



**INVESTIGATION ON THE EFFECT OF BRAKE FLUID FADE ON BRAKE
LINE PRESSURE**

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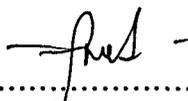
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"I declared that this thesis is the result of my own work except the ideas and summaries which I have clarified their sources. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any degree"

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ABSTRACT

This project entitled "Investigation on The Effect of Brake fluid Fade on Brake Line Pressure". The purpose of the project was to determine the performance of the brake fluid with different water contamination level. In this project analysis, two parameters or properties of the brake fluid need to be determine which are braking pressure and its boiling point. Two experiments were conducted to get the boiling point and braking pressure of the brake fluid. In the first experiment, the brake fluid with different water contamination in term of percentage of water content heated up until boiling. The relation between the boiling point of the brake fluid and the percentage of water content was established. The brake line pressure was measured by driving the car at 30 km/h on dynamometer. When the car slightly exceeds 30 km/h, brake was applied. Continuously additional brake force was exerted to the brake pedal in order to maintain the speed at 30km/h. During this time, the throttle was maintained at the same position. The brake force was read after 5 minutes.

Test were carried out using Perodua Myvi and the brake system is using the original equipment brake fluid (DOT3). Functionality test on the brake system was carries before testing to ensure that the brake is in good working condition, hence to ensure good repeatability and accuracy of the measurement. From the results it was observed that when the boiling point decreased linearly with the percentage of water contaminated in the brake fluid. The braking force was increased with the incremental percentage of water in the brake fluid. The conclusion from this project was the performance of the brake fluid decrease when the brake fluid fade

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