

REPORT ON OIL ENGINE MACHINERY.

No. 2294.

Received at London Office MON. MAY. 28 1923

of writing Report 24 May 1923. When handed in at Local Office 19 Port of Stockholm

in Survey held at Stockholm Date, First Survey 16 Jan. Last Survey 19 May 19 23
Book. Number of Visits 6

on the } Single } Screw vessels C. 18
Twin }
Triple }

Tons } Gross
Net

ster Built at By whom built Yard No. When built

ines made at Stockholm By whom made J. & C. G. Bolinders Co. Ltd. Engine No. 15184/87 When made 1923

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

ke Horse Power 160 Owners Astilleros de Gijon (Möllers order no 198) Port belonging to Gijon

u. Horse Power as per Rule 46 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Type of Engines Cylinder Oil Engine 2 or 4 stroke cycle Single or double acting

imum pressure in cylinders 17 kg/cm. No. of cylinders 4 No. of cranks 4 Diameter of cylinders 300 m.m.

h of stroke 310 m.m. Revolutions per minute 350 Means of ignition hot bulb Kind of fuel used Crude oil

re a bearing between each crank yes Span of bearings (Page 87, Section 3, par. 4 of Rules) 600 m.m.

nce between centres of main bearings 600 m.m. Is a flywheel fitted yes Diameter of crank shaft journals as per Rule 121 m.m. as fitted 128 " "

eter of crank pins 128 Breadth of crank webs as per Rule 161 m.m. as fitted 170 " " Thickness of ditto as per Rule 68 m.m. as fitted 71.5 " "

flywheel is fitted at fore end of the crank shaft Diameter of tunnel shaft as per Rule as fitted Diameter of thrust shaft as per Rule 116 m.m. as fitted 118 " "

eter of flywheel shaft as per Rule as fitted Diameter of thrust shaft as fitted

eter of screw shaft as per Rule as fitted Is the screw shaft fitted with a continuous liner the whole length of the stern tube

fter end of the liner made watertight in the propeller boss. If the liner is in more than one length are the joints burned

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

liners are fitted, is the shaft lapped or protected between the liners. If without liners, is the shaft arranged to run in oil

f outer gland fitted to stern tube Length of stern bush Diameter of propeller

f propeller No. of blades state whether moveable Total surface square feet

of reversing Timing Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Thickness of cylinder liners none fitted

cyinders fitted with safety valves no Means of lubrication pumps Are the exhaust pipes and silencers water cooled or lagged with

ducting 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 2 Is the sea suction provided with an efficient strainer which can be cleared

the vessel No. of bilge pumps fitted to the main engines 1 Diameter of ditto 100 m.m. Stroke 50 m.m.

be overhauled while the other is at work No. of auxiliary pumps connected to the main bilge lines How driven

f pumps No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room

holds, etc. No. of ballast pumps How driven Sizes of pumps

allast pump fitted with a direct suction from the engine room bilges State size Is a separate auxiliary pump suction fitted in

Room and size Are all the bilge suction pipes fitted with roses Are the roses in Engine Room always accessible

sluices on Engine Room bulkheads always accessible Are all connections with the sea direct on the skin of the ship

y valves or cocks Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates

discharge pipes above or below the deep water line Are they each fitted with a discharge valve always accessible on the plating of the vessel

pipes, cocks, valves and pumps in connection with the machinery accessible at all times Are the bilge suction pipes, cocks and valves arranged so as to prevent any

ication between the sea and the bilges Is the screw shaft tunnel watertight Is it fitted with a watertight door

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 none fitted No. of stages Diameters Stroke Driven by

auxiliary air compressors No. of stages Diameters Stroke Driven by

small auxiliary air compressors No. of stages Diameters Stroke Driven by

scavenging air pumps Diameter Stroke Driven by

r 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

RECEIVERS:—No of high pressure air receivers Internal diameter Cubic capacity of each

Seamless, lap welded or riveted longitudinal joint Range of tensile strength

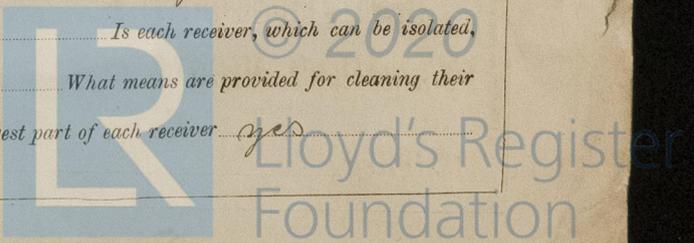
working pressure by Rules No. of starting air receivers 1 Internal diameter 434 mm.

ubic capacity 280 litres Material S. M. Steel Seamless, lap welded or riveted longitudinal joint lap welded

f tensile strength min. 23 tons thickness 8 m.m. Working pressure by rules 257 lbs. Is each receiver isolated

th a safety valve as per Rule Can the internal surfaces of the receivers be examined yes What means are provided for cleaning their

rfaces manhole door Is there a drain arrangement fitted at the lowest part of each receiver yes



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	19.5.23	17 kg/sq. cm.	37 kg/sq. cm.	LLOYD'S TEST 37 kg AI 19.5.23 A	
" " COVERS	19.5.23	ditto	ditto		
" " JACKETS.....	19.5.23	-	3.5 kg/sq. cm.		
" PISTON WATER PASSAGES.....	(open pistons)				
MAIN COMPRESSORS—1st STAGE.....	none fitted				
" 2nd "					
" 3rd "					
AIR RECEIVERS—STARTING	19.5.23	15 kg/sq. cm.	30 kg/sq. cm.	No. 2235 LLOYD'S TEST 30 kg W.P. 15 kg AI 19.5.23 A	
" INJECTION					
AIR PIPES					
FUEL PIPES					
FUEL PUMPS					
SILENCER	19.5.23	-	3.5 kg/sq. cm.	HYDR. TEST 3.5 kg AI 19.5.23 A	
" WATER JACKET	19.5.23		ditto.		
SEPARATE FUEL TANKS					

PLANS. Are approved plans forwarded herewith for shafting *Secretary's letter* £ 7.11.22 Receivers starting £ 8.3.16 Separate Tanks ✓
(If not, state date of approval)

SPARE GEAR to be supplied and inspected on delivery

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops-- } 16.8.23, 2.9.23, 16.19.23
 { During erection on board vessel-- }
 Total No. of visits 6 in shops

Dates of Examination of principal parts—Cylinders 16.19.23 Covers 16.19.23 Pistons 16.19.23 Rods Connecting rods 16.6.16.19.23
 Crank shaft 16.2.19.23 Thrust shaft 16.23.2.19.23 Tunnel shafts Screw shaft Propeller Stern tube Engine seatings
 Engines holding down bolts Completion of pumping arrangements Engines tried under working conditions in shops 16.5.23
 Completion of fitting sea connections Stern tube Screw shaft and propeller
 Material of crank shaft S.M. Steel Identification Mark on Do. LLOYD'S No. 3229 AI 2.2.23A Material of thrust shaft S.M. Steel Identification Mark on Do. LLOYD'S No. 3230 AI 2.2.23A
 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 *yes* If so, state name of vessel *see Ship Report no 2247*

General Remarks (State quality of workmanship, opinions as to class, &c.)
 I am of opinion, that this motor is of superior material and workmanship, and as it has been designed and constructed under my special survey, I have respectfully to submit, that it will be eligible to be classed ***LMC**, as soon as it has been fitted in a classed vessel to the satisfaction of the Society's Surveyors

The amount of Entry Fee ... £ : : When applied for,
 Special Survey in shops. £ 12:0:0 } 24. May 1923
 Donkey Boiler Fee ... £ : : When received,
 Travelling Expenses (if any) £ : : June 1923

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

Committee's Minute TUES. 2 MAR 1926
 Assigned *see Dec. 16. apt 26.25.*



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