

REPORT ON OIL ENGINE MACHINERY.

No. 1961.

WED. AUG. 25 1920

Date of writing Report 19 Aug. 1920. When handed in at Local Office

Port of Stockholm

No. in Survey held at Stockholm

Date, First Survey 31. 8. 1917

Last Survey 5. 8. 1920

Reg. Book.

Number of Visits 12

Single }
on the Twin } Screw vessels
Triple }Tons }
Gross
Net

Master

Built at

By whom built

Yard No. When built

Engines made at

Stockholm

By whom made J. C. G. Bolinders & Co Ltd

Engine No. 14248 When made 1920

Boilers made at

By whom made

Boiler No. When made

Horse Power

500

Owners N. Norabaysche Maschinenhandel

Port belonging to Haag

Horse Power as per Rule 143

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

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

pressure in cylinders 264.5 lbs No. of cylinders 4 No. of cranks 4 Diameter of cylinders 520 mm

stroke 750 mm Revolutions per minute 160 Means of ignition Hot bulb Kind of fuel used Crude Oil

bearing between each crank Yes Span of bearings (Page 92, Section 2, par. 7 of Rules) 679 mm

between centres of main bearings 1050 mm Is a flywheel fitted Yes Diameter of crank shaft journals as per Rule 235 mm as fitted 240 mm

of crank pins 240 mm fore Breadth of crank webs as per Rule 313 mm as fitted 350 mm Thickness of ditto as per Rule 132 mm as fitted 134 mm

of flywheel shaft as per Rule the wheel is fitted at end of crankshaft Diameter of tunnel shaft as per Rule 227 mm as fitted 230 mm

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

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

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

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

ster gland fitted to stern tube Length of stern bush Diameter of propeller

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

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

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

ting 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

vessel No. of bilge pumps fitted to the main engines 2 Diameter of ditto 160 mm Stroke 66 mm

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

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

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

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

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

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

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

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

es, 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

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

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

in air compressors One No. of stages Two Diameters 390/155 mm Stroke 300 mm Driven by Main engine

iliary air compressors No. of stages Diameters Stroke Driven by

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

evenging air pumps none fitted Diameter Stroke Driven by

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

ECEIVERS:—No of high pressure air receivers 1 Internal diameter 216 mm Cubic capacity of each 50 litres

S. M. Steel Seamless, lap welded or riveted longitudinal joint Seamless Range of tensile strength min. 23 tons/sq inch

7 mm working pressure by Rules 634 lbs. No. of starting air receivers 1 Internal diameter 582 mm

Total cubic capacity 650 litres Material S. M. Steel Seamless, lap welded or riveted longitudinal joint lap welded

Range of tensile strength min. 23 tons thickness 9 mm Working pressure by rules 225 lbs. Is 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 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	1.2.6.1920	264.5 lbs	529 lbs/sq inch	LLOYDS TEST 529 LBS SKM 2.6.20 A	
" " COVERS	1.2.6.1920	ditto	ditto		
" " JACKETS.....	1.2.6.1920		50 lbs/sq inch		
" PISTON WATER PASSAGES.....	(open pistons)				
MAIN COMPRESSORS—1st STAGE.....	1.6.1920	117.5 lbs/sq inch	235 lbs/sq inch	A	
" 2nd "	1.6.1920	441 --	882 --		
" 3rd "					
AIR RECEIVERS—STARTING	2.6.1920	15 Atm	30 Atm	LLOYDS TEST 30 ATM WORKING PR 15 ATM No 2184 SKM 2.6.20 A	
" INJECTION	1.6.1920	30 Atm	60 Atm	LLOYDS TEST 60 ATM WORKING PR 30 ATM No 2183 SKM 1.6.20 A	
AIR PIPES					
FUEL PIPES					
FUEL PUMPS					
2 SILENCERS.....	26/5 + 28/7 1920		50 lbs/sq inch	HYDR. TEST 50 LBS SKM 26/5 + 28/7 20A	
" WATER JACKET	-- -- --		50 lbs/sq inch		
SEPARATE FUEL TANKS					

PLANS. Are approved plans forwarded herewith for shafting *Injection, Starting* *Separate Tanks* —
SPARE GEAR *to be supplied and inspected when being fitted on board*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - { 31.8.1917; 5.28.1918; 8.1919; 12.26.24.26.1.2.28.8.1920
During erection on board vessel - - -
Total No. of visits 12
Dates of Examination of principal parts—Cylinders 2 1/4 : 2 1/2 20 Covers 2 1/4 : 2 1/2 20 Pistons 2 1/4 : 2 1/2 20 Rods Connecting rods 15.11.18 26.3.20 2.4.20
Crank shaft 31.8.17 28.11.18 8.12.17 Thrust shaft 8.1.19 1.6.20 Tunnel shafts 2 1/4 : 2 1/2 20 Screw shaft Propeller Stern tube Engine seatings
Engines holding down bolts Completion of pumping arrangements Engines tried under working conditions in ship 2.4.20
Completion of fitting sea connections Stern tube Screw shaft and propeller
Material of crank shaft *L.M. Steel* Identification Mark on Do. *LLOYDS No 1397 SKM 31.8.17 A* Material of thrust shaft *L.M. Steel* Identification Mark on Do. *LLOYDS No 3073 SKM 1.6.20 A*
Material of *tunnel* shafts *L.M. Steel* Identification Marks on Do. *LLOYDS No 1549 SKM 8.12.17 A* Material of screw shafts Identification Marks on Do.
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 *see Mem. reports no 1799-1800*

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 been designed and constructed under special survey, it is respectfully submitted that it be classed
LMC, as soon as it has been fitted on board to the satisfaction of the Society's local Surveyors

The amount of Entry Fee ... £ : : When applied for,
Special survey in shop ... £ 35 : 6 : 8 : 19 Aug. 1920
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : Sept 2. 1920

Committee's Minute

Assigned

Not for classing Committee

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

TUE. 17 OCT. 1922

© 2021

See Rot. 12 555

Lloyd's Register Foundation