

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY

No. 86948

Received at London Office

26 MAR 1931

NEWCASTLE-ON-TYNE

Date of writing Report 19 When handed in at Local Office 18/31 1931 Port of NEWCASTLE-ON-TYNE
No. in Survey held at 26 Peters & Hebburn Date, First Survey 28 March 30 Last Survey 19 March 1931
Reg. Book

Single
on the ~~Two~~
~~Two~~
~~Three~~
Screw vessel M. V. "Agricola."
Tons Gross 3561
Net 1977

Built at Hebburn. By whom built Hawthorn Leslie & Co. Yard No. 5748 When built 1931.
Engines made at Amsterdam By whom made Werkspoor. Engine No. 9413 When made 1931.
Boilers made at 26 Peters By whom made Hawthorn Leslie & Co. Boiler No. 9413 When made 1931.
ake Horse Power 2350 Owners Anglo-Bacon Ltd. Co. Port belonging to The Hague.
m. Horse Power as per Rule 483476 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.
rade for which vessel is intended Carrying Petroleum & Sulphur acids in bulk.

L ENGINES, &c.—Type of Engines Werkspoor supercharged or 4 stroke cycle Single or double acting single
maximum pressure in cylinders 500 lbs. Diameter of cylinders 6 30^{1/2} in. Length of stroke 100^{1/2} in. No. of cylinders 8 No. of cranks 8
ion of bearings, adjacent to the Crank, measured from inner edge to inner edge 8 40^{1/2} in. Is there a bearing between each crank Yes
volutions per minute 110 Flywheel dia. 4-0 3/4 Weight 6 TONS Means of ignition Gasoline Kind of fuel used Diesel oil
rank Shaft, dia. of journals as per Rule 20 app. Crank pin dia. 4 10^{1/2} in. Crank Webs Mid. length breadth 480 4 in. Thickness parallel to axis 245, 240^{1/2} in.
as fitted 4 10^{1/2} in. Mid. length thickness 245/270^{1/2} in. Thickness around eye hole 84^{1/2} in.
ywheel Shaft, diameter as per Rule appr. Intermediate Shafts, diameter as per Rule appr. Thrust Shaft, diameter at collars as per Rule 3 12^{1/2} in.
as fitted 4 10^{1/2} in. as fitted 3 30^{1/2} in. as fitted 3 30^{1/2} in. ✓

be Shaft, diameter as per Rule appr. Screw Shaft, diameter as per Rule appr. Is the screw shaft fitted with a continuous liner Yes
as fitted 1 4 1/8 in. as fitted 1 4 1/8 in. ✓

onze Liners, thickness in way of bushes as per Rule 1 4 3 in. Thickness between bushes as per rule 9 1/16 in. Is the after end of the liner made watertight in the
eller 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
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 —

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 tube
7 90 If so, state type None Length of Bearing in Stern Bush next to and supporting propeller 5-2 1/2

eller, dia. 1 4-6^{1/2} in. Pitch 11-6^{1/2} in. No. of blades 4 Material M. & B. whether Moveable 9/10 Total Developed Surface 62 sq. feet

hood of reversing Engines Motor, hand Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication
need Thickness of cylinder liners 5 5^{1/2} in. Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with
conducting material Yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine Bureau
ling Water Pumps, No. 1 D. & main engine Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes.

te Pumps worked from the Main Engines, No. 2 Diameter 150^{1/2} in. Stroke 260^{1/2} in. Can one be overhauled while the other is at work Yes.
ips connected to the Main Bilge Line No. and Size 2 x 8 x 10" Ballast, General Service

last Pumps, No. and size 2 - 8 x 8 x 10" Deep Lubricating Oil Pumps, including Spare Pump, No. and size 1 1/2 in. L. C. 1-8 x 4-10 Deep

two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
ips, No. and size:—In Machinery Spaces 1-4" x 6" well, 2-2 3/4 x 8" 2-2 3/4" drain holes In Pump Room Ballast, Fuel
tols, &c. 2-2 1/2 x 8" well, 2-2 1/2" Deep tank top, 2-2 1/2" Deep tank, 2-2 1/2" Deep tank.

ependent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 6" direct 4" to after well, Yes

all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces
from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes.

all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Both.
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.
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

t pipes pass through the bunkers None How are they protected —
t pipes pass through the deep tanks None Have they been tested as per Rule —

ll Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

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
armament to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door — worked from —

wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

n Air Compressors, No. One No. of stages 3 Diameters 1 1/2" x 30^{1/2} in. Stroke 500^{1/2} in. Driven by M. & B. steam.
illary Air Compressors, No. One No. of stages 3 Diameters 1 1/2" x 30^{1/2} in. Stroke 10" Driven by steam.

II Auxiliary Air Compressors, No. — No. of stages — Diameters — Stroke — Driven by —

enging Air Pumps, No. Under each pump diameter 6 30^{1/2} in. Stroke 1100^{1/2} in. Driven by Main Engines.

illary Engines crank shafts, diameter as per Rule 1-6" Air Compressor 1-2 3/4" Steam Position Air Compressor Steam Generator.

RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes.

the internal surfaces of the receivers be examined and cleaned Yes Is a drain fitted at the lowest part of each receiver Yes.

b Pressure Air Receivers, No. 2 Cubic capacity of each 10 cu ft Internal diameter 400^{1/2} in. thickness 18^{1/2} in.

Seamless, lap welded or riveted longitudinal joint Seamless Material Steel Range of tensile strength 39/36,5 Working pressure by Rule approx Actual 1000 lbs/sq in

Starting Air Receivers, No. 2 Total cubic capacity 1000 cu ft Internal diameter 5-4 3/4" thickness 18^{1/2} in.

Seamless, lap welded or riveted longitudinal joint D. B. Riddell Material Steel Range of tensile strength 29 3/4/34 Tons Working pressure by Rule 320 lbs/sq in Actual 350 lbs/sq in

IS A DONKEY BOILER FITTED?

yes

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
(If not, state date of approval)

yes

Receivers

yes (Class Bpt)

Separate Tanks

yes

Donkey Boilers

yes

General Pumping Arrangements

yes

Oil Fuel Burning Arrangements

yes

SPARE GEAR.

Has the spare gear required by the Rules been supplied

as per Rules of the Society attached

State the principal additional spare gear supplied



The foregoing is a correct description,

FOR R. & W. HAWTHORN, LESLIE & CO. LTD.

R. & W. Hawthorn, Leslie

Manufacturer.

1930

Dates of Survey while building	During progress of work in shops - -	Mar. 28. Apr. 3. 8. 15. 28. May 7. 13. 16. 30. June 12. 20. 30. July 11. 14. 18. 30. 31. Aug. 6. 11. 12. 1931
	During erection on board vessel - -	27. 29. Sept. 2. 3. 9. 15. 24. 26. Oct. 7. 15. 20. 27. 31. Nov. 12. 18. 20. 21. 22. 26. Dec. 1. 4. 8. 15. 17. 18. 24. Jan. 7. 12. 1931
	Total No. of visits	26. 28. 29. Feb. 3. 9. 11. 12. 18. 24. 27. Mar. 3. 5. 6. 11. 16. 18. 19.

Dates of Examination of principal parts—Cylinders

Amsterdam Report - 9/2/1930

Crank shaft

Please see attached Bpt

Intermediate shafts 12. 11. 31.

Tube shaft -

Screw shaft 18. 11. 30 Propeller 20. 11. 30 Stern tube 20. 11. 30 Engine seatings 21. 11. 30. Engines holding down bolts 12. 11. 30

Completion of fitting sea connections 18. 11. 30 Completion of pumping arrangements 12. 11. 31. Engines tried under working conditions 19. 11. 30

Crank shaft, Material

See Amsterdam Report attached

Identification Mark

L-071

Thrust shaft, Material

Identification Mark

Intermediate shafts, Material

Identification Marks

N-391

Tube shaft, Material

None.

Identification Mark

Screw shaft, Material

Identification Mark

L-072

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

yes

5

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 Oil tanker 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 No

If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)

Please see Amsterdam Report - 9/2/1930 attached.

The engines have been built under special survey as per attached report & have been recently fitted on board the vessel, tried under free working conditions & found satisfactory.

The machinery of this vessel is eligible, in my opinion to have notation T.L.M.C. 3-31, J.S.C.

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

The amount of Entry Fee .. £ : When applied for,

15/- Special ... £ 19 : 10 : 25 MAR 1931

Donkey Boiler Fee ... £ 4 : 12 : When received,

Travelling Expenses (if any) £ : 31. 3. 1931

Committee's Minute WED. 8 APR 1931

Assigned + L.Y.C. 3.31

C.L.

Oil Eng. DR. 150 lb.

ADM

Fred. A. Ferguson.

Engineer Surveyor to Lloyd's Register of Ships

FRI 18 MAY 1931

CERTIFICATE WRITTEN

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Foundation