

REPORT ON OIL ENGINE MACHINERY.

No. 146115

Received at London Office

6 FEB 1957

Year of writing Report 1957 When handed in at Local Office 1957 Port of LIVERPOOL
in Survey held at NORTHWICH Date, First Survey 10th Decr/54 Last Survey 3rd Jan. 1957
Number of Visits 14
Name of vessel VOITH SCHNEIDER "PROPELLED B.P. EXPLORER"
Tons Gross 303 Net 188
Built at NORTHWICH. By whom built W. J. YARWOOD & SONS, LTD. Yard No. 900 When built 1956.
Engines made at STAMFORD, LINES By whom made BLACKSTONE & CO. LTD. Engine No. 67362 When made 1956.
Key Boilers made at By whom made Boiler No. When made
Indicated Horse Power { Maximum 360 Service Owners Port belonging to LONDON.
N. as per Rule 72. Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
Made for which vessel is intended River Severn.

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
Indicated Pressure Span of bearings (i.e., distance between inner edges of bearings in
of a crank) Is there a bearing between each crank London Report No 133896. Revolutions per minute { Maximum 600 Service
Flywheel dia. Weight Moment of inertia of flywheel (lbs. in² or Kg. cm²) Means of ignition Kind of fuel used
" " " " balance wts. (" " " ")

Propeller 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
Crank pin dia. Crank webs Mid. length breadth shrunk Thickness parallel to axis
Mid. length thickness shrunk Thickness around eyehole
Screw Shaft, diameter as per Rule as fitted Is the (tube screw) shaft fitted with a continuous liner {
as per Rule as fitted

Propeller 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
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 fitted at the after
end of stern tube. If so, state type Length of bearing in Stern Bush next to and supporting propeller
Propeller, dia. VOITH - SCHNEIDER (See Cont. No 4419) Pitch No. of blades Material whether moveable Total developed surface sq. feet
Moment of inertia of propeller including entrained water (lbs. in² or Kg. cm²) Kind of damper, if fitted

Method of reversing Engines NONE Is a governor or other arrangement fitted to prevent racing of the engine YES Means of
lubrication FORCED Thickness of cylinder liners Are the cylinders fitted with safety valves YES Are the exhaust pipes and silencers water cooled
lagged with non-conducting material YES If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned
back to the engine NONE Cooling Water Pumps, No. and how driven Two - M.E. attached Working F.W. One
Spare F.W. as spare water 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. and capacity One - 17 Tons/H. Can one be overhauled while the other is at work
Pumps connected to the Main Bilge Line { No. and capacity of each Two - M.E. attached @ 17 T/H + 95 pump 30 T/H. How driven M.E. belt driven. Aux engine.

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 capacity 1 95 - 30 T/H. Power Driven Lubricating Oil Pumps, including spare pump, No. and size See Cont. Rept. 133896
Are two independent means arranged for circulating water through the Oil Cooler YES Branch Bilge Suctions
No. and size:—In machinery spaces 1 @ 2" in E.R.; 1 @ 2" in prop. comp't. In pump room
holds, &c. One at 2" in aft C/D.
Direct Bilge Suctions to the engine room bilges, No. and size One at 2" dia; One at 2 1/2" dia.
Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes YES 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 YES
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 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 YES
What pipes pass through the bunkers NONE How are they protected
What pipes pass through the deep tanks NONE Have they been tested as per Rule YES
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 YES Is it fitted with a watertight door YES worked from YES
On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork YES

Main Air Compressors, No. See Cont. Rept No. of stages diameters stroke driven by M.E.
Auxiliary Air Compressors, No. One No. of stages two diameters Capacity stroke 12 ft³/min driven by Starbd aux engine
Small Auxiliary Air Compressors, No. No. of stages diameters stroke driven by
What provision is made for first charging the air receivers Hand started aux. engine
Savenging Air Pumps or Blowers, No. How driven
Auxiliary Engines Have they been made under survey YES Engine Nos. 8442 + 672. Position of each in engine room P+S side of E. Room.
Makers name R. A. Lister Ltd. Report No. S.C. 4611 + 4466

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AIR RECEIVERS: - Have they been made under survey..... State No. of report or certificate.....
 State full details of safety devices.....
 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 *Report No 133896*..... Internal diameter..... thickness.....
 Seamless, welded or riveted longitudinal joint *London* Material..... Range of tensile strength..... Working pressure.....
Starting Air Receivers, No...... Total cubic capacity..... Internal diameter..... thickness.....
 Seamless, welded or riveted longitudinal joint..... Material..... Range of tensile strength..... Working pressure.....

IS A DONKEY BOILER FITTED No. 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 *1.11.55* Receivers Separate fuel tanks *30ake*
 (If not, state date of approval).....
 Donkey boilers General pumping arrangements *and* Pumping arrangements in machinery space *14.7.55.*
 Oil fuel ~~burning~~ arrangements *2.2.56* (Plans forwarded with Rept No 145184-B.P. Manufactures)
 Have Torsional Vibration characteristics been approved Date and particulars of approval *15/10/56 18/2/57*

SPARE GEAR.

Has the spare gear required by the Rules been supplied State if for "short voyages" only *yes.*
 State the principal additional spare gear supplied.....

W. J. YARWOOD & SONS LTD.

The foregoing is a correct description, & the particulars of the installation are as approved for *Director Manufacturer.*

Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - - *10/12/54 to 3/1/57*
 Total No. of visits *14*
 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 Stern tube Engine seatings *21.9.56* Engine holding down bolts *9.11.56*
 Completion of fitting sea connections *21.9.56* Completion of pumping arrangements *18.12.56* Engines tried under working conditions *20.12.56*
 Crank shaft, material Identification mark Flywheel shaft, material Identification mark *LLOYD'S H.1870 24.10.56*
 Thrust shaft, material Identification mark Intermediate shafts, material *Steel* Identification marks.....
 Tube shaft, material Identification mark Screw shaft, material Identification mark.....
 Identification marks on air receivers.....

Welded receivers, state Makers' Name.....
 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*
 Full description of fire extinguishing apparatus fitted in machinery spaces *1 hydrant, hose spray nozzle, 2-2 gal extinguisher, 1 sand bin in E. Room, 2-2 gal extinguisher in purser's cabin*
 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.....
 What is the special notation desired

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 *"B.P. Manufactures"*

General Remarks (State quality of workmanship, opinions as to class, Speed restrictions, &c.) *The machinery of this vessel has been installed under Special Survey, in accordance with the Society Rules, the Secretary's letter and approved plans, and the workmanship & materials are good. The machinery has been tried under full power working conditions and found satisfactory, and is eligible in my opinion for classification, with record of + LMC 1,57 and notations "Carrying Petroleum in Bulk", "Oil Engine", "Directional propeller"*

The amount of Entry Fee *Just.* £ 20 : 0 :
 Special £ : :
 Donkey Boiler Fee... .. £ : :
 Travelling Expenses (if any) £ *8 12/6*
 When applied for *1 FEB 1957* 19
 When received 19

J. Bowman
 Engineer/Surveyor to Lloyd's Register of Shipping
 Lloyd's Register Foundation

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

Assigned *+ LMC 1.57*
CF