

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 2/2/1925 When handed in at Local Office 2/2/1925 Port of Sydney N.S.W.
 No. in Survey held at Sydney N.S.W. Date, First Survey 13/1/25 Last Survey 28/1/1925
 Reg. Book. 85731 on the T.S.S. "UNA" ex "KOMET" (Number of Visits 10) Tons Gross 977
Net 335
 Built at Vegesack By whom built Bremus Vulkan Yard No. ✓ When built 1911
 Engines made at Vegesack By whom made Bremus Vulkan Engine No. ✓ when made 1911
 Boilers made at Vegesack By whom made Bremus Vulkan Boiler No. ✓ when made 1911
 Registered Horse Power ✓ Owners Port Philip Sea Pilots Port belonging to Williamstown V.
 Nom. Horse Power as per Rule ✓ Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.

ENGINES, &c.—Description of Engines Two sets, triple expansion.
 Dia. of Cylinders 15" 24 7/16" 39 3/4" Length of Stroke 23 5/8" Revs. per minute 110 No. of Cylinders 6 No. of Cranks 6
 Dia. of Crank shaft journals as per rule 7 7/16" Dia. of Crank pin 7 7/8" Crank webs Mid. length breadth 9 3/4" Thickness parallel to axis Solid
as fitted 7 7/16" 7 7/8" Mid. length thickness 4 1/16" shrunk Thickness around eye-hole ✓
 Diameter of Thrust shaft under collars as per rule 7 7/16" Diameter of Tunnel shaft as per rule 7 3/16" Diameter of Screw shaft as per rule 7 13/16" Is the Screw shaft
as fitted 7 7/16" as fitted 7 3/16" as fitted 7 13/16"
 fitted with a continuous liner the whole length of the stern tube No. Is the after end of the liner made watertight in the propeller boss Yes.
 If the liner is in more than one length are the joints burned ✓ If the liner does not fit tightly at the part ✓
 between the bearings in the stern tube, is the space charged with plastic material insoluble in water and non-corrosive ✓
 If two liners are fitted, is the shaft lapped or protected between the liners No. Is an approved appliance fitted at the after end of the shaft to permit
 of it being efficiently lubricated No. Length of Stern Bush 20 1/16" after Bearing 26" Diameter of Propeller 8-6 3/8"
 Pitch of Propeller 11-1 5/8" No. of Blades 3 State whether Moveable No. Total Surface 25.5 (each) square feet.
 No. of Feed Pumps fitted to the Main Engines 4 Diameter of ditto 2 3/8" Stroke 11-8" Can one be overhauled while the other is at work Yes.
 No. of Bilge Pumps fitted to the Main Engines 2 Diameter of ditto 2 9/16" Stroke 11-8" Can one be overhauled while the other is at work Yes.
 Total number and size of power driven Feed and Bilge Auxiliary Pumps FEED 9 7/8" x 7 3/4" x 22-6" SINGLE, GENERAL 7 7/8" x 5 1/2" x 11-8" DUPLEX BALLAST 5 1/2" x 7 3/4" x 9-8" DUPLEX.
 No. and size of Pumps connected to the Main Bilge Line 1-2 7/16" x 11-8" (MAIN ENGINE) 1-7 7/8" x 5 1/2" x 11-8" (GENERAL) 1-5 1/2" x 7 3/4" x 9-8" (BALLAST)
 No. and size of Ballast Pumps 1-5 1/2" x 7 3/4" x 9-8" DUPLEX No. and size of Lubricating Oil Pumps, including Spare Pump ✓
 Are two independent means arranged for circulating water through the Oil Cooler ✓ No. and size of suction connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps;—In Engine and Boiler Room 4-2 1/4" on Main Line & 1-2 1/4" Port Main Engine and in Holds, &c. 9-2 1/4"
 Bilge Pump on Star Engine connected to Main Bilge Line. ✓
 Bilge Pump on Port Engine has direct suction to Engine Room Bilge only. ✓
 No. and size of Main Water Circulating Pump Bilge Suctions 2-4" No. and size of Donkey Pump Direct Suctions ✓
 to the Engine Room Bilges None fitted. No. and size of Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes Yes.
 Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes.
 Are all connections with the sea direct on the skin of the ship Yes. Are they Valves or Cocks 2 Main Injection Valves - 6 other Cocks.
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes. Are the Discharge 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. Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes.
 What Pipes are carried through the bunkers Forward Bilge and Ballast Pipes. How are they protected Strong Wood Casing.
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes.
 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 Yes. Is the Screw Shaft Tunnel watertight Yes. Is it fitted with a watertight door Yes. worked from Main Deck.

MAIN BOILERS, &c.—(Letter for record ✓) Total Heating Surface of Boilers 358
 Is Forced Draft fitted No. No. and Description of Boilers 3 Single Ended Working Pressure 180 lbs.
IS A REPORT ON MAIN BOILERS NOW FORWARDED? Being prepared; next mail. now attached
IS A DONKEY BOILER FITTED? No. If so, is a report now forwarded? ✓ from 1/7/25
PLANS. Are approved plans forwarded herewith for Shafting Yes. Main Boilers No. Auxiliary Boilers ✓ Donkey Boilers ✓
 (If not state date of approval)
 General Pumping Arrangements Yes. Oil fuel Burning Piping Arrangements NIL

SPARE GEAR. State the articles supplied:—
 2 Connecting Rod top end bolts and nuts. ✓ One Crank for main engines.
 2 Connecting Rod bottom end bolts and nuts. ✓ Propeller Shaft (in two sections, with coupling)
 2 Main Bearing bolts and nuts. ✓ 2 Propellers (one Right Hand and one Left Hand)
 2 Sets of Coupling Bolts. ✓ 1 Pair Connecting Rod top end brasses.
 2 sets of Feed and Bilge Pump Valves. ✓ 1 Pair Connecting Rod bottom end brasses.
 2 sets of H.P. Piston Rings. ✓ 1 Slide Valve Spindle for Main Engines.
 2 sets of M.P. Piston Rings. ✓ 1 Feed Pump Ram.
 2 sets of L.P. Piston Rings. ✓ 1 Bilge Pump Ram.
 A quantity of assorted Bolts and Nuts. ✓ 1 Piston, piston ring & rod for Ind. Feed Pump.
 Iron of various sizes. ✓ 4 Evaporator Coils.

The foregoing is a correct description,

Manufacturer.



005635-005043-0097

During progress of work in shops --

Dates of Survey while building

| | | | | | | | |
|------------------------------------|---------|---------|---------|---------|---------|---------|---------|
| 13/1/25 | 14/1/25 | 15/1/25 | 16/1/25 | 19/1/25 | 20/1/25 | 23/1/25 | 24/1/25 |
| During erection on board vessel -- | | 27/1/25 | 28/1/25 | | | | |
| Total No. of visits | | 10 | | | | | |

Dates of Examination of principal parts - Cylinders 16/1/25 20/1/25 Slides 16/1/25

Covers 16/1/25 20/1/25 Pistons 16/1/25 20/1/25 Rods 16/1/25 20/1/25

Connecting rods 16/1/25 Crank shafts 16/1/25 Thrust shafts 16/1/25

Tunnel shafts 16/1/25 Screw shafts 14/1/25 Propellers 14/1/25

Stern tubes 14/1/25 Engine and boiler seatings 14/1/25 16/1/25 Engines holding down bolts 16/1/25

Completion of pumping arrangements ✓ Boilers fixed ✓ Engines tried under steam 27/1/25

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

Main boiler safety valves adjusted 27/1/25 Thickness of adjusting washers 5/16"

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. ✓

Material of Steam Pipes Mild Steel Test pressure ✓ Date of Test ✓

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 the Rules for carrying and burning oil fuel been complied with ✓

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. Engines and Boilers built under Germanischer Lloyd's

Special Survey. - This vessel placed on slipway, fore and star^d propeller shafts drawn out board examined and found in good condition. Propellers, aft bearings and stern bushes good, star^d aft bearing renewed. All sea cocks, valves and discharges opened out, examined, and found in good condition. Main engine cylinders, pistons, rings, rods, valves and chambers, crank, thrust and tunnel shafts with bearings and shoes opened out, examined, and found in good condition. Air circulating feed and bilge pumps opened out, examined and found in good condition. Piping and roses good. Main and auxiliary pumps tried on all bilges and found in order. Spare gear checked. Forward, Port and Star^d Boilers opened out, cleaned, examined internally and externally with mountings and found in good condition. Forward, Port and Star^d Boilers seen under steam, found tight, safety valves adjusted and blowing freely at 180 lbs. per sq. inch. Port and Star^d main engines seen working satisfactorily under steam.

To complete the Survey. Main condensers to be opened out and examined. Evaporative to be examined internally and externally with mountings, seen under steam and safety valves adjusted. Main steam pipes to be tested by hydraulic pressure. A 2 1/2" independent bilge suction with non return valve to be fitted.

Except as above, the conditions laid down in the Rules have been complied with, also that laid down on page 25 of the Rules, and we are of the opinion that the machinery of this vessel should be noted in the Register Book LMC 1-25; Both Propeller Shafts Seen 1-25, when the Survey has been completed. The Owners and Melbourne Surveyors advised.

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|--------------------------------|--------------|-------------------|
| The amount of Entry Fee ... | £ 14 : 4 : 0 | When applied for, |
| Special ... | £ 26 : 5 : 0 | 27. 1. 1925 |
| Donkey Boiler Fee ... | £ - : - : - | When received, |
| Travelling Expenses (if any) £ | - : - : - | 27. 1. 1925 |

A. C. Heron
 Jas. C. Erskine
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 31 JUL 1925 FRI. 9 OCT 1925

Assigned

