

# A NEW ERA IN SCRAP CARTAGE



*The cartage of scrap metal has traditionally been a bit of a motley affair of worn out trucks with makeshift bins. This approach hardly engenders the inspiration and innovation needed to portray these businesses as the vital ingredient of the supply chain they are. A partnership between Metalcorp NZ Ltd and Wilsons Bulk Transport Ltd has delivered a flagship truck to tackle this arduous task with a level of professionalism and presentation not often seen in this part of the industry. Simon Vincent went to find out more about what is arguably New Zealand's best looking scrap metal carrier.*



The scrap metal business is often seen as the poor cousin of the transport industry. The industry has, in the past, been dominated by old, worn out gear, poorly presented or unkempt trucks that often looking as worn out and beaten up as the product they cart on their backs.

Unfortunately, the scrap industry's far from "sexy" image has prevented it from attracting the calibre of staff that it would like. However, you would be missing the point if you didn't realise that the scrap industry is a vital link on which so much of our manufacturing capacity relies. Old, worn out trucks and machines are reborn into the latest generation trucks and equipment from recycled metals.

Whilst some in the industry remain locked in the past, others have embraced a professional new future. A future with modern and efficient equipment, working from modern and tidy facilities. Those that are leading the scrap metal game are investing in technology and developing best practice operations.

Metalcorp NZ Ltd may be one of the smaller metal recyclers, but its efforts to stand out as an industry leader are paying dividends. State of the art machinery and highly skilled staff ensure its Christchurch head office is showing how the industry should run.

Over two years ago the company began investigating the best method for relocating its scrap product from around the middle and lower South Island. Facing an uphill battle in ensuring consistent transport services, Metalcorp owner, Trevor Munro began the process of evaluation, with an eye to purchasing and operating his own bulk materials unit. Trevor was keen to move to a walking floor trailer having witnessed what these trailers could do overseas. Checking out what could be purchased, Trevor came across Keith Walking Floors. After witnessing a two tonne electric motor being dropped and then bouncing on the floor ribs of one of these trailers without damaging it, he was sold.

With the floor decision out of the way, his thoughts turned to a suitable truck and trailer combination. Initially he was drawn to a ▶



The walking floor literally throws out the load in a matter of seconds

quad axle semi trailer which he could have a contractor tow with an eight wheeler truck.

It was around this time that discussions with the company that would become his transport partner, Wilson Bulk Transport Ltd in Ashburton, resulted in a complete rethink.

Wilson's General Manager, Jonathan Ward said that the quad semi wasn't really going to be a suitable combination, there was a better way.

After working together on the project, Trevor admits that when it comes to transport, using professionals who understand the business end to end proved to be the best solution.

He thought he knew the best way to do the job but says the expertise shown by Jonathan and his team at Wilson's has far exceeded his knowledge and expectations. It was all about the details right down to specifying the truck with heavy duty chassis rails.

A complete rethink of the configuration to maximum weight and length meant the change to a nine axle unit would offer the best payload and capacity. General access with 50MAX and permits up to 58 tonne for specific routes would give significant payload advantages over a standard four plus four tipping combination with container bins which were being used at the time.

Careful consideration was given to the unit's stability, especially when unloading. Whilst most of the yards they would deliver to have solid, flat hard standing, the waste product (flock) disposal requires tipping at landfill sites which are neither level nor firm. By selecting a walking floor trailer, the risk of a trailer rollover is eliminated with the added benefit that a longer, larger capacity trailer could be utilised.

Before the final go a head was given, Jonathan, Trevor and David Lusk from Lusk Engineering in Ashburton travelled to Australia, attending the Melbourne Truck show during 2016. This allowed them to confirm the suitability of the walking floor concept with a Keith Manufacturing Co representative. While there they were able to view a similar trailer in action at a local landfill site.

The speed and ruggedness of the heavy duty steel V floor appealed and an order was placed. The Australian unit had obviously suffered some heavy use and, even in a damaged state, continued to operate without fuss, quickly and efficiently.

On his return, David began the process of designing and building the maximum capacity unit. He had engineering drawings created by TransTech Dynamics, transport engineers specialising in harden steel designs based on his preliminary design. With drawings in place and the walking floor on hand, the process of building a standard 7.2m high cube tip bin for the truck and an 11.8m five axle high cube monocoque trailer began.

Both bins were created using Hardox 450, a high tensile strength steel supplied by Real Steel and now in common use in the tipping industry.

The bins have both been designed with the latest curved wall design technology which offers significantly improved strength without the need for additional bracing in addition to delivering a reduced tare weight. This means Lusk's has only had to fit two stiffening pillars to the trailer and a single stiffener on the truck body.

Both bins have been fitted with swing out container style doors and electrically operated covers.

Internally the bins deliver a 2.3m width top and bottom within an overall 2.5m standard vehicle width. The truck has a capacity of 42m<sup>3</sup> and the trailer comes in at 62m<sup>3</sup>.

Fitting the walking floor was simple, according to David, with the unit placed in the bottom of the trailer and supported as the instructions required. Once in, they only had to supply flow and return hydraulics and power to the control module for the unit to work flawlessly.

The floor utilises three double acting hydraulic rams which sequentially move one of the three slat rows back and forward to eject the trailer load. Emptying the trailer is a remarkably quick operation and the inclusion of a sweep mate leaves the floor clean. ►

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*"This unit has carted thousands of tonnes of scrap metal but due to the Hardox it still looks brand new, with no dents, and the doors still operate perfectly. The scrap metal industry is very hard on gear and unit stands up to it, no worries." — Trevor Munro, MetalCorp NZ*

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A sweep mat ensures a clean deck

To ensure the unit runs legally, the trailer has been fitted with WABCO SmartBoard which utilises the trailer air suspension to monitor axle loadings. On the truck, load cells under the hoist ram and tip pin deliver a similar result. These features ensure the 28.5 tonne payload can be fully utilised either in the yards or out on site.

Since the unit entered service nearly 12 months ago, David says he hasn't seen it back in his workshop, a great testament to the floor and the trailer design.

The new Wilson's unit hit the road in the middle of 2018 and has since gone on to impress everyone involved.

The truck has been finished into Metalcorp's striking purple, white and yellow livery as part of the process. Adding the livery has led to a noticeable increase in business requests, Trevor mentioned.

From Trevor's perspective, the truck represents a massive step forward for the company. What they have achieved is that they now have a dedicated transport service without any of the hassles of owning the truck, staffing it and making it run smoothly. He reckoned he would have to have added a staff member to oversee the transport, had to deal with sick leave and holidays – that is if he had been able to recruit one of the calibre he required, and would in all probability have specc'd and purchased a unit which didn't deliver what this truck has been able to.

He says that the move to have Wilson's run the truck is, "The best decision we've ever made".

Trevor says the service Metalcorp receives from Wilson's and especially the driver, Chris Murray, is exceptional. He especially appreciates how Chris has taken ownership of the job, a sentiment echoed by Jonathan. In fact, Jonathon says that he generally only knows where the truck is when he checks it on the GPS system.

Chris runs the truck almost like an owner driver, liaising directly with Metalcorp and its clients to ensure the truck is utilised to its

full capacity. There are regular pick-ups and deliveries, and then there are the occasional out of routine jobs which have to be managed in.

He also ensures the servicing, maintenance and general upkeep of the truck is maintained.

Chris ensures that the truck is run legally, check weighing every load to ensure weight compliance. He also manages his workload to ensure he stays well within work time and log book hours. He is also fastidious with his presentation of the unit, something Trevor would not have been able to expect from a regular staff member.

Trevor says Wilson's have been able to supply a first class professional driver, something he admitted he would struggle with as professional drivers don't typically consider industries outside professional trucking companies, he says.

He believes he has all the benefits of having a dedicated truck without any of the hassle.

The only teething trouble they ran into was when the first load was delivered. With the system activated, the trailer slowly spat out just a fraction of the load which left everyone scratching their heads. Consultation with the "User Manual" quickly resolved the situation and the load shot out the back.

Summing up, Trevor says the move is, "The best thing I ever did."

When preparing for the bulk unit, the choice of truck came down to one of three makes with Kenworth, Freightliner and Volvo all in the mix. Jonathan says that unlike most of the fleet, this run demanded a higher specification truck. The distances and kilometres involved justified 600hp and fully equipped sleeper cab, which is utilised for sleeping most weeks.

The Volvo's long service intervals, driver safety and comforts and the cost effective Volvo Bluetooth remote (used to operate a number of the truck's functions plus all the functions for the tip bin and walking floor) were major enticements. The only additions they have made to the spec has been the inclusion of a GPS system and Drivecam. **TD**



Chris Murray



Loading at MetalCorp Ashburton



Hardened slats eject the load



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