



# TOO **HIGH-TECH** TO HANDLE?

Today's passenger vehicles are more technologically advanced than ever before, with advanced materials, construction methods, and technology that would have seemed pure science fiction only a few decades ago. But what is the impact of these trends on their repairability and long-term obsolescence? And what are manufacturers doing to assist those in the repair industry? **Bob Malkowski** investigates.

Obsolescence *n.* [ob-suh-less-uhns] is defined as "the process of becoming antiquated, outdated, old-fashioned, no longer in general use, or no longer useful". Defining obsolescence in the automotive world is a much more difficult task, after all, it's entirely possible to drive a car built more than half a century ago on modern roads without issue.

But at what point does it become difficult – or impossible – to repair and maintain a car to manufacturer specifications? What are the factors contributing to long-term repair and serviceability, and how is the industry addressing those factors?

Andrew Marsh is an automotive engineer with decades of experience in vehicle manufacturing, design and development. When asked if modern cars are moving closer to becoming a disposable item, he said: "I think there's

a lot of commercial direction that is heading towards single-use vehicles. The new manufacturers emerging, dealing primarily with battery electric vehicles, the technology is massively immature. This is the equivalent of developing a whole century or more of transport ideas in a very short space of time."

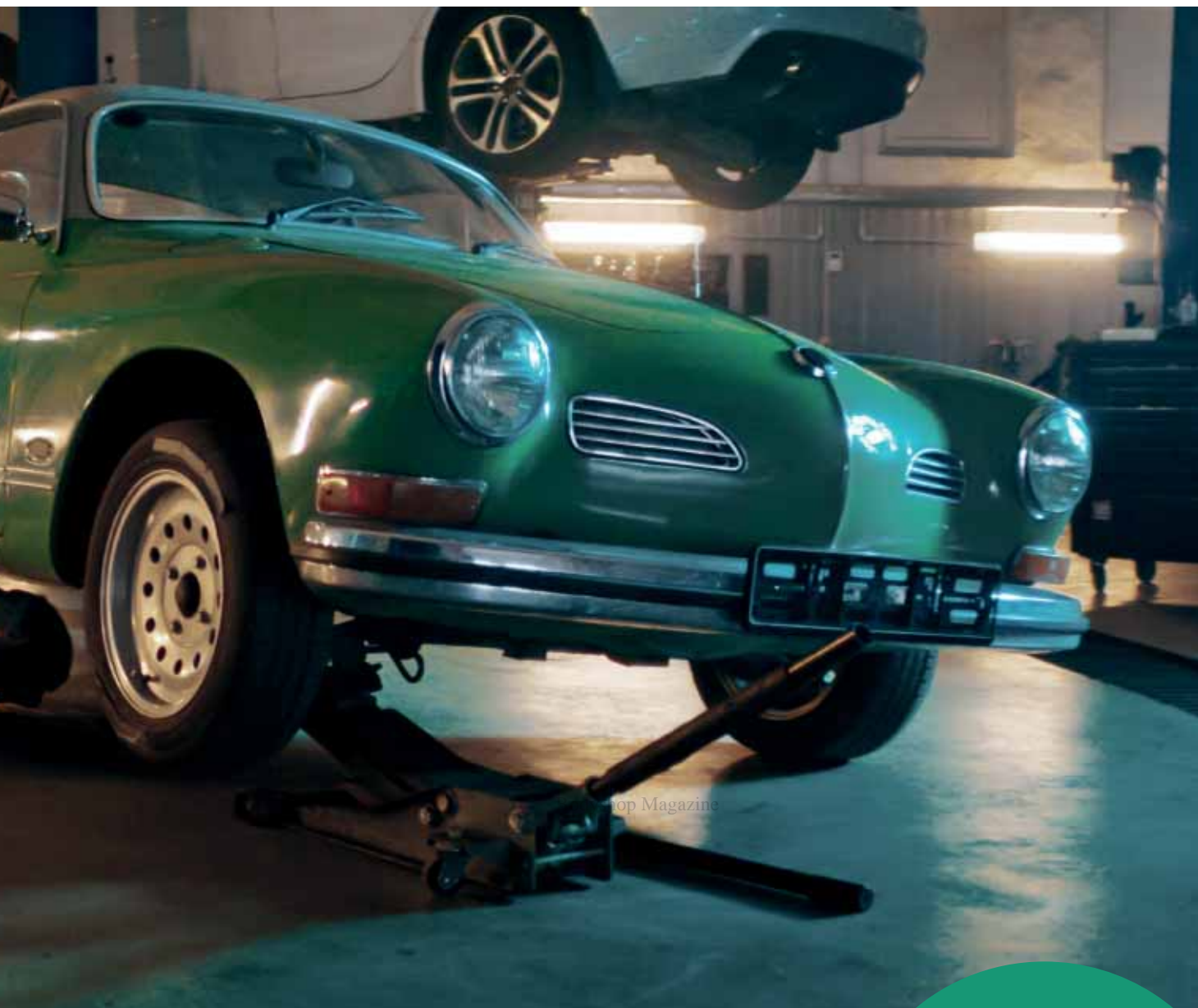
*Bodyshop* asked the same question to Paul Glover, network manager for Stellantis UK's accident repair programme. "I'll answer that one straight off the bat. Absolutely not," he said. "The reason is that it doesn't fit with our corporate social responsibility and environmental policy. You'll see that if you look at the Dare Forward 2030 commitment."

Dare Forward 2030 is Stellantis' "three-pillar plan" presented in March 2022, which outlines the company's ambitions and corporate goals. Among

those goals, Stellantis has committed to becoming carbon net zero by 2038, emphasising the "4Rs", as Glover explained: "Repair, reuse, remanufacture, recycle. You know, everything we do is about the vehicle, maintaining that vehicle."

### Construction and design

Car construction and design methods have changed dramatically in recent years with mixed materials and advanced electronic systems posing unique challenges to repairers. Chris Brightmore, CEO of prestige repair specialists Chartwell, said of the repairability of modern cars: "There are cars out there that you would question whether there's been any thought towards repairability in the design of the build. But I think it's a long stretch to say that all cars are built to be thrown away. Manufacturers are looking at the



repairability of cars more than ever. There's an end-of-life issue to all of this; you can't just keep building cars and throwing them away."

But how does the use of multi-materials and construction methods impact repairers? Brightmore added: "The multi-material thing, it feels a little bit old hat now. It's no longer that this is a steel car or aluminium car, it's that you'll find that some aluminium, some steel, some carbon, some composite, everything, sort of a jumble. It's how it's constructed together that is probably the biggest issue. The jointing methods, you might be welding at one point in the car, and bonding on the other parts of the car."

#### Repair data

With such complex construction and design practices, how easy is it to access the correct repair data? How would repair

professionals know the correct repair methods and processes? It's a question *Bodyshop* posed to both the OEMs and the repairers. Stellantis' Glover pointed towards the vehicle manufacturer's online service portal, Service Box: "[In terms of access to repair data] Service Box answers all of that. You can subscribe by brand into Service Box or there's a publicly available option where you can pay by the hour to access that."

As a manufacturer-approved repairer, Chartwell's Brightmore said: "We generally don't struggle for any manufacturer data. We get the training, we get the support, we get the information, we get access to it ... and we pay handsomely for it."

But what if you're not a manufacturer-approved repairer? What if the data you need is behind a paywall? Manufacturer repair data is often only available to those able and willing to pay for it.

Additionally, the sheer volume of

THERE ARE CARS OUT THERE THAT YOU WOULD QUESTION WHETHER THERE'S BEEN ANY THOUGHT TOWARDS REPAIRABILITY IN THE DESIGN OF THE BUILD

repair data and training necessary to properly repair today's cars can be overwhelming, as Marsh explains: "Five years ago a vehicle would have somewhere around 100 repair documents covering the whole vehicle. Now with battery electrification we have passed 600 documents, and some have passed 1,000." ▶▶

THERE APPEARS TO BE AN ISSUE IN OBTAINING RELIABLE, CONSISTENT REPAIR DATA FROM CHINESE MANUFACTURERS, BUT FEW WERE PREPARED TO GO ON THE RECORD TO SAY SO



**Parts availability**

At some point, every vehicle will rely upon a supply of replacement parts to continue and extend its service life. However, the availability and sourcing of repair parts is a contentious and highly debated subject.

Marsh holds clear views on where the manufacturer’s priorities lie regarding replacement parts: “I do not believe recent entrants to the car manufacturing world are serious about maintaining their products beyond 10-12 years after the start of production,” he said. “Established manufacturers have been rolling back their product support, deleting parts at an earlier point after a model finishes production.”

However, this is not a viewpoint unanimously shared among repairers and manufacturers, as Stellantis’ Glover explained: “We’ve just invested tens of millions in a new parts distribution hub and we have special heritage divisions for some of the Stellantis brands. If there’s a manufacturer that respects the heritage of the family of brands it looks after, it’s Stellantis.”

Lou Lawes, general manager at Chartwell, explained the approach of prestige manufacturers in supporting their vehicles: “We’ve seen some of those manufacturers realise the value of keeping the vehicles on the road. Most people with the kind of [prestige] vehicles

we repair want to keep them as original as possible. I think Ferrari’s always been really good at that, they really want to keep the cars on the road as long as possible. Some of the other manufacturers are now joining the club.”

Brightmore agreed: “They’re all very active in total loss programmes. They want to support parts packages; there is definitely a desire not to lose a registration or a VIN number.”

**Emergent brands**

If the mainstream manufacturers are offering good product support, then what about the emergent brands coming from China? More than 50 new BEVs have hit the UK market this year alone, many of those coming from relatively new Chinese manufacturers.

There appears to be an issue in obtaining reliable, consistent repair data from Chinese manufacturers, but few were prepared to go on the record to say so. *Bodyshop* invited a prominent Chinese-owned manufacturer to take part in this article, but they declined to comment.

Marsh explained the history so far of obtaining repair data from Chinese motor manufacturers: “Around the time of the arrival of the first wave of vehicles from China, some manufacturers indicated not only would repair information be available, but it would also be free.

However, the arrangements have not been straightforward.

“MG Motor initially required paying money into a bank account in China and then emailing a person for access. This has now been revised to paying a European bank. Other companies, such as GWM, have not even apparently switched the repair information on and is now chargeable, once it becomes available,” he added.

This inconsistent approach to repair information poses serious issues for the repair and insurance industries alike.

**Future hopes**

We live in an era where sustainability is more important than ever. As a result, it’s comforting and refreshing to hear that OEMs and repairers are both committed to maintaining and extending the useful life of existing vehicles.

The open availability of repair data will undoubtedly be a crucial part of long-term reparability and sustainability. Equally, vehicles in the parc will rely upon a long-term supply of repair and service parts to prevent cars from becoming prematurely obsolete.

It is perhaps too early to comment on whether emergent brands will step up to these challenges, but the lack of repair data and open communication between Chinese brands and the repair industry must surely raise concerns.