



Doin' the Do in an 8x2

With a continual drive to lower the fuel consumption of its trucks, Scania has introduced a P 360 8x2 rigid version of its New Truck Generation range, targeted squarely at urban distribution roles. **Paul Matthei** took a loaded unit for a jaunt over the Blue Mountains west of Sydney and returned with an extraordinary fuel figure.

Old habits die hard, and some truckies can be somewhat stubborn in resisting change to the tried and true vehicle configurations to which they are well accustomed.

Often the aversion can be traced to a long-held belief originating from a negative experience that might have occurred 10 or 20 years earlier; with the memory having become an indelible imprint on the person's psyche.

For example, it might have been the case that way back when he or she was

driving a 'lazy axle' truck which became temporarily stranded when trying to negotiate a steep grade in the wet or a deep spoon drain across a driveway entrance. The subsequent frustration and embarrassment was perhaps sufficient to cause the angry proclamation: 'I'll never have a lazy axle truck again!'

And back in the 'good ol' days' when a typical lazy axle truck was often little more than a lengthened chassis 4x2 rigid with a tag axle and load-sharing leaf spring arrangement tacked on the rear, that was perhaps something of a fair call.

But time and technology never stand still and the relatively recent proliferation of electronically-controlled air suspension has largely put paid to the steel spring suspension 'hang-ups' of the past.

What's more, with the ever-present impost of fuel costs coupled with typically slim profit margins, what sensible operator can really afford to ignore the prospect of a few percentage points better fuel economy simply by having one drive axle instead of two? Over the lifetime of the vehicle this adds up to some serious dough.

This is the assertion put forward by Scania, a truck manufacturer that has done its utmost in recent years to provide its customers, both present and prospective, with tailor-made solutions designed to give them the lowest possible total cost of ownership for the effective life of the vehicle or fleet.

The P 360 8x2 rigid is a great example of this philosophy. Acutely aware of the need to negate the aforementioned vagaries of early 'lazies', Scania has designed the rear air suspension with a driver-controlled load transfer system that during low speed manoeuvring simultaneously increases the air pressure in the drive bags while decreasing that of the tag bags.

This combined with the standard diff lock is designed to provide sufficient traction in any tricky situation likely to be encountered during regular urban distribution driving.

During my time as a professional driver, I recently spent a number of years operating a Scania P 440 6x2 prime mover on primarily urban distribution work. As it has essentially the same rear axle set-up as the P 360 rigid, I have no hesitation in vouching for the effectiveness

of the load transfer system.

In my experience, the situation where it was needed most was when starting off from the lights on a steep, wet road with a loaded semi-trailer. In this scenario I found it was vital to flick the switch a few seconds before lift-off to allow full pressure to build in the drive bags, thus ensuring maximum traction. Then it was a matter of feathering the throttle to get it cleanly off the mark.

Upon reaching about 40km/h the system automatically reverts to the equalised pressure setting and by that stage enough momentum has been built to maintain traction, provided judicious use of the throttle is maintained.

Here's the thing though, drivers who are not prepared to go easy on the accelerator in these conditions will definitely get more wheel-spin in the wet than a 6x4 vehicle. However, the load transfer system clearly mitigates this when used correctly.

This is where driver training needs to be undertaken to ensure drivers understand the dynamics of the 6x2 and 8x2 configurations and how to get the best out of these vehicles in all conditions.

Speaking of which, there is another situation in which extra caution must be taken with retarder-equipped 6x2 prime movers, particularly when the trailer is unladen.

Again, drawing from my experience driving the aforementioned 6x2 prime mover on the long and steep decline of the Toowoomba Range in the wet and with an

empty trailer, I found it necessary to gear down lower rather than rely on the retarder to keep speed under 40km/h, and also to activate the load transfer function.

In this situation the Scania's powerful retarder used exclusively can actually be counterproductive because the retardation effect operating on one axle tends to lock the wheels on a wet road. When this happens, the ABS cuts in and cancels the retarder so speed builds and then the retarder re-engages and so the cycle continues.

I found the best solution was to engage the descent control system whereby the speed was set at 40km/h and held there by a blend of gearing, retarder and service brakes, with the computer and wheel speed sensors working to ensure the optimum blend of retardation to maintain traction.

BLUE MOUNTAINS BOUND

There were certainly no traction issues on the clear sunny day I tested the P 360 8x2 rigid from Scania's Prestons branch in south west Sydney.

First up, I received a comprehensive rundown on the operation of the P 360 by Scania's Tony Wall. Tony was a truck owner/ operator for many years prior to his appointment at Scania Prestons and really knows his stuff when it comes to trucks.

After explaining the various functions and features, Tony makes mention of the comprehensive maintenance programs offered by Scania which are tailored to

individual requirements and enable owners to accurately ascertain whole-of-life cost of ownership.

"The maintenance packages Scania offers are exceptional," says Tony. "A mate of mine just bought a new R 620 with a maintenance package and he knows virtually down to the dollar what he's going to spend over the next five years. The only variable expenses are tyres and fuel."

With that it was time to get the tyres turning and the fuel injectors firing (sparingly), and upon negotiating the chicane out of the dealership I was struck by the remarkable manoeuvrability of the 8x2 P 360.

Admittedly, prior to this I hadn't driven an eight-legger for many moons, I seem to recall needing close to a Titanic-sized paddock to turn the thing around.

Conversely, the P 360 responded swiftly to the tiller, pointing its nose out the driveway onto the road in a fashion that belied the existence of the second steer axle. In fact, during the entire test, from a driver's perspective it simply felt like I was steering a 6x2.

I put this down to a number of factors: Having one drive axle means under acceleration there is significantly less tractive effort working to push the vehicle straight ahead when the steering wheel is turned.

My second theory is that having air suspension on the steer axles rather than leaf springs may allow for greater wheel cut angles and a correspondingly tighter turning circle.

This is an important factor due to the vehicle's lengthy 5950mm wheelbase which naturally creates a larger turning circle than a shorter wheelbase would.

It's also worth mentioning that the rear axle load transfer system is a useful aid during tight low-speed turns as it reduces the scrubbing effect on the tag axle tyres which engenders easier turning and reduced tyre wear.

Before long the P 360 is humming along the M7 northbound with the tachometer registering just 1350rpm at 100km/h. In common with other European trucks I've driven recently, the sensationally quiet cab interior has to be experienced to be believed. Scania and other European truck brands have made great strides in this regard and the result is close to passenger car noise, vibration and harshness (NVH) levels.



It's a similar story with the all-round air suspension which delivers outstanding ride regardless of road surface quality. Along with the supple ride comes well controlled damping making for sure-footed cornering and general road poise.

HR VERSATILITY

As tested, the P 360 has an eight-tonne payload aboard and is grossing about 24 tonnes. It has a tare weight of 16.16 tonnes and maximum gross vehicle and gross combination mass limits of 32.8 and 45 tonnes respectively.

With these figures in mind, the P 360 8x2 makes a compelling case as a versatile truck and dog or truck and pig alternative to a prime mover and semi-trailer combination for certain applications.

With virtually the same volume and weight capacities, albeit in two separate vehicles, the rigid has the advantage of running without the trailer at half the load capacity significantly more efficiently than a partially loaded semi.

Furthering this versatility, the availability of dog and pig fridge vans with doors at both ends and a fold-down ramp enabling drive-through fork access from trailer to truck eliminates the time-consuming chore of unhitching the trailer to load and unload at docks.

Back to the test, and a left turn onto the M4 soon has the formidable bulk of the Blue Mountains looming ahead. With the relatively light payload the P 360 literally

romps up the long grade with just a momentary pause to drop one gear close to the summit.

The engine is a 9.0 litre five-cylinder with four valves per cylinder and a fixed geometry turbo. It produces 360hp (265kW) at 1900rpm and 1253lbft (1700Nm) of torque between 1050 and 1350rpm.

Euro-6 emissions level is achieved utilising Scania XPI Extra-High Pressure injection along with selective catalytic reduction (SCR) and a diesel particulate filter (DPF).

Power is fed to an Opticruise automated 12-speed GRS895R direct-drive 'box featuring two additional crawler gears and a Scania R 3500 retarder.

The final drive ratio is a super-tall 3.08:1 and brakes are ABS/EBS7 discs with Advanced Emergency Braking.

The sleeper cab includes an electro-hydraulic tilt system, 12cm side air deflectors and a 65cm roof mounted air deflector. On the inside resides a generously proportioned 800mm wide foam mattress.

As you would expect from Scania, safety features abound including driver and passenger roll-over side curtain airbags, steering wheel mounted driver's airbag, automatic seat belt pre-tensioners on both seats and tilt/ telescopic adjustment for the steering column.

There's also adaptive cruise control with active prediction mapping, electronic stability control, traction control, lane

departure warning with forward looking camera and rain sensing wipers. A manually operated emergency roof hatch is an excellent safety feature to enable occupants to exit the cab quickly in the event of a rollover or crash.

A suite of driving aids includes Eco-roll, hill hold, differential lock and the aforementioned load transfer system for the rear axles.

In the lighting department there are H7 halogen headlamps incorporating LED daytime running lights, fog lamps and cornering lights, along with LED tail lights.

Additional driver niceties include black leather upholstered seats, rear wall shelf, manual climate control air conditioning, USB ports in the dash and on the rear wall above the bunk, as well as Bluetooth connectivity and a premium sound system.

These features serve to make the trip across the Blue Mountains and back a very pleasant experience. Above all though, the satiny smooth and effortless performance of the 9.0 litre engine which was happy to idle along at just 900rpm in the 60 zones continued to impress.

This combined with the Opticruise transmission's intuitive operation enabling full power at such low revs without down-changing gave the five-potter a decidedly 'big-bore' engine feel throughout the test.

Another notable highlight was the retarder which made light work of washing off speed approaching red lights and on the main descent down the mountain.

The remainder of the motorway run was smooth, quiet and comfortable, three attributes that make this truck an ideal place to spend the day or night. Entering and alighting the truck is also first class thanks to the wide, well-placed steps.

All the low-rev running proved very beneficial for fuel consumption too, with the computer readout showing 4.2km/l (11.8mpg) at the end of the trip.

This really is the icing on the cake as it shows what combined fuel savings can be achieved by using one drive axle instead of two and tall gearing that keeps the torque engine below 1500 revs under most operating conditions.

As previously mentioned, this 8x2 proves every bit as manoeuvrable as a 6x2 during metro delivery work and is equally at home cruising the highway doing a long-distance run.

Coupled with the ability to haul a trailer with a GCM the same as a semi-trailer, Scania's P 360 8x2 would have to be one of the most versatile and fuel-efficient heavy-duty trucks available today. **IID**



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