

Port of New York N.Y.

Continuation of Report No.

Dated

Oct 24 1919  
b7cReport on Machinery

Survey held at Auburn N.Y. of late first survey

Last Survey  
Survey  
Tops. Net.

Engines made at Auburn N.Y. by the J. J. &amp; S. J. Corp. 1918

Gross horse power 500 each, maximum pressure in cylinders 500 lbs. sq. in.

Engines - Description. 2 four cycle Diesel type two of cylinders each.  
 No. of main cranks 6. No. of air compressor cranks 1. Dia. of main  
 cylinders 16" Length of stroke 24" Rev. per min. 185 Minimum rev. per  
 minute 60 Maximum rev. per minute 240. Dia. of crank shaft  
 journals Fitted 9.435" Dia. of crank pin Fitted 9.435" Size of crank  
 webs Fitted 13" x 5 1/4" Dia. of thrust shaft inner rollers 9.5" Dia. of  
 shaft 9.5".

Cylinders liners are of special hard close grained casting of plain  
 cylindrical form turned on the outside as well as bored on the  
 inside and have been examined and found sound.

Water jackets of cylinders and water passages of the cylinder covers  
 have been tested by hydraulic pressure to 80 lbs. sq. in. and found  
 good and tight. Pistons not water or oil cooled.

Exhaust pipes are water cooled no silencers are furnished with  
 the engine.

Cylinder heads are fitted with safety valves loaded to 20% above  
 maximum working pressure in the cylinders and discharge where  
 no damage can occur.

Air compressors and their valves are easy of access for overhauling  
 and adjustment and a unique unloading chamber of approved  
 design provides for the gradual unloading of the compressor  
 through the complete range of output.

The air compressor is a true stage compressor and the compressor on  
 each engine is of sufficient capacity to furnish injection air for  
 two engines when operating at their maximum loads and  
 maximum speeds with still some margin of safety. A purge  
 port is fitted on each stage and one on the after cooler.

The main injection air receivers of the seamless drawn steel type were  
 manufactured by the Trindell Mfg. Co. of Eddystone Pa. and are  
 9 1/2" outside diameter by 83 inches long and 5/16 inch thick. The  
 reserve injection air receiver was manufactured by M.W. Kellogg of  
 Jersey City and is 18 in. outside diameter by 8 ft 3 1/2 inches long and  
 is one inch thick. This is lap welded, design submitted and approved and tested.

The maneuvering air receivers are constructed of riveted steel plates  
 and manufactured by the Kitchin - Corley Co. of Pittsburgh Pa. They  
 are 4'-6" inside diam. 11'-3 7/8" overall length and 1" in thickness.

The plans of these tanks were submitted and approved and tested  
 by hydraulic pressure to 500 lbs. sq. in. in the presence of the Surveyor.  
 Capacity on test provided for forty starts in each tank.

The plans of the crank and thrust shafts have been submitted



and approved and have been examined and filed as required by the Rules.

The engines have been tested in the shop under full power and found to give an effect at normal load and revolutions of 500 B.H.P. The motors have been overloaded at their normal speeds to 640 B.H.P. but the manufacturers make no guarantee whatever on overload and refuse any responsibility if the motors are operated under overload conditions.

One engine marked 440405 and one 440405 on crank and  
N<sup>o</sup> 267 19.9.18 Thrust shaft  
T.G.D. couplings.

Spares List: - Cylinders head complete, exhaust valve complete, 2 exhaust valves, air valve complete, fuel valve complete, air starting valve complete, safety valve for cylinder head complete, relief valve for cylinder head complete, piston complete, set of main piston rings, 6 fuel valve needles, fuel valve guide, fuel valve lifting nut, fuel valve stuffing box and gland, atomizer, burner plate, nut and ring, set gear wheels for cam shaft drive, fuel pump complete, fuel pump sight glass, set of air compressor piston rings, air compressor suction and delivery valves, injection air receiver valve disc, 2 connecting rod top and bottom end bolts and nuts, 2 main bearing bolts and nuts, set of crank shaft coupling bolts and nuts, set of intermediate shaft coupling bolts and nuts, set cylinder head studs and nuts, springs for air compressor suction and delivery valves, fuel pump suction and discharge valves, several lengths of piping various sizes for fuel delivery air blasts etc, with unions, bolts and nuts, assortment of bolts and nuts, packing and gaskets.

The foregoing is a correct description.

His Intro to Liquor Corporation and Trade Manufacturers

The Society's Rules as to the details of construction, fitting of valves, lubrication, accessibility etc. have been fully complied with as far as the construction of these main engines are concerned. The remaining requirements will have to be attended to at the fitting of the motors in the vessel. In my opinion these engines are of good design, the materials and workmanship are sound and good and are eligible to be classed in the Society's Register Book providing all the requirements of the Rules are carried out when fitted aboard ship.

Dates of survey while building in. Chaps - 1918. JAN. 30. FEB. 15. APR. 13. 4. MAY. 14.  
JULY 9. AUG. 22. SEPT. 19.

Entry Fee	\$ 25.00	Fee applies for 28 Oct/18
Survey	\$ 100.00	
Expenses	\$ 23.17	

Engineers Survey to Lloyd's Register

See Seattle # 893

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