

What's in a chassis?

 Bylise van den Berg 13 Jul 2017

When it comes to cars, it's easy to be fooled by looks and ads. Unfortunately, especially when you're a woman. Don't get me wrong, I know there are many knowledgeable women out there who can make men blush with their suspension- and engine-talk.

Most people, however, mainly care for the engine size, fuel consumption, service plan, and price. If it's a pickup, then also the load capacity, off-road capability, handling, and so forth.

But what about the other elements? When it comes to pickups, particularly, choosing a vehicle with excellent engineering is imperative.

Nissan recently invited me to its manufacturing plant and I was, to be quite honest, a little surprised at my eagerness to make my way all the way from Cape Town to Rosslyn to go see a chassis (an award-winning* chassis, guys).



The thing is, having driven the sexy-yet-rugged new Navara a couple of times now (I think Nissan should just leave one with me permanently...), I actually started getting curious about the hype around the 'impressive' new chassis. It's apparently one of the main things that revolutionised the new Navara model.

A while ago, Nissan had more than one complaint about the Navara's chassis snapping in half due to rust. That's almost certainly a thing of the past as the new chassis is only 'impressive' (in quotation marks) until you see it up close and hear about it out of the mouths of the engineers. It is, indeed, an *impressive* piece of engineering.

What's the big deal?

Out of the discussion with Hirokazu Kudo, GM of Nissan Technology Centre Africa, and Freddie Louw, Nissan's senior manager product planning, it was clear that this new suspension was driven by customer demand.



According to Louw, the first Navaras were ahead of their time and their weakness lay in their off-road capabilities.

At the heart of the new range of technologies is a unique suspension setup that, when combined with the sturdy ladder frame chassis and traction-enhancing systems, provides one of the most capable and comfortable pickups on the market.

All Navara models currently available in the country are fitted with a multi-link rear suspension with coil springs. This system is relatively new to the mass market pickup segment and is unique in its application in the all-new Navara.

It's 176kg lighter than its predecessor, and a whopping 20kg of that is thanks to the rear coil suspension.

The nuts and bolts

Chassis engineers always try to minimise friction, says Kudo. With a LEAF suspension, there is constant friction due to the relative movement between LEAFs, whereas a coil has no friction. With the five-link, heavy-duty coil suspension, the friction of the BUSH is also smaller.

In addition, with the traditional LEAF suspension, the LEAF carries all functions, whereas with the five-link coil suspension each component focuses on its own function – thereby increasing durability.



The five-link coil was nothing new, it's been used in off-road SUVs for many years, yet Nissan has managed to simply apply it in a different way for a different segment. It has led to improved handling and stability as well as ride comfort - and that without compromising on its load-carrying capability.

“Improvement is the way of the world,” says Louw.

Everyday benefits

The new Navara was extensively tested for African terrain – it’s been built to survive and thrive in Africa. In addition to the smooth ride, the five-link system gives the pickup a more sure-footed feeling on loose gravel, travelling at very high speeds and on slippery roads.

Thus, one of the greatest benefits, I find, is its dual usage: it’s a rugged, advanced pickup in which comfort abounds. Simply put, you can drive around the kids with ease, have the BAE move around and drop off some heavy stuff, and you don’t feel like you need to wear a sports bra when you hit the gravel on your off-road excursion in the Cederberg. #Winning

*Navara won the 2016 International Pick-Up of the Year Award, judges remarked on the intelligent way that Nissan designed the next-generation ladder frame chassis.

ABOUT ILSE VAN DEN BERG

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