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(54) **ARMATURE SHAFT PRODUCING METHOD, ARMATURE SHAFT, AND ROTATING ELECTRIC MACHINE**

(57) In a forging process step, a small diameter portion 12 is formed in the leading end portion of a cylindrical shaft material 30, and an installation depressed portion 11d is formed on a base end face of the shaft material 30 for installing a ball 15 therein to receive thrust force, by cold forging process using a forging mold 31. In a worm forming process after the forging process step, a worm 13 is formed in the small diameter portion 12 by rolled dies. The small diameter portion 12 and the installation depressed portion 11d are formed by cold forging process, so that an outer circumferential face of the small diameter portion 12 and an inner face of the installation depressed portion 11d become even surfaces with small surface roughness.

EP 1 626 481 A8

FIG. 4

