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(54) Title: PERMANENT MAGNET MOTOR WITH A CLOSED COOLING SYSTEM

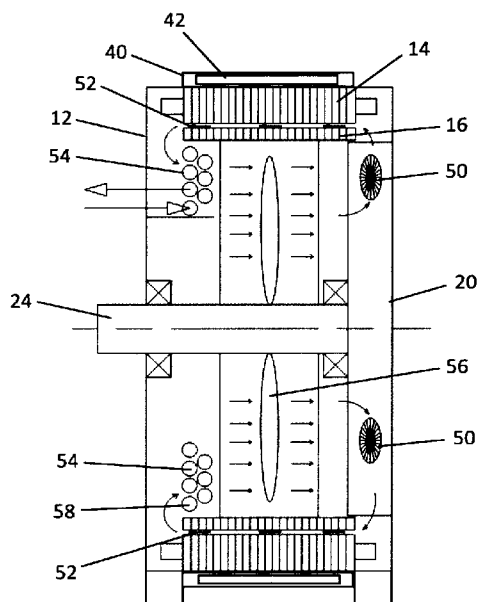


Fig. 9

(57) Abstract: An electric, permanent magnet motor (10) is described, where the motor comprises a motor housing (12) with a stator (14) and an internal rotating rotor (16) connected to a central shaft (24), as the rotor (16) is equipped externally with magnets (30) and the stator (14) is internally equipped with coils (32) and that during operation of the motor, the torque is transferred to the central shaft (24) for operation of external equipment. The motor (10) is equipped with a closed cooling system in the form of a rotor cooling system and a stator cooling system, where the closed rotor cooling system comprises an internal fan system in the motor housing (12) and which is arranged to force a cooling agent to flow through an air gap (52) between the rotor (16) and the stator (14), and past one or more heat exchangers (54) inside the motor housing (12), for cooling the cooling agent which shall be forced through the air gap (52) again, and the stator cooling system comprises a cooling jacket (40) in the motor housing (12), and which surrounds the stator (14), as the fluid is forced to flow through the cooling jacket (40) to take up the heat loss from, at least, the stator (14), and where the cooling jacket (40) of the stator cooling system comprises an internal fluid channel (42) for circulation of the fluid.