

**MAKING EUROPE'S ROAD TUNNELS SAFER FOR USERS**

**EUROPEAN TUNNEL ASSESSMENT PROGRAMME (EUROTAP) INSPECTIONS 2007**

**THE MERSEY QUEENSWAY TUNNEL**



## Foreword

On 19 January 2007 deep in the Ehrentalerberg tunnel on the A2 near Klagenfurt in Austria, 29 cars, nine HGVs and a bus collided. Despite the carnage no one was killed and only 12 people were injured, none of them seriously. Around 150 people were able to leave the tunnel safely. The rescue services described the outcome as ‘a miracle’.

But was it a miracle or a result of improving safety standards, good tunnel management and more public understanding of the dangers inherent in using road tunnels, which ensured that danger was minimised as much as possible? The Ehrentalerberg tunnel was inspected in 2006 and rated ‘Good’. To achieve this rating the tunnel operators had to satisfy inspectors that the systems in place would be capable of dealing quickly and effectively with any emergency, clearly this turned out to be the case.

Since 2000, firstly EuroTest and subsequently EuroTAP (which is supported by the EU Commission and 13 European motoring organisations of which the AA is a leading member) have been engaged in a programme of tunnel inspections designed to highlight weaknesses in tunnel safety, encourage improving standards and promote driver awareness. And standards continue to improve, with well over half the 51 tunnels inspected rated as ‘Very good’ or ‘Good’. Add to that the 12 tunnels judged to be ‘Acceptable’ and it leaves only 10 tunnels which could be described as having failed the inspection.

This year the Mersey Queensway tunnel was inspected for the third time since 2000 and was rated ‘Acceptable’. It is a busy urban tunnel used by around 32,000 cars per day. However, compared with many others inspected it is a relatively old tunnel and whereas most new tunnels are uni-directional, ie traffic travelling in different directions are in separate tunnels, the Queensway Tunnel has only one tube with oncoming traffic separated simply by double white lines.

The inspector noted many positive features of the Queensway Tunnel:

- Traffic information radio can be received through the tunnel and the operator can broadcast messages
- Adequate escape and rescue provision with exits well signed
- Full video surveillance
- Adequate provision of emergency phones and fire extinguishers
- A sufficiently powerful ventilation system
- Sufficient protection against smoke and heat in the escape routes
- Adequate radio communication for emergency services throughout the tunnel
- Tunnel control centre is manned around the clock by trained personnel
- Control staff receive regular training
- Emergency drills are held regularly



















**Categories inspected**

**Tunnel characteristics**

- Number of tubes
- Brightness of tunnel walls
- Width and layout of traffic lanes
- Layout of emergency lanes and breakdown bays
- Additional items such as portal design, road surface, tunnel route

**Lighting and power supply**

- Lighting throughout and transition zones
- Power and emergency power supply

**Traffic and traffic surveillance**

- Type of traffic: unidirectional / bi-directional traffic
- Congestion in the tunnel
- Restrictions on and/or registration of vehicles carrying hazardous goods
- Measures to close the tunnel: traffic lights, barriers, information displays
- Traffic signs
- Traffic management and control: traffic lights, variable message traffic signs, signs
- Visual guidance equipment
- Automatic detection of traffic and congestion
- Video surveillance
- Tunnel control centre
- Additional measures: for instance for heavy goods vehicles, speed limits, monitoring the distance between vehicles and speed, automatic identification of hazardous goods transports, height control

**Communication**

- Traffic radio
- Loudspeakers
- Emergency telephones: distance signs, functions, insulation against traffic noise
- Tunnel radio



