TAKING THEK TO THE

Kenworth unveil the new K220, bringing the brand's flagship cabover up to date with the requirements of the modern trucking industry, without compromising the model's 50 year history.

n a balmy night at Archerfield
Airfield in Brisbane, a group of
trucks was unveiled, driving in
line, out of the dark and into the
doorway of a massive hangar, filled with the
Kenworth faithful.

The excitement was palpable and the expectations were realised as the line of shiny new Kenworth K220 trucks nosed into the lights in the hangar, and the shadowy shapes became the new range of cabovers, which we will be seeing on our roads in the near future.

The launch of any Kenworth truck model is something special, so many of the trucks the brand produces have become iconic in the Australian truck industry. This year sees a significant change coming through for one of the brand's top performers.

The arrival of the Kenworth K220 has been widely anticipated this year, and there has been broad speculation about what's coming, with some dodgy leaked material on video and posted to Facebook. Nothing this big can arrive without some seepage onto social media.

In the lead up to the launch, there were a few things we could be sure of, the basic cabin design would remain relatively unchanged. Since the decline of the cabover in North America, the number of K200s produced in the world, would not justify a massive research and development program within Paccar. It would have to be a small evolution.

Changing preferences in the market and upcoming legislation, also made some changes imperative. Euro 6 emissions levels are the prerequisite for many of the larger corporate contracts and ADR 80/04 is back on the government's agenda, and expected in the next few years.

There are also modern electronic safety systems being mandated like advanced emergency braking and all of the radar and camera system which comes with it, plus electronic stability control, compatible with EBS systems.

Paccar is also a global truck maker and would be reluctant to be building a large number legacy trucks with different systems. Any global player needs the massive costs involved in developing new truck system to be amortised across as many trucks as possible to remain viable. Global players like as many of their models as possible using common systems.

There were also some other influences, pushing for changes in the Kenworth cabover. The competition has got much fiercer in the last five or so years. The European cabovers, with which the K series directly competes have come on in leaps and bounds in areas like fuel economy, safety and sophisticated control systems.

In essence, the market has changed during the 11 year lifetime of the K200, something had to change, and change it has. The crucial calculation for the designers at Kenworth became one of balancing the expectations of cabover customers, with the strengths of the Kenworth brand, which have led to it dominating the Australian heavy duty truck market for the whole of the 21st century. No pressure there.

Therefore, the question everyone was asking on that night in Archerfield and in the market generally, since the





release is what exactly has changed?

"Although the K200 has benefited from many years of refinement, customers were able to give us several areas for product improvement", said Noelle Parlier, Paccar Chief Engineer. "It became apparent that our focus should be applied to providing greater driver comfort and technology integration for a more productive ownership experience."

PUNCHING THROUGH

One of the most important aspects of the K220 will be its driveline and whether it retains enough of that traditional secret sauce, which has made the model so popular. There is something about the feel of driving a Kenworth which shouldn't be changed, too much.

The vital ingredients are there. The drive line consists of a Cummins engine and an Eaton transmission. Although there are now two alternatives on both counts, two types of engine and two types of gearbox.

The combination of Kenworth, Cummins and Eaton has changed with the increasing integration of systems between the three, making the new combination much more like the integrated proprietary drivelines



offered by the brand's main rivals.

The Cummins X15 and Eaton AMT have a common electronic platform, ADEPT, which also communicates, and is integrated, with the new Kenworth electronic architecture. The set up in the K220 is a culmination of a series of innovations which we have seen in recent models.

The new X 15 is a major step forward for the Cummins brand. There are now two alternative engines included. Truck buyers have a choice between the Efficiency Series and the Performance Series.

This gives Cummins the opportunity to keep more traditional, performance oriented truck buyers happy, but also offer something to the fleets which have become much more fuel economy oriented in the past few years.

These engines do not use EGR at all, but instead have a single module aftertreatment system, which includes the SCR unit and a DPF, with improved servicing intervals. The ADEPT electronic engine



control is said to be capable of a six per cent improvement in fuel economy, over the current product.

The Efficiency Series of this engine is available from 550 to 580 hp (410-432kW), while developing 2800Nm (2050 ft lb) of torque. These engines also include something called Hill Climb Assist, which uses an inclinometer to detect when the truck is heading up a grade and changes the shifting strategy on the AMT to suit the conditions and maximise the power available.

Meanwhile, the Performance Series is much more like the traditional X15 with power outputs from 525hp to 625hp (391-466kW) and with torque ratings from 2508 to 2779Nm (1850-2050 ft lb).

The big difference between the two is the fact that the Efficiency model is only available with the Eaton Endurant XD Pro AMT and the engine performance characteristics have been designed to integrate precisely with the control systems on the transmission, with the aim of minimising fuel burn.

The arrival of the 18-speed Endurant XD Pro is a timely one for Kenworth. The advance of AMTs fitted in the brand's competitors have meant the Eaton Ultrashift used in the K200 could never match its rivals in terms of speed of changes and smoothness of operation.

For Eaton this new transmission is a game changer, on the evidence of a relatively brief test drive. The performance of the transmission is a match for its finely tuned European competitors. The AMT is responsive and intuitive, a performance which means the driver doesn't have to think about which gear is needed, and when.

This kind of performance from an AMT is likely to push the percentage of Kenworths coming out of the Bayswater plant fitted with an AMT well over 40 per cent, compared to the low thirties it is today. The Endurant XD Pro does have the capability to go right up to the highest GCM rating, but will be rated up to 97 tonnes for now, with higher masses being allowed when the brand has more experience with the product.

CABIN INTERIOR

One of the main queries from the Australian trucking industry is going to be simply about what has changed and what has remained the same in the K Series cabin. The answers to the questions are likely to reassure the Kenworth traditionalists when

looking at the exterior, but, at the same time, the interior may reassure those looking for the truck to be brought right up to date in terms of technology and driver comfort.

The many iterations of what is basically the same cabin have come a long way since the first K Series cabover left the Bayswater production line back in 1971, and they have brought us a long way, with a familiar shape, but a much more modern cabin evolving over time.

Looking at the truck from the outside, the most obvious change is the new shape radiator grille. Gone is the oval shape, which did attract some criticism at its launch, to be replaced with a design with echoes of the original rectangular grille, but with a modern splayed out design. It keeps with the tradition, while looking entirely new, at the same time.

The other external giveaway on most of the models, is the new roof, although there is still a flat roof option. Gone is the old Aerodyne, to be replaced with a similar shaped high roof, but one without the instantly recognisable vista windows in the front. The new roof design is claimed by Kenworth to represent a four per cent improvement in aerodynamics.

There are now new LED headlamps





with integrated indicators and daytime running lights that can be paired with bright look bezels.

Climbing up into the cabin still involves the ladder behind the front wheel and the shuffle across to the door. The fold out steps are still an option, but they still remain a minority choice in the market.

Stepping in through that door and into the cabin does demonstrate that this is really a new truck. The new roof profile does bring a feeling of headroom and there are lots of opportunities for overhead storage at the front, rear and sides of the cabin's interior.

That feeling of space is further enhanced by a simple rearranging of the geography. On previous models the bulkhead on which the bunk sat was directly behind the seats. By removing the storage beside the bunk at the rear of the cabin, the bunk and bulkhead have been moved backwards making more floor space on the engine cover. Although the adjustment is relatively small, it does have the effect of improving the

feeling of living space.

There are 2.3m and 2.8m sleeper cabs on offer in the K220 with a comprehensive range of sleeper storage and bunk options accessible to the truck buyer. The options vary from the 1.7m Day Cab, to a 2.3m aerodynamic roof sleeper, a 2.3m flat roof sleeper or a 2.8m aerodynamic roof sleeper.

Each option can come with side extenders, and the 2.3m and 2.8m aerodynamic versions are available with roof fairings.

CABIN COCKPIT

Sitting in the driver's seat gives you a view of one of the big innovations in this new model, the new 15-inch high-definition instrument panel, with a customisable suite of digital instrumentation laid out on the large screen in front of the driver. This is a major step away from the previous model and takes the Kenworth brand into the brave new world of cutting edge electronics.

In fact when the screen is on and working, it does have a reassuring feel.

The design is simple and well-organised. Although it can be changed to suit a driver's tastes, the default works well. There's a tachometer, front and centre, with a digital speed read-out in the centre.

To the right and left of this are four, two either side, customisable information displays. The obvious fuel, adblue, pressure and temperature indicators are necessary, but the rest can be changed as required. The limited test drive didn't allow enough time to fully learn how to drive the instrument panel.

The panel also includes the information from the radar and camera on the front of the truck measuring the distance to the vehicles ahead and warnings pop up if they get a bit too close.

At the start of the working day with a simple press of a button, the K220 will perform a comprehensive systems check. At the end of the day on shutting down, it will display a detailed trip and vehicle summary. This includes statistics like, average fuel economy, idle time, cruise control usage as







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TRUCK DEVELOPMENT



well as any potential mechanical issues.

Controlling all of this information, its layout and functions like cruise and following distance, is the smart steering wheel with its array of buttons to press and stalk mounted controls. This is also the driver's interface with another screen, smaller and to the driver's left.

The new 8-inch Audio Visual Navigation (AVN) unit provides easy access display with intuitive controls for truck navigation, the audio system, and smartphone mirroring. The unit, coming from Directed Australia is also available in a number of other truck brands in our market, but customised to fit in with the rest of the Kenworth design.

The AVN can be integrated with up to six external cameras giving drivers full visibility of what is happening around the vehicle. It can be controlled from the steering wheel and the driver's phone can also be controlled through this system, while it is sitting on the charging pad on the central binnacle.

Every K220 is equipped with the proprietary telematics solution, Paccar Connect, with live tracking and monitoring of the vehicle, driver, and fleet performance.

SAFETY SYSTEMS

The new K220 is now operating the same sophisticated electronic architecture as that available on new DAF models in Europe, and Kenworth and Peterbilt in the US. This means that as new innovations come along

in those markets they can become available to Australian truck buyers.

This level of sophistication is necessary to run all of the new safety systems included in the package. There's multi-lane Autonomous Emergency Braking (AEB) and a growing list of systems which can be added to over time, as the development of these new models continues.

"The K220 celebrates Australian ingenuity to engineer a uniquely Australian product to optimise the capability of both owners and drivers to prosper in what is surely the world's toughest but most productive transport industry," said Brad May, Paccar Director Sales and Marketing. "It is a development path that has been forged by an amazing collaboration between Australian transport operators and a dedicated and determined local development team that has spanned more than five decades. Nowhere in the world does such a close relationship exist between those who use the product and those who design it."





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