

REPORT ON OIL ENGINE MACHINERY.

Received at London Office 10 APR 1928

Writing Report 4th April 1928 When handed in at Local Office is Port of **Stockholm**

Survey held at **Sickla, Skm. Distr.** Date, First Survey **27 May 1927** Last Survey **23 March 1928**
 Number of Visits **6**

on the ^{Single} ^{Twin} ^{Triple} Screw vessels **MOTORSHIP "JENNY"** Tons ^{Gross} **4706** ^{Net}

at **Newcastle** By whom built **Swan, Hunter & Wigham Richardson, Ltd.** Yard No. **1252** When built **1928**

ines made at **Stockholm** By whom made **Aktieb. Atlas-Diesel** Engine No. **80167** When made **1928**

key Boilers made at By whom made Boiler No. When made

ce Horse Power **70** Owners **Harry Borthen & Co., A.S.** Port belonging to **Oslo**

se Horse Power as per Rule **34** Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Type of Engines **Diesel Oil Engine / type 2H25/2 or 4 stroke cycle** Single or double acting

imum pressure in cylinders **35 kg./cm²** No. of cylinders **2** Diameter of cylinders **250 mm.** No. of cranks **2** Length of stroke **350 mm.**

of bearings, adjacent to the Crank, measured from inner edge to inner edge **838 mm.** Is there a bearing between each crank **no**

utions per minute **300** Flywheel dia. **1200 mm.** Weight **730 kg.** Means of ignition **Compression** Kind of fuel used **Crude oil**

ck Shaft, dia. of journals ^{as per Rule} **162 mm.** ^{as fitted} **170 "** Crank pin dia. **164 mm.** Crank Webs Mid. length breadth **430 mm.** Thickness parallel to axis **98 "** shrunk Thickness around eye-hole

The flywheel is fitted on the crank shaft ^{as per Rule} Thrust Shaft, diameter at collars ^{as per Rule}

heel Shafts, diameter ^{as fitted} Intermediate Shafts, diameter ^{as fitted}

Shafts, diameter ^{as per Rule} ^{as fitted} Screw Shaft, diameter ^{as per Rule} ^{as fitted} Is the tube screw shaft fitted with a continuous liner

ize 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

ller boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

e liner does not fit lightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

o liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after

of the tube shaft Length of Bearing in Stern Bush next to and supporting propeller

eller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet

od of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched **yes** Means of lubrication

ps Thickness of cylinder liners **none fitted** Are the cylinders fitted with safety valves **yes** Are the exhaust pipes and silencers water cooled or lagged with

onducting material If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

ing Water Pumps, No. **1** Is the sea suction provided with an efficient strainer which can be cleared within the vessel

e Pumps fitted to the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

ps connected to the Main Bilge Line { No. and Size How driven

ast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size

two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

ps, No. and size:—In Engine and Boiler Room

olds, &c.

pendent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Space

from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges

all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks

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

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

t pipes pass through the bunkers How are they protected

t pipes pass through the deep tanks Have they been tested as per Rule

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

s be 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

partment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

in Air Compressors, No. No. of stages Diameters Stroke Driven by

iliary Air Compressors, No. No. of stages Diameters Stroke Driven by

all Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

enging Air Pumps, No. Diameter Stroke Driven by

iliary Engines crank shafts, diameter ^{as per Rule} ^{as fitted}

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule **yes**

the internal surfaces of the receivers be examined **yes** What means are provided for cleaning their inner surfaces **mudhole 120 mm.**

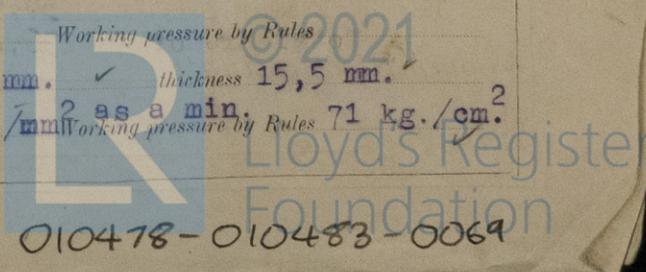
here a drain arrangement fitted at the lowest part of each receiver **yes**

h Pressure Air Receivers, No. **none fitted** ^{solid injection} Cubic capacity of each Internal diameter thickness

ness, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules

orting Air Receivers, No. **1** Total cubic capacity **72 litres** Internal diameter **240 mm.** thickness **15,5 mm.**

ness, lap welded or riveted longitudinal joint **lapwelded** Material **S.M. Steel** Range of tensile strength **36 kg./mm²** Working pressure by Rules **71 kg./cm²**



Handwritten note: 11/4/28

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	19.3.28	35 kg./cm. ²	80 kg./cm. ²	LLOYDS TEST 80 Kg. AI. 19.3.28 Δ	
" " COVERS	/Cover in in one piece with cylinder/				
" " JACKETS	19.3.28	-	4 Kg./cm. ²		
" " PISTON WATER PASSAGES	/open pistons/				
MAIN COMPRESSORS—1st STAGE					
" " 2nd	none fitted				
" " 3rd					
AIR RECEIVERS—STARTING	16.3.28	50 Kg./cm. ²	100 kg./cm. ²	N:0 5606 LLOYDS TEST 100 Kg. WP. 50 Kg. AI. 16.3.28 Δ	
" " INJECTION					
AIR PIPES	17.3.28	300 Kg./cm. ²	600 Kg./cm. ²		
FUEL PIPES	17.3.28	300 "	600 "		
FUEL PUMPS					
SILENCER					
" " WATER JACKET					
SEPARATE FUEL TANKS					

See Secretary's letter

PLANS. Are approved plans forwarded herewith for Shafting E. 11.5.25 Receivers E.17.7.23 Separate Tanks
 (If not, state date of approval)
 Donkey Boilers General Pumping Arrangements Oil Fuel Burning Arrangements

SPARE GEAR as per list, approved on the 20th Sept. 1927, will be inspected when machinery is being fitted in ship. ✓

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
 During progress of work in shops -- 27, 21 1927; 2, 17, 19 & 23 1928.
 During erection on board vessel -- 5 11
 Total No. of visits in shop 6

Dates of Examination of principal parts—Cylinders with Covers 17 & 19 28 Pistons 19 28 Rods Connecting rods 27, 21
 Crank shaft 21 27, 2, 19 28 Flywheel shaft Thrust shaft 3 Intermediate shafts Tube shaft 5 11
 Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts

Completion of fitting sea connections Completion of running arrangements Engines tried under working conditions in shop 1
 Crank shaft, Material S.M. Steel Identification Mark LLOYD'S N:0 5572 AI. 2.3.28 Δ Flywheel shaft, Material Identification Mark
 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.

Is this machinery duplicate of a previous case yes If so, state name of vessel see Skm. Report no. 2917.

General Remarks (State quality of workmanship, opinions as to class, &c.)

I am of opinion that this engine is of superior material and workmanship, and as it has designed and constructed under special survey, I have respectfully to submit, that it be approved as auxiliary to a classed main engine.

Certificate (if required) to be sent to
 (The Surveys are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee .Krk 218,40 :
 Special ... £ : :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) " £ 38,00 :
 Total Kronor 256,40

Committee's Minute

Assigned

A. Hakson
 Engineer Surveyor to Lloyd's Register of Shipping.
 Signed by Mr. K. J. Anderson.



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