[1]DYNAMOMETER FOR TESTING HIGH-FREQUENCY NOISE OF DISC BRAKES

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Abstract

Brake squeal phenomenon has been studied for nearly 70 years now. During this period, majority of tests were based on subjective assessments and measurements with a moving vehicle on the road. Over the years, many laboratory tests have been developed with a wide range of options and approaches. The modern brake noise dynamometer has become a sophisticated test platform for the identifying the propensity of a brake to generate squeal and diagnosing squeal noise problems. Re-creating brake squeal is not an easy task. In many cases, brake noise occurs only during a portion of the process of deceleration or during braking with maintaining a constant speed - drag. Brake components often have to work in exactly the right conditions. These conditions may include speed, temperature, humidity, pressure and brake wear.

Key words: disc, brake, noise, laboratory, testing

DINAMOMETAR ZA ISPITIVANJE VISOKOFREKVENTNE BUKE DISK KOČNICA

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Rezime

Fenomen škripe kočnica se istražuje skoro 70 godina unazad. Tokom ovog perioda, većina ispitivanja bila su zasnovana na subjektivnim procenama i merenjima sa vozilom u pokretu na putu. Tokom godina, razvijena su mnoga laboratorijska ispitivanja sa širokim spektrom opcija i pristupa. Moderni dinamometri za ispitivanje buke kočnica su postali sofisticirane test platforme za identifikaciju sklonosti kočnica da generiše škripu i pri dijagnostikovanju problema buke. Ponovo stvaranje škripe kočnica nije lak zadatak. U mnogim slučajevima, buka kočnica javlja se samo tokom jednog dela procesa usporavanja ili tokom kočenja sa održavanjem konstantne brzine. Kočione komponente često moraju da rade u tačno određenim uslovima. Ovi uslovi mogu da uključuju brzinu, temperaturu, vlažnost, pritisak i habanje kočnica.

Ključne reči: disk, kočnica, buka, laboratorija, ispitivanje

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