MERITOR WABCO

Technical Bulletin

ABS Interaction with Vehicle Speed Retarders

How to Obtain Additional Maintenance and Service Information

If you have any questions about the material covered in this publication, or for more information about the Meritor WABCO product line, please contact the ArvinMeritor Customer Service Center at 800-535-5560 or visit our website, meritorwabco.com.

Important Information

This publication explains how Meritor WABCO's anti-lock braking system (ABS) monitors and controls wheel slip and, when necessary, can disengage retarder activity.

Function

Both ABS and vehicle speed retarders have an important role in vehicle stability control.

- **ABS** is an electronic system that monitors and controls wheel slip during braking.
- A **retarder** is an auxiliary braking device designed to help decrease vehicle speed. Common vehicle speed retarders include engine, transmission, drive line and exhaust retarders.

Operation

Because ABS continually monitors wheel speed during normal vehicle function, rear axle wheel slip can be determined. This could occur when the vehicle is being slowed by engaging the retarder. The ABS disengages any type of retarder that is determined to be excessive. This control function prevents the retarder from causing excessive wheel slip and reduces the risk of the vehicle skidding.

The ABS disengages the retarder in either of two ways.

1. By sending a control message through the J1587, J1922 and J1939 data communication links

   or

2. By using an electronic switch/relay

When wheel slip occurs at a front wheel and ABS is active, an ABS active message is broadcast on communication links J1587, J1922 and J1939. The ABS does not broadcast the retarder disengage message when only the front wheel ABS is active. If rear wheel slip occurs, both the ABS active and retarder disengage messages are broadcast. The retarder message is broadcast as long as the wheel slip occurs and ABS is active. This function helps maintain vehicle stability.

When the retarder function is disengaged it may be perceived as a loss of braking, **but this is not the case**. The vehicle still has full foundation brake capabilities; the brake pedal just needs to be depressed further.

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Meritor WABCO Vehicle Control Systems
2135 West Maple Road
Troy, MI 48084-7121 USA
800-535-5560
meritorwabco.com

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