

REPORT ON OIL ENGINE MACHINERY.

No. 82724

18 FEB 1920

Received at London Office

REMARKS.

Date of writing Report *16 Feb 1920* When handed in at Local Office *19* Port of *Spewich*
No. in Survey held at *Spawich* Date, First Survey *27 Nov. 1919* Last Survey *16 Feb 1920*
Reg. Book. *33130* on the *Single* *General vessels* *Auxiliary Engine for M.V. Narragansett* Tons { Gross *6859*
Net *4906*
Master *W. Gray* Built at *Barnes in Finesby* by whom built *Vickers Ltd* Yard No. *570* When built
Engine made at *Spawich* By whom made *Vickers-Peters Ltd* Engine No. *70* When made *1920*
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power *35* Owners Port belonging to
Nom. Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted

OIL ENGINES, &c.—Type of Engines *Vickers-Peters V.E.* 2 or 4 stroke cycle *2* Single or double acting *Single*
Maximum pressure in cylinder *280 lbs per sq in* No. of cylinders *one* No. of cranks *one* Diameter of cylinders *12"*
Length of stroke *14"* Revolutions per minute *300* Means of ignition *Hot Surface* Kind of fuel used *Brude Oil*
Is there a bearing between each crank *Each Side of Crank* Span of bearings (Page 92, Section 2, par. 7 of Rules) *13 3/4"*
Distance between centres of main bearings Is a flywheel fitted *Yes* Diameter of crank shaft journals *as per Rule 4 3/4"*
Diameter of crank pin *5 1/2"* Breadth of crank webs *as per Rule 7 3/4"* Thickness of ditto *as per Rule 3"*
Diameter of flywheel shaft *as per Rule 5 1/4"* Diameter of tunnel shaft *as per Rule* Diameter of thrust shaft *as per Rule*
Diameter of screw shaft *as per Rule* Is the screw shaft fitted with a continuous liner the whole length of the stern tube
Is the after end of the liner made watertight in the propeller boss If the liner is in more than one length are the joints burned
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 If without liners, is the shaft arranged to run in oil
Type of outer gland fitted to stern tube Length of stern bush Diameter of propeller
Pitch of propeller No. of blades state whether moveable Total surface square feet
Method of reversing *None* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *Yes* Thickness of cylinder liners *1 1/2"*
Are the cylinders fitted with safety valves *No* Means of lubrication *main bearings ring oiled* Are the exhaust pipes and silencers water cooled or lagged with non-conducting material *Silencer* If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine
No. of cooling water pumps *one* Is the sea suction provided with an efficient strainer which can be cleared within the vessel
No. of bilge pumps fitted to the main engines Diameter of ditto Stroke
Can one be overhauled while the other is at work No. of auxiliary pumps connected to the main bilge lines How driven
Sizes of pumps No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps:—In engine room
and in holds, etc. No. of ballast pumps How driven Sizes of pumps
Is the ballast pump fitted with a direct suction from the engine room bilges State size Is a separate auxiliary pump suction fitted in
Engine Room and size Are all the bilge suction pipes fitted with roses Are the roses in Engine Room always accessible
Are the sluices on Engine Room bulkheads always accessible Are all connections with the sea direct on the skin of the ship
Are they valves or cocks Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates
Are the discharge pipes above or below the deep water line Are they each fitted with a discharge valve always accessible on the plating of the vessel
Are all pipes, cocks, valves and pumps in connection with the machinery accessible at all times Are the bilge suction pipes, cocks and valves arranged so as to prevent any communication between the sea and the bilges Is the screw shaft tunnel watertight Is it fitted with a watertight door
If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork
No. of main air compressors No. of stages Diameters Stroke Driven by
No. of auxiliary air compressors No. of stages Diameters Stroke Driven by
No. of small auxiliary air compressors No. of stages Diameters Stroke Driven by
No. of scavenging air pumps Diameter Stroke Driven by
Diameter of auxiliary Diesel Engine crank shafts *as per Rule* Are the air compressors and their coolers made so as to be easy of access
AIR RECEIVERS:—No. of high pressure air receivers Internal diameter Cubic capacity of each
material Seamless, lap welded or riveted longitudinal joint Range of tensile strength
thickness working pressure by Rules No. of starting air receivers *one* Internal diameter *7 1/2"*
Total cubic capacity *2 cub ft.* Material *Steel* Seamless, lap welded or riveted longitudinal joint *Seamless*
Range of tensile strength *28/32 tons per sq in* thickness *1/4"* Working pressure *as per Rule 150 lbs per sq in* Is each receiver, which can be isolated, fitted with a safety valve as per Rule *No* Can the internal surfaces of the receivers be examined *No* Are there means provided for cleaning their inner surfaces *None* Is there a drain arrangement fitted at the lowest part of each receiver *Common drain*

FRI. 27 FEB 1925

WED. 15 APR 1925

TUE. 20 NOV. 1923

TUE. 45 DEC. 1922

TUES. 14 OCT 1924

FRI. 9 JAN 1925

1910-809M

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

HYDRAULIC TESTS:-

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	28-11-19	280 lbs per sq in	560 lbs per sq in	LLOYDS TEST 560 lbs per sq in	
COVERS	"	"	"	"	
JACKETS	27-11-19	5610 lbs per sq in	50 lbs per sq in	LLOYDS TEST 50 lbs per sq in	
PISTON WATER PASSAGES	✓	✓	✓	✓	
MAIN COMPRESSORS—1st STAGE	✓	✓	✓	✓	
2nd "	✓	✓	✓	✓	
3rd "	✓	✓	✓	✓	
AIR RECEIVERS—STARTING	(one)				
Lamp Starting	(one)				
AIR PIPES	✓	✓	✓	✓	
FUEL PIPES (Lamp) (Pump)	27-11-19	800 lbs per sq in	2000 lbs per sq in	LLOYDS TEST 2000 lbs per sq in	
FUEL PUMPS	"	"	"	"	
SILENCER	23-11-19	4 lbs per sq in	25 lbs per sq in	LLOYDS TEST 25 lbs per sq in	
WATER JACKET	"	"	"	"	
SEPARATE FUEL TANKS	✓	✓	✓	✓	

PLANS. Are approved plans forwarded herewith for shafting Yes.

Receivers (See letter)

Service Separate Tanks (See letter)

SPARE GEAR

The foregoing is a correct description,

FOR VICKERS-PETTERS LTD.

Manufacturer.

W. Lumsden

16/2/20

Dates of Survey while building
During progress of work in shops -
During erection on board vessel -
Total No. of visits

Dates of Examination of principal parts—Cylinders 28-11-19 Covers 28-11-19 Pistons 27-11-19 Rods — Connecting rods 27-11-19

Crank shaft 5-1-20 Thrust shaft Tunnel shafts ✓ Screw shaft ✓ Propeller ✓ Stern tube ✓ Engine sealings

Engines holding down bolts Completion of pumping arrangements ✓ Engines tried under working conditions

Completion of fitting sea connections ✓ Stern tube ✓ Screw shaft and propeller ✓

Material of crank shaft Steel Identification Mark on Do. 377 R. Material of thrust shaft ✓ Identification Mark on Do. ✓

Material of tunnel shafts ✓ Identification Marks on Do. ✓ Material of screw shafts ✓ Identification Marks on Do. ✓

Is the flash point of the oil to be used over 150° F.

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 built under Special Survey, the materials & workmanship being sound & good. The various parts have been hydraulically tested with satisfactory results. After erection a six hours full power shop trial was carried out and the engine proved satisfactory. On being dismantled the working parts were examined and found satisfactory.

The engine has now been forwarded to Messrs Vickers, Barrow, & efficient fitted on board, coupled to a continuous wound dynamo of 234 Amps. at 110 Volts.

The starting air bottles have been tested to 300 lbs & found tight, & these have been fitted with a relief valve set at 150 lbs per sq in. The fuel oil tank was tested to 10 lbs & found tight & its gauge glass has been fitted with an automatic shut off cock at the lower end.

Robert Rae & John Houston
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 5 : 0 : 0
Special ... £ 5 : 0 : 0
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 2/6/1920
When received, 28-6-20

Committee's Minute

TUE JUN. 1 1920

Assigned

See Brw 1847

FRI DEC. 31 1920

FRI. 1 FEB. 1921

FRI. 5 MAY. 1922

WED 3 AUG. 1921

FRI. 3 FEB. 1922

TUE AUG. 5 1922

Lloyd's Register
Foundation