

Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY

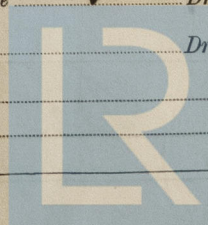
No. 19373

Received at London Office

JUL 1935

Date of writing Report 22nd June 1935 When handed in at Local Office 2.7.35 Port of Grimby
No. in Survey held at Lincoln Date, First Survey 9th Sept 1932 Last Survey 20th June 1935
Reg. Book. Single on the Triple Screw vessel Oil Tank Barge SEVERN TRAVELLER Tons Gross 92
Quadruple
Built at Bristol By whom built C. Hill & Co. Yard No. 232 When built 1935
Engines made at Lincoln By whom made Ruston & Hornsby, Ltd. Engine No. 175181 When made 1935
Donkey Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓
Brake Horse Power 120 Owners Severn & Canal carrying Co. Port belonging to Bristol
Nom. Horse Power as per Rule 24.9 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted Yes
Trade for which vessel is intended ✓ [Type - H.V.C.R.M.]

IL ENGINES, &c. Type of Engines Airless Injection, Cold Starting 2 or 4 stroke cycle 4 Single or double acting Single
Maximum pressure in cylinders 650 lb. Diameter of cylinders 8" Length of stroke 10 3/4" No. of cylinders 4 No. of cranks 4
Mean Indicated Pressure 80 lb.
Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 9 1/2" Is there a bearing between each crank Yes
Revolutions per minute 600 Flywheel dia. 2'-10" Weight 10 1/2 Cwts Means of ignition Compression Kind of fuel used Crude oil
Crank Shaft, dia. of journals as approved Crank pin dia. 4 3/4" Crank Webs Mid. length breadth 8" Thickness parallel to axis ✓
as fitted 6" Mid. length thickness 2 1/2" Thickness around eyehole ✓
Flywheel Shaft, diameter as approved Intermediate Shafts, diameter as per Rule 3.19 Thrust Shaft, diameter at collars as approved
as fitted 6" as fitted 3 1/2"
Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube shaft fitted with a continuous liner ✓
as fitted as fitted 3 1/2" screw
Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per rule Is the after end of the liner made watertight in the
as fitted 13/32 as fitted 3" propeller boss ✓
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner ✓
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 ✓ Is an approved Oil Gland or other appliance fitted at the after end of the tube
shaft No If so, state type ✓ Length of Bearing in Stern Bush next to and supporting propeller 17 1/2
Propeller, dia. 49" Pitch 42" No. of blades 4 Material CI whether Moveable No Total Developed Surface ✓ sq. feet
Method of reversing Engines Reverse Gears Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication
Forced Thickness of cylinder liners 3/4" Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with
non-conducting material water If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine ✓
Cooling Water Pumps, No. one Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓
Bilge Pumps worked from the Main Engines, No. one Diameter 2 1/2" Stroke 2 3/4" Can one be overhauled while the other is at work ✓
Pumps connected to the Main Bilge Line { No. and Size one 2"
How driven off engine
Is the cooling water led to the bilges ✓ 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 size ✓ Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size one geared
Are two independent means arranged for circulating water through the Oil Cooler ✓ Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
Pumps, No. and size:—In Machinery Spaces 1-2 off engine In Pump Room ✓
In Holds, &c. 4" hand pump & cross pump 2" for peak 2 1/2" hand pump & cross pump
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-2" hand Rotary Hand pump
Are all the Bilge Suction pipes in Holds and Tanks well fitted with strum-boxes ✓ Are the Bilge Suctions in the Machinery Spaces
ed from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges ✓
Are all Sea Connections fitted direct on the skin of the ship ✓ Are they fitted with Valves or Cocks Both
Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates ✓ 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 ✓ Are the Blow Off Cocks fitted with a spigot and brass covering plate ✓
What pipes pass through the bunkers ✓ How are they protected ✓
What pipes pass through the deep tanks ✓ Have they been tested as per Rule ✓
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and boiler mountings accessible at all times ✓
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 ✓ Is the Shaft Tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from ✓
If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork ✓
Main Air Compressors, No. one No. of stages one Diameters 3" Stroke 3 1/2" Driven by belt to main engine
Auxiliary Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓
Small Auxiliary Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by ✓
Scavenging Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓
Auxiliary Engines crank shafts, diameter as per Rule
as fitted



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AIR RECEIVERS:—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*.

High Pressure Air Receivers, No. *one*

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. *one*

Total cubic capacity *11.2 Cub. ft.*

Internal diameter *24"*

thickness *5/16"*

Seamless, lap welded or riveted longitudinal joint *seamless*

Material *sm. steel*

Range of tensile strength *24/30 tons*

Working pressure by Rules *300 lbs.*

Actual *300 lbs.*

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 *7.9.31.*
(If not, state date of approval)

Receivers *30.11.34.*

Separate Tanks *✓*

Donkey Boilers *✓*

General Pumping Arrangements *✓*

Oil Fuel Burning Arrangements *✓*

SPARE GEAR.

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

State the principal additional spare gear supplied *✓*

The foregoing is a correct description,

Mr. R. Mions

YTM

1/1/35.

Manufacturer.

Dates of Survey while building
During progress of work in shops--
1932. Aug 2, 12, 22, 26, 30, Sep 26, Oct 3, 10, 13, 21, 28, Nov 11, 14, 16, 25, Dec 13
1935 Feb 25, Mar 7, Apr 8, 15, 18, 25, May 2, 13, 27, 30, Jun 3, 6, 17, 19, 20
During erection on board vessel--
1935 June 28, July 1, 2, 9, 4, 6, 8, 10, 17, Aug 6
Total No. of visits *31 + 10 Total 41.*

Dates of Examination of principal parts—Cylinders *8.4.35.* Covers *13.5.35.* Pistons *8.4.35.* Rods *✓* Connecting rods *25.4.35.*
Crank shaft *14.11.32, 8.4.35.* Flywheel shaft *14.11.32.* Thrust shaft *29.5.35.* Intermediate shafts *✓* Tube shaft *✓*
Screw shaft *4.7.35.* Propeller *4.7.35.* Stern tube *1-7-35.* Engine seatings *15-6-35.* Engines holding down bolts *18-7-35.*
Completion of fitting sea connections *1-7-35.* Completion of pumping arrangements *1-7-35.* Engines tried under working conditions *20.6.35.*

Crank shaft, Material *Sm. steel* Identification Mark *3107 MK.* Flywheel shaft, Material *Sm. steel* Identification Mark *3107 MK.*
Thrust shaft, Material *Sm. steel* Identification Mark *1488 K.K.* Intermediate shafts, Material *✓* Identification Marks *✓*
Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *SM. STEEL* Identification Mark *2104*
H.T.16

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 *✓*

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 *✓*

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. *The workmanship & materials are good.*)

The engines have been built under Special Survey in accordance with the Rules & Approved Plans.

Trials were carried out at the Maker's works under brake load & all found satisfactory.

The engines are to be fitted on board a tanker barge, for The Severn & Canal Carrying Co. of Bristol.

This engine has now been fitted & secured on board according to the Rules, & under working conditions found satisfactory.

See R.F.B. 10.2.34. Ref. 3720/P14/1104.

The amount of Entry Fee

Special

Donkey Boiler Fee

Travelling Expenses (if any)

When applied for,

When received,

Committee's Minute

Assigned

FRI. 30 AUG 1935

See Brs. J.E. 13281

H. L. Rilditch & R. L. Goyne
Engineer Surveyor to Lloyd's Register of Shipping.



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