

REPORT ON OIL ENGINE MACHINERY.

No 72728

Date of writing Report 19. 4. 1948 When handed in at Local Office 19. 4. 1948 Port of Glasgow

Received at London Office 21 APR 1948

No. in Survey held at Reg. Book.

Date, First Survey 23. 7. 47 Last Survey 14. 11. 1947

Number of Visits 11

Single
on the Twin
Triple
Quadruple
Screw vessel

M.V. "CEMENCO"

Tons
Gross
Net

Built at Hull. Hull

By whom built Henry Sean. Ltd.

Yard No. 561 When built 1947.

Engines made at Glasgow.

By whom made British Sola Engine Ltd.

Engine No. 659. When made 1947.

Donkey Boilers made at

By whom made

Boiler No. When made

Brake Horse Power 700

Owners Associated Portland Cement Co.

Port belonging to

Nom. Horse Power as per Rule 184

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which vessel is intended Coasting

OIL ENGINES, &c.—Type of Engines Heavy oil M. A. S. M. Type.

Maximum pressure in cylinders 855 lb/sq. in. 13 1/8" 2 or 4 stroke cycle 2 Single or double acting Single

Mean Indicated Pressure 100 lb/sq. in. Diameter of cylinders 340 7/8" Length of stroke 570 7/8" No. of cylinders 5 No. of cranks 5

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 484 7/8" Is there a bearing between each crank

Revolutions per minute 220 Flywheel dia. 1186 7/8" Weight 1250 lb Means of ignition Compression Kind of fuel used Diesel.

Crank Shaft, { Solid forged dia. of journals as per Rule 28.5 7/8" as fitted 220 7/8" Crank pin dia. 220 7/8" Crank Webs Mid. length breadth 308.3 7/8" Thickness parallel to axis

Flywheel Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule as fitted Thrust Shaft, diameter at collars as per Rule as fitted 167 7/8"

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the tube screw shaft fitted with a continuous liner

Bronze Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as per Rule as fitted Is the after end of the liner made watertight in the

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 If so, state type Length of Bearing in Stern Bush next to and supporting propeller

Propeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet

Method of reversing Engines Diesel Is a governor or other arrangement fitted to prevent racing of the engine when declutched Means of lubrication

Thickness of cylinder liners 25.5 7/8" Are the cylinders fitted with safety valves Are the exhaust pipes and oil pipes water cooled or lagged with

non-conducting material 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 100 7/8" Stroke 140 7/8" Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line { No. and Size How driven

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 Two

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 In Pump Room

In Holds, &c.

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Are the Bilge Suctions in the Machinery Spaces

and 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

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

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

That pipes pass through the bunkers How are they protected

That 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 all 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

On 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 Two Diameters 175 7/8" 70 Stroke 350 7/8" Driven by M. E.

Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

What provision is made for first Charging the Air Receivers

Savenging Air Pumps, No. ONE Diameter 860 7/8" Stroke 350 7/8" Driven by M. E.

Auxiliary Engines crank shafts, diameter as per Rule as fitted No. Position

Have the Auxiliary Engines been constructed under special survey Is a report sent herewith

AIR RECEIVERS:—Have they been made under survey

State No. of Report or Certificate 63198

Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined and cleaned

Is a drain fitted at the lowest part of each receiver

Injection 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.

Total cubic capacity

Internal diameter

thickness

Seamless, lap welded or riveted longitudinal joint

Material

Range of tensile strength

Working pressure by Rules

Actual

IS A DONKEY BOILER FITTED?

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
(If not, state date of approval)

Receivers

Separate Fuel Tanks

Donkey Boilers

General Pumping Arrangements

Pumping Arrangements in Machinery Space

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied

State the principal additional spare gear supplied

The foregoing is a correct description and the particulars of the installation as fitted are as approved for torsional vibration characteristics.

The foregoing is a correct description.

G. Scott. B.P.E. LTD

Manufacturer.

Dates of Survey while building
During progress of work in shops - 1947 Jan 23. 25. 29. Aug 4. 6. 13. 18 Sep 9. 11 Oct 9 Nov 14
During erection on board vessel - - -
Total No. of visits 11.

Dates of Examination of principal parts—Cylinders	Covers	Pistons	Rods	Connecting rods
Crank shaft 2. 2. 46	Flywheel shaft	Thrust shaft 39. 46.	Intermediate shafts	Tube shaft
Screw shaft	Propeller	Stern tube	Engine seatings	Engines holding down bolts
Completion of fitting sea connections	Completion of pumping arrangements	Engines tried under working conditions		
Crank shaft, Material steel.	Identification Mark 44040's 4032 R.F.Y. 2. 12. 46	Flywheel shaft, Material	Identification Mark	
Thrust shaft, Material steel.	Identification Mark 44040's 4728 2. 12. 46	Intermediate shafts, Material	Identification Marks	
Tube shaft, Material	Identification Mark 44040's 4728 2. 12. 46	Screw shaft, Material	Identification Mark	
Identification Marks on Air Receivers	3 of 63198 ✓ 44040's TEST 555 lb/0. W.P. 355 A.R.S. 12. 11. 47.			

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

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with

Description of fire extinguishing apparatus fitted

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

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 and in accordance with the Rules and Approved Plans. The materials used and workmanship are good and on completion the Engine was tried on the test bench at the makers works, under full power, with satisfactory results. The Engine has been dispatched to vessel to be installed on board a vessel building at Messrs Harland & Wolff Ltd No. 561. The Torsional Vibration Characteristics have been approved. See London Letter 18th October 1946.

The amount of Entry Fee	£ 73 : 12	When applied for,
Special 1/2 Year 9%	£ 49 : 0	20 APR 1948
Donkey Boiler Fee	£ :	When received,
Travelling Expenses (if any)	£ :	19

Committee's Minute

GLASGOW 20 APR 1948

Assigned Referred for Completion

G. Ballardie for J. E. L. L.

Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 28 MAY 1948

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