

## REPORT ON OIL ENGINE MACHINERY.

No. 14379

Date of writing Report 4.7.1925 When handed in at Local Office 19. Port of Rotterdam  
No. in Survey held at Rotterdam Date, First Survey 19<sup>th</sup> Feb 1924 Last Survey 2<sup>nd</sup> July 1925  
Reg. Book. Number of Visits 42  
on the ~~Single~~ ~~Triple~~ Screw vessels **KATENDRECHT** Tons { Gross 4649 Net 2592  
Master *My van Scheyn en Weelbome* Built at Rotterdam By whom built *Tyenoord* Yard No. 299 When built 1925  
Engines made at Rotterdam By whom made *Maats. v. Scheyn & Wulff, Tyenoord* Engine No. When made 1925  
Donkey Boilers made at Rotterdam By whom made " " " " Boiler No. 149596 When made 1925  
Brake Horse Power Owners *Stoom Ma. "De Maas"* Port belonging to Rotterdam  
Nom. Horse Power as per Rule 438 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

OIL ENGINES, &c. Type of Engines *M. A. N. Diesel* 2 or 4 stroke cycle 4 Single or double acting *Single*  
Maximum pressure in cylinders *35 kg.* No. of cylinders 6 No. of cranks *on 1 compressor* Diameter of cylinders 700 mm  
Length of stroke 1400 mm Revolutions per minute 105 Means of ignition *Compression* Kind of fuel used *Diesel oil*  
Is there a bearing between each crank Yes Span of bearings (Page 92, Section 2, par. 7 of Rules) 960 mm  
Distance between centres of main bearings 930 mm Is a flywheel fitted Yes Diameter of crank shaft journals *as per Rule* 450 mm  
Diameter of crank pins 450 mm Breadth of crank webs *as per Rule* 840 mm Thickness of ditto *as per Rule* 290 mm  
Diameter of flywheel shaft *as per Rule* 450 mm Diameter of tunnel shaft *as per Rule* 320 mm Diameter of thrust shaft *as per Rule* 330 mm  
Diameter of screw shaft *as per Rule* 340 mm Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes  
Is the after end of the liner made watertight in the propeller boss Yes If the liner is in more than one length are the joints burned *One length*  
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 1540 mm Diameter of propeller 4525 mm  
Pitch of propeller 1800 No. of blades 4 state whether moveable *etc* Total surface 6.37 sq. m.  
Method of reversing *Camshaft* Is a governor or other arrangement fitted to prevent racing of the engine when declutched Thickness of cylinder liners 40 mm  
Are the cylinders fitted with safety valves Yes Means of lubrication *Forced* Are the exhaust pipes and silencers water cooled or lagged with  
non-conducting 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 *funnel*  
No. of cooling water pumps *1 motor driven 2 steam driven* Is the sea suction provided with an efficient strainer which can be cleared  
within the vessel Yes No. of bilge pumps fitted to the main engines *None* 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 *Steam*  
Sizes of pumps *6 x 7 1/2 x 9 150 x 190 x 150 Motor or steam driven* No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room *2 x 65 mm 2 x 90 mm 2 x 65 mm CD*  
and in holds, etc. *2 in ACD 2 1/2 in 2 in each pump room 2 1/2 in 2 1/2 in* No. of ballast pumps 1 How driven *Steam* Sizes of pumps *5 x 4 1/2 x 8*  
Is the ballast pump fitted with a direct suction from the engine room bilges No State size Is a separate auxiliary pump suction fitted in  
Engine Room and size Yes 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 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 any  
communication between the sea and the bilges Yes Is the screw shaft tunnel watertight Is it fitted with a watertight door *Manhole*  
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 One No. of stages 3 Diameters *400 x 610 x 150* Stroke 500 mm Driven by *Main shaft*  
No. of auxiliary air compressors One No. of stages 3 Diameters *264 x 310 x 82* Stroke 250 mm Driven by *Steam Engine*  
No. of small auxiliary air compressors No. of stages No. of stages No. of stages 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 Yes  
*as fitted*

AIR RECEIVERS:—No. of high pressure air receivers 2 Internal diameter 410 mm Cubic capacity of each *one 2 400 litres one 2 200 litres*  
material *S. M. Steel* Seamless, lap welded or riveted longitudinal joint *Seamless* Range of tensile strength *20-22 tons*  
thickness 20 mm working pressure by Rules *99 kg/cm<sup>2</sup>* No. of starting air receivers 2 Internal diameter 190 mm  
Total cubic capacity *32.74 cbm* Material *S. M. Steel* Seamless, lap welded or riveted longitudinal joint *Double butt 5 x riv*  
Range of tensile strength *44.1-50.4 kg/cm<sup>2</sup>* thickness *thick 26 mm End plate 30 mm* Working pressure by rules *25.33 kg/cm<sup>2</sup>* each receiver, which can be isolated,  
fitted with a safety valve as per Rule Yes Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their  
inner surfaces *Manhole in end plate* Is there a drain arrangement fitted at the lowest part of each receiver Yes

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Yes 2

Yes

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS .....	17-10-19. 21. 23/4 24	35 ATM	70 ATM	CR 240 GB 17-10-19. 21. 23/4, 24	} all tested at Augsburg
" " COVERS .....	26-8-24	4	10 ATM	CR 240 Lloyd. TEST 10 ATM GB. 26-8-24	
" " JACKETS.....	31-10-24	2	2 ATM	JS. 2 ATM 31-10-24	
" PISTON WATER PASSAGES.....	15-11/8 25	2	10 ATM	JS. 10 ATM 15-11/8 25	Pistons made of cast steel
MAIN COMPRESSORS—1st STAGE.....	25-9-24	2 ATM	4 ATM	CR 240 LLOYD. TEST 4 ATM GB. 25-9-24	} All tested at Augsburg
" 2nd " .....	25-9-24	4 ATM	8 ATM	CR 240 LLOYD. TEST 8 ATM GB. 25-9-24	
" 3rd " .....	25-9-24	7 1/2 ATM	150 ATM	CR 240 LLOYD. TEST 150 ATM GB. 25-9-24	
AIR RECEIVERS—STARTING .....	20-1-25	25 kg cells	40 ATM	CR 312 32 LLOYD. TEST 40 ATM JS. 20-1-25	
" INJECTION .....	24-2-25	70 ATM	140 ATM	CR 240 24 24 2 LLOYD. TEST 140 ATM WD. 70 ATM GB. 24.2.25	Tested in Germany
AIR PIPES .....	3/2 3/5 4/5 25	70 ATM	161 ATM	LLOYD. TEST 161 ATM JS. 1/2 3/5 4/5 25	
FUEL PIPES .....	3/2 3/5 4/5 25	60 ATM	120 ATM	LLOYD. TEST 120 ATM JS. 1/2 3/5 4/5 25	
FUEL PUMPS .....	8-10-24	60 ATM	120 ATM	CR 240 LLOYD. TEST 120 ATM GB. 8-10-24	Tested at Augsburg
SILENCER .....					
" WATER JACKET .....					
SEPARATE FUEL TANKS .....	9-2-25		10 ft	JS. 9-2-25	

Receivers 15.4.24 Separate Tanks 19.11.24

SPARE GEAR cylinder cover complete for the main engine, with all valves, valves seats, springs etc. Two complete sets of valves for one cylinder of the main engine, one complete set of fuel needle valves, One piston complete with all piston ring, studs and nuts for main engine. One full set of piston rings, one complete set of main shaft wheels for main engine, & connecting rod, <sup>both</sup> and top end bolts and nuts for main engine, 2 main bearing bolts and nuts, one set of coupling bolts for crankshaft and intermediate shaft. A complete set of pistons rings for main and air compressor, one set of valves for main and one compressor, also a set of blades, & fuel pump complete, one set of valves for clay & sugar fuel pump, water circulation pump, lube pump, lubricating pump, One bracket and rod for Celestion pump. The foregoing is a correct description, A quantity of bronze bolts and nuts, one set of cylinder studs and nuts, One length of pipe for fuel pipe, air delivery with unions and flanges suitable. One propeller shaft

Mastechengij naar Schepen en Werktuigen

**Maatschappij voor Scheeps- en Werktuigbouw**

„FIJEN NOORD.“

*Manufacturer.*

Dates of Survey while building		During progress of work in shops--	During erection on board vessel--	Total No. of visits
		1914 1/2 19 8/13 17/4 1/5 19 1/5 21 3/5 11/6 20 3/6 14 22 14 15 19 6 14 16 24 31 6 7 19 28 31 29	25 9 28 3 3 3 29 12 18 19 24 27 30 7 7	43

Dates of Examination of principal parts—Cylinders 15.9.24 Covers 15.9.24 Pistons 15.10.25 Rods 15.9.24 Connecting rods 15.9.24  
Crank shaft 14.9.24 Thrust shaft 14.9.24 <sup>Interm.</sup> Tunnel shafts 14.9.24 Screw shaft 31.10.24 Propeller 28.11.24 Stern tube 19.11.24 Engine seatings 28.1.25  
Engines holding down bolts 5.4.25 Completion of pumping arrangements 19.6.25 Engines tried under working conditions 27.6.25  
Completion of fitting sea connections 25.11.25 Stern tube 25.11.25 Screw shaft and propeller 5.12.24

Material of crank shaft *S.M. Heel* Identification Mark on Do. L204ds  
C/E 5314  
MB.10.7.24 Material of thrust shaft *S.M. Heel* Identification Mark on Do. L204ds  
C/E 5314  
MB.10.7.24

Material of ~~internal~~ shafts *S.M. Heel* Identification Marks on Do. L204ds  
C/E 5314  
MB.10.7.24 Material of screw shafts *S.M. Heel* Identification Marks on Do. L204ds  
C/E 5673  
MB.10.10.24

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

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 machinery have been made in accordance with the Society's Rules, Approved plans and Secretary's letters, material tested as required and workman's good, the machinery was found in a good and efficient condition during a trial trip on the Northsea and I am of opinion that this vessel is eligible to be recorded in the Society's Register Book with

\* LMC 7.25. CL. 1 DB 150 lbs (1 DB 115 lbs (exhaust gas firing).

The amount of Entry Fee ...	£ 60:00	:	When applied for,
Special ...	£ 4088:40	:	9/7 1924
Donkey Boilers Fee ...	£ 108:50	:	When received,
Amusement Fee	£ 400:00	:	(2) 14-25
Travelling Expenses (if any) £	48:00	:	1924

## Committee's Minute

*Assigned*

TUES. 14 JUL 1925

+ Lm. 425 C. 2  
oil engines

*Engineer Surveyor to Lloyd's Register of Shipping*

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Lloyd's Register  
Foundation