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KIKUCHI et al.(10) **Pub. No.: US 2024/0178730 A1**(43) **Pub. Date: May 30, 2024**(54) **HEATING DEVICE FOR ROTOR CORE**(52) **U.S. Cl.**(71) Applicant: **TOYOTA JIDOSHA KABUSHIKI**
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(2013.01); **H02K 11/012** (2020.08)(72) Inventors: **Hiroshi KIKUCHI**, Toyota-shi (JP);
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A heating device for induction-heating a rotor core of an electric motor includes an induction heating coil disposed in a central hole of the rotor core, an alternating current power supply for supplying an alternating current to the induction heating coil, and a first magnetic flux shielding plate disposed on a first end face of the rotor core and having a first opposing surface opposed to the first end face of the rotor core. The first opposing surface of the first magnetic flux shielding plate has a first inner region and a first outer region located radially outward of the first inner region. The first inner region protrudes more toward the first end face than the first outer region. Clearance is formed between the first outer region and the first end face of the rotor core when the first inner region abuts the first end face of the rotor core.

