

## Patent Protection & Registration

[Patents](#) grant property rights on new and useful inventions, allowing the patent holder to prevent others from using, making, or selling that invention without permission for a limited time. U.S. patents are permitted by the U.S. Constitution and are designed to promote scientific progress and invention. By allowing inventors to profit from licensing or selling their patent rights, inventors can recoup their research and development costs and benefit financially from their inventing efforts. There are three main types of patents utility, plant, and design. Utility and plant patents can last up to 20 years, while design patents can last up to 15 years. When a patent expires, the patented material enters the public domain, making it free to use by anyone without a license. U.S. patents are issued by the [United States Patent and Trademark Office \(USPTO\)](#).

[U.S. Patent No. 11,549,397](#) entitled “Turbocharger with a Fluid-Dynamic Slide Bearing, or Fluid-Dynamic Slide Bearing” issued January 10, 2022 to Martin Berger of Oberderdingen-Flehingen and BMTS Technology GmbH & Co. KG of Stuttgart, Germany. Invented by Martin Berger of Oberderdingen-Flehingen; Rüdiger Kleinschmidt of Besigheim, Germany; Frieder Stetter of Stuttgart, Germany; Oliver Kuhne of Stuttgart, Germany; and Steffen Schmitt of Ditzingen, Germany. Abstract: The invention relates to an exhaust gas turbocharger having a fluid dynamic bearing having a rotor (10) and a counter-bearing part (50) assigned to the rotor (10), wherein a rotor bearing surface of the rotor (10) and a counterface of the counter-bearing part (50) face each other, to form a fluid dynamic bearing, wherein the rotor bearing surface and/or the counterface form(s) a continuous bearing contour when cut longitudinally and through the axis of rotation (R) in sectional view, which bearing contour(s) are formed of at least two contour sections (44.1 to 44.3; 53.1 to 53.3) to generate fluid dynamic load capacities in both the radial and the axial directions, wherein the bearing surface of the rotor (10) is formed by a rotor part (40), which is connected to a rotor shaft (11) and is secured on the rotor shaft (11), and wherein the rotor part (40) is supported relative to the rotor shaft (11) in the area of a support section (14) of the rotor shaft (11). In order to be able to provide such an exhaust gas turbocharger with a compact and efficient bearing arrangement having a fluid dynamic bearing, wherein at the same time the fluid dynamic bearing can be easily mounted using few parts, provision is made according to the invention that the support section (14) and at least one of the contour sections (53.1 to 53.3) of the counter-bearing part (50) at least sectionally overlap in the direction of the axis of rotation (R).

[U.S. Patent No. 11,549,234](#) entitled “Construction Machine Having a Device for Controlling the Construction Machine and Method for Controlling a Construction Machine” issued January 10, 2022 to Wirtgen GmbH of Windhagen, Germany. Invented by Andreas Vogt of Asbach, Germany; Sebastian Winkels of Windeck, Germany; Christian Berning of Zulpich, Germany and Tim Liesenfeld of Neuwied ST Heimbach-Weis, Germany. Abstract: A construction machine is provided with a control device

having an operating panel with operating elements, which can assume numerous switching states/positions, a control and monitoring unit for controlling machine components via control signals signaling the switching state/position of associated operating elements, and a display/signal unit interacting with the control and monitoring unit. The control device provides first and second signal transmission paths for transmitting a first control signal signaling the switching state/position of a first operating element and a second control signal signaling the switching state/position of a second operating element, respectively. The control signals are checked for the existence of a plausibility criterion. If the plausibility criterion is not met, signal transmission over one or the other signal transmission path is deactivated, wherein the functionality of the relevant component is checked. Switching to emergency operation is only possible after confirmation of the functionality of the relevant component.