

REPORT ON OIL ENGINE MACHINERY: No. 10148.

Received at London Office

Date of writing Report 14 19 19 When handed in at Local Office Amsterdam Port of Amsterdam
No. in Survey held at Amsterdam Date, First Survey 6 February Last Survey 2 March 1926
Reg. Book. Oil Engines Nos 3605/6 Number of Visits 9

on the Single } Screw vessels Oil Engines Nos 3605/6 Tons { Gross —
Twin } Net —
Triple }
Built at — By whom built Ated. Jend. Tank Stomb Mfg Yard No. — When built —
Engines made at Amsterdam By whom made cr. v. Kromhout M. F. Engine No. 3605/6 When made 1926
Donkey Boilers made at — By whom made — Boiler No. — When made —
Brake Horse Power 80 B.H.P. Owners Ated. Jend. Tank Stomb Mfg Port belonging to Amsterdam
Nom. Horse Power as per Rule 23 Is Refrigerating Machinery fitted for cargo purposes — Is Electric Light fitted —

IL ENGINES, &c.—Type of Engines Kromhout Heavy Oil Engine 2 stroke cycle Single or double acting —
Maximum pressure in cylinders 16 atm No. of cylinders 2 Diameter of cylinders 306 mm No. of cranks 2 Length of stroke 310 mm
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 320 mm Is there a bearing between each crank Yes
Revolutions per minute 350 Flywheel dia. 1000 mm Weight 820 kg Means of ignition hot plate Kind of fuel used Crude oil
Crank Shaft, dia. of journals as per Rule 105 mm Crank pin dia. 105 mm Crank Webs Mid. length breadth 140 mm Thickness parallel to axis 65 mm
as fitted 105 mm Mid. length thickness 65 mm Thickness around eye-hole solid
Flywheel Shafts, diameter as per Rule 100 mm Intermediate Shafts, diameter as per Rule — Thrust Shaft, diameter at collars as per Rule 40 mm
as fitted 100 mm as fitted — as fitted 40 mm
Tube Shafts, diameter as per Rule — Screw Shaft, diameter as per Rule — Is the { tube } shaft fitted with a continuous liner { —
as fitted — as fitted — { screw } —
Bronze Liners, thickness in way of bushes as per Rule — Thickness between bushes as per rule — Is the after end of the liner made watertight in the
as fitted — as fitted — 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 — Length of Bearing in Stern Bush next to and supporting propeller —

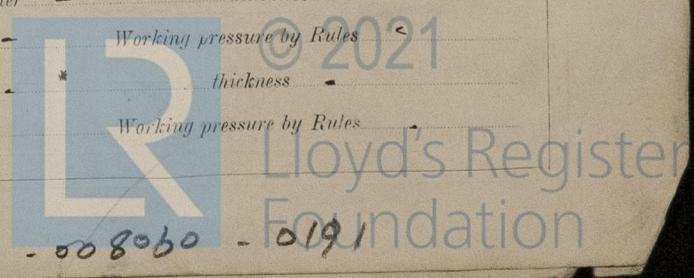
Propeller, dia. — Pitch — No. of blades — Material — whether Movable — Total Developed Surface — sq. feet
Method of reversing Engines — Is a governor or other arrangement fitted to prevent racing of the engine when declutched — Means of lubrication
— Thickness of cylinder liners — Are the cylinders fitted with safety valves — Are the exhaust pipes and silencers water cooled or lagged with
non-conducting material Water covered 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. — Is the sea suction provided with an efficient strainer which can be cleared within the vessel —

Bilge Pumps fitted to the Main Engines, No. — Diameter — Stroke — Can one be overhauled while the other is at work —
Pumps connected to the Main Bilge Line { No. and Size —
How driven —
Ballast Pumps, No. and size — Lubricating Oil Pumps, including Spare Pump, No. and size —
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 Engine and Boiler 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 Space
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. — No. of stages — Diameters — Stroke — Driven by —
Scavenging Air Pumps, No. — Diameter — Stroke — Driven by —
Auxiliary Engines crank shafts, diameter as per Rule —
as fitted —

IR 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 — What means are provided for cleaning their inner surfaces —
Is there a drain arrangement 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 by Rules —
Starting Air Receivers, No. — Total cubic capacity — Internal diameter — thickness —
Seamless, lap welded or riveted longitudinal joint — Material — Range of tensile strength — Working pressure by Rules —



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	19. 2. 26	16 Atm	32 Atm	7/10/21/27/28	Good
" " COVERS	19. 2. 26	16 Atm	32 Atm	Feb 19 2. 26	50
" " JACKETS	✓	✓	✓	32 Atm	✓
" PISTON WATER PASSAGES	✓	✓	✓	✓	✓
MAIN COMPRESSORS—1st STAGE	✓	✓	✓	✓	✓
" 2nd "	✓	✓	✓	✓	✓
" 3rd "	✓	✓	✓	✓	✓
AIR RECEIVERS—STARTING	✓	✓	✓	✓	✓
" INJECTION	✓	✓	✓	✓	✓
AIR PIPES	24. 2. 26	16 Atm	32 Atm	4/40/41	✓
FUEL PIPES	24. 2. 26	50	50	F.W.B.	✓
FUEL PUMPS	24. 2. 26	50	50	24. 2. 26	✓
SILENCER	24. 2. 26	1/2 Atm	3 Atm	3. Atm	✓
" WATER JACKET	✓	✓	✓	✓	✓
SEPARATE FUEL TANKS	✓	✓	✓	✓	✓

PLANS. Are approved plans forwarded herewith for Shafting *Refer to London Secretary's letter 24. 11. 26.* Separate Tanks
 Donkey Boilers General Pumping Arrangements Oil Fuel Burning Arrangements

SPARE GEAR 2 Combustion Chambers, piston rings, 2 gudgeon pins, 2 bottom end bolts, 1 set of bottom end bracket, 2 sets of main bearing crosses, 2 main bearing bolts, 2 fuel pumps, discharge valves for fuel pumps, suction and discharge valves for cooling pumps, 4 crank case air valves, a few lengths of air and fuel pipes, couplings, cones for spraying nozzle. A number of Springs for various purposes.

The foregoing is a correct description,
C. S. Hambro M. S.
John S. Goodhope Manufacturer.

Dates of Survey while building	During progress of work in shops--	4/2	9/2	10/2	13/2	18/2	19/2	20/2	23/2	2/3
Dates of Examination of principal parts—Cylinders	6/2 - 18/2	Covers	6/2 - 24/2	Pistons	✓	Rods	✓	Connecting rods	6/2 - 20/2	
Crank shaft	6/2 - 24/2	Flywheel shaft	6/2 - 24/2	Thrust shaft	6/2 - 24/2	Intermediate shafts	✓	Tube shaft	✓	
Screw shaft	✓	Propeller	✓	Stern tube	✓	Engine seatings	✓	Engines holding down bolts	✓	
Completion of filling sea connections	✓	Completion of pumping arrangements	✓	Engines tried under working conditions	✓					
Crank shaft, Material	Steel	Identification Mark	No 449/750	Flywheel shaft, Material	Steel	Identification Mark	449/450		24-2-26	
Thrust shaft, Material	Steel	Identification Mark	752 2.3.26	Intermediate shafts, Material	Steel	Identification Marks	443/446		F.W.B. 24.2.26	
Tube shaft, Material	✓	Identification Mark	✓	Screw shaft, Material	✓	Identification Mark	✓			

Is the flash point of the oil to be used over 150° F. *Yes*
 Is this machinery duplicate of a previous case *Yes*. If so, state name of vessel *Oil En. in No. 5012. approx 24. 11. 26.*
 General Remarks (State quality of workmanship, opinions as to class, &c. *Amusement Rep. No 9424.*)

The oil engines have been built under special survey in accordance with the approved plans and Secretary's letter, material tested & required engines tested under full working conditions and good

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 Entry Fee ...	£ 360.-	When applied for,	
Special ...	£ :	19	
Donkey Boiler Fee ...	£ :	When received,	
Travelling Expenses (if any)	£ 14.-	22. 3. 19	

H. R. Bennett
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *TUES. 14 DEC 1926*
 Assigned *Lee Robt J.E. M. 5460*

