



Vehicle & Operator Services Agency

MOT Compliance Survey (MCS) 2010/11

Re-examination of recently
tested vehicles, April 2010 to
March 2011 – Summary
Report

**In House Analytical
Consultancy**

Dec 2011

Department for
Transport



GOVERNMENT OPERATIONAL RESEARCH SERVICE

Introduction

The MOT Compliance Survey (MCS) is an exercise conducted throughout the year involving the re-examination of a Class 4¹ vehicle that has been recently tested at a randomly selected Vehicle Testing Station (VTS). A VOSA Vehicle Examiner (VE) uses the MOT facilities, at the site where the vehicle was tested, to establish if the correct test standards have been applied and correct test outcome achieved.

Most VOSA activities are targeted so this randomised survey allows a picture of the general health of the MOT scheme to be developed over several years, allowing trends to be established.

The purpose of the survey is to provide VOSA and others with data which can be used to evaluate the baseline level of compliance with MOT Scheme standards. This assists with the effective targeting of VOSA's resources.

The VOSA MOT Compliance team has worked with the In House Analytical Consultancy (IHAC) within DfT on the sampling methodology and construction for the past four years. To ensure impartiality within the analysis, VOSA asked IHAC to conduct the majority of the analysis for this year-end report.

MOT Compliance Survey (MCS)

- Estimates the baseline level of MOT compliance with published test standards
- 1,800 Vehicle Testing Stations (VTS) are randomly selected for the survey
- One recently tested vehicle (Class 4 only) is re-examined at each of the selected VTS

¹ A Class 4 vehicle is most typically a car with no more than 8 passenger seats.

Results

Failure Rate

The initial failure rate (which measures the condition of vehicles as presented for test) at the VTS was 44.1%; the same as the rate in 2009/10. However, the VE failure rate from the same sample of vehicles was determined at 53.2% (very similar to 2009/10) suggesting that testers are not identifying all defects. See Table 1.

Table 1. VTS Test outcome and test errors, 2006 to 2011

	2006 - 07	2007 - 08	2008 - 09	2009 - 10	2010 - 11
VTS Passes	1020	867	1041	993	1002
VTS Fails	694	619	736	783	790
Initial failure rate	40.5%	41.7%	41.4%	44.1%	44.1%
VE Passes	839	672	834	828	838
VE Fails	875	814	943	948	954
VE failure rate	51.1%	54.8%	53.1%	53.4%	53.2%
VTS passes that should have failed	216	214	240	210	193
% of VTS passes	21.2%	24.7%	23.1%	21.1%	19.3%
VTS fails that should have passed	35	19	34	45	29
% of VTS fails	5.0%	3.1%	4.6%	5.7%	3.7%
Test errors	251	233	274	255	222
Error Rate	14.64%	15.68%	15.42%	14.36%	12.39%

Test Error

For the 2007/08 reporting year, VOSA was set a Secretary of State (SoS) Key Target of a 4% reduction in the MCS error rate year on year over a five-year period. For 2010/11, the target error rate was 17.08%.

For 2010/11 the measured MCS error rate (see Table 1) was 12.39% (with a 95% confidence interval of +/- 1.53% i.e. in 95% of samples the error rate would fall between 10.86% and 13.92%). This test error rate relates to the number of instances where the VOSA VE disagreed with the final decision of the tester to pass or fail the vehicle.

Of the vehicles re-examined that the tester failed, 3.7% should have passed - a statistically similar proportion to last year (5.7%). Of the vehicles that the tester passed, 19.3% should have failed – again a statistically similar rate to last year (21.1%).

Number of Defects

Of the 1,792 vehicles re-examined, 496 (27.7%) had one or more defects disagreed by the VE – similar to 2009/10 (29.8%). See Table 2. This measure differs from the test error rate as it contains all differences between the VE and tester where the final test result did not change. This includes all cases where the VE either disagreed with defects identified by the tester or where additional defects were found by the VE that were missed by the tester, but the vehicle should still have failed.

Table 2. Distribution of number of defects disagreed, 2006 to 2011

	2006 - 07	2007 - 08	2008 - 09	2009 - 10	2010 - 11
No defects disagreed	85.6%	83.8%	78.0%	70.2%	72.3%
One defect disagreed	8.3%	9.7%	14.6%	17.5%	15.7%
Two defects disagreed	4.0%	4.9%	4.1%	7.4%	6.9%
Three defects disagreed	1.2%	1.1%	2.0%	2.6%	2.8%
Four defects disagreed	0.4%	0.3%	0.9%	1.0%	1.6%
Five defects disagreed	0.3%	0.2%	0.2%	0.5%	0.4%
Six or more defects disagreed	0.1%	0.1%	0.3%	0.9%	0.3%
Total re-examinations	100.0%	100.0%	100.0%	100.0%	100.0%
One or more defects disagreed	14.4%	16.2%	22.0%	29.8%	27.7%

Table 3. Distribution of re-examinations with one or more defect disagreed, 2006 to 2011

	2006 - 07	2007 - 08	2008 - 09	2009 - 10	2010 - 11
One defect disagreed	58.1%	59.8%	66.2%	58.5%	56.7%
Two defects disagreed	28.0%	30.3%	18.4%	24.7%	24.8%
Three defects disagreed	8.5%	6.6%	9.0%	8.9%	10.1%
Four defects disagreed	2.8%	1.7%	4.1%	3.4%	5.6%
Five defects disagreed	2.0%	1.2%	1.0%	1.5%	1.6%
Six or more defects disagreed	0.4%	0.4%	1.3%	3.0%	1.2%
Three or more defects disagreed	13.8%	10.0%	15.3%	16.8%	18.5%

Of the vehicles where defects were disagreed: 56.7% (281) had one defect disagreed, 24.8% (123) had two defects disagreed and 18.5% (92) had three or more defects disagreed – a similar distribution to the 2009/10 vehicles. See Table 3.

Component Area

To help understand where testers are not applying the correct standards, the defects have been categorised by their component area.

There were two component areas that had significant changes in the proportion of vehicles with defects disagreed – view to front decreased from 6.6% in 2009/10 to 4.5% in 2010/11, and other defects increased from 4.8% 2009/10 to 6.4% in 2010/11. See Table 4 for details for each component area.

Table 4. Percentage of re-examinations with defects disagreed by component area, 2006 to 2011

	2006 - 07	2007 - 08	2008 - 09	2009 - 10	2010 - 11
Headlamp Aim	13.0%	18.0%	10.4%	8.9%	8.5%
Steering Suspension	7.9%	8.2%	6.6%	4.8%	5.1%
Mechanical Brake	9.2%	7.3%	5.5%	4.3%	3.2%
View to Front	4.6%	6.3%	5.1%	6.6%	4.5%
Other			4.4%	4.8%	6.4%
Tyre Depth/Condition	7.4%	6.4%	4.7%	4.2%	4.1%
Brake Efficiency	3.0%	3.0%	1.9%	1.7%	1.7%
Seat Belt	2.6%	2.0%	2.3%	1.3%	0.7%
Exhaust Condition	1.3%	1.7%	1.4%	1.4%	1.1%
Number Plate Errors	0.5%	1.5%	1.2%	0.9%	0.2%
Corrosion	2.8%	2.4%	1.1%	1.9%	2.0%
Emissions	0.7%	1.1%	0.5%	0.7%	0.2%