

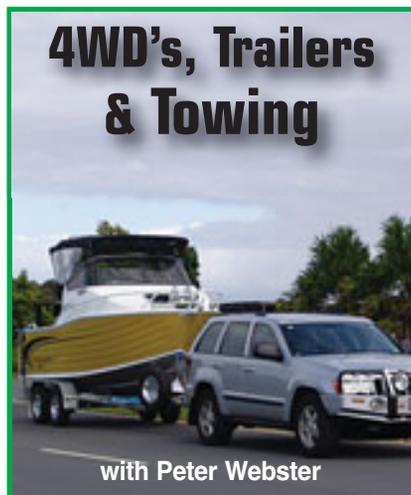
**I** had a very interesting talk recently, to one of our readers, Les Davidson from WA. Les has actually written a major piece for the forthcoming *Book-3 of Powered Cats Of Australia*, describing in excellent detail, the development of the big trailer he built for his 9.0m cat – yes, a 9.0m aluminium cat.

Built with great TLC over quite a long time, the reader/builder Les Davidson, is a highly experienced transport man who has been driving bulldozers all his life, and more particularly runs a fleet of trucks, semis and low loaders, moving his earth moving equipment around WA.

Les has some very strong theories about boat trailers, and this is a man who's probably towed big rigs further and longer than all of us put together. Now that he's developed this big cat trailer, he wrote initially, and then rang to talk about the axle-hanging engineering he was using for his cat trailer. He also wanted to share our more recent experience towing 4.5 (+) tonnes of *Far-Away* on an aluminium tri-axle trailer - where we couldn't get enough weight jacked onto the towbar coupling of the F-250.

When we did crank the weight up to around 350-450 kg, the aluminium chassis would simply bend like a banana over such a long distance as the weight was increased - and moved forward towards the towbar coupling.

Sitting *Far-Away's* weight right back over the AL-KO tri-axles solved the chassis bending issues – but then the 'tail wagged the dog' in a most



## The BIG Rigs Are Coming

distressing manner.

This was nothing to do with the axles, I might add - rated at 2.5 tonnes each, we had capacity to burn, and that was the whole idea: we could 'drop' an entire axle – and still have the capacity in the remaining two, to easily carry the load. (*This comes from years of having to chain-up axles out on the highway. . .*)

Because we had to keep a fair bit of the weight aft, it became a juggling act of having the trailer come forward to X, providing X didn't make it too heavy on the drawbar, or Y, which would make it too light, and whilst the chassis would then remain straight as a die, the tail would start wagging the

dog in a very alarming fashion.

Les was intrigued about my comments in this regard and the photographs and articles that we published about dealing with the problem and getting *Far-Away* to the point where it was quite pleasant to trailer.

In fact, on its last trip back from the Whitsundays, we went from Mackay down to the Gold Coast in one hit (1150 km) and you don't do that unless the trailer is tracking perfectly.

Les picked up on my theory that if I was going to do it again (and as it happens it's back on the agenda for 2012-2013) I will do one of two things:

(a) Invest in a fifth wheel trailer and a turntable equipped tow vehicle, and enjoy 4-6 tonnes. Or

(b) Re-think the whole BMT package to build a cruising fishing rig that by using every scrap of technology we know about, will be kept under 3.5 tonnes in highway trim.

Mind you, Les was way ahead of me, using a Crew Cab Isuzu Truck as his tow vehicle anyway, so he had the option of going to a turntable as well as retaining the normal trucking pintle and hook coupling for smaller craft.

The short version of what boat owners with big boats will read with fascination in Les' dissertation in the Powercats Directory, is that Les believes with really big rigs in this 4-6 tonne area, (keeping in mind that 4.5 tonnes is the limit you can tow with an A-class street licence) we have to completely re-think the way these big boat trailers are being set-up – whether

***Fifth wheel trailers and turntables are increasingly popular around Australia for big boats and caravans, for the simple reason they work so well, and take the aggro out of towing. Fifth wheelers are not just for imported U.S. Chevys, Dodges and Fords, either - many Aussie caravanners are fitting turntables to Hilux, Isuzu, Triton, Mazda (etc) 'half ton' crew cabs and utes, too. (This superb set-up was built by Marko Bacic for one of his Nautic Star customers)***



it is a conventional or fifth wheel trailer.

#### Experience Counts

After a lifetime of highway haulage with big rigs, Les was never concerned about the overall weight, length or size of his rig because from his perspective, it was Matchbox toy stuff – compared to the 50 and 60 tonne rigs he has been hauling all his life.

Nevertheless, he had huge amounts of problems with his tail wagging the dog too, and decided in the end that rubber suspensions of the AL-KO and Dura Torque kind, do not provide enough rigidity for seriously big loads. He believes the very essence of their design brief (which is to have a half stub axle flexing within galvanised steel box section encasing rubber tubes in the ‘corners’) allows too much lateral movement under the trailer. But he hastens to add this only applies to what most readers would consider ginormous boats and I’m sure the various engineers from AL-KO and the like would rush in to point out that ‘street axles’ were never designed for such heavy loads.

Well, that’s not altogether true, either, because we had three 2.5 tonne AL-KO axles on *Dusty Rover/Far-Away’s* trailer, but I have to record that at no stage did this aspect of the trailer towing worry me to any great extent.

Sure, tri-axles will always tram-line to a degree, and they are a pain in the arse to turn around sharply - but that’s got nothing to do with the type of axles used. These issues occur with -normal’ load-sharing leaf spring set-ups, too. It’s just a characteristic associated with trying to drag six rubber wheels where they don’t wanna go!

We also knew the six tyres (initially, NZ made, Dunlop Adventurer light truck radials, and later Kuhmo truck radials) were taking quite a lot of lateral pressure on their sidewalls, which resulted in several of them overheating and blowing ahead of time, when really, they shouldn’t have done that.

Later examination of the situation and observation of *Far-Away* (travelling alongside *Far-Away* in another car) made us realise that the tyres themselves were flexing even though they were pushing 60psi as per



**Same tow vehicle, same trailer, different boats. Given *Far-Away* is a seriously big trailerboat that even makes an F-250 look small (!) check how high the Honda powerheads are relative to the overall height of the Ford. They are nearly 2 metres off the ground. This was our worst point - a horrible set-up. Check the bent chassis going forward; the down angle on front axle - awful, and yes, we blew-out 3 of the 4 front tyres. We got it right in the end, but wouldn’t do it again.**

the manufacturer’s recommendation.

The fact of the matter is that from my observation and gut-feeling as the driver, the whole *Far-Away* rig, all 4.5 (+) tonnes of it was sitting up like King Dick, way too high on the trailer and thus the lever moment of just ordinary things like going round a 90 degree corner, or a street round-about, put vastly increased pressure on the tyres’ sidewalls.

Imagine this on a ‘rock and roll’ highway that we had (for instance) on the wearisome run from Childers (SEQ) across the mountain range into Gin Gin (where three of our six tyres on our first trip let go) before going on to crab sangers at Miriam Vale.

I mentioned this to Les and he agreed there’s a real potential for that to be causing serious tyre problems.

With hindsight, we’ve now come to the conclusion that next time we would be very circumspect about building a

boat that big, with big twin outboards, because believe me, I could feel the two Honda 150s swinging in the breeze, way back, fully 10 metres behind the F-250. That’s just on half a tonne of outboards about 1.4m off the deck.

And yes, if the trailer had the right amount of weight on the drawbar, it wouldn’t have been an issue - the only reason I could ‘feel’ the weight of the Hondas, was because we didn’t have anything like enough weight on the drawbar - especially considering that magnificent F-250 is rated for up to 500 kg on the coupling alone.

Importantly, this does not compare with the set-up we had on *Dusty Rover* (on the very same tri-axle trailer) where we had the same half tonne (or a bit more) in the Yanmar sterndrive sitting right down on the keel, at least a metre lower than the outboards on *Far-Away*.

## 4WD's, Trailers & Towing

As well, Kevin Venness who actually built the trailer for us in Cairns around *Dusty Rover's* 0.800mm shorter hull and lower-down weight, did a very good job of getting the rig balanced before we got there to tow it back to the Gold Coast.

Initially, in the excitement of picking up the boat and heading back down to Hinchinbrook, we didn't really appreciate really fully appreciate what a superb bit of work he'd done getting the weight perfectly positioned over the tri-axes, so that we'd still be able to crank up 350kg on the drawbar, but keeping the rig beautifully balanced without even hinting at the tail wagging the dog.

It just didn't happen on *Dusty Rover*, which was the main reason why we kept the trailer and then put it under *Far-Away*, a couple of years later.

The moral now is that in future, if we have a trailer that long, and a load that big, it will have to be engineered in galvanised steel (which would kick it over the 4.5 tonne limit) or we'll build a fifth wheel aluminium trailer which can easily exceed the 'A' Class restrictions anyway, and is a significantly better towing proposition.

There is also another alternative – that is to stay with conventional trailer design, aluminium construction with an all-up BMT weight UNDER 3.5 tonnes.

*(This is our next challenge!)*

### Big American Boats

The reason I bring this up is that I was looking at a new American trailer in the yard here at Runaway Bay under a Sea Swirl Striper – a very big, over-size 26' job with 2 x 250 Mercury EFI engines. It was a dead-set 4-5 tonnes standing there in the yard, even though it had a aluminium trailer.

In studying the aluminium trailer I realised with some horror that if that boat and rig was taken around the mountains down to Gin Gin, I'm not sure it would make it. Not only was it way undersized – it didn't even have brakes, and was what the Americans euphemistically call a 'yard' trailer.

Now the Americans know a fantastic amount about aluminium trailer

engineering – much more so than we do, which is why it is incredibly important to draw the distinction between the real American trailers from the likes of Peterson, Rocket, Easy Tow (etc) top brand, name stamped trailers, and the plethora of el-cheapo, shit trailers coming in underneath a whole raft of American boats, simply to facilitate them being wheeled around the dealer's yard and making the odd trip to the launchramp before the owner gives up on trailing and dumps the trailer.

What happens then, is the part that really bothers me.

We are currently seeing a whole wave of very cheap American trailers that look the part, but no way have they been designed for Australian conditions and our dreadful northern roads (by US standards at least) with a big load on them.

What's already starting to happen is people are buying the boat separately and then 'picking up' a cheap trailer elsewhere to go with the boat – a practice being openly advocated by several unscrupulous dealers.

I would urge those readers contemplating this process to proceed with absolute caution, because most of these non-branded imported U.S. trailers are not built for what you have in mind and they could lead to some really serious problems out on the highway.

Let me make this abundantly clear; there are some absolutely beautiful BMT rigs being brought into Australia, filtering through all the dealer yards and through private transactions. Look for the top brands – we all know what they are, and most of our readers know well enough what to look for and how to suss out the boat. Some of the prices are just amazing, as many of the entrepreneurs and industry importers are now being caught with way too much stock they can't shift, as the market for U.S. boats slumps, big time.

The moral is to look for the top brands, buy hard, and haggle like you've never haggled before. It is a buyer's market, so it's time to play hard ball. Really hard. And for God's sake have a really serious look at that trailer underneath it.

Some of them are seriously dangerous, pure and simple. This one in the yard under the Sea Swirl shouldn't have been taken out on the adjacent streets of Runaway Bay.

*\*\*Peter Webster has been at the forefront of boat trailer development and research for many years, culminating (until recently) towing SEA Media's 4.5 tonne 8.2m Salty 27 on a tri-axle trailer, plus F&B's 3.3 tonne 6.85m camera boat (a CCC cat) on a tandem alloy trailer with Sea Media's Ford F-250. He is now focusing on 4.5m - 7.0m trailers with a GCVW under 3 tonne, with Sea Media's Jeep Laredo. For more information about the latest trends, legislation and regulations affecting boat trailers, readers are reminded the definitive publication "Trailers, Towing & Rooftopping" is available on-line through [www.seamedia.com.au](http://www.seamedia.com.au)*

If it's one of the top brands, like the Peterson range advertised in F&B, you're probably on a good wicket, but even so, get your tape measure out and check whether it's possible to register it in a typical Australian Registry process.

You might be able to 'get it through' because you know that nice lady down at the Registry office in your town, but what about the next bloke you sell it to? Will he be able to get it registered? And don't kid yourself, everybody's thinking about it because it really is a problem.

We do have national Rules & Regulations, and whilst they are always being attacked around the edges by the different State transport authorities, the big issues are quite clear.

It behoves the consumer to do his research meticulously.

No one else gives a rats – you are responsible for the research, the purchase decision, the insurance and the subsequent sale to the next buyer.

One of the key elements we would advise is to ring some of the local experts like Justin Harris at Peterson Trailers in Melbourne – they are now assembling Peterson Trailers from American componentry here in Australia with Australian ADR approved lights, brakes and measurements. And he will tell you exactly what is required for your State. If you ask him nicely, he'll probably explain about the level of quality you're looking at in that black, nameless, brakeless trailer underneath the amazing Trophy 2350 that seems such good value . . . .

Talk to Justin about it, find out what type it's likely to be, and check what it would cost to get a real one to work under the new boat for the next 10 years.

*And enjoy the journey!*

**F&B**