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REPORT ON MACHINERY. No.

REC'D NEW YORK April 1918

Received at London Office

Date of writing Report 19 When handed in at Local Office 19 Port of Pittsburgh Pa.
 in Survey held at Pittsburgh Pa. Date, First Survey 8-11-17 Last Survey 11-3-18
 on the Steel S.S. (Los Angeles S.B.Co. S.S. No 1)

Built at Los Angeles, Cal. By whom built Los Angeles Ship'g Co. When built 1918
 Engines made at East Pittsburgh Pa. By whom made Westinghouse E & M. Co. Machine Works when made 1918
 Registered Horse Power 600-670 Owners _____ Port belonging to _____
 Shaft Horse Power at Full Power 3000 Is Refrigerating Machinery fitted for cargo purposes _____ Is Electric Light fitted _____

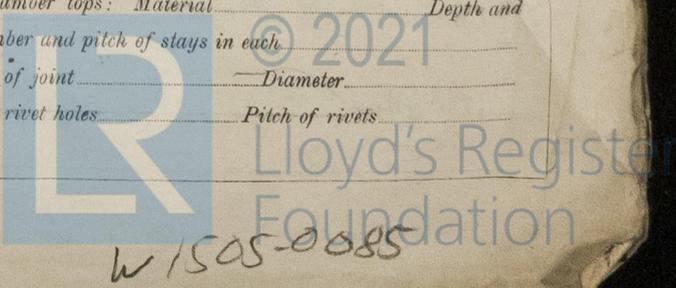
TURBINE ENGINES, &c.—Description of Engines Double Reduction Geared Turbines No. of Turbines Two { One H.P. One L.P.
 Diameter of Rotor Shaft Journals, H.P. 4 1/2" L.P. 4 1/2" Flex. Shaft 2 7/8"
 Diameter of Journals 1st Red. 4.74" 2nd Red. 8.99" Distance between Centres of Bearings 1st Red. 19 7/8" 2nd " 3-11/8" Diameter of Pitch Circle 1st Red. 5.938" (35 teeth) 2nd Red. 12.207" (37 teeth)
 Diameter of Wheel Shaft 13" Distance between Centres of Bearings 8'-0 1/2" Diameter of Pitch Circle of Wheel 1st R-3'-4.25" (34 teeth) 2nd R-5'-4.004" (19 teeth)
 Diameter of Thrust Shaft under Collars 20" Kingbury thrust bearing at forward end of large shaft. Diameter of Tunnel Shaft _____
 Diameter of same _____ as per rule _____ as fitted _____ Diameter of Propeller _____ Pitch of Propeller _____
 State whether Moveable _____ Total Surface _____ Diameter of Rotor Drum, H.P. 17" L.P. 24" Impulse HP 29 1/2" L.P. 27 1/2"
 Thickness at Bottom of Groove, H.P. 1 1/32" L.P. 1 1/2" Astern Revs. per Minute at Full Power, Turbine 3655 Propeller 100

PARTICULARS OF BLADING.

	H.P.			All Reaction. L.P.			All Impulse. 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.
Impulse Expansion	1 3/4"	33 3/8"	2	3"	30"	3	HP 1 3/4"	33 3/8"	2
Reaction	2"	21"	8	4"	32"	2	L.P. 2 1/8"	36"	2
"	3"	23"	6	5"	34"	1			
"				6"	36"	4			
"									
"									
"									
"									

and size of Feed pumps _____
 and size of Bilge pumps _____
 and size of Bilge suction in Engine Room _____
 In Holds, &c. _____
 of Bilge Injections _____ sizes _____ Connected to condenser, or to circulating pump _____ Is a separate Donkey Suction fitted in Engine Room & size _____
 Are all the bilge suction pipes fitted with roses _____ Are the roses in Engine room always accessible _____
 Are all connections with the sea direct on the skin of the ship _____ Are they Valves or Cocks _____
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates _____ Are the Discharge Pipes 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 _____
 How are they protected _____
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times _____
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges _____
 Is the Screw Shaft Tunnel watertight _____ Is it fitted with a watertight door _____ worked from _____

BOILERS, &c.—(Letter for record _____) Manufacturers of Steel _____
 Total Heating Surface of Boilers _____ Is Forced Draft fitted _____ No. and Description of Boilers _____
 Working Pressure _____ Tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____
 Can each boiler be worked separately _____ Area of fire grate in each boiler _____ No. and Description of Safety Valves to _____
 Area of each valve _____ Pressure to which they are adjusted _____ Are they fitted with easing gear _____
 Smallest distance between boilers or uptakes and bunkers or woodwork _____ Mean dia. of boilers _____ Length _____ Material of shell plates _____
 Thickness _____ Range of tensile strength _____ Are the shell plates welded or flanged _____ Descrip. of riveting: cir. seams _____
 Long. seams _____ Diameter of rivet holes in long. seams _____ Pitch of rivets _____ Lap of plates or width of butt straps _____
 Per centages of strength of longitudinal joint _____ Working pressure of shell by rules _____ Size of manhole in shell _____
 Size of compensating ring _____ No. and Description of Furnaces in each Boiler _____ Material _____ Outside diameter _____
 Length of plain part _____ Thickness of plates _____ Description of longitudinal joint _____ No. of strengthening rings _____
 Working pressure of furnace by the rules _____ Combustion chamber plates: Material _____ Thickness: Sides _____ Back _____ Top _____ Bottom _____
 Pitch of stays to ditto: Sides _____ Back _____ Top _____ If stays are fitted with nuts or riveted heads _____ Working pressure by rules _____
 Material of stays _____ Diameter at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ End plates in steam space _____
 Material _____ Thickness _____ Pitch of stays _____ How are stays secured _____ Working pressure by rules _____ Material of stays _____
 Diameter at smallest part _____ Area supported by each stay _____ Working pressure by rules _____ Material of Front plates at bottom _____
 Thickness _____ Material of Lower back plate _____ Thickness _____ Greatest pitch of stays _____ Working pressure of plate by rules _____
 Diameter of tubes _____ Pitch of tubes _____ Material of tube plates _____ Thickness: Front _____ Back _____ Mean pitch of stays _____
 Pitch across wide water spaces _____ Working pressures by rules _____ Girders to Chamber tops: Material _____ Depth and _____
 Thickness of girder at centre _____ Length as per rule _____ Distance apart _____ Number and pitch of stays in each _____
 Working pressure by rules _____ Steam dome: description of joint to shell _____ % of strength of joint _____ Diameter _____
 Thickness of shell plates _____ Material _____ Description of longitudinal joint _____ Diameter of rivet holes _____ Pitch of rivets _____
 Working pressure of shell by rules _____ Crown plates: Thickness _____ How stayed _____



W 1505-0085

SUPERHEATER. Type _____ Date of Approval of Plan _____ Tested by Hydraulic Pressure to _____
 Date of Test _____ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
 Diameter of Safety Valve _____ Pressure to which each is adjusted _____ Is Easing Gear fitted _____

IS A DONKEY BOILER FITTED? _____ If so, is a report now forwarded? _____

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,
 J. A. Davies, Engineer, Marine Dept., Manufacturer.
 The Westinghouse Electric & Mfg. Co., Machine Works.

East Pittsburgh: 1917: Nov. 8-28. Dec. 10-12-18-20-31
 1918: Jan. 7-9-11-14-15-17-21-24-29-31. Feb. 8-12. Mar. 10-11. } 21 Visits.

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

Is the approved plan of main boiler forwarded herewith
 " " " shafting " " Yes.
 " " " donkey " " "

Dates of Examination of principal parts—Casings 3-12-17 Rotors 28-11-17 Blading 8-2-18 Gearing 9-1-17

Rotor shaft 28-11-17 Thrust shaft 28-11-17 Tunnel shafts _____ Screw shaft _____ Propeller _____

Stern tube _____ Steam pipes tested _____ Engine and boiler seatings _____ Engines holding down bolts _____

Completion of pumping arrangements _____ Boilers fixed _____ Engines tried under steam _____

Main boiler safety valves adjusted _____ Thickness of adjusting washers _____

Material and tensile strength of Rotor shaft Cast Steel: HP. 70040 lbs. L.P. 74720 lbs. Identification Mark on Do. L.P. 329 W.B. ma
 flex. shaft. Nickel Steel. Pinions Ingot Steel. 1st Red. 87430. 97300 101200. 92750 2nd R. 90300. 100500 Identification Mark on Do. 2nd Red. P. 38
 Material and tensile strength of Pinion shaft 1st Red. 87430. 97300 101200. 92750 2nd R. 90300. 100500 Identification Mark on Do. 2nd Red. P. 38
 Pinion S. 1st Red. flex. P. 217 B.F.B. S. 348 W.B. Pin. { 5. 4. 3. 2. 1. }
 Pinion L.S. 38

Material of Wheel shaft Ingot Steel Identification Mark on Do. 13 W.J.F. Material of Thrust shaft large shaft. Identification Mark on Do. ✓

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do.

Material of Steam Pipes _____ Test pressure _____

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 Section 49 of the Rules been complied with _____

Is this machinery a duplicate of a previous case No. If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.)
 This machinery has been built under special survey; the material and workmanship are of good quality; the hydraulic tests on the cylinders and the shop steaming trials proved satisfactory. The machinery has been shipped to Los Angeles to be fitted to the vessel, and the Surveyors at Los Angeles have been notified.

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 ... £ : :
 1/3 Special fee charged to Westinghouse 84.00 : :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ \$ 5.00 : :
 When applied for, 19____
 When received, 20/9/18 579

A. D. Dillertops
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute New York AUG 16 1918

Assigned See L. To. Rpt 2778

