

REPORT ON OIL ENGINE MACHINERY.

No. 13803

Received at London Office

11 JAN 1945

Date of writing Report

19

When handed in at Local Office

8/9/

19

44

Port of

Belfast

o. in Survey held at

Date, First Survey

21st Jan. 1944

Last Survey

1st Sept

1944

eg. Book.

Number of Visits

54

Single
on the Twin
Triple
Quadruple

Screw vessel

M.V.

"NISO"

Tons

Gross 8273

Net 4777

uilt at

BELFAST

By whom built

HARLAND & WOLFF LD.

Yard No. 1198

When built 1944

Engines made at

GLASGOW

By whom made

HARLAND & WOLFF LD.

Engine No. 1198

When made 1944

Boilers made at

BELFAST

By whom made

HARLAND & WOLFF LD.

Boiler No. 1272/3

When made 1944

Horse Power

Owners ANGLO-SAXON PETROLEUM CO. LD.

Port belonging to

Horse Power as per Rule

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

YES

Use for which vessel is intended CARRIAGE OF PETROLEUM IN BULK

ENGINES, &c.—Type of Engines

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

Mean Indicated Pressure

Position of bearings, adjacent to the crank, measured from inner edge to inner edge

Is there a bearing between each crank

Revolutions per minute

Flywheel dia.

Weight

Means of ignition

Kind of fuel used

Crank
shaftSolid forged
Semi built
All built

dia. of journals

as per Rule
as fitted

Crank pin dia.

Crank webs

Mid. length breadth
Mid. length thickness

shrink

Thickness parallel to axis
Thickness around eye-hole

Flywheel Shaft, diameter

as per Rule
as fitted

Intermediate Shafts, diameter

as per Rule
as fitted

17"

Thrust Shaft, diameter at collars

as fitted
as per Rule

Tube Shaft, diameter

as per Rule
as fitted

Screw Shaft, diameter

as per Rule
as fitted

16"

Is the

tube
screw

shaft fitted with a continuous liner

YES

Bronze Liners, thickness in way of bushes

as per Rule
as fitted

13/16"

Thickness between bushes

as per Rule
as fitted

21/32"

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

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 tube shaft

Length of bearing in Stern Bush next to and supporting propeller

5'-0"

Propeller, dia 15'-6" Pitch 12'-0" No. of blades 4 Material BRONZE whether moveable No Total developed surface 75 sq. feet

Method of reversing Engines

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

Means of

lubrication

Thickness of cylinder liners

Are the cylinders fitted with safety valves

Are the exhaust pipes and silencers water cooled

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.

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

Bilge Pumps worked from the Main Engines, No.

Diameter

Stroke

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

Ballast Pumps, No. and size

Power Driven Lubricating Oil Pumps, including spare pump, No. and size

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

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 suction pipes 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

YES

Are they fitted with valves or cocks

YES

Are they fixed

efficiently 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

Do the pipes pass through the bunkers

How are they protected

Do the 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.

No. of stages

diameters

stroke

driven by

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

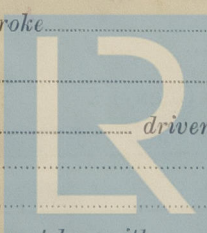
No.

Position

Have the auxiliary engines been constructed under special survey

Is a report sent herewith

6200-K2300-5123-00



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Foundation

AIR RECEIVERS:—Have they been made under survey YES ✓ State No. of report or certificate Z 12/11 ✓
Is each receiver, which can be isolated, fitted with a safety DISC. YES ✓ 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 _____
Starting Air Receivers, No. 2 ✓ Total cubic capacity 900 CUB. FT. ✓ Internal diameter 6'-0 5/16" ✓ thickness 1" ✓
Seamless, lap welded or riveted longitudinal joint RIVETED ✓ Material M.S. ✓ Range of tensile strength 28/32 ✓ Working pressure 356 LB ✓
by Rules _____ Actual _____

IS A DONKEY BOILER FITTED YES ✓ (2) 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 15/1/44 Receivers 26/5/41 Separate fuel tanks _____
(If not, state date of approval)
Donkey boilers 26/5/41 General pumping arrangements _____ Pumping arrangements in machinery space _____
Oil fuel burning arrangements _____

SPARE GEAR.

Has the spare gear required by the Rules been supplied _____
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 - 1944 Jan 21, 26, 27 Feb 1, 3, 4, 7, 8 Apr 12, 28 May 6, 16, 17, 22, 23, 25 June 2, 5, 7, 8, 9, 10, 12, 13, 15, 16, 20, 21, 23, 26
During erection on board vessel - 29 July 3, 6, 7, 8, 20, 21, 22, 26, 28, 29, 31 Aug 1, 3, 4, 9, 11, 15, 16, 17, 18, 23 Sept 1
Total No. of visits 54

Dates of examination of principal parts—Cylinders _____ Covers _____ Pistons _____ Rods _____ Connecting rods _____
Crank shaft _____ Flywheel shaft _____ Thrust shaft _____ Intermediate shafts _____ Tube shaft _____
Screw shaft _____ Propeller 26/7/44 Stern tube 7/7/44 Engine seatings _____ Engine holding down bolts _____
Completion of fitting sea connections 29/7/44 Completion of pumping arrangements _____ Engines tried under working conditions _____
Crank shaft, material _____ Identification mark _____ Flywheel shaft, material, _____ Identification mark _____
Thrust shaft, material _____ Identification mark _____ Intermediate shafts, material M.S. Identification marks LLOYD'S No. T.D.S. 29/6
Tube shaft, material _____ Identification mark _____ Screw shaft, material M.S. Identification mark LLOYD'S No. 45 T.D.S. 29/6
Identification marks on air receivers No. 291 LLOYD'S TEST 556 LB W.P. 356 LB. T.D.S. 1/8/44 No. 292 LLOYD'S TEST 556 LB W.P. 356 LB. T.D.S. 3/8/44

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. The donkey boiler, air receiver, propeller and screw shaft have been efficiently fitted on board and the vessel has been taken to Glasgow for installation of main engines.

The amount of Entry Fee ... £ : :
Special ... £ : :
Donkey Boiler Fee... £ : :
Travelling Expenses (if any) £ : :
When applied for 19 _____
When received 19 _____
Committee's Minute GLASGOW 9 JAN 1945
Assigned SEE ACCOMPANYING MACHINERY REPORT.

John M'Gee
Engineer Surveyor to Lloyd's Register of Shipping
Lloyd's Register Foundation