

in which the 2,500 appears in the denominator to reduce to field amperes. This armature reaction will weaken the field, and require an excitation of $55.9 \text{ plus } .76 = 666$ amperes.

Checking the above for lagging current $E_m = 360 \text{ minus } 14.35 = 34565$. This corresponds to no load excitation of 4.5 amps. X_s as before equals .76 and X , 374 amperes. As it will be seen, the two above points coincide very closely with the curve which represents values actually observed on test.