

# Motoring Testing times

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■ **CRUNCH:** This new Renault Laguna II being crash-tested at the TRL centre in Crowthorne is the first to achieve the exceptional rating of 5 stars – the highest score of any car yet tested.

THE TRL is regarded as one of the world's leading centres of excellence in road safety. Its indoor impact test facility is impressive, providing state-of-the art facilities in which to test and simulate all kinds of vehicle impacts and accidents.

The scene is set. At one end of the test track waits an immaculate brand new car, deliberately destined to be a write-off within seconds.

At the other end of the track, housed in a customised building stands a 100-ton block of concrete, over 100,000 watts of halogen lighting, a battery of still and video camera equipment, and behind safety shielding, scientists, technologists and observers.

The cameras will record the collision from multiple angles, including from beneath a toughened glass floor.

Everyone knows what will happen – a crash. Everyone waits to see what effect the crash will have – on the car and on its occupants. Everyone nervously waits while preparations and safety checks are carried out.

Least worried are the occupants of the car – the dummies.

Each worth up to £100,000, these mechanical mannequins contain masses of sensors, transducers and electronics.

In the instant of the impact these will measure,

*It's reassuring to know that today's cars are safer than ever. This week Richard Hill spent a day at the Transport Research Laboratory in Crowthorne to find out more about those unsung heroes – the crash test dummies*

record and transmit data concerning every conceivable critical movement.

Once everything is ready, the test commences.

To allow everything to settle down, the car must reach its collision speed well in advance. In this case 40mph.

The cameras are rolling. The car approaches the observers very much as any car doing 40 does on a public road.

As it passes, however, it does something no-one wants to see on any public road – it slams into the target with a loud, sickening crunch.

Today the TRL's indoor impact test facility plays a key role in developing and carrying out crash tests for the European New Car Assessment Programme



(Euro NCAP). Standard vehicles are bought randomly and anonymously from dealers for these tests, ensuring that none have been specially modified.

The vehicles are then subjected to front impact tests, side impact tests, pedestrian impact tests and a new 'pole test' in which the car is propelled side-

ways at 18mph into a rigid pole.

This programme marks a significant step forward in giving consumers fully independent and impartial information on the crashworthiness of the cars they are buying.

Euro NCAP results are published on its website at [www.euroncap.com](http://www.euroncap.com)