

Report on Steam Turbine Machinery. No. 105723

Received at London Office
NEWCASTLE-on-TYNE
19... When handed in at Local Office 2 DEC 1948 Port of
Survey held at WALLSEND Date, First Survey 28/9/48 Last Survey 8/11/48
(Number of Visits 31)
on the TURBO Elec S.S. "ESSO PURFHEET" Tons (Gross 10,712 (Net 6301)
CHESTER P.A. By whom built SUN S.B. & DRYDOCK CO Yard No. When built 1944
made at PITTSBURGH P.A. By whom made WESTINGHOUSE Elec Mfg CO Engine No. 7143 When made 1944
made at NEWYORK By whom made BARCOCK & WILCOX Boiler No. 4053 When made 1944
se Power at Full Power 6600 Owners ANGLO AMERICAN OIL CO LTD Port belonging to LONDON
se Power as per Rule 14.85 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted YES
which Vessel is intended CARRYING PETROLEUM IN BULK.

TURBINE ENGINES, &c.—Description of Engines TWO SINGLE REDUCTION GEARED IMPULSE TURBINES (AUX)
Ahead ONE Direct coupled, single reduction geared to propelling shafts. No. of primary pinions to each set of reduction gearing ✓
Astern ✓ double reduction geared
Alternating Current Generator 3 phase 60 periods per second rated 400 Kilowatts 450 Volts at 1200 revolutions per minute;
Direct Current Generator
ing power for driving ✓ Propelling Motors, Type ✓
✓ Kilowatts ✓ Volts at revolutions per minute. Direct coupled, single or double reduction geared to ✓ propelling shafts.

TYPE	H. P.	I. P.	L. P.	ASTERN.
of rows	6			
of stages	5			
of rows in each stage				

se Power at each turbine { H.P. 700 I.P. ✓ L.P. ✓ } Revolutions per minute, at full power, of each Turbine Shaft { H.P. 5645 I.P. ✓ L.P. ✓ } 1st reduction wheel ✓ main shaft 1200
ft diameter at journals { H.P. 2 1/2" I.P. ✓ L.P. ✓ } Pitch Circle Diameter { 1st pinion 5.43" 1st reduction wheel 25.56" 2nd pinion ✓ main wheel ✓ } Width of Face { 1st reduction wheel 8 1/4" main wheel ✓ }

between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion 6 7/8" 2nd pinion ✓ } 1st reduction wheel 6 7/8" main wheel
Pinion { 1st ✓ 2nd ✓ } Pinion Shafts, diameter at bearings { External 1st 4" 2nd ✓ Internal 1st ✓ 2nd ✓ } diameter at bottom of pinion teeth 1st 5.125" 2nd
Shafts, diameter at bearings { 1st 4" main ✓ } diameter at wheel shroud, { 1st ✓ main ✓ } Generator Shaft, diameter at bearings 4" Propelling Motor Shaft, diameter at bearings ✓
iate Shafts, diameter as per rule... as fitted... Thrust Shaft, diameter at collars as per rule... as fitted...

ft, diameter as per rule... as fitted... Screw Shaft, diameter as per rule... as fitted... Is the { tube screw } shaft fitted with a continuous liner {
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
boss... If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner...
er 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...
ers 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 tube
If so, state type... Length of Bearing in Stern Bush next to and supporting propeller...
r, diameter... Pitch... No. of Bades... State whether Moveable... Total Developed Surface... square feet.
Screw, are arrangements made so that steam can be led direct to the L.P. Turbine... Can the H.P. or I.P. Turbines exhaust direct to the

No. of Turbines fitted with astern wheels... Feed Pumps { No. and size... How driven... }
connected to the Main Bilge Line { No. and size... How driven... }

Pumps, No. and size... Lubricating Oil Pumps, including Spare Pump, No. and size...
independent means arranged for circulating water through the Oil Cooler... Suctions, connected both to Main Bilge Pumps and Auxiliary
mps, No. and size:—In Engine and Boiler Room... In Pump Room...

ater Circulating Pump Direct Bilge Suctions, No. and size... Independent Power Pump Direct Suctions to the Engine Room
o. and size... Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes...
ilge Suctions 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...
ea Connections fitted direct on the skin of the ship... Are they fitted with Valves or Cocks...

fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates... Are the Overboard Discharges above or below the deep water
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
plate... What pipes pass through the bunkers... How are they protected...
pes pass through the deep tanks... Have they been tested as per rule...

Pipes, Cocks, Valves and Pumps in connection with the machinery and all boiler mountings accessible at all times...
rangement 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
from one compartment to another... Is the Shaft Tunnel watertight... Is it fitted with a watertight door... worked from...

S, &c.—(Letter for record... Total Heating Surface of Boilers... Working Pressure...
ed Draft fitted... No. and Description of Boilers...
ort on Main Boilers now forwarded ?

Is { a Donkey Boiler fitted? ✓ If so, is a report now forwarded? ✓
{ an Auxiliary
Is the donkey boiler intended to be used for domestic purposes only? ✓
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 ✓
Geared turbines situated aft. Have torsional vibration characteristics of system been approved? ✓ Date of approval ✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied? YES

State the principal additional spare gear supplied

The foregoing is a correct description,

Manufacture

Dates of Survey while building { During progress of work in shops - - -
During erection on board vessel - - -
Total No. of visits

SEE REPORT LA

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Dates of Examination of principal parts—Casings Rotors Blading Gearing
Wheel shaft Thrust shaft Intermediate shafts Tube shaft Screw shaft
Propeller Stern tube Engine and boiler seatings Engine holding down bolts
Completion of fitting sea connections Completion of pumping arrangements Boilers fixed Engines tried under steam
Main boiler safety valves adjusted Thickness of adjusting washers
Rotor shaft, Material and tensile strength Identification Mark
Flexible Pinion Shaft, Material and tensile strength Identification Mark
Pinion shaft, Material and tensile strength Identification Mark

; Chemical analysis.

If Pinion Shafts are made of special steel state date of approval of chemical analysis, physical properties and heat treatment

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

If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with

Is this machinery a duplicate of a previous case yes If so, state name of vessel T.B. Yarkeri.

General Remarks. (State quality of workmanship, opinions as to class, &c.) These machines have been constructed under

the supervision of the U.S. Coast Guard and the American Bureau of Shipping.

The workmanship is good and the materials considered sound. The machines
have been examined under working conditions and found satisfactory.

The amount of Entry Fee ... £ : : When applied for.
Special ... £ : : 19
Donkey Boiler Fee ... £ : : When received
Travelling Expenses (if any) £ : : 19

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(The Committee's Minute

Assigned

See minute on fe machy r/f.

DDM Antypm

Engineer Surveyor to Lloyd's Register of Shipping.



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