

RECEIVED NEW YORK SEP 23 1922

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REPORT ON MACHINERY

No. 162

MON. 4 OCT. 1922

Received at London Office

Date of writing Report 3/1/22 When handed in at Local Office 19 Port of Cleveland Ohio
No. in Survey held at Erie, Pa. Date, First Survey 4th Oct 1921 Last Survey 21/12/1921
Reg. Book. 500 K.W. reduction gears, for lighting sets. R.M.P. H.S. 5007. 221100 (Number of Visits 5) Gross 10222
on the new York Shipbuilding Co's Hull No 267. "KAMO1" Tons Net 5704
Master Camden, N.J. Built at CAMDEN, N.J. By whom built NEW YORK S. B. CORP. When built 1922
Engines made at Erie, Pa. By whom made General Electric Coy. when made 1921
Boilers made at CAMDEN By whom made NEW YORK S. B. CORP. when made 1922
Registered Horse Power 14400 Owners IMPERIAL JAPANESE NAVY Port belonging to —
Shaft Horse Power at Full Power 8000 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted YES.

TURBINE ENGINES, &c.—Description of Engines 500 KW. Single stage, reduction gears No. of Turbines 2 sets
Diameter of Rotor Shaft Journals, H.P. ✓ L.P. ✓ Diameter of Pinion Shafts 5.5" High speed. 6.0" Low Speed
Diameter of Journals 5.5" & 6.0" Distance between Centres of Bearings 21.75" & 21.0" Diameter of Pitch Circle 5.8" H.S. & 26.4" L.P.
Diameter of Wheel Shaft ✓ Distance between Centres of Bearings ✓ Diameter of Pitch Circle of Wheel ✓
Width of Faces 5" Diameter of Thrust Shaft under Collars ✓ Diameter of Tunnel Shaft as per rule. ✓
To. of Screw Shafts ✓ Diameter of same as fitted. ✓ Diameter of Propeller ✓ Pitch of Propeller ✓
To. of Blades ✓ State whether Moveable ✓ Total Surface ✓ Diameter of Rotor Drum, H.P. ✓ L.P. ✓ Astern ✓
Thickness at Bottom of Groove, H.P. ✓ L.P. ✓ Astern ✓ Revs. per Minute at Full Power, Turbine ✓ Propeller ✓

ARTICULARS OF BLADING.

	H. 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.
ST EXPANSION									
1 ST									
2 ND									
3 RD									
4 TH									
5 TH									
6 TH									
7 TH									
8 TH									

No. and size of Feed pumps
No. and size of Bilge pumps
No. and size of Bilge suction in Engine Room
In Holds, &c.
No. 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
What pipes are carried through the bunkers 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 —

OILERS, &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
each boiler 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 Thicknes 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 End plates in steam space
Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules Material of stays
Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of Front plates at bottom
Diameter at smallest part Area supported by each stay Working pressure by rules Working pressure of plate by rules
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

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:—

one high speed pinion

The foregoing is a correct description,

General Electric Company Manufacturer.

per A. J. Redpath - Turbine Eng. Dept.

Dates of Survey while building { During progress of work in shops -- 1921 Oct. 4. 28. Nov 17 Dec. 8. 21.
During erection on board vessel ---
Total No. of visits _____

Is the approved plan of main boiler forwarded herewith _____

Dates of Examination of principal parts—Casings _____ Rotors _____ Blading _____ Gearing _____
Rotor shaft _____ Thrust shaft _____ 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 shafts 82,000# 75,200# Gears 115,500# 122,500# Identification Mark on Do. LLOYDS G.
Material and tensile strength of Pinion shafts 104,900# 113,500# 113,000# Identification Mark on Do. LLOYDS G.
Material of Wheel shaft _____ Identification Mark on Do. _____ Material of Thrust 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.)

The above gears have been built under Special Survey. The material & workmanship employed in their construction, so far as can be seen are sound & good. The gears were assembled in the shop & operated at full speed under a load of 100 K.W. until satisfactory both contact, & bearing temperatures, were obtained. It is understood that these gears are to be shipped to the builder's works at Delencatady, where they will be coupled to the turbines & tried out under full load conditions.

The amount of Entry Fee ... \$: : When applied for, 24/12/21
Special ... \$ 100 : 00 :
Donkey Boiler Fee ... \$: :
Travelling Expenses (if any) \$ 51 : 00 : When received, 24/11/22

B. Drummond.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute NEW YORK TUE. 26 SEP. 1922

Assigned

See Phil. 4445



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