

## REPORT ON OIL ENGINE MACHINERY.

No. 29318

Date of writing Report

When handed in at Local Office

-3 NOV. 1926

Required at London Office

-4 NOV. 1926

No. in  
Reg. Book.Survey held at Sunderland.

Port of

Sunderland.

Date, First Survey

25 Jan

Last Survey

2nd Nov 1926

Number of Visits

112

Single  
on the Triple  
Screw vesselsM.V. "SILVERBEECH"Tons  
Gross 5311  
Net 3096Built at SunderlandBy whom built Li. J. Laine & Sons Ltd.

Yard No. 695 When built 1926

Engines made at SunderlandBy whom made Wm. Doulton & Sons Ltd.

Engine No. 158 When made 1926

Donkey Boilers made at AmmanBy whom made Wm. Doulton & Sons Ltd.

Boiler No. When made 1926

Brake Horse Power 5000Owners Silver Line, Ltd.Port belonging to London.Nom. Horse Power as per Rule 882Is Refrigerating Machinery fitted for cargo purposes NoIs Electric Light fitted Yes

## OIL ENGINES, &amp;c. Type of Engines

Joyce, Opposed PistonDouble Injection2 or 4 stroke cycle 2Single or double acting SingleMaximum pressure in cylinders 40 atmosNo. of cylinders 4Diameter of cylinders 180 mm (7 1/8")No. of cranks 4Length of stroke 2 x 360 mmIs there a bearing between each crank YesSpan of bearings, adjacent to the Crank, measured from inner edge to inner edge 1220 mmRevolutions per minute 90Flywheel dia. 10' 6"Weight 19 3/4 tonsMeans of ignition CompressionKind of fuel used CRUDE OILas per Rule 488 mmCrank pin dia. 540 mm

Crank Webs

Mid. length breadth 220 mmMid. length thickness 310 mmThickness parallel to axis 310 mmCrank Shaft, dia. of journals 488 mmas fitted 500 mmFlywheel Shafts, diameter 488 mmas fitted 500 mmIntermediate Shafts, diameter 405 mmas fitted 410 mmThrust Shaft, diameter at collars 488 mmas fitted 500 mmTube Shafts, diameter 488 mmas fitted 500 mmScrew Shaft, diameter 444 mmas fitted 460 mmIs the after end of the liner made watertight in the propeller boss YesIf the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner YesIf 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 YesIf two liners are fitted, is the shaft lapped or protected between the liners YesIs an approved Oil Gland or other appliance fitted at the after end of the tube shaft YesLength of Bearing in Stern Bush next to and supporting propeller 8' 11"Propeller, dia. 18' 3"Pitch 17' 3"No. of blades 4Material BRONZEwhether Moveable NoMethod of reversing Engines COMPRESSED AIRIs a governor or other arrangement fitted to prevent racing of the engine when detached YesTotal Developed Surface 105 sq. feetMeans of lubrication FORCEDThickness of cylinder liners 1/8" STEEL RINGSAre the cylinders fitted with safety valves YesAre the exhaust pipes and silencers water cooled or lagged with non-conducting material YesIf the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine FUNNEL EXHAUST, FRESH WATER COOLINGCooling Water Pumps, No. 2Is the sea suction provided with an efficient strainer which can be cleared within the vessel YesBilge Pumps fitted to the Main Engines, No. 1Diameter 12"Stroke 12"Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line

No. and Size 1, 50 TONS PER HR.How driven ELECTRIC MOTORSLubricating Oil Pumps, including Spare Pump, No. and size 2, 50 TONS PER HOURAre two independent means arranged for circulating water through the Oil Cooler YesSuctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Engine and Boiler Room 4, 2 1/2" ON BILGE LINE, 1, 2 1/2" DIRECT TO BALLAST PUMPIn Holds, &c. 4, 2 1/2" AFTER HOLD, 4, 2 1/2" FORWARD, 2, 2 1/2" IN FORWARD & IN AFT DEEP TANKSIndependent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1, 2 1/2" & 1, 2 1/2"Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes YesAre the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges YesAre all Sea Connections fitted direct on the skin of the ship YesAre they fitted with Valves or Cocks BOTHAre they fixed sufficiently high on the ship's side to be seen without lifting the platform plates YesAre the Overboard Discharges above or below the deep water line ABOVEAre they each fitted with a Discharge Valve always accessible on the plating of the vessel YesAre the Blow Off Cocks fitted with a spigot and brass covering plate YesWhat pipes pass through the bunkers NONEHow are they protected YesWhat pipes pass through the deep tanks YesHave they been tested as per Rule YesAre all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times YesIs 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 YesIs the Shaft Tunnel watertight YesIs it fitted with a watertight door Yesworked from TOP PLATFORMIf a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork YesMain Air Compressors, No. 2No. of stages 3Diameters 1, 12 1/2" x 3 1/2" & 8"Auxiliary Air Compressors, No. ONENo. of stages 2Diameters 4 3/4" & 1 3/4"Stroke 4"Driven by ELECTRIC MOTORSmall Auxiliary Air Compressors, No. ONENo. of stages 2Diameters 4 3/4" & 1 3/4"Stroke 4"Driven by PARAFFIN ENGINEScavenging Air Pumps, No. ONEDiameter 1800 mmStroke 1220 mmDriven by MAIN ENGINEAuxiliary Engines crank shafts, diameter 174 mmas fitted 180 mmAIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule YesCan the internal surfaces of the receivers be examined YesWhat means are provided for cleaning their inner surfaces MANHOLE DOORIs there a drain arrangement fitted at the lowest part of each receiver YesHigh Pressure 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. TWOTotal cubic capacity 350 CUB FEETInternal diameter 4' 1 1/2"thickness 1 1/2"Seamless, lap welded or riveted longitudinal joint RIVETEDMaterial STEELRange of tensile strength 28 TO 32 TONSWorking pressure by Rules —

Lloyd's Register Foundation

W1157-0036



Rpt. 4c.

Date of writing Report

No. in Survey  
Reg. Book.

90861 Sup.

Built at

Owners

Oil Engines

Generators

No. of Sets

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OIL ENGI.

Maximum pressure

Span of bearings,

Revolutions per min.

**Crank Shaft, &**

**Flywheel Sha**

*Is a governor or*  
*Are the cylinders*  
**Cooling Water**  
**Lubricating Oil**

*Has the Auto*  
**Generators,**  
*are they over co*  
*is an adjustable*  
*are they so spa*

PLANS. A  
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GUNDERLAND.