

BMA4723 VEHICLE DYNAMICS

Assignment 6

by

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Assignment Description

- Aims
 - To determine how load transfer can affect the braking performance.
- Expected Outcomes
 - Students are able to explain how to reduce load transfer during braking.
- References
 - M.Abe, Vehicle Handling Dynamics Theory and Application, Second Edition, Published by Elsevier Ltd, 2015
 - Thomas D.Gillespie, Fundamental of Vehicle Dynamics, Published by Society of Automotive Engineers

Assignment 5

How to reduce load transfer on a vehicle?

1. **Reducing load.** As a result load transfer is reduced in both the longitudinal and lateral directions.
2. **Increasing the wheel spacing.** Increasing the vehicle's wheelbase (length) reduces longitudinal load transfer while increasing the vehicle's track (width) reduces lateral load transfer.

Most high performance automobiles are designed to sit as low as possible and usually have an extended wheelbase and track.

Vehicle Dynamics

Chapter 5

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