

Issued by the

Administrator of Vehicle Standards

in consultation with the

Australian Motor Vehicle Certification Board

comprising Commonwealth, State and Territory representatives



Australian Government

Department of Infrastructure and Regional Development

CIRCULAR NO. 31-3-1

INTERPRETATIONS

1. Attached are interpretations issued by the Board in respect of Australian Design Rule No. 31 - Hydraulic Braking Systems (July 1976).
2. Interpretation No. 1, which was published in First Series Circular No.47, is no longer relevant as it relates to a section of the Design Rule which has since been amended.
3. These interpretations should be read in conjunction with Circular No.0-11-1.

This Circular supersedes page 29 of Circular No.47 in the First Series of Board Circulars.

AUSTRALIAN MOTOR VEHICLE CERTIFICATION BOARD INTERPRETATIONS

Australian Design Rule No.31 - Hydraulic Brake Systems

as endorsed by the Australian Transport Advisory Council

July 1976.

Interpretation No. 1

Not relevant.

Interpretation No. 2 (Clause 3.1.14)

Question: When should the measurement of stopping distance commence?

Answer: The measurement of stopping distance shall commence when the center of the brake pedal has been moved no more than 3mm from its static position.

Interpretation No. 3 (Clause 31.5.10)

Question: What conditions need to be satisfied before a vehicle will be considered to have achieved a specified sustained deceleration?

Answer: The specified deceleration must be achieved within one second of commencing the stop and maintained within the allowable tolerance until the vehicle speed is below 8km/h.

Interpretation No. 4 (Clause 31.5.10)

Question: Will the Board accept measurements of sustained deceleration using a vehicle mounted accelerometer which will not compensate for changes in vehicle attitude during deceleration?

Answer: Yes, provided the accelerometer is set to zero with the vehicle stationary on level ground and loaded to the maximum loaded test mass.

Interpretation No. 5 (Clause 31.2.5.4)

Question: Will the Board accept a label displaying the type of fluid in the form shown in Clause 5.4.3 of U.S. Federal Motor Vehicle Safety Standard 105.75, using the 'D.O.T' code for fluid identification?

Answer: Yes, the vehicle manufacturer is free to specify the type of fluid in whatever manner he considers appropriate.

Interpretation No. 6 (Clauses 31.2.3.3 and 31.2.4)

Question: Are symbols acceptable for service brake failure indicator lamp (Clause 31.2.3.3) and for parking brake indicator lamp (Clause 31.2.4) instead of the words 'BRAKE' or 'STOP - BRAKE FAILURE' and 'PARK BRAKE' or 'PARKING BRAKE' respectively?

Answer: No. Symbols or words different from those shown in upper case in the relevant clauses of the Rule are not acceptable.

Interpretation No. 7 (Clause 31.2.4)

Question: Does the indicator lamp lens and lettering have to be of contrasting colours, one of which is red, when the lamp is not illuminated?

Answer: No, the requirement for contrasting colours need only be satisfied when the lamp is illuminated.

Interpretation No. 8 (Clause 31.1.11)

Question: Is pedal effort

The force exerted by the driver's leg during application of the brake;

or

The force recorded by a load transducer attached to the brake pedal pad?

Answer: For the purposes of demonstrating compliance, pedal efforts may be measured by a 'pressometer' or other force transducer located centrally on the brake pedal pad.

Interpretation No. 9 (Clause 31.5.11 first paragraph)

Question: Does 'maximum attainable sustained deceleration' mean the sustained deceleration resulting from a pedal effort of not more than 670 N (as specified in Clause 31.4.11)?

Answer: Yes.

Interpretation No. 10 (Clause 31.5.11)

Question: What tolerance is applied to the pedal effort of 670 N mentioned in Interpretation No. 9 above?

Answer: No tolerance is applied; it must be demonstrated that the measured pedal effort of 670 N is not exceeded during the deceleration mode while the vehicle speed is greater than 8 km/h.

Interpretation No. 11 (Clause 31.5.11 (first paragraph) and Clause 31.5.16)

Question: What sustained deceleration is required during the last five decelerations of the first and second fade test sequences?

Answer: The sustained deceleration must not be less than 1.5 m/s^2 and, unless a deceleration 4.5 m/s^2 is exceeded, must be the maximum attainable with the application of the limiting pedal effort of 670 N specified in Clause

31.4.11. However, where application of limiting pedal effort would result in decelerations in excess of 4.5 m/s^2 the pedal effort may be reduced to a level such that a sustained deceleration of 4.5 m/s^2 is attained.

Interpretation No. 12

Question: During testing of vehicles for the purpose of demonstrating compliance with ADR 31, is it permissible to have thermocouples inserted into brake linings and brake pads?

Answer: Yes. The thermocouples should preferably be of the size and type specified in the U.S. Federal Motor Vehicle Safety Standard No. 105-75 and installed in accordance with the requirements of Section 6.11 – Thermocouples – of that Standard.