

Presented Paper at SAE 2011 Brake Colloquium & Exhibition

We presented a paper in Technology/Rotors/Calipers Session at SAE 2011 Brake Colloquium & Exhibition on September 20, 2011. We've presented our papers at this event for nine straight years. Our Chief Engineer also participated in the Panel Discussion, which was held in the same session.

1. TITLE

Effect of Directional Surface Finish of Brake Discs on Friction Behavior during Running-in

Paper No. 2011-01-2382

2. AUTHOR and PRESENTER

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3. ABSTRACT

This paper focuses on the interaction in friction behavior between the surface texture of brake discs, rotational directions in braking operations and metal-cutting process, and friction materials with different degrees of aggressiveness. A factorial experiment for front brake discs was conducted by combining eight discs with directional surface finishes, two rotational directions, and two NAO friction materials on a brake dynamometer. The author analyzed several test results, such as the friction coefficients, disc wear, roughness, and the correlation between them. An assumed mechanism describing the friction behavior is discussed using the experimental results and by introducing the contribution of the aggressiveness and adhesiveness to the friction and confirmed by the test results.

4. TITLE of the PANEL DISCUSSION

Current and Future Rotor Technologies for Vehicles with Regenerative Braking Systems

5. CONTACT

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