

THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT

5448

23 OCT 1944
(Signature)

Machinery Particulars Required for Records, Register Book, Classification Certificate, &c.

of the ^{single, tripte,} ~~twin, quadruple~~ *SCREW MOTORSHIP EMPIRE FACILITY* A/MS 749

PRELIMINARY PARTICULARS

Shipbuilders... Messrs. ~~Richard Dunston Ltd.,~~ *Thorne HESSELE* Yard No. *453*
Enginebuilders... Messrs. *Blackstone & Co., Ltd.,* *Stanford.* Engine Works No. *46010*

Boilermakers (Main)..... Works No.....
" (Donkey)..... Works No.....

Description of Propelling Machinery } *Type E. P. V. M. D. R. 7 Vertical cold starting direct reversing diesel engine.*

BOILERS

Boilers: Main No. *SE DE* Cylindrical Multitubular : No..... Water Tube. Type..... W.P.....
Int. diameter..... length..... Heating Surface each..... Grate Surface each.....
Fuel : Coal, Oil, Coal and Oil. Draught : Natural, Closed Ashpit, Closed Stokehold, Induced. Are Superheaters fitted?.....
Safety valves type..... Diar..... Rule diar.....
Boilers: Aux. Donkey No..... Type..... W.P.....
Int. diameter..... length height..... Heating Surface each..... Grate Surface each.....
Safety valves type..... Diar..... Rule diar..... Fuel..... Draught.....
Main Steam Pipes: Material..... welded, brazed, seamless

PROPELLING MACHINERY

Steam Engines: No. of sets..... Cylinder diars..... Stroke.....
IHP each..... at..... RPM. Total capacity LP cylinder (each engine).....
Turbines: No. of sets..... HP IP LP Turbines on each shaft :..... Ahead..... Astern.....
SHP each..... at..... RPM. Astern SHP..... Type..... Impulse reaction.....
Gearing: Single Double reduction..... Speed reduction ratio *2 - 1*
Oil Engines: No. of sets *22* of *7* Cylr. $\frac{1}{2}$ cycle *single double* acting *clutch direct* reversing. Type *E. P. V. M. D. R. 7*
Cyl. diars. *8 3/4"* Stroke *11 1/2"* Bearing span *9 1/2"* Total capacity cylrs. (each engine) *4840 cubic inches*
BHP each *280* at *600* RPM. Mean Indicated pressure *92 lbs. per sq. in.* Max. firing pressure *720 lbs.*
Flywheel : Weight *.525* tons, Diameter *2.375* ft. Balance Weights : Total weight at radius of gyration *WR2 = 4380 in² lbs. x 8.* tons at..... ft.
Starting air reservoirs : No. *2* *riveted, seamless, welded.* Internal diar. *1' 11 7/8"* W.P. *300* capacity each *11.2* cub. ft.

Electric Propulsion: No. AC DC generators..... volts..... amps..... kW each at..... RPM
No. AC DC motors..... volts..... amps..... BHP each at..... RPM

Shafting: diars. crank motor *6 1/2" dia.* thrust..... intermediate *7' 4"* propeller *5 1/4"*
Rule diameters.....
Propeller: diar. *64 1/2"* pitch *Tip 46 Root 37* surface *12 1/2* RPM *600* Propeller shaft *liner non-continuous oil lubricated*

Date of Trial *Dock* *17 - 10 - 44* IHP SHP..... RPM..... Shaft RPM *2250* Knots..... Engine *500*

Class : **MBS** *X* See flyleaf in Register
Surveyor's Signature *A. Woodall* Lloyd's Register

NOTE.—This form, completed in respect of preliminary particulars, should be forwarded to the Head Office as soon as possible after the order has been placed.

002659-002666-0036

J. P. Gately
Lloyd's Register
Foundation

Particulars of Auxiliary Machinery Ordered by Enginebuilders.

	MAKERS	No., DESCRIPTION, SIZE, &c.
Superheater - - -		
OF Burning Plant - - -		
Evaporator - - -		
Feed Heater - - -		
„ Filter - - -		
Air Compressors - - -	Hamworthy Part No. X99/4397 (2)	2 Stage Vertical Water Cooled
„ Reservoirs - - -	Ruston & Hornsby. Part No. X99/4379 (2)	No 2 Type 11.2 cuft Capacity
Dynamo's - - -	CAMPBELL & ISHERWOOD (2)	No. 23887 volts. 110 amps. 547 Total kW. 6.
„ Engines - - -	Messrs R & A LISTER (2)	24203 2 cylinder 4 cycle vertical diesel Type. 24/23 CEM.
Electric Auxiliaries - - -		

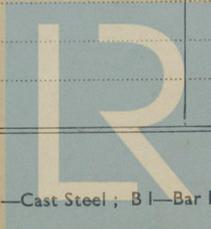
Particulars of Materials—Plates, Pipes, Forgings, and Castings.

Boilers and Air Reservoirs	MAIN	AUX. OR DONKEY
Makers of Plates (Shell) - - -	APPLEBY FRODINGHAM.	
„ „ (Flanging) - - -	„ „	
„ „ (Furnace) - - -		
„ Stay Bars - - -		
„ Rivets - - -	COOPER & TURNER	
„ Tubes - - -		
„ Furnaces - - -		

ITEMS WHICH ARE SUBJECT TO MATERIAL TESTS

Engine Forgings and Castings, &c.	No.	MATERIAL *	MADE BY	FINISHED BY
Crank Shaft Body Pieces) -				
„ „ Pins - - -) -	18510A/M		Mitchell Shackleton	
„ „ Webs - - -) -				
Piston Rods - - -				
Connecting Rods - - -	A/14845CS		Kirkstall Forge Co.	
Crossheads - - -				
Turbine Spindles - - -				
„ Discs or Drums - - -				
„ Pinions - - -				
Reduction Gear Shafts - - -	XOI/41190		Clarkes Crank & Forge Co.	
Main Gear Shafts - - -				
„ Motor Shafts - - -				
„ Generator Shafts - - -				
Thrust Shafts - - -				
Intermediate Shafts - - -	4-9-44 RP-BC E 14564 - JCM 9448		4-4-44 Clarkes Crank & Forge Co.	BRUNTON'S SUDBURY
Propeller Shafts - - -	1 STEEL	BC-RP E 14564 BC 8664		BRUNTON'S SUDBURY
Steel Castings - - -				
Aux. Eng. Crank Shafts - - -	2 STEEL			Messrs R. A LISTER
Propeller - - -	1 C.I		BRUNTON'S SUDBURY	BRUNTON'S SUDBURY
Pipes, Main Steam, Air, &c. - - -	2 SDS		STEWART & LLOYD'S	Messrs AMOS & SMITH.

* I—Scrap Iron ; S—Scrap Steel ; IS—Ingot Steel ; CS—Cast Steel ; BI—Bar Iron.



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