

CHAPTER 8



The Strange, The Special, And The Spectacular — Innovation in the Industry



WE'LL STAY WITH AUCKLAND for the moment.

Back to Brian McDonald.

Brian is a believer—a believer in Glass Reinforced Plastics (but don't mention "Plastic Fantastic"—he's sick of that) and monocoque construction.



(Above and opposite) Neil Otway was the first operator ready to take on the risk of the monocoques from Fairfax.

When he first started on them, they could have been described as weird: unlikely to work, and not worth pursuing (Ian Stevenson and Bill Box had much the same reaction to the idea of aluminium trailers).

But pursue them he did. And it worked.

That's the thing with believers; they somehow get their ideas to work.

Mostly.

In the New Zealand trailer business, that has produced some spectacular trailers, some spectacular successes, and some spectacular failures.

Brian McDonald's monocoque trailers from Fairfax Industries don't have any steelwork underneath them, other than to support the bogey and the kingpin. The entire floor is GRP and doesn't have any steel-bearers. The result is a saving on tare weight and the lowering of the deck because there is no chassis. Of course, such pioneering (and risk) by a trailer builder needed a buyer to share the risk. The operator ready to take the risk on the first from Fairfax was Neil Otway. There were still doubters when it was produced, not the least of them being

The Strange,
the Special, and
the Spectacular
– Innovation in
the Industry



Jim Wilkinson, a respected transport engineer and a popular speaker at any industry function.

¹ As reported in the Bay of Plenty Times, 19 November 1965.

the Ministry of Transport, whom Brian describes, deadpan, as getting “somewhat excited.”

The process was soon extended to furniture vans, stock trailers and rail wagons—even ambulances and buses.

But not all of Brian’s ideas came up with such a ready market. Milk tankers are an example. The company built five of them using the RPC monocoque construction. They should have succeeded,—and indeed been superior to the aluminium and steel versions—because they had no joins and were far lighter. But, in practice, it didn’t quite work out that way. The trailers may change, but methods of using them take longer. The only apparent problem was that the existing and obviously entrenched way of washing stainless steel tanks, a very hot wash followed immediately by a cold blast, caused hairline cracks in the GRP. Even that wasn’t a problem—it wasn’t structural. But in MAF’s view, it was unacceptable. Brian discontinued the line.

But GRP tankers are still a distinct possibility. They are lighter than stainless steel, they are insulated and don’t require refrigeration, and, given new washing methods, could be far superior to anything on the market today. “On top of that,” says Brian with a grin, “we (still) have the technology.”

So, it is a question of hits, misses and external influences. And that’s the way it is with trailer building.

Somebody who thought he had a hit on his hands—and logically should have—is Jim Wilkinson with his motorised trailers.

Jim, whom we met before in relation to the Gates Belt Drive (page 38), headed a company called Tasman Manufacturing Co. Ltd, later changed to Tasman Special Vehicles Limited.

He is a respected and accomplished engineer. His C.V. runs across three pages of bullet points, almost a third of them taken up with qualifications, and memberships of industry bodies. He

has worked on just about every method of transport, from farm buggies to car transporters. He was, and is, a designer, a builder, a specifier and a certifier.

He also has a sharp and intensely logical mind.

It was logic that suggested to Jim that if the under-powered trucks of the 50s and the 60s couldn't tow the big loads that operators were demanding they tow, the solution would be to power the trailers to help them along.

It wasn't a new idea; transport operator Russell Aldridge had built a motorised trailer in the late 50s for his own use. But Jim had taken the idea as seen in American magazines and worked out he and his company could refine it for New Zealand requirements.

Both the idea and the company promised a lot. Advertising for those early-motorised trailers, called Grademasters, promised that they would "beat the hills" and were fast, light and economical to drive. A test of one of the first Grademasters (in all, eight Grademasters were built by Tasman Manufacturing Company), suggested that: "A gradient normally negotiated by a truck and trailer at 7 mph could be negotiated at 10 to 12 mph with a motorised trailer."¹

That news, no doubt, was gratefully received by motorists of the time, often stuck behind slow-moving trucks winding their way up hills.

But the drivers of those trucks were a lot slower—literally and figuratively—to embrace the new technology.

There are many reasons why. There was a big problem with reliability—the power trains were inclined to clog with dust on metal roads and seize up; there was also a problem with braking and getting them in tandem.

On top of that, the dual-engine required a high degree of

ALL POWER TO THEM

The first powered trailer in New Zealand was probably the one Te Kuiti transport operator, Russell Aldridge, made for himself. It was fitted to a two-axle 6 tonne trailer made by Dometts.

Here is how Russell describes his experience with New Zealand's first motorised trailer:

"We used to tow it (the un-powered version) behind a 1956 7-tonne Commer petrol truck. Because we had a vehicle authority for no. 3 and 6 licence districts, we were able to cart bulk fertiliser from New Plymouth to Mokauiti areas. But our biggest problem was getting a truck and trailer into farm airstrips. That got me thinking about fitting a motor into the trailer.

"I thought quite a lot about how this could be done, and when a Cadillac engine from an American Valentine tank with three-speed gearbox became available, I decided to give it a go.

"Because we needed a hoist trailer, I first mounted the under body rams outside of the chassis and replaced the rear axle with an Eaton two-speed differential. The differential was only used at high speed when using the motor, or in neutral when towing empty.

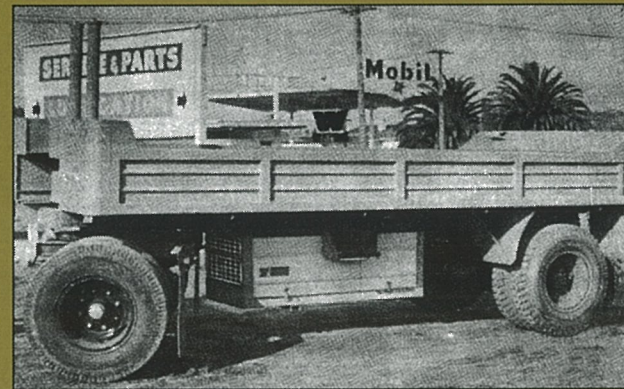
"The main problems we had were overheating and air cleaning. And in the first instance, registering the trailer.

"The truck and trailer were given fairly extensive road tests on narrow windy metal roads and on the highway, by then traffic officer and vehicle inspector, Barry Thurston. When the vehicle was finally approved by Barry, he gave it an "H" plate rather than a trailer registration."

It seems from what Russell is saying here that his trailer was defined by the powers that be at

the time to be a truck, not a trailer. But for us, and this book, it's a trailer, albeit a motorised one—possibly New Zealand's first.

What happened to it? Russell says it ran well for a couple of years, but then the Cadillac engine started to use a lot of oil. He eventually took the power train out and used the trailer as a conventional unit.





A SLICE OF CABBAGE

Bob Woolston has no problems with his nickname Cabbage. In fact, he prefers it to the one he used to have, "Hippo Happy", named for his love of Leyland Hippo trucks.

He got Cabbage from a logging truck driver, who took exception to taking orders from a mere loader-driver, as Bob was in those days. Every time Bob told him to back up so his trailer could be offloaded, the driver would take his time. One day, both men became increasingly irate, which resulted in the driver leaning out of his cab and yelling, "Woolston, you're nothing but a bloody cabbage head!"

Mild by today's standards. But the name stuck.

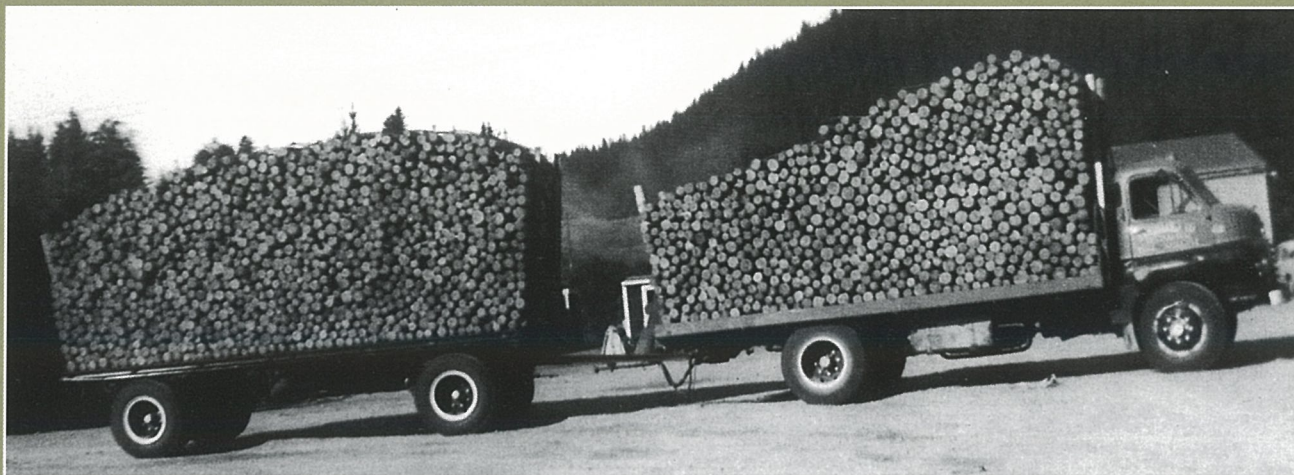
coordination by the driver, who controlled both engines from the cab. The throttle for the trailer power-unit was a micro-switch located under the truck throttle, so that the trailer engine didn't speed up ahead of the truck engine. That was okay, but when the driver released the throttle to, for example, change gears, he would find that unless he slacked off both throttles at exactly the same time, the trailer engine was still pushing for all its might while he was changing gears up front. That's not something they—the drivers and the gears—thought much of.

Those were some of the problems standing in the way of powered trailers and their makers, Tasman Manufacturing Company and Tasman Special Vehicles.² But the major one was that the industry and truck technology simply outlived them as higher torque and horsepower on trucks left powered trailers literally in their dust.

Nevertheless, Jim and his two companies did build eight of them, and they did work. He offered them for sale at £4000 in the currency of the time, or £2800 to fit a power unit, including transmission and differential, to a customer's existing trailer.

We may never see their like on the roads again. But Jim Wilkinson, and before him Russell Aldridge, deserve credit for giving it a go.

Another to give it a go was never a trailer builder as such, but when it came to suggesting better ways of doing things to trailer builders, he seems to be without peer. Well, perhaps that's not strictly true—Mike Lambert, Colin "Gorilla" Sargisson and Stan Williamson also had and have quite "forthright" suggestions to make to trailer builders, but Bob "Cabbage" Woolston turned it into something of an art form. If he didn't get what he wanted (which was rare), he would build it himself. And that sometimes wound up in the weird



Pushing the envelope is a signature of the industry.

and wonderful category.

Take his successful attempt to build the business end of a logging trailer from bits and pieces he found lying around. Here's how he recalls it:

"There wasn't a bit of money around that the time. Least not for me. I needed trailers, but I had to do the best I could at building them, and that meant doing it on my own if I could.

"One I put together used a big Matai block and Rata runners I got from the mill. And I made up some u-bolts. So I fastened the block and the runners using the u-bolts and put a steel plate over the top. The bolsters sat on that. It didn't look the best, but it worked okay.

"Then I had a look at fixing some brakes. I got a 44-gallon drum, put some big planks around it and bolted it onto the chassis. Then I got a steam tap, a brass steam tap, drilled a hole in the side and that became the control mechanism for my vacuum brakes."

Confused? So were we, so Bob drew us a diagram of how it worked.

"You see the water tap? You drill a hole in it, and weld the conduits on to each end, and push the vacuum hose on to them. Then, once the pressure builds up, you can adjust the brakes by turning the tap on and off. You turn it on, and the vacuum goes through it and pulls the brakes on; turn it off, and the brakes go off. It sits on the steering column."

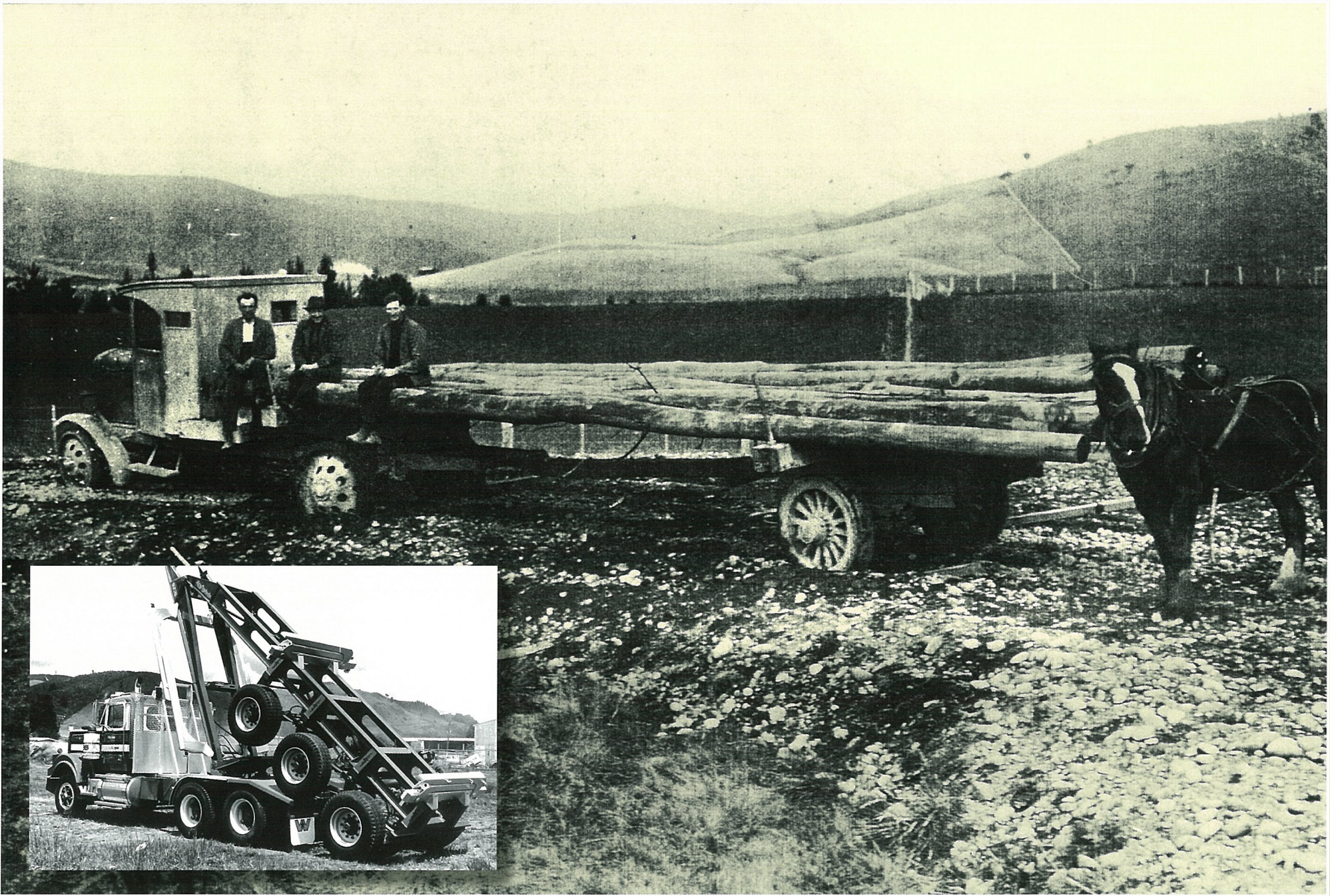
It's not BPW, but it seems to work, according to Bob.

These are people who have been or are pushing the envelope when it comes to innovation. The question is whether, in the final analysis, the industry is capable of sustaining its historical quest and enthusiasm for innovation. Do we have the right stuff? The right people?

And that's where we turn next. In our final analysis, we look for an answer to those questions.

²Jim Wilkinson says to this day that he could have overcome the problems, and "may still do so." He points out that motorised trailers are in operation in Australia—he has the brochures to prove it.

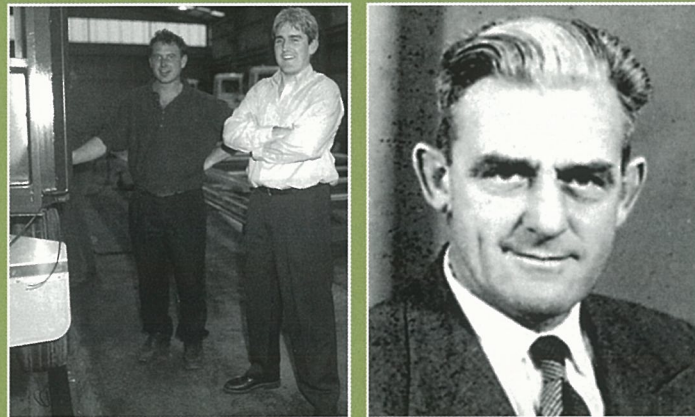
FINAL THOUGHTS



Final Thoughts



“WHAT WE DID THEN WOULD BE ILLEGAL TODAY. But we had a couple of trailer rollovers, so we fixed it. Look at today—they’re still rolling them. I could write a lot about that.” That’s Bob “Cabbage” Woolston talking. From the distance and distractions of retirement, one of the country’s largest logging transport operators of the 60s and 70s can look at the highly legislated industry of today, compare it with the seat-of-the-pants stuff of yesterday, and wonder what, if anything, has improved.



*(Above) Paul and Andrew Domett and their Grandfather Dave.
“The generations of men run on in the tide of time, but leave their destined lineaments permanent forever and ever”. William Blake 1757-1827
(Opposite) With the generations of men came innovation in their technology.*

But things have improved for the trailer building industry. Even Bob would admit that. Computer Assisted Drawing (CAD) has replaced chalk as the drawing tool of choice. And that has made for more finite plans, and ultimately better quality control and consistency. It’s also cleaner.

Overseas-based suppliers and their local agents are sending us better, more hi-tech equipment, even if it is, on occasion, over-engineered for this market—well, we can live with that. Our trailers will still bloody the trucks that tow them, by a margin of three to one or more.

Then there are the legislators and the regulators. They seem to be treating the industry with a lot more respect these days. At least they are listening. And today’s regulations tend to be more a consequence of genuine dialogue than the confrontational bloody-mindedness (on both sides) of the past when we had “sides”.

The industry also seems to be represented by its various governing and assisting bodies, such as the New Zealand Truck Trailers Manufacturers Federation.

Certain sectors in the industry are “creaming it.” With the harvest coming on line, loggers could need as many as 2500 new trailers in the next few years, and nobody is quite sure if we have the capacity to provide them.

There are problems for the trailer building industry.

Some builders see the present and projected regulations as

Final Thoughts

draconian and unnecessary. Others are fed up with diminishing margins and increasing demands by operators for lighter, cheaper trailers, without accepting the consequential reduction in quality. “You get what you pay for,” is not yet the norm in the industry—there is still too much pride for that—but it is spoken about—usually in relation to “other” trailer builders.

But, none of these is the biggest problem. By near universal accord, the biggest issue the industry faces is the lack of good young tradespeople coming through. The new fitter/welders, the mechanics, even the engineers—if they are out there at all – they are not here. Not within the industry. The industry is crying out for them. The problem is that so is every other industry. And at the margins the trailer building industry is currently working at, it’s hard to be competitive when it comes to attracting good people.

Funny. In the past, we had a solution to that problem: we simply grew our own.

The trailer building industry of the past had an ability to take a young bloke—they were mostly blokes at that time—and through diligent work and the odd kick up the pants, turn him into a first-class welder or engineer. Ian Stevenson and Bill Box were two who came through that “school”; Dave Gillies and Brian McDonald were others.

If you worked for a boss like Dave Domett or Bill Walker, Rod Steel or Manu Tuanui, you had better get your act together and get it together real quick. If your welding wasn’t up scratch, or your measurements were off, then you would start again—no matter that your boss had spent the afternoon in the pub with a customer, or the plan you were working off was drawn in chalk on concrete.

Fact is, you were there to learn to build trailers. Bloody good

trailers. Better than the bloke down the road was doing. Fail to do that, and you were down the road.

It’s tempting to look back on the history of trailer building and call them the cowboy years. Maybe they were in some respects. There were and are certainly some hard, uncompromising men in the business, who treated regulations as an unnecessary evil. But these same men, for the most part, knew exactly what they were doing. More important, perhaps, they were in a constant search for a better way of doing it. And that is probably the single biggest and most common characteristic of the New Zealand truck-trailer builder: the enduring quest for the better trailer. It is our builders’ reputation for innovation that lives on today.

We can only hope that it will never change.

And in that, at least, we remain in good hands. The business of trailer building is built around necessary change, whether from responding to “fluid” legislation, embracing new technology, or simply satisfying number crunchers and overseas owners.

The fortunate dichotomy is that whilst the industry may change, the people running the industry do not. Most of the men and women who control the industry today are no different from those of yesterday, whom we have celebrated in this book. They still love trailers, love improving them, love nothing better than getting back to the workshop and making them.

And nowhere is that dichotomy better exemplified than in Te Rapa where, in the ultra-modern sophisticated CAD-clad premises of Transport & General, two blokes—good mates and trailer builders for all their working lives—are still doing what they have always done, and done best: used skill and experience and history to go out and ...

Build the bugger.

Acknowledgements

The author and publisher are grateful to the many hundreds of people who contributed their time, recollections and archival material to this book. In addition to those listed below, acknowledgement and thanks are given to their families who in their patience, generosity, hospitality and recollections made no less a contribution.

Alex Carpenter	Geoffrey Perfect	Ken Frandie	Olive Tapper
Andrew Domett	George Scott	Ken Tucker	Paul Currie
Andrew Law	Graeme Carter	Kevin Smith	Peter Domett
Anthony Couwenburgh	Graeme Kelly	Laurie Hamilton	Quinto Allen
Bill Richardson	Graeme Mansfield	Leo Faulkner	Rob Tapper
Bill Vercoe	Graeme Steel	Les DeLacy	Robbie Hill
Bob Woolston	Graham Goldsmith	Les Findlay	Robin Ratcliffe
Bruce Conway	Graham Manson	Lindon Boyce	Rodney Steel
Bryan Fargher	Graham Harker	Lyall McGee	Roger Greenhalgh
Cameron (Ken) Frandie	Guy Hepworth	Marie Law	Sandy Southcombe
Colin Patchell	Ian Currie	Marilyn Mansfield (nee Tuanui)	Scott Wilson
Dave Beckett	Ian Patchell	Mark Kemp	Simon Tapper
Dave Carden	Ian Stevenson	Max Mouat	Sir Russell Pettigrew
Dave Wright	Jack Richards	Matthew Gillies	Stan Williamson
David Dixon	Jim Wilkinson	Michael (Mike) Stevenson	Tony Cook
David Gillies	John Eason	Mike Lambert	Tony Mills
Des Fargher	John Franklin	Mike Sowter	Trevor Sandes
Dianne Cole (nee Tapper)	John Grant	Murray Higgs	Victor Couwenburgh
Don McLean	John Hodgson	Neil Boyes	Warwick Johnson
Doug Bonnisi	Julie Sherburd (nee Tapper)	Neil and Jane Peterken	William (Bill) Box
Doug Tanner	Kate Bucknell	Neil Wylie	
Gavin Abbott	Ken Mahaffie	Norm Todd	

Endnote

One of the most anticipated and appreciated moments for any writer is when he or she is able to type "The End" and know that their job is done. Although my typing those words for *Ridin' the Rainbow* occurred sometime ago and are now something of dim memory, they continue somehow to gnaw at me. Is it really the end? Not for the art and craft of trailer-building—that will continue to grow and evolve. But, what of stories of the industry and its men and women? Have they all been told? No, I think not. Is there another book still to be written? Yes, I like to think so. I hope so. As someone once said, in a different context, we just need to go and build the bugger.

Mike Isle

1 March 2006.

