

Rpt. 4b

## REPORT ON OIL ENGINE MACHINERY.

No. 86364

Received at London Office

25 OCT 1930

Date of writing Report

10

When handed in at Local Office

23/10/1930

Port of Newcastle-on-Tyne.

No. in Reg. Book.

Survey held at

Walker

Date, First Survey

24 Oct 1929

Last Survey

15 Oct 1930

Number of Visits

86

Single  
on the Trip  
Quadruple

Screw vessel

Motor Vessel "MORGENEN."

Tons Gross 7093  
Net 4288

Built at

Walker.

By whom built

Luan Hunter. W R &amp; Co. Ward No. 1384

When built 1930

Engines made at

Walker.

By whom made

do

Engine No.

When made

Monkey Boilers made at

Walker

By whom made

do

Boiler No.

When made

Indicated Horse Power

727

Owners

A. H. Tankerships

Port belonging to

Gunsburg.

Indicated Horse Power as per Rule

425

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

yes.

Made for which vessel is intended

Gie Barrier.

26 3/8"

49 5/8"

ENGINES, &c.—Type of Engines Heplerline Atlas Polar 2 or 4 stroke cycle 2 Single or double acting single.Maximum pressure in cylinders 500 lb Diameter of cylinders 640 mm Length of stroke 1260 mm No. of cylinders 6 No. of cranks 6.Position of bearings, adjacent to the Crank, measured from inner edge to inner edge 946 mm Is there a bearing between each crank yes.Revolutions per minute 98 Flywheel dia. 2140 mm Weight 8.8 tons Means of ignition air Kind of fuel used fuel oil.Crank Shaft, dia. of journals as per Rule 440 mm Crank pin dia. 455 mm Crank Webs Mid. length breadth 450 mm Thickness parallel to axis 288 mm.(BUILT) as fitted 455 mm Mid. length thickness 288 mm Thickness around eye-hole 204 mm.Flywheel Shaft, diameter as per Rule 440 mm Intermediate Shafts, diameter as per Rule 1324 mm Thrust Shaft, diameter at collars as per Rule 440 mm. as fitted 455 mm as fitted 1396 mm as fitted 455 mm.Screw Shaft, diameter as per Rule 1461 mm Is the one shaft fitted with a continuous liner yes. as fitted 1518 mm as per Rule 1562 mm as fitted 145 mm.Bronze Liners, thickness in way of bushes as per Rule 13/16" Thickness between bushes as per Rule 13/16" Is the after end of the liner made watertight in thepeller boss yes If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner yes.If the 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.If two liners are fitted, is the shaft lapped or protected between the liners yes Is an approved Oil Gland or other appliance fitted at the afterend of the tube shaft yes Length of Bearing in Stern Bush next to and supporting propeller 60 1/2".Propeller, dia. 16'-0" Pitch 13'-6" No. of blades 4 Material Brass whether Moveable no Total Developed Surface 85 sq. feetMethod of reversing Engines air Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubricationoil Thickness of cylinder liners 45 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged withconducting 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 yes.Cooling Water Pumps, No. 2 Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes.Engine Pumps worked from the Main Engines, No. 2 Diameter 264 mm Stroke 460 mm Can one be overhauled while the other is at work yes.Pumps connected to the Main Bilge Line No. and Size 8 - 9x10x10 - 8x8x10 - 6x6x6 How driven steam 1 Horse 8x9x18" SteamFast Pumps, No. and size 1 - 9x10x10 Lubricating Oil Pumps, including Spare Pump, No. and size 2 D.F. 168 mm x 140 mm main enginesAre two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary BilgePumps, No. and size:—In Machinery Spaces 3 - 3" Holds, &c. 2 - 2 1/2" in forward Hold.Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 - 6"Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spacesfrom easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges yesAre all Sea Connections fitted direct on the skin of the ship yes Are they fitted with Valves or Cocks both.Are they fired 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 aboveAre 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 pass through the bunkers — How are they protected —What pipes pass through the deep tanks — Have they been tested as per Rule —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

apartment to another yes Is the Shaft Tunnel watertight — Is it fitted with a watertight door — worked from —If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork —Main Air Compressors, No. two No. of stages 4 Diameters H.P. 150 L.P. 650 Stroke 980 x 420 mm Driven by Main enginesAuxiliary Air Compressors, No. two No. of stages 3 Diameters 12.45" Stroke 4" Driven by steamSmall Auxiliary Air Compressors, No. — No. of stages — Diameters — Stroke — Driven by —Savenging Air Pumps, No. 4 Diameter 6-640 mm Stroke 1260 x 880 mm Driven by Main enginesAuxiliary Engines crank shafts, diameter as per Rule see attached report.AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule yesCan the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces Manholes.Is there a drain arrangement fitted at the lowest part of each receiver yesHigh Pressure Air Receivers, No. 3 Cubic capacity of each 13.45 f Internal diameter 450 mm thickness 2 1/4"Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 32/38 Tons Working pressure by Rules 1520 lb/sq. inStarting Air Receivers, No. 2 Total cubic capacity 1400 f Internal diameter 5.678" Mean thickness 0.78"Seamless, lap welded or riveted longitudinal joint Riveted Material Steel Range of tensile strength 30/34 Tons Working pressure by Rules 225 lb/sq. in



IS A DONKEY BOILER FITTED?

yes

If so, is a report now forwarded?

yes

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

Receivers

yes

Separate Tanks

yes

Donkey Boilers

yes

General Pumping Arrangements

yes

Oil Fuel Burning Arrangements

yes

SPARE GEAR

as per Society Rules & attached List

The foregoing is a correct description,

G. J. Jueary

Manufacturer.

1929 1930  
Dates of Survey  
During progress of work in shops -- Oct. 24 Dec. 12. 19 Jan. 13. 20. 22. 24. 27. 29. Feb. 3. 5. 7. 10. 14. 17. 19. 21. 25. Mar. 4. 6. 7. 10. 11. 12. 13. 24. 26. 28.  
During erection on board vessel -- Apr. 4. 9. 17. 22. 25. May 5. 6. 7. 8. 12. 21. 22. 26. 28. 30. June 2. 6. 10. 11. 12. 13. 14. 16. 17. 18. 20. July 2. 4. 9. 11. 14. 15. 17. 21. 22. 23. 28. 29.  
Total No. of visits 86.

Dates of Examination of principal parts—Cylinders 13. 6. 30 Covers 13. 6. 30 Pistons 13. 6. 30 Rods 13. 6. 30 Connecting rods 13. 6. 30  
Crank shaft 3. 5. 30 Flywheel shaft 3. 5. 30 Thrust shaft 3. 5. 30 Intermediate shafts 3. 5. 30 Tube shaft —  
Screw shaft 3. 5. 30 Propeller 10. 6. 30 Stern tube 10. 6. 30 Engine seatings 12. 6. 30 Engines holding down bolts 6. 10. 30  
Completion of fitting sea connections 10. 6. 30 Completion of pumping arrangements 15. 10. 30. Engines tried under working conditions 12. 10. 30  
Crank shaft, Material Steel Identification Mark 12. 10. 30 Flywheel shaft, Material Steel Identification Mark 12. 10. 30  
Thrust shaft, Material Steel Identification Mark 12. 10. 30 Intermediate shafts, Material Steel Identification Marks 12. 10. 30  
Tube shaft, Material — Identification Mark 12. 10. 30 Screw shaft, Material Steel Identification Mark 12. 10. 30

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

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with yes

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo — If so, have the requirements 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.) The Machinery has been built under special survey in accordance with the Rules of the Society, the approved plans, has been securely fitted on board the vessel, tried under full working conditions, found satisfactory. The materials & workmanship are of good quality throughout.

This vessel is eligible, in my opinion, to have notation F.L.M.C. 10.30. & T.B.C.L. in the Register Book.

It is submitted that this vessel is eligible for THE RECORD.

Oil Engines 25C.5A. 6cy. 26 3/8" - 49 5/8" N.H.P. 72  
2DB 150B.

The amount of Entry Fee ... £ 6 : -  
Special ... £ 111 : 5  
Donkey Boiler Fee ... £ 25 : 4  
Travelling Expenses (if any) ... £ 8 : 8  
When applied for, 24 OCT 1930  
When received, 27.10.30  
E.C.C.

Committee's Minute FRI. 31 OCT 1930

Assigned + L.M.C. 10.30 C.L.

Oil Eng. 2DB 150B.

CERTIFICATE WRITTEN

Lloyd's Register Foundation