

REPORT ON OIL ENGINE MACHINERY.

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When handed in at Local Office

Port of

Survey held at *Birkenhead*

Date, First Survey *Nov 5th 18* Last Survey *July 16th 1920*
Number of Visits *122*

Single
on the *Twin* } Screw vessels *"Tullagar"*
Triple

Tons } Gross *391*
Net *170*

Built at *Birkenhead* By whom built *Cammell Laird & Co. Ltd.* No. *882* When built *1920*

made at *Birkenhead* By whom made *Cammell Laird & Co. Ltd.* Engine No. *882* When made *1920*

Boilers made at *Annan* By whom made *Cochrane & Co. Ltd.* Boiler No. *7606* When made *1919*

Horse Power *500* Owners *J. & F. Brocklebank, Ltd.* Port belonging to *Liverpool*

Is Refrigerating Machinery fitted for cargo purposes *No* Is Electric Light fitted *Yes*

GINES, &c.—Type of Engines *Cammell Laird Tullagar* 2 or 4 stroke cycle *2* Single or double acting *Single*

Pressure in cylinders *550 lbs per sq. in.* No. of cylinders *4* No. of cranks *4* Diameter of cylinders *14"*

Stroke *(20" x 2)* Revolutions per minute *120* Means of ignition *High compression* Kind of fuel used *Heavy oil*

Clearance between each crank *No* Span of bearings (Page 92, Section 2, par. 7 of Rules) *3' 8 1/4"*

Distance between centres of main bearings *4' 8 3/4"* Is a flywheel fitted *Yes* Diameter of crank shaft journals *as per Rule Approved*

Crank pins *9 1/2"* Breadth of crank webs *as per Rule Approved* Thickness of ditto *as per Rule Approved*

Flywheel shaft *as per Rule Approved* Diameter of intermediate shaft *as per Rule Approved* Diameter of thrust shaft *as per Rule Approved*

Screw shaft *as per Rule Approved* Is the screw shaft fitted with a continuous liner the whole length of the stern tube *Yes*

End of the liner made watertight in the propeller boss *Yes* If the liner is in more than one length are the joints burned *In one length*

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 *Yes*

Are fitted, is the shaft lapped or protected between the liners *Yes* If without liners, is the shaft arranged to run in oil *Yes*

Gland fitted to stern tube *None* Length of stern bush *3' 0"* Diameter of propeller *8' 9"*

Propeller *10' 0"* No. of blades *Four* State whether moveable *No* Total surface *26.1* square feet

Reversing Engines reversible Is a governor or other arrangement fitted to prevent racing of the engine when disengaged *Yes* Thickness of cylinder liners *1 1/2"*

Valves fitted with safety valves *Yes* Means of lubrication *Forced* Are the exhaust pipes and silencers water cooled or lagged with *Yes*

Lag material *Yes* If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine *Yes*

Led into funnel No. of cooling water pumps *3* Is the sea suction provided with an efficient strainer which can be cleared *Yes*

essel *Yes* No. of bilge pumps fitted to the main engines *One* Diameter of ditto *3 1/2"* Stroke *10"*

Overhauled while the other is at work *Yes* No. of auxiliary pumps connected to the main bilge lines *One* How driven *Steam*

4" x 4" x 6" No. and sizes of suctions connected to both main bilge pumps and auxiliary bilge pumps:—In engine room *Three - 2"*

etc. *Two - 2"* No. of ballast pumps *One* How driven *Steam* Sizes of pumps *4" x 4" x 6"*

pump fitted with a direct suction from the engine room bilges *Yes* State size *2"* Is a separate auxiliary pump suction fitted in *Yes*

and size *No* Are all the bilge suction pipes fitted with roses *Yes* Are the roses in Engine Room always accessible *Yes*

on Engine Room bulkheads always accessible *None* Are all connections with the sea direct on the skin of the ship *Yes*

Valves and cocks *Yes* Are they fixed sufficiently high on the ship's side to be seen without lifting the floor plates *Yes*

Large pipes above or below the deep water line *Above* Are they each fitted with a discharge valve always accessible on the plating of the vessel *Yes*

cocks, valves and pumps in connection with the machinery accessible at all times *Yes* Are the bilge suction pipes, cocks and valves arranged so as to prevent any *Yes*

between the sea and the bilges *Yes* Is the screw shaft tunnel watertight *None* Is it fitted with a watertight door *Yes*

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork *Yes*

Air compressors *One* No. of stages *3* Diameters *16 1/2", 14 1/2", 3 1/2"* Stroke *14"* Driven by *Main engine*

Auxiliary air compressors *One* No. of stages *2* Diameters *4 3/4", 1 1/2"* Stroke *4"* Driven by *Hot bulb engine*

Auxiliary air compressors *None* No. of stages *✓* Diameters *✓* Stroke *✓* Driven by *✓*

ing air pumps *Four* Diameter *Rectangular 33 1/2" x 15 1/2"* Stroke *20* Driven by *Main engine*

Auxiliary Diesel Engine crank shafts *as per Rule* *3"* Are the air compressors and their coolers made so as to be easy of access *Yes*

REIVERS:—No. of high pressure air receivers *Two* Internal diameter *13"* Cubic capacity of each *274 cu. ft.*

Seamless, lap welded or riveted longitudinal joint *Seamless* Range of tensile strength *28/32 tons per sq. in.*

working pressure by Rules *2000 lbs per sq. in.* No. of starting air receivers *9* Internal diameter *17 1/2"*

Capacity *165 cu. ft.* Material *Mild Steel* Seamless, lap welded or riveted longitudinal joint *Seamless*

Strength *28/32 tons per sq. in.* thickness *5/8"* Working pressure by rules *970 lbs per sq. in.* Is each receiver, which can be isolated, *Yes*

ely valve as per Rule *Yes* Can the internal surfaces of the receivers be examined *Yes* What means are provided for cleaning their *Yes*

Bole *2 3/4" dia.* Is there a drain arrangement fitted at the lowest part of each receiver *Yes*

