

REPORT ON OIL ENGINE MACHINERY.

No. 1901

Received at London Office

TUE 24 MAY 1921

Date of writing Report 14th May 1921 When handed in at Local Office 23rd May 1921 Port of Barrow-in-FurnessNo. in Survey held at Barrow-in-Furness Date, First Survey 25th Nov 1919 Last Survey 12th May 1921
Reg. Book. Number of Visits 15781674 on the ^{Single} Twin Screw vessel "SEMINOLE" Tons Gross 6923.12
Net 4862.6

Master G. C. Hudson Built at Barrow-in-Furness By whom built Vickers Ltd Yard No. 579 When built 1921

Engines made at Barrow-in-Furness By whom made Vickers Ltd Engine No. 579 When made 1921

Auxiliary Boilers made at Barrow-in-Furness By whom made Vickers Ltd Boiler No. 579 When made 1921

Brake Horse Power 2500 Owners Anglo-American Oil Co Ltd Port belonging to Barrow

Nom. Horse Power as per Rule 562 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes

L ENGINES, &c.—Type of Engines Twin Screw Diesel 2 or 4 stroke cycle 4 Single or double acting Single

Maximum pressure in cylinders 500 lbs per sq in No. of cylinders 12 No. of cranks 12 Diameter of cylinders 24 1/2"

Length of stroke 39" Revolutions per minute 118 Means of ignition Diesel type of Engine Kind of fuel used F.P. above 150° Fahr.

Where a bearing between each crank yes Span of bearings (Page 92, Section 2, par. 7 of Rules) 35 1/2"

Distance between centres of main bearings 4'-3 1/2" Is a flywheel fitted yes on crank shaft coupling Diameter of crank shaft journals as per Rule 14.85" as fitted 15 1/2"

Diameter of crank pins 15 1/2" Breadth of crank webs as per Rule 19.75" as fitted 21" Thickness of ditto as per Rule 8.3" as fitted 9.55"

Diameter of flywheel shaft as per Rule as fitted Diameter of tunnel shaft as per Rule 12.47" as fitted 14" Diameter of thrust shaft as per Rule 13.1" as fitted 14"

Diameter of screw shaft as per Rule 14" as fitted 14 5/8" Is the screw shaft fitted with a continuous liner the whole length of the stern tube No

After end of the liner made watertight in the propeller boss yes If the liner is in more than one length are the joints burned

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

Liners are fitted, is the shaft lapped or protected between the liners If without liners, is the shaft arranged to run in oil yes

Outer gland fitted to stern tube Ben. Vickers Stern tube Length of stern bush 5'-0 3/4" Diameter of propeller 12'-3"

Propeller 11'-3" No. of blades 3 state whether moveable No Total surface 44 square feet

Separate cams & levers suitably engaged by eccentric movement of fulcrum shaft and of reversing lever by servo is a governor or other arrangement fitted to prevent racing of the engine when declutched Thickness of cylinder liners 2 1/2" at top

Cylinders fitted with safety valves yes Means of lubrication Forced Are the exhaust pipes and silencers water cooled or lagged with

Acting 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

Exhaust led up funnel No. of cooling water pumps 2 Is the sea suction provided with an efficient strainer which can be cleared

Vessel yes No. of bilge pumps fitted to the main engines One each engine Diameter of ditto 6" Stroke 12" Double acting

Overhauled while the other is at work yes No. of auxiliary pumps connected to the main bilge lines Two How driven Steam

Bilge 10" x 8" x 12" duplex Ballast 7" x 8" x 12" No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room 2-3 1/2", 1-6",

S, etc. 2-3 1/2" in Forehold 1-6" in Forehold No. of ballast pumps One How driven Steam Sizes of pumps 7" x 8" x 12" duplex

Is a separate auxiliary pump suction fitted in Is a separate auxiliary pump suction fitted in

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IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded?

Yes

HYDRAULIC TESTS:—

DESCRIPTION.	DATE OF TEST.	WORKING PRESSURE.	TEST PRESSURE.	STAMPED.	REMARKS.
ENGINE CYLINDERS	7-4-20 to 1-6-20 (12 visits)	500 lbs	1000 lbs	Tested to 1000 lbs. J.H.	
COVERS	9-6-20 to 10-9-20 (15 ")	15 "	30 "	Tested to 30 lbs J.H.	Also tested explosion test of covers to 1000 lbs.
JACKETS	6-5-20 to 29-8-20 (12 ")	15 "	30 "	" "	
PISTON WATER PASSAGES	22-7-20 to 27-9-20 (6 ")	20 "	100 "	Tested to 100 lbs J.H.	
MAIN COMPRESSORS—1st STAGE	Made at Peterboro'				
2nd "					
3rd "					
AIR RECEIVERS—STARTING	25-10-20 to 1-11-20 (5 visits)	600 lbs.	800 lbs.	LLOYD'S TEST 800 lbs. W.P. 600 lbs. J.H.	
INJECTION				Tested to 1000 lbs. J.H.	
AIR PIPES	7-12-20 to 20-4-21 (6 visits)	600 lbs	1000 lbs.	Tested to 6000 lbs J.H.	
FUEL PIPES	29-10-20 to 20-4-21 (6 ")	4000 "	6000 lbs.	Tested to 6000 lbs J.H.	
FUEL PUMPS	23-11-20	4000 "	6000 lbs.	Tested to 6000 lbs J.H.	
SILENCER	Not jacketed	✓	✓	✓	
WATER JACKET					Ready use tank for Peter Engine.
SEPARATE FUEL TANKS	20-4-21	Head of oil	10 lbs.	✓	

PLANS. Are approved plans forwarded herewith for shafting

Yes

Receivers

Yes

Separate Tanks

✓

SPARE GEAR Two cylinder covers complete with all valves, valve seats, springs etc fitted; 2 cylinder liners; 6 Inlet valves, 6 Exhaust Valves, 2 Spray valves, 12 Spray valve spindles, 24 Spray valve nozzles, one installation of springs for Inlet, Exhaust, Spray, air starting & relief valves, one installation of all other springs fitted, 2 piston complete with skirt & rings, 96 Piston Rings, 1 pair crank shaft bearings with studs & nuts, 2 pairs of crank pin bearings with bolts & nuts, 2 double pairs of crosshead bearings, 2 each inlet & exhaust a/c crank pin bearings with bolts & nuts, 1 installation of fuel cam toe pieces & 2 air starting cam, one each inlet & exhaust a/c cam, 1 installation of fuel oil pump plungers, valves, seats, guides & springs, 1 installation of water circulating piston cooling, bridge & sanitary pump valves, one installation of piston rings for ditto; 2 sets of piston cooling pipes for two cylinders, 2 pairs crank shaft & 3 pairs connecting rod brasses for bearing oil pumps, 6 valves & seats for ditto; 1 set of coupling bolts, 1 set of cyl. cover studs & nuts, suitable lengths of fuel & air delivery piping & 2 air bolts & nuts, Air Compressor, 1 pair main bearing brasses, 1 pair crank pin brasses, 2 air piston rings & 2 air delivery valves, Peter Engine, 1 set of main bearing bushes, 1 bottom end bearing, 1 cyl. head, vapouriser & starter valve. Aux. Boiler, 1 S.V. spring, 2 feed check valves, & for feed pump. 2 sets of piston rings. Also for main engine 1 propeller shaft & 1 installation of ball races for vertical shaft drive.

The foregoing is a correct description,
FOR VICKERS LIMITED:

James Dugan
Manufacturer.

FOR & ON BEHALF OF A DIRECTOR. Has 1919-25-26, Dec 1-4-10-15 Jan 1920 12-15-19-20-28-30 Feb 4-9-26-31 Apr 7-9-16-19-22-23-24

Dates of Survey while building: During progress of work in shops - May 3-4-5-7-12-13-17-19-21-26-27 June 2-9-11-12-16-17-18-30 July 1-2-5-6-7-9-12-14-15-19-22-23-27-28-29 Aug 9-11-14-23-24-26 Dec 1-2-6-7-10-11 (Date of launch) 13-14-15-20-21-22 Jan 1921 5-10-11-17-20-21-25-27 Feb 2-11-15-17-23-24 Mar 1-4-8-17-22-24 Apr 1-12-13-18-19-20-21-22-26 May 3-4-6-10-11-12

Total No. of visits 157

Dates of Examination of principal parts—Cylinders 7-4-20 to 1-6-20 Covers 9/6/20 to 7/9/20 Pistons 27/7/20 to 27/9/20 Rods 19/8/20 Connecting rods 28/7/20 Crank shaft 14-7-20 S. Thrust shaft 15-12-20 Tunnel shafts 24-8-20 Screw shafts 2-9-20 Propeller 3-2-20 Stern tube 26-11-20 Engine seatings 24-11-20

Engines holding down bolts 18-4-21 Completion of pumping arrangements 10-5-21 Engines tried under working conditions 3-5-21, 12-5-21

Completion of fitting sea connections 7-12-20 Stern tube 7-12-20 Screw shaft and propellers 10-12-20
Material of crank shaft Steel Identification Mark on Do. LLOYD'S N°189 J.H.
Material of Inter. shafts Steel Identification Marks on Do. LLOYD'S N°189 J.H.
Material of thrust shaft Steel Identification Mark on Do. LLOYD'S N°189 J.H.
Material of screw shafts Steel Identification Marks on Do. LLOYD'S N°189 J.H.

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

Is this machinery duplicate of a previous case Yes If so, state name of vessel M.V. "Naraganeett"

General Remarks (State quality of workmanship, opinions as to class, &c.) The Machinery of this Vessel has been constructed under special survey, & in accordance with the Rules & approved plans. The materials of construction have been tested as required & found sound, & the workmanship good throughout. The cylinder liners & jackets, the cover jackets & piston water passages, the air receivers & air pipes, the fuel pumps, pipes & connections, have been tested as required & found tight & sound. The Machinery has been efficiently fitted on board, & on completion was tried under full power in dock & at sea with satisfactory results. Manoeuvring trials were carried out with satisfactory results.

The Machinery of this Vessel is, in my opinion, eligible to be classed + L.M.C. 5-2
"Fitted for Oil Fuel, F.P. above 150° Fahr.", in the Register Book.

The amount of Entry Fee ... £ 6 : 0 : 0 When applied for, 21st May 1921.
Special ... £ 103 : 2 : 0
Donkey Boiler Fee ... £ 9 : 16 : 0 When received, 21-7-21
Travelling Expenses (if any) £

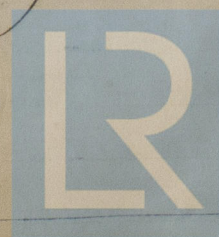
Committee's Minute

Assigned

+ L.M.C. 5.21

oil Engines

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



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Foundation