

REPORT ON OIL ENGINE MACHINERY.

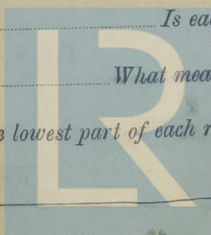
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Date of writing Report *7 July 1924* When handed in at Local Office *19.2.24* Port of *Amsterdam*
 No. in Survey held at *Amsterdam* Date, First Survey *March 16* Last Survey *May 18* 1924
 Reg. Book. *Single* on the *Twin* Screw vessels *2. Auxiliary Diesel engines* Tons { Gross *2* Net *2*
 Master *Amsterdam* Built at *Amsterdam* By whom built *Wichthoff* Yard No. *290* When built *1924*
 Engines made at *Amsterdam* By whom made *Wichthoff* Engine No. *When made*
 Donkey Boilers made at *2* By whom made *2* Boiler No. *2* When made *2*
 Brake Horse Power *150* Owners *Messrs. Chambers* Port belonging to *Liverpool*
 Nom. Horse Power as per Rule *15* Is Refrigerating Machinery fitted for cargo purposes *Is Electric Light fitted*

OIL ENGINES, &c.—Type of Engines *Auxiliary Diesel* 2 or 4 stroke cycle *Single or double acting*
 Maximum pressure in cylinders *35 kg.* No. of cylinders *3* No. of cranks *4* Diameter of cylinders *320 mm.*
 Length of stroke *450 mm.* Revolutions per minute *150* Means of ignition *By heat of compression* Kind of fuel used *Diesel fuel oil*
 Is there a bearing between each crank *Yes* Span of bearings (Page 92, Section 2, par. 7 of Rules) *430 mm.*
 Distance between centres of main bearings *700* Is a flywheel fitted *Yes* Diameter of crank shaft journals *as per Rule as fitted 185 mm.*
 Diameter of crank pins *185 mm.* Breadth of crank webs *as per Rule as fitted 290* Thickness of ditto *as per Rule as fitted 100*
 Diameter of flywheel shaft *as per Rule as fitted 350 mm.* Diameter of tunnel shaft *as per Rule as fitted* Diameter of thrust shaft *as per Rule as fitted*
 Diameter of screw shaft *as per Rule as fitted* Is the screw shaft fitted with a continuous liner the whole length of the stern tube *2*
 Is the after end of the liner made watertight in the propeller boss *2* If the liner is in more than one length are the joints burned *2*
 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 *2*
 If two liners are fitted, is the shaft lapped or protected between the liners *2* If without liners, is the shaft arranged to run in oil *2*
 Type of outer gland fitted to stern tube *2* Length of stern bush *2* Diameter of propeller *2*
 Pitch of propeller *2* No. of blades *2* state whether moveable *2* Total surface *2* square feet
 Method of reversing *2* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *2* Thickness of cylinder liners *2*
 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 *2*
 If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine *2*
 No. of cooling water pumps *2* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *2*
 No. of bilge pumps fitted to the main engines *2* Diameter of ditto *2* Stroke *2*
 Can one be overhauled while the other is at work *2* No. of auxiliary pumps connected to the main bilge lines *2* How driven *2*
 Sizes of pumps *2* No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room *2*
 and in holds, etc. *2* No. of ballast pumps *2* How driven *2* Sizes of pumps *2*
 Is the ballast pump fitted with a direct suction from the engine room bilges *2* State size *2* Is a separate auxiliary pump suction fitted in Engine Room and size *2*
 Are all the bilge suction pipes fitted with roses *2* Are the roses in Engine Room always accessible *2*
 Are the sluices on Engine Room bulkheads always accessible *2* Are all connections with the sea direct on the skin of the ship *2*
 Are they valves or cocks *2* Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates *2*
 Are the discharge pipes above or below the deep water line *2* Are they each fitted with a discharge valve always accessible on the plating of the vessel *2*
 Are all pipes, cocks, valves and pumps in connection with the machinery accessible at all times *2* Are the bilge suction pipes, cocks and valves arranged so as to prevent any communication between the sea and the bilges *2*
 Is the screw shaft tunnel watertight *2* Is it fitted with a watertight door *2*
 worked from *2* If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork *2*
 No. of main air compressors *2* No. of stages *2* Diameters *2* Stroke *2* Driven by *2*
 No. of auxiliary air compressors *2* No. of stages *2* Diameters *2* Stroke *2* Driven by *2*
 No. of small auxiliary air compressors *2* No. of stages *2* Diameters *2* Stroke *2* Driven by *2*
 No. of scavenging air pumps *2* Diameter *2* Stroke *2* Driven by *2*
 Diameter of auxiliary Diesel Engine crank shafts *as per Rule as fitted* Are the air compressors and their coolers made so as to be easy of access *2*

AIR RECEIVERS:—No. of high pressure air receivers *1* Internal diameter *24 in.* Cubic capacity of each *600*
 material *Mild Steel* Seamless, lap welded or riveted longitudinal joint *Lamellar* Range of tensile strength *29 tons per sq. in.*
 thickness *1/2 in.* working pressure by Rules *2* No. of starting air receivers *2* Internal diameter *2*
 Total cubic capacity *2* Material *2* Seamless, lap welded or riveted longitudinal joint *2*
 Range of tensile strength *2* thickness *2* Working pressure by rules *2* Is each receiver, which can be isolated, fitted with a safety valve as per Rule *2*
 Can the internal surfaces of the receivers be examined *2* What means are provided for cleaning their inner surfaces *2*
 Is there a drain arrangement fitted at the lowest part of each receiver *2*



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IS A DONKEY BOILER FITTED? *L*

If so, is a report now forwarded? *L*

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	<i>12.4.24</i>	<i>35 1/2 lb. per sq. in.</i>	<i>45 lb.</i>	<i>285.286 5.11.13</i>	<i>Cylinders and</i>
" " COVERS	<i>15.4.24</i>	<i>35 lb. per sq. in.</i>	<i>45 lb.</i>	<i>287.288 5.11.13</i>	<i>Covers and</i>
" " JACKETS	<i>16.4.24</i>	<i>35 lb. per sq. in.</i>	<i>45 lb.</i>	<i>289.290 5.11.13</i>	<i>Coasting.</i>
" PISTON WATER PASSAGES	"	"	"	"	"
MAIN COMPRESSORS—1st STAGE	"	"	"	"	"
" 2nd "	"	"	"	"	"
" 3rd "	"	"	"	"	"
AIR RECEIVERS—STARTING	"	"	"	"	"
" INJECTION	"	"	"	<i>51422. 51423.</i>	<i>Supplied by the</i> <i>Chadfield Works</i>
AIR PIPES	"	"	"	"	"
FUEL PIPES	"	"	"	"	"
FUEL PUMPS	"	"	"	"	"
SILENCER	"	"	"	"	"
" WATER JACKET	"	"	"	"	"
SEPARATE FUEL TANKS	"	"	"	"	"

Please see your letter of the 15th January 1924 to me re the draft Report
PLANS. Are approved plans forwarded herewith for shafting *Receivers* *Separate Tanks* *Walsingham*
(If not, state date of approval)

SPARE GEAR *2 fuel valves, 4 exhaust valves, 4 starting valves, 6 fuel pistons*
2 complete sets of valves for air compressors, 4 sets of piston rings, 2 sets of
piston rings for air compressors.

The foregoing is a correct description,

WERKSPOR.

Manufacturer.

Dates of Survey while building { During progress of work in shops -- *March 16. April 12. 14. 15. 16. May 2. June 6*
During erection on board vessel --
Total No. of visits *4*

Dates of Examination of principal parts—Cylinders *26/3-11/2* Covers *"* Pistons *12/4-15/4* Rods *"* Connecting rods *12/4-15/4*
Crank shaft *12/4-14/4* Thrust shaft *"* Tunnel shafts *"* Screw shaft *"* Propeller *"* Stern tube *"* Engine seatings *"*
Engines holding down bolts *"* Completion of pumping arrangements *"* Engines tried under working conditions *"*
Completion of fitting sea connections *"* Stern tube *"* Screw shaft and propeller *"*
Material of crank shaft *Steel* Identification Mark on Do. *22.3.24. 22.3.24. 22.3.24. 22.3.24.* Material of thrust shaft *Steel* Identification Mark on Do. *22.3.24. 22.3.24.*
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. *"*
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 machinery as far as now proceeded has been made in accordance with the Rules and Machinery Rules, workmanship good.

As a strike broke out at the Werkspoor, the machinery has not been completed at this Port; but has been forwarded to Walsingham for completion.

A list stating the various stages of progress of the machinery has been attached to this Report and has been verified.

The amount of Entry Fee ... £ : : When applied for,
Special ... £ *180:-* : : 19
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : *11. 19*

F. W. Bennett.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 21 APR 1925

Assigned

See Drawg. 8521