

20274

15 SEP 1954

REPORT ON OIL ENGINE MACHINERY.

No. 19835

Received at London Office 21 APR 1954

20-4-1954 When handed in at Local Office

20-4-1954

Port of West Hartlepool

Date, First Survey 16th July, 1953, Last Survey 15th April, 1954

Number of Visits 66

Screw vessel M.V. "CYGNUS"

Tons Gross Net

By whom built Furness Shipbuilding Co Ltd

Yard No. 463 When built 1954

By whom made Richardsons Westgarth (HPL) Ltd

Engine No. 3242 When made 1954

By whom made

Boiler No. When made

Owners

Port belonging to

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Type of Engines Opposed Piston Airless Injection

2 or 4 stroke cycle 2 Single or double acting Single

Diameter of cylinders 640 mm

Length of stroke 2320 mm

No. of cylinders 5 No. of cranks 5-3 THROES

adjacent to the crank, measured from inner edge to inner edge 2030 mm

Is there a bearing between each crank Between each 3 THROES

Flywheel dia. 2493 mm

Means of ignition COMPRESSION TEMPERATURE Kind of fuel used HEAVY FUEL OIL OR DIESEL OIL

as per Rule 520 mm Crank pin dia. 520 mm Crank webs 95 mm

Mid. length breadth 730 mm Thickness parallel to axis 290 mm

as per Rule 460 mm Intermediate Shafts, diameter as fitted

Thrust Shaft, diameter at collars as fitted 520 mm

as per Rule 460 mm Screw Shaft, diameter as fitted

Is the tube screw shaft fitted with a continuous liner yes

Thickness in way of bushes as fitted

Thickness between bushes as fitted

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

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

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

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

Thickness of cylinder liners 25 mm Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled

LAGGED 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

worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

ed to the Main Bilge Line No. and size How driven

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

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

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

No. and size: In machinery spaces In pump room

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

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

boxes, placed above the level of the working floor, with straight tail pipes to the bilges Are they fitted with valves or cocks Are they fixed

connections fitted direct on the skin of the Ship Are the overboard discharges above or below the deep water line

h on the ship's side to be seen without lifting the platform plates Are the blow off cocks fitted with a spigot and brass covering plate

fitted with a discharge valve always accessible on the plating of the vessel How are they protected Have they been tested as per Rule

ass through the bunkers How are they protected Have they been tested as per Rule

ass through the deep tanks How are they protected Have they been tested as per Rule

cocks, valves and pumps in connection with the machinery and all boiler mountings accessible at all times

ement 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

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

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

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

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

ary Air Compressors, No. No. of stages diameters stroke driven by

ion is made for first charging the air receivers

Air Pumps, No. One diameter 1780 mm stroke 1380 mm driven by DIRECT FROM CRANK-SHAFT BETWEEN NO. 3 & 4 CYLINDERS

Engines crank shafts, diameter as per Rule Position

Is a report sent herewith

Is a report sent herewith

Lloyd's Register Foundation

AIR RECEIVERS:—Have they been made under survey..... State No. of report or certificate.....
Is each receiver, which can be isolated, fitted with a safety valve as per Rule.....
Can the internal surfaces of the receivers be examined and cleaned..... Is a drain fitted at the lowest part of each receiver.....
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..... Total cubic capacity..... Internal diameter..... thickness.....
Seamless, lap welded or riveted longitudinal joint..... Material..... Range of tensile strength..... 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..... Receivers..... Separate plans.....
(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.....

State the principal additional spare gear supplied.....

T.V.C. 6000 9753 for 1154 changed speed range 63/75 r.p.m.

For RICHARDSONS WESTGARTH (HARTLEPOOL) LIMITED.

The foregoing is a correct description,

J. G. Smith
Manufacturer.
DIRECTOR

Dates of Survey while building
During progress of work in shops - - 1953. July 16. 22. Aug. 13. 20. Sept. 3. 14. 24. Oct. 12. Dec. 4. 7. 9. 10. 14. 15. 17. 21.
During erection on board vessel - - 1954. Jan. 5. 7. 11. 14. 19. 20. 22. 26. 27. 28. Feb. 2. 3. 5. 9. 10. 11. 12. 16. 19. 22. 23. 24. 26. M.
12. 15. 17. 18. 19. 24. 25. 26. 31. April 1. 2. 5. 6. 7. 8. 9. 12.
Total No. of visits..... 66

Dates of examination of principal parts—Cylinders..... 13-1-54-3-2-34..... Covers..... Pistons..... 9-2-54..... Rods..... 9-2-54..... Connecting rods.....
Crank shaft..... 14-4-54..... Flywheel shaft..... Thrust shaft..... Intermediate shafts..... Tube shaft.....
Screw shaft..... Propeller..... Stern tube..... Engine seatings..... Engine holding down bolts.....
Completion of fitting sea connections..... Completion of pumping arrangements..... Engines tried under working conditions.....
Crank shaft, material..... Forged Steel..... Identification mark..... 58..... I.E.B. Flywheel shaft, material..... Identification mark.....
Thrust shaft, material..... Identification mark..... Intermediate shafts, material..... Identification mark.....
Tube shaft, material..... Identification mark..... Screw shaft, material..... Identification mark.....
Identification marks on air receivers.....

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.....

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.)

This engine has been constructed special survey in accordance with approved plans, Secretary's letters and of the Society. The materials and workmanship are good. The engine has been tested under full load conditions on the test bed with satisfactory results. It will be despatched to Haverton Hill-on-Tees for installation on the vessel (Ship N° 45). When it has been satisfactorily installed this machinery will in my opinion be eligible to have notation of L.M.C. (with a) oil engine.

The amount of Entry Fee ... £ 220 : 0

Special WELDING ... £ 21 : 15

Donkey Boiler Fee... £ :

Travelling Expenses (if any) £ :

When applied for 20-4-1954.

When received 19.....

H. A. Wilson
Engineer Surveyor to Lloyd's Register

Committee's Minute

FRIDAY 15 OCT 1954

Assigned See Rpt 46.



Lloyd's Register
Foundation