

Rpt. 4b.

## REPORT ON OIL ENGINE MACHINERY.

No. 12063

Received at London Office

FRI. 20 DEC. 1921

Date of writing Report 30-11-1921 When handed in at Local Office

19 Port of

No. in Survey held at  
Reg. Book.

Date, First Survey 5-7-21 Last Survey 24-11-1921

Number of Visits 7

on the <sup>Single</sup>  
~~Two~~ } Screw vessels  
<sup>Triple</sup>

HVITSKJAE

Tons { Gross  
NetMaster Built at *Nymegen* By whom built *De Waal* Yard No. 55 When built 1921Engines made at *Amsterdam* By whom made *Thomhout Motorenfabriek* Engine No. 1884 When made 1921Donkey Boilers made at *✓* By whom made *✓* Boiler No. *✓* When made *✓*Brake Horse Power 180 Owners *Mark Engelsk Marineol.* Port belonging to *Kristiania*Nom. Horse Power as per Rule 52 Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *No*

## OIL ENGINES, &amp;c.—Type of Engines

See Amsterdam Report No. 8430

Maximum pressure in cylinders *✓* No. of cylinders *✓* No. of cranks *✓* Diameter of cylinders *✓*Length of stroke *✓* Revolutions per minute 250 Means of ignition *Hot bulb* Kind of fuel used *✓*Is there a bearing between each crank *✓* Span of bearings (Page 92, Section 2, par. 7 of Rules) *✓*Distance between centres of main bearings *✓* Is a flywheel fitted *✓* Diameter of crank shaft journals *as per Rule* *✓*Diameter of crank pins *✓* Breadth of crank webs *as per Rule* *✓* Thickness of ditto *as per Rule* *✓*Diameter of flywheel shaft *as per Rule* *✓* Diameter of tunnel shaft *as per Rule* *✓* Diameter of thrust shaft *as per Rule* *✓*Diameter of screw shaft *as per Rule* *✓* Is the screw shaft fitted with a continuous liner the whole length of the stern tube *✓*Is the after end of the liner made watertight in the propeller boss *✓* If the liner is in more than one length are the joints burned *✓*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 *✓* If without liners, is the shaft arranged to run in oil *✓*Type of outer gland fitted to stern tube *✓* Length of stern bush *✓* Diameter of propeller *✓*Pitch of propeller *✓* No. of blades *✓* state whether moveable *✓* Total surface *✓* square feetMethod of reversing *✓* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *✓* Thickness of cylinder liners *✓*Are the cylinders fitted with safety valves *✓* Means of lubrication *✓* Are the exhaust pipes and silencers water cooled or lagged withnon-conducting material *✓* If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine *✓*No. of cooling water pumps *✓* Is the sea suction provided with an efficient strainer which can be clearedwithin the vessel *✓* No. of bilge pumps fitted to the main engines *✓* Diameter of ditto *✓* Stroke *✓*Can one be overhauled while the other is at work *✓* No. of auxiliary pumps connected to the main bilge lines *✓* How driven *✓*Sizes of pumps *✓* No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room *2 1/2"* *✓*and in holds, etc. *In pump room 2 1/2" Hold 1 1/2"* No. of ballast pumps *✓* How driven *✓* Sizes of pumps *✓*Is the ballast pump fitted with a direct suction from the engine room bilges *Yes* State size *2"* Is a separate auxiliary pump suction fitted inEngine Room and size *Yes 2"* Are all the bilge suction pipes fitted with roses *Yes* Are the roses in Engine Room always accessible *Yes*Are the sluices on Engine Room bulkheads always accessible *No* Are all connections with the sea direct on the skin of the ship *Yes*Are they valves or cocks *both* Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates *Yes*Are the discharge pipes 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 all pipes, cocks, valves and pumps in connection with the machinery accessible at all times *Yes* Are the bilge suction pipes, cocks and valves arranged so as to prevent anycommunication between the sea and the bilges *Yes* Is the screw shaft tunnel watertight *Not fitted* 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 *✓*No. of main air compressors *✓* No. of stages *✓* Diameters *✓* Stroke *✓* Driven by *✓*No. of auxiliary air compressors *✓* No. of stages *✓* Diameters *✓* Stroke *✓* Driven by *✓*No. of small auxiliary air compressors *✓* No. of stages *✓* Diameters *✓* Stroke *✓* Driven by *✓*No. of scavenging air pumps *✓* Diameter *✓* Stroke *✓* Driven by *✓*Diameter of auxiliary Diesel Engine crank shafts *as per Rule* *✓* Are the air compressors and their coolers made so as to be easy of access *✓*AIR RECEIVERS:—No of high pressure air receivers *✓* Internal diameter *✓* Cubic capacity of each *✓*Material *✓* Seamless, lap welded or riveted longitudinal joint *✓* Range of tensile strength *✓*thickness *✓* working pressure by Rules *✓* No. of starting air receivers *✓* Internal diameter *✓*Total cubic capacity *✓* Material *✓* Seamless, lap welded or riveted longitudinal joint *✓*Range of tensile strength *✓* thickness *✓* Working pressure by rules *✓* 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 theirinner surfaces *✓* Is there a drain arrangement fitted at the lowest part of each receiver *✓*



## IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

## HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS .....					
" " COVERS .....					
" " JACKETS .....					
" " PISTON WATER PASSAGES .....					
MAIN COMPRESSORS—1st STAGE .....					
" 2nd " .....					
" 3rd " .....					
AIR RECEIVERS—STARTING .....					
" INJECTION .....					
AIR PIPES .....					
FUEL PIPES .....					
FUEL PUMPS .....					
SILENCER .....					
" WATER JACKET .....					
SEPARATE FUEL TANKS .....					

PLANS. Are approved plans forwarded herewith for shafting  
(If not, state date of approval)

Receivers

Separate Tanks

SPARE GEAR Checked and found as per Amsterdam report  
and attached list.

Please see letter 15.11.21 ✓

Only 2 one" suction valves are fitted to the oil fuel bunkers which  
are controlled from the deck. Air vessel has been submitted and tested  
by the Amsterdam Surveyors.

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }  
{ During erection on board vessel - - }  
Total No. of visits 1921. 5 July. August 10-18. Sept 30 & Nov 21. 22. 24

Dates of Examination of principal parts—Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓  
Crank shaft ✓ Thrust shaft ✓ Tunnel shafts ✓ Screw shaft ✓ Propeller ✓ Stern tube ✓ Engine seatings ✓  
Engines holding down bolts 30 Sept Completion of pumping arrangements 22-11-21 Engines tried under working conditions 22-11-21  
Completion of fitting sea connections 10-9-21 Stern tube 18-9-21 Screw shaft and propeller 18-9-21  
Material of crank shaft ✓ Identification Mark on Do. ✓ Material of thrust shaft ✓ Identification Mark on Do. ✓  
Material of tunnel shafts ✓ Identification Marks on Do. ✓ Material of screw shafts ✓ Identification Marks on Do. ✓

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

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.) The motor has been fitted  
in accordance with the Rules, Society's letters and  
approved plans, pumping arrangement fitted in accor-  
dance with Secretary's letters and approved plans, all  
requirements of Sect 49 of the Rules carried out, the  
whole tried under full working condition during  
a trial trip on the Northsea and found in order. I  
am of opinion that the vessel is fit to be recorded  
in the Society's Register Book with **LMC 11-21**

The amount of Entry Fee ... £ : :  
Special ... £ 72.00 : :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ 45.00 : :  
When applied for, 20.11.1921  
When received, 21.12.19

Committee's Minute

FRI. DEC. 9 1921

Assigned

+ L.M.C. 11.21  
oil engines.

CERTIFICATE WRITTEN

Engine Surveyor to Lloyd's Register of Shipping.



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