

GLOBAL TECHNICAL REGULATION ON MOTORCYCLE BRAKE SYSTEMS

ISSUES REMAINING AFTER FINAL DRAFT (33-GTRBR-05) WAS SENT TO GRRF ON 2005-11-11

Prepared on 2005-12-23

Paragraph	Details of issue	IMMA'S comment and proposed solution
Throughout gtr	Japan propose that the terms “actuation”, “activation”, and “application” are harmonised.	IMMA partially agrees and proposes to carry out a review of the the text and use the most appropriate term. For example, dictionary states that “actuate” means “to move to mechanical action”.
2. Definition	Transport Canada proposes a new definition – <i>Wheel slip</i> - and suggests “the difference between the vehicle speed and the respective wheel speed”.	IMMA agrees that this definition may be necessary but would like to see the appropriate definition from ISO used. To be provided.
2.5 CBS Definition	Japan requires the definition to apply to the “wheels” and not “axles”. E.g. ...where the brakes on all wheels are activated by the operation of a single control.	“Wheel” is used in R78 and IMMA proposes that the text is modified to read “wheels” throughout the definition.
2.11 Lightly loaded Definition	The definition currently states that the mass of the outriggers are included in 15 kg specified for test equipment. JAMA state that this is insufficient and require an extra allowance to cover the mass of the outriggers	IMMA agrees and thus proposes the following revised definition: <i>Lightly loaded</i> means mass in running order plus an allowance of 15 kg for test equipment. In the case of ABS tests on a low friction surface (paragraphs 4.9.4 - 4.9.7), the mass for the test equipment may be increased to 30 kg, including outriggers.
2.18 SSBS Definition	Japan are concerned that the definition does not specify the number of wheels or axles being braked.	IMMA agrees and thus proposes the following revised definition: <i>2.18 Split service braking system (SSBS)</i> means a brake system, which activates the brakes on all wheels , consisting of two or more subsystems.....
3.1.10 Reservoirs	UK require the text to specify that the reservoir is “sealed” and “covered”.	IMMA agrees and proposes that the following text be inserted into the GTR:shall: a. have a sealed, covered , separate reservoir for each brake system.
4.2.4 Brake temp. measurement	NHTSA wish removal of the sentence “Contracting parties may specify”	IMMA disagrees as the sentence makes it clear that either method of measurement may be used.
4.2.5 Burnishing procedure	NHTSA wish to remove the sentence “unless the manufacture supplies the vehicle for testing with the brakes already burnished.”	IMMA disagrees because a note is required for ECE and so proposes this alternative text: “If the vehicle certification is based on type approval, the manufacture may supply the vehicle for testing with the brakes already burnished”.

4.6.1 Wet brake test	Text currently states “Test is not applicable to parking brakes” TC require that if the secondary brake is the parking brake, it must meet the wet brake requirement.	IMMA agrees and proposes that the following text be inserted : “The test is not applicable to parking brakes, unless it is the secondary brake ”
4.7.3.2 Heat fade test	Japan requests that the following sentence is removed “Note that if the vehicle is unable to achieve the specified deceleration rate, these stops are carried out at the maximum achievable value”	IMMA disagrees. This note is included because some rear brakes could have a performance that does not meet the level required for the Heating procedure. The note is included in R78. However, the sentence should be moved up 2 lines in the text to follow “.....of the specified speed.” for clarity.
4.9.3.1, 4.9.5.1 4.9.6.1, 4.9.7.1 ABS Stops on various surfaces	NHTSA want to remove the sentence “These forces may be increased in order to ensure that the ABS is fully cycling during the stop” because it is too subjective.	IMMA disagrees. The note is required because on some vehicles, the ABS may not fully cycle even at maximum force levels. In this case, the ABS would not be tested.
4.9.3.2+4.9.4.2 ABS Stops on high friction and low friction.	At present, the gtr does not include a test to assess the ABS for stopping performance. A test is required but a suitable procedure that complies with US/TC self certification and also meets the European wish for a measure of adhesion utilisation has not been agreed.	IMMA agrees that a test is required and can accept most options. Internal discussions revealed 8 options and 2 of these have been forwarded to Transport Canada for consideration and further discussion.
4.9.3.2 ABS Stops on high friction	Japan and TC are not satisfied with the sentence “Periods of wheel locking or of extreme wheel slip such as occur at the moment of initial brake application shall be allowed provided that the stability of the vehicle is not adversely affected. Japan require the words in bold to be removed. TC state that the words “periods” and “extreme” are too subjective.	IMMA generally agrees and proposes the following: “Wheel-lock, such as occurs at the moment of brake application, shall be allowed provided that the stability of the vehicle is not adversely affected.” Because this note is applicable to all ABS tests, it should be moved to 4.9.1
4.9.7.2 Wheel lock check – low to high friction	Regarding the sentence “After passing over the transition point between the low and high friction surfaces, the vehicle deceleration shall increase”. NHTSA require values for deceleration and time to be added.	IMMA is unable to provide proven values and so proposes that the text is not changed.
