

MEDIA RELEASE

EMBARGOED UNTIL SUNDAY 4 DECEMBER, 2016 - THE FOLLOWING CONTENT REGARDING THE T610 IS NOT TO BE DISTRIBUTED IN THE PUBLIC DOMAIN PRIOR TO THE T610 LAUNCH EVENT.

KENWORTH LAUNCHES ITS BEST TRUCK YET

After almost a decade of development, Kenworth unveiled its next generation heavy-duty truck, the revolutionary T610 model, on the 3rd of December 2016 at a launch event at the Kenworth manufacturing plant in Bayswater, Victoria.

A result of more than 100,000 Australian design hours and more than ten million kilometres of testing and validation, the T610 is the single largest investment in product development the company has ever made in Australia. From idea to reality, this significant investment in new technologies and design is specifically for the Australian road transport market.

The T610 and T610SAR represent everything a Kenworth should be in terms of durability, reliability and safety. Yet the really noticeable product improvements are the superior space, ergonomics and driver comfort and control – the drumbeat behind Kenworth's 'best truck yet.'

Designed from the inside out, the new Kenworth cabin is centred entirely around the needs of the driver. Incorporated into the design is greater foot space, more standing room and storage, wider walkthrough access between the seats and more expansive door and windscreen glass, providing space, visibility and ergonomics never before seen in Kenworth's suite of Australian made trucks.

"The core of this project was about building a bigger cab but it's really about creating the ultimate driver environment," said Brad May, PACCAR Australia's Director of Sales and Marketing. Brad acknowledged the driver as being the most important asset of the truck.

"A good driver environment leads to better all-round driving performance, safety, efficiency and productivity."

The history-making 2.1m wide cab is almost 300mm wider than the outgoing cab, with the engineers having also pushed the cab 300mm forward over the engine to meet Australia's stringent length laws.

THE BEGINNING OF THE T610:

The T610 design originated in 2010, when Kenworth Australia started work in tandem with a US program to determine the feasibility of building a new Australian truck. Between 2010 and 2012, a team of Kenworth Australia engineers immersed themselves in all aspects of the US program working to develop an Australian, right-hand drive version. After building a virtual concept model and a physical prototype, the truck was given the 'green-light' in mid-2012 to go to market.

“Since 2012 it’s been all shoulders to the wheel, bringing this product to life with testing and validating, building more prototypes, and working with our global team of collaborators,” Brad explained.

The Australian project development team has been working with engineers at the PACCAR Research and Technical Centre in Mt Vernon, Seattle for the past four years to validate every aspect of the new design. From bumper to bumper, Kenworth Australia’s designers and engineers have refined everything from powertrain and chassis to cab exterior and interior, aerodynamics, air systems and electrical innovations.

TESTING AND VALIDATION:

While all Kenworth trucks are tested and validated to the same exacting standards, the benchmark for the T610 has been elevated even further, as Kenworth’s Engineering Project Design Manager, Ross Cureton explains.

“The T610 has been tested three times more than any Australian Kenworth truck that’s gone before it” said Ross.

To make sure the T610 stood up to the task, Kenworth conducted a level of validation that has never been performed for a new product introduction. All Kenworth trucks would normally run on a standard, 60-day shake test program, where the physical cab is mounted on a simulation machine, as if driving on its chassis, to see if it survives. Engineers at the PACCAR Technical Centre put the T610 cab through three of these, 60-day simulated cycles, which acts as if it were being subjected to the vibrations and forces of the worst case road conditions found in Australia. Despite the multiple, at times violent simulations, the new Kenworth cab passed with flying colours.

“I’ve been at Kenworth for 23 years and the T610 shake test has proven it to be the most durable cab we’ve ever tested, and we wouldn’t want it to be any less, given the Australian market and our collective expectations,” Ross confirmed.

“In all, ten prototypes have been on the road with Kenworth customers testing the product, and the feedback to date has been overwhelmingly positive; the truck drives better than anything else they’ve driven, and drivers feel in command”, continued Ross.

In combination with real-world, physical testing, Kenworth took the chance to identify design issues in the virtual world too, using computer systems to validate everything they designed.

“It’s really pleasing to see that both the virtual and physical testing have been tightly correlated,” Ross said. “If we see a failure in the field, it also fails in the lab, and that’s important because it proves we’ve got it right – inside and out.”

New trucks are always exciting but it’s the enormity of the project that has generated the excitement around the new T610, even for a company the size of Kenworth Australia.

“It’s a massive project that’s been undertaken by a team of Australian designers and engineers. The T610 has some new materials as well as new processes and techniques that our current trucks don’t utilise, which has required different people to

be involved with different design and engineering skill-sets, as well as different approaches” Brad May stated.

“When you look at it come to life, you just think ‘wow’, that’s an amazing effort for a small team. I really hope everyone who has worked on the T610 feels great pride now this truck is released.”

The T610’s place in the Australian truck market is clear.

“By being very much in tune with driver needs, and a market leader in one of the most competitive markets in the world, I see this truck really hitting the mark, and giving us a fantastic platform to grow Kenworth Australia to the next level,” said Brad.

CABIN OVERVIEW AND EXTERIOR:

Tasked with creating the ultimate driver experience, the T610 design team first enlarged the cabin envelope.

To achieve the optimal lengths needed for maximum payloads in Australia they then moved the entire cabin 300mm further forward on the frame than the comparative US T680 model, to provide Bumper to Back of Cab (BBC) dimensions that meet Australian length laws.

The firewall and floor are completely new designs to suit right-hand drive short BBC applications. The Australian-designed cabin firewall and floor, and the door apertures are assembled using ‘Henrob’ self-piercing fasteners, for superior sealing and cabin strength.

The stamped cabin panels allow exacting tolerances to be achieved, with components made to precisely fit together every time, taking quality to the next level.

The T610 cabin has new triple sealed doors and door apertures—innovations that minimise noise and dust leaks, and whose quality construction is evident each time the doors close. It is the largest opening door of any Australian-made Kenworth. Generous exterior door handles allow for large or gloved hands, while internal grab handles facilitate three points of contact for safe entry and exit.

The cab, which is almost entirely made of aluminium, is available as a day cab or with an 860mm sleeper cab.

Kenworth has spent a large amount of time optimising the shape and surfaces over the sleeper cab roof to not only deliver internal standing space, but also improve the aerodynamics and optimise clearances for closely coupled refrigerated trailers in Australian operations.

CABIN INTERIOR:

Significantly wider and with increased walkthrough space between seats, greater room head-to-toe for the driver, and standing room between the seats in the sleeper cabs (for drivers up to 6’4” tall), the T610 interior delivers the driver a more open and relaxed cabin that is far easier to move around in.

Sitting behind the wheel, the benefits of the wider cab become self-evident. A footrest for the driver’s left foot in the 30 percent larger foot-well, allows the driver freedom to spread out and maintain comfort, even on the longest of trips.

Superior Visibility:

The enhanced visibility in the truck has been created by the clever design of the windscreen, doors, mirrors and hood shape. The more expansive windscreen provides a panoramic view of the road and the wide door windows allow for a first-class view to the side of the vehicle, which is positioned perfectly in relation to the seats, giving full 180° view from the driver's seat.

Large, adjustable, aerodynamic mirrors offer an optimal rear view of the vehicle, allowing the driver to be in complete command, and glance at anything without having to turn or duck their head. The mirrors sit low on the cab for better forward visibility and crucially, the A-pillars are further outside the driver's immediate field of vision than any other Kenworth vehicle. Additionally, the use of asymmetric mirror arms place the mirror heads in optimal position for rearward vision.

Dashboard Design:

Kenworth has always stood by a design philosophy to keep its trucks easy to operate and maintain. The T610 integrates the latest technology while maintaining this simplicity.

Designers spent three years refining the dashboard and instrument panel, so switchgear and controls are positioned intuitively, and dashboard instrumentation is visible at a glance. Everything has been positioned to allow drivers to maintain concentration and reduce fatigue. Critical information, like the speedometer, tachometer and gauges are clear and well laid out in front of the driver. Toggle switches provide full control of things such as engine brakes, engine fan and suspension dump valves.

For enhanced ease of operation, cruise control and audio controls are on the steering wheel.

But the focus was on much more than just ergonomic switchgear and controls. From the super strong, high quality injection-moulded dash shell, to the way the instrument panel is supported and braced internally, durability was always prominent in the design brief.

Kenworth engineers have mastered accessibility and functionality. Serviceability is designed in from the start too, with easy access to the HVAC system and easy tool free access to electrical circuit protection, plus visually apparent fasteners in the dash to assist further access if required.

Environmental Control:

Driver comfort is enhanced by an advanced heating and air-conditioning system with automatic climate control, specifically designed for the variable extremes of the rugged Australian climate. More powerful yet more efficient, it maintains optimum cabin temperatures at all times, in all driving conditions, all year round.

Interior Lighting:

The latest in LED lighting provides a variance of bright or subtle lighting to reduce fatigue, using red lights and soft dash lights to minimise distracting glare when driving at night. Overhead lighting provides a flood of light when you need to complete paperwork or move safely about the cabin. A door mounted floodlight also illuminates a clear pathway to the ground surface next to the cab when the door opens.

Another welcome addition is the ability to control all internal lights from both the main dashboard as well as a separate control panel in the sleeper cab.

More Storage Space:

The interior has increased storage space conveniently placed for optimal utility. Elements include the overhead console, cup holders in the door and in the dash, and document pockets behind the seats. In the sleeper cab there are overhead cupboards above the doors and optional additional storage above the bunk, and an under-bunk storage option with lift up mattress pan to access toolbox storage.

Sleeper Comfort:

With wider access to the sleeper, moving from the driver seat to the bunk is far easier and the premium inner-spring single bed mattress undeniably leads to a more satisfied and less fatigued driver in the truck. A control module provides additional 12V power outlets, more oddments storage and a clock. With extra stand up space and a full wrap-around privacy curtain at the windscreen, the whole cab becomes your bedroom.

A smooth ride is provided by the sleeper cabin suspension with twin airbags mounted outboard off the chassis rails.

Interior Colour Scheme:

A new interior colour scheme in the T610, though not a complete departure from previous models, is a harmonious transition to a new Australian set of contemporary trim colours specifically selected for long term durability and practical good looks.

BONNET AND UNDER THE BONNET:

Kenworth engineers have not designed just another truck. The T610 and T610SAR bonnets are aerodynamically shaped to move air across the bonnet in a controlled and efficient manner while ensuring maximum forward visibility from the driving position.

The bonnet design of both the T610 and T610SAR is firmly grounded in Kenworth heritage. The grilles on both are manufactured in Australia from stainless steel and mesh, with the Kenworth badge sitting proudly on top.

Bright, projector-style lights with halogen high beams adorn the Aero bonnet, lighting the way through the darkest of nights, and the UV-stabilised, polycarbonate covers minimise damage from any road debris. On the SAR, the standard package comes with 4x7 inch round lights with two outer H4 Hi/Lo Halogen and the two inner H4 Hi beams.

The torsion spring assist struts make tilting the bonnet an easy operation. When opened, the wide angle under the bonnet allows plenty of space for drivers to

perform daily checks and mechanics to work on the engine. The air valves are mounted to the firewall, making accessibility for servicing much easier. A specially designed heat shield is mounted off the firewall to protect the valves, related air hoses and electrical looms from engine heat.

Using industry-leading Computational Fluid Dynamics (CFD) engineers were able to direct cooler air over and around the firewall, and help manage engine bay and cab temperatures when operating high load applications in harsh Australian environments.

The aluminium core radiator is 100 kilograms lighter than its copper brass equivalent and provides a level of cooling performance that betters many of Kenworth's existing model line-up and facilitates the full range of Cummins X15 power ratings.

There is effortless access to the HVAC fresh air intake filter for servicing is via a simple access cover.

ENGINE AND DRIVELINE:

With power ratings up to 600hp and 2,050 LbFt of torque, making it a suitable for a wide range of transport applications, Kenworth engineers have been able to unleash more performance in the T610.

The T610 is one of the most aerodynamic and fuel efficient production trucks ever to carry the iconic Kenworth badge. It is powered by the Cummins X15 Euro V engine with Advanced Dynamic Efficient Powertrain (ADEPT) technology, a suite of electronic features that interact with Eaton automated manual transmissions, dynamically adapting to conditions for fuel efficient operation with no impact on productivity. It utilises load, speed and grade-sensing technology to initiate adjustments to engine power, torque and transmission gear selection to take advantage of vehicle momentum for better fuel economy.

Eaton RoadRanger Manual transmissions with a range of torque ratings in 10, 13 and 18 speed variants are also available.

Clutch actuation comes via an air-assisted hydraulic clutch system to produce a light pedal effort and take the load off the leg muscles when you're stuck in major city traffic, or negotiating tight situations.

EXHAUST AND AIR INTAKE:

The firewall-mounted air cleaner on the T610 is located under the bonnet and is fed by ducting integrated into the hood itself to reduce complexity. Self-cleaning, highly efficient pre-cleaners are also integrated into the T610 bonnet to remove more than 80 percent of the dust and debris from the air intake for improved filter life. The T610SAR sports external air cleaners, which are available in either painted or stainless steel finishes.

Side of cab, rear of cab or ground discharge exhausts are optional on both models.

WHEEL BASE, FRAME LAYOUT AND AXLES:

T610 is suitable for virtually any application, including maximum payload 26-metre B-Double and road train configurations. The T610SAR with its set forward front axle makes it an ideal workhorse for 19-metre B-Double, or tipper and dog applications.

Polished fuel tanks are available in either round or rectangular shape with tank options from 200 to 750 litres. They incorporate a notched design that allows them to be set forward under the cabin. This allows large full length tank steps for extra safety when climbing in and out of the cab and creates critical additional frame space in a nominal wheelbase, while maximising the fuel capacity so critical to Australian operators.

Existing driveline configurations and layouts are carried over from previous models to the T610 and T610SAR.

The new models can be specified to a GCM rating of up to 140t with engineering application approval, and with both a set forward and set back steer axle option, can meet a range of PBS applications.

Dana or Meritor steer axles are available in either single or twin steer configurations to carry the heaviest of loads.

Additionally, customers have the option to select either parabolic or multi-leaf front springs with either steel/alloy 10-stud or demountable 6-spoke rims.

Bridgestone or Michelin tyres are mounted front and rear to standard 8.25x22.5/285mm pcd alloy rims.

Rear axles are offered in either Dana or Meritor, be it tandem or tridem configurations. Similar to the front axle, rims can either be selected in steel or alloy 10-stud or demountable 6-spoke.

Kenworth Airglide 460 airbag suspension is standard, and depending on the proposed application of the vehicle, a variety of optional rear suspensions can be specified, such as the Kenworth six-rod mechanical suspension and Neway options.

SAFETY SYSTEMS:

The extensive testing, innovation and application engineering behind every Kenworth truck delivers real peace of mind on the road. This commitment to ongoing local research, design and engineering capability promotes the adaption and adoption of new technologies as they come to the fore. The T610 is available with state of the art collision avoidance and mitigation technology, including active cruise with braking and lane departure warning working in harmony to take safety to the next level. It builds on existing critical safety design elements and overall ergonomics designed for comfort and control – everything on this truck has been developed to have a positive impact on drivers' lives.

SUMMARY:

The T610 builds on a proven approach honed over many years, starting in 1975 with the first Australian designed and manufactured Kenworth, the W900SAR and later the development and evolution of other iconic models such as the aerodynamic T600, and the K series range.

It is the culmination of more than 40 years of Australian design and application engineering experience, integrating with a parallel development program drawing on the global resources of PACCAR.

The T610 delivers Kenworth's most innovative, durable and productive truck yet, designed and manufactured right here in Australia for our local conditions and applications.

Kenworth trucks are designed and manufactured in Australia to meet the world's toughest applications. Kenworth, a division of PACCAR Australia, is market leader in heavy-duty trucks in Australia. Its trucks are also exported to Papua New Guinea and New Zealand. PACCAR Inc, a Six Sigma company, is a global technology leader in the design, manufacture and customer support of light, medium and heavy-duty trucks under the Kenworth, Peterbilt and DAF brands. PACCAR also designs and manufactures advanced diesel engines, provides financial services and information technology, and distributes truck parts related to its principal business.

RELEASE ENDS

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