

ABSTRACT

PERMANENT MAGNET AND METHOD OF MANUFACTURING SAME

Disclosed is a method for producing a permanent magnet, which enables to disperse Dy and/or Tb, which adheres to the surface of a sintered magnet containing a lubricant, into the crystal grain boundary phase of the sintered magnet, thereby producing a permanent magnet having high magnetic characteristics with high productivity. Specifically, there are performed a first step for adhering at least one of Dy and Tb to at least a part of the surface of a sintered magnet obtained by sintering an iron-boron-rare earth alloy material powder containing a lubricant, and a second step for dispersing at least one of Dy and Tb adhering to the surface of the sintered magnet into the crystal grain boundary phase of the sintered magnet by conducting a heat treatment at a certain temperature. In this connection, one having an average crystal grain size within the range of 4-8 μm is used as the sintered magnet.

Figure 2