

REPORT ON OIL ENGINE MACHINERY.

No 21416

Received at London Office

Writing Report 19th November 1941 When handed in at Local Office 20th November 1941 Port of Grimsby
in Survey held at Grimsby Date, First Survey 22.10.40 Last Survey 15th November 1941
Book. Number of Visits 40 (Net 18: Runs 22)

on the Single Screw vessel H.M.T. 'POSTBOY' Tons Gross 273.6
at Selby By whom built Cochrane & Sons, Ltd Yard No. 1211 When built 1941
Engines made at Lincoln By whom made Ruston & Hornsby, Ltd Engine No. 214659 When made 1941
Boilers made at Newark By whom made Abbott & Co. Boiler No. 15646 When made 1940
Horse Power 450 Owners Admiralty (Grimsby Water Crawlers) Port belonging to
Horse Power as per Rule 122 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
made for which vessel is intended Requisitioned by the Admiralty

ENGINES, &c. Type of Engines Pressure-Charged Vertical Solid Injection 8VGBXM 2 or 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 695 lbs. Diameter of cylinders 12 1/2" Length of stroke 15" No. of cylinders 8 No. of cranks 8
Minimum Indicated Pressure 120 lbs.
No. of bearings, adjacent to the Crank, measured from inner edge to inner edge 13 13/16" Is there a bearing between each crank Yes
Revolutions per minute 400 Flywheel dia. 48" Weight 35 Cwt. Means of ignition Compression Kind of fuel used Heavy Oil
Crank shaft, Solid forged dia. of journals as per Rule Approved Crank pin dia. 7" Crank Webs Mid. length breadth 12" Thickness parallel to axis shrunk
Semi built dia. of journals as fitted 9" Crank Webs Mid. length thickness 4" Thickness around eye-hole shrunk
All built
Crank shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Approved Thrust Shaft, diameter at collars as per Rule
as fitted 8 1/2" Is the shaft fitted with a continuous liner Yes
Crank shaft, diameter as per Rule Screw Shaft, diameter as per Rule Approved Is the shaft fitted with a continuous liner Yes
as fitted 8 1/2" Is the shaft fitted with a continuous liner Yes
Cylinder Liners, thickness in way of bushes as per Rule Approved Thickness between bushes as per Rule Approved Is the after end of the liner made watertight in the
as fitted 1/16" & 23/32" 1/16" 1/16" Yes
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes
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 Yes
If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube Yes
If so, state type Yes Length of Bearing in Stern Bush next to and supporting propeller 3' 4"
Propeller, dia. 9' 6" Pitch 11' 3" No. of blades 4 Material Cast Iron whether Moveable No Total Developed Surface 36 sq. feet
Method of reversing Engines Reverse Gears 18 RS Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication Forced
Thickness of cylinder liners 1" Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or 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 Yes
Cooling Water Pumps, No. 1 Centrifugal 2 1/2 x 3" S.W. Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
Large Pumps worked from the Main Engines, No. 1 Diameter 4 3/4" Stroke 4 3/4" Can one be overhauled while the other is at work Yes
Pumps connected to the Main Bilge Line { No. and Size Two, 4 3/4 x 4 3/4" 3" Centrifugal
How driven Main Engine 12 1/2 rpm/hr 3VSOZ Auxiliary Engine 500 rpm/hr
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. 3 Ruston Gear 1 1/4, 1 1/2, 7, 3"
2 Dunsdale Borgol 1 1/2 x 3"
2 Hamworthy Protolite 2"
(Handley)
Ballast Pumps, No. and size None Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 Hamworthy Protolite 2"
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 1-2 1/2" 2-3" 1-2" Hand pump In Pump Room
Holds, &c. 1-2" Fore Peak, 1-2" below Battery Room, 1-2" Spirit Room, 1-2" Buffordaw, 2" Hand pump, sections Battery Room & Spirit Room.
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-3"
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces
fitted 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 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 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
If 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. 1 No. of stages 1 Diameters 3" Stroke 3 1/2" Driven by Yes
Auxiliary Air Compressors, No. 1 No. of stages 1 Diameters 3" Stroke 3 1/2" Driven by Belt - Main Eng.
Small Auxiliary Air Compressors, No. 1 No. of stages 1 Diameters 2" Stroke 3 1/4" Driven by 3VSOZ Eng.
What provision is made for first Charging the Air Receivers 3VSOZ Engine is hand starting.
Scavenging Air Pumps, No. 2 Diameter 2" Stroke 2" Driven by 2021
Auxiliary Engines crank shafts, diameter as per Rule M.A.N. Eng. 3VSOZ Eng. Approved No. 2
as fitted P 5 3/8 & 5 1/4" P 2 3/4" J 2 3/8" Position MAN Eng. port side ER 3VSOZ Eng. star side ER
Have the Auxiliary Engines been constructed under special survey M.A.N. G.L. 3VSOZ Yes Is a report sent herewith Yes

AIR RECEIVERS: - Have they been made under survey *Yes* State No. of Report or Certificate *C409, C410, C412*

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*

Starting Air Receivers, No. *2-N°3, 1-N°00* Total cubic capacity *51 Cub. ft.* Internal diameter *30", 9 1/8"* thickness *3/8", 5/16"*

Seamless, lap welded or riveted longitudinal joint *Seamless* Material *SM Steel* Range of tensile strength *26-30* Working pressure *by Rules* *Approved*

IS A DONKEY BOILER FITTED? *Yes* If so, is a report now forwarded? *Nottingham Rpt. No 9.*

Is the donkey boiler intended to be used for domestic purposes only *Domestic purposes & heating circulating water for main engine.*

PLANS. Are approved plans forwarded herewith for Shafting *11-4-40* Receivers *5-5-38* Separate Fuel Tanks *25-4-40*

Donkey Boilers *5-3-40* General Pumping Arrangements *29-8-40* Pumping Arrangements in Machinery Space *29-8-40*

Oil Fuel Burning Arrangements *18-9-40*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes*

State the principal additional spare gear supplied *to Admiralty Requirements*

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building	During progress of work in shops--	<i>22-10-40 to 17-7-41</i>	<i>18 Visits</i>
	During erection on board vessel--	<i>18-12-40 to 15-11-41</i>	<i>22 Visits</i>
	Total No. of visits		

Dates of Examination of principal parts—Cylinders *22-10-40* Covers *22-10-40* Pistons *19-6-41* Rods *✓* Connecting rods *19-6-41*

Crank shaft *23-11-39* Flywheel shaft *✓* Thrust shaft *✓* Intermediate shafts *6-2-41* Tube shaft *✓*

Screw shaft *6-2-41* Propeller *6-2-41* Stern tube *25-2-41* Engine sealings *11-2-41* Engines holding down bolts *2-9-41*

Completion of fitting sea connections *20-3-41* Completion of pumping arrangements *24-10-41* Engines tried under working conditions *24-10-41 & 10-11-41*

Crank shaft, Material *S.M. Steel* Identification Mark *859 AS-23-11-39* Flywheel shaft, Material *✓* Identification Mark *✓*

Thrust shaft, Material *✓* Identification Mark *✓* Intermediate shafts, Material *S.M. Steel* Identification Marks *5355-6-2-41*

Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *S.M. Steel* Identification Mark *5354-6-2-41*

Identification Marks on Air Receivers *B2796 B2797 D922*

JNB 17-7-41 JNB 17-7-41 JNB 17-7-41

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*

Description of fire extinguishing apparatus fitted *2-2 gallon extinguishers for oil fires, 2 quart Pyrene extinguishers, 1 sand container & 1 scoop*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *No* 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 *No* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c.)

See Nottingham Report No 13.

This engine has now been properly installed on board the vessel and examined under working conditions together with the auxiliary machinery with satisfactory results.

In my opinion the machinery is eligible for the notation of + LMC-11-41 when the electrical equipment has been examined, tested, and satisfactorily reported upon by the Society's surveyors.

See the Secretary's letter 'E' dated 14th March, 1941.

The amount of Entry Fee	.. £	<i>3</i>	: 0	9	When applied for,
<i>2/5</i> Special	...	£	<i>12</i>	: <i>4</i>	<i>21. 11. 1941</i>
Donkey Boiler Fee	...	£	:	:	When received,
Travelling Expenses (if any)	£	:	:	:	<i>19</i>

Committee's Minute

TUE. 23 DEC 1941

Assigned

See Jnl. J.E. 51167
11-41 Oil Dep. Ch.

Quelch

Engineer Surveyor to Lloyd's Register of Shipping.



© 2021

Lloyd's Register Foundation