

B.B

AUXILIARY ENGINE.
REPORT ON OIL ENGINE MACHINERY

No. 19

Received at London Office JUL 5 1922

t. 4b.

of writing Report 12th June 1922 When handed in at Local Office 12th June 1922 Port of Winterthur
in Survey held at Date, First Survey 4th July 1921. Last Survey 12th June 1922.
Book. Number of Visits 20
on the ~~Twin~~ Triple Screw vessels
Built at By whom built Yard No. When built
By whom made Sulzer Freres S.A. Engine No. 5197 When made 1922
Boilers made at By whom made Boiler No. When made
Horse Power 90 Owners Port belonging to
Horse Power as per Rule 14 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Type of Engines Sulzer Auxiliary Diesel Engine 2 or 4 stroke cycle 4 Single or double acting Single
Minimum pressure in cylinders 38 ATs. No. of cylinders 2 No. of cranks 2 Diameter of cylinders 310^{mm} = 12³/₁₆"
Length of stroke 360^{mm} = 14³/₁₆" Revolutions per minute 300 Means of ignition Temperature due to compression Kind of fuel used Heavy fuel oil
Are there a bearing between each crank Yes Span of bearings (Page 92, Section 2, par. 7 of Rules) 390^{mm}
Distance between centres of main bearings 620^{mm} Is a flywheel fitted Yes Diameter of crank shaft journals as per Rule 166^{mm} 169
Diameter of crank pins 175^{mm} as fitted 175^{mm}
Diameter of crank shaft in one Breadth of crank webs as per Rule 221^{mm} 225 as fitted 270^{mm} Thickness of ditto as per Rule 93^{mm} 95 as fitted 98^{mm}
Diameter of flywheel shaft as per Rule 166^{mm} 169 as fitted 185 + 200^{mm} Diameter of tunnel shaft as per Rule as fitted Diameter of thrust shaft as per Rule as fitted
Diameter of screw shaft as per Rule Is the screw shaft fitted with a continuous liner the whole length of the stern tube
After end of the liner made watertight in the propeller boss If the liner is in more than one length are the joints burned
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
No liners are fitted, is the shaft lapped or protected between the liners If without liners, is the shaft arranged to run in oil
Diameter of outer gland fitted to stern tube Length of stern bush Diameter of propeller
Diameter of propeller No. of blades state whether moveable Total surface square feet
Method of reversing non reversible Is a governor or other arrangement fitted to prevent racing of the engine when detached Yes Thickness of cylinder liners 24^{mm}
Are the cylinders fitted with safety valves Yes Means of lubrication forced Are the exhaust pipes and silencers water cooled or lagged with
conducting 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
No. of cooling water pumps 1 Is the sea suction provided with an efficient strainer which can be cleared
In the vessel No. of bilge pumps fitted to the main engines Diameter of ditto Stroke
Can one be overhauled while the other is at work No. of auxiliary pumps connected to the main bilge lines How driven
No. of pumps No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room
In holds, etc. No. of ballast pumps How driven Sizes of pumps
Is the ballast pump fitted with a direct suction from the engine room bilges State size Is a separate auxiliary pump suction fitted in
The Room and size Are all the bilge suction pipes fitted with roses Are the roses in Engine Room always accessible
Are the sluices on Engine Room bulkheads always accessible Are all connections with the sea direct on the skin of the ship
Are they valves or cocks Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates
Are the discharge pipes above or below the deep water line Are they each fitted with a discharge valve always accessible on the plating of the vessel
Are all pipes, 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
communication between the sea and the bilges Is the screw shaft tunnel watertight Is it fitted with a watertight door
Is it fitted with a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
No. of main air compressors 1 No. of stages 3 Diameters 205/180/40^{mm} Stroke 150^{mm} Driven by main shaft
No. of auxiliary air compressors No. of stages Diameters Stroke Driven by
No. of small auxiliary air compressors No. of stages Diameters Stroke Driven by
No. of scavenging air pumps Diameter Stroke Driven by
Diameter of auxiliary Diesel Engine crank shafts as per Rule as fitted Are the air compressors and their coolers made so as to be easy of access Yes

RECEIVERS:—No of high pressure air receivers 1 Internal diameter 190^{mm} Cubic capacity of each 20 litres
Material 8 m. Steel Seamless, lap welded or riveted longitudinal joint seamless Range of tensile strength 28 To 32 Tons per sq.
Diameter 10^{mm} working pressure by Rules 96 ATs. No. of starting air receivers Internal diameter
Cubic capacity Material Seamless, lap welded or riveted longitudinal joint
Range of tensile strength thickness Working pressure by rules Is each receiver, which can be isolated,
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
surfaces Opening 120^{mm} dia. at upper end. 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	25-1-22.	38 ATs.	75 ATs. ✓	R	Test satisfactory
" " COVERS	25-1-22.	-do-	-do- ✓	R	-do-
" " JACKETS.....	30-1-22.	1 ATs.	3 ATs. ✓	R	-do-
" PISTON WATER PASSAGES.....	-	-	-	-	-
MAIN COMPRESSORS—1st STAGE.....	30-1-22, 31-2-22	3 ATs.	10 ATs. ✓	R	Test satisfactory
" 2nd "	2-2-22, 6-2-22	17.5 ATs.	35 ATs. ✓	R	-do-
" 3rd "	-do- -do-	40 ATs.	140 ATs. ✓	R	-do-
AIR RECEIVERS—STARTING	-	-	-	-	-
" INJECTION	17-1-22.	40 ATs.	140 ATs. ✓	R	Test satisfactory
AIR PIPES	10-4-22	-do-	-do- ✓	R	-do-
FUEL PIPES	-do-	-do-	-do- ✓	R	-do-
FUEL PUMPS AND VALVES.....	9-6-22, 9-2-22.	-do-	-do- ✓	R	-do-
SILENCER	✓	✓	✓	✓	-
" WATER JACKET	2-6-22	1 ATs.	3 ATs. ✓	✓	-do-
SEPARATE FUEL TANKS					

PLANS. Are approved plans forwarded herewith for shafting
(If not, state date of approval)

23-7-21

Receivers

4-6-20.

Separate Tanks

SPARE GEAR

The foregoing is a correct description.

Sulzer, Frères
Société Anonyme
Coul. Paris

Manufacturer.

Dates of Survey while building { During progress of work in shops - - { 4-7-21, 22-7-21, 7-11-21, 2-12-21, 29-12-21, 17-1-22, 25-1-22, 30-1-22, 31-1-22, 2-2-22, 6-2-22, 9-2-22, 21-2-22, 24-2-22, 22-3-22, 10-4-22, 20-4-22, 2-6-22, 9-6-22, 12-6-22.
During erection on board vessel - - }
Total No. of visits 20.

Dates of Examination of principal parts—Cylinders 9-6-22. Covers 9-6-22. Pistons 9-6-22. Rods ✓. Connecting rods 12-6-22.

Crank shaft 12-6-22. Thrust shaft ✓. Tunnel shafts ✓. Screw shaft ✓. Propeller ✓. Stern tube ✓. Engine seatings ✓.

Engines holding down bolts ✓. Completion of pumping arrangements ✓. Engines tried under working conditions ✓.

Completion of fitting sea connections ✓. Stern tube ✓. Screw shaft and propeller ✓.

Material of crank shaft S.M. Ing. Steel. Identification Mark on Do. 3846 R 7-11-21. Material of thrust shaft ✓. Identification Mark on Do. ✓.

Material of tunnel shafts ✓. Identification Marks on Do. ✓. Material of screw shafts ✓. Identification Marks on Do. ✓.

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

Is this machinery duplicate of a previous case. No. If so, state name of vessel.

General Remarks (State quality of workmanship, opinions as to class, &c. Stock Engine constructed under special survey in accordance with the requirements of the Rules, the Secretary's letters, and the approved plans. Materials and workmanship good. Full power trials of Engine in ships satisfactory.

The amount of Entry Fee ... £ : : When applied for,
Special ... £ 15-0-0 : : 29th June 1922.
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : 1st July 1922.

Committee's Minute

FRI. 20 FEB 1925

Assigned

Not for Classing
Committee

TUES. 12 MAY 1925

FRI. 19 JUN 1925

W. S. Vallis

Engineer Surveyor to Lloyd's Register of Shipping.



© 2020

Lloyd's Register
Foundation