

REPORT ON OIL ENGINE MACHINERY.

No. 7942 -2 MAY 1929

Date of writing Report 14-4 1929 When handed in at Local Office

Port of Copenhagen

No. in Survey held at Holsby and Copenhagen

Date, First Survey 18/8 1929

Last Survey 28/3 1929

92088 on the Single Twin Triple Quadruple Motor Screw vessel

"SANTA INEZ"

Tons Gross 5538.40 Net 3371.14

Built at Copenhagen

By whom built 1/3 Bunnmeister & Wain

Yard No. 552 When built 1929

Engines made at Holsby

By whom made 1/3 Holsby Dieselmaschinen Fabrik Engine No. 1612 When made 1928

Donkey Boilers made at Lunan

By whom made Messrs. Cochran & Co. Lunan, Ltd. Boilers No. 1027-30 When made 1928

Brake Horse Power 3520

Owners Grace Steamship Co. Inc. (U.S.A.) Port belonging to New York

Nom. Horse Power as per Rule 708

Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes

Trade for which vessel is intended Passenger trade between ports in North & South America

OIL ENGINES, &c. Type of Engines Vertical Diesel, trunk type 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 35 kg/cm² Diameter of cylinders 310 mm Length of stroke 350 mm No. of cylinders 3 No. of cranks 3

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 360 mm Is there a bearing between each crank yes

Revolutions per minute 400 Flywheel dia. 1240 mm Weight 2710 kg Means of ignition compression Kind of fuel used ord. Diesel oil

Crank Shaft, dia. of journals as per Rule 162 mm as fitted 170 mm Crank pin dia. 170 mm Crank Webs Mid. length breadth 355 mm dia. Thickness parallel to axis checked M. d. length thickness 95 mm Thickness around eye-hole checked

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

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted 4 screws Is the tube shaft fitted with a continuous liner checked

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 checked

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner checked

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 checked

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

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

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 checked Means of lubrication checked

Thickness of cylinder liners checked Are the cylinders fitted with safety valves checked Are the exhaust pipes and silencers water cooled or lagged with non-conducting material checked

If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine checked

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

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

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

Ballast Pumps, No. and size checked Lubricating Oil Pumps, including Spare Pump, No. and size checked

Are two independent means arranged for circulating water through the Oil Cooler checked Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces checked

In Holds, &c. checked

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

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

Are all Sea Connections fitted direct on the skin of the ship checked Are they fitted with Valves or Cocks checked

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates checked Are the Overboard Discharges above or below the deep water line checked

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel checked Are the Blow Off Cocks fitted with a spigot and brass covering plate checked

What pipes pass through the bunkers checked How are they protected checked

What pipes pass through the deep tanks checked Have they been tested as per Rule checked

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times checked

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 checked Is the Shaft Tunnel watertight checked Is it fitted with a watertight door checked worked from checked

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

Main Air Compressors, No. checked No. of stages checked Diameters a, b, c checked Stroke checked Driven by checked

Auxiliary Air Compressors, No. 4 checked No. of stages 3 checked Diameters 3/8, 285, 78 checked Stroke 220 mm checked Driven by 4 auxil Diesel engines checked

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

Scavenging Air Pumps, No. checked Diameter checked Stroke checked Driven by checked

Auxiliary Engines crank shafts, diameter as per Rule checked as fitted checked

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule checked yes

Can the internal surfaces of the receivers be examined checked yes What means are provided for cleaning their inner surfaces arrangements made for cleaning checked

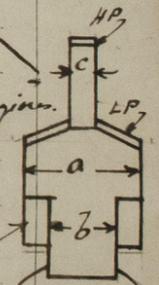
Is there a drain arrangement fitted at the lowest part of each receiver checked yes

High Pressure Air Receivers, No. 4 checked Cubic capacity of each 30 litres checked Internal diameter 7 1/4" checked thickness 3/8" checked

Seamless, lap welded or riveted longitudinal joint seamless checked Material mild steel checked Range of tensile strength 30.6-33.5 checked Working pressure by Rules 1453 lbs./sq. in. checked

Starting Air Receivers, No. checked Total cubic capacity checked Internal diameter checked thickness checked

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



IS A DONKEY BOILER FITTED? *yes.*

If so, is a report now forwarded? *yes.*

PLANS. Are approved plans forwarded herewith for Shafting *yes.*  
(If not, state date of approval)

Receivers

Separate Tanks

Donkey Boilers *yes:*

General Pumping Arrangements *yes.*

Oil Fuel Burning Arrangements

SPARE GEAR *as per accompanying list.*

The foregoing is a correct description,

AKTIESELSKABET  
HOLEBY FJESLMOTOR FABRIK

Manufacturer.

Dates of Survey while building	During progress of work in shops - -	18/8. 23/8. 1/9. 10/9. 19/9. 10/10. 27/10. 27/11 1928.	
		During erection on board vessel - - -	21/11 1928. 9/2. 13/2. 22/2. 28/2. 6/3. 16/3. 22/3. 28/3 1929.
		Total No. of visits	

Dates of Examination of principal parts—Cylinders *with* Covers 18/8. 10/10 Pistons 29/10 Rods  Connecting rods 23/8. 1/9. 10/10.

Crank shafts 23/8. 1/9. 19/9. 10/10 Flywheel shaft  Thrust shaft  Intermediate shafts  Tube shaft

Screw shaft  Propeller  Stern tube  Engine seatings 21/11. 3/12 Engines holding down bolts 9/2. 13/2

Completion of fitting sea connections  Completion of pumping arrangements  Engines tried under working conditions 27/11. 25/3. 28/3

Crank shaft, Material *S. H.* Identification Mark *10. 10. 28* 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. *yes.*

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

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

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.)

The auxiliary engine as above described has been built under Special Survey and in accordance with the Rules, the approved plan of crank shaft and the conditions contained in the Surveyor's letter to dated 3/7 1928.

The material used in the construction has been tested and examined as required by the Rules and found good, and the workmanship is of good description throughout.

The engine has been fitted on board the vessel under our supervision and to our satisfaction, and on completion the engine was tested under full power working conditions and found to work satisfactorily.

Certificate (if required) to be sent to

The amount of Entry Fee	£	:	:	When applied for,
Special	400.-			7/12 1928
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any)	76.-			13/12 1928

*A.O. J. Beck* *Chubiff*  
Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute *7 MAY 1929*  
Assigned *see ref. attached*

