

Development of Forging Technology of Cam Ring Gear for Truck Using Small Bar

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Abstract : This study focused on developing forging technology of a large-diameter cam ring gear from the small bar. The analyses of temperature variation and deformation behavior of the material are important to obtain the optimal forging products. The hot compression test was carried out to know formability at high temperature. In order to define the optimum forging conditions including material temperature, strain and forging load, the finite element method was used to simulate the forging process of cam ring gear parts. Test results were in good agreement with the simulations. An existing cam ring gear is presented the chips generated by cutting the rod material and the durability issues, but this would be to develop a large-diameter cam ring gear forging parts for truck in order to solve the durability problem and the material waste.

Keywords : forging technology, cam ring, gear, truck, small bar

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