



HINO REPORT

Hino's hybrid technology is now flowing into specific tasks such as the waste industry

THERE'S

a world of difference between the appreciation of interesting technology and its application into existing work practices. Although hybrid options are increasing for transport operators, it's only really becoming a regular feature where Governments have introduced incentives, or funding, to bring the systems into use with local councils or specific urban distribution systems, such as American courier services.

In the hope of changing attitudes, and making sure that councils are aware of the hybrid options available, Hino Australia has teamed up with waste-collection machinery expert, MacDonald Johnston, to develop a revolutionary new urban waste collection truck based around the Hino 300 Hybrid.

The 'UrBin' (or Universal Rear Loading Binlifter) Hino Hybrid Rear Loader has been specifically designed as a low-impact refuse collection vehicle for use in built-up urban areas – particularly parks and gardens where truck noise may be an issue.

Hino Australia President, Steve Lotter, said the ground-breaking new waste collection vehicle was perfectly suited to the needs of inner-city councils, where minimising environmental impact was of major importance.

"Many urban waste collection vehicles need to operate in park and garden areas where noise and CO2 pollution can be a major issue. When operating a truck in these environments, the vehicle spends much of the day stationary or moving very slowly, which is where the Hino Hybrid system is of most benefit," said Steve.

"At urban speeds, the truck's diesel engine is assisted by the on-board electric engine, meaning it consumes up to 20 percent less fuel than a similar conventional truck. Combined with a significant reduction in nitrogen oxide (NOx) and carbon dioxide emissions, the MacDonald Johnston UrBin Hino 300 Hybrid Rear Loader lessens overall operating costs, and ultimately the impact on the environment," he said.

Developed around Hino's 714 model 300 Series diesel-electric hybrid truck, the MacDonald Johnston UrBin body can be configured to handle several types of common waste receptacles, covering conventional waste, green waste and recyclable goods.

"More than 162 Hino Hybrid trucks are now in service in Australia, and an all-new model range is being launched to customers later this year. By working with body builders like MacDonald Johnston, we're able to tailor the needs of this truck to suit the customer, bringing real environmental benefit at a price customers can afford."

The launch of this new hybrid application comes as Hino is about to launch a comprehensive new-generation 300 Series light-duty truck range, and an expanded range of its hybrid products.

The all-new model range, which was previewed at the Brisbane Truck Show in May, has been redesigned outside and inside, and was subject to record levels of Australian development input.

As Steve Lotter explained to *PowerTorque*, the new 300 Series comes with a swag of improvements, covering driveability, aerodynamics, vision, cabin ergonomics, comfort and convenience, ease of maintenance and vehicle security.

"All models have dual SRS airbags, four-wheel ventilated disc brakes incorporating ABS braking, electronic brake-force distribution (EBD), and, in an Australia first for a light-duty truck, vehicle stability control (VSC) is now offered as an optional extra," said Steve.

Power and torque options are available up to 121 kW and 464 Nm of torque from the Euro 5-compliant diesel engine, and all wide cab models have a six-speed transmission, in either manual or automatic versions. Whereas other Japanese manufacturers have introduced automated manual and dual clutch AMT transmissions, Hino is the only Japanese truck manufacturer to offer a full automatic transmission in the light-truck segment. All manual models have Hino's ES (Easy Start) hill-start assist.

The exterior has been redesigned with smoother aerodynamic profiles, for gains in fuel economy, and driver vision has been improved, with new multi-position electric controlled and heated main and spotter mirrors, and slim A-pillars that greatly reduce forward blind spots. In another light-duty truck safety first, high-intensity discharge (HID) headlights on wide-cab models are available as an optional fitment.

All wide-cab models now have a driver's suspension seat as standard equipment, and cabin entry and exit has been improved, with larger door apertures, wider opening doors, larger steps, increased foot and leg space, and even a collapsible gearshift lever.

RIGHT: David Waldron, MD of MacDonald Johnston with Steve Lotter, President of Hino Trucks Australia with the hybrid UrBin rear waste loader.

The cabin interior also gets a complete makeover, with better storage, plus new seats, instruments, switches, audio systems and remote central locking with integrated engine immobiliser. Air conditioning is standard, while crew-cab models have an additional rear air-conditioner unit. Fuel tank capacity on medium, long and extra-long wheelbase wide-cab models has also been increased, with a new 70-litre sub-tank giving a total fuel capacity of 170 litres.

Hino has also turned its attention to the safety aspects of light trucks, and the 300 Series is the first light-duty truck in Australia with vehicle stability control (VSC) as a standard feature.

Standard passive equipment on all models includes SRS airbags, for both driver and passenger, coupled with emergency locking retracting (ELR) pretensioning seatbelts. Also included are four-wheel ventilated disc brakes with ABS braking and electronic brake-force distribution (EBD). The 300 Series safety package also includes a front under-run protection system (FUPS) on all wide-cabin models, for the first time on a light-duty truck.

As Hino prepares to introduce its new range, *PowerTorque* reviewed how three distinctly different operators, at opposite ends of Australia, are using their Hino fleets.

In Darwin, a locally owned company has grown to become the most comprehensive recycling, waste and destruction business in the Northern Territory, in just over five years.

Managing Director, Leon Schulz, said recycling was the core business of NT Recycling Solutions Pty Ltd (NTRS), while waste collection was added due to client demand.





ABOVE: The Hybrid Hino as the base for an UrBin waste disposal truck has the potential to substantially reduce greenhouse emissions and operating costs.

“Our goal is to work with our clients to help minimise their costs and reduce waste to landfill, which is a good thing for both parties.

“NTRS can process more recyclable materials, and clients spend less on waste going to landfill - while helping to protect the environment,” Mr Schulz said.

The business runs seven days a week with a fleet of 11 Hinos – including 300 and 500 Series trucks in a range of different configurations and wheelbases to service the greater Darwin area and some regional areas across the NT.

“I’ve only ever purchased Hino trucks, because the after-sales support from Hino dealers – in our case, Vanderfield – has been outstanding. This range of trucks meets the Euro 5 emissions standards, and has auto transmission available with a full selection of wheelbases and the variety of configurations we need for our fleet,” said Mr. Shulz.”

At the opposite end on Australia, Hobart City Council commissioned three Hino 500 Series and three Hino Hybrid 300 Series trucks, earlier this year, for a variety of general construction, parks, city cleaning and playground maintenance tasks.

The new trucks join a fleet of Hino street-sweepers and earlier model Hino light-duty trucks at the council, which is Tasmania’s largest municipality.

The new trucks are two 500 Series FG 4x2s, a 500 Series FT 4x4, two Hybrid 300 Series automatic models and a Hybrid 300 Series with manual transmission.

Hobart City Council’s General Manager, Nick Heath, said the operators on the purchase evaluation panel noted the comfort of the latest-generation Hino 500 Series cabin.



ABOVE: Leon Schulz of NT Recycling Solutions relies on Hino’s after-sales support to keep its fleet of 11 Hinos running seven days a week.

BELOW: Nick Heath, Hobart City Council General Manager (left) and Hobart Lord Mayor, Alderman Rob Valentine, with one of the Council’s new Hino Hybrid 300 Series trucks.



“In addition to the cabin comfort, the nine-speed Eaton transmission in the FG models was a telling item for the panel. The operators are in trucks all day, so their comfort and safety is vital,” he said.

“We chose the three hybrid trucks to help reduce the Council’s carbon footprint and fuel costs, and to suit the stop-start nature of city cleaning works.

“The two 15-tonne FG models are assigned to general construction works, while the 10.5-tonne FT 4x4 does track duties at Mountain Park.

“Two of the new hybrids are used for general cleaning in the city, with the other one on playground maintenance,” he added.

The Hino 500 FG has a 7.6-litre, high-pressure injection, turbocharged and intercooled engine, which delivers 190 kW of power and 794 Nm of torque. It can be matched to a six-speed direct-drive Hino synchromesh transmission, or a nine-speed Eaton synchromesh transmission. In addition, Hino offers the FG Short Auto, with five-speed Allison automatic transmission.

In Melbourne, the Victoria-based transport logistics company, the Glen Cameron Group, has added two new Hino 500 Series GH1728 Auto (6x2) trucks, with the latest Euro 5 specification, to its fleet to service part of its Melbourne operation.

The Cameron Group was established in 1975, and has since grown to become a multi-million dollar national logistics operation, with over 90,000 square metres of warehouse space and a fleet of around 350 company-owned vehicles, plus 200 subcontractors.

The group has had a long association with Hino dating back to the early 1980s, and through the years has purchased several hundred vehicles to service both its local operations and interstate transport business as pick-up and delivery vehicles.

Schweppes has been a highly valued customer of Cameron’s for many years, and the two Hino 500 Series trucks will be used specifically for its Schweppes route delivery operation, where the distance between stops varies between 500 metres and six kilometres.

The trucks are fitted with specialised 9.2-metre/14-pallet Austruck Ausliner drink distribution bodies, with sliding curtains, and Anteo 2-tonne cantilever tail lifts. The standard five-speed Allison Auto has been re-calibrated to six-speeds, to lower the rpm at 100 km/h and improve fuel economy.

The new trucks also include an MTData system, which relays live information to help identify excess idle times and engine and driver performance, as well as tracking the speed and location of all trucks via GPS.

BELOW: The Glen Cameron Group has added two Hino 500 Series trucks to its Melbourne fleet.

