

THE BRITISH CORPORATION REGISTER
OF SHIPPING AND AIRCRAFT

5448

Machinery Particulars

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

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

PARTICULARS

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

PRELIMINARY

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. 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 reduction... Speed reduction ratio... *2 - 1*
Oil Engines: No. of sets *22* of *7* Cylr. $\frac{4}{2}$ cycle *single double* acting *clutch direct* reversing. Type... *E. P. V. M. D. R. 7*
Cyl. diars. *8 $\frac{3}{4}$ "* Stroke... *11 $\frac{1}{2}$ "* Bearing span... *9 $\frac{1}{2}$ "* 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.*
Starting air reservoirs : No. *2* *riveted, seamless, welded,* Internal diar. *1' 11 $\frac{7}{8}$ "* W.P. *300* capacity each... *11.2* cub. ft.
Electric Propulsion: No. AC generators... volts... amps... kW each at... RPM
No. AC motors... volts... amps... BHP each at... RPM

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

Date of Trial Trip *Dock 17 - 10 - 44* IHP SHP... *2520* RPM... *500* Knots

Class : **MBS** See flyleaf in Register Surveyor's Signature *A. H. Hall* *J. P. Grady*

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

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 cu ft Capacity.
Dynamos - - -	CAMPBELL & ISHERWOOD (2)	No. 23887 volts. 110 amps. 54.7 Total kW. 6.
„ Engines - - -	Messrs R & A LISTER (2)	24203 2 cylinder 4 cycle vertical diesel type. 24/23 CEM.
Electric Auxiliaries - - -		

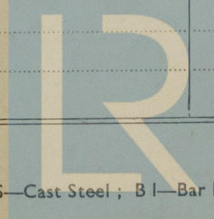
Particulars of Materials—Plates, Pipes, Forgings, and Castings.

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

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 - - -			4-9-HARP-BC E 14564 - JCM 9448	4-4-44
Intermediate Shafts - - -	X55/11132		Clarkes Crank & Forge Co.	BRUNTONS SUDBURY
Propeller Shafts - - -	1	STEEL BC-RP E 14564 BC 8664		BRUNTONS SUDBURY
Steel Castings - - -				
Aux. Eng. Crank Shafts - -	2	STEEL		MESSRS R. A LISTER
Propeller - - -	1	C.I	BRUNTONS SUDBURY	BRUNTONS SUDBURY
Pipes, Main Steam, Air, &c. -	2	S.DS	STEWART & LLOYDS	MESSRS AMOS & SMITH.

ITEMS WHICH ARE SUBJECT TO MATERIAL TESTS

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



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