

# Heavy Goods Vehicles (HGV) AND Passenger service Vehicles (PSV) – RBT Spec retrospective changes



Driver & Vehicle  
Standards  
Agency

Title	Heavy Goods Vehicles (HGV) AND Passenger service Vehicles (PSV) – RBT Spec retrospective changes
Equipment purpose	Roller Brake Tester for HGV & PSV
Author	DVSA Vehicle Testing & Roadworthiness
Contact details	<a href="mailto:VTR@dvsa.gov.uk">VTR@dvsa.gov.uk</a> Vehicle Testing & Roadworthiness Driver and Vehicle Standards Agency Berkeley House Croydon Street Bristol BS5 0DA
Issue date	01/08/2022
Revision history	

This document contains the software changes that are required for all machines retrospectively from the release of the RBT spec version

**Important - These changes must be read in conjunction with the new full specification V5**

**Heavy Goods Vehicles (HGV) AND Passenger service Vehicles (PSV) – RBT Spec retrospective changes**

<b>RBT Specification Section</b>	<b>Page Number</b>	<b>Summary</b>
<b>Important note, top of document</b>	1	All brake efficiency measurements within this spec should be rounded DOWN to the whole number whereas imbalance / ovality values should be rounded UP to the next whole number. (Not using standard mathematics formulas/ formatting)
<b>2.a.6</b>	5	The display must include the system that is currently being tested i.e., Axle number, service/secondary/park, N/S, O/S
<b>2.a.9</b>	5	On screen warning when ovality and bind limits have been breached, depending upon what is being tested (see ovality & bind sections)
<b>2.a.10</b>	5	Indicate individually for each roller set where a wheel lock occurs
<b>2.3</b>	7	(Complete section) Centralising vehicles on the RBT – Table added for mandatory and optional.
<b>2.3</b>	7	(Complete Section) Drive out assist added
<b>3</b>	8	<p>The CCS must indicate:</p> <p>an overview of the systems to be checked e.g., locations of park brakes, split system. The ability to amend this will be required before commencing the test as some brake codes may not accurately reflect the vehicle/trailer being tested.</p> <p>Most likely park brake positions</p>
<b>3.c</b>	9	Mentions and links to New Print out template added
<b>4</b>	9	(Complete Section) Calibration to ISO standard
<b>9. Annex 1</b>	14	(Complete Section) New menu added and what is optional and mandatory – retest option removed
<b>9. Annex 1</b>	15	Paragraph added for data audit
<b>Annex 8</b>	29	Split routine table added to allow for automatic calculation of secondary alternative where there is no split routine within the DTP fields
<b>Annex 11</b>	34	Added character “F” in the table for the end digit of the DTP number being 8
<b>Annex 15</b>	38	Clarification for PSV DTP numbering, where character D & E were contradicted

**Heavy Goods Vehicles (HGV) AND Passenger service Vehicles (PSV) – RBT Spec retrospective changes**

<b>Annex 16</b>	41	<p>Secondary brake and Optional systems (complete section for CCS calculation of secondary alternative on service brake split)</p> <p>Parking brake applied test - tyre damage avoidance added</p> <p>Transmission brake – on screen messages added as well as overrule procedure for one lock out of two</p>
<b>Annex 17 Bind</b>	44	<p>The CCS will warn the operator during the test, where measured bind is greater than 4% by means of an on-screen warning.</p> <p>The final report will show the bind in KGs and as a percentage.</p>
<b>Annex 17 Imbalance</b>	45	<p>Imbalance to be assessed on secondary as well as service (HGV &amp; PSV only)</p>
<b>Annex 17 Time Lag</b>	45	<p>Time lag removed</p>
<b>Annex 17 Ovality</b>	46	<p>Complete section,</p> <p>Ovality test band of 25% to 35% on screen</p> <p>If the 70% threshold is breached during the test, then the CCS will display an on-screen warning</p>
<b>Annex 17 Advisories</b>	46	<p>will show the following:</p> <ul style="list-style-type: none"> <li>a) <b>Imbalance</b> - where the resulting figure is between 25 and 30%</li> <li>b) <b>Ovality</b> - where the resulting figure is between 65 and 70%</li> <li>c) <b>Bind</b> - where the resulting figure is between 3% and 4% of the presented (measured) axle weight</li> <li>d) <b>Low effort</b> - where the resulting figure is between 5% and 10% of the</li> </ul>

## Heavy Goods Vehicles (HGV) AND Passenger service Vehicles (PSV) – RBT Spec retrospective changes

		presented (measured) axle weight per wheel
<b>Annex 17 Hydraulic fall off</b>	47	Test band of 25% to 35% added for rear axles
<b>Annex 17 Locked wheels</b>	48	(text added) The exception to this would be transmission park brake, if it is recorded that one wheel locks, then by virtue of that system the other side will also lock. If this scenario occurs, which is most likely when a wheel lifts off the load sensing bar, then it will deemed to have passed.
<b>Annex 18 Brake performance calculations – Trailer</b>	49	(Complete section) added in post 1 <sup>st</sup> Jan 2012 centre drawbar trailer calculations
<b>Annex 18</b>	50	Applied test tyre protection added
<b>Annex 18 ULTAST</b>	52	Note added - <i>Any power raised roller beds must be disabled for ULTAST</i>  Free loaded retest removed
<b>Annex 19 PSV Brake force calculations</b>	54	(Complete Section) Secondary brake section to include automatic secondary alternative calculations added
<b>Annex 19 Park brake</b>	55	Tyre protection added for applied park brake test
<b>Annex 19 Transmission Brake</b>	55	Section added (same as HGV) for when PSVs have a transmission park brake
<b>Annex 19 Related Aspects</b>	56	Secondary imbalance added to the table
<b>Annex 19 Hydraulic fall off</b>	58	Complete section added to take into account second axle hydraulic brake fall off and %age band for testing
<b>Annex 22</b>	60	(Complete Section) New printout template with description
<b>Annex 22</b>	66	Add RBT serial number to required information to be printed
<b>Annex 23</b>	66	Voluntary test will now only be full test

**Heavy Goods Vehicles (HGV) AND Passenger service Vehicles (PSV) – RBT Spec retrospective changes**

<b>Annex 24</b>	67	Updated table
<b>Annex 26</b>	71	Flow charts improved along with Free Loaded retest removed
<b>Appendix 1 Brake test Printout layout</b>	75	New printout template