Ekman-Hartmann layer in many models of Geodynamo significantly or at least non-negligibly influence some processes. Strong reasons for anisotropic viscosity are in particular in boundary layer of the Ekman layer type. In horizontal fluid layer rotating around vertical axis and permeated by vertical homogeneous magnetic field the process of spin up is studied. The attention is focused on its dependence on anisotropic viscosity which is isotropic in horizontal directions, but the vertical viscosity is different from the horizontal one.