



FE on the metro move

# HINO'S *big birthday*

*In its 50th year in Australia, Hino has come out with a new fully automatic medium-duty model that shows how far the Japanese manufacturers have come. Steve Skinner writes*

THE YEAR 2015 is a big one for Hino in Australia. For a start, it marks 50 years since the first Hino — a bus chassis — hit the road in this country. And this year the Toyota subsidiary will pass the 100,000 mark in trucks and buses sold here. That's a big deal.

It doesn't seem so long ago since little bonneted Internationals, Dodges and Bedfords dominated the light- and medium-duty truck scenes. Now, of course, they've mostly turned Japanese.

Hino provided a trip down memory lane at the recent Brisbane Truck Show with a 1980 KL Hino tray-top, which apparently did 1.6 million kilometres for a couple of owners including the Kimba Roadhouse in South Australia.

The little 5-speed synchromesh manual battler hits the scales at 8 tonnes GVM. Propelling it is a naturally aspirated 6 cylinder engine putting out just 120hp (88kW) and 300Nm of torque.

Compare that to the new 'High Horsepower' version of Hino's current 300 Series light-duty trucks.

The High Horsepower 921 fully automatic we reviewed last year, grosses at a similar 8.5 tonnes, but pushes out 205hp (153kW) and double the torque of its 1980 ancestor at a relatively massive 600Nm.



Hino had its cake at the Brisbane Truck Show, and ate it too



**ON SONG**

Most light-duty and middle-sized trucks are well and truly in the bland department when it comes to any throaty sound, but not Hino's 300 Series 921 or the 500 Series FE.

When starting up a new FE for our recent review drive, *Owner//Driver* got a pleasant surprise.

For a 14-tonne GVM urban runabout, the FE sounds pretty ballsy. Something like a cross between a British thumper motorbike and a Subaru boxer engine.

When you're out on the road, you know you're doing some real work. At the same time, though, the noise isn't intrusive if you have the windows up.

That enables you to listen to your favourite music or podcasts via the USB connectivity, which is just one of the many creature comforts now available in most medium-duty trucks.

Throw in an air suspended Isri driver's seat; fully adjustable steering wheel; terrific vision; electric-heated mirrors; a tight turning circle; and nice steering and handling, and it's almost enjoyable fighting with heavy city traffic in a truck like this.

The test vehicle was a 4.8m wheelbase, 10-pallet general freight curtainsider, loaded with bags of sand.

"Our trucks do a multitude of jobs and that truck is aimed to be a metro distribution type vehicle," Hino Australia's product planning manager Daniel Petrovski says.

"It could be carrying anything from feathers through to barrels of oil."

The longest wheelbase FE chassis — at 5.5m — can accommodate a body fitting 12 pallets.

Meanwhile, the long wheelbase auto FE on display at the Brisbane Truck Show was a tilt tray.

The longer wheelbase versions have optional Hendrickson air bag suspension on the rear.

**LUXURY ITEMS**

Chief among the FE's 'luxuries' is the fully automatic 5-speed transmission, undreamed of 50 years ago and, perhaps surprisingly, only introduced to the popular longer wheelbase versions of this model this year.

Hino's arch-rival and market leader Isuzu just beat it to the punch in offering a full auto in this class of truck — also an Allison — and their units have apparently been selling well.

And no wonder. I know I'd rather not be changing gears manually a couple of thousand times a day in city traffic. It's got to be less fatiguing in an auto.

The 5-speed Allison is smooth and seems to change in the right places. Only a few times I manually knocked back a gear going up a steep hill at 13 tonnes all up.

The exhaust brake doesn't seem to do much in itself, but tells the transmission control unit that you want to stay in a lower gear going downhill.

There is an 'economy' mode button on the cobra auto gearstick that reduces fuel use, by telling the transmission to shift at lower engine speed.

**AUTO ADVANTAGE**

The shorter wheelbase vocational-type FEs were first cab off the rank with auto last year.

It's not just drivers who are likely to appreciate this new automatic option. Hino says there has also been strong demand from customers for autos.

Hino reckons the Allison uses about the same amount of fuel around town as a manual; it's safer, because drivers can keep both hands on the wheel and concentrate on the road better; and it takes off from lights quicker than a manual.

Amazing as it may sound, these days it's apparently harder to find drivers who can even use a synchromesh manual. After all, most new cars are auto.

If a driver can't use a manual well, an auto could have the edge in servicing costs.

Allison put out an interesting press release recently, quoting the Tasmanian Fire Service (TFS) as saying switching to Allison automatics has engineered out a major cost. This is because of significant reductions in driveline damage caused by drivers, TFS engineering services manager Leon Smith says.

"The guy who overhauls our transmissions, clutches and differentials was constantly telling me to remind the drivers that the gearshift was not a crowbar, because many did not have the expertise to understand the subtleties of using a manual," Smith says.

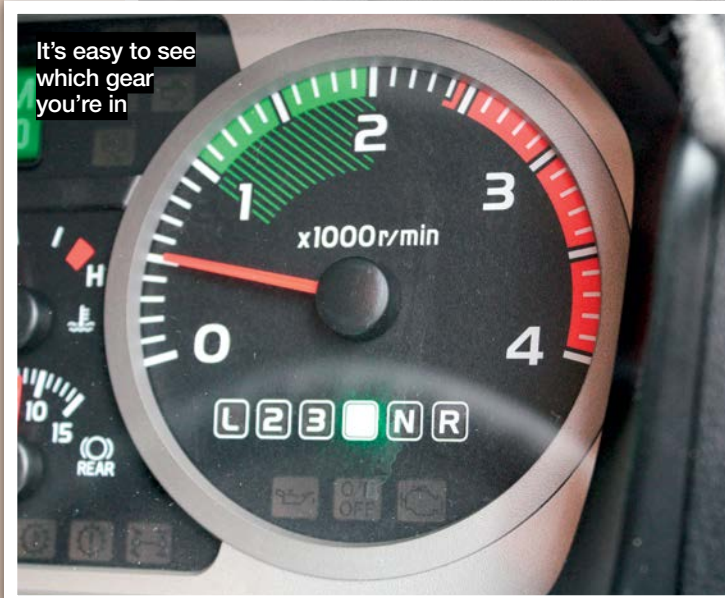
"With an automatic those problems have been eliminated, thankfully." Since moving to Allison-equipped four-wheel drives, the TFS has added 28 integrated Hino 500 Series GT automatics to its fleet.

"We won't be buying any more manual fire trucks," Smith says.

"The automatics have proven to be a much better proposition, and really the only way to go."



Comfy FE interior



It's easy to see which gear you're in



Hino's Cobra shifter



Hino's FE auto tilt tray at the Brisbane Truck Show



Hino product planning manager Daniel Petrovski

*"It could be carrying anything from feathers through to barrels of oil."*



Well preserved: a 1980 8-tonner Hino

**OWNER DRIVER**  
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**MAKE/MODEL:** Hino 500 Series FE 1426 long wheelbase automatic  
**ENGINE:** J07 6.4 litre, emissions control exhaust gas recirculation (EGR) and Hino DPR  
**OUTPUTS:** 260hp (191kW); 794Nm @ 1,500rpm  
**TRANSMISSION:** Allison 2500 5 speed fully automatic  
**GVM:** 14 tonnes  
**RRP:** \$103,000 to \$109,000

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## DOWNHILL RUN

**Automatic transmissions are on the rise, but they can have an Achilles heel in going down steep hills.**

**Steve Skinner** discovers a few solutions

YOU WOULDN'T think you'd need a lesson in driving a truck with an automatic gearbox on the bitumen. It can't be too difficult — throw it into 'D' for Drive, and away you go, just like in an automatic car.

Well, not quite, if you want to achieve maximum performance, maximum safety going down steep hills and minimum attention from the authorities.

Hino product and engineering support manager Barry Noble has some interesting tips for driving a fully automatic truck — in this case a fully loaded, High Horsepower Hino 921.

The simplest one is, however, to keep it in automatic mode.

Powering up a hill, you'll save fuel by reducing unnecessary revving. But if the truck is losing speed under power in a particular gear, and you don't think the auto transmission is kicking back fast enough, it's okay to do it manually yourself. That's regardless of which mode the economy/power button is in.

In the opposite scenario, where you are going down a steep hill and want to slow down without riding the brakes, again you should find that leaving the gearbox in automatic should achieve what you want most of the time.

If you pull back on the exhaust brake lever and leave the throttle alone, Hino's 'hill descent control' will kick in.

"With your foot off the accelerator it will try to find the lowest gear for that speed," Noble says.

"This is controlled by the transmission control unit, a little box under the dash."

If the hill is really steep though, there is the option of manually selecting what you think is the right gear to hold the truck down the hill.

There is a great benefit for the engine in trying to manually knock an automatic transmissions back a gear in this way.

Hino's Allison, for example, won't let the gear change happen if it will throw the rev counter into the red.

"It will lock out the gear until the engine is safely capable of using that gear without over-speeding," Noble says.

This is unlike a synchromesh manual gearbox, where if you are forceful enough with the stick, you can override the synchro and jam the cogs into a lower gear — but you might also blow the engine up.

However, you can't over-rev either a manual or an auto under power up a hill, because the electronic governor won't allow the engine to over speed and endanger itself — it will cut off the fuel supply first.

### DOWNHILL DILEMMA

When we test drove the new 300 Series High Horsepower light-duty Hino last year, we had a significant criticism among the praise for the little unit.

We discovered in driving down the very steep Mount Ousley near Wollongong south of Sydney, that we had to keep touching the foot brakes.

The fully automatic Allison transmission wouldn't let us select a low enough gear to hold the truck on its own at the legally required 40km/h.

Third gear was the lowest the transmission would let us manually select. We needed second.

We weren't concerned about the brakes overheating and fading. Hino says they were well within their capacity.

Instead we were worried about unwanted attention from any highway patrol officers that might have seen the brake lights coming on way more often than legally allowed down the infamous stretch.

We now have some good news for anyone who might need to traverse similar terrain in this little truck.

Back in the factory, Hino's now re-programmed the transmission control unit in trucks bound for Australia so the vehicle can be manually put into second gear.

"On the eastern seaboard of Australia there are an enormous number of roads that lead from the Great Dividing Range down to the coast, which are very short and sharp and steep," Noble says.

"Six per cent gradient is run-of-the-mill, and 10 per cent can happen."

But wouldn't they need second gear in Japan as well, asks Owner//Driver, thinking of Mount Fuji. Doesn't Hino's home country have some very steep roads too?

"In Japan if anything's over about a 3 per cent gradient they dig a tunnel," Noble answers with a grin.

### DECENT DESCENT

We recently went down Mount Ousley again, this time after manually selecting second gear and activating the exhaust brake.

This worked a treat. If we were actually going a little too slowly — and worried about big bangers looming up behind us — I would take off the exhaust brake until we were back up to 40km/h.

Then, if we threatened to go over the speed limit or we were getting perilously close to red line at 2,700rpm it was back on with the exhaust brake.

Using this method I didn't have to touch the foot brakes once.

Using the alternative method of touching the throttle to speed up a little bit was no good, because that would kick the gearbox up into third, and cause the truck to 'run away' again.



The auto shifter in the 921



The infamous Mount Ousley

**"In Japan if anything's over about a 3 per cent gradient they dig a tunnel."**



A 300 Series 921 looks out over Wollongong



Hino's Barry Noble





10-pallet FE curtainsider



Camouflaged urban animal

### CRUISE COMING

All FE's have the same 5 cylinder J07 engine — the '7' is a rather generous rounding up of the engine size, which is 6.4 litres.

This might seem on the small side, especially when compared with the Isuzu counterpart's almost 8-litre engine, but Hino claims this is the most powerful Japanese truck in its class, and our scrolling through the specs sheets seems to confirm this.

The J07 pushes out 260hp (191kW) and nearly 800Nm of torque, and you can feel the grunt on the road.

We cruised nicely on Sydney's M5 motorway and powered up Sydney's steepish arterial roads with ease.

Surprisingly, there is no cruise control on this model, but Hino says there will be soon. Unlike in the 300 Series light-duty Hino trucks, there is no vehicle stability control (VSC).

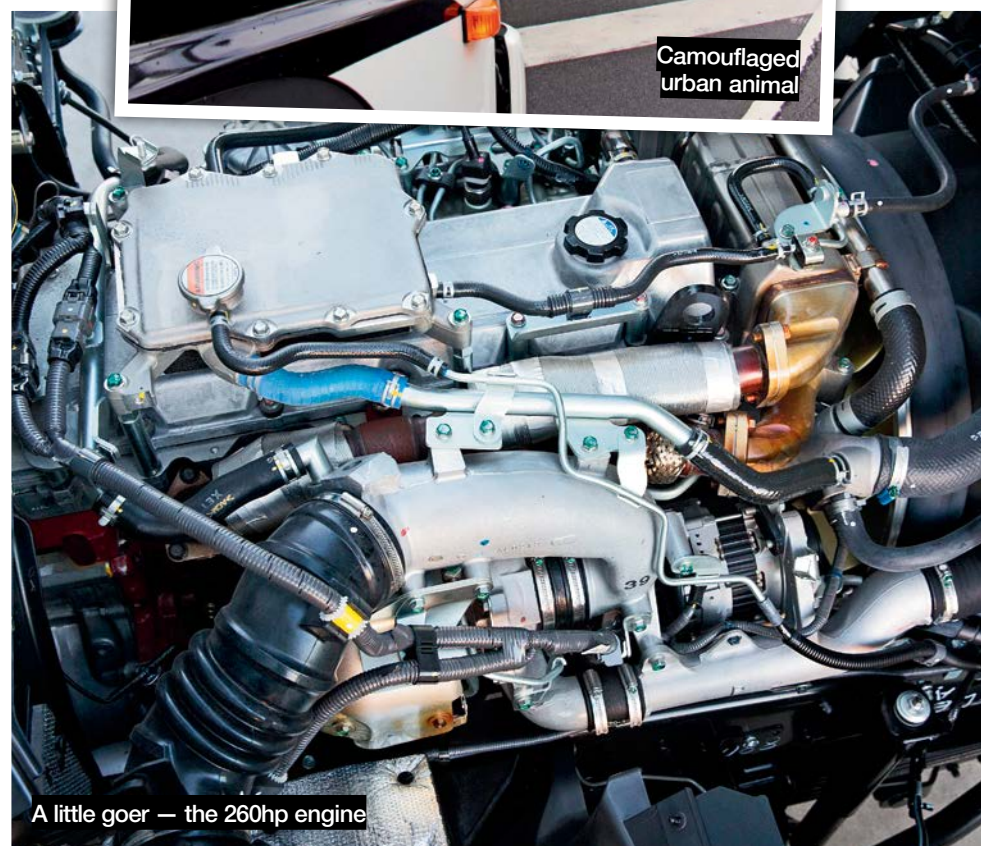
As far as we can tell, neither is there stability control in any other medium-duty Japanese trucks — you'll have to go European if you want that.

"The awareness of vehicle stability control and its role is probably not as high as it could or should be," Petrovski says.

"The majority of customers still don't understand the benefits of VSC. We have to educate the market on why VSC is so important, and with the 300 Series we're starting to do that and make some inroads with that safety technology."

Meanwhile, you'll also have to go European if you want disc brakes.

There is a driver's side airbag, but none on the passenger's side — unlike the Isuzu. Hino counters that most of these types of trucks won't carry passengers. ■



A little goer — the 260hp engine

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