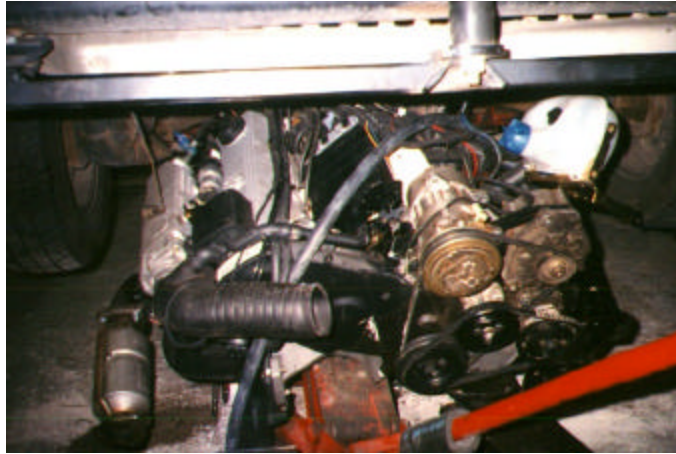


Eurospec Conversion Evaluation



First of all a word on *What is a Eurospec Conversion?*

This is the brand name that Overland Corp. gave to its \$5000 engine conversion kit. The kit included a new 2.0 liter inline 4 cylinder Golf/Jetta engine with Digifant injection and all the necessary VW and aftermarket parts needed to install it in a Wasserboxer Vanagon. In my case, I had to purchase the additional sub-kits needed for automatic transmission, air conditioning, dual oil senders, cruise control, and power steering.

After all the trouble of engineering the kit and obtaining California smog certification, Overland inexplicably abandoned the business. Other companies have moved in to fill the vacuum.

Sat, 12 Dec 1998 - The initial impression...

I've got almost a week of commuting on a Eurospec conversion and I figured I'd report on it.

I think I like it! My installation is on a '91 Westfalia automatic. I do notice the added power, and it's comforting to know that the very reliable Golf powerplant is pushing the car. Minor downers are that there's nothing you can access via the license plate door - ya' have to open the cover to check and add oil or coolant.

I also imagine that the car "leans" to the left slightly, especially with me, the sink/stove/fridge, and the top of the engine on the left side. I wonder....

Be advised that this is a costly bugger. \$4995 for the basic conversion, a grand to my local "licensed" shop for the installation, about \$450 in "extras" for my particular installation, and \$350 for the Governor. Additional (read: not free) parts are required for the power steering, auto trans, air conditioner, cruise control, and even the dynamic oil pressure system. In some cases, the cost on the extra "kits" seemed a bit extreme.

The rebuilt/readjusted servo for the autotranny still needs some work/adjustment. Right now it's set up a bit too "hot" - it won't hit 3rd until about 45mph (40 if you throttle back quite a bit). I'd also say it downshifts a bit too easily, both into second and into first (I stomped on it going up a steep hill in 2nd doing about 30mph and it went into first - talk about rev thrills!)

And there's a pretty hairy harmonic vibration in the shifter at about 4200RPM - put my hand on it and it dies out.

Anxious to see what the gas mileage shows - I seem to have traveled further on a quarter tank of gas than with the old engine.

All in all - okay. I don't recommend you do it just for fun, because of the cost. Save your money up and do it when the ol' wasserboxer takes a dump. Those South Africans are on the right track.

Questions? Drop by for a tour if you're passing through Albuquerque.

Wed, 2 Jun 1999 - Six months later...

I just got my bi-annual emissions check-up. Very much painless compared to last time.

Here in Albuquerque, the following standards apply: Hydrocarbons: 220 ppm CO: 1.2%

Two years ago, I failed with the Wasserboxer on the first and second try - the Dealer finally was able to pass the car with the following readings:

HC: Idle=217ppm; At speed=85ppm CO: Idle=.06%; At speed=.53%

I understand that it took a "severe" warm-up and a few tweaks to make this.

Today with the Eurospec:

HC: Idle=12ppm; At speed=45ppm CO: Idle=.01%; At speed=.05%

I'm happy!

Fri, 9 Jul 1999 - The first long trip...

Hi. Blaine here again with another Eurospec engine conversion update. It would have been sooner, but I've been preoccupied with finding another job.

Anyway, on the 17th of June, we loaded up and left Albuquerque for Durango CO. The next morning we caravanned with other family members to Page, AZ to spend the weekend at Lake Powell.

On Monday, we headed to the North rim of the Grand Canyon and then on to Las Vegas where we spent Monday night, Tuesday, and Tuesday night. During this leg, we started having minor cooling problems. The car would run with the temperature needle just touching the top of the LED, but any load (grade) would bump it higher and set the LED to flashing. Admittedly, the first occurrence showed the overflow tank to be empty - could be I got a bubble in the system - but the expansion tank never was low, so maybe not.

We drove from Las Vegas through Zion's park and on to Nephi. Campers tip: The KOA Kampground just a few miles east of Nephi, Utah is the nicest campground we have ever stayed in (and we took a month coming down from Alaska in a '71 Westfalia in 1982!) - even the RV camp spots were totally planted in grass. Everything was clean, painted, and in excellent repair - if you're ever in the area, I highly recommend it as an overnight stopping point!

The next day we continued on to Salt Lake City and Ogden, and stayed with relatives in Bountiful.

Friday, we again headed south to Manti. On Saturday evening we were near Capitol Reef and we made it home again by Sunday evening.

The A/C died on Saturday - I knew there was a slow leak in the compressor and the pressure finally dropped low enough to kick the pressure switch off.

Facts:

1. Mileage was consistently 20MPG or more!
2. Gas prices in the boonies of Utah and Arizona are quite high!
3. It really is a pain in the butt to have to empty the cargo area to check the oil and coolant!

Impressions:

1. Plenty of power (but is there ever enough??)

2. FR-12 works just about as well as Freon, but it sure would have been nice if VW/Westfalia could have figured out a dual A/C system or provided a way to duct cooling air to the front
3. The heat intrusion from the front heater core is unbearable - we set the ducts and controls to stop any airflow, but the radiant heat coming off the underside of the dash about drove us out of the car - has anyone else developed a solution? How about a one-way valve on the return side to keep hot water from "percolating" back into the heater core??

Post-trip observation: My in-town mileage is now running around 22MPG!!

Things to check:

1. I suspect that the 2.0 inline may run a bit hotter than the Wasserboxer. The mechanic who did the conversion suggested having the radiator flow tested, which I will probably do.
2. Is there any possibility of moving the coolant fill tank so that it is accessible without opening the hatch?

Sun, 8 Aug 1999 - A Shortcoming of the Overland design revealed...

Another chapter in my ongoing evaluation of the Overland/Eurospec 2.0L inline conversion (after all, I paid for it, I should be somewhat qualified to talk about it).

I started to notice a tinny rattling of the muffler at idle - a brief look-see didn't reveal anything obvious, so I chalked it up to a harmless gremlin. Oh how wrong one can be at times!

Well, on August 1, on the road from Albuquerque to Durango (CO), the exhaust started to get loud. At first, I thought it was the intake noise that I was familiar with whenever the engine was under heavy load (headwind? grade?). But a stop-and-check showed that the exhaust system had failed with a complete break in the catalytic converter just aft of its inlet flange.

We pressed on to Durango (another 50 miles) because what the heck is there to do in Aztec New Mexico with a failed CAT on a Sunday afternoon? (Retorical question - answers cheerfully discarded!)

Removed the cat and the broken flange and went to a Durango welder (Monday, now). He did a very good job heliarc welding the cat and I went to put it on. At this point I notice that the entire muffler is swinging a bit, and I quickly realize that the cause of the failure is fatigue stress cracking (at the bends) of the all-too-thin fabricated brackets to which the muffler is strapped. In the end, the welder fixes those for me, too.

Everything goes back together okay. Back in ABQ, I drop by the shop where the install was done. They reimburse me for the welding (and throw in several \$ more for the inconvenience - nice guys that they are) and we place a call to Overland.

Now here's the part where I start to get cranky. It becomes quickly evident that this is a known problem and they've already beefed up the brackets on subsequent kits. Of course, they'll send out a replacement pair of the new ones. I'm irritated because they haven't taken a proactive position on a known weakness (and done a recall/service bulletin). I mean, had the entire muffler fallen off (and been squashed by a following semi) would they have sent out a complete, free exhaust system? Maybe.

So, not to rant on, if you're a Eurospec-er, you might want to check the state of your muffler brackets!

April 24, 2001 - The last six months...

This has been a problem-filled period. Once during the summer of 2000, the car exhibited an inexplicable problem. Again we were headed to Durango Colorado and about 2/3 the way there, the car suddenly lost power. We stumbled along the emergency shoulder for a couple of miles with the engine barely running and it cleared itself. Nothing further, and we completed the trip wondering if it was just a spot of bad gasoline.

At Thanksgiving, we went to Durango again. About 50 miles into the return trip, the power loss event occurred again. After it didn't clear up on its own, we pulled off the road, waited a minute, and restarted

the car. It would go along for another 10-15 miles and then bog down again. This continued all the way back to Albuquerque.

No immediate problems around town, but over the next few months, the general situation gradually got worse. Eventually the car wouldn't idle, surged at traffic lights, and performance became noticeably bad. I replaced the pump and filter, clearing up some of the problems, but it was still running doggy.

At the shop, the technician found several wires in the engine wiring harness were melted. This engine has that same big connector that you see on the last few years of Golf IIs. It's an interesting item in that it has no dust cover to keep little nasties out of the back side of the connector. While this may not be much of a problem in the Golf engine compartment, the open end of the connector points toward the front of the Vanagon. To make matters worse, it is right in line with the bell housing slots on the automatic transmission.

We guessed that automatic transmission fluid and dirt that got into the contacts and caused a short precipitated the meltdown. Electrical checks showed no dead shorts in other parts of the system, so the shop replaced the harness (and repositioned the connector) free of charge.

We set out on a trip to Denver in February of this year. Just north of Santa Fe, about 70 miles from home, another loss of power. After limping along for five miles, we turned around and nursed the car home. This time the shop downloaded the codes from the ECU. Result? Replace the expensive 4-wire oxygen sensor and the water temp sensor (which I paid for this time).

The car toots around town just fine - we even make a day trip up into the mountains, with no problems. So we set out for Denver again (it's April by now), but same spot, same problem. This time we come right back, hop in the '86 Golf, and make the trip.

Reading the codes again indicates an intermittent connection fault with the near new (and very expensive) oxygen sensor. The car stayed at the shop for a few days. As it turns out, the left side motor mount had gotten soft and it appeared that some of the wiring was being occasionally pinched between the intake manifold and the frame/body. The mount was replaced and the wiring repaired and rerouted. At this point, the shop finally resigned itself to the fact that the ECU probably received some minor damage due to the wiring problems of the last six months. Swapping ECUs finally proved this. Plugs were also replaced as they (surprisingly) showed extreme wear on the grounding electrodes.

After picking up the car, I took it on a freeway-speed test drive to Grants New Mexico and back. The weather was warm, and we bucked 20-40 MPH headwinds all the way there. The car experienced no repeat of the problem, so I have hopes that the engine bay is now back to normal. To its credit, the shop is holding the bill until we are both satisfied the problems are fixed.

I'm going to Durango again this weekend - we'll see!

BTW, the installation now has over 30K miles on it. Mileage continues to hold around 20-22 MPG.