Principle of Magnetodynamics for Composite Magnetic Pole[1]

ALEXANDER ANIMALU, Dept. of Physics & Astronomy, Univ. of Nigeria, Nsukka — It is shown in this paper that geometry provides the key to the new *magnetodynamics* principle of operation of the machine (invented by Dr. Ezekiel Izuogu) which has an unexpected feature of driving a motor with static magnetic field. Essentially, because an array of like magnetic poles of the machine is arranged in a half circular array of a cylindrical geometry, the array creates a non-pointlike magnet pole that may be represented by a "magnetic current loop" at the position of the pivot of the movable arm. As a result, in three-dimensional space, it is possible to characterize the symmetry of the stator magnetic field **B** and the magnetic current loop **J** as a cube-hexagon system by a 6-vector (**J**,**B**) (with **J**.**B**$\neq$**0**) comprising a 4x4 antisymmetric tensor analogous to the conventional electric and magnetic 6-vector (**E**,**B**) (with **E**.**B**$\neq$**0**) comprising the 4x4 antisymmetric tensor of classical electrodynamics The implications are discussed.

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