

Stand by for MoT changes – but first make your views heard!

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EHICLE TESTING STATION APPROVED BY THE VEHICLE INSPECTORATE



New Consultation on proposals to make MoT tests fit for the future – by Dave Moss.

The Department for Transport has launched a detailed two-part consultation seeking views on various options aimed at updating the MoT testing regime for cars, vans and motorcycles. Its declared intention is to ensure roadworthiness checks continue balancing costs to motorists against the need to ensure road safety, while keeping abreast of advancing vehicle technology, and continuing to manage vehicle emissions.

The test was introduced in 1960 for all vehicles over ten years old, and remained unchanged until 1967, when a first test was required at 3 years, and annually afterwards. This arrangement has been in place ever since, though of course vehicles have changed markedly in the last 56 years. The DfT says today's vehicles are better built and more resistant to wear and tear, with major technology and safety developments incorporated in recent years – while growing numbers of electric and hybrid variants are rapidly changing the basic nature of today's vehicles.

A proposal to require the first MoT test at 4 years after registration is back on the table, despite a significant chorus of safety-related concerns on its first appearance in 2016. Back then the DfT chose not to make any changes, though one reason, it says, was the age of some of its evidence relating to safety implications. This time around, safety assessments have been reviewed, and key data on MoT failure rates and collisions updated. The department's data now shows that "Most new vehicles pass the first MoT test at 3 years", that fewer vehicles now fail MoTs, and there have been general reductions in casualty numbers in collisions involving cars, with minor decreases in collisions where vehicle defects are a factor.

The DfT believes that this makes it appropriate to consider whether testing of 3-year-old vehicles remains necessary. Analysis of its data apparently shows that moving the first MoT forward to 4 years will have much less effect than it would have done in 2016 – and that it should not impact road safety. Its consultation also seeks views on changing the MoT frequency after the first test, all while claiming that ensuring Britain maintains its world-



class road safety record is at the heart of its proposals. First testing at 4 years is already conducted in some European countries, including Belgium, Denmark, France, Italy, Spain, and Portugal. Some also have extended gaps between tests for younger vehicles.

The consultation is also looking at several other topics, ranging from whether electric vehicle batteries should be tested to the introduction of new measures to tackle excessively loud engines – and how the Driver and Vehicle Standards Agency can continue to crack down on MoT and mileage fraud.

There is an invitation also to submit ideas for alternative approaches to help achieve Britain's road safety and environmental objectives – such as improving and widening emissions monitoring to reduce pollution and boost vehicle environmental efficiency. The DVSA's 2019 figures suggest that around 11% of failures under the existing MoT requirements involved emissions-related shortcomings. The DfT wants to add tests for both NOx and particulate number (PN) to the MoT, which, it claims, will ensure all combustionengined vehicles meet emissions requirements throughout their lifespan.

Emission test	Initial failures	Failures as percentage of total initial failures
Hydrocarbons (HC)	57,622	0.58%
Carbon Monoxide (CO)	198,186	1.98%
Diesel smoke (opacity)	118,351	1.18%
Other emissions-related failures	730,138	7.29%
Total emissions initial failures	1,104,297	11.03%

Vehicles failing the MoT emissions tests in 2019



Emission test	Initial failures	Failures as percentage of total initial failures
Total initial failures (for any reason) 10,010,559		30.18%

Part two of the consultation

Part two is surprisingly detailed and very wide ranging, aimed at identifying the present MoT system's strengths and weaknesses and how it might be developed. Topics range from vehicle safety recalls, to aspects of vehicle crime and vehicle record integrity, on to the nationwide service offered to motorists, and costs and fees. It also considers recent vehicle technology improvements, tightening legislation and changing public attitudes to areas like vehicle emissions – and how all these things might impact on future MoT testing.

Options for change and the issues that might arise are considered in some depth. one of which is vehicle testing frequency. In considering moving to 2 yearly testing for light vehicles and motorcycles, the DfT believes this would reflect progress in improving vehicle safety. Views are wanted on whether vehicle design, build quality and built-in monitoring systems improvements mean that vehicles could be tested less frequently – with, it says, consequent savings to motorists.

Weighing against this is the inescapable fact that older vehicles are more likely to fail MoT tests, with official data showing failure rates increasing significantly up to 14 years old. 80% of MoT tests are performed on vehicles below this age – but meanwhile the average age of British cars is creeping upwards: in 2021 it was 8.4 years, the highest since records began in 2000.

Department for Transport data on the ages of private cars in use:

Number of cars

Age



Less than 3 years old	7,449,464
4 to 6 years old	7,128,037
7 to 9 years old	5,934,303
10 to 12 years old	4,652,423
Over 12 years old	7,062,634

The government is said to recognise continuing concern about the safety implications of extending MoT testing frequencies, particularly relating to safety-critical items such as brakes, tyres and lights. It recognises also that other significant problems are likely to accumulate both with age and advancing mileage, while reducing test frequency naturally means that vehicles will cover more mileage between them, raising the likelihood of them become unroadworthy. Meanwhile the DfT points out that advancing the first test date, or the general frequency of testing, might be balanced against measures such as stricter testing, or offering stronger advisory guidance. However, it sees stricter tests as requiring careful consideration because of potentially increased costs, and the possibility of parts being replaced before their safe working life ends – with a knock-on environmental impact.

Examples of the many wider areas on which comments are requested include straightforward issues such as advantages and disadvantages of the MoT testing process, and possible improvements – through to the more complex, such as the possibility of stricter vehicle noise testing by introducing a metered sound level test – where only a subjective assessment is presently required. It acknowledges, however, that vehicle workshops are challenging areas for accurate sound measurements, and it also wonders whether technology is currently even available to allow the undertaking of such tests.

An interesting question is raised on part dis-assembly during an MoT test. Currently, no



vehicle disassembly is allowed, despite many modern vehicles having fitted panels which prevent inspection of some safety critical items. It is thus considering allowing some disassembly during testing, but sees it as potentially problematic, both by making the test longer, and bringing a risk that parts might be damaged in the process, or prove difficult to re-fit afterwards. Thus the consultation asks respondents whether it is sensible to allow disassembly to ensure a more thorough examination – and if it was allowed, how any such difficulties might be dealt with.

In looking to the future, the DfT seeks views on specific practical problems associated with hybrid and electric vehicle (EV) testing. There are growing numbers of such vehicles on British roads, and will increase steadily with the phase-out of new petrol and diesel cars and vans by 2030. DVSA figures indicate that in 2021-22 there were over 550,000 MoT tests on hybrid vehicles, and 70,000 EV tests, and growing numbers of such vehicles will be undergoing their first MoT test in coming years.

Hybrid vehicle emissions are not currently covered in the MoT because of practical issues involved in loading only the engine in workshop settings. The DfT regards this absence of emissions performance checks as a significant air quality issue as numbers of such vehicles increase, and welcomes ideas on how hybrids might be effectively emissions-tested – and any practical technologies that might solve this problem.

The DfT feels that a damaged Electric Vehicle battery could have safety and reliability implications if it fails in use, and should therefore by covered by the MoT, though the nature of the actual risks isn't explained. It suggests that more data will become available to assess EV battery health, since ways to help assess and verify battery status are under commercial development. Official work is also under way on requirements for accurate, in-vehicle battery health monitors, which could provide such data to owners or MoT centres. Views are requested on how the MoT should test EV batteries, and on whether there are safety issues for MoT testers dealing with these vehicles.

New MoT questions are arising over large Electric vans, which have a specific weight



dispensation to 4.25 tonnes – heavier than conventionally powered 3.5 tonne equivalents – to maintain similar payload capabilities despite heavy battery packs. This weight puts them in an HGV testing category, bringing worries that extra demand will put pressure on heavy vehicle testing capacity. The DfT says it needs to assess the merits of increasing the relevant MoT testing threshold against possible safety considerations.

The DfT recognises that in the long term, it will be necessary to look to testing technologies to cope with advanced, safety-related driver-assistance systems (ADAS and AEB) which, although not standardised, are increasingly being fitted to vehicles, and will become more common in future. Drivers, it says, need to have confidence that they are continuing to work as designed, and are correctly calibrated and functioning properly. The Department says it has a "reasonable expectation" that such systems will need future regulation, suggesting as an example that vehicles could receive an MoT fail if significant safety systems are shown to be malfunctioning.

The current review will, it says, consider how government can be best placed to react to a need to assure ADAS systems. This will include considering the role of garages, and their relationship with manufacturers who produce, and – through the software – have an ongoing role with these systems. The DfT says it's particularly keen to work with industry and manufacturers on this, so that its review can ensure that these technologies are properly maintained and tested.

The consultation notes also discuss the not inconsiderable issues that self-driving vehicles will present to MoT testing operations. Eventual regular deployment of these vehicles has major implications for vehicle safety and cyber-security, and the DfT says they raise some particularly interesting questions about responsibility for roadworthiness. Further ahead, it also sees a time when ever more sophisticated self-driving vehicles, and more effective self-diagnostic systems, may enable some degree of 'self-testing'. As this capability develops, it says, it could become increasingly difficult for the driver, or a vehicle operator, to bear responsibility for vehicle roadworthiness. However, it already recognises that 'self-testing' functionality may be limited, citing as an example the difficulty of on-board systems reliably



assessing vehicle tyre treads without human involvement...

The department says it's particularly interested in views on issues surrounding the testing of self-driving vehicles, with a wide range of foreseeable scenarios impacting on how, and in what way, testing happens – and who will be accountable for it.

VIEWS REQUIRED URGENTLY!

Overall the consultation documentation gives a usefully detailed look at the background to the department's current proposals, and what it anticipates will need testing in future, and why. Unusually for official documents like this, and even without participating in the consultation, anyone interested in the background to MoT testing procedures will find much of interest.

The consultation closes on 28th February 2023 (STOP PRESS – THIS HAS NOW BEEN EXTENDED TO 22ND MARCH 2023), and a summary of responses, including proposals for the next steps, is due to be published within 3 months of that date.

References

You can have a say about proposed changes to the MoT test and see more details and research into possible future MoT test enhancements here:

$consultations\ -date-of-the-first-mot-test$

Detailed information on procedures for emissions testing during the current MoT test is contained in the 261 page DVSA publication "In Service Exhaust Emission Standards for Road Vehicles, Nineteenth Edition" which is available as a downloadable PDF at: in-serviceexhaust-emission-standards-for-road-vehicles-19th-edition.pdf



The full, detailed procedures for private car and light goods vehicle MoT tests can be found in the "MOT Inspection Manual, Private Passenger and Light Commercial Vehicle Testing" manual, of which a free on-line version is available (but not downloadable) at:

mot-inspection-manual-for-private-passenger-and-light-commercial-vehicles

The Centre for Connected and Autonomous Vehicles (CCAV) CAVPASS programme is looking into the many and various safety and security issues surrounding self driving vehicles. More about this programme, and a 142 page, 6.55MB PDF describing the government's approach to supporting the safe deployment of self-driving vehicles to deliver societal and economic benefits, entitled "Connected and automated mobility 2025: realising the benefits of self-driving vehicles" is available at this link:

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