

REPORT ON OIL ENGINE MACHINERY.

No. 27943d

Received at London Office

MAR -9 1939

Date of writing Report 7-3-1939 When handed in at Local Office

Port of Rotterdam

No. in Survey held at
Reg. Book.

Hinderdijk

Date, First Survey

20-6-38

Last Survey

1-3-1939

Number of Visits 9

Single
on the Twin
Triple
Quadruple

Screw vessel motor tanker

"B.P. SPIRIT"

Tons
Gross
Net

Built at Hinderdijk

By whom built

L. Smit, Leen

Yard No. 892 When built 1939

Engines made at

Cologne

By whom made

Humboldt Deutz A.G.

Engine No. 486579/186 When made 1930

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 440

Owners

Union Lightage Corp. Ltd.

Port belonging to London

Nom. Horse Power as per Rule 94

Is Refrigerating Machinery fitted for cargo purposes no

Is Electric Light fitted Yes

Trade for which vessel is intended

OIL ENGINES, &c.—Type of Engines Please see Enclosure up 283. 2 or 4 stroke cycle Single or double acting

Maximum pressure in cylinders

Diameter of cylinders

Length of stroke

No. of cylinders

No. of cranks

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge

Is there a bearing between each crank

Revolutions per minute 330

Flywheel dia.

Weight

Means of ignition Compression

Kind of fuel used diesel oil

Crank Shaft,

Solid forged
Semi built
All built

dia. of journals

as per Rule

as fitted

Crank pin dia.

Crank Webs

Mid. length breadth

Thickens parallel to axis

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 160 mm

Tube Shaft, diameter

as per Rule

as fitted

Screw Shaft, diameter

as per Rule

as fitted 140 mm

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 Yes

If so, state type

Munk patent

Length of Bearing in Stern Bush next to and supporting propeller 400 mm

Propeller, dia. 1600 mm

Pitch

1150 mm

No. of blades

3

Material bronze

whether Moveable solid

Total Developed Surface 0.97 m² sq. feet

Method of reversing Engines by hand

Is a governor or other arrangement fitted to prevent racing of the engine when disengaged Yes

Means of lubrication

forged

Thickness of cylinder liners

Are the cylinders fitted with safety valves Yes

Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material both. If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine funnel.

Cooling Water Pumps, No. 2

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

Bilge Pumps worked from the Main Engines, No. one

Diameter 100 mm

Stroke 100 mm

Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line

No. and Size

2 à 60 tons

How driven

by aux. engines

Is the cooling water led to the bilges no

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

Ballast Pumps, No. and size one à 60 l.p.h.

Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 toothwheel pumps

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

2 à 2 3/4" and 2 à 2"

In Pump Room

In Holds, &c. Buoyancy spaces, cofferdams, and fore store 1 à 2" connected to pump on deck 15 l.p.h. and driven from aux. engine by belt.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 à 2 3/4"

from aux. engine by belt.

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

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 Yes

Are all Sea Connections fitted direct on the skin of the ship Yes

Are they fitted with Valves or Cocks valves

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

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. one

No. of stages

2

Diameters

90-110 mm

Stroke

85 mm

Driven by aux engine

Small Auxiliary Air Compressors, No. one

No. of stages

2

Diameters

45-110 mm

Stroke

75 mm

Driven by hand

What provision is made for first Charging the Air Receivers

hand compressor

Scavenging Air Pumps, No.

Diameter

Stroke

Driven by

Auxiliary Engines crank shafts, diameter

as per Rule

as fitted 236 - 222

No.

3

Position

one port and 2 starboard

Have the Auxiliary Engines been constructed under special survey Yes

Is a report sent herewith

sent now

AIR RECEIVERS:—Have they been made under survey *Yes* State No. of Report or Certificate *Lusculda report*

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, lap welded or riveted longitudinal joint *✓* Material *✓* Range of tensile strength *✓* Working pressure *by Rules ✓*
Actual ✓

Starting Air Receivers, No. *✓* Total cubic capacity *✓* Internal diameter *✓* thickness *✓*

Seamless, lap welded or riveted longitudinal joint *✓* Material *✓* Range of tensile strength *✓* Working pressure *by Rules ✓*
Actual ✓

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 *11-11-30* Receivers *✓* Separate Fuel Tanks *10-1-30*
(If not, state date of approval)

Donkey Boilers *✓* General Pumping Arrangements *20-6-30* Pumping Arrangements in Machinery Space *20-6-30*

Oil Fuel Burning Arrangements *20-6-30*

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,

Manufacturer.

Dates of Survey while building { During progress of work in shops-- }
{ During erection on board vessel-- }
Total No. of visits *9*

Dates of Examination of principal parts—Cylinders *✓* Covers *✓* Pistons *✓* Rods *✓* Connecting rods *✓*

Crank shaft *✓* Flywheel shaft *✓* Thrust shaft *✓* Intermediate shafts *✓* Tube shaft *✓*

Screw shaft *23/6-21/9-30* Propeller *16-12-30* Stern tube *16-12-30* Engine seatings *20-2-39* Engines holding down bolts *24-2-39*

Completion of fitting sea connections *12-1-39* Completion of pumping arrangements *1-3-39* Engines tried under working conditions *1-3-39*

Crank shaft, Material *✓* Identification Mark *✓* Flywheel shaft, Material *✓* Identification Mark *✓*

Thrust shaft, Material *S.M. steel* Identification Mark *AB. 1-11-30* Intermediate shafts, Material *✓* Identification Marks *✓*

Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *S.M. steel* Identification Mark *✓*

Identification Marks on Air Receivers *7: 1520. Lloyd's test No. 2309* *20-340. Lloyd's test No. 1483*
60 Atm. *13-16-11-30*
W.P. 30 ATM. *R.S. 7-6-30.* *W.P. 35 Atm.* *M.P. 29-10-30.*

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 *Shell Spirit I & II.*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery has been made and fitted in accordance with the approved plans, Secretary's letters and Society's Rules. Main and aux. engines and centrifugal pumps have been tested under full working condition and was found working and manoeuvring satisfactorily and in my opinion eligible for the record of + R.M.C. 3-39. Oil engines. O.G.*

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

The amount of Entry Fee .. £ *on Lusculda report.* When applied for, *8. 3. 19. 39.*
Special ... £ : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ *13.00.* When received, *24. 3. 19. 39/24/3*

Committee's Minute

Assigned

+ LMC 3.39 Del Eng
O.G.

Engineer Surveyor to Lloyd's Register of Shipping.



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