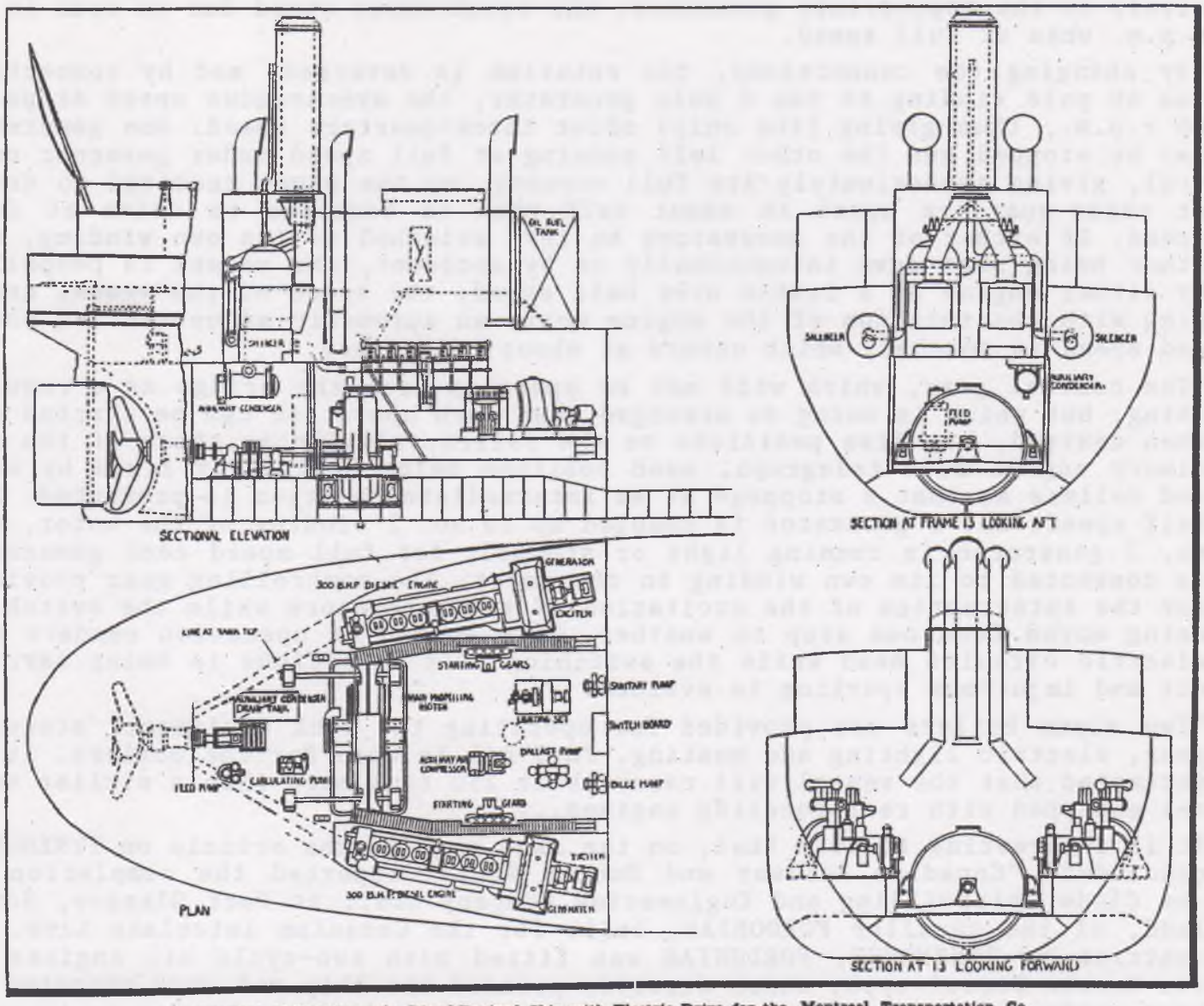

Arrangement of Machinery in Diesel-Engined Ship with Electric Drive for the Montreal Transportation Co.

the engine, which also supplies the compressed air for forcing the fuel oil into the cylinders. A patent arrangement for the prevention of the accumulation of fuel oil in the valves is provided. A small fly wheel is used, sufficiently heavy to ensure steady running, etc. Cooling water is circulated through the cylinder and compressor jackets by a rotary pump drawing directly from the sea, and is driven by mitres geared from the compressor end of the crank shaft. The air for the main cylinders is taken through the bed plate. Under normal operation the engines will run under governor control at 400 r.p.m., but the speed can be adjusted by the governor so that it may maintain a rate considerably below this if required.

"The electric equipment consists of two three-phase generators giving 235 kilovolt-amperes at 500 volts alternating, each. They have six and eight poles respectively, giving frequencies of 20 and 26.6 per second. An exciter is connected to the shaft of each generator, which when working normally gives about 30 amperes at 100 volts, and is arranged for a considerable overload. Coupled direct to the propeller shaft is a single three-phase motor, developing 500 shaft h.p. The motor is of the simple squirrel cage type without any mechanical or electrical connections, apart from its attachment to the propeller shaft. The stationary part of the motor has two separate windings for 30 and 40 poles respectively, which are mutually non-inductive, thus exercising no influence on one another, and they work independently on