

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

Survey held at Sunderland Date, First Survey 1st May Last Survey 16 Nov 1939

Single Screw vessel **"BEIGNON"** Tons Gross 5218 Net 3004

By whom built Wm Beauford & Sons Ltd Yard No. 653 When built 1939
By whom made Wm Beauford & Sons Ltd Engine No. 653 When made 1939
By whom made Stocklin Chem. Eng. & Ship Bldg Ltd Boiler No. 6373 When made 1939
Boiler No. 14505 When made 1939
Owners Polishment S. Co Ltd Port belonging to London

Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes

ENGINES, &c. Type of Engines Opposed piston airless injection 2 or 4 stroke cycle 2 Single or double acting Single
Maximum pressure in cylinders 5 1/2 lbs/sq in Diameter of cylinders 600 mm Length of stroke Upper 980 mm Lower 1340 mm No. of cylinders 3 No. of cranks 3 (3 throw)
Indicated Pressure 88 lbs/sq in Is there a bearing between each crank 3 throw
Revolutions per minute 108 Flywheel dia. 940 mm Weight FORD 2300 lbs F 53 1/2 tons Means of ignition Compression Kind of fuel used Gas
Crank Shaft, dia. of journals as fitted 418 mm Crank pin dia. 450 mm Crank Webs as fitted 308 mm Mid. length breadth 650 mm Thickness parallel to axis 255 mm
Intermediate Shafts, diameter as fitted 365 mm Thrust Shaft, diameter at collars as fitted 418 mm
Screw Shaft, diameter as fitted 392 mm Is the shaft fitted with a continuous liner Yes

Thickness of cylinder liners as per Rule 18 mm as fitted 21 1/2 mm Thickness between bushes as per Rule 13 1/2 mm as fitted 16 3/4 mm Is the after end of the liner made watertight in the stern 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
Is an approved Oil Gland or other appliance fitted at the after end of the tube Yes

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 Yes Means of lubrication Oil
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 Yes

Water Pumps, No. one engine driven Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes
Bilge Pumps worked from the Main Engines, No. none Diameter Stroke Can one be overhauled while the other is at work Yes
Pumps connected to the Main Bilge Line 2 @ 5 1/2" x 6" x 15" Simplex How driven Steam
Is 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

Oil 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" one Simplex 5 1/2" x 6" x 15"
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 4 @ 3" E.R. 1 @ 3" Tunnel well. In Pump Room
Holds, &c. N°1 3" ports. N°2 3 1/2" ports. Sup Tank 3 1/2" ports. N°4 3" ports. N°5 1 @ 3" Holdwell. 1 @ 8" (Ballast pump) 1 @ 5" (Gen. Ser. Pump)

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 8" (Ballast pump) 1 @ 5" (Gen. Ser. Pump)
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes
Are all Sea Connections fitted direct on the skin of the ship Yes 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 plate Yes 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 Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate Yes
How are they protected none Have they been tested as per Rule Yes
Do pipes pass through the bunkers no Do pipes pass through the deep tanks In: bilge suction

Are 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 plating
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. Two No. of stages Three Diameters 1 1/2" - 9 1/4" - 2 3/4" Stroke 6 1/2" Driven by 1 1/2" x 6 1/2" Steam engine
Auxiliary Air Compressors, No. one No. of stages one Diameters 1400 mm Stroke 610 mm Driven by levers from main engine
Small Auxiliary Air Compressors, No. one No. of stages one Diameters 1400 mm Stroke 610 mm Driven by levers from main engine
Scavenging Air Pumps, No. one Diameter 1400 mm Stroke 610 mm Driven by levers from main engine
Auxiliary Engines crank shafts, diameter as per Rule Position as fitted



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 *✓* Actual *✓*
Starting Air Receivers, No. *Two* Total cubic capacity *220 cuft.* Internal diameter *3'-6"* thickness *1"*
 Seamless, lap welded or riveted longitudinal joint *Riveted* Material *M-Steel* Range of tensile strength *25/32* Working pressure by Rules *603* Actual *600.*

IS A DONKEY BOILER FITTED? *Yes* If so, is a report now forwarded? *Yes*
 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 & jacket, 1 main piston head, 65 main piston rings, 4 Fuel valves Complete, 8 Spray plugs, 2 (Each) top*

bottom end bolts for Side & Central Conn. rods, 1 Central & side Conn. rod Spherical bearings, 2 Central & side Conn. rod top end bearings, 1 Hastings air valve Complete, 1 Cyl. relief valve, 4 Scavenger pump & Del. 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 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. 14
 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*
 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 boilers 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 of L.M.C. 11.39 (oil Eng.) T.S. (C.I.), 2 DB 120 lbs.*

The amount of Entry Fee .. £ 6 : : When applied for, *20 NOV 1939*
 Special £ 100 : 16 : :
 Donkey Boiler Fee *held bond.* £ 12 : 12 : : When received, *23 NOV 1939*
 Travelling Expenses (if any) £ : : :
 FRI. 1 DEC 1939

Committee's Minute
 Assigned *+ LMC 11.39 Oil Eng Ch 2DB 120 lb*
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