ABSTRACT

ALLOY MATERIAL, ALLOY PRODUCT USING ALLOY MATERIAL, AND MACHINE DEVICE PROVIDED WITH ALLOY PRODUCT

Provided is an alloy material that can improve mechanical properties in a high-temperature environment, an alloy product using the alloy material, and a machine device provided with the alloy product.

The alloy material is an alloy material containing each of Co, Cr, Fe, and Ni in a range of 5 at% to 40 at%, Mo in a range of more than 0 at% and 8 at% or less, Ti in a range of 1 at% to 10 at%, and B in a range of more than 0 at% and less than 0.15 at% with a remainder consisting of inevitable impurities. This alloy material may contain B in a range of 0.03 at% to 0.12 at% and may contain at least one of Ta and Nb in a range of 4 at% or less. Preferably, the Ti and the at least one of Ta and Nb are contained at a total of 3 at% to 10 at%.

Figure 1