

REPORT ON MACHINERY.

Received at London Office THU. JAN. 13 1921

Date of writing Report 12th Jan 1921 When handed in at Local Office 12th Jan 21 Port of

NEWCASTLE-ON-TYNE

No. in Survey held at *Parson on Tyne* Date, First Survey 2nd Dec. 1920 Last Survey 12th Jan 1921

Reg. Book. *55253 on the S.S. Milluna ex Franjiska.*

(Number of Visits 14) Gross 5129 Tons Net 3164

Master *Adelaide S.S. Co. Ltd* Built at *Bremerhaven* By whom built *Rickmers Werft* When built 1914

Engines made at *Bremen* By whom made *Actien Gesellschaft Weser* when made 1914

Boilers made at *do* By whom made *do* when made 1914

Registered Horse Power *500* Owners *Adelaide S.S. Co. Ltd* Port belonging to *London*

Nom. Horse Power as per Section 28 *500* Is Refrigerating Machinery fitted for cargo purposes *no* Is Electric Light fitted *yes*

ENGINES, &c.—Description of Engines *Triple Expansion* No. of Cylinders *3* No. of Cranks *3*

Dia. of Cylinders *28 1/8, 45 1/4 & 74"* Length of Stroke *53 1/4"* Revs. per minute *66* Dia. of Screw shaft as per rule *16.19* Material of screw shaft *Not known*

Is the screw shaft fitted with a continuous liner the whole length of the stern tube *no liners* Is the after end of the liner made water tight in the propeller boss *✓* If the liner is in more than one length are the joints burned *✓* If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive *✓* If two liners are fitted, is the shaft lapped or protected between the liners *✓* Length of stern bush *66"*

Dia. of Tunnel shaft as per rule *14 1/2"* Dia. of Crank shaft journals as per rule *15.13* Dia. of Crank pin *15 1/8"* Size of Crank webs *30 x 9 1/2"* Dia. of thrust shaft under collars *15 1/8"* Dia. of screw *15-0"* Pitch of Screw *✓* No. of Blades *4* State whether moveable *yes* Total surface *✓*

No. of Feed pumps *2* Diameter of ditto *3 7/8"* Stroke *27"* Can one be overhauled while the other is at work *yes*

No. of Bilge pumps *2* Diameter of ditto *4 1/4"* Stroke *27"* Can one be overhauled while the other is at work *yes*

No. of Donkey Engines *5* Sizes of Pumps *2 1/2, 2 1/4, 2 1/8, 2 1/16, 2 1/32, 1 1/2, 1 1/4, 1 1/8, 1 1/16, 1 1/32, 1 1/64, 1 1/128, 1 1/256, 1 1/512, 1 1/1024, 1 1/2048, 1 1/4096, 1 1/8192, 1 1/16384, 1 1/32768, 1 1/65536, 1 1/131072, 1 1/262144, 1 1/524288, 1 1/1048576, 1 1/2097152, 1 1/4194304, 1 1/8388608, 1 1/16777216, 1 1/33554432, 1 1/67108864, 1 1/134217728, 1 1/268435456, 1 1/536870912, 1 1/1073741824, 1 1/2147483648, 1 1/4294967296, 1 1/8589934592, 1 1/17179869184, 1 1/34359738368, 1 1/68719476736, 1 1/137438953472, 1 1/274877906944, 1 1/549755813888, 1 1/1099511627776, 1 1/2199023255552, 1 1/4398046511104, 1 1/8796093022208, 1 1/17592186044416, 1 1/35184372088832, 1 1/70368744177664, 1 1/140737488355328, 1 1/281474976710656, 1 1/562949953421312, 1 1/1125899906842624, 1 1/2251799813685248, 1 1/4503599627370496, 1 1/9007199254740992, 1 1/18014398509481984, 1 1/36028797018963968, 1 1/72057594037927936, 1 1/144115188075855872, 1 1/288230376151711744, 1 1/576460752303423488, 1 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IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: Two top & 2 bottom end bolts & nuts, 2 main bearing bolts & nuts, 1 set coupling bolts and nuts, one set feed & 1 set bilge pump valves, a few bars of iron and a quantity of assorted bolts & nuts, one set each of HP, IP & LP piston rings & springs, 2 bronze propeller blades and 16 studs and nuts for same, one air pump rod and nut, one set of crank pin brasses, 1 eccentric pulley & straps, 15 Kinghorn valves, 40 condenser tubes, one set each HP & IP piston valve rings & air pump links, 1 circulating pump rod & nut one propeller shaft, 1 HP & 1 IP cylinder cover, 1 set crosshead brasses, 3 safety valves & one set of springs for same. One dynamo armature, 8 valve springs & 4 valve spindles, 1 piston rod and 1 bucket rod for ballast pump, Cylinder cover, piston, rods, crosshead brasses for fan engine etc.

The foregoing is a correct description.

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

The machinery and boilers have not been constructed under special survey.

The approved plan is in the vessels German certificate boiler book and the book was handed to Messrs. [unclear] & [unclear] representative " " donkey " " " Done

Dates of Examination of principal parts - Cylinders 8/12/20 Slides 8/12/20 Covers 8/12/20 Pistons 8/12/20 Rods 8/12/20
Connecting rods 8/12/20 Crank shaft 8/12/20 Thrust shaft 8/12/20 Tunnel shafts 8/12/20 Screw shaft 9/12/20 Propeller 9/12/20
Stern tube 9/12/20 Steam pipes tested 11th Jan/21 Engine and boiler seatings 8/12/20 Engines holding down bolts 8/12/20
Completion of pumping arrangements 11th Jan/21 Boilers fixed 8/12/20 Engines tried under steam 20/12/20
Completion of fitting sea connection 20/12/20 Stern tub 20/12/20 Screw shaft and propeller 20/12/20
Main boiler safety valves adjusted 20/12/20 Thickness of adjusting washers P.B. 1/4 x 5/16 C.B. 1/4 x 1/32 S.B. 3/8 x 15/32
Material of Crank shaft SM steel Identification Mark on Do. Material of Thrust shaft SM steel Identification Mark on Do.
Material of Tunnel shafts do Identification Marks on Do. Material of Screw shafts do Identification Marks on Do.
Material of Steam Pipes Iron or steel or Lath Test pressure not yet tested
Is an installation fitted for burning oil fuel No 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 duplicate of a previous case No If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) The machinery of this vessel has not been constructed under special survey, the scantlings of the boilers have been compared with the approved plans and are practically in accordance with them for a working pressure of 14 Kilogrammes per square centimetre, the shafting was examined and gauged and found to be on the small side for that pressure and the safety valves of the main boilers are now adjusted for a working pressure of 195 pounds per square inch and this pressure was agreed to by the Owners representative.

So far as can be judged from the thorough examination of the several parts now opened out for survey, the main engines, boilers and auxiliaries are in a condition practically as good as when new and the workmanship and materials appear to be of good quality.

In my opinion the machinery of this vessel is now eligible for record L.M.C. 1-21, tail shaft 1-21, 3 Brs. 195 lbs, HS 665 lb. GS 147 lb.

The amount of Entry Fee ... £ : :
Special ... £ 30 : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 19...
When received, 10.2.21

George Murdoch
Engineer/Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned

FRI, 11 FEB. 1921



Certificate (if required) to be sent to
The Surveyors are requested not to write on or below the space for Committee's Minute.