



## POSITION STATEMENT

### Periodical Inspection of Motorcycles

*February 2008*

#### **FEMA's Position:**

The need for a motorcycle to be in good condition and to comply with relevant technical regulations, so that it can be safely used on public roads, is not questioned. However, the need of adopting an EU harmonised inspection policy for motorcycles remains disputed. The Federation of European Motorcyclists' Associations (FEMA) believes that the decision to implement periodical inspections for motorcycles should remain at national level to adapt to the specific needs of the different fleets.

FEMA strongly underlines that:

- There is no link between the technical condition of vehicles and accidents: technical failure is the primary cause of motorcycle accidents in only 0.7% of all cases. Periodical inspections would not produce additional safety benefits
- It is in the interests of the motorcyclist to reduce any possible risk of accident and hence to care for the good maintenance of his vehicle
- Motorcycles travel less kilometres in their life cycle than cars or let alone Heavy Good Vehicles (HGVs), and mainly in weather conditions that are much less damaging to their technical condition
- The limited amount of emissions produced by motorcycles compared to other motorised road users does not justify the inclusion of Powered Two-Wheelers (PTWs) in the Roadworthiness Directive.
- Methods to control emissions and fight against pollution already exist: Motorcycles have been subject to EU emissions limits since 1999 and now comply with the Euro 3 standards
- Motorcycles have major advantages compared to other motorised road transport means, especially on climate change, with less emission of greenhouse gas and lower fuel consumption. They should be regarded as a solution to several environmental issues faced by EU Member States, and not as a problem

- Technical inspection is not the right solution to tackle the noise issue
- There is no evidence to show that customised vehicles are less safe than their standard counterparts. Many modifications are actually aimed at making the machine safer (brakes, lights, tyres, etc.)
- The differences between Powered Two-Wheelers and other vehicles would require specific testing methods and costly investments. These costs would affect both the motorcyclists and taxpayers.

The implementation of periodical inspections of motorcycles would only achieve marginal benefits, while the economic burden created would by far outweigh the positive aspects. FEMA hence rejects any proposal to harmonise periodical inspection in Europe.

## Introduction

The society's interests in regulating the technical condition of motorcycles are based on two main issues: Road Safety and Environment. Today more than ever, these two aspects are areas of particular importance and a series of new policies are designed in order to meet road safety and environmental protection targets. In this context, the European Commission and other associations and institutions – such as the International Motor Vehicle Inspection Committee (CITA) – increasingly regard roadworthiness inspection of motorcycles as necessary.

Out of 26 European Member States, 8 countries do not have a roadworthiness testing system for two-wheeled powered vehicles<sup>1</sup>. However, there is no clear evidence that the implementation of mandatory periodical inspections of motorcycles significantly improves road safety or reduces pollution. The benefits are actually limited and do not justify the implementation of a harmonised Road Worthiness Testing at EU level. For instance, the economic and administrative burden created would by far outweigh the positive aspects. The large variety of the Powered Two-Wheelers' fleet would indeed require specific testing methods and costly investments. The need for adequate equipment and qualified staff to test motorcycles cannot be overlooked. It is also important to note that motorcycles can only be used and tested part of the year in several European countries due to weather condition. Harmonising the existing – and often very different - national arrangements for technical inspection will prove extremely problematic.



Therefore, FEMA and its Member Associations oppose any possible proposal to harmonise periodical inspections in Europe. RWT should remain under national jurisdiction in order to best be adapted to the specific needs of the different fleets.

<sup>1</sup> Belgium, Denmark, Finland, France, Greece, Malta, The Netherlands, Portugal.  
Data is lacking for Cyprus.

## 1. Road safety

One of the main arguments to extend the existing Directive on roadworthiness enforcement to motorcycles is the road safety aspect. In its recent study, CITA underlined that "(...) good accident evidence supports the extension of the Directive to two-wheeled motor vehicles."<sup>2</sup>



Yet, technical features or defects of a motorcycle are indeed hardly ever the underlying factor in the event of an accident. The MAIDS study<sup>3</sup> - the most in-depth study on motorcycle accidents existing today - shows that the primary cause of motorcycle accidents are human factors (87,5%) - whether from the motorcyclist (37,1%) or another vehicle (50,4%) - and the environment (7,7%). However, **only 0.7% of all motorcycle accidents are directly caused by technical failure.**

In addition, it is usually the quality of the tyres or the use of the brakes that lead to the very few cases of accidents linked to the condition of the vehicle. In other words, the real issue is neglected maintenance and not technical failure. Implementing roadworthiness tests is hence not a solution to improve road safety.

Furthermore, Riders are well aware of the need to maintain their machines in a safe condition. Checking the main components of the motorcycle is actually part of the training and test to obtain the driving licence. A motorcyclist has a closer relation to his vehicle and generally maintains it himself. Being a vulnerable road user, it is obviously in the interests of the motorcyclist to reduce any possible risk of accident, as he would be the first one to suffer. Of course, some motorcyclists nevertheless ride damaged or unsafe vehicle. But they clearly represent a minority.

The compulsory RWT in Sweden was for instance changed in 2004 for the vehicles showing the best results and least mileage: motorcycles, trailers and caravans. The first RWT is now done after four years and then every second year. (Before 2004, the first test was conducted after two years and then every year for vehicles of ten years or more). In the table bellow, it appears clearly that the only vehicles showing constant low failure statistics are motorcycles:

| Year | Motorcycles | Trailers | Caravans | Cars |
|------|-------------|----------|----------|------|
| 2004 | 9 %         | 19 %     | 16 %     | 32 % |
| 2005 | 9 %         | 22 %     | 13 %     | 32 % |
| 2006 | 10 %        | 26 %     | 22 %     | 32 % |
| 2007 | 10 %        | 26 %     | 19%      | 32 % |

Figure 1: Statistics from Bilprovningen<sup>4</sup>, Sweden. [www.bilprovningen.se](http://www.bilprovningen.se)

In addition, motorcycles travel less kilometres in their life cycle than cars or let alone Heavy Good Vehicles (HGVs), and mainly in weather conditions that are much less damaging to their technical condition. It should also be underlined that - on average - a motorcycle needs to be checked every 6.000 km by a professional, which is not the case for cars. In this respect, periodical inspection would only bring very limited added value.

<sup>2</sup> AUTOFORE – Study on the Future Options for Roadworthiness Enforcement in the European Union

<sup>3</sup> MAIDS study – In-depth investigation of motorcycle accidents: <http://maids.acembike.org/>

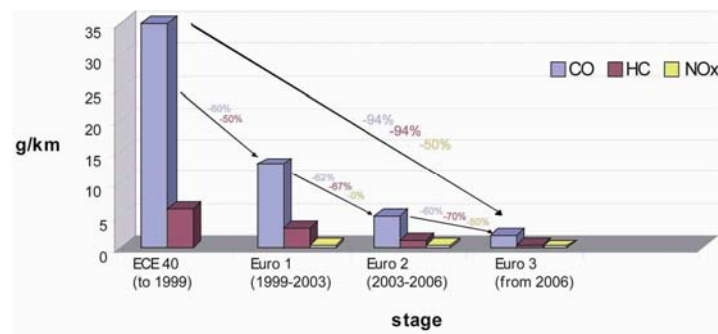
<sup>4</sup> Bilprovningen – Motorcyklar- Resultat av kontrollbesiktningar 2004: [www.bilprovningen.se](http://www.bilprovningen.se)

## 2. Environment

### A. Emissions

The amount of emissions emitted by motorcycles is marginal compared to other motorised road users, let alone compared to total national emission volumes.

Powered Two-Wheelers have major advantages compared to any other motorised road transport means, especially on climate change, with less emission of greenhouse gas and lower fuel consumption. Motorcycles offer solutions to many congestion and pollution problems faced by EU Member States. They have been subject to EU emissions limits since 1999 and now comply with the Euro 3 standards. In addition, governments and PTW manufacturers are working together to bring down emission levels on a continuing basis. Motorcycle manufacturers have already achieved enormous progress over the past 7 years: minus 94 % of carbon monoxide and hydrocarbon emissions, and minus 50 % of nitrogen emissions for the period 1999-2006. Furthermore, this drastic reduction of the emissions has been coupled with more severe test conditions.



According to an independent expert chosen by the European Commission<sup>5</sup>, PTW exhaust emissions show a good trend compared to the overall emissions of road transports. This trend is not only valid for what concerns the three main pollutants, but also with regard to CO<sub>2</sub> and particles emissions. At the horizon of 2012, the share of this two pollutants will be under 0,5% of the overall road transport CO<sub>2</sub> and PM emissions.

The impact on national emission volumes is thus barely recognisable. In our view, periodical inspections to control motorcycle emissions would request a lot of resources for very limited benefits. Furthermore, there are currently no EU established methods or equipment available for implementing emissions inspections for motorcycles.

<sup>5</sup> Final Report on: "Impact Assessment/ Package of New Requirements Relating to the Emissions from Two and Three-Wheel Motor Vehicles" - Laboratory of Applied Thermodynamics Mechanical Engineering Department, Aristotle University of Thessaloniky, June 2004.

## B. Noise

Noise pollution is an additional important aspect to take into account. It has indeed a direct impact on citizens, especially in urban areas.

Control of motorcycle noise levels is possible at periodical inspections. However, no EU established test methods exist. In addition, the major problem related to excessive noise levels is mainly linked to the illegal tampering of exhaust systems. As the experience - e.g. in Germany - shows, little can be achieved through periodical noise level control to detected tampering: motorcycles' exhausts are typically very easy to change back and forth. The owner of a tampered bike would only need to change the exhaust system before the test to comply with the limits. Periodical inspection would therefore bring no added value. On the other hand, appropriate roadside controls of noise levels offer a cost-effective solution to noise problems. Motorcycle manufacturers could also ensure that silencers are constructed in a way that prevents "designed-in tampering".



## 3. Customised vehicles

The interests of riders who customise their machines need to be recognised. The practice of customising, that is altering the appearance of a machine by the fitting of non-standard parts, can range from the replacement of parts such as the mirrors or the seat, to the creation of one-off specials.

FEMA accepts that the customising of motorcycles should not result in the machine becoming unsafe and a danger to its rider, to other road users and to the general public. There is, however, no evidence to show that modified machines are less safe than their standard counterparts. On the contrary, many modifications are aimed at making the machine safer by, for example, replacing its tyres, improving its brakes, lights, or fitting mirrors that give better visibility than their standard counterparts. Motorcyclists also modify seats, handlebars or footrests to obtain a more comfortable or varied riding position. This is especially important with regards to smaller riders for safer machine control. After market suspension manufacturers also underline that the replacement of suspension units or modification to the suspension improves the comfort, handling, traction, and hence control of the machine. Custom bikes are thus often covered by lower road traffic insurance premiums.

FEMA does not want a roadworthiness testing system that outlaws customised motorcycles by requiring them to be maintained to some strict type-approved specifications. This would not only cost many thousands of jobs in the motorcycle

aftermarket industry but also deny motorcyclists the pleasure of modifying their machine.

It is also important to underline that technical modification only concerns a minority of motorcyclists. The costs-benefits approach regarding a mandatory periodical inspections aiming to control technical modifications once more needs to be taken into account. In addition, in countries such as Finland with a long history of custom built motorcycles, the modification of vehicles is approved under the current law at the *mandatory re-inspection*. The test is important to ensure that the modifications or major changes do not endanger road safety. As the owner of a customised motorcycle is particularly aware of safety aspects, regular inspections would not further improve road safety.

#### **4. Vintage vehicles**

The Federation of European Motorcyclists' Associations is also very concerned about the affect of a roadworthiness testing system on older motorcycles, machines that are often described as "classic" or "vintage".

It would be totally unacceptable to use a roadworthiness testing system as a means of legislating retrospectively. If a motorcycle manufactured in 1920 or 1935 is in good condition and would be deemed roadworthy by the regulations and standards of those days, then it must be allowed to be used on today's roads. Only the appropriate regulations in force at the time of the machine's construction should be referred to. If older motorcycles were to be included in any roadworthiness testing system, then specific provisions appropriate to their age must be defined within the directive.

#### **Conclusion**

It is clear that private companies providing vehicle inspection services would take on new business, and charge motorcyclists for inspections that the state has made mandatory. With regards to the increasing European fleet of motorcycles, this would mean a gross income transfer of several billion euros each year from motorcycle owners to private companies.

However, the implementation of periodical inspections of motorcycles would only achieve marginal benefits, while the economic burden created would by far outweigh the positive aspects. The costs would affect both the motorcyclists and the taxpayers.

Periodical inspections cannot produce additional safety benefits. Reliable statistical evidences support this argument. Furthermore, re-inspection policies and roadside control already exist, and their efficiency as safety enhancement measures can be improved with little or no cost at all.

The protection of the environment is a priority. Yet, the limited amount of emissions produced by motorcycles compared to cars and other motorised road users, does not justify the inclusion of Powered Two-Wheelers in the Roadworthiness Directive. Motorcyclists are of course concerned by the environmental issue and governments and PTW manufacturers are working together to bring down emission levels on a continuing basis.

To conclude, CITA states in its report: "Although an economic analysis could not be undertaken to quantify the magnitude of the benefits, good accident evidence supports the extension of the Directive to two-wheeled motor vehicles." Despite the fact that technical defects are not a cause of motorcycle accidents, it would be an absolute non-sense to apply harmonised periodical inspections throughout Europe, without having previously conducted a study to evaluate the possible costs vs. benefits.

FEMA hence rejects any proposal to harmonise periodical inspection in Europe. We believe that the decision to implement roadworthiness tests should remain at national level to adapt to the specific needs of the different fleets.