

# REPORT ON OIL ENGINE MACHINERY.

No. 7486.

16 JUN 1927

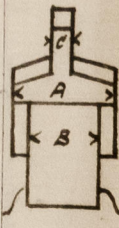
Received at London Office

of writing Report 10<sup>th</sup> June 1927 When handed in at Local Office 19 Port of Copenhagen  
 in Survey held at Copenhagen Date, First Survey 15<sup>th</sup> September 1926 Last Survey 28<sup>th</sup> May 1927.  
 Book. Number of Visits 89  
 22 on the Single Motor "MINNIPA" Tons Gross 1976.53  
 Triple Screw vessel Net 964.32  
 lt at Copenhagen By whom built Akt. Burmeister & Wain Yard No. 346. When built 1926-27.  
 ines made at Copenhagen By whom made Akt. Burmeister & Wain Engine No. 1297. When made 1926-27.  
 nkey Boiler made at Annan By whom made Cochran & Co. Annan Ltd. Boiler No. 10366 When made 1927.  
 ke Horse Power 2700. Owners The Adelaide Steamship Co. Ltd. Port belonging to Port Adelaide.  
 n. Horse Power as per Rule 473. Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes.  
 de for which vessel is intended For passenger and general cargo trade at the coast of Australia.

ENGINES, &c. Type of Engines Vertical Diesel Oil Engine (Crosby type) 2 or 4 stroke cycle 4 Single or double acting Single  
 um pressure in cylinders 35 kg/cm<sup>2</sup> Diameter of cylinders 630 mm = 24 3/8" Length of stroke 1300 mm = 51 1/8" No. of cylinders 8 No. of cranks 8  
 of bearings, adjacent to the Crank, measured from inner edge to inner edge 4891 mm Is there a bearing between each crank yes  
 utions per minute 138 Turning wheel dia. 1902 mm Weight 1160 kg Means of ignition Air compression Kind of fuel used Grade oil, flash point above 150 F.  
 k Shaft, dia. of journals as per Rule 412.6 mm Crank pin dia. 414 mm Crank Webs Mid. length breadth 642 mm Thickness parallel to axis 266 mm  
 as fitted 414 mm Mid. length thickness 266 mm Thickness around eye hole 180 mm  
 heel Shaft, diameter as per Rule 11.72" Intermediate Shafts, diameter as per Rule 11 3/4" Thrust Shaft, diameter at collars as per Rule 12.34 mm  
 as fitted 414 as fitted 11 3/4" as fitted 12 1/2"  
 Shaft, diameter as per Rule 12.79" Is the yes screw shaft fitted with a continuous liner yes  
 as fitted 13 1/2"  
 ze Liners, thickness in way of bushes as per Rule 0.69" Thickness between bushes as per rule 0.55" Is the after end of the liner made watertight in the  
 as fitted 3/4" as fitted 9/16"  
 er boss yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner The liner is in one length.  
 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 yes  
 liners are fitted, is the shaft lapped or protected between the liners yes Is an approved Oil Gland or other appliance fitted at the after  
 the tube shaft yes Length of Bearing in Stern Bush next to and supporting propeller 518"  
 elli, dia. 12'-9" Pitch 11'-3" No. of blades 4 Material Blades - bronze Whether Moveable yes Total Developed Surface 45 sq. feet  
 od of reversing Engines Direct reversible Is a governor or other arrangement fitted to prevent racing of the engine when decelerated yes Means of lubrication  
 ication Thickness of cylinder liners 46 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with  
 ducting material Lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine The exhaust pipes are led up inside the funnel.  
 ng Water Pumps, No. One off. 150 tons. Centrifugal Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes  
 Pumps worked from the Main Engines, No. non Diameter yes Stroke yes Can one be overhauled while the other is at work yes  
 s connected to the Main Bilge Line { No. and Size 1 off. 80 tons. Ballast (Drysdale), 1 off. Bilge pump (Drysdale), 2 off. 26 tons each. Bilge & Sanitary pumps.  
 How driven All driven by electric motors.  
 t Pumps, No. and size One off. 80 tons. (Drysdale) Lubricating Oil Pumps, including Spare Pump, No. and size 2 off. 60 tons each. (Log wash pumps)  
 independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
 No. and size:—In Machinery Spaces 5 off - 2 1/2" dia. each.  
 s, &c. In No. 1, 2 & 3 holds 2 off in each 2 1/2" diam. In tunnel well one off 2 1/2" diam. In F.P.T. & A.P.T. one off in each 3" diam.  
 ndent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 off. 3 1/2" diam. to the forward Drysdale pump. 2 off 6" dia. each to the cooling water pump.  
 the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces  
 easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yes  
 Sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks Valves except the donkey boiler blow off cock.  
 fized sufficiently high on the ship's side to be seen without lifting the platform plates yes Are the Overboard Discharges above or below the deep water line above  
 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  
 es pass through the bunkers no bunkers. How are they protected yes  
 es pass through the deep tanks no deep tank. Have they been tested as per Rule yes  
 Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes

angement 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  
 ent to another yes Is the Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from the grating at upper deck level  
 vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork yes  
 r Compressors, No. One No. of stages 3 Diameters 760 - 675 - 150 mm Stroke 440 mm Driven by the main engine.  
 y Air Compressors, No. 3 No. of stages 3 Diameters 318 - 285 - 78 mm Stroke 170 mm Driven by the auxiliary engines.  
 uxiary Air Compressors, No. one No. of stages 2 Diameters 2 1/2" - 1 1/8" Stroke 5" Driven by hand.  
 ing Air Pumps, No. yes Diameter yes Stroke yes Driven by yes  
 y Engines crank shafts, diameter as per Rule 161.5 mm  
 as fitted 162.0 mm

ECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve yes  
 ternal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces The starting air receivers fitted with man-holes. These are fitted from the donkey boiler to the injection air receivers to enable them to be cleaned by steam.  
 drain arrangement fitted at the lowest part of each receiver yes  
 Pressure Air Receivers, No. 2 Cubic capacity of each 1 - 225 litres  
 up welded or riveted longitudinal joint Seamless Material S.M. Steel Range of tensile strength II - 27.9-30.5 Working pressure by Rules 65 ATM.  
 Air Receivers, No. 2 Total cubic capacity 1000 Cubic feet. Internal diameter 6'-1" & 5'-1 1/8" thickness ends 1 3/16"  
 up welded or riveted longitudinal joint double butt straps Material S.M. Steel Range of tensile strength ends - 45.1-46.2 Working pressure 25 kg/cm<sup>2</sup>





Copenhagen

Continuation of Report No. 7486 dated 10<sup>th</sup> June 1927 on the

Steel Screw Motor Vessel "MINNIPA."

of Port Adelaide

in Register Book-90022

Burmester &amp; Wain's No. 346.

" - " - Engine No. 1297.

The auxiliary machinery comprising.

1. 80 tons centrifugal pump (Drysdale) for ballast purpose. (Spare cooling water pump)

2. 53 " " (Type S.O.S.) for emergency bilge and fire purpose.

3. independent bilge and sanitary pumps, each with 2 separate trunks,

the one for bilge and the other for sanitary purpose.

Capacity of each pump = 26 tons.

4. 150 tons centrifugal pump for cooling water purpose.

5. 60 " cog wheel pumps for the forced lubrication purpose.

6. 15 " " " " for oil fuel transfer purpose.

7. 5 " " " " " " " " " " " "

all driven by  
electro motors.

8. 2 cylinders auxiliary Diesel oil engines, each of 100 B.H.P. and each

working a compound wound dynamo of 66 K.W. - 220 Volt. - 300 Amperes.

supplying electric current for motive power to the following viz:-

1. 8 H.P. compound wound electro motor, working the ballast pump.

2. 8 H.P. " " " " working the emergency bilge and fire pump.

3. 9 H.P. shunt " " " working the bilge and sanitary pumps.

4. 35 H.P. " " " " working the cooling water pump and lubricating oil pump.

5. 35 H.P. " " " " working the oil fuel transfer pump and lubricating oil pump.

6. 4 H.P. " " " " working the 2 small oil fuel transfer pump.

7. 5 H.P. compound " " " working the supercharging blower for the main engine.

8. 7 H.P. series " " " working the turning gear to the main engine.

9. 8 H.P. compound " " " working the CO<sub>2</sub> compressor to the provision refrigerating appliance.

10. 1 H.P. " " " " working the brine pump " " " " " "

11. 0.5 H.P. " " " " working the two oil purifiers.

12. 2 H.P. shunt " " " working one purifier.

13. 2 H.P. " " " " working the turning lathe.

14. 1 H.P. " " " " working the drilling machine.

15. 7 H.P. compound " " " working the hot salt water pump.

16. 1 H.P. " " " " working the hot fresh water pump.

17. 8 H.P. shunt " " " working the fresh water pump.

18. 2 H.P. series " " " working the fans in 1<sup>st</sup> class lavatory.

19. 8 H.P. shunt " " " working the fan in the engine room casing.

20. 15 H.P. series " " " working the windlass.

21. 33 H.P. compound " " " working the two 5 tons cargo winches.

22. 25 H.P. " " " " working the four 3 tons " " "

23. 20 H.P. " " " " working the two cargo cranes.

24. 1 H.P. " " " " working the oil pump to the electro hydraulic steering gear.

25. and supplying current for the electric lighting purpose with the pressure reduced from

220 to 110 Volt after having passed the transformer. Transformer motor 22 H.P. shunt wound.

Transformer dynamo 14 K.W. compound wound.

AKTIESELSKABET

MEISTER &amp; WAIN'S MASKIN- OG SKIBSBYGGERI

Manufacturers.

A. E. Debech.

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