

# REPORT ON MACHINERY

No. 8450  
THU. 20 SEPT. 1923

Received at London Office

Report made at 18<sup>th</sup> Sept 1923 When handed in at Local Office 19<sup>th</sup> Sept 1923 Port of Bundee  
 Survey held at Bundee Date, First Survey Feb. 9<sup>th</sup> Last Survey 15<sup>th</sup> Sept 1923  
 Name of vessel T.S.S. "Aseyrian" Sec. "Fritz" (Number of Visits 48)  
 Built at Hamburg By whom built Blöhm + Voß When built 1914-8  
 Made at Bundee By whom made Cooper & Greig Ltd. Eng's No 253/4 when made 1923  
 Made at Glasgow By whom made A. Stephen & Sons. B's No 983. when made 1922  
 Horse Power 280 Owners Ellerman Lines Ltd Port belonging to Liverpool  
 Power as per Section 28 280 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

**Engines**  
 Description of Engines Triple Expansion (Twin Stroke) No. of Cylinders 6 No. of Cranks 6  
 Dimensions 16" x 26 1/2" x 44" Length of Stroke 30 Revs. per minute 110-115 Dia. of Screw shaft 8 1/2"  
 Shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight Yes  
 If the liner is in more than one length are the joints burned Yes If the liner does not fit tightly at the part Yes  
 If two bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes  
 Is the shaft lapped or protected between the liners Yes Length of stern bush 8' 0 7/8"  
 Dia. of Crank shaft journals 8 1/2" Dia. of Crank pin 8 1/2" Size of Crank webs 16 1/2" x 5 1/2" Dia. of thrust shaft under 8 1/2"  
 Dia. of screw 12'-0" Pitch of Screw 10'-9" No. of Blades 3 State whether moveable No Total surface 38 sq ft  
 Diameter of ditto 2 3/4" Stroke 15" Can one be overhauled while the other is at work Yes  
 Diameter of ditto 2 3/4" Stroke 15" Can one be overhauled while the other is at work Yes  
 Sizes of Pumps GENERAL BALLAST 9x11x10 No. and size of Sections connected to both Bilge and Donkey pumps 2 @ 3 1/2"  
 In Holds, &c. No. 1 2 @ 3 1/2" No. 2 2 @ 3 1/2" Cross Bunkers  
 Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size 4"  
 Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible None  
 Are they Valves or Cocks Both  
 Are the Discharge Pipes above or below the deep water line Above  
 Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes  
 How are they protected Strong wood casings  
 Are they accessible at all times Yes  
 Are they arranged so as to prevent any communication between the sea and the bilges Yes  
 Is it fitted with a watertight door Yes worked from Upper deck level.

**Boilers**  
 Surface of Boilers 5034 sq ft Is Forced Draft fitted No No. and Description of Boilers Two single ended multitubular  
 Pressure 180 lbs. Tested by hydraulic pressure to 185 Date of test 2.11.23 No. of Certificate 21156  
 Area of fire grate in each boiler 65 1/2 sq ft No. and Description of Safety Valves to Two spring loaded  
 Area of each valve 8.29 sq in Pressure to which they are adjusted 185 Are they fitted with easing gear Yes  
 Mean dia. of boilers 18" Length 18' Material of shell plates Steel  
 Range of tensile strength 45,000 Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams Yes  
 Diameter of rivet holes in long. seams 1/8" Pitch of rivets 2 1/2" Lap of plates or width of butt straps 1 1/2"  
 Working pressure of shell by rules 185 Size of manhole in shell 18"  
 No. and Description of Furnaces in each boiler Two Material Steel Outside diameter 48"  
 Thickness of plates 1/2" Description of longitudinal joint Butt No. of strengthening rings None  
 Working pressure by rules 185 Back 1/2" Top 1/2" Bottom 1/2"  
 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 185 End plates in steam space: None  
 Area supported by each stay 10 sq ft Working pressure by rules 185 Material of stays Steel  
 Pitch of stays 12" How are stays secured By nuts Working pressure by rules 185 Material of Front plates at bottom Steel  
 Material of Lower back plate Steel Thickness 1/2" Greatest thickness of stays 1/2" Working pressure of plate by rules 185  
 Material of tube plates Steel Thickness: Front 1/2" Back 1/2" Mean pitch of stays 12"  
 Working pressures by rules 185 Girders to Chamber tops: Material Steel Depth and 12"  
 Length as per rule 12' Distance apart 12' Number and pitch of stays in each 12"  
 Steam dome: description of joint to shell Butt % of strength of joint 100  
 Thickness of shell plates 1/2" Material Steel Description of longitudinal joint Butt Diam. of rivet holes 1/8"  
 Working pressure of shell by rules 185 Crown plates None Thickness 1/2" How stayed By stays

**Superheater**  
 Type Water Tube Date of Approval of Plan 2.11.23 Tested by Hydraulic Pressure to 185  
 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes  
 Pressure to which each is adjusted 185 Is Easing Gear fitted Yes



W332-0114

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— *1st each of top & bottom end, main bearing fls bolts nuts, 1 set each of feed, bilge & air pump valves, assorted bar iron, bolts & nuts*

The foregoing is a correct description,

*Shooper & Greig Limited*  
*Shooper* Director

Manufacturer.

Dates of Survey while building  
During progress of work in shops -- *1923 FEB. 9. 13. 26. MAR. 5. 13. 16. 20. 22. 26. 28. APR. 2. 12. 16. 19. 25. 30. MAY. 4. 8. 11. 14. 21. 25. 12. 15. 19. 21. 25. 26. 28. JULY 3. 10. 12. 14. 16.*  
During erection on board vessel --- *1923 AUG. 1. 3. 5. 15. 16. 21. 24. SEP. 3. 6. 13. 14. 15.*  
Total No. of visits *48.*

Is the approved plan of main boiler forwarded herewith?

Dates of Examination of principal parts—Cylinders *25-6-23* Slides *26-6-23* Covers *25-6-23* Pistons *25-6-23* Rods  
Connecting rods *2-4-23* Crank shaft *25-5-23* Thrust shaft  Tunnel shafts  Screw shaft  Propeller  
Stern tube  Steam pipes tested *16-7-23* Engine and boiler seatings *3-7-23* Engines holding down bolts  
Completion of pumping arrangements *15-8-23* Boilers fixed *3-8-23* Engines tried under steam *15-8-*  
Completion of fitting sea connections  Stern tube  Screw shaft and propeller   
Main boiler safety valves adjusted *6-9-23* Thickness of adjusting washers *P. P.V. 3/8 S.V. 5/16 S. P.V. 3/16*  
Material of Crank shaft *S* Identification Mark on Do. *25-5-23 JES* Material of Thrust shaft  Identification Mark on Do.  
Material of Tunnel shafts  Identification Marks on Do.  Material of Screw shafts  Identification Marks on Do.  
Material of Steam Pipes *seamless copper* Test pressure *360 lbs.*  
Is an installation fitted for burning oil fuel *No* Is the flash point of the oil to be used over 150°F.   
Have the requirements of Section 49 of the Rules been complied with   
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. *These engines have been built in special survey and in accordance with the Rules; the materials and workmanship are sound and good. The engines & boilers have been fitted on board in an efficient manner under working conditions and found satisfactory and are eligible in my opinion to be classed with record of + L.M.C. 9-23.*

*new bronze propellers have now been fitted; for particulars of examination of propellers, stern tube bushes, tunnel, screw & thrust shafts, sea-cocks & fastenings please see attached report.*

The amount of Entry Fee ... £ 4 : 0 :  
Special *3/5 L.M.C.* ... £ 40 : 4 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, *18/9/1923*  
When received, *30/10/23*

*J. Sella*

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute  
Assigned

TUE OCT. 2 1923

TUES. 22 JUL 1924 © 2019



Lloyd's Register Foundation

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