

REPORT ON OIL ENGINE MACHINERY.

No. 29118.

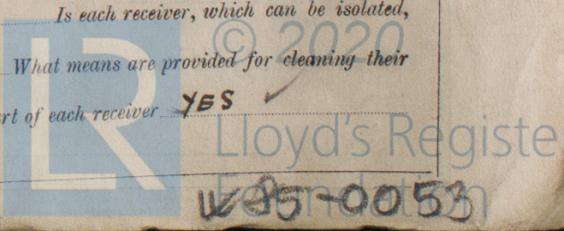
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Date of writing Report 19 When handed in at Local Office 21st Aug 1925 Port of SUNDERLAND. Date, First Survey 30 Oct 1924 Last Survey 21st Aug 1925 Number of Visits 59

No. in Survey held at SUNDERLAND. Date, First Survey 30 Oct 1924 Last Survey 21st Aug 1925 Number of Visits 59
on the Single Screw vessels "SYLVAFIELD" MACHINERY AFT. Tons Gross 5709 Net 3392
Master Built at Sunderland By whom built Sir James Laing Yard No. 693 When built 1925
Engines made at Sunderland By whom made W. Dredford & Sons Engine No. 583 When made 1925
Donkey Boilers made at Stockton-on-Tees By whom made Riley Bros Ltd Boiler No. 5570 When made 1925
Brake Horse Power 2500 Owners Hunting & Son Port belonging to Newcastle
Nom. Horse Power as per Rule 640 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES

OIL ENGINES, &c. Type of Engines Dredford opposed Piston 2 or 4 stroke cycle 2 Single or double acting Single
Maximum pressure in cylinders 568 lbs No. of cylinders 4 No. of cranks 4 (3 valves) Diameter of cylinders 580 mm
Length of stroke 2 x 1160 mm Revolutions per minute 87 Means of ignition Jump of Compression Kind of fuel used Crude oil
Is there a bearing between each crank YES Span of bearings (Page 92, Section 2, par. 7 of Rules) 1050 mm
Distance between centres of main bearings Side Cr. ends 1330 mm Is a flywheel fitted YES Diameter of crank shaft journals as per Rule 400 mm as fitted 430 mm
Diameter of crank pins 460 mm Breadth of crank webs as per Rule 650 as fitted 650 Thickness of ditto as per Rule 260 mm as fitted 260 mm
Diameter of flywheel shaft as per Rule 400 mm as fitted 430 mm Diameter of tunnel shaft as per Rule 370 mm as fitted 382 mm Diameter of thrust shaft as per Rule 400 mm as fitted 430 mm
Diameter of screw shaft as per Rule 400 mm as fitted 430 mm Is the screw shaft fitted with a continuous liner the whole length of the stern tube YES
Is the 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 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 If without liners, is the shaft arranged to run in oil YES
Type of outer gland fitted to stern tube NONE Length of stern bush 5'-10" Diameter of propeller 17'-0"
Pitch of propeller 15'-0" No. of blades 4 state whether moveable No Total surface 91 square feet
Method of reversing Compd air Is a governor or other arrangement fitted to prevent racing of the engine when declutched YES Thickness of cylinder liners 1" Reinforced
Are the cylinders fitted with safety valves YES Means of lubrication Grease 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 Funnel
No SEA WATER within the vessel THRO JACKET No. of bilge pumps fitted to the main engines NONE Diameter of ditto Stroke
Can one be overhauled while the other is at work YES No. of auxiliary pumps connected to the main bilge lines 3 How driven Hand driven
Sizes of pumps 2 @ 40 tons 1 @ 200 tons per hr No. and sizes of suction connected to both main bilge pumps and auxiliary bilge pumps:—In engine room 2 @ 3 1/2" 1 @ 8"
and in holds, etc. 2 @ 2 1/2" in 1st hold No. of ballast pumps 1 How driven Hand driven Sizes of pumps 200 tons per hr.
Is the ballast pump fitted with a direct suction from the engine room bilges YES State size 8" Is a separate auxiliary pump suction fitted in Engine Room and size YES 3 1/2" x 8" Are all the bilge suction pipes fitted with roses MUD BOWLS + STRAIGHT TAIL PIPES Are the roses in Engine Room always accessible YES
Are the sluices on Engine Room bulkheads always accessible NONE Are all connections with the sea direct on the skin of the ship YES
Are they valves or cocks With Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates YES
Are the discharge pipes 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 all pipes, cocks, valves and pumps in connection with the machinery accessible at all times YES Are the bilge suction pipes, cocks and valves arranged so as to prevent any communication between the sea and the bilges YES Is the screw shaft tunnel watertight NONE 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

AIR RECEIVERS:—No of high pressure air receivers NONE Internal diameter Range of tensile strength
material Seamless, lap welded or riveted longitudinal joint
thickness working pressure by Rules No. of starting air receivers 2 Internal diameter 3'-6"
Total cubic capacity 220 cu ft Material Steel Seamless, lap welded or riveted longitudinal joint Riveted
Range of tensile strength 28-32 tons thickness 1/4" Working pressure by rules 610 lbs 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 YES What means are provided for cleaning their inner surfaces Man hole 16 x 12" Is there a drain arrangement fitted at the lowest part of each receiver YES



W 95-00531

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	Plain cylindrical form soundness ascertained by inspection				
COVERS	NONE			583 LLOYD'S TEST	
JACKETS	31.3.25 to 27.4.25	4 lbs	30 lbs	30 lbs G.A.H	
PISTON WATER PASSAGES	7.5.25 to 22.5.25	30 lbs	100 lbs	583 LLOYD'S TEST 100 lbs G.A.H	
MAIN COMPRESSORS—1st STAGE	✓				
2nd "	✓				
3rd "	✓				
AIR RECEIVERS—STARTING	8.5.25	600 lbs	800 lbs	583 LLOYD'S TEST 800 lbs G.A.H	
INJECTION	✓				
AIR PIPES	4.6.25 to 18.6.25	600 lbs	1000 lbs	583 LLOYD'S TEST 1000 lbs G.A.	
FUEL PIPES	22.5.25	8000 lbs	12000 lbs	583 LLOYD'S TEST 12000 lbs G.A.	
FUEL PUMPS	12.6.25	8000 lbs	12000 lbs	583 LLOYD'S TEST 12000 lbs G.A.	
SILENCER	Lagged with asbestos, open to atmosphere				
WATER JACKET	NONE			583 LLOYD'S TEST	
SEPARATE FUEL TANKS	12.6.25, 19.6.25	NIL.	10 lbs	10 lbs G.A.	

PLANS. Are approved plans forwarded herewith for shafting **YES** Receivers SAME AS "PACIFIC TRADER" Separate Tanks **YES**

SPARE GEAR 1 Piston complete with skirt, rings, studs, 2 centre con. rod top end bearings complete with bolts, nuts, 1 centre con. rod bottom end bearing complete with bolts, nuts, 1 side crosshead complete with bolts, nuts, 1 side con. rod bottom end bearing complete with bolts, nuts, 1 main bearing complete with bolts, nuts, 1 set coupling bolts for crank shaft & 1 set for tunnel shaft, 1 spur & bevel wheel for cam shaft drive, 4 fuel valves complete, 1 relief valve main exhaust, 6 Pads for thrust, Scavenge pump & delivery valves, 1 fuel pump body complete, 1 Tail shaft, 1 Propeller, 1 Strain shaft length for crank shaft. Compressor Spare Parts: Main bearing & crank brackets, air inlet & delivery valves, piston rings, assorted bolts & nuts, Iron various size.

WILLIAM DOXFORD & SONS Limited,
The foregoing is a correct description,
W. Maxwell Secretary

Manufacturer.

Dates of Survey while building: During progress of work in shops - 19.2.24, Oct. 30, Nov. 5, 11, 19, Dec. 1, 5, 22, 25, Jan. 6, 9, 20, 26, 29, Feb. 4, 10, 16, 19, Mar. 4, 12, 17, 18, 19, 25
During erection on board vessel - 21, 22, 26, 27, 16, 17, 20, 22, 24, May 4, 8, 13, 22, 28, 29, June 4, 9, 12, 16, 18, 19, 22, 25, 30, July 2, 8, 14, 15, Aug. 11, 12, 13, Oct. 13, 59
Total No. of visits 59

Dates of Examination of principal parts—Cylinders 27.4.25 Covers ✓ Pistons 8.5.25 Rods 13.5.25 Connecting rods 29.5.25
Crank shaft 26.1.25 Thrust shaft 12.6.25 Tunnel shafts 12.6.25 Screw shaft 12.6.25 Propeller 29.5.25 Stern tube 31.3.25 Engine seatings 17.4.25
Engines holding down bolts 2.7.25 Completion of pumping arrangements 7.7.25 Engines tried under working conditions 15.7.25
Completion of fitting sea connections 17.4.25 Stern tube 17.4.25 Screw shaft and propeller 22.6.25
Material of crank shaft *Steel* Identification Mark on Do. 2086A, 8V.L Material of thrust shaft *Steel* Identification Mark on Do. 583 G.A.
Material of tunnel shafts *Steel* Identification Marks on Do. 583 G.A. Material of screw shafts *Steel* Identification Marks on Do. 583 G.A.

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 "PACIFIC TRADER"

General Remarks (State quality of workmanship, opinions as to class, &c.)
The machinery of this vessel has been built under special survey, the materials and workmanship are sound and good and under the vessel ship in our opinion to have record of L.M.C. 8-25 oil engine
Vessel dry docked in Misaki dry dock South Shires. Propeller and fastenings examined and found satisfactory.
Walt

The amount of Entry Fee ... £ 6 :
Special air Receivers ... £ 107 :
Donkey Boiler Fee ... £ 4 : 4
Travelling Expenses (if any) £ :
When applied for, 24 JULY 1925
When received, 20 AUG. 1925

E. A. Hake + G. Anderson
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned
+ Ltr. 6.10.25 C.L.
oil engines.



SUNDERLAND
Certificate (if required) to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minute.)