

REPORT ON OIL ENGINE MACHINERY.

No. 1490.

27 AUG 1932

Date of writing Report 22nd Aug 1932 When handed in at Local Office

Port of BREMEN

No. in Survey held at VEGESACK
Reg. Book.Date, First Survey 14th Jan. 1931 Last Survey 16th Aug 1932

Number of Visits 64

62071 on the ^{Single} Twin ^{Triple} Screw vessel
^{Quadruple}

F. J. WOLFE

Tons } Gross 12432
Net 7100

Built at VEGESACK

By whom built BREMER VULKAN

Yard No. 698 When built 1932

Engines made at VEGESACK

By whom made BREMER VULKAN

Engine No. 297/300 When made 1932

Donkey Boilers made at VEGESACK

By whom made BREMER VULKAN

Boiler No. 724/30 When made 1932

Brake Horse Power 2 x 2250

By whom BREITISCH AMERIKAN PETROL IMPORT GMBH Port belonging to DANZIG

Nom. Horse Power as per Rule 1566

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted yes

Trade for which vessel is intended TANKER TRADE; CARRYING PETROLEUM IN BULK.

OIL ENGINES, &c. Type of Engines 420 60/90 BREMER VULKAN - M.A.N. 2 or 4 stroke cycle 2 Single or double acting double

Maximum pressure in cylinders 45 kg/cm² Diameter of cylinders 600 mm Length of stroke 900 mm No. of cylinders 2 x 4 No. of cranks 2 x 4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 852 mm Is there a bearing between each crank yes

Revolutions per minute 118 Flywheel dia. 2100 mm Weight 6270 kg Means of ignition Diesel prime. Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule 390 mm as fitted 390 mm Crank pin dia. 390 mm Crank Webs Mid. length breadth shrunk Thickness parallel to axis as fitted 380 mm

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted 446 mm Thrust Shaft, diameter at collars as fitted 380 mm

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted 398 mm Is the tube screw shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes as per Rule 20 mm as fitted 23.5 mm Thickness between bushes as per Rule 15 mm as fitted 18 mm Is the after end of the liner made watertight in the

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

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 Is an approved Oil Gland or other appliance fitted at the after end of the tube

shaft no If so, state type Length of Bearing in Stern Bush next to and supporting propeller 1971 mm

Propeller, dia. 4250 mm Pitch 3500 mm No. of blades 4 Material bronze whether Moveable yes Total Developed Surface 4,154 m² feet

Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication

forced Thickness of cylinder liners 40 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

non-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 led to funnel

Cooling Water Pumps, No. 8 Main Engines driven 215 x 200 Is the sea suction provided with an efficient strainer which can be cleared within the vessel yes

What special arrangements are made for dealing with cooling water if discharged into bilges discharging over board

Bilge Pumps worked from the Main Engines, No. 2 Diameter 215 mm Stroke 200 mm Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line No. and Size 1 Duplex Pump 180 x 210 x 300; 100 m³/h How driven Steam driven

Auxiliary Pumps, No. and size 1 Duplex 330 x 180 x 300 Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 simple 170 x 200 525

Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size: In Machinery Spaces 1 of 130 mm 4 of 90 mm In Pump Room 3 of 80 mm

Holds, &c. forw. larger hold 2 of 70 mm; forw. Pump room 1 of 70 mm; for Peak 1 of 70 mm

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2; one of 200 mm one of 130 mm

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes 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

Are all Sea Connections fitted direct on the skin of the ship yes, through a valve chest Are they fitted with Valves or Cocks valves & cocks

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

How are they protected Have they been tested as per Rule

Do pipes pass through the bunkers none

Do pipes pass through the deep tanks none

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 mach. aft Is it fitted with a watertight door worked from

On 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. none No. of stages Diameters Stroke Driven by

Auxiliary Air Compressors, No. 1, 2 cylinders No. of stages 3 Diameters 380/300/90 Stroke 200 mm Driven by Steam engine

Small Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters 180/70 Stroke 120 mm Driven by " " "

Scavenging Air Pumps, No. 2 Double acting Diameter 1080 mm Stroke 760 mm Driven by Main Engine

Steam Generator 20 kW as per Rule No. 2 Position Engine Room

Auxiliary Engines crank shafts, diameter as fitted 75 mm

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

Low Pressure Air Receivers, No. 1 Cubic capacity of each 1,72 m³ Internal diameter 800 mm thickness 10 mmSeamless, lap welded or riveted longitudinal joint riveted Material S.M. Steel Range of tensile strength 41-47 kg Working pressure by Rules 17.5 kg/cm² Actual 10.5Starting Air Receivers, No. 2 Total cubic capacity 36 m³ Internal diameter 1900/1950 mm thickness 25 & 25.5 mmSeamless, lap welded or riveted longitudinal joint riveted Material S.M. Steel Range of tensile strength 47-53 kg Working pressure by Rules 35 kg/cm² Actual 25

004076-004083-0185 1/2 dation

IS A DONKEY BOILER FITTED? ^{2 Cylindrical} ~~Yes~~ ^{2 Vertical (Humble Tanks)} 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 17.8.31 Receivers 19.3.31 4.5.31 Separate Tanks 19.3.31
(If not, state date of approval)
Donkey Boilers 24.12.30/8.2.32 General Pumping Arrangements 28.7.31 Oil Fuel Burning Arrangements 28.6.32

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes

State the principal additional spare gear supplied For Main Engine: 1 crank throw, 1 top & 1 bottom cylinder
1 piston with rod conn. 2 top & 2 bottom cylinder liners, 1 fuel pump conn.
conn. 2 1/2 main bearing branes 4 1/2 top end bearings 4 1/2 bottom end bearings
1 conn. set of wheels for fuel pump drive, 20 thrustblock pads, 1 tail end
2 propeller blades, 1 propeller boss conn. 32 nuts & studs for prop. boss.
For steam driven compressor: 2 1/2 main bearings 4 1/2 bottom end bearings 4 1/2 top end
bearings, 1 conn. conn. cylinder 1 1/2 2nd stage 1 liner for 3rd stage 1 conn. piston
for steam eng: 1 piston rod, 1 eccentric rod & clevis, 1 bottom end & 2 top end bearings
For all pumps 2 conn. sets of suction and delivery valves.

The foregoing is a correct description.

Schneider and Maschinfabrik

Manufacturer.

Dates of Survey ^{During progress of work in shops--} 1931 Jan. 14.21, Feb. 21.24, March 7, April 24, May 12, June 3.4.9, July 3.16.25, Aug 13.19.27.29, Sept 6.19, Oct 1
^{During erection on board vessel--} Nov. 5.10.19.26.8 Oct. 3.11.15.30. 1932 Jan. 7.13.22, Feb. 3.17, March 8.10.15.23.31, April 7.14.20.26, May 10.14.26, June 1.7, July 5.8.12.15.20.22.26.29, Aug. 2.4.9.11.18.13.16.
Total No. of visits 64

Dates of Examination of principal parts—Cylinders 16.25/6.31 Covers 23.3.28.32 Pistons 23.3.32 Rods 14.4.32 Connecting rods 15.12.3

Crank shafts 13.1.32 Flywheel shaft — Thrust shafts 7.1.32 Intermediate shafts 3.12.31 Tube shaft —

Screw shafts 26.11.31 Propellers 31.3.32 Stern tubes 3.12.31 Engine seatings 31.3.32 Engines holding down bolts 12.7.32

Completion of fitting sea connections 31.3.32 Completion of pumping arrangements 9.8.32 Engines tried under working conditions 9.8.32

Crank shafts Material S.M. Steel Identification Mark 1307/8 F.S. 4.6.31 Flywheel shaft, Material — Identification Mark —

Thrust shafts Material S.M. Steel Identification Mark 4149 M.K. 14.8.31 Intermediate shafts, Material S.M. Steel Identification Mark 9280/81 J.L. 12.

Tube shaft, Material — Identification Mark — Screw shaft, Material S.M. Steel Identification Mark 9302/3 J.L. 27.

Is the flash point of the oil to be used over 150° F. yes LLOYD'S 9326 J.L. 16.4 SPARE 1360 F.S. 3.3

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 yes

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, etc. This Machinery has been built under
Special Survey in accordance with the approved plans, the Secretary's letters and in
conformity with the requirements of the Rules. The materials used in the construction
are made at works recognized by the Committee and used by the Soc. Surveyors. Materials
and workmanship are of good quality. During a 8 hours trial trip all the
Machinery has been tried under full working and manoeuvring conditions
and found in all parts in order.

This Machinery is eligible in my opinion to be classed in the
1st. Reg. Book with notation of: * LMC. 8.32. OIL ENGINES. TAIL SHAFT CIL
ELECTRIC LIGHT.

The amount of Entry Fee £ 6 : 0 in LONDON

Special £ 139 : 3 When applied for, 29.8.1932

4 Donkey Boiler Fee £ 29 : 5 When received, 7.9.1932

3 RIVETED AIR RECEIVERS £ 8 : 8

Travelling Expenses (if any) £ 10 : 10

Committee's Minute 20th 10:0

Assigned + Lmb. 8.33 Ch.

A. Carstensen
Engineer Surveyor to Lloyd's Register of Shipping.

BREMEN

Continuation of Report No. 1490 dated 22nd Aug 1932 on the

TANKER F. J. WOLFE

LIST OF PUMPS

DESCRIPTION	DRIVEN BY	TYPE	DIMENSIONS ^{mm}	CAPACITY ^{m³/h}
CARGO OIL PUMP	Steam	HOR. DUPL. COMP.	360/540.380x560	470 m ³ /h
STRIPER & BALLAST	—	VERT. DUPL.	320x220x350	100 —
FIRE & GENER. SERV.	—	—	230x180x300	50 —
BILGE	—	—	180x210x300	100 —
SPARE CYLD. COOL. WATER	—	—	240x320x350	227 —
— PISTON	—	—	130x150x300	50 —
— LUBRIC. OIL	—	— SIMPL.	170x200x325	34 —
DRINKING	—	HOR. DUPL.	100x100x100	5.7 —
CONDENSATE	—	—	140x120x150	10.6 —
FEEDWATER	—	VERT. SIMPL.	220x160x450	11.5 —
FUEL OIL TRANSF.	—	VERT. DUPL.	320x220x350	100 —
COND. COOLING WATER	—	CENTRIFUGAL	—	340/400 —
LUBR. OIL	MAIN ENGINE	COG WHEEL	—	20 —
CYLD. COOLING WATER	—	VERT. SIMPL.	215x200	50 —
PISTON	—	—	215x200	50 —
BILGE	—	—	215x200	50 —
FEEDWATER	—	—	80x80	1.3 —

A. Carstensen

Certificate (if required) to be sent to the Surveyors

The Surveyors are requested not to write on or below the space for Committee's Minute.

CERTIFICATE WRITTEN