

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 3505a

Received at London Office 11 SEP 1930

Date of writing Report 14/8/1930 When handed in at Local Office 18/10/30 Port of Oslo
No. in Survey held at Fredriksstad Date, First Survey 12/9-29 Last Survey 13/8-1930
eg. Book. Number of Visits 15

on the Single Screw vessel "DANWOOD"
Twin
Triple
Quadruple

Tons } Gross 6399.7
Net 3764.41

built at Fredriksstad By whom built Fredriksstad Mek. Verksted Yard No. 255 When built 1930
Engines made at Stockholm By whom made Dutch - Atlas - Deal Engine No. 50/23/24 When made 1930
Monkey Boiler made at Aunan By whom made Cochran & Co, Aunan Ltd Boiler No. When made 1929
Horse Power 1170 Owners M/S Danwood Port belonging to Oslo
Nom. Horse Power as per Rule 382 Is Refrigerating Machinery fitted for cargo purposes no. Is Electric Light fitted yes
Trade for which vessel is intended 765.

2 or 4 stroke cycle **Single or double acting**

MAXIMUM PRESSURE IN CYLINDERS } Diameter of cylinders Length of stroke No. of cylinders No. of cranks
PLAN OF BEARINGS, ADJACENT TO THE CRANK } measured from inner edge to inner edge Is there a bearing between each crank
REVOLUTIONS PER MINUTE } Flange dia. Weight Means of ignition Kind of fuel used
CRANK SHAFT, dia. of journals } as per Rule Crank pin dia. Crank Webs Mid. length breadth shrunk Thickness parallel to axis
 as fitted as fitted Mid. length thickness Thickness around eye-hole
PROPELLER SHAFT, diameter } as per Rule Intermediate Shafts, diameter as per Rule 216 mm Thrust Shaft, diameter at collars as per Rule
 as fitted as fitted 220 as fitted
STERN TUBE SHAFT, diameter } as per Rule 240 mm Is the shaft fitted with a continuous liner } yes
 as fitted as fitted 250 screw
BRONZE LINERS, thickness in way of bushes } as per Rule Thickness between bushes as per rule 15 mm Is the after end of the liner made watertight in the
 as fitted 16 x 17 mm as fitted
PROPELLER BOSS } yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner } yes
 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 }
 If so, state type Length of Bearing in Stern Bush next to and supporting propeller 1160 mm }
PROPELLER, dia. 3250 mm Pitch 2560 mm No. of blades 3 Material Bronze whether Moveable no Total Developed Surface 33 sq. feet
METHOD OF REVERSING ENGINES } Is a governor or other arrangement fitted to prevent racing of the engine when declutched } yes 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 If 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. 1 each engine } Is the sea suction provided with an efficient strainer which can be cleared within the vessel } yes
BILGE PUMPS worked from the Main Engines, No. 1 each Diameter 130 mm. Stroke 22 double act. Can one be overhauled while the other is at work }
PUMPS connected to the Main Bilge Line } No. and Size Two, 130 x 221 mm. How driven electric motors
BALLAST PUMPS, No. and size one, 10" x 10" Lubricating Oil Pumps, including Spare Pump, No. and size See Stockholm Rpt.
ARE TWO INDEPENDENT MEANS ARRANGED FOR CIRCULATING WATER THROUGH THE OIL COOLER } yes } Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
PUMPS, No. and size:—In Machinery Spaces Three @ 89 mm. In Pump Room }
HELD, etc. Fore hold: Two @ 102 mm. Main hold: Two @ 102 mm.
INDEPENDENT POWER PUMP DIRECT SUCTIONS to the Engine Room Bilges, No. and size one, 120 mm.
ARE ALL THE BILGE SUCTION PIPES IN HOLDS AND TUNNEL WELL FITTED WITH STRUM-BOXES } yes } Are the Bilge Suctions in the Machinery Spaces }
AND DRAIN FROM EASILY ACCESSIBLE MUD-BOXES, PLACED ABOVE THE LEVEL OF THE WORKING FLOOR, WITH STRAIGHT TAIL PIPES TO THE BILGES } yes }
ARE ALL SEA CONNECTIONS FITTED DIRECT ON THE SKIN OF THE SHIP } yes } Are they fitted with Valves or Cocks } yes }
ARE THEY FIXED SUFFICIENTLY HIGH ON THE SHIP'S SIDE TO BE SEEN WITHOUT LIFTING THE PLATFORM PLATES } yes } Are the Overboard Discharges above or below the deep water line } all above except }
ARE THEY EACH FITTED WITH A DISCHARGE VALVE ALWAYS ACCESSIBLE ON THE PLATING OF THE VESSEL } yes } Are the Blow Off Cocks fitted with a spigot and brass covering plate } yes }
DO ALL PIPES PASS THROUGH THE BUNKERS } } How are they protected }
DO ALL 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 } yes }
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 } yes } 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 } }

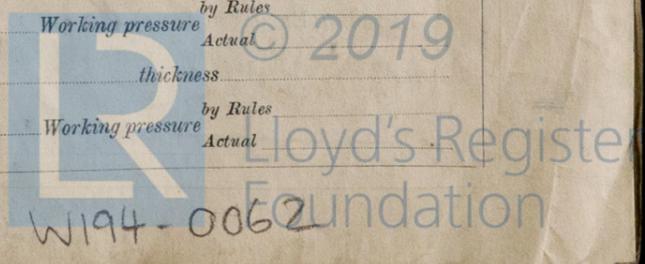
MAIN AIR COMPRESSORS, No. } No. of stages } Diameters } Stroke } Driven by }
AUXILIARY AIR COMPRESSORS, No. } } See Stockholm Rpt } } }
SMALL AUXILIARY AIR COMPRESSORS, No. } No. of stages } Diameters } Stroke } Driven by }
EVACUATING AIR PUMPS, No. } Diameter } Stroke } Driven by }

RECEIVERS:— 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 and cleaned } Is a drain 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 } See Stockholm Rpt } Range of tensile strength } Working pressure }
STARTING AIR RECEIVERS, No. } Total cubic capacity } Internal diameter } thickness }
 seamless, lap welded or riveted longitudinal joint } Material } Range of tensile strength } Working pressure }

Water Capacity, Tons. 249 203

860

Visits 26.



IS A DONKEY BOILER FITTED? Yes. If so, is a report now forwarded? See Glasgow Rpt.

Is the donkey boiler intended to be used for domestic purposes only? Yes

PLANS. Are approved plans forwarded herewith for Shafting 7/12/28, 15/1/29 Receivers Separate Tanks
 (If not, state date of approval)
 Donkey Boilers General Pumping Arrangements 3/4/29, 3/12/29 Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied? Yes
 State the principal additional spare gear supplied: 1 cylinder liner, with packing. 1 pair crosshead
 brasses. 1 pair bottom end brasses. 4 fuel valves completely mounted.
 Cam shaft bearing brasses. 8 safety valves for various purposes.
 Additional piston rings, springs &c. Additional telescope pipes, with packing &c.
 1 lubricator complete.

Auxiliary engines: The spare gear required by the Rules has been supplied.
 additional spare gear supplied: 1 piston complete. - 2 bolts for bedplate -
 1 pair bottom end brasses, all per engine. Additional piston rings, springs,
 packing, bolts &c.

The foregoing is a correct description.

pr. A/s Fredrikstad mch. Werkstad Manufacturer.

Dates of Survey while building: During progress of work in shops - See Stockholm Rpt.
 During erection on board vessel - 1929: 12/9, 24/9, 31/10, 22/11 - 1930: 12/2, 20/2, 25/2, 5/3, 17/3, 10/4, 9/5, 10/5, 2/7, 8/8, 13/8
 Total No. of visits 15.

Dates of Examination of principal parts - Cylinders Covers Pistons Rods Connecting rods
 Crank shaft Flywheel shaft Thrust shaft Intermediate shafts 12/2/30 Tube shaft
 Screw shafts 12/2/30 Propellers 17/3/30 Stern tubes 12/2/30 Engine seatings 31/10, 22/11/29 Engines holding down bolts 12/2/30
 Completion of fitting sea connections 10/4/30 Completion of pumping arrangements 10/5/30 Engines tried under working conditions 8/8
 Crank shaft, Material Stockholm Rpt Identification Mark Flywheel shaft, Material Identification Mark
 Thrust shaft, Material Identification Mark Intermediate shafts, Material S.M. steel Identification Marks
 Tube shaft, Material Identification Mark Screw shaft, Material S.M. steel Identification Mark

Is the flash point of the oil to be used over 150° F. Yes
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with Yes
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo If so, have the requirements of the Rules been complied with
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with
 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.)
This vessel's machinery has been examined, while being fitted onboard, and has been subsequently examined during a 6 hours trial trip, during which all necessary manoeuvring was carried out, a full speed trial also being held. The donkey boiler has been examined under steam. The machinery worked satisfactorily throughout. It is recommended that this vessel's machinery be classed
LMC 8.30

It is submitted that this vessel is eligible for THE RECORD + LMC 8.30 C-L
 Oil Engines 2SCSA 16cy 16 9/16" - 28 3/8"
 NHP 765. DB. 80lb.

The amount of Entry Fee £. 109.20 When applied for, 23/8/1930
 Special ... £. 500.00
 Donkey Boiler Fee £. : When received, 8/10/30
 Travelling Expenses (if any) £. :

Committee's Minute FRI. 26 SEP 1930
 Assigned + L.M.C. 8.30
Oil Eng. DB. 80lb.
 Engineer Surveyor to Lloyd's Register of Shipping. Per J. Rolin
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