“Safety is the key selling point for this truck,” says Alex Stewart – Hino Australia’s divisional manager Product Strategy.

Usually the glitz and the glamour of a new truck launch centres on high horsepower prime movers with massive GCM ratings and trucks that carry more bling than an America rap artist. But down at the light truck end of the market Hino has been busy setting some new targets, and with the accent on safety, the new models being launched are just as significant as their larger siblings.

Japanese trucks all used to be rather similar. In addition to being painted white, they offered bouncy and often uncomfortable seating, steering that was never able to be described as being precise, braking systems that were adequate but never state-of-the-art, and a level of sophistication that rivalled a fridge. Indeed, most of them were about as exciting and innovative as the white goods line-up at Bing Lee. But right now, if you thought progress was just confined to linehaul trucking, you’d be very much mistaken.

The irony of the Hino 300 Series launch is that these little trucks, which offer transport solutions for drivers who, in the main, don’t have truck driving licences, come with more safety features as standard than any of the North American heavy trucks currently on sale in Australia. They also conform to stricter exhaust emissions pollution standards and they incorporate better electronic equipment for engine management, navigation and entertainment.

The Hino 300 Series line-up of 45 different models, eight of which are hybrid, bring with them an enviable standard safety spec that includes dual SRS airbags (driver and passenger), four wheel ventilated disc brakes, brake assist, electronic brake force distribution (EBD) and, for the first time in a light truck, vehicle stability control.

Thanks to a more efficient cab styling package, aerodynamic efficiency has been improved by 25 percent over the previous cabin design. This improved aerodynamic package, suggested as being 30 percent better than its competitors, also contributes to lower noise levels inside the cab, a major benefit when aiming to lower fatigue levels. The windscreen is now bonded into position, increasing the overall strength of the cabin assembly and again lowering wind noise.

The four-cylinder diesel engine is all new, and, at 4.0 litres, it’s not only fully ADR80/03 compliant, but also conforms to the EEV (Enhanced Environmentally Friendly Vehicle) standard currently accepted as the highest emissions legislation in the market.

Standard cab versions feature a slightly de-rated engine with 110 kW of power produced at 2,500 rpm and with peak torque of 420 Nm rated at 1,400 rpm. The wide cab versions run with 121 kW of power and 464 Nm of torque, both outputs being rated at an identical engine rpm.

According to Alex Stewart, Hino Australia Divisional Manager, product strategy, the gains in power, torque and efficiency, when compared to the previous 300 Series engine, have been achieved through careful attention to engine design, turbocharger pressures with a new variable nozzle turbocharger, a new intercooler, and the high pressure, common-rail electronic fuel injection.

Mr Stewart said the Hino engine has the best Diesel Particulate Active Reduction System (DPD) system in class, with an 800,000 km service interval and an automatic self-cleaning system that begins when the filter is only at 30 percent of overall capacity. Other advantages include the added reliability of three fuel filters, including two with water separators mounted on the chassis, and a main long-life filter mounted on the engine. All models have an 80 Amp alternator for optimum reliability.

For a market segment that almost prided itself on being boringly uninteresting, Hino has also added a revised version of its hybrid drive that’s substantially better than its predecessor and, for a relatively small additional financial outlay, it can bring definite fuel consumption cost savings as it reduces the vehicle’s appetite for distillate.

There are many factors that have driven Hino to introduce a higher level of technical sophistication into its light-truck range, and one of those is obviously the incoming numbers of Chinese light trucks that aim to take some of the market...
share from the established Japanese players. Far from running scared, as Ken Sekine, Hino Australia’s Chairman and Chief Executive Officer explained, “The current Chinese products may look similar, but, underneath the appearance, they lack the innovation available from the established Japanese manufacturers”.

“The Japanese engineers will continue to produce engineering and innovation ahead of the Chinese markets. Although the Chinese can currently offer lower cost, the future years will see Chinese wages increase to reduce their competitiveness. Gradually, the cost advantage (that comes with a more basic product) will be eroded, and, over time, additional joint ventures will be in place that link the long-term manufacturers with whatever remaining benefits China has to offer,” he added.

A general overview of the 300 Series shows the option of a standard sized cab that’s been upgraded, or a wider cab that is a totally new design. There’s more interior space, higher comfort levels thanks to a driver’s suspension seat, and a better layout for storage of anything from a cup of coffee to a clipboard. The four-cylinder engine is matched to either a six-speed manual or six-speed, fully fluid, automatic transmission, or, for those choosing the hybrid versions, a five-speed automated manual transmission. All manual models are fitted with “Easy Start”, hill-start assist. This holds the vacuum servo-assisted hydraulic braking system under pressure while the driver moves their foot from the brake pedal to the accelerator and the vehicle readies itself for take-off.

Hino’s new 300 Series with a new cab design and improved engines offers higher safety levels than have ever been available in this weight category.
Access into Japanese light trucks has sometimes been rather questionable in the past, with small steps that were positioned awkwardly. But here, with the 300 Series, Hino has made access and egress to and from the cab easier, and also reduced the risk of a foot slipping on the step. It’s also easier to get across the cab from one side to the other as the gear lever can be folded down and away from the chance of it catching on clothing.

Crew cabs have always been popular, especially with local authorities, and, for the king version, can be found in the 617, 717 and 917 long models with GVMs of 4.5 or 5.5 tonnes in manual or auto, as well as a manual 6.5-tonne model, an auto 8.3 tonne model and a manual 8.5 tonne model. The spec includes an increase in crew cab dimensions backed by larger doors and easier access. Air conditioning is standard.

With the adoption of a suspension seat for the driver on wide-cab models, Hino has used a torsion bar as a spring and damped its performance by adding a magnetic restriction to excessive movement, once the driver has dialled in the appropriate weight into the system. It’s not a system we’ve experienced before, but it certainly worked well in the examples we drove, and improved the ride quality substantially when compared to a fixed seat.

The mirror heads each have a large main mirror, which is power adjustable, set above a smaller convex mirror, which is static. All the mirrors are vibration-free and offer a good all-around view, and this is complemented by really slim “A” pillars, of just 65 mm in width, that don’t restrict or reduce vision, unlike many vehicles on the market today, including passenger cars.

Visibility is also improved by the inclusion of up to three rear or side vision cameras that replay vision back to the six-inch ZKW’s touch sensitive screen on the dashboard. There’s also Bluetooth available to cover music and phone links.

Hino has maintained compliance to rollover injury protection, with the cab approved to ECE R29 requirements, despite the slim profile of the "A" pillars. Rather than having to resort to using extreme high tensile steel in their construction, the improved strength of the pillars comes from creating a smaller sectional profile while increasing material density, thereby maintaining integral strength. Side intrusion has also been minimised by using high-strength steel bracing within the door construction.

All 300 Series versions also include a fully accredited FUPS (Front Underrun Protection System) on all wide cab models.

One of the oft-heard complaints of light-truck owners has, in the past, been the low fuel loading capacity. Hino has taken steps to resolve this complaint, adding a sub tank of 70 litres to the standard 100 litre tank on all medium, long and extra-long wheelbase options.

Any mention of the 300 Series has to include a brief overview of Hino’s Hybrid alternative. The sight model hybrid range uses a parallel hybrid system where the electric motor works with the diesel engine and is matched to a five-speed automated manual.

During the day, the hybrid version can be detected thanks to its blue stripe across the front and the hybrid logo, but at night it stands out from the crowd thanks to it being the only model on the market with High Intensity Discharge (HID) lighting as standard - this feature is also optional on all diesel-engined models. The 616 Hybrid and other selected 616 models also feature independent front suspension with coil springs, while other models have taper leaf front springs.

With the 300 Series, the hybrid technology has moved on from its early adaptations and is now perfectly integrated into the vehicle to such an extent that a driver need not know that anything is different about their vehicle.

The maximum power and torque output of the total power unit, of the diesel engine and electric motor remains consistent with the standard cab diesel engine that produces 110 kW and 410 Nm. The new permanent magnet electric motor has a maximum power output of 36 kW and peak torque of 333 Nm. The difference that does occur is when the electronic management unit (ECM) handles the two driving forces together, effectively apportioning either diesel power or electric power to maintain peak power and torque output, but never exceeding a combined output in excess of 110 kW or 410 Nm.

With a regenerative energy braking system that replaces electrical energy used during acceleration back to the battery, the ECM balances the two power sources together in a constantly variable mix that’s focused on reducing fuel consumption.

Over two days spent driving different versions of the 300 Series with loads that varied from 1,000 kg to 2,000 kg and up to 3,400 kg, the hybrid performed consistently. The hybrid outperformed every time it came to fuel economy, while it behaved similarly in power terms to the diesel alternative.

Notwithstanding the variety of body types, from steel and alloy drop-sided trays to van bodies, the fuel consumption of the standard diesel-engined vehicles averaged 6.075 km/l on day one and 6.45 km/l on day two. The resultant combined average fuel consumption of the two hybrid vehicles was 7.45 km/l and 7.75 km/l respectively. That’s an 18.5 percent improvement on day one and 16.5 percent on day two for the hybrid, or an overall improvement of 17.5 percent. Considering the open road type of terrain, this is surprisingly good.

So, as you look at the Hino 300 Series, consider several important factors that should influence your purchase decision. The use of hybrid technology for an inner urban distribution or collection system will cut your emissions and your fuel use. The cost differential for hybrid technology is around $9,000, but, the more you use it, the more you save.

Next, consider the safety aspect of a light truck that offers vehicle stability control, dual SRS airbags, electronic brake force distribution, brake assist, hill start assist and FUPS. The interior of the cab offers much more room than before and the hybrid version has been upgraded to offer better performance and improved fuel economy.

The final outcome suggests that at least one of Japan’s major truck manufacturers has filled its came to an extent that cannot be overlooked or ignored, and, in doing so, has made the largest steps forward in safety in the past ten years.

The full colour touch sensitive monitor can display up to three camera views and includes a truck friendly navigation system.