

pt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. **8558**
FEB. 1974

Received at London Office

of writing Report **11/4** 19 **24** When handed in at Local Office **11/11** 19 **24** Port of **Genoa**

in Survey held at **Legnano &** Date, First Survey **LEGNANO 20/6/22** Last Survey **LEGNANO 12/7/23**

Book. Number of Visits **LEGNANO 20** 19

298 on the **Single** Screw vessels **"SYCAMORE"** Tons **3500**
Twin }
Triple }

ster Built at **Middlesbrough** By whom built **Furness S.B. Co. Ltd** Yard No. When built

ines made at **LEGNANO** By whom made **FRANCO TOSI** Engine No. **2537** When made **1924**
HARTLEPOOL **RICHARDSON, WESTGARTH**

nkey Boilers made at By whom made Boiler No. When made

ake Horse Power **2400 (1200 PER MOTOR)** Owners **Shustone Line Ltd** Port belonging to **Liverpool**
(Furness Withy & Co. Ltd Imps)

m. Horse Power as per Rule **553** Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

ENGINES, &c.—Type of Engines **Diesel-Tosi** 2 or 4 stroke cycle **4** Single or double acting **Single**

imum pressure in cylinders **500 lb/sq in** No. of cylinders **12** No. of cranks **12-6 PER MOTOR** Diameter of cylinders **6 20/32 = 24 7/16**

ngth of stroke **975 = 38 3/8** Revolutions per minute **125** Means of ignition **Compression-Air** Kind of fuel used **Heavy Oil**

here a bearing between each crank Span of bearings (Page 92, Section 2, par. 7 of Rules)

tance between centres of main bearings Is a flywheel fitted Diameter of crank shaft journals **as per Rule**
as fitted

meter of crank pins Breadth of crank webs **as per Rule** Thickness of ditto **as per Rule**
as fitted **as fitted**

meter of flywheel shaft **as per Rule** Diameter of tunnel shaft **as per Rule** Diameter of thrust shaft **as per Rule**
as fitted **as fitted** **as fitted**

meter of screw shaft **as per Rule** Is the screw shaft fitted with a continuous liner the whole length of the stern tube **as fitted**

e after end of the liner made watertight in the propeller boss If the liner is in more than one length are the joints burned

e 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

o liners are fitted, is the shaft lapped or protected between the liners If without liners, is the shaft arranged to run in oil

of outer gland fitted to stern tube Length of stern bush Diameter of propeller

of propeller No. of blades state whether moveable Total surface square feet

od of reversing **Direct** Is a governor or other arrangement fitted to prevent racing of the engine when declutched Thickness of cylinder liners **50 1/2 average**
57 1/2 at top

the cylinders fitted with safety valves **Yes** Means of lubrication **forced** Are the exhaust pipes and silencers water cooled or lagged with

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

No. of cooling water pumps 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

one be overhauled while the other is at work No. of auxiliary pumps connected to the main bilge lines How driven

s 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

ie ballast pump fitted with a direct suction from the engine room bilges State size Is a separate auxiliary pump suction fitted in

ine Room and size Are all the bilge suction pipes fitted with roses Are the roses in Engine Room always accessible

the sluices on Engine Room bulkheads always accessible Are all connections with the sea direct on the skin of the ship

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

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

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

munication between the sea and the bilges Is the screw shaft tunnel watertight Is it fitted with a watertight door

arked from If 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 **2 (1 PER MOTOR)** No. of stages **3** Diameters **620 x 550 x 135** Stroke **300** Driven by **Main Engine**

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 194 1/2 (AUX ENG. SIZE)** Are the air compressors and their coolers made so as to be easy of access **Yes**
as fitted 205 1/2 (TOSI H2 TYPE)
FOR DRIVING GENERATOR

R RECEIVERS:—No of high pressure air receivers Internal diameter Cubic capacity of each

aterial Seamless, lap, welded or riveted longitudinal joint Range of tensile strength

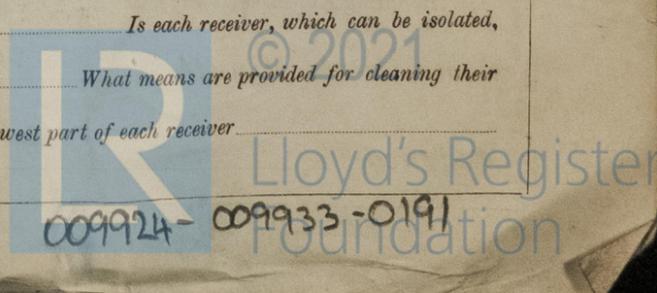
ckness working pressure by Rules No. of starting air receivers Internal diameter

tal cubic capacity Material Seamless, lap welded or riveted longitudinal joint

ange of tensile strength thickness Working pressure by rules Is each receiver, which can be isolated,

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

ner surfaces Is there a drain arrangement fitted at the lowest part of each receiver



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 & LINERS	12/7/23 & PREVIOUS DATES	500 $\frac{kg}{cm^2}$	6 $\frac{kg}{cm^2}$ Jacket	PB 8 9L TEST PRESS. DATE	Plain form - thick
" " COVERS	10/3/23 " " "	"	"		
" " JACKETS	12/7/23 " " "	10 $\frac{kg}{cm^2}$	"		
" " PISTON WATER PASSAGES	10/3/23 " " "	10 $\frac{kg}{cm^2}$	"		
MAIN COMPRESSORS - 1st STAGE	29/3/23 " " "	70 $\frac{kg}{cm^2}$	150 $\frac{kg}{cm^2}$		
" 2nd "	29/3/23 " " "	16 $\frac{kg}{cm^2}$	32 "	Back compress Completion was made working for at least 60 with satisfactory	
" 3rd "	6/4/23 " " "	4 $\frac{kg}{cm^2}$	10 "		
AIR RECEIVERS - STARTING					
" INJECTION					
AIR PIPES					
FUEL PIPES					
FUEL PUMPS	16/2/23 " " "	900 $\frac{kg}{cm^2}$	150 $\frac{kg}{cm^2}$	" "	
SILENCER					
" WATER JACKET					
SEPARATE FUEL TANKS					

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

Receivers

Separate Tanks

SPARE GEAR

See list attached - parts to check on board

The foregoing is a correct description.

FRANCO TOSI
Societa' Italiana
Uccellini *Baroni*
for parts manufactured at Legnano. Manufacturer.

Dates of Survey while building
During progress of work in shops - LEGNANO 1922 - JUNE 20 JULY 12 SEPT. 6 14 21 26 OCT 4, 14 NOV. 15, 22, 23, 30, 1923
During erection on board vessel - 1923 FEB 15, 16, MAR. 9, 21, APR. 11, 12, 1923
Total No. of visits LEGNANO 20

Dates of Examination of principal parts - Cylinders 12/7/23 Covers 10/3/23 Pistons 10/3/23 Rods
Crank shaft 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 Identification Mark on Do. 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? Yes If so, state name of vessel "PINZON" (Main Motor)
(design by cylinders slightly modified)

General Remarks (State quality of workmanship, opinions as to class, &c.) The following parts have been made at Legnano under special survey. The materials and workmanship are good :- viz
Cylinders for main motor complete with covers, pistons, valves, camshaft, Main Fuel pumps
Main compressor complete. - Certain spare gear parts. Also one H₂ Type Motor (200.345" Dia x 570" Stroke) for Electric Light & Power Generation.

The amount of Entry Fee ... £
Special LEGNANO LIT. 7650
Donkey Boiler Fee ... £
Travelling Expenses (if any) £ LEGNANO LIT. 3120
When applied for: 11/1/23 23/5/23 27/7/23
When received: 19/1/23 12/4/23 10/6/23

Alex Lawrance for self and P.T. Baroni
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 26 FEB 1924 FRI. MAR 21 1924

Assigned

