

REPORT ON OIL ENGINE MACHINERY.

No. 19879.

26 SEP 1936

Date of writing Report 19th Sept 36 When handed in at Local Office Sept 25 1936 Port of Grimsby
No. in Survey held at Lincoln Date, First Survey 30th March 1936 Last Survey Sept 21 1936
Reg. Book. Number of Visits 31

on the Single Screw vessel
Double
Triple
Quadruple

M/V "CASTLE COMBE"

Tons { Gross 455
Net 232

Built at Bristol By whom built Chas. Hill & Sons, Ltd. Yard No. 251 When built 1936
Engines made at Lincoln By whom made Ruston & Hornsby, Ltd. Engine No. 17940 When made 1936
Donkey Boilers made at By whom made Boiler No. When made
Brake Horse Power 38 Owners Old Shipping Co. Port belonging to Bristol
Nom. Horse Power as per Rule 7 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes
Trade for which vessel is intended [One engine - Size 4 J R Z] boasting

IL ENGINES, &c. Type of Engines Oilless Injection, cold starting 2 or 4 stroke cycle 4 Single or double acting 4
Maximum pressure in cylinders 750 lb. Diameter of cylinders 4 1/2" Length of stroke 5 1/2" No. of cylinders 4 No. of cranks 4
mean 108 lb. Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 6 1/2" Is there a bearing between each crank yes
Revolutions per minute 1000 Flywheel dia. 19" Weight 285 lb. Means of ignition Compression Kind of fuel used Crude oil.
Crank Shaft, dia. of journals as approved 3" Crank pin dia. 3" Crank Webs Mid. length breadth 3 1/2" Thickness parallel to axis shrunk
as fitted Mid. length thickness 1 1/16" Thickness around eye hole shrunk
Flywheel Shaft, diameter as approved 3" Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule
as fitted as fitted as fitted
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 as fitted

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 as fitted as fitted
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 Yes
If two liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after end of the tube

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

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

Method of reversing Engines 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 1/16" 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 Yes

Cooling Water Pumps, No. one Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

What special arrangements are made for dealing with cooling water if discharged into bilges Yes

Bilge Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work

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

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 Yes 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

led from easily accessible mud-boxes, placed above the level of the working floor with straight tail pipes to the bilges Are they fitted with Valves or Cocks

Are all Sea Connections fitted direct on the skin of the ship Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates

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

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 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

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork Yes

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

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 No. Position

as fitted as fitted

AIR RECEIVERS: 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

High 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

Starting Air Receivers, No. Total cubic capacity Internal diameter Thickness

Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure

Actual by Rules Actual

If so, is a report now forwarded? ✓

Is the donkey boiler intended to be used for domestic purposes only? ✓

Receivers ✓

Separate Tanks

Donkey Boilers.....✓

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied Y-ES.

State the principal additional spare gear supplied.

J. H. & H. S. Limited

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building	During progress of work in shops--	March 30. April 6, 16, 23, 30. May 4, 11, 14, 18, 21, 28. June 3, 8, 11, 15, 18, 22, 25, 29. July 6, 13, 16, 20.
	During erection on board vessel--	Aug 4, 6, 31. Sept 3, 7, 14, 17, 21. 1906 Aug 12, Sept 2, 3, 7, 19, 21, 23, 28, 30. Oct 12, 14, 16, 21, 24, 27. Nov. 5, 7, 16, 19. Dec. 21.
	Total No. of visits	31 + 20 = 51

Dates of Examination of principal parts—Cylinders 14.5.36. Covers 15.6.36. Pistons 18.6.36. Rods 1 Connecting rods 18.6.36

Crank shaft 21.5.36 Flywheel shaft 21.5.36 Thrust shaft ✓ 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 17. 9. 36.

Crank shaft, Material Sm. steel Identification Mark 3247. Flywheel shaft, Material Sm. steel Identification Mark 3247.

Thrust shaft, Material ✓ Identification Mark ✓ Intermediate shafts, Material ✓ Identification Marks ✓

Tube shaft, Material ☐ Identification Mark ☐ Screw shaft, Material ☐ Identification Mark ☐

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?

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 yes. If so, ~~state~~ name of vessel unknown. Grimsby report N: 19610.

General Remarks (State quality of workmanship, opinions as to class, &c.) The workmanship & materials are good.

The engine has been built under Special Survey in accordance with the Rules + Approved plans. Running trials were carried out at the Maker's works under brake load with satisfactory results.

The engine is being forwarded to Bristol, to be fitted on board the vessel (Yard No 25), now under construction by Messrs Chas. Hill & Sons, Ltd.

This auxiliary engine has now been jettied & secured on board. Trial under full working conditions & found satisfactory.

Request form attached

Ref. 4416/P/1V-5540.

The amount of Entry Fee .. £ 100 : 0 : 0 When applied for.

Special

When applied for.

Donkey Boiler Fee

When received.

Travelling Expenses (if any) £

19

Committee's Minute

FRI 22 JAN 1937

TUE. 4 MAY 1937

Assigned See Nos 135-90

W. L. Elditch & John L. Gwynne
Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register
Foundation