

Attach to Month's Report 1529 of June 1927.

Rpt. 4b

AUXILIARY REPORT ON OIL ENGINE MACHINERY.

No. 7334.

Received at London Office 16 SEP 1926

Date of writing Report 14th September 1926, When handed in at Local Office 19 Port of Copenhagen
No. in Survey held at Copenhagen Date, First Survey 6th April Last Survey 12th August 1926
Reg. Book. Number of Visits 28.

Single on the Twin Triple Quadruple } Motor Screw vessel Benjamin Franklin N^o T-5. Tons Gross Net
Built at Saint Nazaire By whom built Charter et Ateliers de Penhoit. Yard No. T-5 When built 1927/6.
Engines made at Copenhagen By whom made Akt. Burmeister & Wain's. Machine of Trilsbøgger. Engine No. 1259/1251 When made 1926
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power 150 each engine. Owners Fred Olsen & Co. Port belonging to O.Ho.
Nom. Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
Trade for which vessel is intended

AUXILIARY OIL ENGINES, &c.—Type of Engines Vertical Auxiliary Diesel Oil Engines (3 off) 2 or 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 35 kg/cm² Diameter of cylinders 310 mm Length of stroke 350 mm No. of cylinders 3 on each. No. of cranks 3 on each.
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 360 mm Is there a bearing between each crank No.
Revolutions per minute 400 Flywheel dia. 1240 mm Weight 2725 kg. Means of ignition Air compression Kind of fuel used Crude oil, flash point above 150°F.

Crank Shaft, dia. of journals as per Rule as fitted Crank pin dia. Crank Webs Mid. length breadth Mid. length thickness Thickness parallel to axis shrunk Thickness around eyehole
Flywheel Shaft, diameter as per Rule as fitted **Intermediate Shafts**, diameter as per Rule as fitted **Thrust Shaft**, diameter at collars as per Rule as fitted
Tube Shaft, diameter as per Rule as fitted **Screw Shaft**, diameter as per Rule as fitted Is the { tube } shaft fitted with a continuous liner { screw }

Bronze Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per rule as fitted Is the after end of the liner made watertight in the propeller boss
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
If 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 shaft

Length of Bearing in Stern Bush next to and supporting propeller
Propeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet
Method of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched 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

Boiling Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel
Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work
Pumps connected to the Main Bilge Line { No. and Size How driven

Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size
Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge pumps, No. and size:—In Machinery Spaces
Holds, &c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size
Are all 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

Are all Sea Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates Are the Overboard Discharges above or below the deep water line
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass covering plate
Are the pipes protected How are they protected
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
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 Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from
Are the wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Auxiliary Air Compressors, No. 3 off No. of stages 3 Diameters A. 315 mm B. 255 mm C. 75 mm Stroke 220 Driven by Aux. Diesel engines.
All Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by
Reversing Air Pumps, No. Diameter Stroke Driven by
Auxiliary Engines crank shafts, diameter as per Rule 161.6 mm as fitted 162.0 mm

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes
Are the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces
Is there a drain arrangement fitted at the lowest part of each receiver Yes
Pressure Air Receivers, No. 3 off Cubic capacity of each 30 Litres each Internal diameter 7 1/4" thickness 3/8"
Are they seamless lap welded or riveted longitudinal joint Seamless Material S.M. Steel Range of tensile strength 55-65 atm. Working pressure by Rules 65 atm.
Working Air Receivers, No. Total cubic capacity Internal diameter thickness
Are they seamless lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

PLANS. Are approved plans forwarded herewith for Shafting on the 1st September 26. (If not, state date of approval)

Receivers

Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR

AKTIESELSKABET
The foregoing is a correct description,
of the machinery of the vessel
"ASKIN" OF SKIBSVEGERI

Manufacturer.

Dates of Survey while building
During progress of work in shops - 6, 23 April, 3, 4, 5, 10, 11, 20, 25, 26 May, 1, 3, 8, 11, 15, 16, 18, 19, 22, 24, 25, 29 June, 2, 5, 7, 20 July, 8, 12 August 1926.
During erection on board vessel -
Total No. of visits 28.

Dates of Examination of principal parts—Cylinders and Covers 4/5, 10/5, 20/5, 26/5, 19/6, 26. Pistons 5/5, 11/5, 25/5, 26. Rods Connecting rods 4/4, 23/4, 9/5, 10/5, 26.

Crank shafts 8/4, 23/4, 10/5, 16/5, 9/6, 26. Flywheel shaft See crank shaft. Thrust shaft Intermediate shafts Tube shaft

Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions in shop 8/7, 13/7, 20/7, 19/26.
LLOYD'S NO 8128, 8129.

Crank shafts Material S.M.I. Steel Identification Mark 8130. K. B-6-26 Flywheel shaft, Material See crank shafts Identification Mark

Thrust shaft, Material Identification Mark Intermediate shafts, Material Identification Marks

Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

Is the flash point of the oil to be used over 150° F. Yes.

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.)

The 3 auxiliary Diesel oil engines as above described have been constructed under Special Survey, and in accordance with the Rules, the approved plan and requirements contained in the Secretary's letter E dated the 20th May 1926.

The material used in construction of the engines and the air receivers has been tested as required by the Rules, either by us or as per certificates produced. — (The certificates of tests were forwarded to you on the 1st instant.)

The engines and their accessories have been tested under full power working condition on the test bench in shop and found to work satisfactorily. —

These auxiliary oil engines have been fitted onboard the M.S. Benjamin Franklin
No. 7 in accordance with the Rules and are now in good working condition.
(Report on this and Memo No. 1529)

Good Faith
Memo 29/6/27

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

The amount of Entry Fee ... £ : : When applied for,
Special ... £ 300.00 : 1st April 1926
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : : 9/7/1927

A. J. Jensen
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned
TUES 12 JUL 1927
De An. J. C. No 1529

