



# FIVA

The Worldwide Authority for Historic Vehicles

## ENVIRONMENTAL GUIDE





# FIVA WORLDWIDE

The Fédération Internationale des Véhicules Anciens (FIVA) was founded in 1966 as the international federation of historic vehicle clubs. FIVA acts worldwide and represents historic vehicle clubs in more than 60 countries ([www.fiva.org](http://www.fiva.org)).

The principle objective of FIVA is to further the preservation of historic vehicles and to cater for information and communication with legislative bodies and decision makers to ensure that legislation does not impact the use of historic vehicles on public roads.

## ***What is a historic vehicle:***

FIVA defines a historic vehicle as a mechanically propelled road vehicle:

- which is at least 30 years old;
- which is preserved and maintained in a historically correct condition;
- which is not used as a means of daily transport;
- and which is therefore a part of our technical and cultural heritage.

Historic vehicles represent mobile heritage and technical history and by their nature do not meet the technical standards of modern vehicles. Historic vehicles give evidence of the technical developments from the very early up to the modern times and help us to learn about the technical and cultural aspects of mobility. As preservers of the “rolling museum of the road”, FIVA as well as the owners of historic vehicles are deeply involved in the complex questions of environment and climate protection and are prepared to take up this responsible task.

## ***Historic vehicles fit into today’s environment:***

Historic vehicles are used far less frequently and more considerately than modern ones, they cover less distance resulting in an insignificant share of overall fuel consumption and related emissions. They avoid big flows of traffic whenever possible and are therefore not a part of mass traffic or congestion problems.

## ***The goal of the ENVIRONMENTAL GUIDE:***

This brochure gives an outline of the positive approach towards environmental protection made by FIVA and its members and offers practical support for environmentally conscious use of historic vehicles.

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# HISTORIC VEHICLES AND THEIR ENVIRONMENTAL CHARACTER

## ***Historic vehicles do not share mass-traffic problems:***

Especially in urban areas the problems of congestion and emission of CO<sup>2</sup> and fine particles are the main focus of the discussions to identify means to better manage traffic and promote clean vehicles to the overall benefit of the urban environment. FIVA well understands these problems.

Within this debate, older vehicles are often singled out as “culprits” of pollution. As a result some policy makers have expressed the view that old vehicles should be removed from traffic or at least should have reduced road/traffic access in order to improve air quality to city centres.

This view does not take into consideration that historic vehicles are not comparable to the mass of simply old or used vehicles; they are in fact vehicles with very special characteristics both technically and in the way that they are used.



## ***Historic vehicles and ordinary used vehicles are not the same:***

One point of the special characteristics of historic vehicles is their age: historic vehicles with their minimum age of 30 years no longer fall into the normal range of ordinary used vehicles and are kept for very different reasons than just being a means of transportation from A to B.

Reasons to keep and maintain a historic vehicle with considerable efforts and expenditure may vary. There may be nostalgic, historic, technical or collectors interests or even investment reasons but one motive is common: to preserve a part of technical culture and heritage.

## ***Historic vehicles are in good condition:***

Historic vehicles are generally well maintained and their owners undoubtedly take great care of the vehicle which means they will devote time, energy and money into the preservation and maintenance of its mechanical components.

# FACTS AND FIGURES

## ***Number of historic vehicles:***

The total environmental impact of historic vehicles is extremely low, reflecting their limited numbers. Comprehensive research undertaken by FIVA in 2005/06 showed that the proportion of passenger vehicles more than 25 years old in Europe is only **0,8%** of the total number of passenger vehicles on the road and the use of historic vehicles is equivalent to only **0,07%** of the distance travelled by modern vehicles!

Under the present age limit of 30 years generally implemented by FIVA for historic vehicles the above figures can be assumed to be significantly lower.

Additionally historic vehicles are mainly used for people's leisure activities and more importantly rarely in urban areas during times of peak traffic.

Furthermore historic vehicles are normally kept in addition to a modern one which serves the regular needs of personal transports.

## ***Technical characteristics:***

Regarding emissions it is evident that historic vehicles do not meet modern standards. Historic technology is per se not comparable to modern technology although technical concepts like hybrid systems which we consider as modern were invented decades ago. Nevertheless there are some general positive technical aspects of historic vehicles regarding fuel consumption:

- They are lighter:

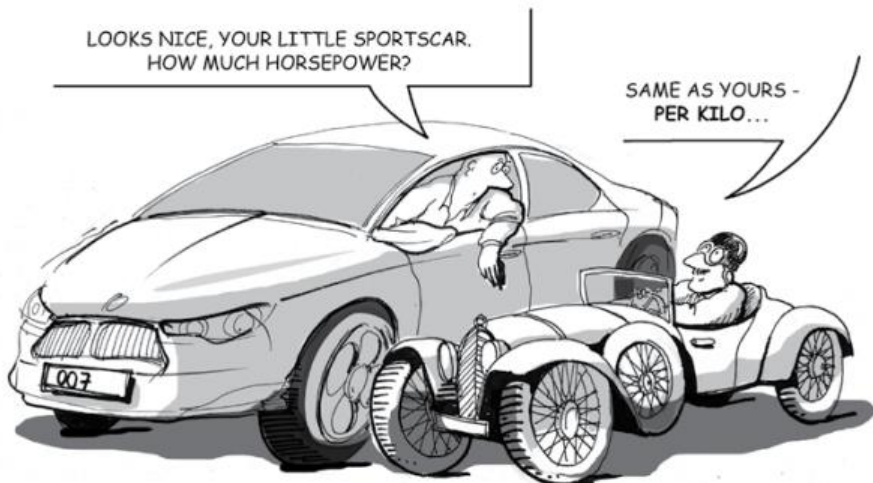
For example a luxury saloon like the Jaguar MK2 of the sixties weighed about 400 kg less than the comparable Jaguar XF of today and the engine of the modern Mini has to pull about 1100 kg of weight while its famous predecessor in 1959 only had to deal with less than 700 kg – which means that fuel consumption generally is not a crucial factor on historic vehicles.

- Power and maximum speed of historic vehicles are generally lower:

A family car like the legendary Citroen 2CV started its life in 1949 with a humble 9 hp engine and one of the most successful cars in motoring history, the Volkswagen "Beetle", at the end of its development made hardly more than 140 km/h. Even premium sports cars like the "big" Austin Healey 3000 of the fifties had an output of just 130 hp and an upper middle-class car like the BMW 2002ti of 1971 made a modest 120 hp. Up to the seventies a car which could run more than 160 km/h would be deemed as a very sporting vehicle – like the Porsche 356 which had a fuel consumption of around 10 litres per 100 km.

- Historic vehicles lack modern fuel consuming devices:

Power-assisted steering, climate control, electrical "helpers" like window openers or seat adjusters and so on are definitely rare on historic vehicles. This contributes to the charm of driving these vehicles and helps save fuel.



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### ***Socio-economic facts:***

An important fact is the economic and social impact of the historic vehicle movement:

A survey of FIVA in 2005/06 showed a total sum of nearly **16 billion Euros revenue** generated in the European Union alone. These revenues were spent in a truly environmental manner: most of the business related to historic vehicles is undertaken by **small companies which provide work for about 50.000 people**.

Besides restoring, maintaining and dealing with historic vehicles a major share of revenues is generated by leisure businesses and tourist traffic, not to forget newspapers and club magazines. Activities of historic vehicle clubs bring together participants of various countries thus helping to get in touch with each other on a friendly and common basis. There are also numerous socially aware local club activities, meaning the historic vehicles movement is a **“very environment-friendly business”**.

# MAINTENANCE IN FAVOUR OF THE ENVIRONMENT

## *Drive it at least every 3 months:*

Regular driving is essential not only to keep the mechanics of the vehicle alive but is also the best way to keep your vehicle in an environmentally sound condition. It avoids malfunctions and internal corrosion, and encourages the lubrication of the engine as well as gearbox, drive train and wheel bearings.

It is important that all mechanical components of your vehicle regularly get the right working temperature which can best be achieved by taking the vehicle out of the garage and driving it for about 30 kilometres at a modest speed.

To warm up the engine by letting it idle whilst stationary causes a lot of emissions and is not good for the health of the vehicle either. It is better to put some load on the engine and also on all the other mechanical components to reach the proper working temperature as soon as possible. If you do this at least every 3 months, your vehicle and the environment will be grateful: Engine wear will be minimised, gaskets and oil seals will not dry out and the emissions of your vehicle will be as low as possible.

If you have decided to store your vehicle over winter time like many owners do keep it in a dry place, remove the plugs, store the battery separately and put the vehicle on stands to ease the load on axles and tyres.



### ***Take care of the fuel and ignition system:***

Until the late 80`s of the last century carburettors were standard to feed the engine. They are the lungs of most historic vehicles and therefore one of its most important parts. Have your mechanic or yourself, if you are able to do so, ensure proper maintenance, proper regulation and tightness at least once a year before you start into the season no matter how often you have driven before. Properly maintained carburettors will give you the full joy of driving a perfectly running machine but will also be crucial to keep the emissions of your vehicles as low as possible.

If your vehicle is fitted with a fuel injection system a yearly check and regular maintenance is strongly recommended.

Have a regular look after the ignition system and also examine the plugs checking the colour of their face: if it is light brown the gas mixture of your engine is right.

Pale colour means a too weak mixture running the risk for overheating or even burning a piston, black colour means an over-rich mixture causing loss of power and high fuel consumption.

### ***Watch the exhaust of your vehicle:***

Look for blue smoke from the exhaust. It indicates worn-out piston-rings or valve-guides in your engine and is a warning signal that engine overhaul comes near. White smoke indicates a leaking cylinder-head gasket and immediate danger for your engine.

### ***Control tyre pressure:***

Low pressure not only reduces safety but also dramatically increases fuel consumption. Improper tyre pressure causes up to 4 % more fuel consumption. Especially on vehicles with crossply tyres it is better to maintain the highest recommended tyre pressure: this makes steering easier without spoiling ride comfort.

# CLEAN VEHICLES, CLEAN ENVIRONMENT

## ***Cleanliness avoids problems:***

It is clear that you would not take your vehicle to an event or on the road with a thick layer of dust on it. A shiny, clean vehicle is a compliment to the owner or driver. However, it is not only the exterior and the body which you should take care of. Have a look under the bonnet at the engine and all the components which could release oil or other liquids. Take a rag, wipe off all the remains of street dust from all those suspicious parts and areas where leakage could occur and check them after the journey. This simple method helps you easily to find and locate leaks

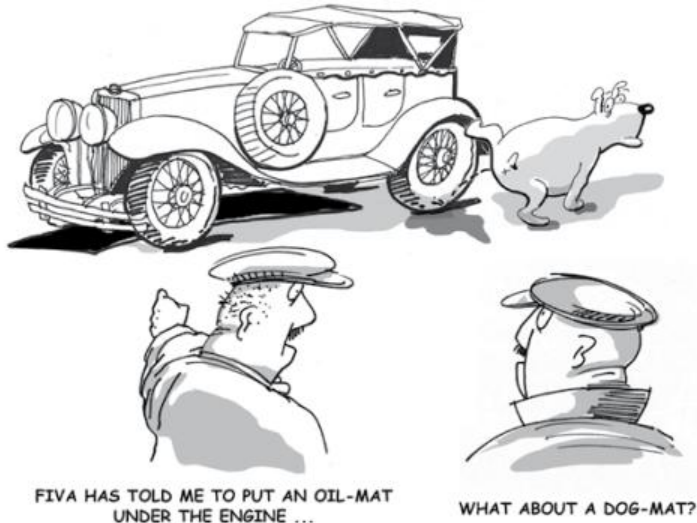
## ***Avoid oil leaks:***

Easy to say, difficult to achieve. Especially old engines and archaic gear boxes or rear axles tend to leak once getting warm especially when they were built in a time where modern ring seals had not yet been invented.

If the vehicle is properly maintained it is only a few drops which spoil the ground while the vehicle is standing and you can not do very much to avoid this. But again: A piece of rag used to dry the components in the engine bay helps a lot.

## ***Put an oil mat under your vehicle:***

Especially on events when a lot of historic vehicles are gathered together on display for the public it could well happen that the place would be sprinkled with oil drop marks when the crowd has left. A wise organiser of an event who cares for good relations to city officials and sponsors therefore would prepare pieces of cardboard of about 50 x 120 cm in size to be laid under the engine bays of cars and smaller ones for motorcycles.

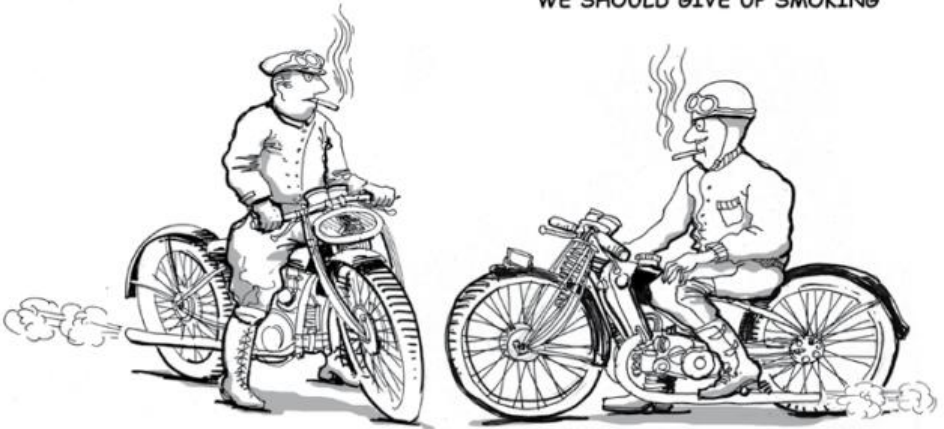




Careful drivers carry such protective devices as standard equipment in their vehicle: in any building material you can buy recycled felt mats such as those used by painters or construction workers to protect the floor surfaces. They are cheap, can be rolled or folded into a dirt-proof pocket and can easily be stored even if the luggage capacity of your vehicle is limited. Add two compact wooden blocks for weighting against the wind and using this will promote you as “the driver conscious of the environment”.

**ENVIRONMENTALLY SPOKEN:  
WE ARE NOT THE BEST ONES ...**

**YES, RIGHT -  
WE SHOULD GIVE UP SMOKING**



# DRIVE WITH RESPECT TO OTHERS

## ***Avoid noise pollution:***

For obvious technical reasons the noise level of historic vehicles from their exhaust note or mechanical components is often noticeably higher than that of modern ones.

Conscientious drivers take care that driving noise is maintained in a way which is appropriate to the technical characteristics and original specifications of the vehicle and does not cause unnecessary annoyance to the public.

## ***Save your racing activities for the track:***

Driving a sports car does not necessarily mean that you are famous race driver Nuvolari especially when you are not in a race. Be aware that the sound of your exhaust which might be music in your ears could upset your neighbour who just hears an irritating noise.

Taking the higher gear and thus reducing the revs of your engine does not make you look less sporting. Remember that the true sportsman maintains fairness and respect to others in any situation – as did Nuvolari.

## ***Driving in convoy:***

Not only for safety but also for environmental reasons avoid closing up in convoys especially when running your vehicle in events. Keep enough distance between your and other participating vehicles and avoid blocking places and spaces when you are gathering up on control or meeting points. Avoid annoyance to other participants or the regular traffic, let them overtake as easily as possible and do not be an unnecessary cause for congestion.

## ***Proper tyres:***

Often on sports cars from the fifties upwards but also sometimes on pre-war cars wider and even low section tyres are used. This might look good and help the vehicle to handle better than in period but should be done with consideration. One point is the effect on originality which could cause reclassification of the vehicle in extreme cases and the other point is the impact on the safety and fuel efficiency of the vehicle: while wide low-profile tyres can reduce the high speed end of the vehicle by their negative aerodynamic effects the improvement on road holding in curves might stress the suspension and cause excessive wear of suspension parts, wheel bearings and brakes. This can lead to costly repairs but also to safety problems in addition to the increase in fuel consumption caused by those tyres.

So please find a reasonable compromise between the desire to give your vehicle a “modern” sporting look and keeping it original, safe and fuel efficient.

**Be a safe driver.**

**Be a responsible driver.**

**Keep up our technical heritage.**

**Respect the environment.**



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