The world road tunnels record

Stefania Fabozzi, Young Member of Società Italiana Gallerie

Underground tunnel for transportation or utility systems, are extraordinary works of civil engineering and they do not need numbers to prove their size greatness. However, the human mind is particularly influenced and impressed by the ‘big numbers’...it is only through the quantities, comparisons and similarities in fact, that everyone can realize, through a sort of ‘orienteering’, how special are these works.

Lærdal tunnel (Norway), with a length of 24.51 km, is the longest road tunnel in the world. Built in 2000 on the Oslo-Bergen route, it is divided into four sections separated by three large caverns that interrupt the monotony for the drivers. There are no emergency exits, but is equipped with safety niches every 500 meters, an innovative lighting system and plant of air treatment that removes powders and nitrogen dioxide.

San Gottardo tunnel (Switzerland) it has been the longest road tunnel in the world for twenty years. Built between 1970 and 1980, it connects the villages of Göschenen, in the canton of Uri, with Airolo, in the Canton of Ticino, and it is part of the A2 motorway between Basilea and Chiasso. It is almost 17 km long.
Gran Sasso tunnel (Italy) 10 km long, it is the third road tunnel in Italy and the longest two-pipe tunnel in Europe. Since 1993, it has direct access to the laboratories of the National Institute of Nuclear Physics located 1 km below the tunnel, a unique feature in the world!

Zhongnanshan tunnel (China), more than 18 km long, is the longest two-pipe road tunnel in the world, while, in absolute terms, it ranks the second step of the podium. It was opened to traffic in 2007 and, to break the monotony on the side of the road, plants were placed and light plays on the walls.

These are only some of the masterpieces of the worldwide road tunnels in fact, since they provide travelers with a quick and easy way to access hard-to-reach destinations, so it’s no surprise that every year cities/country maps out new tunnel designs. But high-tech building materials and advances in design are allowing for engineering feats never seen before. Although Lærdal Tunnel is currently the world’s longest road tunnel, it’s not the longest tunnel overall. The top six on the list are all water aqueducts (the longest being the 85-mile Delaware Aqueduct in New York State), while dozens of subway tunnels all around the world are longer than the Lærdal Tunnel.

Thinking...how fascinating is the human mind, its ability to conceive spaces, to manage such important works respecting the existing nature and the beauty concept.