162162

G00002

Abstract

An aim of the present invention is to accurately determine the radial rigidity of a bearing device.

The present invention concerns an apparatus (10) of producing a bearing device (5) comprising a pair of bearings (53), a shaft (52) mounted on the inner ring and an outer ring fixture member (51) mounted on the aforementioned outer ring, characterized in that there are provided vibrating units (23a, 23b) of giving a radial input vibration to each of the aforementioned inner rings or the both ends of the aforementioned shaft (52), a pair of input vibration detecting units (31a, 31b) of detecting the vibration of each of the aforementioned inner rings or the both ends of the aforementioned shaft (52), an adding unit (33) of calculating the output of said pair of input vibration detecting unit, a vibration detecting unit (31c) of detecting the vibration of a mass attached to the aforementioned outer ring fixture member (51), a transfer function calculating unit (41) of determining the transfer function from the output of the aforementioned vibration detecting unit and the aforementioned adding unit (33) to calculate the resonance frequency of the aforementioned bearing device (5) and a rigidity calculating unit (43) of determining the rigidity of the aforementioned bearing device (5) on the basis of the resonance frequency calculated by the transfer function calculating unit.