PROPULSION CONTROL METHOD FOR ACTIVE ARTICULATION TUNNEL BORING MACHINE, CONTROLLER, AND CONTROL SYSTEM

Abstract

A propulsion control method for an active articulation tunnel boring machine, a controller, and a control system, relating to the field of tunnel construction. The method comprises: obtaining an actual position of the actively articulated tunnel boring machine, a designed axis, and a segment uplift amount; calculating a planned tunneling trajectory based on the actual position, the designed axis, and the segment uplift amount; and adjusting at least one of an actual correction torque of a propulsion system or an actual articulation angle of an articulation system of the actively articulated tunnel boring machine to match the actual position of the actively articulated tunnel boring machine with the planned tunneling trajectory.

[FIG. 1]