

# AeroPlus and E-go across Australia

Recently we purchased a new van for a tour of Victoria from Perth WA. The trip took 14 weeks between October to mid January.

This article is about two pieces of equipment we purchased, that significantly contributed to a relatively trouble free holiday. Both items saved us time, money, considerable stress on ageing bones, friction on relationships and improved driver comfort. The items were an E-go Caravan mover and an AeroPlus. A long journey such as this, of over **12300km**, proved an excellent way to try out both of these items (refer Illustration 1).

the top of the driveway. The van can now be moved anywhere in the yard without using the car.

In caravan parks, the E-go allowed me to place the van, with precision, where ever I wanted it. Trying to back the van into sites was just not necessary. Also it's a one person job to hitch and unhitch, my wife could do it on her own even with a bad back. A few times we had to change sites within the same caravan park, so I just moved the van by itself. One big test for the E-go was when arranging to stay with friends, who offered space in their back yard for the van. To access their back yard we had to first negotiate a dirt lane, 2.5m wide and 50m long. The

*Illustration 1: Map of Trip*



## **E-go Caravan Mover**

Moving from a camper van to a full size van created a few problems. Our driveway is steep and our car is a 2 litre. We decided that an E-go caravan mover would solve the driveway problem. The van has a Aggregate Trailer Mass (ATM) of **1785kg** and the car can tow **2000kg** so that was ok. Our 4x4 doesn't have low range and our driveway is an 18% grade. Trying to push the van up the drive in reverse would place stress on the clutch. Our solution was to fit an E-go van mover with Auto Engage, which I fitted before we left home. Installation was made easy by following the supplied manual and instruction on the Internet. However, on our van, the E-go had to be placed behind the wheels, as there is a door step in front of the wheel which did not allow the necessary space as documented in the instruction manual. Once fitted, we could drive the van up and down the drive way, using the remote control. Because we live a cul-de-sac, we are now able to drive the van down the driveway and hitch up on the road. It is so easy. On arriving home, I simply unhitch and drive the van up the driveway. Once the E-go is engaged it acts as a brake, allowing the van to be stopped on the slope or rotated in its own radius at

van is 2.4m wide. This is where you need the recommended dual hard rubber jockey wheel. We unhitched the car and using the remote control, drove the van up the lane and into the yard. At times with only centimetres to spare on uneven ground and with leaning fences on either side. The manoeuvrability of the E-go allowed full control on all sides. On other occasions, the E-go proved itself when parks were full and the only site available was the site nobody can get into, or a wet grass slope. Not a problem with a van that drives itself.

## **AeroPlus**

On our previous trips we had a camper van so drag when towing was not an issue, however, a full size van behind a small car would act like an air brake, (Refer Illustration 2). I decided to try an AeroPlus, but if I purchased it before leaving, how would I know if it worked? The decision was taken to pick up the AeroPlus in Melbourne, giving me several thousand kilometres of data without the AeroPlus.

Travelling to Victoria I could feel the van catching the wind and acting like a brake. It would move about a little in a gust. The front of the van was also covered in dead bugs, showing that all the air from the car was flowing to the van and creating turbulence.

*Illustration 2: Aero Dynamics*



There were many variables to consider when testing the AeroPlus, such as, wind direction, weight, temperature, tyre pressure, hills and traffic etc. We chose to record position, grades, wind direction to the car and a full fuel log. After all we were on holidays.

The Perth to Melbourne leg was **5627km** and averaged **13.7 litres per 100km**. The range of temperature this time of year was extreme. It was cold traveling east and hot when we turned west for home. For example we encountered snow flakes

going east between Port Augusta and Burra and as we drove back through Adelaide to Port Augusta on the return journey we encountered temperatures of 45 degrees. At a rest stop we got out of the car for a stretch, but were driven back into the car by the hot dry wind.

The return trip to Perth was **6670km** and averaged **12.4 litres per 100km**. The return leg contained more hills and heat plus additional weight in the car and van. There were no hills of any significance on the Western Australia to Melbourne run. But on the return we came across

*Illustration 3: AeroPlus Fitting*



consumption was **13.4 litres per 100km**. This is an improvement of over **20%**. Wind direction was averaged out to be almost the same. From Penong to Norseman the car is mostly climbing from 50m, up to 420m. So on the return trip the car is dealing with higher temperatures and a climb, plus the additional accumulated weight. Averaged out, for the overall trip, you would more than likely return a **15% fuel saving**.

With the AeroPlus you have to take the time to set it up properly. This will include listening and observing what's happening when trucks pass, tail winds and head winds. When I first put the AeroPlus on I left the front roof rack on. This created terrible turbulence and noise. After removal of the forward roof rack things became much better. By using the wedges supplied I obtained the right angle, all wind noise disappeared and the van settled down. On the first trial run its hard to know if your kidding yourself or not. On a short run of a few hundred kilometres you may not notice much, unless badly set up causing wind

*Illustration 4: Penong to Norseman Long Section*



many hills. Mount Hotham for example, was very steep and a good test for a car and van. Mount Buffalo was similar with the Grampians being easier. We purchased a number of items on the return journey that added to the towing weight such as two bicycles and some small items of furniture. Even so, the overall return leg, with the AeroPlus fitted, resulted in a **10%** improvement on fuel consumption. The best comparison leg of the trip is from Norseman to Penong and return, a trip of **2250km** in total, (refer Illustration 4). This leg is the only part of the trip where we covered the same ground each way. When crossing West to East the average temperature was around 25 degrees, however, on the return journey, it was over 40 degrees. This leg is 1125km each way. From Norseman to Penong the average fuel consumption was **16.7 litres per 100km**. From Penong to Norseman the average fuel

turbulence. But as the miles roll past it becomes evident that the van is riding much better. Especially in head winds, which I dreaded as we crossed the Nullarbor without the AeroPlus. At times I forgot the van was there with the AeroPlus fitted. Happily, the van has no dead bugs on it, although the car and AeroPlus did catch some bugs. It is obvious that the air is now flowing over the van and air conditioner. The ride is much better and the whole set up feels right. Originally the intention was to save fuel but now I feel the improved ride, especially in head winds, is a bigger factor, although it is nice to save some money.

Highlights of the trip was getting a dive in Mount Gambier, The Great Ocean road, Treetop walks and riding the push bike on the great bike trails around Victoria.

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