

REPORT ON OIL ENGINE MACHINERY.

No.

40570

Date of writing Report *Oct 28 1940* When handed in at Local Office *Oct 31 1940*

Received at London Office 26 JAN 1942

No. in Survey held at *Brooklyn N.Y.*
Reg. Book.Date, First Survey *12 April*Last Survey *✓*

1940

Number of Visits *one*on the *Single*
Triple
Quadruple Screw vessel

"PHILAE" (ex Trento)

Tons *Gross*
Net

Built at *✓* By whom built *✓* Yard No. *✓* When built *✓*
Engines made at *New London, Connicut.* By whom made *Electric Boat Company.* Engine No. *692 & 693* When made *1932*
Donkey Boilers made at *✓* By whom made *✓* Boiler No. *✓* When made *✓*
Brake Horse Power *1200 each engine* Owners *Frango Corporation, New York* Port belonging to *States. U.S.A. port.*
Nom. Horse Power as per Rule *436* Is Refrigerating Machinery fitted for cargo purposes *✓* Is Electric Light fitted *✓*
Trade for which vessel is intended *✓*

OIL ENGINES, &c. Type of Engines *M-A-N. Diesels, trunk pistons, solid injection* 2 or 4 stroke cycle *4* Single or double acting *single*Maximum pressure in cylinders *78.7* Diameter of cylinders *15.75"* Length of stroke *18.11"* No. of cylinders *9* No. of cranks *9*Span of bearings, adjacent to the Crank, measured from inner edge to inner edge *14.8"* Is there a bearing between each crank *Yes*Revolutions per minute *380 Maximum* Flywheel dia. *✓* Weight *✓* Means of ignition *combustion* Kind of fuel used *diesel oil*Crank Shaft, dia. of journals *as per Rule 8.4"* Crank pin dia. *9.625"* Crank Webs *Mid. length breadth 16.0"* Thickness parallel to axis *✓*Flywheel Shaft, diameter *as per Rule* Intermediate Shafts, diameter *as per Rule* Thrust Shaft, diameter at collars *as per Rule*Tube Shaft, diameter *as per Rule* Screw Shaft, diameter *as per Rule* Is the tube *✓* screw *✓* shaft fitted with a continuous liner *✓*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 thepropeller 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 tubeshaft *✓* If so, state type *✓* Length of Bearing in Stern Bush next to and supporting propeller *4-10*Propeller, dia. *✓* Pitch *✓* No. of blades *✓* Material *✓* whether Moveable *✓* Total Developed Surface *✓* sq. feetMethod of reversing Engines *✓* Is a governor or other arrangement fitted to prevent racing of the engine when declutched *✓* Means of lubricationforced *✓* Thickness of cylinder liners *1.34" head* Are the cylinders fitted with safety valves *✓* Are the exhaust pipes and silencers water cooled or lagged withnon-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. *✓* Is the sea suction provided with an efficient strainer which can be cleared within the vessel *✓*What special arrangements are made for dealing with cooling water if discharged into bilges *✓*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 *✓*Are two independent means arranged for circulating water through the Oil Cooler *✓* Suctions, connected to both Main Bilge Pumps and Auxiliary BilgePumps, 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 Spacesled 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 *✓*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 *✓*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* Position *✓*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 *by Rules* Actual *✓*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 *✓*

If so, is a report now forwarded? ☒

PLANS. Are approved plans forwarded herewith for Shafting *Blank Shaft only* Receivers ☒ Separate Tanks ☒
(If not, state date of approval)

Donkey Boilers ☒ General Pumping Arrangements ☒ Oil Fuel Burning Arrangements ☒

Has the spare gear required by the Rules been supplied. ✓

State the principal additional spare gear supplied

The foregoing is a correct description.

Manufacturer.

Dates of Survey while building	<div style="display: inline-block; vertical-align: middle;"> During progress of work in shops-- During erection on board vessel-- Total No. of visits </div>	Engines not built under survey.	approved May 16 th 1940.								
Dates of Examination of	partial	principal parts—Cylinders	12/4/40	Covers	12/4/40	Pistons	12/4/40	Rods	12/4/40	Connecting rods	12/4/40
Crank shaft	12/4/40	Flywheel shaft	✓	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	✓						
Crank shaft, Material	See Letter	Identification Mark	✓	Flywheel shaft, Material	✓	Identification Mark	✓				
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 ☒

If so, state name of vessel.....✓

General Remarks (State quality of workmanship, opinions as to class, &c. *M-A-N. Diesel Engines. (Hisco 700 692 & 693.)*

Done ÷ The Nos 1, 3, 5, 7 & 9 cylinders of both engines with their pistons, heads, gudgeon pins, connecting rods, crank pins and all journals examined on the above dates and the dimensions of the crank shafts checked with the plans and all found in order. To complete the survey the remaining parts of the engines remain to be examined.

The above engines, in my opinion, are eligible to be classed and to have the notation of L.M.C. with date provided they are installed in accordance with Rule Requirements

The amount of Entry Fee	.. £	:	:	When applied for,
Special	N.Yk.	\$40.-00	:	Dec. 2, 1941
Donkey Boiler Fee	... £	:	:	When received,
Travelling Expenses (if any)	£	:	:	19

Committee's Minute

Assigned See MOB. RPT. NO. 1794

S. S. Whitham

Engineer Surveyor to Lloyd's Register of Shipping.

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Foundation