



TÜV Report 2022

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TÜV SÜD: cars safer than ever, lights and axles continue to give cause for concern

Munich/Berlin. There is positive news regarding the safety of cars on German roads: according to the 2022 TÜV-Report, the average rate of major faults has dropped by a whopping two percentage points to 17.9 per cent. But there are also records in terms of overall numbers. For the new edition of the report, the Association of German TÜV Organisations (TÜV-Verband) analysed the data from the periodic technical inspections (PTIs) of more than 9.6 million vehicles, and thus almost a million more than for the 2021 TÜV-Report. While slight improvements in lighting and chassis components were noted, they continue to be causes of concern. Reason enough for the vehicle experts to take a closer look at vehicle chassis and their constituents. The overall winner in the 2022 TÜV-Report is once again the Mercedes GLC, winner of the last two years. TÜV-Verband will present the 2022 TÜV-Report in Berlin on 10 November.



“More PTIs, but fewer major faults – this, in a nutshell, is the result of the new TÜV-Report. A positive safety track record built on PTIs and exhaust-gas testing”, says Jürgen Wolz, Service Line Manager Retail and Regulated-Market Activities Germany at TÜV SÜD’s Mobility division. According to the mobility experts at TÜV SÜD, changes in consumers’ mobility behaviour are one of the key reasons for the decreasing fault rate. Carsharing, car subscriptions and leasing plans generally include service contracts. Another reason factoring into the lower fault rate is that most vehicles simply clocked up fewer miles during the pandemic. “More servicing and lower mileage throughout the fleet on Germany’s roads have contributed to improved fault rates”, summarises Wolz.

Chassis complaints

However, the news is not all good. Two areas of concern are clouding the good overall result – lights and chassis. These areas showed only minor improvements compared to the period analysed in the last

TÜV-Report. And chassis faults are by no means limited to low-price or high-age vehicles. Higher chassis fault rates in the first years are even not infrequently identified in vehicles from Germany's premium car makers. So what are the reasons? Enhanced comfort and safety as well as greater driving dynamics and increasingly heavyweight cars are taking their toll. As Wolz explains, "Chassis have become significantly more complex in recent years. Larger and heavier vehicles make lightweight construction necessary, even in axle components. In addition, cost pressure is constantly on the rise. Manufacturers need to get on top of the triangle of comfort, safety and costs." In turn, high chassis complexity and greater weight make cars more vulnerable to defects caused by careless driving, such as clipping a kerb, or inadequate servicing, which vehicle inspectors will then find fault with.

Various reasons paint a heterogeneous picture

However, chassis faults are also found in less sophisticated systems. The number of faults found in axle components is above average across models from different manufacturers. Given this, the underlying causes are likewise heterogeneous. Here are some examples: disproportionate numbers of chassis faults were found in vehicle marques including Mazda, Nissan, Renault and Fiat. In the Mazda 6, faults rise steadily after the vehicle's third PTI, at up to 4.4 percentage points above the average, while fault rates for the Nissan Qashqai can exceed the average by as much as 9.5 per cent. High fault rates are also recorded for the Renault Megane and Fiat 500, at 1.5 and 1.9 per cent above average respectively. Analysing the causes, Wolz points out, "Service contracts are less common for more economical vehicle models. In other words, faults are not automatically repaired in advance of the PTI. In addition, these cars are more likely to be driven over short distances, and frequently used in the city – incurring problems like hitting a kerb. Servicing and maintenance costs may also play a more important role."

Turning back to the high-end models, as already noted, chassis faults are found even in cars chosen by drivers whose priorities are premium relaxation or raceworthy driving dynamics. The BMW 3 and 4 series, for example, show a slightly above-average chassis fault rate right from the vehicle's first PTI. At 11 years, the discrepancy from the average widens to almost 5 per cent. Axle springs and chassis damping perform below average in the BMW 5 and 6 series. Among Audi models, the A8 stands out with an axle-suspension fault rate of 7.5 per cent above the average in 11-year-old models. Wolz sees these figures as presenting a clear picture: "These models are distinguished by particularly sophisticated chassis systems and very high mileage, which are the key reasons for these problems."

Returning to the topic of driving in the city, the Mercedes C and E series also need more frequent services than other cars because of chassis problems. Most of the faults experienced by these vehicles are related to the axle suspension. Right from the first PTI when the car is three years old, the Mercedes

E series ends up in the repair shop 0.2 percentage points more frequently than the average car. After that, fault rates show an almost linear increase, ending up at 3.0 percentage points more frequent in the category of eleven-year-old vehicles. “With the Mercedes E series, we must remember that these models are frequently used as taxis”, explains Wolz. And VW models are not fault-free either; in the eleven-year-old vehicle category, above-average levels of faults are found mostly in the Passat (with major faults in axle suspension 1 percentage point above average), Touran (+ 0.9) and Tiguan (+2.8). Wolz summarises, “The causes underlying chassis faults are extremely diverse. In high-end cars, the advanced complexity and fine-tuned features play a critical role. These models also accumulate particularly high mileage, which must also be taken into account. Top reasons affecting chassis components in more affordable cars include less frequent servicing and exposure to higher loads in daily city driving.”

Better performance overall

A glance at the fault categories in the almost five million data records from TÜV SÜD does not reveal any outliers among individual vehicle components. The same applies to chassis overall. A look at the fault rates of all car models inspected shows a minimal improvement of 0.1 percentage points for axle springs and chassis damping in vehicles undergoing their first PTI compared to the 2021 TÜV-Report. Among five-year old cars, the fault rates for axle suspension were down by 0.2 percentage points. The fault rates for steering joints in seven-year-old cars also improved by 0.2 percentage points. Corrosion only plays a role in the age group of nine and over, and even then is only a minor consideration. This also applies to drive shafts. Fault rates of lights continued to improve slightly.

Two stars among the winners

Back to the overall results of all periodic technical inspections (TÜV-Verband) between July 2020 and June 2021. The winner for the third time in succession is the Mercedes GLC, with a 1.5 per cent average major fault rate after three years – marking a further improvement of 0.2 percentage points. Hot on its heels is the Mercedes B series with a major fault rate of 1.9 per cent. Bronze goes to the new entry VW T-Roc, which replaced the Opel Insignia with a major fault rate of 2.0 per cent. The Ruesselsheim-produced Insignia took a drastic tumble to rank 80th. Also no longer on the podium are the Mercedes SLC and Porsche 911, which both came up fourth (major faults: 2.1 per cent). A look at the tail end of the table: replacing last year’s worst performer, the Dacia Duster (11.4 per cent), the Dacia Logan (11.6 per cent) now brings up the rear. The third-to-last place is currently held by the Renault Kangoo, with a significant fault rate of 9.2 per cent. However, these extremely affordable cars do not fare much worse than, say, the Ford Galaxy (7.5 per cent) or the VW Sharan at 7.3 per cent.

Overall, the average rate of major faults is currently at 17.9 per cent, 2.0 percentage points down from the 2021 TÜV-Report, and affecting almost 1.75 million vehicles. Over 7 million vehicles, or almost 73 per cent, pass through the inspection lanes without any faults. The current rate of minor faults is at 9.1 per cent.

Passing the baton. Opel Karl best in class

Best in class: In the mini vehicle class, Opel passed the winner's medal from Adam to Karl (3.4 per cent). Top of the class in the category of small cars is once again the Audi A1 (2.9 per cent). In the class of compact cars, the Mercedes A series (2.5 per cent) takes back first place from Hyundai i30. In the category of medium-sized cars, first place goes back to the Mercedes C series from the Opel Insignia (2.5 per cent). In the class of vans, the Mercedes B series has further strengthened its position (1.9 per cent). Overall winner Mercedes GLC (1.5 per cent) is also the third-time winner in the SUV category.

Comparison among TÜV SÜD regions: Saxony and Bavaria boast lower fault rates

To ensure a detailed overview, TÜV SÜD additionally analyses its data by market regions, comprising Bavaria, Baden-Wuerttemberg, Saxony and Hamburg. Results across all age categories: fault rates are lowest in Saxony at 16.3 per cent, followed by Bavaria at 18.8 per cent and Baden-Wuerttemberg at 21 per cent. Among the various market regions, Hamburg had the highest fault rates. There, in the home region of TÜV Hanse, 27.5 per cent of all vehicles were sent to repair shops with major faults. The TÜV-Report is published every year by the Association of German TÜV Organisations (TÜV-Verband) and is one of the most important independent guides for drivers and buyers of used cars. The 2022 TÜV-Report includes the results of the PTIs performed by all TÜV organisations in Germany – currently amounting to over 9.6 million PTIs conducted between July 2020 and June 2021. As the largest TÜV organisation in the field of mobility, TÜV SÜD contributed over 50 per cent of the data records

The 2022 TÜV-Report is available from TÜV SÜD service centres and retailers from Friday 12 November 2021 and costs EUR 5.40.

All information about the 2022 TÜV-Report can be found at <https://www.tuvsud.com/tuev-report> and <https://www.tuev-verband.de/>.

Note for editorial staff: The cover of the 2022 TÜV report and the press release are available for download at: <https://www.tuvsud.com/newsroom>.

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