



RSA

CLASS VI FRONT BLIND SPOT MIRRORS

Public Consultation

Standards and Enforcement
March 2011

Údarás Um Shábháilteacht Ar Bhóithre
Road Safety Authority



CLASS VI FRONT BLIND SPOT MIRRORS – Public Consultation

Since 2007 all Heavy Goods Vehicles (HGVs) over 7.5t Design Gross Vehicle Weight (DGWV) entering the fleet are fitted with a suite of mirrors, including a front blind spot (Class VI or Cyclops) mirror, to reduce blind spots in specific areas around the vehicle where the driver has limited or no visibility. In 2009 it became mandatory to have blind spot mirrors fitted on the passenger side of HGV's registered from 01 January 2000 and a retrofit programme was successfully completed throughout Europe so that all vehicles in scope now have the additional mirrors. Class VI mirrors were not included in the retrofit due to a negative payback analysis based on a European wide implementation. However, the fitment of class VI mirrors has the potential to reduce fatalities and serious injuries from collisions between HGV's and cyclists or pedestrians. In Ireland the number of such incidents is very high, in particular with older people, and the RSA believe that such devices should be fitted to trucks to protect all vulnerable road users. In the twelve year period between 1996 and 2008, some twenty-one deaths and fourteen serious injuries in Ireland can be attributed to the inability of a HGV driver to see his victim as they passed in front of his vehicle's blind zone (See Figure 1). The Road Safety Authority is now considering making mandatory the fitment of front blind spot (Class VI) mirrors for all Irish registered HGV's regardless of age and we are seeking the views of interested parties on this safety enhancing proposal.

1. Introduction

Class VI mirrors, sometimes known as Cyclops or front blind spot mirrors are fitted to the front of large HGVs to eliminate the blind spot immediately in front of the vehicle. Class VI mirrors provide a wide angle of vision and, when properly adjusted, permit a clear view of the area immediately in front of the vehicle. Accidents resulting in serious injuries and death have occurred when a HGV driver has not seen a pedestrian or cyclist passing in front of his vehicle as it starts to move away from a junction.

2. The Front Blind Zone

In large HGVs the driver sits high above the road level usually over the engine. Whilst this gives a good view of the road ahead, the area immediately in front of the vehicle cannot be seen as shown below in figure 1.

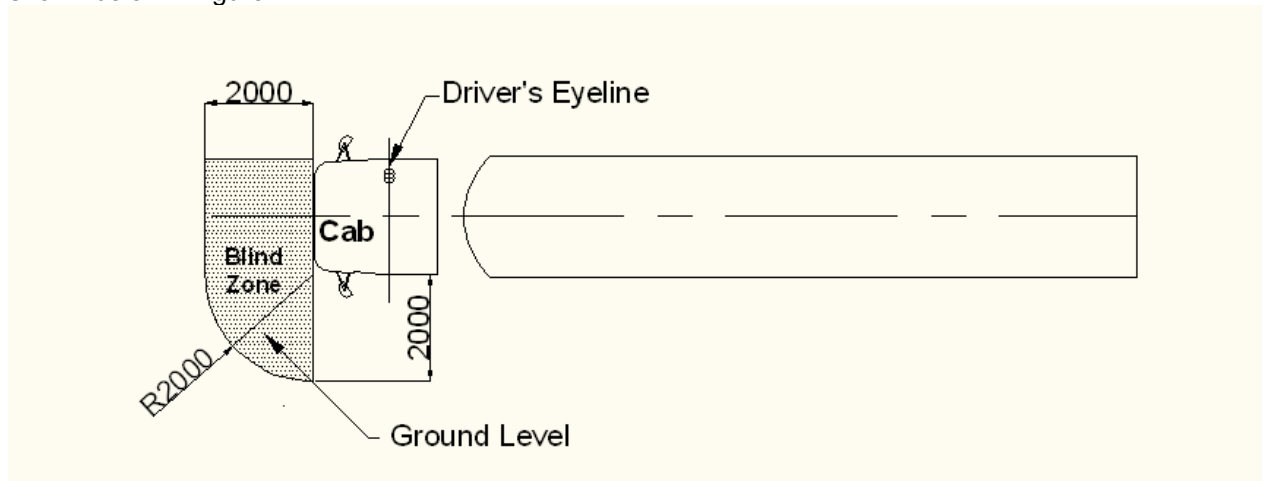


Figure 1. Blind zone

When the vehicle pulls away from rest, e.g. at a traffic light, pedestrians or cyclists passing immediately in front of the vehicle are out of the driver's field of vision. In fact a person 2 meters tall may not be seen by the driver of a HGV until they are at least 1.5 meters away from the front of the vehicle and then only the top of the person's head will be seen. A number of serious and fatal accidents have been attributed to this limited field of vision. In many cases the driver of the HGV is only aware of the collision when signalled by oncoming drivers or bystanders.

3. Safety Benefits

A correctly adjusted class VI mirror will provide the driver with a view of the area directly in front of the vehicle and the area extending beyond the passenger side as shown shaded in Figure 1 above. The driver, after checking this mirror, is forewarned of the presence of a pedestrian or

cyclist before moving off. Use of a Class VI mirrors has the potential to prevent two deaths and one serious injury annually to cyclists and pedestrians in Ireland.

4. Class VI Mirrors in Ireland

Class VI mirrors have been required on new vehicles registered on or after 26 January 2007. Analysis of the National Vehicle Data File indicates that there are some 23,687 relevant vehicles registered pre 2007. Very few vehicles registered prior to this date are equipped with Class VI mirrors.

5. Situation in Other Member States

Directive 2007/38/EC makes compulsory the fitting of Class IV, wide angle, and Class V, close proximity, mirrors to increase the field of indirect vision (Blind Spots) on all heavy goods vehicles in Europe registered after the 1st January 2000. S.I. 312 of 2008 transposed this directive into Irish law and a retro-fit campaign was completed in 2009. Class VI mirrors were not included in the Directive as a cost benefit analysis based on a European wide retrofit campaign did not give sufficient justification. Ireland has requested the Commission to reconsider the retro fitment of class VI mirrors in an effort to reduce the number of injury and death incidents involving HGV's and pedestrians or cyclists. The Commission has indicated that there are no immediate plans to mandate their fitment on older vehicles throughout Europe but that Ireland are free to introduce Class VI mirrors on all vehicles on a national basis.

In Ireland pedestrians and other vulnerable road users are more frequently exposed to contact with HGV's. Much of our national road network still passes through urban areas and villages where pedestrians and cyclists are frequently in close contact with HGV's at traffic lights, pedestrian crossings and junctions. In particular older pedestrians are at risk in these situations and this issue has been highlighted at recent inquests. For example a recent report from Cork City Coroner has asked for a Class VI mirror retro-fit campaign for all HGV's based on a high number of fatalities in Cork in recent years. It should also be noted that due to changing economic circumstances it is expected that HGV's in the national fleet will not be replaced as quickly as previously anticipated. Therefore as older vehicles will remain in service longer and in the absence of a retro-fit campaign it is expected that a significant number of vehicles without Class VI mirrors will continue to use the public road.

6. Cost Implications

The estimated cost range of fitting a Class VI mirror to a vehicle is between €135 and €200. There are approximately 31,729 vehicles over 7.5t DGWV in the national fleet. Approximately 8,042 of these vehicles were registered after 2007 and hence have Class VI mirrors. This leaves approximately 23,687 vehicles which most likely do not have a Class VI mirror. The retrofit cost for these older vehicles would be between €3.2m and €4.7m. It is worth noting that

based on two fatalities and one serious injury per year the annualised savings would be €6.2m¹. Therefore a successful Class VI mirror retrofit campaign will have a payback period of less than one year.

7. Possible Exemptions

In certain vehicles where the driver has a clear view of the area in front of the vehicle a Class VI mirror may not be required. For example if the driver seat and cab are lower to the ground than a normal HGV the front blind spot may be sufficiently small enough so that an additional mirror is not required. Further details can be found in; Directive 2003/97/EC, Annex III, 5.6. Type Approved Class VI Mirrors

The type approval of Class VI mirrors is defined in Directive 2003/97/EC. Field of vision reflected in a type approved Class VI mirror is covered in Annex III, 5.6 and describes an area to 2000mm in front of the vehicle and the full cab width plus 2000mm on the passenger's side with a radius of 2000mm accepted on the passenger's side (see Fig. 1).

8. Options for Implementation

Option 1 – Natural wastage and replacement of the national fleet with new vehicles will ensure that Class VI mirrors are eventually fitted to all relevant vehicles. Since 26th January 2007 all new vehicles have Class VI mirrors fitted in accordance with Directive 2003/97/EC, and at currently estimated fleet replacement rates, the majority of relevant vehicles would be fitted with Class VI mirrors by 2018. During that period there would be an estimated six additional fatalities and four serious injuries. In addition to the human tragedy, the cost to the State would be in excess of €18.9M. There will be no cost implications for owners with this option as new vehicles will have the mirrors fitted as standard and retro-fitting of existing vehicles is not required.

Option 2 - Retrofit the existing fleet quickly with all vehicles being required to have a Class VI mirror within a period of one year after the regulations come into force. Thereafter the fitment of this mirror will be included in the HGV roadworthiness test. The total retro-fit cost for the national fleet is estimated at between €3.2m and €4.7m (€135 - €200 per vehicle).

The RSA is proposing the adoption of Option 2. Whilst this option requires a total investment nationally of up to €4.7m, it will ensure a speedy positive impact on safety for pedestrians and other vulnerable road users combined with a reduced cost to the state due to the reduction in fatalities and injuries. We would also suggest that vehicle owners plan in advance the fitting of a Class VI mirror (possibly during a maintenance interval) to minimise their vehicle's downtime.

¹ based on 2004 analysis by Goodbody Economic Consultants titled, "Cost Benefit Parameters and Application Rules for Transport Policy Appraisal" and assuming two fatalities and one serious injury

9. Your Comments

Class VI mirrors are mandatory on new vehicles entering the national fleet since 2007. It is estimated that through natural replacement of the fleet that virtually all relevant vehicles will be equipped with Class VI mirrors by 2018. The option to fit Class VI mirrors to all HGVs over 7.5t DGVW in a shorter timeframe is being considered.

The RSA is seeking the views of all road users, interest groups, and others who wish to submit views, advice, and suggestions on the policy options available in relation to Class VI mirrors on large HGVs. The consultation process commences on 14 March 2011 and runs for six weeks until 27 April 2011. Comments should be e-mailed to classvimirrorsconsultation@rsa.ie or posted to the address below.

Please mark the envelope “Class VI Mirrors Consultation”.

Vehicle Standards Section
Road Safety Authority
Moy Valley Business Park
Primrose Hill
Ballina
County Mayo

Working To Save Lives

Údarás Um Shábháilteacht Ar Bhóithre Road Safety Authority

Páirc Ghnó Ghleann na Muaidhe, Cnoc an tSabhaircín, Bóthar Bhaile Átha Cliath, Béal an Átha, Co. Mhaigh Eo
Moy Valley Business Park, Primrose Hill, Dublin Road, Ballina, Co. Mayo
local: 1890 50 60 80 fax: (096) 25 000 email: info@rsa.ie website: www.rsa.ie