

REPORT ON OIL ENGINE MACHINERY.

No. 1030.

Received at London Office JUN 27 1938

Date of writing Report 12 June 1938

When handed in at Local Office 10.6.1938

Port of Bremen/Augsburg

No. in Survey held at Mannheim

Date, First Survey 17 May, 1938

Last Survey 10 June 1938

Reg. Book.

Number of Visits 5

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

ENIDTOWN

Tons { Gross 495
Net 485

Built at Deest

By whom built Herrn. Gebr. v. d. Werf

Yard No. 206 When built 1938

Engines made at Mannheim

By whom made Herrn. Motoren-Werke Mannheim AG

Engine No. 41163 When made 1938

Donkey Boilers made at ✓

By whom made ✓

Boiler No. ✓ When made ✓

Brake Horse Power 600 B.H.P.

Owners Herrn. ~~Handtman~~ Brooks Shipping Co. Ltd

Port belonging to London. ✓

Nom. Horse Power as per Rule 128 ✓

Is Refrigerating Machinery fitted for cargo purposes ✓

Is Electric Light fitted Yes

Trade for which vessel is intended ✓

14 3/4"

21 5/8"

OIL ENGINES, &c.—Type of Engines R. H. 255 Su 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 45 atm.

Mean Indicated Pressure 6.8 ✓

Diameter of cylinders 375 mm

Length of stroke 550 mm

No. of cylinders 6

No. of cranks 6 ✓

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 443 mm. ✓

Is there a bearing between each crank Yes.

Revolutions per minute 260 ✓

Flywheel dia. 1200 mm

Weight 2530 kg

Means of ignition dir. ign.

Kind of fuel used gas oil on test bed. ✓

Crank Shaft, { Solid forged
Semi built
All builtdia. of journals as per Rule ✓
as fitted 225 mm

Crank pin dia. 225 mm

Crank Webs

Mid. length breadth 280 mm ✓
Mid. length thickness 113 mm ✓Thickness parallel to axis ✓
Thickness around eye-hole ✓Flywheel Shaft, diameter as per Rule ✓
as fitted ✓Intermediate Shafts, diameter as per Rule ✓
as fitted ✓Thrust Shaft, diameter at collars as per Rule ✓
as fitted ✓Tube Shaft, diameter as per Rule ✓
as fitted ✓Screw Shaft, diameter as per Rule ✓
as fitted ✓Is the { tube
screw } shaft fitted with a continuous liner { ✓
✓Bronze Liners, thickness in way of bushes as per Rule ✓
as fitted ✓Thickness between bushes as per Rule ✓
as fitted ✓

Is the after end of the liner made watertight in the

propeller boss ✓

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 tube

shaft. ✓ If so, state type. ✓

Length of Bearing in Stern Bush next to and supporting propeller. ✓

Propeller, dia. ✓

Pitch ✓

No. of blades ✓

Material ✓

whether Moveable ✓

Total Developed Surface ✓

sq. feet

Method of reversing Engines by hand gear

Is a governor or other arrangement fitted to prevent racing of the engine when declutched. Yes ✓

Means of lubrication

Forced ✓

Thickness of cylinder liners 25 mm

Are the cylinders fitted with safety valves Yes ✓

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material. ✓

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine. ✓

Cooling Water Pumps, No. 1; 11 1/2

Is the sea suction provided with an efficient strainer which can be cleared within the vessel. ✓

Bilge Pumps worked from the Main Engines, No. 1

Diameter 100 mm

Stroke 90 mm

Can one be overhauled while the other is at work. ✓

Pumps connected to the Main Bilge Line

No. and Size ✓

How driven ✓

Is the cooling water led to the bilges. ✓

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

arrangements. ✓

Main Eng.

Power-Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1; 5 1/2 1/4 rotary type

Are two independent means arranged for circulating water through the Oil Cooler. ✓

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces. ✓

In Pump Room. ✓

In Holds, &c. ✓

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size. ✓

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

Are the Bilge Suctions in the Machinery Spaces

led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges. ✓

Are all Sea Connections fitted direct on the skin of the ship. ✓

Are they fitted with Valves or Cocks. ✓

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates. ✓

Are the Overboard Discharges above or below the deep water line. ✓

Are they each fitted 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. ✓

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. ✓

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. ✓ 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. ✓

No. of stages. ✓

Diameters. ✓

Stroke. ✓

Driven by. ✓

Small Auxiliary Air Compressors, No. 1 ✓

No. of stages. 2

Diameters. 50/160 mm

Stroke. 150 mm

Driven by main Engine

What provision is made for first Charging the Air Receivers. ✓

Scavenging Air Pumps, No. ✓

Diameter. ✓

Stroke. ✓

Driven by. ✓

Auxiliary Engines crank shafts, diameter as per Rule ✓
as fitted ✓

No. ✓

Position. ✓

Have the Auxiliary Engines been constructed under special survey. ✓

Is a report sent herewith. ✓

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AIR RECEIVERS:—Have they been made under survey yes State No. of Report or Certificate Please Certif. attached
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
Tyfon Air Receivers, No. 1 Cubic capacity of each 75 lb. Internal diameter 255,2 mm thickness 5.9 mm.
Seamless, lap welded or riveted longitudinal joint Seamless Material S.M. Steel Range of tensile strength 56.1 kg/mm² Working pressure by Rules 36/38 kg/cm²
Actual 30 atm.
Starting Air Receivers, No. 2 Total cubic capacity 750 lb. each Internal diameter 568 mm thickness 16 mm.
Seamless, lap welded or riveted longitudinal joint lap welded Material S.M. Steel Range of tensile strength 41.3/43.3 kg/mm² Working pressure by Rules 36.3 kg/cm²
Actual 30 atm.

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 31-3-38. letter 24 May 38 Receivers 4-12-36 + 15-1-37 Separate Fuel Tanks ✓
(If not, state date of approval)
Donkey Boilers ✓ General Pumping Arrangements ✓ Pumping Arrangements in Machinery Space ✓
Oil Fuel Burning Arrangements ✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied yes
State the principal additional spare gear supplied

The foregoing is a correct description,

VORM. DENZ ABT. STA. MOTORBAU

Manufacturer.

Dates of Survey while building { During progress of work in shops -- May 4, 18, 19. June 9, 10,
During erection on board vessel -- ✓
Total No. of visits 5.
Dates of Examination of principal parts—Cylinders 19-5+10-6-38 Covers 18-5+10-6-38 Pistons 10-6-38 Rods ✓ Connecting rods 10-6-38
Crank shaft 18-5+10-6-38 Flywheel shaft ✓ Thrust shaft ✓ Intermediate shafts ✓ Tube shaft ✓
Screw shaft ✓ Propeller ✓ Stern tube ✓ Engine seatings ✓ Engines holding down bolts ✓
Completion of fitting sea connections ✓ Completion of pumping arrangements ✓ Engines tried under working conditions ✓
Crank shaft, Material S.M. Steel Identification Mark M.B. 13809 2-5-38 Flywheel shaft, Material ✓ Identification Mark ✓
Crank rods, Material S.M. Steel Identification Mark H.B. 20-4-38 Intermediate shafts, Material ✓ Identification Marks ✓
Thrust shaft, Material S.M. Steel Identification Mark 2945/10/17/18/19/20 Screw shaft, Material ✓ Identification Mark ✓
Tube shaft, Material ✓ Identification Mark ✓
Identification Marks on Air Receivers 2 x 750 lb. No. 1328-1329. Lloyd's Test 60 atm. W.P. 30 atm H.K. 9-4-38 (Start and
1 x 75 lb. No. 999 Lloyd's Test 854 lb. W.P. H 27 lbs. V.S. 4-10-37 (Tyfon vessel)

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 ✓
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.) This Heavy Oil Main Engine has been constructed under special survey in compliance with the approved plans, the Secretary's letters and instruction thereto and otherwise in conformity with the Society's Rules and Regulations.
The materials used in the construction are of good quality and made at works recognized by the Committee and tested by the local Society's Surveyors with satisfactory results.
This Heavy Oil Main Engine has been tested running several hours on the makers test bed under full - overload - and partly loads and was found to work satisfactorily.

In our opinion, the vessel for which this Heavy Oil Main Engine is intended will be eligible for the notation of + H.M.C. (with date) when the whole machinery has been satisfactorily fitted onboard of the vessel and tried under full working condition

The amount of Entry Fee 4/5 R. 48.00 : When applied for, 25.6. 1938.
Special 4/5 512.00 :
Donkey Boiler Fee ... 2 63.00 : When received, 20.7. 1938
Travelling Expenses (if any) 2 115.00 :

Committee's Minute

FRI 14 OCT 1938

Assigned

See minute on H. Mack

W. Schneider. H. Petersen.
Engineer Surveyor to Lloyd's Register of Shipping.



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