

REPORT ON STEAM TURBINE MACHINERY. No. 4473
31 JUL 1953

Received at London Office

Report 23, June 53 When handed in at Local Office 19 Port of Boston, Massachusetts
Survey held at Fitchburg, Mass. Date, First Survey 1, May Last Survey 2, May 1953
(Number of Visits 2)
Name of Vessel TANKER "ANDROS VENTURE"
Where built By whom built Davie S.B. & Rep. Co. Yard No. 595
Where made By whom made General Electric Co. Turbine No. 101068
Boiler No. 101067
When built
When made 1953
When made
Port belonging to
Is Refrigerating Machinery fitted for cargo purposes
Is Electric Light fitted Yes
Which Vessel is intended Carrying Petroleum in bulk.

1 TURBINE ENGINES, &c.—Description of Engines 400 K.W. A.C. Turbo Generators: (2 units per ship)

Ahead one generator
Astern one generator
No. of primary pinions to each set of reduction gearing
Alternating Current Generator 3 phase 60 periods per second rated 400 Kilowatts 440 Volts at 1200 revolutions per minute;
Propelling Motors, Type Ship's auxiliaries
Kilowatts Volts at revolutions per minute. Direct coupled, single or double reduction geared to propelling shafts.

H. P.			I. P.			L. P.			ASTERN.		
HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
.400"	19.3"	1									
.576"	17.5"	1									
.933"	18.2"	1									
.870"	18.2"	1									
1.22"	18.9"	1									
2.00"	19.9"	1									

Power at each turbine { H.P. -
I.P. -
L.P. -
Revolutions per minute, at full power, of each Turbine Shaft { H.P. 10,059 ✓
I.P. -
L.P. -
1st reduction wheel -
main shaft 1200 ✓

diameter at journals { H.P. 2-1/2"
I.P. -
L.P. -
Pitch Circle { 1st pinion 3.4"
Diameter { 2nd pinion -
1st reduction wheel 8.25"
main wheel 28.5"
1st reduction wheel -
main wheel 15.95"

between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion 15.95"
2nd pinion -
1st reduction wheel -
main wheel 15.95"

Pinion Shafts, diameter at bearings { 1st 3"
2nd -
External { 1st 3"
Internal { 2nd 3" 1/4" aff'd
diameter at bottom of pinion teeth { 1st 3.171"
2nd -

Generator Shaft, diameter at bearings
Propelling Motor Shaft, diameter at bearings 3.0"

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

Is the { tube
screw } shaft fitted with a continuous liner
Bronze Liners, thickness in way of bushes as per rule
as fitted

Is the after end of the liner made watertight in the propeller boss
If the liner is in more than one length are the junctions
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
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
fitted at the after end of the tube shaft
Length of Bearing in Stern Bush next to and supporting propeller
Pitch
No. of Blades
State whether Moveable
Total Developed Surface square feet.

Are arrangements made so that steam can be led direct to the L.P. Turbine
Can the H.P. or I.P. Turbine exhaust direct to the
No. of Turbines fitted with astern wheels
Feed Pumps { No. and size
How driven

ed to the Main Bilge Line { No. and size
How driven
Lubricating Oil Pumps, including Spare Pump, No. and size

dent means arranged for circulating water through the Oil Cooler
Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
size:—In Engine and Boiler Room

irculating Pump Direct Bilge Suctions, No. and size
Independent Power Pump Direct Suctions to the Engine Room
size
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes

ctions in the Machinery Space 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 the Overboard Discharges above or below the deep water line
Are the Blow Off Cocks fitted with a spigot and brass covering plate
How are they protected

Have they been tested as per rule
Are Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

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

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BOILERS, &c.— (Letter for record) Total Heating Surface of Boilers
Is Forced Draft fitted No. and Description of Boilers Working Pressure
Is a Report on Main Boilers now forwarded?
Is { a Donkey } Boiler fitted? If so, is a report now forwarded?
an Auxiliary }
Plans. Are approved plans forwarded herewith for Shafting Main Boilers Auxiliary Boilers Donkey Boilers
(If not state date of approval)
Superheaters General Pumping Arrangements Oil Fuel Burning Arrangements
Spare Gear. State the articles supplied:— As specified.

(Signed) Samuel R. Crosby
Mgr. Engineering

The foregoing is a correct description,

Dates of Survey while building { During progress of work in shops -- } May 1, 1953
{ During erection on board vessel -- }
Total No. of visits
Dates of Examination of principal parts—Casings May 1 Rotors May 1 Blading May 1 Gearing
Wheel shaft Thrust shaft Intermediate shafts Tube shaft Screw shaft
Propeller Stern tube Engine and boiler seatings Engine holding down bolts
Completion of pumping arrangements Boilers fixed Engines tried under steam
Main boiler safety valves adjusted Thickness of adjusting washers 118,000 PSI
Rotor shaft, Material and tensile strength O.H. Steel 130,000 PSI Identification Mark
Flexible Pinion Shaft, Material and tensile strength O.H. Steel. 159,500 PSI 159,500 PSI Identification Mark
Pinion shaft, Material and tensile strength O.H. Steel. 208,250 PSI 208,250 PSI Identification Mark
1st Reduction Wheel Shaft, Material and tensile strength Identification Mark
Wheel shaft, Material Identification Mark Thrust shaft, Material Identification Mark
Intermediate shafts, Material Identification Marks Tube shaft, Material Identification Marks
Screw shaft, Material Identification Marks Steam Pipes, Material Test pressure
Date of test Is an installation fitted for burning oil fuel
Is the flash point of the oil to be used over 150°F Have the requirements of the Rules for the use of oil as fuel 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
Is this machinery a duplicate of a previous case If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c. These generator sets were examined at a state of construction. The results of material test carried out by American Bureau of Shipping were examined and found satisfactory.

The materials and workmanship were good and in my opinion, the units could be accepted subject to tests being carried out on board as required by the Rules.

Copy of Rpt. sent to Mtl. Office

Certificate (if required) to be sent to (The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee	£ Inclusive	When applied for,
Special	fee to be	19
Donkey Boiler Fee	charged	When received,
Travelling Expenses (if any)	later.	19
	£ \$5.00	

Thomas Barrie
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK JUL 15 1953
Assigned Transmit to London

FRIDAY 11 JUN 1954