Name. Method for manufacturing a gearbox housing.

Area. Machine manufacturing, specifically the manufacture of gearbox housings, and can be used in all sectors of industrial production for the machining of parts, particularly for machining bearing seating surfaces in gearbox housings or for boring the surfaces of any internal bores.

Essence. By placing the boring bar's clamp in an inductor coil made of a current-carrying conductor, a system is created that uses a magnetic field to act directly on the gearbox housing, thereby regulating the force of interaction between the cutting edge of the cutter and the workpiece surface.

Technical result. The creation of an electromagnetic system on the boring bar allows to minimize the deflection of the cutting tool caused by cutting forces, which in turn reduces vibrations in the machine-fixture-tool-workpiece system, improves tool stability, surface quality, and machining accuracy.