

YACHT. REPORT ON OIL ENGINE MACHINERY.

No. 11920
THU. MAY. 6 11924

Report 19 When handed in at Local Office 24. 4. 1924 Port of Wintertur & Middlesbrough
Survey held at Wintertur & Middlesbrough Date, First Survey 31st July 1923 Last Survey 19th Apr. 1924
Number of Visits 43

the Single Motor Yacht "PRINCESS" Tons { Gross
Twin { Screw propellers Net

Built at Haverton-Hill By whom built Turners S. B. Co Yard No. 46 When built 1924

at Wintertur By whom made Thumy Sulger Bros Engine No. 5367 When made 1924

Boilers made at Annan By whom made Bochran & Co Boiler No. 8902 When made 1923

Power 1040 (Two ENGS) Owners Port belonging to

Power as per Rule 228 (2 ENGS) Is Refrigerating Machinery fitted for ship's use Is Electric Light fitted yes
Vehicle fitted with submarine signalling

ES, &c. Type of Engines Sulger Diesel Engines (Type S 38) 2 or 4 stroke cycle 2 Single or double acting Single

in cylinders 38 ATMS No. of cylinders 4 Each Eng No. of cranks 4 Each Eng Diameter of cylinders 380 mm

660 mm Revolutions per minute 170 Means of ignition Temper. due Compression Kind of fuel used Heavy fuel oil

between each crank yes Span of bearings (Page 92, Section 2, par. 7 of Rules) 500 mm

Centres of main bearings 760 mm Is a flywheel fitted yes Diameter of crank shaft journals as per Rule 244 mm
as fitted 250 mm

ins 250 mm Breadth of crank webs as per Rule 324.5 mm Thickness of ditto as per Rule 136.6 mm
as fitted 340 mm as fitted 140 mm

el shaft as per Rule 244 mm Diameter of tunnel shaft as per Rule 6.3" Diameter of thrust shaft as per Rule 244 mm Flywheel &
as fitted 250 mm as fitted 6.5" as fitted 250 mm Thrust on one shaft

shaft as per Rule 6.909" Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes (2 liners)
as fitted 7.5" If the liner is in more than one length are the joints burned yes

the liner made watertight in the propeller boss yes

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

ted, is the shaft lapped or protected between the liners no (outside of tube) without liners, is the shaft arranged to run in oil yes

fitted to stern tube yes Length of stern bush 2'-3"; Bracket Bush 2'-6" Diameter of propeller 7'-3"

10'-6" No. of blades 4 Bronze state whether moveable no Total surface 16 1/2 square feet

Direct Is a governor or other arrangement fitted to prevent racing of the engine when disconnected yes Thickness of cylinder liners 30 mm

tted with safety valves yes Means of lubrication Forced Are the exhaust pipes and silencers water cooled or lagged with

terial yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine to Atmos

No. of cooling water pumps each Eng Is the sea suction provided with an efficient strainer which can be cleared

yes No. of bilge pumps fitted to the main engines each engine Diameter of ditto 115 mm Stroke 85 mm

led while the other is at work yes No. of auxiliary pumps connected to the main bilge lines one How driven Electric

1 1/2 bore x 6" stroke No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room 2 @ 3"
In 2 @ 2"; aft 1 @ 2"; Tunnel 1 @ 3" No. of ballast pumps 1 How driven Electric Sizes of pumps 6 1/2" x 6" stroke

p fitted with a direct suction from the engine room bilges yes State size 3" Is a separate auxiliary pump suction fitted in

size no Are all the bilge suction pipes fitted with roses yes Are the roses in Engine Room always accessible yes

Engine Room bulkheads always accessible none Are all connections with the sea direct on the skin of the ship yes

cocks both Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates yes

pipes 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

s, valves and pumps in connection with the machinery accessible at all times yes Are the bilge suction pipes, cocks and valves arranged so as to prevent any

ween the sea and the bilges yes Is the screw shaft tunnel watertight yes Is it fitted with a watertight door yes

her deck If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork yes

compressors 1 Each engine No. of stages 3 Diameters 450/410/95 Stroke 300 mm Driven by Main shaft

air compressors one No. of stages 3 Diameters 200 = 5 1/2" - 4 1/2" Stroke 5 1/2" Driven by Electric

iliary air compressors 1 Type MC-6 No. of stages 2 Diameters 110/95 Stroke 120 mm Driven by Hot bulb Engine

air pumps 1 Double acting each engine Diameter 800 mm Stroke 5-20 mm Driven by Main shaft

auxiliary Diesel Engine crank shafts as per Rule 3 1/4" Are the air compressors and their coolers made so as to be easy of access yes

CEIVERS:—No of high pressure Injection 1 Each engine Internal diameter 246 mm Cubic capacity of each 85 Litres

17. Steel Seamless, lap welded or riveted longitudinal joint Seamless Range of tensile strength 28-32 tons sq"

12 mm working pressure by Rules 92 Atms No. of starting air receivers 10 Internal diameter 410 mm

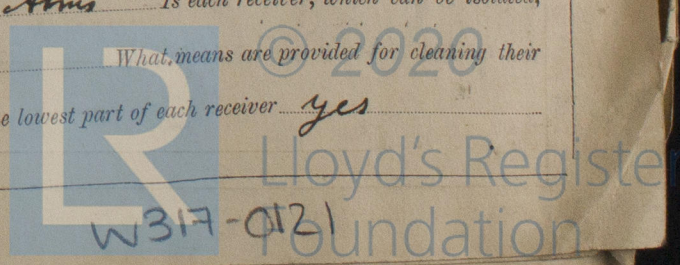
capacity 10 x 380 = 3800 Litres Material S. M. Steel Seamless, lap welded or riveted longitudinal joint Seamless

stle strength 60-70 Kg/mm² thickness 17.5 mm Working pressure by rules 106 Atms Is each receiver, which can be isolated,

safety valve as per Rule yes Can the internal surfaces of the receivers be examined yes What means are provided for cleaning their

Starting Receivers:—Hole 200 mm at each end Is there a drain arrangement fitted at the lowest part of each receiver yes

Injection " " 125 mm at top end



IS A DONKEY BOILER FITTED? *yes*

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

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	21.3.23; 22.3.23; 11.4.23; 12.4.23	38 Atms	75 Atms	B	Test satisfactory
" " COVERS	" " "	80	80	"	"
" " JACKETS	24.3.23; 26.3.23; 9.4.23; 17.4.23; 18.4.23	1 Atm	3 Atms	"	"
" " PISTON WATER PASSAGES	24.4.23, 7.5.23	3 "	6 "	"	"
MAIN COMPRESSORS—1st STAGE	14.4.23, 16.4.23	3 "	35 "	"	"
" 2nd "	" "	17.5 "	35 "	"	"
" 3rd "	17.4.23, 18.4.23	70 "	140 "	"	"
AIR RECEIVERS—STARTING	31.5.23, 1.6.23	70 "	140 "	"	"
" INJECTION	24.4.23	70 "	140 "	"	"
AIR PIPES	31.5.23 } + { 12.3.24 to 1.6.23 } + { 25.3.24	70 "	140 "	"	"
FUEL PIPES	9.5.23; 23.5.23;	70 "	140 "	"	"
FUEL PUMPS & Valves	19.3.23; 22.3.23	70 "	140 "	"	"
SILENCER Exhaust Pipes	21.3.23	1 "	6 "	"	"
" WATER JACKET	8.6.23 14.6.23	1 "	3 "	"	"
SEPARATE FUEL TANKS	1.2.24 4.2.24	3 ft head	15 ft head	✓	"

PLANS. Are approved plans forwarded herewith for shafting 15.2.23
(If not, state date of approval)

INJECTION - 16.2.23
Receivers STARTING - 16.2.23 Separate Tanks ✓

SPARE GEAR As per Winterthur Report No. 38 with the following additions: One
for oil transfer pump and a quantity of assorted bolts and nuts

The foregoing is a correct description,

See Winterthur Report No. 38.

Manufacturer.

Dates of Survey while building { During progress of work in shops - -
During erection on board vessel - -
Total No. of visits 43.

Dates of Examination of principal parts—Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓
Crank shaft ✓ Thrust shaft ✓ Tunnel shafts { 13.8.23 Darlington 14.8.23
Screw shaft 4.10.23 Propeller 16.1.24 Stern tube 21.11.23 Engine seat
Engines holding down bolts 31.3.24 Completion of pumping arrangements 19.4.24 Engines tried under working conditions 19
Completion of fitting sea connections 16.1.24 Stern tube 26.11.23 Screw shaft and propeller 16.1.24
Material of crank shaft ✓ Identification Mark on Do. ✓ Material of thrust shaft ✓ Identification Mark on Do.
Material of tunnel shafts Ing Steel Identification Marks on Do. 4368-D Material of screw shafts Ing Steel Identification Marks on Do.

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

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. To complete the survey the hot-bull
and auxiliary compressor (sect 2, Para 20) requires to be examined under working conditions.
stated this will be done at Gosport. The Southampton Surveyors have been advised.

The machinery of this vessel has been built under Special Survey as per Winterthur
and copies of certificate forwarded herewith. See also Gls Rpt N: 42999 on the Donkey Boiler

The main engines and auxiliaries have now been satisfactorily fitted on board in
with the Rules, examined under full working conditions and all found satisfactory except the
engine & auxiliary compressor which were not examined under working conditions: Report on Electric Motor

The machinery is in a good and safe working condition and renders the vessel eligible in
to have the records of LMC-4.24 and Donkey Boiler Press 100 lbs when the survey has been completed

The amount of Entry Fee ... £ : : When applied for,
Special ... £ : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When received, Report

Wm Morrison
Engineer Surveyor to Lloyd's Register of

Committee's Minute

Assigned

CERTIFICATE WRITTEN
19.6.24

+ Ldb 4.24. C.L.
oil engines



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Foundation