

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 30502

Date of writing Report

19

When handed in at Local Office

19 NOV. 1930

Received at London Office

20 NOV 1930

No. in
Reg. Book.

Survey held at

Sunderland.

Date, First Survey

28 July.

Last Survey

14 Nov 1930

Number of Visits

46

Single
on the
Twin
Triple
QuadrupleMOTOR
Screw vessel

"CHEYENNE"

Tons
Gross
Net

Built at

Newcastle

By whom built

Palmer & Co. Ltd.

Yard No.

100/ When built

1930

Engines made at

Sunderland.

By whom made

William Duffell & Co. Ltd.

Engine No.

180 When made

1930

Donkey Boilers made at

Sunderland.

By whom made

George Rank Ltd.

Boiler No.

1195 When made

1930

Brake Horse Power

3600

Owners

Anglo American Oil Co

Port belonging to

Newcastle.

Nom. Horse Power as per Rule

785

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which vessel is intended

Oil Tanker.

OIL ENGINES, &c.—Type of Engines *Duffell Improved Piston Ailer* or 4 stroke cycle 2 Single or double acting *Single*Maximum pressure in cylinders *558 LBS.* Diameter of cylinders *640 1/2* Length of stroke *2480 1/2* No. of cylinders *4* No. of cranks *4 2 3 throw*Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *1110 1/2* Is there a bearing between each crank *Yes*Revolutions per minute *90* Flywheel dia. *2750 1/2* Weight *TEMP. OF* Means of ignition *COMPRESSION* Kind of fuel used *CRUDE OIL*Crank Shaft, dia. of journals *as per Rule* Crank pin dia. *500 1/2* Crank Webs *Mid. length breadth 700 1/2* Thickness parallel to axis *300 1/2*Flywheel Shaft, diameter *as per Rule* Intermediate Shafts, diameter *as per Rule* Thrust Shaft, diameter at collars *as per Rule*Tube Shaft, diameter *as fitted* Screw Shaft, diameter *as fitted* Is the *shaft* fitted with a continuous liner *NO*Bronze Liners, thickness in way of bushes *as per Rule* Thickness between bushes *as per rule* Is the after end of the liner made watertight in thepropeller boss *YES* If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner *—*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 *—*If two liners are fitted, is the shaft lapped or protected between the liners *—* Is an approved Oil Gland or other appliance fitted at the after end of the tubeshaft *YES* If so, state type *VICKERS* Length of Bearing in Stern Bush next to and supporting propeller *6'-10 3/4*Propeller, dia. *18'-0* Pitch *15'-3* No. of blades *4* Material *BRASS* whether Moveable *YES* Total Developed Surface *100* sq. feetMethod of reversing Engines *COMPRESSED AIR* Is a governor or other arrangement fitted to prevent racing of the engine *when disengaged* *YES* Means of lubrication*FORCED* Thickness of cylinder liners *REINFORCED* Are the cylinders fitted with safety valves *YES* Are the exhaust pipes and silencers water cooled or lagged withnon-conducting 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 *FUNNEL EXHAUST*Cooling Water Pumps, No. *2* *1 WORKING 1 SPARE* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *FRESH WATER COOLING*Bilge Pumps worked from the Main Engines, No. *—* Diameter *—* Stroke *—* Can one be overhauled while the other is at work *—*Pumps connected to the Main Bilge Line { No. and Size *1, BILGE PMP 120 TONS PAHR, 30 TONS PR HR, 1 BALLAST 250 TONS PR HR*How driven *ELECTRIC* *STEAM* *STEAM* *230 TONS PR HR EACH*Ballast Pumps, No. and size *1 250 TONS PER HR. 1* Lubricating Oil Pumps, including Spare Pump, No. and size *2, 1 WORKING 1 SPARE*Are 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 *THREE 2 3 1/2 DIA* In Pump Room *4 2 3*In Holds, &c. *2 2 2" FINE HOLD*Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size *1 29" BALLAST PMP, 1 26" BILGE PMP 1 2 5" C.S. PMP.*Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes *YES* Are the Bilge Suctions in the Machinery Spacesled from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges *YES*Are all Sea Connections fitted direct on the skin of the ship *YES* Are they fitted with Valves or Cocks *BOTH*Are they fixed 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*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 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

compartment 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. *—* No. of stages *—* Diameters *—* Stroke *—* Driven by *—*Auxiliary Air Compressors, No. *1* No. of stages *3* Diameters *14, 14, 3 1/2* Stroke *7"* Driven by *Steam*Small Auxiliary Air Compressors, No. *1* No. of stages *3* Diameters *9, 7 1/4, 2 1/2* Stroke *5"* Driven by *Electric motor*Scavenging Air Pumps, No. *1* Diameter *1680 1/2* Stroke *1120 1/2* Driven by *Main engine*Auxiliary Engines crank shafts, diameter *as per Rule* *SEE MANCHESTER RPT & CLS RPT* No. *2* *GARDNER OIL 1 M. PAUL STEAM.*Position *ENGINE ROOM PLATFORM.*AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Yes*Can the internal surfaces of the receivers be examined and cleaned *Yes* Is a drain fitted at the lowest part of each receiver *Yes*High Pressure Air Receivers, No. *—* Cubic capacity of each *—* Internal diameter *—* thickness *—*Seamless, lap welded or riveted longitudinal joint *—* Material *—* Range of tensile strength *—* Working pressure *—*Starting Air Receivers, No. *Two* Total cubic capacity *310 CUBIC FT.* Internal diameter *4'-1 1/2* thickness *1 1/2"*Seamless, lap welded or riveted longitudinal joint *RIVETTED* Material *STEEL* Range of tensile strength *28/32* Working pressure *—*

WS10-0271

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded? *Yes.*

Is the donkey boiler intended to be used for domestic purposes only? *No.*

PLANS. Are approved plans forwarded herewith for Shafting *Yes*

Receivers *Yes*

Separate Tanks *✓*

Donkey Boilers *Yes*

General Pumping Arrangements *Yes*

Oil Fuel Burning Arrangements *No. See M.V. RECORD.*

SPARE GEAR.

Has the spare gear required by the Rules been supplied? *Yes.*

State the principal additional spare gear supplied.

Propeller shaft complete with nut, 4 C.I. Propeller blades, 4 Fuel Injection valves, 16. Fuel valve spray pipes, 2 main cylinder relief valves, 1 main return air starting valve, 12 main piston rings, 1 upper piston rod, 1 lower piston rod, 1 side rod, 1 cylinder liner complete, 1 spur wheel, 1 bevel wheel for camshaft drive, 2 centre connecting rod top end bearings, 1 centre connecting rod spherical bearing, 1 side connecting rod do, 1 set thrust block plates, 1 straight length of shafting for crankshaft, 4 seawater pump suction valves etc.

The foregoing is a correct description.

WILLIAM DOUGLASS & SONS, Limited

W. Miller

Manufacturer.

Dates of Survey while building
During progress of work in shops - 1930. Mar. 28. Apr. 8. May. 6. 16. June 8. 11. 17. 18. 29. 30. Aug. 14. 18. 21. 25. 26. 27. 28. 29. Sep. 4. 8. 11.
During erection on board vessel - 15. 17. 23. 28. 29. 30. Oct. 2. 6. 7. 8. 14. 15. 16. 17. 20. 22. 23. 24. 25. 30. Nov. 3. 7. 14.
Total No. of visits 46

Dates of Examination of principal parts—Cylinders 18/6/30 JACKETS 7/10/30 Pistons 28/3/30 Rods 16/5/30 Connecting rods 3/6/30
Crank shaft 4/9/30 Flywheel shaft 8/9/30 Thrust shaft 8/9/30 Intermediate shafts 22/9/30 Tube shaft 22/10/30
Screw shaft 17/9/30 Propeller 11/9/30 Stern tube 7/11/30 Engine seatings 8/10/30 Engines holding down bolts 22/10/30
Completion of fitting sea connections 7/11/30 Completion of pumping arrangements 7/11/30 Engines tried under working conditions 14/11/30
Crank shaft, Material I. STEEL Identification Mark 3592 Flywheel shaft, Material I. STEEL Identification Mark 3806
Thrust shaft, Material I. STEEL Identification Mark 3806 Intermediate shafts, Material I. STEEL Identification Marks 4026
Tube shaft, Material I. STEEL Identification Mark 43987
Screw shaft, Material I. STEEL Identification Mark 4041

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? *✓*

If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with? *✓*

Is this machinery duplicate of a previous case? *YES* If so, state name of vessel *M. V. "GULFBIRD"*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery of this vessel has been built under special survey & the materials & workmanship are good. On completion the machinery was tried under full working conditions with satisfactory results. The machinery throughout is now in a good & efficient condition & eligible in my opinion to have the record LMC-11-30 marked in the Society's Register Book.*

The donkey boiler is also fitted to burn oil fuel F.P. above 150° F. The requirements of the Rules Section 20 fully complied with. It is submitted that this vessel is eligible for THE RECORD LMC 11.30 O.G. 2DB. 150° F.

Oil Engines 2 S.C.S.A. 4CY 25 1/2 - 97 1/2 N.H.P. 785

The amount of Entry Fee .. £ 6-0-0
Special AIR RECEIVERS .. £ 14-5-0
Donkey Boiler Fee .. £ 4-4-0
Travelling Expenses (if any) £ :
When applied for, 15 Nov. 1930
When received, 18 Nov. 1930

Engineer Surveyor to Lloyd's Register of Shipping.

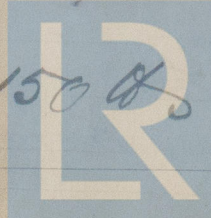
Committee's Minute

TUE. 2 DEC 1930

Assigned

+ Lmb. 11.30 O.G. 2 DB-150° F. oil engs.

CERTIFICATE WRITTEN.



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