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ABSTRACT

Shunt DC motor is a DC motor whose coil field is connected in parallel with the armature coil. The problem that often arises in the dc motor is the laying of the brush position. the presence of magnetic field reactions on the anchor makes the brush position on the dc motor commutator changed. In this thesis examined the relationship between brush position with rotation characteristics, from motor dc shunt amplifier. For zero or no-load load characteristics, the lowest losses are not at 0 °, this is because of losses that inhibit motor rotation. From the curve Im = f (V) no load the bracket position for the lowest field current at + 12 ° is 0.90A and on the curve N = f (Im) no load obtained brush position for the highest rotation at -24 ° is 1.00A . For the curve of the voltage to the field currents between load and no load conditions are different, even across, this indicates to obtain the lowest loss the brush position must be changed according to the motor load. The 24 ° brush angle to the left of the middle position has the best characteristics compared to the other positions. Highest motor efficiency of 73.64%.

Keywords : *DC Motor, shunt type. Brush position.*