

REPORT ON OIL ENGINE MACHINERY.

No. 1194.

Received at London Office 10 SEP 1930
10 NOV 1930

Shipping Report 31st August 1930 When handed in at Local Office *and Sept 10 30* Port of *Bremer*
Survey held at *Helsing* Date, First Survey *23rd January 1930* Last Survey *27th August 1930*
Number of Visits *66*

on the *Single* } Screw vessel
Twin }
Triple }
Quadruple }
made at *Hamburg* By whom built *Deutsche Werft A. G.* Yard No. *142* When built *1930*
Boilers made at *Helsing* By whom made *Maschinenfabrik Augsburg-Nürnberg* Engine No. *330420/430* When made *1930*
Horse Power *1800* By whom made _____ Boiler No. _____ When made _____
Horse Power as per Rule *1175* Is Refrigerating Machinery fitted for cargo purposes _____ Port belonging to *Oslo*
Is Electric Light fitted _____

ENGINES, &c.—Type of Engines *2 x D 3 in 60/90* *23 5/8" - 35 7/8"* 2 or 4 stroke cycle *2* Single or double acting *double*
Pressure in cylinders *45 kg/cm²* Diameter of cylinders *600 mm* Length of stroke *900 mm* No. of cylinders *2 x 3* No. of cranks *2 x 3*
Bearings, adjacent to the Crank, measured from inner edge to inner edge *869 mm* Is there a bearing between each crank *yes*
Revolutions per minute *125* Flywheel dia. *2100 mm* Weight *3400 kg* Means of ignition *Diesel principle, solid injection* Kind of fuel used *Diesel oil*
Shaft, dia. of journals _____ Crank pin dia. *390 mm* Crank Webs _____ Mid. length breadth *520 mm* Thickness parallel to axis *220 mm*
Main Shaft, diameter _____ as per Rule _____ as fitted _____ Thrust Shaft, diameter at collars _____ as per Rule _____ as fitted _____
Intermediate Shafts, diameter _____ as per Rule _____ as fitted _____
Screw Shaft, diameter _____ as per Rule _____ as fitted _____ Is the { tube } shaft fitted with a continuous liner { _____ }
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 _____

Is the liner 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 the 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 _____
If so, state type _____ Length of Bearing in Stern Bush next to and supporting propeller _____
Pitch _____ No. of blades _____ Material _____ whether Moveable _____ Total Developed Surface _____ sq. feet
Means of reversing Engines _____ Is a governor or other arrangement fitted to prevent racing of the engine when declutched *yes* Means of lubrication _____
Thickness of cylinder liners *42.5 mm* Are the cylinders fitted with safety valves *yes* Are the exhaust pipes and silencers water cooled or lagged with _____
ducting material *lagged* If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine _____
Is the sea suction provided with an efficient strainer which can be cleared within the vessel _____

Water Pumps, No. _____ Can one be overhauled while the other is at work _____
Pumps worked from the Main Engines, No. _____ Diameter _____ Stroke _____
Pumps connected to the Main Bilge Line { No. and Size _____
How driven _____ }
Lubricating Oil Pumps, including Spare Pump, No. and size *2 x 1 1/2 inch, 15.2 m³/h each, worked from main engine*
Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge _____
In Pump Room _____
Two independent means arranged for circulating water through the Oil Cooler _____
Pumps, No. and size:—In Machinery Spaces _____
Pumps, No. and size:—In Machinery Spaces _____

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size _____ Are the Bilge Suctions in the Machinery Spaces _____
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes _____
Are they easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges _____
Are they fitted with Valves or Cocks _____
Are all Sea Connections fitted direct on the skin of the ship _____
Are the Overboard Discharges above or below the deep water line _____
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates _____
Are the Blow Off Cocks fitted with a spigot and brass covering plate _____
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel _____
How are they protected _____
Do all pipes pass through the bunkers _____ Have they been tested as per Rule _____
Do all pipes pass through the deep tanks _____

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 _____
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. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
Small Auxiliary Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
Lubricating Air Pumps, No. *2 x 1, 2 Cyl. Tandem* Diameter *1080 mm* Stroke *580 mm* Driven by *main engine*

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 _____
Starting Air Receivers, No. _____ Total cubic capacity _____ Internal diameter _____ thickness _____
Seamless, lap welded or riveted longitudinal joint _____ Material _____ Range of tensile strength _____ Working pressure _____



9/8/30
13/9/30

Shipping.

28
17/9/30

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 *See London letter E* Receivers
(If not, state date of approval) *4.12.29; 16.5.30*

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied *as per Rules.*

State the principal additional spare gear supplied

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

M. A. Feilner Manufacturer.

Dates of Survey while building
 During progress of work in shops: *23 Jan; 8.17. Feb; 7.21.24. March; 10.11.14.16.26.28.29 April; 1.6.13.19.20.21.22.31. May; 2.3.4.5.6.7.10.11.21.25.26.28.30 June; 1.5.7.8.10.11.12.14.19.21.22.23.24.25.26 July; 1.2.4.5.6.7.8.9.16.18.19.21.23.27. August 1930.*
 During erection on board vessel: *---*
 Total No. of visits

Dates of Examination of principal parts—Cylinders *3/5.6.30* Covers *19.5.30* Pistons *26.4.30* Rods *13/15.5.30* Connecting rods *1.5.30*

Crank shafts *14/21.6.30* Flywheel shaft *23.8.30* 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 shafts Material *S.M. Steel* Identification Mark *LLOYD'S 1858/59 F.K. 18.6.30* Flywheel shaft, Material *S.M. Steel* Identification Mark *LLOYD'S F.S. 705/706*

Thrust shaft, Material Identification Mark 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 *no* If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. *These heavy oil engines have been constructed under survey in accordance with the Soc. Rules and Regulations as well as with the approved plans and instructions thereto. The materials used in the construction are good and the workmanship is satisfactory.*

In my opinion the vessel for which these engines are intended will be eligible for the notation of $\frac{3}{4}$ L [with date] when the machinery has been fitted satisfactory on board and tried under full working conditions.

The material of the tie rods has been tested by the Germ. Lloyd. See London letter E 16.5.30.

A copy of this report has been sent to the Hamburg Surveyors.

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 $\frac{3}{4}$ Entry Fee	£ 4 : 16	When applied for,
$\frac{4}{5}$ Special	£ 103 : 10	<i>8.9.1930</i>
Donkey Boiler Fee	£ :	When received,
Travelling Expenses (if any)	£ 2 : 10	<i>13.10.1930</i>

L. Hoarob
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute *FRI. 21 NOV 1930*
 Assigned *See Ham. J.G. 19591*

