

REPORT ON OIL ENGINE MACHINERY.

-1 DEC 1930
No. 105Date of writing Report 30th June 1930 When handed in at Local Office 30th June 1930 Port of Winterthur
No. in Survey held at Winterthur Date, First Survey 5th April 29 Last Survey 1st June 1930
Reg. Book.Single Screw vessel "TABIAN" Tons Gross 2506.5 Net 4844.69
Built at Amsterdam By whom built The Nederland S. S. Co. Yard No. 203 When built 1930
Engines made at Winterthur By whom made Messrs. Sulzer Bros. Engine No. 6117 When made 1930
Donkey Boiler made at Haarlem By whom made Messrs. Hutelma Boiler No. 362 When made 1930
Brake Horse Power 7000 Owners The Nederland S. S. Co. Port belonging to Amsterdam
Nom. Horse Power as per Rule 1450 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
Trade for which vessel is intended East IndiesL ENGINES, &c.—Type of Engines Sulzer Diesel Engines 2 or 4 stroke cycle 2 Single or double acting single
Maximum pressure in cylinders 550 lbs. Diameter of cylinders 820 mm. Length of stroke 1440 mm. No. of cylinders 8 No. of cranks 8
Mean of bearings, adjacent to the Crank, measured from inner edge to inner edge 230 mm. Is there a bearing between each crank yes
Revolutions per minute 106 Flywheel dia. 2800 mm. Weight 4600 Kg. Means of ignition Compression Kind of fuel used heavy fuel oil
Crank Shaft, dia. of journals as per Rule 533 mm. Crank pin dia. 580 mm. Crank Webs Mid. length breadth 1040 mm. Thickness parallel to axis 390 mm.
as fitted 580 " Mid. length thickness 390 " Thickness around eye hole 310 "
Flywheel Shaft, diameter as per Rule 533 " Intermediate Shafts, diameter as per Rule 415 mm. Thrust Shaft, diameter at collars as per Rule 533 "
as fitted 580 " as fitted 440 mm. as fitted 580 "
Tube Shaft, diameter as per Rule 471 " Is the screw shaft fitted with a continuous liner yes
as fitted 490 mm. Is the after end of the liner made watertight in theBronze Liners, thickness in way of bushes as per Rule 25 mm. Thickness between bushes as per rule 20 mm. Is the after end of the liner made watertight in the
as fitted 25 mm. If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner yes
Propeller boss 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 yes
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
of the tube shaft Length of Bearing in Stern Bush next to and supporting propeller 1960 mmPropeller, dia. 19'-0" Pitch 16'-0" No. of blades 4 Material bronze whether Moveable no Total Developed Surface 110 sq. feet
Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when disengaged yes Means of lubrication
oil Thickness of cylinder liners 60 mm. Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged withconducting material yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine yes
Cooling Water Pumps, No. 2 combined piston and cylinder pumps (stand by) Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes
Large Pumps worked from the Main Engines, No. 1 Diameter 150 ton Centur pump Stroke 1-220 ton CenturPumps connected to the Main Bilge Line No. and Size 2-150 ton Centur pump How driven electric Motor 1-220 ton Centur
Last Pumps, No. and size 1-220 ton Centur Lubricating Oil Pumps, including Spare Pump, No. and size 2 combined bearing and crosshead
two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary BilgePumps, No. and size:—In Machinery Spaces 2-3 1/2" in each Hold. 1-3 1/2" in tunnel and 1-3 1/2" in Cofferdam
Tolds, &c. 6-3 1/2" Surrounding Rubs - oil
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2-3 1/2" and 1-6" direct to Ballast pumpAll the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes. Are the Bilge Suctions in the Machinery Spaces
from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes
All Sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks. Valves & Cocks for donkey boilerThey 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 yes
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
Pipes pass through the bunks no pipes How are they protected yesPipes pass through the deep tanks no pipes Have they been tested as per Rule yes
All Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes
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 onecompartment to another yes Is the Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from upper deck
Food vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
Air Compressors, No. 2 No. of stages 3 Diameters 570/480/150 Stroke 720 mm. Driven by crankshaftAuxiliary Air Compressors, No. 1 No. of stages 2 Diameters 110/35 Stroke 120 mm. Driven by hot bulb engine.
Auxiliary Air Compressors, No. 1 Tandem double acting Diameter 1860 mm. Stroke 960 mm. Driven by crankshaft.Scavenging Air Pumps, No. 1 as per Rule 165 mm. as fitted 170 " 3 & 4 Air receivers (transverse by)
Auxiliary Engines crank shafts, diameter as per Rule 165 mm. as fitted 170 " 250 litres injection 1 hole 150 mm &
AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yes 4 riveted brass manhole 300 x 400 mm.
Can the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces 2500 litres 2 holes 270 mm &
Is there a drain arrangement fitted at the lowest part of each receiver yes 250 " riv. 1 " 125 " "High Pressure Air Receivers, No. 1 Injection Cubic capacity of each 2500 " Internal diameter 540 " thickness 25 " 32.5 " 76.6 kg/cm.
Seamless, lap welded or riveted longitudinal joint. Seamless Material S.M. Steel Range of tensile strength 28 To 32 Tons Working pressure by Rules 97.8 " 103.8 "Starting Air Receivers, No. 2 Total cubic capacity 26 cub. metres Internal diameter 1400 mm. thickness 26 mm. 9 " 442 lbs &
Seamless, lap welded or riveted longitudinal joint. riveted Material S.M. Steel Range of tensile strength 28 To 32 Tons Working pressure by Rules 53.6 kg/cm.
Seamless, lap welded or riveted longitudinal joint. Seamless Material S.M. Steel Range of tensile strength 55 To 61.5 kg/cm.

IS A DONKEY BOILER FITTED? *Yes*

PLANS. Are approved plans forwarded herewith for Shafting *29-5-29*

Donkey Boilers

General Pumping Arrangements

SPARE GEAR

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

Receivers *2500 litres* *18-1-29* Separate Tanks
800 " *3-5-27*
Oil Fuel Burning Arrangements
Injection res. *5-4-29*
250 litres starting res. 28-5-27.

As per attached list and one spare Poulshaft & propeller

The foregoing is a correct description

Sulzer Brothers

Limited

Manufacturer.

5-4-29, 2-5-29, 7-5-29, 13-5-29, 22-5-29, 30-5-29, 4-6-29, 21-6-29, 8-7-29, 10-7-29, 16-7-29, 29-8-29, 3-9-29, 10-9-29, 11-9-29, 20-9-29, 28-9-29, 30-9-29, 9-10-29, 11-10-29, 12-10-29, 14-10-29, 15-10-29, 24-10-29, 28-10-29, 30-10-29, 31-10-29, 5-11-29, 7-11-29, 8-11-29, 26-11-29, 27-11-29, 3-12-29, 4-12-29, 10-12-29, 12-12-29, 19-12-29, 13-1-30, 21-1-30, 22-1-30, 23-1-30, 24-1-30, 27-1-30, 28-1-30, 29-1-30, 31-1-30, 1-2-30, 3-2-30, 6-2-30, 7-2-30, 19-2-30, 25-2-30, 26-2-30, 13-3-30, 14-3-30, 27-3-30, 8-4-30, 9-4-30, 10-4-30, 11-4-30, 12-4-30, 24-4-30, 1-6-30,

Dates of Survey while building
During progress of work in shops -
During erection on board vessel -
Total No. of visits *May 24-27*
10 June 30 June 31 July 4-7-15 Aug Sept 2-9-15-29-30 Oct 6-10-20; Nov 8. 24. = 63 + 18

Dates of Examination of principal parts—Cylinders *8-4-30* Covers *8-4-30* Pistons *8-4-30* Rods *10-4-30* Connecting rods *11-4-30*

Crank shaft *19-2-30* Flywheel shaft *19-2-30* Thrust shaft *19-2-30* Intermediate shafts *4 Aug - 9 Sept* Tube shaft *✓*

Screw shaft *24-27 May* Propeller *24-27 May* Stern tube *24-27 May* Engine seatings *29 Sept 8 Nov* Engines holding down bolts *15-24 Sept 8 Nov*

Completion of fitting sea connections *27 May* Completion of pumping arrangements *10 Oct* Engines tried under working conditions *8 Nov*

Crank shaft, Material *Ann. S.M. Eng. Steel* Identification Mark *Lloyd's M.K. 2704 30-11-29* Flywheel shaft, Material *Ann. S.M. Eng. Steel* Identification Mark *Lloyd's M.B. 8487 24-6-29*

Thrust shaft, Material *Ann. S.M. Eng. Steel* Identification Mark *See flywheel shaft* Intermediate shafts, Material *SMS* Identification Marks *8854 M.K. 10-11-29*

Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *SMS* Identification Mark *8764 K.H. 16-7-29*

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 *"Talissee" and "Tanumba"*

General Remarks (State quality of workmanship, opinions as to class, &c. *This machinery has been constructed under,*

special survey in accordance with the requirements of the Rules, the Secretary's letters and the approved plans. Materials and workmanship good. The main and auxiliary engines and their accessories have been dispatched to Amsterdam where the trials will be run when the machinery is installed in the vessel.

The amount of Entry Fee ... £ *6-0-0* : When applied for, *28 June 30*
Special ... £ *136-5-0* :
Donkey Boiler Fee ... £ : : When received, *12 July 30*
Travelling Expenses (if any) £ : :

Committee's Minute

TUE. 9 DEC 1930

Assigned

See Annals F.B. Rph 13112

W.G. Tallis

Engineer Surveyor to Lloyd's Register of Shipping.



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