



**Conférence Européenne
des Directeurs des Routes**
**Conference of European
Directors of Roads**

Safe distance between vehicles



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1 General

A review of the rules and practices concerning the safe distance between two vehicles on roads was performed in 2007 and 2008 by members of CEDR's TG Road Safety.

Member states were asked to answer the following questions:

- Is there a regulation that governs the safe distance between vehicles in your country?
- If so, what are the rules (e.g. leave at least 2 seconds following distance to the vehicle in front)?
- Have you experienced any problems enforcing these rules?

This paper sums up the answers received from CEDR's member states.

2 Regulations in CEDR member states

Europe

As far as safe distances in tunnels are concerned, the European directive 2004/54 on minimum safety requirements for tunnels on the TERN states the following:

- Road users driving personal cars should under normal conditions maintain a minimum distance from the vehicle in front of them equivalent to the distance travelled by a vehicle in two seconds,
- For heavy goods vehicles (HGVs), this distance should be doubled.

Austria

The section 18(1) of the Road Traffic Code (Straßenverkehrsordnung, StVO) states that the driver must adjust the distance between his/her car and the car in front, so that he/she can stop even if the car in front slows down suddenly.

The paragraph 99 of this code deals with sanctions; it states that the safe distance must be greater than 0.4 seconds. Another paragraph states that two HGVs must keep a minimum distance of 50 meters (regardless of the speed at which they are travelling).

The '2-second rule' is taught at driving schools and is also painted on the pavement (either in the form of arrows or '21, 22').

Denmark

The 2-second rule is applied. There are a few test sites where arrows have been painted on the road to persuade drivers to keep two arrows visible between the vehicles, which should correspond to the distance travelled by a vehicle in two seconds. The results of these tests have not yet been evaluated, even though some good results have been obtained in the UK using this method.

Estonia

The Traffic Law requires drivers to keep a sufficient distance between their cars and the car in front in order to avoid a collision if the car in front brakes suddenly or stops. The 2-second rule is used as a rule of thumb.

Finland

The Traffic Law requires the driver to leave enough space to be able to stop without a collision if the vehicle in front brakes or stops. Although the '2-second rule' is not explicitly mentioned in the Traffic Law, it is used as a rule of thumb. Gaps of less than 1 second for vehicles without air brakes are fined, when the speed is over 60 km/h; if the gap is less than 0,25 seconds the drivers licence may be suspended for at least 1 month.

Gaps of less than 1,5 second (for vehicles with air brakes) are fined when the speed is over 60 km/h, but if the gap is less than 0,35 second the drivers licence may be suspended for at least 1 month.

France

The Road Code says that the driver must keep a safe distance between his/her vehicle and the vehicle in front in order to avoid collision if the car in front brakes or stops. The safe distance corresponds to the distance covered by the vehicles in at least 2 seconds. Outside urban areas, drivers following vehicles weighing more than 3.5 t or measuring 7 metres in length at the same speed must stay at least 50 meters behind the vehicle in front.

The required safe distance can be raised for especially risky infrastructures.

It is very difficult to enforce these minimum safe distances in France. Some devices help raise driver awareness about the safe distance, e.g. arrows or other road markings painted on the road. Automated enforcement systems are being tested for simple cases.

Germany

The Road Traffic Act requires drivers to leave a distance that will allow them to stop if the car in front brakes. In general, lorries must keep a distance of more than 50 m on motorways at speeds of above 50 km/h. For other vehicles, no exact rule has been defined in the Road Traffic Act. However, the 2-second rule is taught as a rule of the thumb.

The catalogue of administrative fines ("Bußgeldkatalog") determines different fines according to the actual speed and distance. Fines start at 25 € (speed less than 80 km/h and without endangering other road users) and can be up to 250 € plus 4 penalty points plus a 3 months suspension (speed higher than 130km/h and distance [m] less than 1/10 of current speed [km/h]).

Iceland

There is no regulation regarding the safe distance (gap) to be maintained between two vehicles. The relevant section of the Road Traffic Law reads as follows: 'If vehicle B is driving behind vehicle A, the distance between the two vehicles shall be long enough to ensure that there is no risk of a rear-end crash if vehicle A should stop or slow down.'

Ireland

The 2-second rule for 'safe stopping distance' is in the 'Rules of the Road, however, this is not a legal requirement. A driver could be prosecuted for 'driving without due care and attention', which is a catch-all often used by the traffic police.

Italy

The Road Code states that all drivers must keep a safe distance between their vehicles and the vehicle in front, so that they can stop at the right time and avoid collision. Outside urban areas, when overtaking is forbidden for some categories of vehicles, between such vehicles a distance of at least 100 m is required. This rule does not apply for roads with 2 or more lanes in each direction. When winter maintenance is carried out by salt spreaders and snow ploughs, vehicles must proceed with extreme caution. Safe distance between such heavy duty vehicles must be at least 20 m. Vehicles in the opposite direction, if necessary, should stop to allow these vehicles to perform their task.

Anyone who violates these regulations is subject to fines ranging from 36 € to 148 €

If the same driver in the following 2 years is again found not respecting this rule, his/her driving licence is suspended from 1 to 3 months.

Luxembourg

The Road Code defines the minimum distances that must be maintained. No corresponding markings are painted on the roads. The 2-second rule is used as a rule of thumb.

The Netherlands

The 2-second rule is applied. The basis of this rule is as follows: 1 second reaction time and 1 second braking time.

In practice, few drivers apply this rule. Fines can be imposed if the distance between the two vehicles is less than 1 second.

On a motorway, the capacity per lane is in theory about 1,800 vehicles per hour; in practice there are about 2,300 vehicles per hour per lane.

Norway

There is a regulation sanctioning the disregard of the safe distance to the vehicle in front:

A: For vehicles weighing less than 3,500 kg:

- A distance of between 0.00 seconds and 0.29 seconds leads to a suspension of the license for at least 6 months.
- A distance of between 0.30 seconds and 0.50 seconds leads to a 3-6 month suspension.

B: For vehicles weighing 3,500 kg and more:

- A distance of between 0.00 seconds and 0.49 seconds leads to a suspension of the license for at least 6 months.
- A distance of between 0.50 seconds and 1.00 seconds leads to a 3-6 month suspension.

Portugal

Article 18 of the Road Legislation Code states that the driver of a moving vehicle should maintain sufficient distance between his/her vehicle and the vehicle in front to ensure that no accident occurs if the vehicle in front stops suddenly or reduces its speed.

Switzerland

By law, a driver must keep sufficient distance between his/her vehicle and the vehicle in front, taking into account that this vehicle could brake suddenly. In practice (i.e. in court), the 2-second rule or the half-speed rule (i.e. the distance in metres should be half of the actual speed in km/h) applies. The distance calculated by the half-speed rule is slightly less than the distance calculated using the 2-second rule and only applies in good weather conditions. Similar to other countries, Switzerland has problems with enforcement.

Sweden

The police impose a fine when the safe distance is less than 1 second. If the safe distance is less than 0.5 seconds, the driver’s driving license is revoked. Enforcement problems do exist.

UK

There is no specific regulation for close following. However, the Highway Code Rules for safe stopping distances contains the 2-second rule. Many of the Highway Code Rules are legal requirements; the safe stopping distance is not one of them. However, if a driver is caught disregarding such a Highway Code Rule that could be considered a hazard, a driver could be prosecuted for 'driving without due care and attention', which is a catch-all often used by the traffic police.



Distance between vehicles

The regulations described above are summarized in the following table.

| Country | Existing law or regulation | Threshold for enforcement set by law or regulation | Comments |
|--------------------|--|--|--|
| Austria | Yes (Road Traffic Code) : - Adjust distance to be able to stop if necessary - Sanction based on minimum time or distance | Yes - Gap < 0.4 s - Distance < 50 m for lorries | The 2-second rule is taught in driving schools and painted on the pavement. |
| Denmark | | The 2-second rule is used by police. | The 2-second rule is applied. |
| Estonia | Yes (Traffic Law) : - Keep sufficient distance to avoid collision | No | The 2-second rule is used as a rule of thumb. |
| Finland | Yes Traffic Law : - Adjust distance to be able to stop if necessary - Sanction according to the minimum time or distance | Yes - Gap < 1 s; distance depends on the speed - Gap < 1.5 s for lorries; distance depends on the speed | The 2-second rule is also used as a rule of thumb. |
| France | Yes (Road Code) : - Sufficient distance to avoid collision if car in front brakes or stops | Yes - Gap < 2 s - Distance < 50 m for lorries > 3.5 t or < 7 m, in interurban areas at the same speed | For certain infrastructures, higher minimum safe distances can be made compulsory. |
| Germany | Yes (§4 Road Traffic Act) - Drivers must be able to stop in time if the car in front brakes - 50 m for lorries if speed > 50 km/h | Yes Quarter-speed rule Fines depend on actual speed and distance and are imposed if drivers break the quarter-speed rule. | Drivers should keep a distance greater than half of the speed in metres or a time gap of two seconds (both are rules of thumb, but have also been confirmed by court decisions). |
| Iceland | Yes (Road Traffic Law) - Sufficient distance to avoid collision | | |
| Ireland | No - The law stipulates 'driving with care and attention' | No | 2-second rule for 'safe stopping distance' in the 'Rules of the Road, however, this is not a legal requirement |
| Italy | Yes : Road Code Art. 149 - Adjust distance to be able to stop if necessary and avoid collision | No | Fines and penalties are mainly related to damages resulting from collision or casualties. |
| Luxembourg | Yes : Road Code - Sufficient distance to avoid collision | Yes < 100 m between lorries outside urban areas < 100 m (interurban) and 50 m (urban) behind dangerous goods | The 2-second rule is taught as a matter of principle in driving schools. |
| Netherlands | Yes Fine is imposed if distance < 1s | Yes Time < 1s | The 2-second rule is applied. |
| Norway | Yes | - Gap < 0.3 s (if vehicle < 3.5 t) - Gap < 0.5 s (if vehicle > 3.5 t) | |
| Portugal | Yes (Road Legislation Code) - Sufficient distance to avoid an accident if the car in front stops or reduces speed | No | |
| Sweden | Yes Fine is imposed if distance < 1s | If <0.5s, driving licence is revoked. | Enforcement problems exist. |
| Switzerland | Yes (law) - Sufficient distance in case car in front brakes | | In practice, the 2-second rule or the half-speed rule is applied. |
| UK | No But 'driving with care and attention' is mentioned in the law | No | 2-second rule for 'safe stopping distance' in the 'highway code rule', but not a legal requirement |

The distance of the 'half-speed rule' corresponds to 1.8 seconds.

3 Conclusions

In most countries in Europe, the general rule is that each driver must keep sufficient distance between his/her vehicle and the vehicle in front in order to avoid an accident if the car in front stops suddenly or reduces speed.

This rule does not always come with specific distances that must be observed, such as the required minimum distance or time between the vehicles. In those cases where minimum distances or times are provided, the figures vary greatly from country to country. The 2-second rule or the half-distance rule can be applied. Different, specific rules can be applied to heavy goods vehicles. The 2-second rule is often used as a rule of the thumb and taught at driving schools.

Some devices (e.g. road markings) are used to help drivers obey the rule.

Still, most countries encounter problems with enforcement.

Ref: CEDR report 2009/10.1 TGRoadSafety / DistancebetweenVehiclesReport



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