 28. 30. July 4. 10. 11. 13. 28. 29. 31. Aug. 1. 2. 7. 8. 9. 10. 11. September 6. 7. 8. 11. 12. 13. 14. 15.*
 During erection on board vessel--
 Total No. of visits *25.*

Dates of Examination of principal parts—Cylinders *4-7-39.* Covers *23-6-39.* Pistons *29-7-39.* Rods Connecting rods *29-7-39.*
 Crank shaft *28-7-39.* Flywheel shaft Thrust shaft Intermediate shafts Tube shaft
 Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts
 Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions
 Crank shaft, Material *S. M. steel* Identification Mark *LLOYD'S 5452-6732* Flywheel shaft, Material Identification Mark
 Thrust shaft, Material Identification Mark *H.J. G.-6.-39.* Intermediate shafts, Material Identification Marks
 Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

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 *Standard type of heavy oil engine of makers.*

General Remarks (State quality of workmanship, opinions as to class, &c.)
This heavy oil main engine has been constructed under special survey in accordance with the Society's Rules and Regulations, as well as with the approved plans and instructions thereto. The material used in the construction is good, and the workmanship satisfactory. This main engine has been tested on the makers' test bed during several hours, running under full load, 10% overload, and part loads in the presence of the undersigned, and was found to be in safe working condition during these trials. After the trials the engine has been opened up for inspection, and all parts were found in order.

In our opinion, the vessel for which this engine is intended will be eligible for the notation of + L.M.C. (with date) when the whole machinery has been fitted satisfactorily on board, and tried under full working conditions.

The amount of Entry Fee *1/2 Fee 26:67* : When applied for,
 Special ... *23 26:67* : *27.9.1939*
 Test bed trial
 Donkey Boiler Fee ... *2 63:00* :
 Travelling Expenses (if any) *2 50:66* :
 Payment *absorbed*

Mr. Cliveides W. Petersen
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
 Assigned *See G. J. C. 86*

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

