

# REPORT ON OIL ENGINE MACHINERY.

N.N. AFRICAN QUEEN.

No. 25.

Received at London Office 31/1/50.

9 Jan. 1950 When handed in at Local Office. 19 Port of Augsburg

held at Augsburg Date, First Survey 18 October Last Survey 14 Decemb 1950

s per 26 - 17 Number of Visits 17

Screw vessel. **Badger**

Tons Gross 2001 Net 1176

By whom built. *Als. Realy Ham. Jensen* Yard No. 853160/170 When built 1920/9

Augsburg By whom made. *Maschinenfabrik Augsburg-Nürnberg AG* Engine No. 1940/41

By whom made. Owners Colonial Development Corp. London Boiler No. When made.

Rule 2 x 720 Is Refrigerating Machinery fitted for cargo purposes. Port belonging to.

2 x 152.4 Is Electric Light fitted.

Is intended.

&c. — Type of Engines 2 x MAN. 98V42 Supercharged 2 or 4 stroke cycle 4 Single or double acting Single

in cylinders 58 atm Diameter of cylinders 285 mm Length of stroke 420 mm No. of cylinders 2 x 8 No. of cranks 2 x 8

pressure 9.82 atm Ahead Firing Order in Cylinders 1.2.4.6.8.7.5.3 Span of bearings, adjacent to the crank, measured

inner edge 358 mm Is there a bearing between each crank yes Revolutions per minute 375

Weight 800 kg Moment of inertia of flywheel (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) 750 kg per 2 Means of ignition *Electric* Kind of fuel used *gas oil*

dia. of journals as per Rule 185 mm Crank pin dia. 175 mm Crank webs Mid. length breadth 180 mm Thickness parallel to axis

as fitted 185 mm Mid. length thickness 90 mm shrunk Thickness around eye hole

Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as fitted

Screw Shaft, diameter as per Rule Is the tube screw shaft fitted with a continuous liner

Thickness in way of bushes as per Rule Thickness between bushes as fitted Is the after end of the liner made watertight in the

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner.

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-

descri 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

If so, state type Length of bearing in Stern Bush next to and supporting propeller

Pitch No. of blades Material whether moveable Total developed surface sq. feet

of propeller (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) Kind of damper, if fitted

Engines by hand Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of

Thickness of cylinder liners 2.25 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled

conducting material. *water* *coolant* If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned

Cooling Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

from the Main Engines, No. 1 each output 18.5 m<sup>3</sup>/h each

" " " 1 each output 18.5 m<sup>3</sup>/h each Can one be overhauled while the other is at work

the Main Bilge Line How driven

led to the bilges If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping

and size Main Eng. Driven Lubricating Oil Pumps, including spare pump, No. and size 1 each output 4 m<sup>3</sup>/h each

means arranged for circulating water through the Oil Cooler Suctions, connected to both main bilge pumps and auxiliary

size:—In machinery spaces In pump room

Pump Direct Suctions to the engine room bilges, No. and size

ion pipes in holds and tunnel well fitted with strum-boxes Are the bilge suction in the machinery spaces led from easily

placed above the level of the working floor, with straight tail pipes to the bilges

ons fitted direct on the skin of the Ship Are they fitted with valves or cocks Are they fixed

the ship's side to be seen without lifting the platform plates Are the overboard discharges above or below the deep water line

with a discharge valve always accessible on the plating of the vessel Are the blow off cocks fitted with a spigot and brass covering plate

ugh the bunkers How are they protected

ugh the deep tanks Have they been tested as per Rule

alves and pumps in connection with the machinery and all boiler mountings accessible at all times

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

compartment to another Is the shaft tunnel watertight Is it fitted with a watertight door worked from

at means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

sors, No. No. of stages diameters stroke driven by

pressors, No. No. of stages diameters stroke driven by

r Compressors, No. No. of stages diameters stroke driven by

le for first charging the air receivers

3 B.C. supercharging blowers output at 12500 r.p.m. 3700 m<sup>3</sup>/h each driven by

Eng shafts, diameter as fitted Position

as been constructed under special survey Is a report sent herewith

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AIR RECEIVERS:—Have they been made under survey? *To Bureau Veritas Surv.* State No. of report or certificate *B.V.*

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*  
Injection Air Receivers, No. *✓* Cubic capacity of each. *✓* Internal diameter. *✓* thickness. *✓*  
Seamless, welded or riveted longitudinal joint. *✓* Material. *✓* Range of tensile strength. *✓* Working pressure. *✓*  
Starting Air Receivers, No. *2* Total cubic capacity. *2 x 1100 Hrs* Internal diameter. *766 mm* thickness. *✓*  
Seamless, welded or riveted longitudinal joint. *Seamless* Material. *S.M. Steel* Range of tensile strength. *41/50 kg* Working pressure. *✓*

IS A DONKEY BOILER FITTED. *✓* If so, is a report now forwarded. *✓*

Is the donkey boiler intended to be used for domestic purposes only. *✓*

PLANS. Are approved plans forwarded herewith for shafting. *crank. 12.10.49* Receivers. *12.10.49*  
(If not, state date of approval)

Donkey boilers. *✓* General pumping arrangements. *✓* Pumping arrangements in machinery space. *✓*

Oil fuel burning arrangements. *✓* As stated by makers, calculation of T.V. Char. *✓*

Have Torsional Vibration characteristics been approved. *✓* Date of approval. *✓*

SPARE GEAR.

Has the spare gear required by the Rules been supplied? *Spare parts will be supplied at a later date*

State the principal additional spare gear supplied. *with special L.R. Certificate.*

The foregoing is a correct description. *Maschinenfabrik Augsburg-Nürnberg A.G.* Manufacturer.

Dates of Survey while building. During progress of work in shops. *1949: Oct. 18. 19. 24. 25. 28. 31. Nov. 3. 8. 9. 10. 18. 23. 25. Dec. 1. 2. 3. 14.*

During erection on board vessel. *✓*

Total No. of visits. *17.*

Dates of examination of principal parts—Cylinders. *18.10.49* Covers. *18.10.49* Pistons. *24.10.49* Rods. *✓* Connecting rods. *✓*

Crank shaft. *24.10.49* Flywheel shaft. *✓* Thrust shaft. *✓* Intermediate shafts. *✓* Tubed, is *✓*

Screw shaft. *✓* Propeller. *✓* Stern tube. *✓* Engine seatings. *✓* Engine holding down. *✓*

Completion of fitting sea connections. *✓* Completion of pumping arrangements. *✓* Engines tried under working conditions. *✓*

Crank shaft, material. *S.M. Steel* Identification mark. *853160-D/64634/M-B.V.573. 5.2.40. B.H.S.*

Thrust shaft, material. *✓* Identification mark. *853170-D/64634/M-B.V.574. 3.10.40. B.H.S.*

Tube shaft, material. *✓* Identification mark. *✓* Screw shaft, material. *✓* Identification mark. *✓*

Identification marks on air receivers. *1) 9216. Bureau Veritas - 60 atm / 30 atm. Tpm. 31.12.40. B.H.S. 2) 9217. Bureau Veritas - 60 atm / 30 atm. Tpm. 31.12.40. B.H.S. 2)*

Welded receivers, state Makers' Name. *✓*

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

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with. *✓*

Description of fire extinguishing apparatus fitted. *✓*

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. *✓* If so, state name of vessel. *✓*

General Remarks (State quality of workmanship, opinions as to class, &c. *According to the Secretary's letter of 13th October, 49 and subsequent correspondence it was stated that subject main engines could be accepted for the notation of L.M.C. (with date). Both engines have been inspected in completely opened up condition, hydro test covers, cyl. blocks, pipe lining etc. have been carried out with satisfactory results. Brinell test have been carried out on forgings and verified with B.V. Certificate obtained were found to be requirements of the Society's Rules. Both starting valves have been tested to 60 atm. hydr. pressure, and were found to be in order. Both valves have been tested on Makers test bed under full-over-and-partial loads with satisfactory results. The workmanship is good. In my opinion the vessel for which these engines will be eligible for the notation of L.M.C. (with date) as decided by the Committee.*

The amount of Entry Fee ... £ *188.16.0* When applied for *23rd Jan. 1950*  
Special *2/3* ... £ *8.0.0* When received *19*  
Donkey Boiler Fee... *2 x Test and Ins.* ... £ *3.04.0*  
Travelling Expenses (if any) £ *3.04.0*

Assigned *TUES. 12 JUN 1951*

Committee's Minute

Assigned

