HINO AUTO

FLEET FOCUS
Rural carrier reborn

TRUCKING ALL OVER THE WORLD
Trucks to the rescue
If you want a world-class AMT, buy it, says Hino. The company's happy to acknowledge the ZF connection (more)
INO'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 Hoskin 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.

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 steers 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 engine. 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.

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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.”

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 trucks, but treats them gently with an eye to long ownership.

“With the electro-hydraulic cab tilt operated, the engine bay is revealed as having quite an orderly layout…through 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 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 Hoskin, general manager for Dave Hoskin Carriers: “It was lucky enough to drive with him again more recently, he’s become even more of 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 Ivecos in the past, he reckons the new Hino is right up with the top Euros for comfort.

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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

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 2177Nm (1590 lb ft).

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The majority of the Hino’s trips are one-way loaded, bringing the load factor down to around 60%.
Because we don’t get a huge proportion of backloads, weight, which means up to 44-tonnes with the B-train. Clean-out. It makes for a 13-hour day. A bit longer at the other end because of the hot wash day’s work to fit in that loop, he explains: “It’s around and as far away as Horotiu north of Hamilton. It’s a full trailer is fitted with a 5000-litre blood tank. Carry offal from the freezing works. Another dedicated tools and no spare is 8135kg, so in normal trim it’s closer 15,600kg. The truck tare with 10 litres of fuel, standard heavy, so tare for the combination runs to around 8700kg.

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 83km 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 mixed-out for weight, which means up to 24 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. After getting his licence he switched with Hookers he knobled 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 any slope.

Essentially, what he’s found with the FS2848 is that it’s capable of handling almost any OCM. Downhill, the hydraulic retarder integrated with the ZF gearbox proves the equal of any slip. 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.

The new Hino uses a mix of new technologies, and occasionally keeps it in manual mode in really hilly country.

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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.
**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.

The four-stage system is easy to operate and is integrated with the gearbox in Auto mode, so that as you move to the stronger settings the box shifts down to give maximum braking power.

Later in my stint at the wheel, I’m able to slow from open road cruising speed to 50km/h as we enter Sanson – simply by 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.

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.

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 bloomed 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.

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**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:**

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**Front axle:** Hino MF781, rated at 7500kg

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

**Auxiliary brakes:** Hino engine brake plus ZF hydraulic retarder

**Front suspension:** Semi-elliptic springs, shock absorbers

**Rear suspension:** Hendrickson HAS air suspension, shock absorbers

**GVW:** 28,300kg

**GCM:** 72,000kg