

Received at London Office.....12 1921

Date of writing Report: Sept 1920 When handed in at Local Office: 27 June 1921 Port of: NEWCASTLE-ON-TYNE
 No. in Survey held at: WALKER Date, First Survey: 19th Feb. 1920 Last Survey: 28th Sept. 1920
 Reg. Book. (Number of Visits: 7) Gross
043 on the steel screw steamer "MIDDLESEX" 215 1026 Tons

Master	Built at <i>Walker</i>	By whom built <i>Swan Hunter & Rygham</i>	When built
Engines made at <i>Manchester</i>	By whom made <i>The Metropolitan Co Ltd & Swan Hunter & Rygham</i>	when made	
Boilers made at <i>Walker & Tyne</i>	By whom made <i>Swan Hunter & Rygham</i>	when made	
Registered Horse Power	Owners <i>Federal Stevedoring Co Ltd</i>	Port belonging to	
Shaft Horse Power at Full Power <i>6350</i>	Is Refrigerating Machinery fitted for cargo purposes <i>Yes</i>	Is Electric Light fitted <i>Yes</i>	

Particulars of parts - supplied by Parsons Marine Turbine Co. Ltd. - Walhead - order no 7924
 RBINE ENGINES, &c - Description of Engines please see Manufacturers report - 4651 No. of Turbines two
 Metropolitan - Vickers - Kalam Type Turbines - 2 engines see report
 Diameter of Rotor Shaft Journals. H.P. L.P. Diameter of Pinion Shaft 6 dia "

Diameter of Journals	6"	Distance between Centres of Bearings		Diameter of Pitch Circle	$\pi \times 9.269 = 29.1485$
Diameter of Wheel Shaft	18 1/2"	Distance between Centres of Bearings		Diameter of Pitch Circle of Wheel	$1 \frac{1}{2} \times \pi \times 6.227 = 12.10248$
Red. 22"	25 Red 37"				
Width of Face	~	Diameter of Thrust Shaft under Collars		Diameter of Tunnel Shaft	as per rule.....
					as fitted.....
No. of Screw Shafts	one	Diameter of same	as per rule.....	Diameter of Propeller	Pitch of Propeller.....
			as fitted.....		

No. 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 _____

PARTICULARS OF ~~BLADING~~. *Gearing - Marking of Forgings*
 H P I P

ASTER

[illegible]

7/ and size of Feed pumps
8/ and size of Bilge pumps
9/ and size of Bilge suction in Engine Room
10/

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

ILERS, &c.—(Letter for record)		Manufacturers of Steel	
Working 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
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
Percentages of strength of longitudinal joint	Working pressure of shell by rules	Size of manhole in shell	
Material	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
Pitch of stays to ditto: Sides	Back	Top	Bottom
Material of stays	Diameter at smallest part	Area supported by each stay	Working pressure by rules
Material	Thickness	Pitch of stays	How are stays secured
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
Diameter of tubes	Pitch of tubes	Material of tube plates	Thickness: Front
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	Pitch of rivets
Working pressure of shell by rules	Crown plates: Thickness	How stayed	

...an pitch of stays
 © 2020 Depth and
 ...n each
 Diameter
 Pitch of rivets
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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,

Manufacturer.

28/9.20
Dates of Survey while building { During progress of work in shops - -
During erection on board vessel - - -
Total No. of visits 7
Is the approved plan of main boiler forwarded herewith
" " " donkey " " "
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 shaft ✓ Identification Mark on Do. ✓
Material and tensile strength of Pinion shaft Nickel Steel. 40/45 tons ✓ Identification Mark on Do. See below
Material of Wheel shaft 5 m Steel Identification Mark on Do. L.G.S. Material of Thrust shaft Steel Identification Mark on Do. L.G.S. 3/2
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 20 If so, state name of vessel _____

General Remarks (State quality of workmanship, opinions as to class, &c., S.H. & W.R. 5/1026- Parsons order no 7924-)

Mark on forgings - HP 1st Reduction Pinion T626. F680. Lloyd L.G.S. 9-20
" " " LP 1st " " 680E. 1660 Lloyd L.G.S. 9-20
" " " Spare " " 1735. 107D. Lloyd L.G.S. 9-20
" " " HP 2nd Reduction Pinion T1495. 4163 Lloyd L.G.S. 9-20
" " " LP 2nd " " T1964. 1725 Lloyd L.G.S. 9-20

The above gearing, machined by Messrs Parsons Steam Turbine Coy Ltd. to the order of Messrs Swan Hunter and Coy Ltd. to be provided for erecting at the Newcastle works. The gearing, and material found good and efficient. A further report will be made on the work done by Swan Hunter, and Messrs Richardson & Co.

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

Leonard G. Shallerons.

Engineer Surveyor to Lloyd's Register of Shipping.

TUE. 19 JUL. 1921

Committee's Minute

Assigned



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