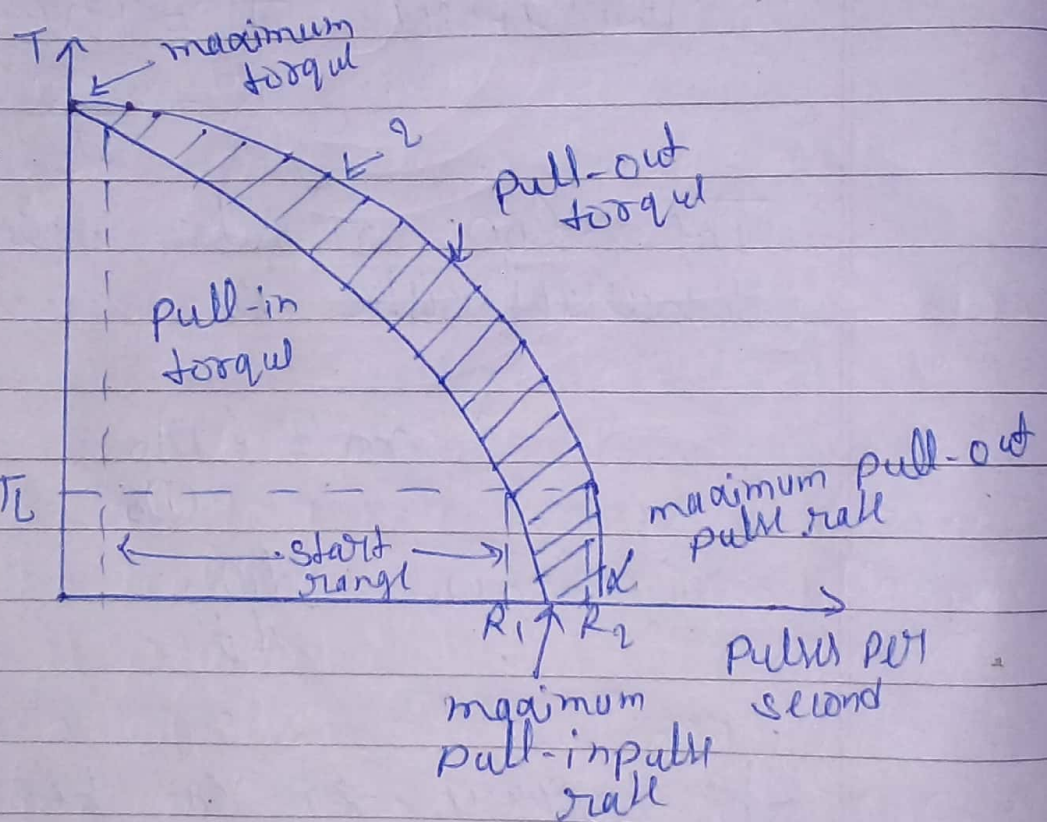
(1) This characteristics gives the variation of electric torque as a function of stepping rate in pulse per second.

With increase in stepping rate, the rotor gets less time in driving the load from one position to the next, the driving torque is therefore decrease.



A stepping motor is usually described by two characteristic curve 1 & 2:

Between the curve 1 & 2 the torque-pulse rate char^n give the 'slew range'.

The characteristic b/w curve 1 and the zero pulse-rate

vertical line is called the "start range".

Start-range lies in b/w the dotted vertical line indicating the low pulse rate & the pull in torque curve 1. The motor can start & synchronize with i/p pulse & can be stopped or reversed as desired in the start-range.

In the slew range the load follows the pulse rate upto pull out torque curve 2. for pulse rate more than that given by pull-out torque, the load starts missing steps.

x x