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HINO AUTO

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Rural carrier reborn

TRUCKING ALL OVER THE WORLD

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HINO AUTO

If you want a world-class
AMT, buy it in, says Hino.
The company's happy
to acknowledge the ZF
connection (*insert*)



The newcomer unloads at Wellington's CentrePort. Though there's not much change visually from previous Hino 700 models, it boasts the latest engine and drivetrain technology



We join the truck on its maiden run, with a tri-axle Fruehauf flatdeck behind, taking an export box from Whanganui to Wellington and returning with an empty.

For Hoskins driver Kerry (Bandit) Thompson this is a pretty representative day's work – most recently carried out in a UD/Nissan 440. We're running at maximum GCM on the way out, while the return run will bring the average load factor down to around 60%...again, he reckons, a typical figure for the work the truck will do.

So, the experience is a new one for everybody as **New Zealand Truck & Driver's** Trevor Woolston wheels the combination over the Whanganui River bridge and heads eastward...but it doesn't take long for the newcomer to start impressing. The gearshifts are quick and crisp, the engine works strongly, the steering's accurate and the ride is smooth.

The auxiliary brake setup on the new model combines Hino's engine brake and the ZF hydraulic Intarder integrated with the transmission. The combination has four stages – compression engine brake alone for the first setting on the lever, then progressively stronger intervention from the retarder. It quickly demonstrates its abilities as we negotiate the descents to cross the Whangaehu and Turakina bridges.

The system also helps optimise efficiency, as the retarder is in charge of transmission heating and cooling functions – ensuring that fluid temperature is brought quickly to ideal operating levels after startup, then diverting it through a cooling system when required.

Hino has achieved ADR80/03 (the Australian and NZ equivalent of Euro 5) with its commonrail 12.9-litre E13C engine by adding selective SCR to the cooled EGR of the

HINO'S PLACE IN THE LINEUP OF GLOBAL truckmakers is an interesting one. The world's fourth-biggest heavy-vehicle manufacturer isn't part of a multi-brand group like the Daimler, Volvo and Volkswagen (Scania/MAN) conglomerates, nor is it a solo entity like rival Isuzu – it's a wholly-owned subsidiary of Toyota.

That fact alone obviously makes Hino safe from takeover...yet Toyota seems very much a hands-off parent: Hino trades independently, as a public company, on the Tokyo Stock Exchange.

And with little or no opportunity to cross-engineer anything beyond its light trucks, there's no hint, for instance, of direct involvement by Toyota in the engineering of the brand's premium 700-Series heavy-duty model range.

In fact, Hino has long been happy to buy in technology like Eaton and ZF transmissions and Hendrickson's air suspension for its flagship trucks.

So it's no big surprise then that the latest 700 Series

model, the FS2848, now has the option of ZF's 16-speed AS Tronic automated manual transmission – albeit renamed the ProShift 16 – as an alternative to the 18-speed Eaton Roadranger manual already on offer.

Getting in the proven ZF technology seems like a smart move – 'specially considering the kind of problems that Isuzu encountered a while back with its own AMT for its premium heavy-duty GIGA-Series models.

In terms of numbers sold, the AS Tronic is one of the world's most popular AMTs and Hino's in good company in offering it....along with Iveco, DAF and MAN.

The first example of the new model to enter service here is the 6x4 variant run by Whanganui's Dave Hoskins Carriers. The tractor unit carries out a variety of tasks – at any time it could be hooked to tri-axle or quad semis, a five-axle B-train, or even a milk tanker. A good deal of the work is associated with the meat industry, carting blood and offal products to and from various plants around the North Island or export containers to CentrePort in Wellington.



Main pic: Three-axle flatdeck is only one of the several trailers the Hino tractor unit can be hooked to. The truck is the Mr Versatile of the Hoskins fleet
Above left: Electro-hydraulic cab lift gives access to an orderly engine bay
Above right: The addition of SCR to the cooled EGR system on Hino's E13C engine has brought it up to Euro 5 emissions standard

Right: The Hino's instrument panel is simple and compact. LCD display is small, provides basic information

Below left: Extensive storage is a feature of the 700's cab. Top of the line Isri seat makes for a very comfortable driving environment

Below right: Little shift lever for the AMT falls easily to hand. Note the DIN slots on the dash for extra audio or communications equipment



The majority of the Hino's trips are one-way loaded, bringing the load factor down to around 60%

base design. This has enabled the EGR to be wound back a bit, with immediate benefit. Seven weeks after our test, the truck has covered close to 20,000km and is already showing excellent returns on economy, says Darrell Hoskin, general manager for Dave Hoskin Carriers: "It's regularly showing at or near 2.1km/l," he reports.

"That's especially impressive when you consider that the Euro 4 FS model Hinos we're also running don't get the same figures. Our company has been pretty much built on Hino over the years and we've found any time you get better than 2km/l with a Japanese truck you're doing very well."

Darrell points out that the engine has a good deal of freeing-up still to go, and expects even better economy in time – adding that the company doesn't double-shift its new trucks, but treats them gently with an eye to long ownership.

Recent first-hand experience with the Hino leaves Darrell singing its praises: "I was lucky enough to drive it on the weekend and I thoroughly enjoyed it. What particularly impressed me was the way it moved up through the gears, not picking every one, but just the ratios it needed to get moving smoothly, and skipping the rest."

The addition of the SCR system has not come with any performance handicap. The six still has a net rating of 353kW (480-horsepower), with net peak torque of 2157Nm (1590 lb ft).

With the electro-hydraulic cab tilt operated, the engine bay is revealed as having quite an orderly layout...though still with the number of external pipes and lines that seem the hallmark of most Japanese engines. Access for minor fluid reservoirs and the like is easy via the liftup grille and the AdBlue reservoir tucks in neatly beside the 450-litre fuel tank.

A feature of the current 700-Series range has been the swap from a riveted chassis to one in which the crossmembers are bolted through to the webs of the main rails, leaving their tops smooth and better able to accommodate the mounting of fifth wheels and the like.

The test truck is smartly-finished, boasting a toolbox and hydraulic oil tank from Roadmaster, a big Ali Arc bullbar and engineering fitout work from Gary Douglas Engineers. Darrell Hoskin says it attracts a good deal of favourable comment.

Tyres fitted to the truck's Alcoa alloy wheels are Bridgestone R168 385/55 R22.5s on the steering axle, with M840 275/70 R22.5s on the drivers.

On the day of our test, Bandit Thompson is rapt from the start with the truck's comfort. And when I catch up with him again more recently, he's become even more a fan: "I'm just loving it. She's beginning to free-up now. It's awesome to drive – very comfortable, with a nice smooth gearbox. The fuel economy has been great as well – though, mind you, I have been nursing it.

"I had a good run out of the Nissan 440 I was driving before this with Hoskin Carriers, but with over 900,000km up it was getting a little bit rough around the edges. The seat was pretty tired and the ride was getting a bit hard.

"I've driven quite a few of the older Hinos – FS and DY models – and they were always a comfortable truck, so this one is carrying on the tradition."

Having also driven Scania and Iveco in the past, he reckons the new Hino is right up with the top Euros for comfort.

Its cab environment is certainly welcoming. Instead of the obvious wraparound of many models, Hino has gone for a more gentle turnout to this model's fascia – while still leaving controls within an easy reach.

On the left of the main fascia, provision is made for an extra entertainment/communications kit via a couple of DIN slots, while above them there's room to mount an

optional multimedia unit, boasting a 6.1-inch, 2DIN high-definition touchscreen and able to display the images from up to three reversing cameras or a GPS navigation unit.

Many modern trucks have quite a big LCD screen in the centre of their instrument panel. The Hino, however, retains an array of conventional gauges, with only a small panel which shows the shift mode (manual or auto) and the ratio the box is in, plus arrows to indicate whether gears can be picked up, or dropped. The panel also shows the AdBlue level.

The cab accommodates the standard Japanese mini-bunk and also offers plenty of incidental storage, including two lidded centre console bins, generous door pockets, and lidded gloveboxes above the windscreen each side.

The gearshift control is a stubby lever set beside the driver – where you'd normally find a conventional manual gear lever. In its central plane it offers D (for auto operation), with neutral to the right and reverse a pull-back from there. A single push forward from D gives one gear, holding it longer produces a two-ratio shift, while pulling back prompts downshifts. In this D mode, the box will revert to automated operation a few seconds after



This pic: Manoeuvrability for the combination is excellent. The steering imparts a good feel of the truck's position on the road, reports our tester
Left: The new 700 uses a mix of SCR and EGR emissions-control technologies



being overridden. Manual mode is chosen via a push to the left, after which the same fore-aft shift protocols are followed.

Key to much of the Hino's comfort is the range-topping Isri 6860 driver's seat. As well as the full range of adjustments, the seat offers an integrated seatbelt and automatically senses and adjusts to the driver's weight. It also features a unique dual-stage integrated pneumatic system to control lumbar support and side bolsters, using compressed air sourced from the truck's onboard air supply.

Safety has been made a priority with the 700-Series range. All the cabs comply with Europe's ECE R29 crash test standard and the trucks come standard with ABS braking.

On our test day, Bandit explains that the newcomer is doing pretty much the same work as the Nissan: "When it's the flatdeck tri like today it's usually a container. The variety of work is really wide – a curtainsider B-train one day, a tipper the next, then a flatdeck.

"I tow this trailer whenever there's work for it, but because this truck is one of the few with hydraulics, I often have to do tipper work as well. The same was true of the Nissan."

The Fruehauf flatdeck trailer with this truck is quite heavy, so tare for the combination runs to around 15,600kg. The truck tare with 10 litres of fuel, standard tools and no spare is 8135kg, so in normal trim it's closer to 8700kg.

The three-axle tipulator, when connected, is used to carry offal from the freezing works. Another dedicated trailer is fitted with a 5000-litre blood tank.

The work can take Kerry to Wellington, Hawke's Bay and as far away as Horotiu north of Hamilton. It's a full day's work to fit in that loop, he explains: "It's around 830km and takes about half an hour to load and then a bit longer at the other end because of the hot wash clean-out. It makes for a 13-hour day.

"No matter what the layout, it's normally maxed-out for weight, which means up to 44-tonnes with the B-train. Because we don't get a huge proportion of backloads,

the average load factor would be about 60%."

Bandit's nickname becomes obvious when you meet him. His right arm hangs lifeless, the result of it being dislocated and the nerves ruptured during an awkward breach birth. Not that it seems to have slowed him at all, as he matter-of-factly runs down an extensive sporting and recreational CV that includes coxing championship rowing eights, skiing and boating.

And driving a heavy truck? "Well, Dad was a truckie and like any young kid in that situation I wanted to be one as well. People ask me how I can drive a truck, but to me it's no big deal. When I was younger I didn't see myself as having a disability, and when I was old enough I just went out and got the Class 5. I think the greatest problem with any disability is other people's attitude to it."

He credits his can-do approach to a totally supportive family, saying he wouldn't change one thing in his upbringing. In fact, the no-limits approach to life might have needed what other people saw as a disability to slow him down, he reckons: "My mother said to me not so many years ago that she was happy I only had the one arm, because even the way I was, I was enough trouble when I was growing up!"

After getting his licence in 1989, Kerry started driving for NZ Express. After the company was taken over by Hookers he stayed with the new outfit until 1995 when he joined Hoskins.

His early trucks included D-Series and N-Series Fords. During his time with Hookers he drove a wide variety of brands, the standout being an Iveco truck-trailer unit carrying offal rendering out of Feilding to Horotiu – "so comfortable it was something you could drive 20 hours a day," he says.

Having swapped with **NZ Truck & Driver** publisher and test driver Trevor Woolston at Otaki, Kerry's rapidly coming to grips with the new truck as he takes it from Paremata past Porirua and Johnsonville and down the Ngauranga Gorge.

This offers an opportunity to put the Intarder to the test – one it handles well, easing down at 1600rpm in 11th



Above: The truck easily handles climbs with maximum GCM. Downhill, the hydraulic retarder integrated with the ZF gearbox proves the equal of any slope
Right: Driver Kerry (Bandit) Thompson has never let the lack of two fully-functioning arms stop him from driving manual trucks, but he is impressed with the AMT in the new Hino



and holding nicely on the third setting. He admits he's being a bit conservative, but needs to check it out: "I haven't had to touch the main brake at all. At one stage it started to speed up a bit, so I just dropped it into its fourth position, which stabilised the unit."

When I catch up with him a few weeks later he feels he's got the system dialled-in pretty well...though he admits he's still exploring the limits of the gearbox's capabilities, and occasionally keeps it in manual mode in

really hilly country.

By and large though, he's rapt. Having experienced AMTs before, he hasn't needed any convincing of their worth. Nor was the Hino a hard sell, because he's driven and enjoyed Hinos before.

Essentially, what he's found with the FS2848 is that he went in with high expectations...and has found them being exceeded in every respect. He reckons that's not a bad start to a truck/driver relationship. **T&D**

TREVOR TEST



MY FIRST IMPRESSIONS OF THE Hino ProShift 16 are that the company has hit a sweet spot with its choice of AMT – not only with the quick, unobtrusive action of the gearshift but also with the strength of the integrated hydraulic retarder that's the major component of the truck's auxiliary brakes.

using the lever and ignoring the service brake pedal.

On the steeper downhills, as the speed begins to creep up, a light touch on the main brake pedal triggers an extra downshift and even stronger auxiliary braking.

The gearshift action is lovely and crisp. The system accurately picks downshifts when slowing or braking and happily misses several ratios at a time when taking off from rest. After stopping at traffic lights in Levin, for example, it takes only three shifts to get to 11th gear, obviously reading the torque loading and responding accordingly, meaning the driver doesn't have to second-guess it.

The engine seems happy to lug down to

low revs when it has to. As long as you're light on the accelerator and therefore don't trigger a kickdown, it will hold onto top gear on the flat, down to around 1000rpm. On medium slopes, the same approach will see it hang on to around 1300rpm before picking a lower ratio.

Moving up through the gears in Auto on a medium throttle, the system hangs on to above 1600rpm, making for rather busy-sounding progress. That said, you can always trigger an upshift by a slight lift on the pedal.

The truck's steering gives a good feel of its position on road and you don't have to be continually correcting it to run straight. Then

again, the route we're following is smoothly-surfaced and not too demanding by way of tight bends, so it offers no real challenge to either the steering or the ride, which also feels excellent under these conditions.


Cab entry is good. There are three steps up – maybe a little crowded together and not all that wide, but they start close to the ground so you don't have to stretch. And there are plenty of grabhandles both sides and high in the opening to make getting in and out easy.

Inside, the cab is very European in its layout and feel. It's quite small, yet it looks good, has good detail finish, and offers all the bits and pieces you could want.

Hino has always been one of the leaders among the Japanese brands in terms of driver

comfort and convenience and the new model is no exception. Visibility out is excellent. The power/heated mirrors are clear and steady. Compared with many trucks, they're set further back and closer in, but still give good rearward views. Slim A-pillars help ensure that forward/side views at intersections aren't blocked too much.

The driving position is really good and – with plenty of footwell room and the quite small-diameter steering wheel – it's easy to get comfortable quickly. You sit quite high, but there's no sense of crowding the top of the screen. The top-of-the-line Isri 6860 seat obviously plays a big part as well.

Attention to details like this make the new Hino a very impressive package. 

SPECIFICATIONS HINO FS2848 6x4

Engine: Hino E13C

Capacity: 12.9 litres

Maximum power: 353kW
(480hp) @ 1800rpm

Maximum torque: 2157Nm
(1590 lb ft) @ 1100rpm

Engine revs: 1550rpm @ 90km/h
in 16th

Fuel capacity: 450 litres

Transmission: 16-speed ProShift 16 (ZF AS Tronic) automated manual

Ratios: 1st – 14.12 2nd – 11.68

3rd – 9.54 4th – 7.89

5th – 6.52 6th – 5.39

7th – 4.57 8th – 3.78

9th – 3.09 10th – 2.56

11th – 2.09 12th – 1.73

13th – 1.43 14th – 1.18

15th – 1.00 16th – 0.83

Front axle: Hino MF781, rated at 7500kg

Rear axles: Hino THD18, combined rating of 21,800kg

Auxiliary brakes: Hino engine brake plus ZF hydraulic Intarder

Front suspension: Semi-elliptic springs, shock absorbers

Rear suspension: Hendrickson HAS air suspension, shock absorbers

GVW: 28,300kg

GCM: 72,000kg

