

ACTROS ACES

TRUCK TEST!



The Mercedes-Benz Actros achieved the best payload productivity factor at Truck Test 2022 – meaning it is officially South Africa’s best truck! CHARLEEN CLARKE unpacks the event and the incredibly good performance by one of South Africa’s most popular trucks

Any transport operator worth his salt will study the results of Truck Test 2022 with great interest before buying a truck, because it’s the one and only comprehensive truck test on the continent. Indeed, within the world of trucking, Truck Test is considered a remarkable event; eight extra-heavy trucks were tested on the same days, carrying the same loads, and running the same route. All of the extra-heavy truck manufacturers in South Africa were invited to this prestigious test.

According to Martin Dammann, customer success manager at TruckScience (which compiles the specifications and results for the event), Truck Test is an independent test that is designed to provide direct comparisons between different vehicle brands, driveline configurations, and driving techniques. “There are many factors that affect the performance of a vehicle, but in this test the trailers, loads, weather, and traffic conditions are the same for all the vehicles. And we ran the event on the popular Johannesburg to Durban trucking route, so the results will be meaningful to all our long-haul operators,” he explains.

Dammann reveals that Truck Test is unique on the African continent. “It’s something of which we can be really proud. Truck tests are conducted on other continents, but what makes ours truly unique is that we tested eight vehicles on the same days under the same conditions, whereas the tests conducted overseas are typically done on one vehicle at a time. With our test we are able to make direct comparisons between the different vehicles.”

Those comparisons are hugely important to transport operators. “Transport operators will use the results from this test in the process of selecting the right vehicle for

a long-haul application. Fuel consumption accounts for roughly 50% of the total costs when it comes to long-haul, so operators will obviously look at these numbers, but they’ll also study the payload productivity factor, which is the best indicator of the overall performance. The vehicle with the highest payload productivity factor typically achieves the best balance between average speed and fuel consumption. Operators can therefore make informed purchasing decisions based on objective information,” he explains.

This year, the truck with the highest payload productivity factor was the Mercedes-Benz Actros 2652LS/33, which pulled an interlink tautliner. According to Christo Kleynhans, head of product, Daimler Truck Southern Africa, the Actros 2652LS/33 is regarded as the first choice in a long-haul truck tractor for a non-dangerous goods operator running at 56 tonnes GCM, looking for maximum efficiency on national routes.

“The winning formula starts with the 15,6-litre OM473 six in-line engine equipped with a turbo-compound system that recovers up to 30kW of energy from the exhaust gas, which would otherwise just leave the exhaust pipe as a combination of heat and noise. In addition to delivering an exemplary power output, this engine is good at slowing, because it is equipped with a high-performance engine compression brake, allowing for more downhill speed without compromising safety or control. This impressive power plant is matched to a twelve-speed G281 transmission with an output retarder and a direct top gear that turns a pair of RT440 hypoid reduction rear axles with a 2.86:1 axle ratio,” he reveals.

One of the most visible high-tech features on the Actros is MirrorCam, which replaces the conventional mirrors on

the side of the truck. MirrorCam not only offers less wind resistance and fuel savings, but also a much better field of view for the driver compared to conventional glass mirrors.

The Actros is the world’s first mass-produced truck to boast this feature. “The MirrorCam brings an enormous improvement in safety, vehicle handling, and aerodynamics. The system comprises two cameras facing the rear of the truck and its images appear on two displays in the cab. The MirrorCam is mounted on the A-pillars and supports the driver with special distance lines for better estimating following traffic and, for example, in manoeuvring, cornering, or changing lanes. The absence of conventional mirrors considerably improves all-round visibility,” Kleynhans points out.

Because the MirrorCam is a lot more aerodynamic than regular mirrors, he notes, “The new MirrorCam can cut fuel consumption by up to 1.5%”.

Yet another particularly impressive feature of the Actros – which was indeed a not-so-secret weapon on Truck Test – is

Right: The Actros goes over the weighbridge.

Below left: One of the most visible high-tech features on the Actros is MirrorCam, which replaces the conventional mirrors on the side of the truck.

Below right: The Actros was driven by Duncan Prince, Unimog and specialised heavy trucks manager at Daimler Truck Southern Africa (left), and he was joined by Avinash Singh, key account manager: special segments, who was an observer.

precisely what are measured at Truck Test.

This year, the Actros achieved the remarkable Payload Productivity Factor (PPF) of 47.9. The Payload Productivity Factor = Payload (tonnes) x Ø speed (km/h) / (Ø fuel consumption (l/100 km) + Ø AdBlue consumption (l/100 km) x (AdBlue price/diesel)). To put this in perspective, the second-placed truck achieved a PPF of 45.



Predictive Powertrain Control (PPC). This highly innovative feature pre-emptively accelerates and decelerates the truck for best fuel economy when running in cruise control, based on the vehicle’s instantaneous position using 3D map data.

On Truck Test 2022, the Actros was driven by Duncan Prince, Unimog and specialised heavy trucks manager at Daimler Truck Southern Africa, and he made extensive use of PPC. “It’s an incredibly helpful feature. The effect of PPC is that the cruise control manipulates the throttle as if the truck were driven by an expert driver who knows a route intimately, despite the truck never having travelled the route before. It can turn a novice driver into one who is both productive and fuel-efficient,” he explains.

Those two traits – productivity and fuel-efficiency – are

While the vehicle’s fuel consumption was good, the Actros completed the 1 142,5 km route in a very short time: 16 hours and 51 minutes to be precise. Once again, putting this into perspective, other trucks took up to 19 hours and 21 minutes to complete the route. The average speed for the Actros was a remarkable 67,8 km/h, while the slowest truck achieved 59,1 km/h.

The Truck Test 2022 victory was not the first accolade to be achieved by the Actros, as it also won the 2020 International Truck of the Year. “We are very proud of both of our accolades. Transport operators can purchase an Actros, knowing that it has been tested independently and been found to be head and shoulders above the rest, not only here in South Africa but globally too,” concludes Kleynhans. **E**