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Hills Tankers Fuelling Innovation

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THE PEOPLE & PRODUCTS THAT MAKE TRANSPORT MOVE

THE TRUE DISRU

IN A WORLD BESOTTED WITH THE IDEA OF INSTANTANEOUS INNOVATION, HILLS TANKERS HAS CHOSEN A SURPRISINGLY MEASURED APPROACH TO INFUSING NEW TECHNOLOGY INTO DAILY BUSINESS PRACTICE – AND CREATED WHAT COULD BE THE MOST PROGRESSIVE FUEL HAULAGE FLEET IN AUSTRALIA. Story by Sebastian Grote

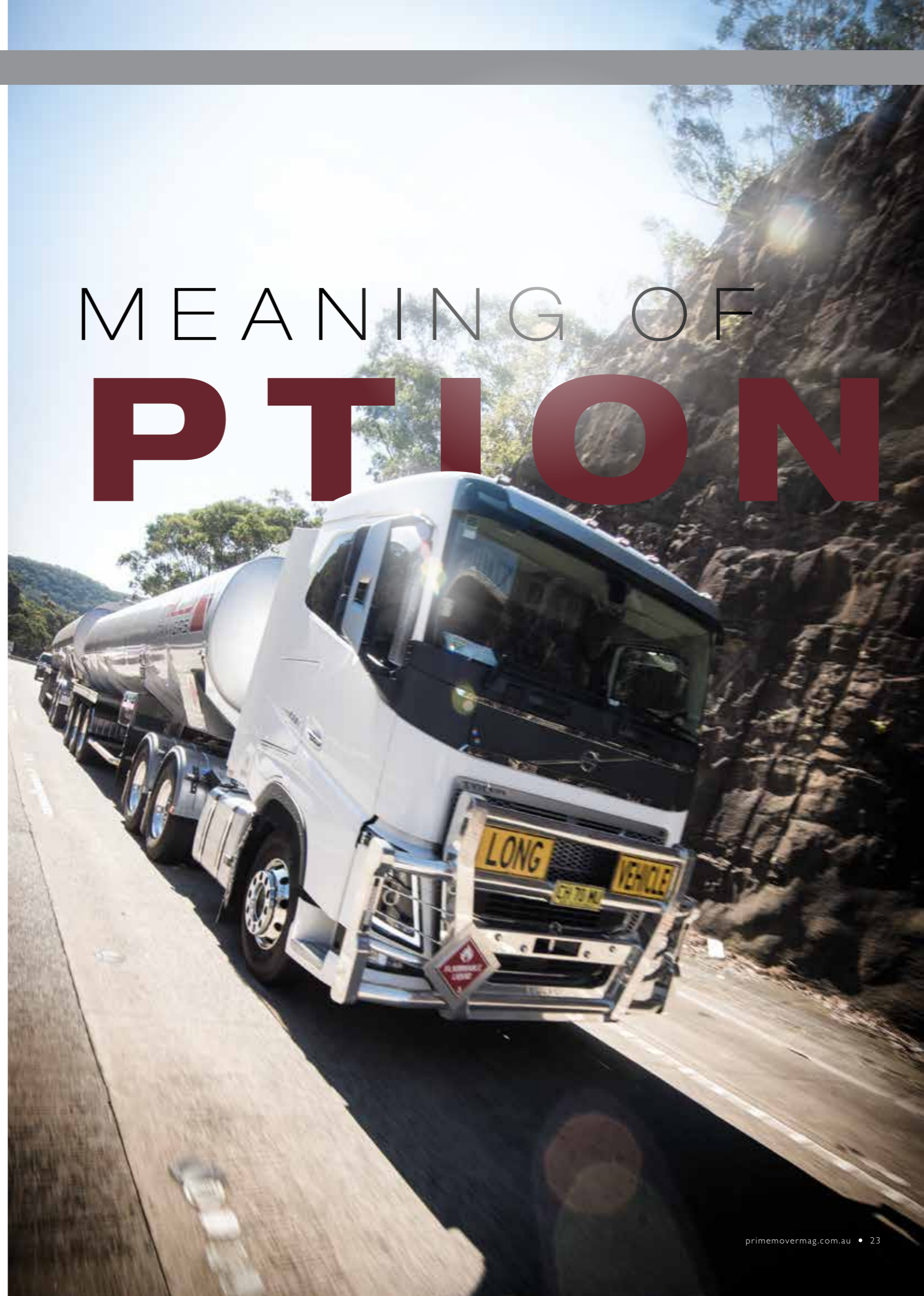
Peter Hill, long-serving Managing Director of Newcastle-based Hills Tankers, is the first to admit there is a certain irony to how the family enterprise has evolved into one of Australia's most forward-thinking fuel haulage businesses. Now a fierce advocate of Performance-Based Standards (PBS), he says the decision to embrace high productivity vehicle design only came after a period of "sitting back" and observing the market. "Fuel haulage is a delicate business and the equipment we use must help us achieve the best possible outcome for our clientele, so there is a certain innovation pressure on us, if you will. But, that doesn't mean we follow every technology trend blindly," he says, reciting British architect Cedric Price, who famously asked, "Technology is the answer, but what was the question?" According to Peter, infusing new technology like PBS – where traditional, restrictive design standards give way to a more liberal, simulation-based method – into daily business practice must follow

a highly strategic approach to truly add value and cannot be rushed. "PBS can be incredibly useful to achieve that next level of productivity, but only if you do your homework," he explains. "You need to ask the right question first and make sure the solution you end up with is actually able to answer it." To not get lost along the way or succumb to what the tech community has dubbed *Fear of Becoming Obsolete*, he says forming a close-knit support network is vital. "That fear of missing out can be a real pitfall for businesses in a technology-based industry like commercial road transport, especially if they are feeling under pressure. Just one bad investment can be extremely costly in our space," he says. "By observing the market for a while, we quickly learned that simple binaries such as 'old versus new' just don't hold up in the digital age. You need an integrated approach; you need to innovate the smart way." Peter says for the Hills Tanker operation, the 'smart' solution was to seek advice from Brisbane-based Holmwood

FAST FACT

Hills Tankers is currently trying to bring its A-double concept to the Gold Coast, but attaining access to Coolangatta airport is proving difficult: "Queensland has recently lost its edge in the PBS arena," says Managing Director, Peter Hill. "The State used to lead the pack in high productivity vehicle design, but somebody has obviously found the brake pedal. It's frustrating."

MEANING OF PTION



4 “By observing the market for a while, we quickly learned that simple binaries such as ‘old versus new’ just don’t hold up in the digital age. You need to innovate the smart way.”

Peter Hill
Director, Hills Tankers

Highgate and Volvo Trucks Australia early in the process. “Once we had seen what PBS could do in the truck-and-dog segment, we felt compelled to try and apply it to fuel transport. To do so, bringing all stakeholders together felt like the right starting point.”

Having had time to observe and analyse the market, he adds, has helped him understand that the true potential of PBS can only be unleashed by allowing for a certain degree of flexibility within the fleet. “You need to make sure that a PBS

tanker can be used with a range of prime movers, for example, and not just the one you had in mind when designing it,” he explains. “The same is true for tyres – you need to have some flexibility as part of the design approval, which is entirely possible if you do it right. All that has to be considered before the actual PBS process sets into gear, though, which is where your network comes into play.” Peter says it wasn’t until early 2014 that he had seen enough to confidently embark on his own PBS adventure, but

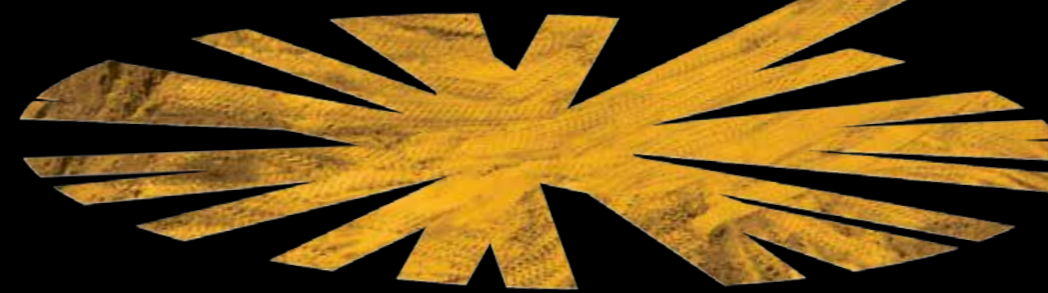
once committed, he didn’t want to settle for a low-key solution. “We knew early on that the real potential was in the A-double, so we set out to bring the first-ever A-double to the fuel haulage market. We knew it wouldn’t be easy, but the opportunity to reset the benchmark for an entire industry segment was too good to ignore.”

In collaboration with Volvo and Holmwood Highgate, Peter and his team went on to develop a modular A-double concept that could be broken down and used in a single, B-double or even AB-triple configuration if required. “Holmwood Highgate certainly was the driving force during that initial consultation period, but the scope of the whole project quickly expanded. Volvo’s Application Engineering team came on board soon after that to ensure we could use the new equipment with a range of



Shooting the Hills Tankers A-double on the road proved much more difficult than expected for photographer Gavin Blue and his team. To the delight of Peter Hill, it moved so quickly through the Sydney traffic that the photo vehicle could hardly follow.

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FAST FACT

According to Managing Director, Peter Hill, Hills Tankers' A-double design has increased the company's payload per run by 30 per cent, thus cutting 30 per cent of vehicle movements off the roster and saving "substantial" amounts of fuel. "In some locations we used to have up to 70 loads a week – think about the positive impact on congestion and air quality an A-double could have," he says.

suitable prime movers and helped us find the best mix of engine, transmission and gear ratio to achieve the best result." According to Peter, involving the truck OEM from the outset may have been the key to success for the ambitious project: "What we've realised quickly was that PBS is all about identifying the problem, comprehensive planning – and patience. The truck company is an integral part of that process, not just the trailer OEM, which is where many people turn first. They need to work together to ensure you don't end up with a combination so restrictive that it is at risk of becoming obsolete.

"Volvo Trucks Australia has been a tremendous asset in that regard – the team was acutely aware of what could go

wrong and not afraid to point out any issues, especially when it comes to safety. When you commit to such a project – which, if we're honest, is absolutely unique in the world – you need the supplier to be on your side. Going for a quick sale won't cut it."

By joining forces early on, Peter says Hills Tankers was able to use Volvo's FH model with the standard wheelbase and only had to adjust the rear axle ratio to a more torque-y 3.78:1. "It was amazing to see just how in sync the Volvo team was with Holmhood Highgate and the National Heavy Vehicle Regulator (NHVR), which now plays a central role in the whole process – from design all the way through to final approval. PBS is a very complex concept, so you need to

choose a truck brand that is able to work in a team environment."

The real challenge, Peter adds, was ensuring access, which is why he connected with the NHVR's Access Team and local road authorities early on.

"Our first unit was supposed to travel from the Port of Brisbane to our depot at Eagle Farm, which meant having to cross the iconic Gateway Bridge. Convincing various local authorities and road owners that a fuel tanker of such size was able to safely get across without any damage to the integrity of the construction or the pavement proved to be a bit of a hold-up, but we worked through it and accepted the fact that breaking new ground won't ever happen overnight."



TECHNOLOGY INNOVATION



"Creating a safer, more productive and sustainable road freight transport system"

PBS APPROVALS



COMPUTER MODELLING



Tiger Spider is a transport engineering consultancy that specialises in Performance Based Standards (PBS).

With a wealth of industry experience and knowledge, we use scientific principles and the best available technology to achieve the safest and most productive vehicle innovations.

We simplify PBS and support our clients throughout the entire process. If you want to know how we can help your business - give Tiger Spider a call.



Marcus Coleman
Managing Director

“We knew early on that the real potential was in the A-double, so we set out to bring the first-ever unit to the fuel haulage market. We knew it wouldn’t be easy, but the opportunity to reset the benchmark for an entire segment was too good to ignore.”

Peter Hill
Director, Hills Tankers

Once the Port of Brisbane project was green lit, however, Peter didn’t lose time to roll PBS out in New South Wales too, where Hills Tankers had been servicing Port Botany with a standard B-double fleet. Despite working closely with the NHVR and Roads and Maritime Services (RMS) NSW, the follow-up project proved even more complex than the first.

“The plan was to head north from Port Botany and go right through Sydney, staying close to the CBD,” he explains. “Our tankers would pass by Redfern Station and the University of Technology to then join Parramatta Road after going around Victoria Park – so we knew from the start we had to work closely with road agencies again to get such a big combination approved for what is

essentially stop-and-go traffic.” Even though the chosen route out of Sydney had been pre-approved for Dangerous Goods transport and under the Higher Mass Limits (HML) scheme, Peter says getting approval for two full-length semi-trailers and a dolly to roll through central Sydney wasn’t easy. “There was some concern at the beginning, which is probably understandable given we wanted to operate at a GCM of 81.5 tonnes.” To address the issue, Peter and his team staged a trial where an RMS control vehicle followed the A-double to see how it would trail, brake and accelerate, “and that’s what ultimately broke the ice,” as he puts it. “What we learned here is that showing is a lot more effective than telling. But the numbers are quite impressive too.” Peter says Hills Tankers branded

A-doubles have been running through Sydney as well as in and out of the Port of Brisbane and Eagle Farm since the start of the year now, with the company enjoying a 30 per cent payload increase per trip in each location. In fact, the project has been so successful that more than half of Hills Tankers’ 60-strong truck fleet is now made up of Volvo FH prime movers that come PBS-ready even if they don’t go into a high productivity application straight away. Among the company’s 133 Holmwood Highgate tankers are now four dedicated A-double sets that work alongside a range of tri-axle semi-trailers, 19m and 25m B-doubles. Some trailers in the 25m B-double bracket are also PBS-rated and ready to be used in an A-double if required. “Our modular fleet design is what sets us apart today,” Peter says. “It’s really quite remarkable how far we’ve

come since we gave PBS a go, especially given the early feedback we received from our competition. Many didn’t believe it would be doable to run an A-double fuel tanker through Sydney, for example, and we proved them wrong. They used to call us out for running ‘strange-looking’ equipment, and now can’t wait to get on-board.” While Peter admits to believing in the old ‘if you’re not moving forwards, you’re moving backwards’ adage, he says Hills Tankers’ measured approach to PBS is what has ultimately made all the difference. “What we now have is a highly efficient, and beautifully balanced set-up where we can switch back and forth between a standard configuration and PBS. Taking the time to think it through and bringing on board proven partners was the right choice. Everyone is talking about disruption right now, but

being disruptive doesn’t mean rushing headlong into something.” According to Peter, many executives in the transport industry rightly worry about being left behind as technology evolves faster than they can adapt, but the idea of frantically embracing every technology trend on the basis of hyped-up statistics still doesn’t sit right with him. “You need to take your time and learn how to read the industry you’re in. In the meantime, form the right network to build up your company’s innovation capability – that’s what truly helps you respond to disruptive circumstances once you’ve seen enough to take action.” While staying up-to-date about new technology is important, Peter says not losing sight of what that technology should ultimately accomplish for the business is key – “continued relevance in a fast-changing marketplace.”

ASK THE EXPERT

Prime Mover spoke to Scott Simpson, Senior Product Manager for Volvo Trucks Australia, to find out just how the high productivity vehicle trend is affecting a modern truck OEM.

Q: The PBS debate in Australia is often centred on trailer design, with a versatile truck spec only an afterthought. Are we underestimating the true importance of the pulling vehicle?

A: Spec’ing the trailer is quite often the first step on the PBS journey, but that doesn’t mean the truck is an afterthought. The industry is becoming more and more aware that only a perfectly aligned combination will yield the right result. To achieve that, the truck OEM has to be involved in the conversation early on – especially if you want to have versatile prime movers to suit numerous PBS approvals. Overlooking the truck side of the process would be a crucial mistake.

Q: How exactly can a truck OEM help a transport company like Hills Tankers set up a vehicle for use under the PBS scheme?

A: At Volvo Trucks Australia, we have a dedicated Application Engineering team to assist customers like Hills Tankers all the way along the PBS journey. Issues we tend to look at very closely are start-ability, rolling gradability and gearing, as well as weight distribution. Think about it, Hill Tankers’ PBS fleet has to negotiate some very steep terrain whilst carrying some 85 tonnes of liquid and equipment – often in stop-and-go mode. It’s important the trucks can cope with the taking off procedure without causing any damage to the driveline, so we have worked with Hills on perfecting the diff ratios and weight distribution on the drive axle. Soon we will also be introducing our new Crawler gear I-Shift into the Hills fleet,

to improve vehicle startability on the mammoth task it has to handle.

Q: Which role do electronic support systems play in that context?

A: Safety is a core element of PBS, so electronic support systems that can help keep a truck safe and balanced are now becoming the norm. For Hills Tankers, making full use of Volvo’s suite of safety technology has thus become a non-negotiable – if there’s something that can help Peter and his team reduce safety risks, they embrace it wholeheartedly. As a leading force in safety technology, Volvo proved to be the perfect fit for that kind of attitude – so much so that all of Hills Tankers’ Volvo trucks are now fitted with a complete safety package including Lane Change Support, Lane Keeping Support, Driver Alert Support, Forward Collision Warning, Adaptive Cruise Control, Emergency Braking, and Electronic Stability Program.



BEYOND

THE HYPE

WHILE THE GLOBAL HYPE AROUND AUSTRALIAN HIGH PRODUCTIVITY VEHICLE DESIGN IS STILL UNBROKEN, LOCAL BUSINESSES HAVE ALREADY MOVED ON TO THE NEXT STAGE – INFUSING IT INTO EVERYDAY BUSINESS PRACTICE.

Story by Sebastian Grote

FAST FACT

Last month, the NHVR proudly announced that the 5,000th heavy vehicle permit application has been submitted through the Regulator's new online Customer Portal. NHVR CEO, Sal Petrocchio, said the Portal has quickly become the permit application platform of choice since its release in July, with 95 per cent of applications now submitted online, 35 per cent of them relating to PBS.

When Laszlo Bruzsa, Australia's foremost authority on High Productivity Freight Vehicle (HPFV) design, took the stage at the Liberty Centre in Cape Town back in July, he couldn't help slipping a smile. A sold-out crowd hungrily absorbed his every word on Australia's Performance-Based Standards (PBS) scheme, the only HPFV arrangement in the world that is fully integrated into national law and backed by a central authority, the National Heavy Vehicle Regulator (NHVR). As the Regulator's Chief Engineer, Les, as he is often called, had spent the best part of a decade defending the scheme both on the political stage and at a grassroots level, defusing a slew of criticism over everything from road access right through to the average

response time for a phone enquiry. In Cape Town, where Les headlined a two-day workshop organised by the local Council for Scientific and Industrial Research (CSIR), the atmosphere felt strikingly different to what he had become used to in Australia. "There was a genuine sense of excitement in the room, a spirit of optimism I hadn't felt in Australia for a while," he says. "It really opened my eyes to what we have achieved back home. South Africa embarked on the HPFV journey roughly at the same time as Australia when it launched the Smart Trucks initiative in 2007. But while the South African project currently comprises just over 150 vehicles that are still more or less in trial mode, Australia's PBS scheme is fully functional and has led to the design and

manufacture of 4,782 units that are out there and working as we speak." According to Les, Australia's PBS scheme has catapulted the continent to the very top of the global HPFV ranking since the second NHVR CEO, Sal Petrocchio, took charge in 2014. "We often complain about structural growing pains in Australia, the kind of issues that naturally go hand in hand with every ground-breaking innovation," he comments. "In doing so, we tend to forget just how much we have achieved in a short period of time. South Africa is looking up to us." After returning home, Les' renewed optimism quickly made itself felt at Melbourne's Technical & Maintenance Conference (TMC), where he faced a local audience to once again defend the PBS scheme and explain just how

it has evolved since going live a decade ago – then still under supervision of the National Transport Commission (NTC). Visibly energised by his trip to South Africa, he revealed a suite of record-breaking data: "1,182 combinations have been approved in the first 10 months of 2016 alone, which is 28 per cent above the total number for 2015. By the end of 2016, we estimate to have issued 50 per cent more approvals than the year before," he disclosed. "We now have operators out there with 100 per cent PBS-approved fleets, which makes us confident the scheme will continue to grow at a rate of at least 20 per cent per year in the foreseeable future." With a forecast of such scope – in comparison, the Federal Reserve Bank is expecting Australia's GDP to grow between two and three per

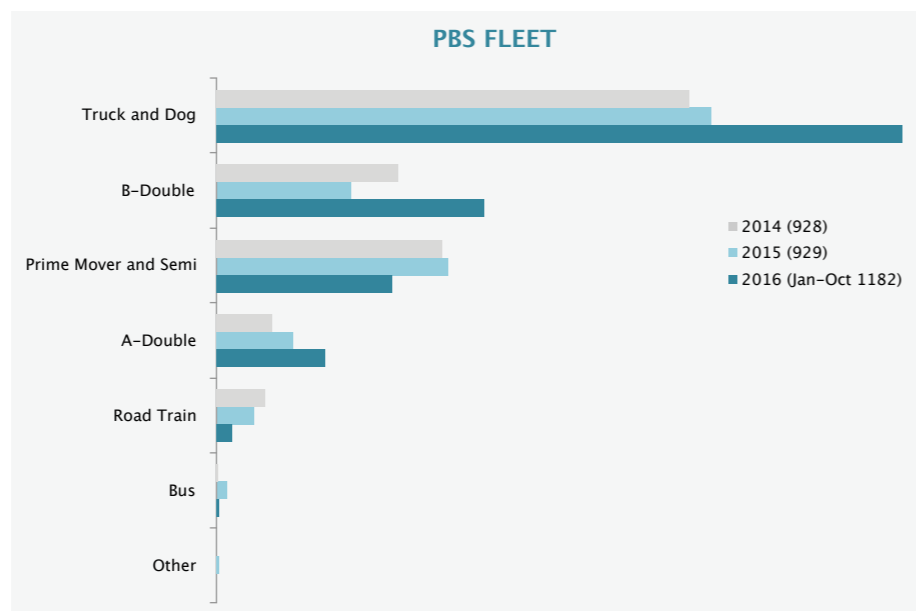
FAST FACT

According to Chris Blanchard, Workshop Manager at Herb Blanchard Haulage, speaking to local councils should be the first step on any company's PBS journey. "Despite all progress, access can still be an issue," he said at the recent Technical & Maintenance Conference (TMC) in Melbourne. "But a lot of concerns can be overcome when you take the initiative and reach out first."



cent until 2018 – Les’ most notable comment almost got lost in the shuffle, though. “We now have enough data to illustrate that PBS is not just a theoretical construct anymore, but a real disruptive force that is adding real value to our economy,” he said, almost parenthetically. “PBS is going mainstream.”

Looking back at what could have been his two most impactful public outings since joining the NHVR, Les is sure PBS has won over many a sceptic in 2016 and is now on the brink of becoming an everyday occurrence – an evaluation closely aligned to the North American theory of hype cycles. Developed by US consultancy Gartner, hype cycles reflect the maturation process of a new technology from the initial excitement through to broad-based market coverage. “At the beginning, a potential technology breakthrough is creating that typical hype we’ve come to know from Apple, for example, with early proof-of-concept stories and media interest creating significant publicity. That’s



The truck-and-dog segment is still the single biggest category of vehicles approved via PBS. However, new design examples like the AB-Double combination or the the 30m tri-tri B-double are getting more popular now

exactly what we went through with PBS, and it’s arguably what’s still happening on the global stage today if you look at South Africa or the UK, where they are currently trialling over-length

semi-trailers in an early attempt to understand the impact of HPFV design.” Stage two is what Gartner candidly labelled the *Peak of Inflated Expectations*. “Early publicity not only produces a number of success stories, but also scores of failure,” Les notes. “Some businesses take action; many do not. We experienced the same before the NHVR took over PBS management from the NTC in early 2014.” What typically follows in Gartner’s theorem is a *Trough of Disillusionment*, with Les saying that’s exactly what happened in Australia once the NHVR took charge. “Despite brimming with good intention, the NHVR got off to a bad start and had to rely on the help of the very state authorities it was meant to replace. As a result, interest waned and

PBS COMBINATIONS	
2016 (Jan-Oct)	1182
2015	929
2014	928
2013	575
2012	450
2011 and earlier	719
TOTAL	4782

PBS combinations as at the end of October 2016.

trust was lost. When Sal (Petrocchio, *ed.*) came into office to turn the boat around, we had arguably reached the low point.” Step four, the *Slope of Enlightenment*, came in line with the NHVR’s maturation from ‘project office’ to fully functional government authority. “Once people realised just how much of a difference PBS could make – and we developed the systems to facilitate it all – there was a collective light bulb moment in the industry. People started being creative and funding more PBS projects, even though more conservative companies remained cautious,” Les says. “From here we’ve slowly moved towards the final stage, the *Plateau of Productivity*, which I think is now in reach.” Les says PBS’ broad market applicability and relevance are now “clearly paying off” and will make the scheme a staple of Australian trucking going forward. “I needed to travel all the way to South Africa to gain perspective on that again. Only from a distance was I able to realise just how much progress we have made of late – it’s quite remarkable. “Are there still challenges we need to address? Yes. There are still legacy

issues within the scheme that we need to overcome – we still need to formally consult the PBS Review Panel, for instance – and public perception continues to be an especially important concern. But, we also need to recognise that we have created a vital marketplace for world-leading equipment right here in Australia; a marketplace that is actually growing, even though the general truck market is stagnating.” According to Les, the launch of the first *National Class 2 PBS Level 1 and 2A Truck and Dog Trailer Authorisation Notice* in May proved a true milestone in reaching the final stage of the PBS hype cycle. It simplified the approval process for the most common truck-and-dog combinations – including three-, four- and five-axle designs – by standardising national access without the need for an individual access permit. “The PBS Notice solved a lot of issues in one go and helped the scheme transition into a mainstream setting,” he says. “In combination with our new online permit Customer Portal, it really gave PBS the boost it needed.” He adds, “Bringing in something as

FAST FACT

Current vehicles assessment rules require that PBS vehicles to be assessed in specific way using computer simulation and/or vehicle testing. Manufacturers are required to provide performance data of various components that could be used in the assessment of these combinations. As this performance data might be produced using different methods and technical standards, there is limited certainty as to the quality of the input data. The NHVR is therefore conducting a review of how performance data is obtained – especially in light of new and emerging heavy vehicle technologies.

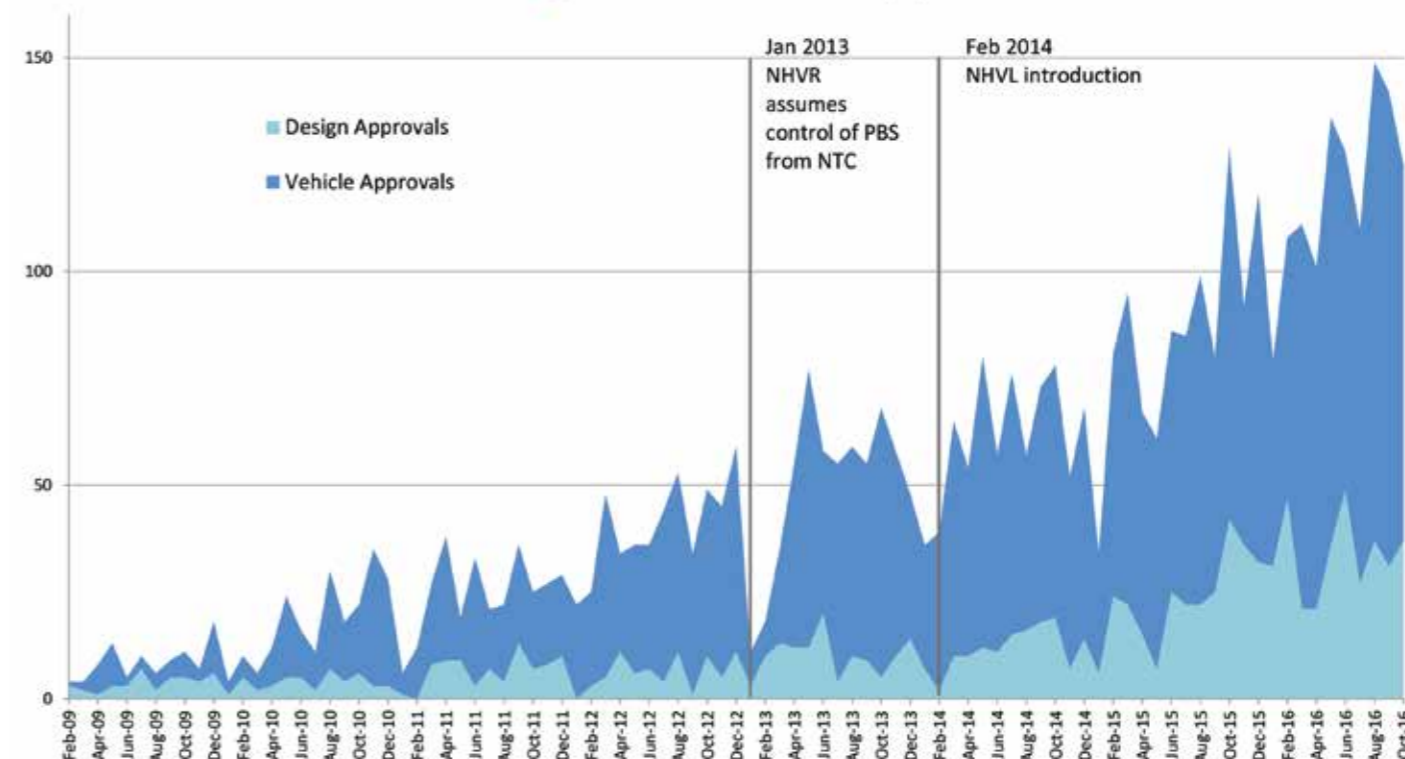


CASE STUDY: 28-PALLET QUAD-AXLE REEFER

On behalf of Victoria’s Thurwood Transport, MaxiTRANS brand, Maxi-CUBE, recently designed and manufactured a 20m 28-pallet quad-axle refrigerated trailer featuring a steer axle at the rear of the quad set. According to MaxiTRANS, the 28-pallet reefer is one of the highest productivity single trailers of its kind on Australian

roads. With space for an extra six pallets over a standard refrigerated van’s 22-pallet capacity, it provides Thurwood with a 27 per cent productivity increase. Based in Derrimut in the western suburbs of Melbourne, Thurwood Transport is using the reefer to transport fresh produce up and down the Eastern Seaboard.

PBS Design and Vehicle Approvals



ground-breaking as PBS is always a challenge, mostly because there are so many stakeholders involved, but we finally seem to have found some common ground in 2016. The fact that the vast majority of people – both from within industry and outside – don't even realise that PBS-approved vehicles are operating around them anymore is proof of that."

Agrees Robert Smedley, head of Melbourne firm, Smedley's Engineers, and nationally recognised PBS consultant. "PBS is an incredibly powerful platform if used the right way," he says. "Once you understand the pitfalls in the process, the benefits are simply too good to ignore – and that kind of understanding is slowly growing in the industry."

According to Robert, planning is key when embarking on a HPFV journey, especially with regard to access and

vehicle spec: "You need to be very clear on the kind of work you want a PBS vehicle to perform – both now and in the future. Truck interchangeability is a big issue, for example, as many businesses still don't realise that each and every truck you may want to use on a PBS combination has to be part of the final approval. As such, coming up with a detailed game plan early on is key." Robert says a recent NHVR approval detailing three trailers designed under the PBS scheme covered as many as 102 different prime movers to make sure they could be used across the company's entire fleet. "That's an extreme example, but the message is that 'mix and match' approvals are certainly doable. It's just a question of doing your due diligence at the start of the whole process."

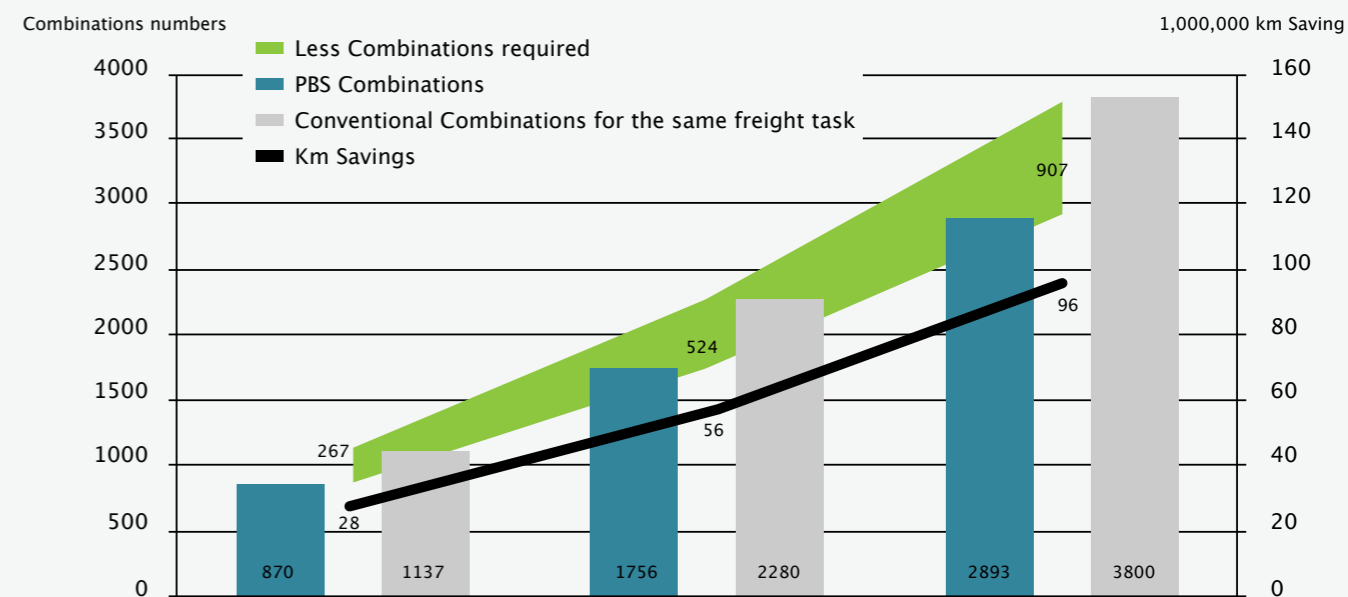
He adds that a smart 'game plan' will also help overcome the age-old tyre issue. "Many a PBS nightmare story is related to

the tyre spec," he explains. "The problem hasn't been fully solved yet (*see breakout boxes, ed.*), but there are numerous tyre options now that will prevent you from getting stuck with a discontinued or sold out model. Again, it's merely a question of due diligence and finding the right advice."

If Les had his way, PBS would see a new golden age from here on, with more – and more creatively designed – high performance equipment populating the nation's road network. "I think it has finally clicked – there is a new level of understanding in the market now for PBS can and cannot achieve," Les shares. "The Plateau of Productivity is finally close, and with it a new age where we can use PBS to make a real difference to the Australian transport industry."

All it took, he says with that subtle smile, was a trip to South Africa to put everything into perspective again.

Productivity Benefits of PBS Combinations Approved 2014 to Oct-2016



From 2014 to October 2016, the NHVR has approved 2,893 high productivity combinations, meaning that 907 fewer heavy conventional combinations are required to do the same freight task. These combinations are set to save 96 million km of heavy combination travel annually on what conventional vehicles would travel.



▶ CASE STUDY: 60M 'MEGA' QUAD ROAD TRAIN

At the end of 2015, WA paved the way for the use of extra-long 'Super Quad' road trains in the Pilbara region. Spanning 60m in length, they exceeded the standard length road trains in the region (53.5m, ed.) by 12 per cent and were designed under the PBS envelope, even though not necessarily approved through the formal PBS approval process. One of the first units to go into operation was designed by local OEM, Howard Porter. Comprising of four side

tippers, the combination could carry up to 140 tonnes of payload and took 38,500 trips out of the Pilbara road network in a single year. But that's just the beginning: Prime Mover is able to reveal Howard Porter will soon up the ante again with the release of a Mega Quad model boasting quad axle trailers and quad dollies. Pulled by a 10x6 Volvo FH16, it will feature 128 wheels at a Gross Combination Weight of 234 tonnes.

▶ FAST FACT

The PBS scheme is all about stretching the boundaries of heavy vehicle design and innovation by testing what's possible and what's not. "We believe that if a vehicle has been assessed against the strict PBS safety and stability standards and there is evidence that it passes all of them, it should be allowed to operate on the road, subject to road manager consent and individual route assessment if required," says NHVR Chief Engineer, Laszlo 'Les' Bruzsa. "This is where PBS offers a real advantage by creating the opportunity for those vehicles to unlock productivity gains without the loss of safety. This is fascinating. With an ever growing demand for freight movement the thinking should be flexible to really enable the PBS to work and deliver real productivity benefits."

▶ ASK THE TYRE EXPERT

Prime Mover spoke to Marcus Coleman, Managing Director of Melbourne PBS engineering firm, Tiger Spider, to find out about his view on the progress of PBS.

Q: What's your take on the PBS Scheme as it is?

A: PBS has grown rapidly and is gaining more and more acceptance from industry. Some operators now even have targets of 100 per cent PBS compliance in their fleets, as they see it as a key safety imperative and metric for their businesses. As a long-term PBS advocate, this is immensely satisfying.

Q: What's your view on the NHVR?

A: The NHVR PBS team has always been strong and continues to provide great support to industry. It's been great to see Sal and his team turn around the NHVR and make it an effective organisation. When you

consider how far we've come in the past five years, the pace of change has been quite extraordinary. Of course, there is always more work to be done and it is pleasing to see the PBS Scheme being reviewed with a view to make it even better.

Q: What do you see as the key process improvements that could be made?

A: PBS is essentially a three-step process involving design, certification and road access. We provide all PBS services except for certification, which means we also review options for operators, develop the design specification and apply for a design approval with the National Heavy Vehicle Regulator (NHVR). It's here where improvements could be made: The NHVR is still obliged to consult with the PBS Review Panel before approving a design, which takes at

least four to six weeks. Trying to avoid this processing time affects how we prepare design blueprints and can have significant flow-on affects, so I'd like to see truly objective rules and policies that are self-executing so that we can speed up time to market.

Q: How is Tiger Spider responding to these rapid changes?

A: We've introduced several innovations and are continually trying to improve what we do. Aside from the innovative vehicle combinations that we've developed, we've introduced design blueprints that provide more flexibility for manufacturers and operators so they can mix and match equipment with less permits. We've also introduced a tyre classification scheme which provides more tyre options for operators and reduces the need to re-assess vehicles, which has worked well since December 2014.