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Striedelmeyer(10) **Pub. No.: US 2022/0360133 A1**(43) **Pub. Date: Nov. 10, 2022**(54) **ELECTRIC MACHINE WITH ROTOR COOLING**(71) Applicant: **Magna PT B.V. & Co. KG,**
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(2013.01)(57) **ABSTRACT**

An electric machine includes a stator and rotor. The rotor has rotor laminated core mounted on a shaft, and the shaft includes an oil channel. The rotor laminated core has channels parallel to the axis of the shaft and termination plates are disposed at the ends of the rotor laminated core. The oil channel has transverse bores that are arranged on the front side of the electric machine in planes distanced axially from one another. A balancing plate at an end of the rotor laminated core includes a peripheral wall having apertures that communicate with the channels of the rotor laminated core, such that oil impacting the peripheral wall passes into the channels. Stator winding heads and the rotor laminated core can be cooled simultaneously via two cooling paths the axially offset transverse bores.

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