

REPORT ON OIL ENGINE MACHINERY.

No. 133896

Received at London Office

12 FEB 1957

Date of writing Report 2nd June 1956. When handed in at Local Office 4th July 1956. Port of LONDON.in Survey held at Stamford, Lincs. Date, First Survey 16:5:56. Last Survey 30:5:56. 19
g. Book. Number of Visits 2.Single
on the Twin
Triple
Quadruple
Screw vessel. "B.P. Explorer" Tons Gross. Net.

Built at The Dale Northwich Cheshire. By whom built. Yarwood & Sons. CONTRACT NO 900. No. 899. When built.

Engines made at Stamford, Lincs. By whom made. Messrs Blackstone & Co. Ltd. Engine No. M67362 When made 1956.

Boilers made at. By whom made. Boiler No. When made.

Shaft Horse Power 324. Owners. Port belonging to.

V. Power as per Rule 64.8. Is Refrigerating Machinery fitted for cargo purposes. Is Electric Light fitted.

Use for which vessel is intended.

ENGINES, &c. — Type of Engines Lister-Blackstone EVSMC6 vertical diesel 2 or 4 stroke cycle 4. Single or double acting single.

Maximum pressure in cylinders 900 psi. Diameter of cylinders 8 3/4" Length of stroke 11 1/2" No. of cylinders 6. No. of cranks 6.

Mean Indicated Pressure 123 psi. Ahead Firing Order in Cylinders 1-5-3-6-2-4. Span of bearings, adjacent to the crank, measured

from inner edge to inner edge 10 1/2". Is there a bearing between each crank YES. Revolutions per minute 600/140 3/4.

Flywheel dia 38". Weight 1860 lbs. Moment of inertia of flywheel (lbs. in² or Kg. cm²) 5.45 Means of ignition COMP. Kind of fuel used DIESEL.

Crankshaft, (Solid forged) dia. of journals as per Rule 6 3/4". Crank pin dia 6 1/8". Crank webs Mid. length breadth 3 1/4" Thickness parallel to axis 2 25/32" shrunk Thickness around eye hole.

Propeller shaft, diameter as per Rule. Intermediate Shafts, diameter as per Rule. Thrust Shaft, diameter at collars as fitted.

Screw Shaft, diameter as per Rule. Is the (tube) shaft fitted with a continuous liner (screw).

Bronze Liners, thickness in way of bushes as per Rule. Thickness between bushes as per Rule. 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 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 918/32.

Moment of inertia of propeller (lbs. in² or Kg. cm²) Kind of damper, if fitted Viscous Damper in flywheel coupling.

Method of reversing Engines VOITH SCHNEIDER PROPELLER. Is a governor or other arrangement fitted to prevent racing of the engine when declutched. Means of

lubrication FORCED. Thickness of cylinder liners 19/32". Are the cylinders fitted with safety valves YES. 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. 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. 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.

Lubricating Pumps, No. and size. Power Driven Lubricating Oil Pumps, including spare pump, No. and size. 1 - Pressure - 810 g.p.h. 1 - Scavenge - 1160 g.p.h.

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. 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 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.

On 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.

Sucking Air Pumps, No. diameter. stroke. driven by.

Auxiliary Engines crank shafts, diameter as per Rule. No. Position.

Have the auxiliary engines been constructed under special survey. Is a report sent herewith.

00592 002601-0281

© 2020

Lloyd's Register
Foundation

AIR RECEIVERS:—Have they been made under survey... YES State No. of report or certificate... C. 8831.

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, welded or riveted longitudinal joint ... Material ... Range of tensile strength ... Working pressure ...

Starting Air Receivers, No. 2 Total cubic capacity 22 cu. ft. Internal diameter ... thickness ...

Seamless, welded or riveted longitudinal joint welded Material M.S. 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... 25.10.54 Receivers ... Separate fuel tanks ...

Donkey boilers ... General pumping arrangements ... Pumping arrangements in machinery space ...

Oil fuel burning arrangements ...

Have Torsional Vibration characteristics been approved ... YES Date of approval 20.12.55

SPARE GEAR.

Has the spare gear required by the Rules been supplied ...

State the principal additional spare gear supplied ... as attached sheet S/19240A/4-8

The foregoing is a correct description, BLACKSTONE & CO. LTD. Manufacturer.

Dates of Survey while building During progress of work in shops - - 16.5.56 30.5.56

During erection on board vessel - -

Total No. of visits

Dates of examination of principal parts—Cylinders 16.5.56 Covers 16.5.56 Pistons 16.5.56 Rods ... Connecting rods 16.5

Crank shaft 16.5.56 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 S.M. Steel Identification mark 8533/345 Flywheel shaft, material ... Identification mark ...

Thrust shaft, material ... Identification mark ... Intermediate shafts, material ... Identification marks ...

Tube shaft, material ... Identification mark ... Screw shaft, material ... Identification mark ...

Identification marks on air receivers ... No's 5558, AD. 23.4.56 and 5559, AD. 23.4.56

Welded receivers, state Makers' Name R. Waddell, Manchester

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. Engine built under WORKS ORDER NO 14967

This engine has been built under Special Survey in accordance with the approved plans, and Rules of the Society

from materials manufactured under the Supervision of Surveys to the Society.

WORKMANSHIP is good throughout

TEST BED TRIALS, full load, 4 hours duration, Alved, Ashen, governor & overspeed trip, satisfactory.

The engine is eligible to be fitted to a classed vessel, in my opinion.

Construction The amount of Entry Fee ... £ 23 : 10 :

Special ... £ : :

Donkey Boiler Fee... £ : :

Travelling Expenses (if any) £ 4 : 10 .:

(Committee's Minute

Assigned

When applied for 9 JUL 1956 19

When received 19

W. Waddell

Engineer Surveyor to Lloyd's Register of Shipping



© 2020

Lloyd's Register Foundation