

# REPORT ON OIL ENGINE MACHINERY.

No. 32744

Received at London Office

NOV 27 1939

When handed in at Local Office 18 Nov 1939 Port of Sunderland  
Date, First Survey 1<sup>st</sup> May Last Survey 16 Nov 1939  
Number of Visits 68

Survey held at Sunderland  
in the Book Single Double Triple Quadruple Screw vessel  
Name of vessel "BEIGNON"  
Tons Gross 5218  
Net 3004

By whom built Wm. Beard & Sons Ltd. Yard No. 653 When built 1939  
By whom made Wm. Beard & Sons Ltd. Engine No. 653 When made 1939  
By whom made Stocklin Chem. Eng. Works Ltd. Boiler No. 6373 When made 1939  
By whom made Buchanan & Co. (Aman) Ltd. Port belonging to London  
Owners Polisment S. Co. Ltd.  
Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes.  
Horse Power as per Rule 516  
Horse Power 2500  
Use for which vessel is intended 23 1/2 91 1/2

ENGINES, &c. Type of Engines Opposed piston airless injection 2 or 4 stroke cycle 2 Single or double acting Single  
Maximum pressure in cylinders 540 lb/sq. in. Diameter of cylinders 600 in. Length of stroke upper 980 in. No. of cylinders 3 No. of cranks 3 (3 throw)  
Indicated Pressure 88 lb/sq. in. Is there a bearing between each crank 3 throw  
of bearings, adjacent to the Crank, measured from inner edge to inner edge 940 in.  
Revolutions per minute 108 Flywheel dia. 2300 in. Weight 53 1/2 tons Means of ignition Compression Kind of fuel used Gas  
Crank Shaft, dia. of journals as per Rule 418 in. Crank pin dia. 450 in. Crank Webs as per Rule 308 in. Mid. length breadth 650 in. Thickness parallel to axis 255 in.  
Wheel Shaft, diameter as per Rule 418 in. Intermediate Shafts, diameter as per Rule 365 in. Thrust Shaft, diameter at collars as per Rule 450 in.  
Screw Shaft, diameter as per Rule 341 in. Is the screw shaft fitted with a continuous liner Yes.  
Crank Liners, thickness in way of bushes as per Rule 18 in. Thickness between bushes as per Rule 13 1/2 in. Is the after end of the liner made watertight in the  
bell boss Yes. If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner one length

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  
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  
If so, state type Yes. Length of Bearing in Stern Bush next to and supporting propeller 5'-5"  
Propeller, dia. 15'-9" Pitch 11'-9" No. of blades 4 Material Bronze whether Movable No. Total Developed Surface 90 sq. feet

Method of reversing Engines Hand lever Is a governor or other arrangement fitted to prevent racing of the engine when decelerated Yes. Means of lubrication  
Thickness of cylinder liners 25 in. Are the cylinders fitted with safety valves Yes. Are the exhaust pipes and silencers water cooled or lagged with  
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  
Sling Water Pumps, No. one engine driven Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes.

ge Pumps worked from the Main Engines, No. none Diameter Stroke Can one be overhauled while the other is at work  
Pumps connected to the Main Bilge Line No. No. and Size 2 @ 5 1/2" x 6" x 15" Simplex How driven Steam

the cooling water led to the bilges No. If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping  
arrangements Yes. Blast Pumps, No. and size 1 @ 12 1/2" x 14" x 24" Simplex Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size one engine driven 8 1/2" x 6 1/2" x 15"  
two independent means arranged for circulating water through the Oil Cooler Yes. Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

umps, No. and size:—In Machinery Spaces 4 @ 3" x 4" E.R. 1 @ 3" Tunnel well. In Pump Room  
Holds, &c. N°1 3" x 4" N°2 3 1/2" x 4" Sup Tank 3 1/2" x 4" N°4 3" x 4" N°5 1 @ 3" Hold tank. 1 @ 8" (Ballast pump) 1 @ 5" (Gen. Ser. Pump)

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size Yes. Are the Bilge Suctions in the Machinery Spaces  
all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes. Are they fitted with Valves or Cocks Both  
from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes. Are the Overboard Discharges above or below the deep water line Above.

all Sea Connections fitted direct on the skin of the ship Yes. Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes.  
they fixed sufficiently high on the ship's side to be seen without lifting the platform plate Yes. How are they protected Yes.  
they each fitted with a Discharge Valve always accessible on the plating of the vessel Yes. Have they been tested as per Rule Yes.  
at pipes pass through the bunkers none. In? bilge suction Yes.

at pipes pass through the deep tanks Yes. all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes.  
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 Yes. Is the Shaft Tunnel watertight Yes. Is it fitted with a watertight door Yes. worked from E.R. top

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. Two No. of stages Three Diameters 11 1/2" - 9 1/4" - 2 3/4" Stroke 6 1/2" Driven by 11 1/2" x 6 1/2" Steam engine  
Auxiliary Air Compressors, No. One No. of stages One Diameters 1400 in. Stroke 610 in. Driven by lives from main engine  
Small Auxiliary Air Compressors, No. One No. of stages One Diameters 1400 in. Stroke 610 in. Driven by lives from main engine  
Scavenging Air Pumps, No. One as per Rule Yes. Position Yes.



AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule *Yes (on discharge from Compressor)*  
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. *✓* 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. *Two.* Total cubic capacity *220 cu ft.* Internal diameter *3' 6"* thickness *1"*  
Seamless, lap welded or riveted longitudinal joint *Riveted* Material *M. Steel* Range of tensile strength *28/32* Working pressure by Rules *603*  
IS A DONKEY BOILER FITTED? *Yes.* If so, is a report now forwarded? *Yes.* Actual *600.*

Is the donkey boiler intended to be used for domestic purposes only *No.*

PLANS. Are approved plans forwarded herewith for Shafting (If not, state date of approval) *Yes.* Receivers *Yes.* Separate Fuel Tanks *(Retained)*  
Donkey Boilers *Yes.* General Pumping Arrangements *Yes.* Pumping Arrangements in Machinery Space *Yes.*

Oil Fuel Burning Arrangements *Yes.* SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes.*

State the principal additional spare gear supplied *One C.I. Propeller, one Screw Shaft, one Cylinder liner & gasket, 1 main piston head, 65 main piston rings, 4 Fuel valves Complete, 8 Spray plugs, 2 (each) top & bottom end bolts for Side & Central Com. rods, 1 Central & side Com. rod spherical bearings, 2 Central Com. rod top end bearings, 1 Hastings air valve Complete, 1 Cyl. relief valve, 4 Scavenging pump & Ldel. Valve discs, 3 fuel pump bodies Complete, 1 set of valves for engine driven & indep. pump, 1 set of pads for main block, one set Coupling bolts, one roller chain for Camshaft drive.*

The foregoing is a correct description, Limited.

*J. W. Keller*

Director

Manufacturer.

Dates of Survey while building { During progress of work in shops - - 1939. May 1, 3, 4, 17, 22, 31. June 1, 2, 5, 7, 8, 12, 13, 14, 20, 23, 26, 27, 28. July 3, 4, 6, 7, 11, 13, 14, 17, 18, 19, 20, 21, 24, 25, 26, 27. During erection on board vessel - - 9, 11, 16, 18, 21, 22, 23, 24, 25, 28, 29, 30, 31. Sep. 1, 4, 5, 6, 7, 14, 19, 26, 28. Oct. 2, 3, 9, 11, 16, 18, 19, 23, 24, 30. Nov. 16. Total No. of visits *68*

Dates of Examination of principal parts—Cylinders *14/4/39* Covers *✓* Pistons *11/8/39* Rods *11/8/39* Connecting rods *24/8/39*  
Crank shaft *(Yes.)* Flywheel shaft *as crank.* Thrust shaft *as crank.* Intermediate shafts *26/9/39, 2/10/39* Tube shaft *✓*  
Screw shaft *28/9/39.* Propeller *28/9/39.* Stern tube *26/9/39.* Engine seatings *(Crank top)* Engines holding down bolts *18/10/39*  
Completion of fitting sea connections *26/9/39.* Completion of pumping arrangements *24/10/39* Engines tried under working conditions *23/10/39*  
Crank shaft, Material *Ingot Steel* Identification Mark *S.O. 818* Flywheel shaft, Material *as crank* Identification Mark *as crank*  
Thrust shaft, Material *as crank.* Identification Mark *as crank* Intermediate shafts, Material *Ingot Steel* Identification Marks *NOS 4924, 4934, 4938, 4940, 4938, 4940, 4938, 4940*  
Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *Ingot Steel* Identification Mark *W. H. F. 26*

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 *Yes.* *Nº 4940 WNF 28/9/39. 2/10/39*

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *No.* 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 *Not desired.*

Is this machinery duplicate of a previous case *Yes.* If so, state name of vessel *M/V "KASSOS"*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery of this vessel has been built under Special Survey in accordance with the rules of the Society & the approved plans & the Secretary's letters. The materials & workmanship are of the highest quality. It has been securely fitted on board the vessel & tried under working conditions alongside quay with satisfactory results. The two donkey engines have also been securely fixed on board, fitted to burn oil fuel (F.P. above Section 20 of the Rules has been complied with. Safety valves of boilers adjusted to working pressure in accordance with rule requirements. The machinery is eligible in my opinion to have notation as L.M.C. 11.39 (oil Eng.) T.S. (C.I.), 2 DB 120 lbs/ft.*

The amount of Entry Fee .. £ 6 : : When applied for, Special ... £ 100 : 16 : 20 NOV 1939 Donkey Boiler Fee *held bond.* £ 12 : 12 : When received, Travelling Expenses (if any) £ : : 23 NOV 1939

Committee's Minute

Assigned *+ LMC 11.39 Oil Eng CL*

*2 DB 120 lb*

*D. J. Hasw.*

Engineer Surveyor to Lloyd's Register of Shipping.



© 2020

Lloyd's Register Foundation