

Rpt. 4b

REPORT ON OIL ENGINE MACHINERY.

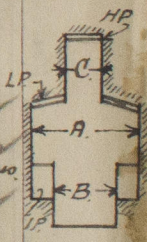
No. 390

Received at London Office 10 JAN 1927

Date of writing Report 22/12 1926 When handed in at Local Office 10 Port of Copenhagen
No. in Survey held at Copenhagen & Odense Date, First Survey 8th April 1926 Last Survey 16/12 1926
Reg. Book. 19681 on the Single Motor "Ynite Nelson" Tons Gross 468.20 Net 424.44
Built at Odense By whom built Odense Skibsværft v.a. a.s. Yard No. 24 When built 1926
Engines made at Copenhagen By whom made J. Burmeister & Wain's Masking- & Skibs- Engine No. 1245 When made 1926
Donkey Boilers made at Copenhagen By whom made J. Burmeister & Wain's Masking- & Skibs- Boiler No. 1496 When made 1926
Brake Horse Power 4000 Owners A. F. Borg & v. J. P. Olsen Port belonging to Oslo
Nom. Horse Power as per Rule 956 Is Refrigerating Machinery fitted for cargo purposes yes Is Electric Light fitted yes
Trade for which vessel is intended Ocean Trade, General Cargo & Fruit

IL ENGINES, &c.—Type of Engines Vertical Diesel, crosshead type. 2 or 4 stroke cycle 4 Single or double acting single
Maximum pressure in cylinders 35 kg/cm² Diameter of cylinders 630 mm Length of stroke 1100 mm No. of cylinders 2 x 8 = 16 No. of cranks 2 x 8 = 16
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 890 mm Is there a bearing between each crank yes
Revolutions per minute 140 Crank pin dia. 1902 mm Weight 1100 kg Means of ignition compression Kind of fuel used crude oil, EP above 150°F
Crank Shaft, dia. of journals as per Rule 396.5 mm Crank pin dia. 398 mm Crank Webs Mid. length breadth 464 mm Thickness parallel to axis 266 mm
as fitted 398 mm Mid. length thickness 246 mm Thickness around eye-hole 180 mm
Flywheel Shaft, diameter as per Rule 398 mm Intermediate Shafts, diameter as per Rule 11" Thrust Shaft, diameter at collars as per Rule 11 9/16"
as fitted 398 mm as fitted 11" as fitted 11 9/16"
Tube Shaft, diameter as per Rule 12 1/8" Is the tube shaft fitted with a continuous liner yes
as fitted 12 1/8" as fitted 12 1/8"
Bronze Liners, thickness in way of bushes as per Rule 0.66" Thickness between bushes as per rule 0.56" Is the after end of the liner made watertight in the
as fitted 0.75" as fitted 9/16"
Propeller boss yes If the liner is in more than one length are the functions made by fusion through the whole thickness of the liner in one length 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.
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 5'-0"
Propeller, dia. 12'-6" Pitch 11'-6" No. of blades 3 Material bronze whether Moveable No Total Developed Surface 37 sq. feet
Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when decoupled yes Means of lubrication
forced Thickness of cylinder liners 46 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with
conducting material lagged. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine led this funnel.
Cooling Water Pumps, No. 2, 200 to each. 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. 2 Diameter 160 mm Stroke 196 mm Can one be overhauled while the other is at work yes
Pumps connected to the Main Bilge Line No. and Size 2 off 160 mm dia x 196 mm str 1 off 150 to 1 off 20 to by main engines by electromotor
Ballast Pumps, No. and size 1 off 150 to Lubricating Oil Pumps, including Spare Pump, No. and size 2 off 90 to each
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 5 off 3" 1 off 6" (+ 1 off 3" for hose coupling)
Holds, &c. No. 1-2-3 holds: 2 off 3"; No 4 hold: 3 off 3"; No 5 hold: 1 off 3"
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 off 6" 1 off 3"
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces
not 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 valves, except blow off cocks
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 above
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. None How are they protected
Do all pipes pass through the deep tanks. None Have they been tested as per Rule
Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
if not 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 yes Is it fitted with a watertight door yes worked from upper decks
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. 2 No. of stages 3 Diameters 750 - 675 - 500 mm Stroke 360 mm Driven by steam engines
Auxiliary Air Compressors, No. 3 No. of stages 3 Diameters 375 - 285 - 78 mm Stroke 220 mm Driven by fuel Diesel engine
Small Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 160 - 347 mm Stroke 80 mm Driven by steam engine
Suctioning Air Pumps, No. 1 Diameter 161.5 mm Stroke 162 mm Driven by
as per Rule 161.5 mm
as fitted 162 mm

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 man holes in start air receivers
there a drain arrangement fitted at the lowest part of each receiver yes arrangements made for steaming out injection air bottles.
High Pressure Air Receivers, No. 2 (SPARE) Cubic capacity of each 5.25 cu. ft. Internal diameter 450 mm thickness 25.0 mm
3 (MAIN ENG.) 7.95 cu. ft. 358 mm 24.0 mm
1 (AUXIL. ENG.) 7.06 cu. ft. 338 mm 23.0 mm
less, lap welded or riveted longitudinal joint. Material S. M. steel Range of tensile strength 38.4-39.7 kg Working pressure by Rules 74.4 kg/cm²
28.7-29.4 kg 36.5 kg/cm²
Working Air Receivers, No. 2 Total cubic capacity 14.50 cu. ft. Internal diameter 6'-0" 6'-1 1/2" thickness 1 3/8" 1 3/8" shell 15' 1/2" x 1"
less, lap welded or riveted longitudinal joint. Material S. M. steel Range of tensile strength 44.2-47.2 kg Working pressure by Rules 25 kg/cm²
28.7-29.4 kg 26.7 kg/cm²



IS A DONKEY BOILER FITTED? *yes*

If so, is a report now forwarded? *yes*

PLANS. Are approved plans forwarded herewith for Shaftering

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR

In accompanying list

The foregoing is a correct description,

W. J. J. J. J.

Manufacturer.

Dates of Survey while building
During progress of work in shops - *8/4, 8/14, 19/4, 21/4, 23/4, 26/4, 6/5, 10/5, 11/5, 12/5, 17/5, 18/5, 19/5, 22/5, 25/5, 26/5, 27/5, 29/5, 31/5, 1/6, 2/6, 3/6, 7/6, 9/6, 11/6, 12/6, 18/6, 19/6, 22/6, 24/6, 26/6, 29/6, 30/6, 1/7, 2/7, 7/7, 8/7, 9/7, 12/7, 13/7, 14/7, 18/7, 19/7, 20/7, 21/7, 22/7, 26/7, 31/7, 1/8, 9/8, 11/8, 13/8, 16/8, 19/8, 21/8, 26/8, 29/8, 30/8, 1/9, 2/9, 7/9, 24/9, 30/9, 1/10*
During erection on board vessel - *8/9, 4/10, 6/10, 13/10, 3/11, 17/11, 1/12, 2/12, 3/12, 10/12, 11/12, 12/12, 13/12, 14/12, 15/12, 16/12, 19/12, 26*
Total No. of visits *78*

Dates of Examination of principal parts - Cylinders *2/6, 25/6, 30/6, 14/7* Covers *29/5, 2/6, 30/6, 14/7* Pistons *29/5, 30/6, 1/7* Rods *8/4, 23/4, 26/4, 31/5, 13/4, 21/4* Connecting rods *7/6, 22/6*
Crank shaft *3/6, 7/6, 26/6, 1/7* Flywheel shaft *✓* Thrust shaft *12/5, 19/5, 31/5, 19/8* Intermediate shafts *4/4, 19/5, 31/5, 3/6, 9/6, 19/8* Tube shaft *✓*
Screw shafts *19/5, 7/6, 26/6, 1/7, 30/9* Propellers *24/9* Stern tubes *1/6, 4/10* Engine seatings *4/10, 13/10* Engines holding down bolts *3/11, 17/11*

Completion of fitting sea connections *4/10* Completion of pumping arrangements *17/11* Engines tried under working conditions *13/12, 14/12, 15/12*
Crank shafts Material *S. M. steel* Identification Mark *LLOYD'S No 8157-8161 8168-69* Flywheel shaft, Material *S. M. steel* Identification Mark *LLOYD'S No 8205-6*
Thrust shafts Material *S. M. steel* Identification Mark *L 19-8-26* Intermediate shafts, Material *S. M. steel* Identification Marks *L 19-8-26*
Tube shaft, Material *✓* Identification Mark *✓* Screw shafts Material *S. M. steel* Identification Mark *L 30-9-26*

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

This machinery has been built under Special Survey and in accordance with the Rules, the approved plans and the requirements contained in the Surveyor's letters & dated 1/2, 26/3, 26/4, 28/5, 1/7 & 16/7 1926. The material used in the construction has been tested & examined as required by the Rules, either by us or as per Certificates produced, and the workmanship is of good quality throughout. The machinery has been fitted on board the vessel under our supervision and to our satisfaction, and has been tested under full power working conditions and found good & on the final trial trip the manœuvring of the main engines was tried and found satisfactory.

Recommend the vessel's machinery to have notation of LMC-12-26 OIL ENGINES and C.L.

The amount of Entry Fee ... *109.20* When applied for, *21/12 1926*
Special ... *2383.29*
Donkey Boiler Fee *50.00* When received, *25/1/27*
Travelling Expenses (if any) *764.00*
LATE FEE & SUNDAY FEE - *60.00*
Committee's Minute *FRI. 14 JAN 1927*

Assigned

+ LMC 12.26 C.L. Oil Engines

