

Disc brake contains brake pads, a brake disc, and a clamping mechanism. The brake disc consists of at least two rings that are concentrically arranged relative to each other and made of different friction materials; the first ring is made of a friction material that primarily provides the molecular component of friction. The second ring is made of a friction material that primarily provides the mechanical component of friction; the periphery of the inner ring features lugs and holes in them. The inner surface of the outer ring also has lugs and holes in them; using these holes and lugs, the brake disc rings are connected to each other via floating bolt connections, and the brake disc has two friction tracks on each side, corresponding to the number of rings, and two brake pads on each side of the brake disc can press against the first of these tracks, and two against the second track as well, forming the main and auxiliary friction assemblies; these friction units have individual drives, and each brake pad has its own temperature sensor in the contact zone, which is capable of transmitting this signal to the brake control unit.