

Whales on Wheels

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Whales on Wheels

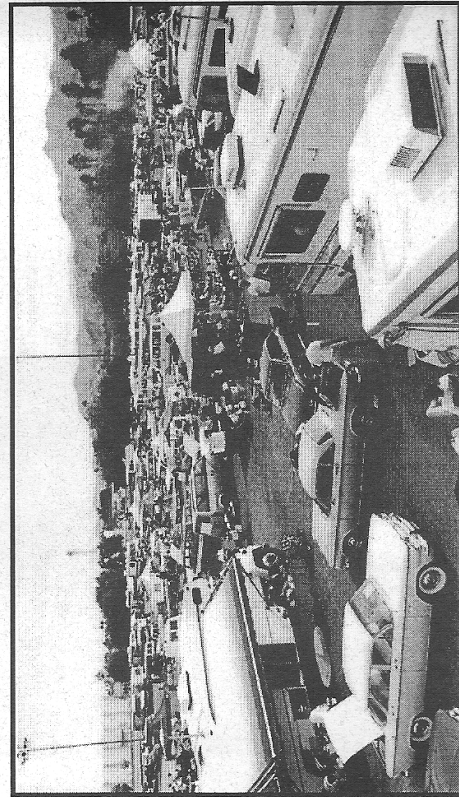
SPECIAL DOUBLE ISSUE

GREAT WESTERN FAN BELT TOSS & SWAP MEET PALM SPRINGS, CALIFORNIA

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Group Ultra Van members gather in front of their Ultras in Sunny Palm Springs.

Fall 1999-Winter 2000



The Craig's left, first place, the Franz's right, second place.

GWFBT&SM

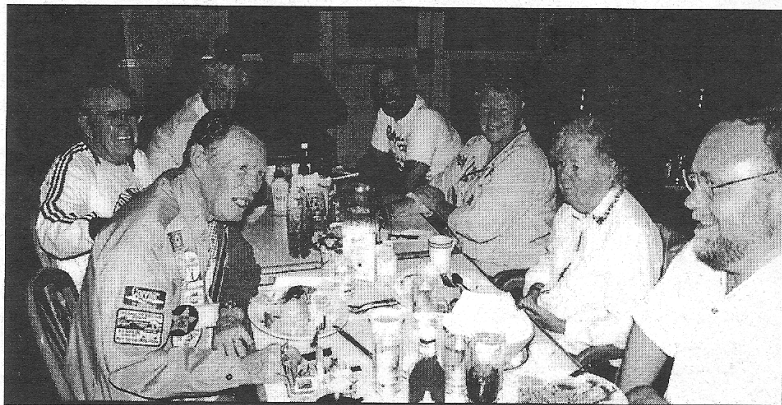
by W. Christy Barden

This was another banner year for the Great Western Fan Belt Toss & Swap Meet. Although there was not a fan belt toss competition, there were some exciting creeper races. Herb Berkman, from Tucson brought two modified "Hot Rod" creepers that were used for elimination heats (like drag racing) with two classes, men and women. Larry Scribner, from San Diego brought his usual good music from the 40's to play over the loud speakers. The non-stop raffle activity kept people constantly pulling out their ticket and checking the board for their numbers. I even won a few things.

The swap meet is still the biggest in the world. It's amazing after 35 years to see so many parts still available. Some of the usual ven-

dors were in attendance: Corvair Underground, from Oregon; Larry's Corvair Parts, from Los Angeles; Southwest Corvair, from Phoenix; Craig's Corvair and Ultra Van Service, from Joshua Tree CA; Marty's Corvair Parts, from Hawthorne CA; The Source, Inc, from Del Mar CA; Ray Sedman from Northridge Ca; Silicone Wire Systems, from San Jose Ca.; Ed Corson, from Riverside, Ca. Then there were about 50 other vendors on the field selling Corvair stuff. If you need anything, this is THE place go get it. People ask me, "can you still get parts for those things?" I answer, "yes", Palm Springs in the fall. You can ask Pet Smith (see page 7) owner of Ultra Van #463. He seems to always get what he needed there. I even bought a bunch of stuff. And many thanks to Harlan L Colburn Sr. for bringing all that stuff home in his basement style motor home.

Ultra Van's had their usual coveted parking place at Angeles Field. Along the south fence near the entrance to the field. All the "others" have to park on the other side of the field. There were about 15 Ultra Van members attending.



Enjoying dinner at Elmer's Steak and Pancake House.

The car show was large as usual. They had so many they had to park them in the isles. In the Ultra Van category the Craigs with #604 took first place and the Franz's took second with their #472. The banquet on Saturday night filled the large banquet room at the Hilton Hotel. Paul Mazerick did a good

job of taking photos with his digital camera. At the banquet he used his portable computer to display all the winning cars on a large screen on the side of the room. There were two food lines, so the self-serving went fairly well. Norm Bloss was the MC (also he was the chairperson of the event) and did a swell job of moving things right along, including the door prizes. He reported that through the week-end they had about 800 paid admissions to Angeles Field. So plan for next year, November 3,4,5 2000 for one the biggest Corvair and Ultra Van events of the year.

From the Editor

This is a special double issue of Whales On Wheels. Bob Ballew send a detailed of how and why the Corvair Powerglide automatic transmission Governor works. It was of such interest to find out why and how some the malfunctions I've encountered happened. I hope some our you feel the same.

We are looking for a new editor for Whales on Wheels. This is the twentieth year I've been editing Whales on Whales. In looking back over the twenty years I've noticed my spelling is getting better, not the best. My computer skills have gotten better and we have come a long way from the one page folded, typed Volume 1, number 1.

I thought when I retired I would have time to do all the things that retired people do. Well, I'm doing most of them, except I still have to get the newsletter out. So I've decided to stop doing the newsletter. I will be doing one more issue, Spring 2000. Then the next editor will have to pick up with the Summer 2000 issue. If anyone has an interest in doing this, please contact our president Bob Galli.

I've been spending a lot of time remodeling the house. I started 4 months ago, and still have about 4 months to go. It's nice to have an Ultra Van to live in when to much is going on in the house. Having the house torn up is a bit disturbing, but hopefully it will not be forever.

W. Christy Barden

Letters to Editor

Dear Christy,
Our trip to Ruidoso was rather busy. We used 29 quarts of oil to get there. I bought it by the case at Wal-Marts. On arrival I dug into the problem. A seal under the oil cooler was cocked, and the oil filter was leaking. Fortunately Jim Craig had the seals, and Richard Finch had an oil filter. We got back home using 2 quarts of oil.

On the way out of Concordia, Missouri a strap on the inboard U-joint broke. The drive shaft flaired around, denting the cooling shroud and breaking a couple of pieces out of the bell housing. This happened two buildings from a NAPA dealer, they came up with new straps. A garage across the street installed my new U-joints for me, on a volunteer basis. To my surprise, he would not take any money. There are still some good people in the world, once you get out of Washington, D.C.

I have #334 over my pit in the garage, with the rear jacking up. It is getting to get an newer unbroken bell housing.

On our return trip we stayed four days at a beautiful state park in midwestern Oklahoma, Red Rock Canyon State Park. No Interstate noise, no railroad train noise, and it has an area for RV group camping. We have literature, if any one in the West would be interested for a year 2001 National Rally.

Yours, Louis Griggs.

Earnest Newhouse celebrates his 91st Birthday with Friends

After the GWFBT&SM a group of us took Earnest Newhouse out to lunch. We met at his house and piled in my Greenbrier and drove 3 blocks to a local restaurant. We had a grand time. The wait person sang happy birthday and gave Ernest a Cup cake with one candle for his 91st birthday. Then all 9 of us climbed back into my Greenbrier and drove 3 blocks back to Ernie's. We figured between the 9 of us in the Greenbrier the total age of all of us together was 639 years. The Ellers 5 year-old grand-son kind of brought the average down. He is looking quit well for 91, is helping others

Memorially

In Memory of Eugenia Reyburn

Eugenia Reyburn, or Gene as she was affectionately known to the Ultra Van Community, died quietly Sunday, January 23, 2000, at The Atascadero Christian Home; where she and Milt, had been residents for the last 2 years.

Gene and Milt were the original owners of the Ultra Van Bob and I own, love, and drive the heck out of. They were long time UVMCC members, and gave Bob and I our first year membership into UVMCC, saying to us, it was an unwritten rule that when a member sold a coach, they were to pay the first years membership for the new owners. That's the kind of person Gene was.

Gene was 92 years old, and married 70 years to her best friend and husband, Milt. Gene was also the Mother of 2 boys, the eldest, Wayne and I were in the same graduating class in 1950 from, Atascadero High School, and Kenneth was a few years behind. Gene liked crafts, and we are the recipients of some of her handiwork.

A Memorial Service was held Friday, January 28, 2000, at 2 PM, at the Atascadero Bible Church. In lieu of flowers the family was suggesting sending a memorial in Gene's name to either the Atascadero Christian Home, or The Atascadero Bible

Church. The addresses are: Atascadero Christian Home, 8455 Santa Rosa RD, Atascadero, CA 93422 Atascadero Bible Church, PO Box 987, Atascadero, CA 93423 Diane Galli

In memory of Bill Binney

We were saddened to hear of the death of Bill Binney. He had not been well for some time. So this was not a shock to us. His wife Betty and my mom have been friends for almost 40 years. They use to work together at the Bank of America in Yucca Valley. They day of the GWFBT&SM he went into the hospital and died a few days later, November 10th, 1999, just 10 after his 80th birthday.

Bill was self sufficient craftsman. He was a Snap-On dealer for a while years ago, then when to work for an aero medical company in Palm Springs. He ran the machine shop and kept the equipment running. When he retired he set up his own machine shop at home. There he resorted many cars and his Ultra Van #295 at his home. He is survived by his wife Betty and step-son Mark. Christy Barden



Photo taken at Earnest Newhouses home before the group piled into the Greenbrier to celebrate his 91st birthday. L. to R. front: George Rakous, Mel Dinesen, Christy Barden. L. to R. rear: Earnest Newhouse, Millie Eller, Roberta Franz, Robert Franz, Art Eller.

with their tax preparation and volunteering at church and helping the Lutheran University. The Ellers bought his smaller X-plorer camping van. So now he has to use hotels as he travels. He still keeps his Cadillac and uses it quite frequently in his getting about. Than-you Earnie for a great afternoon.



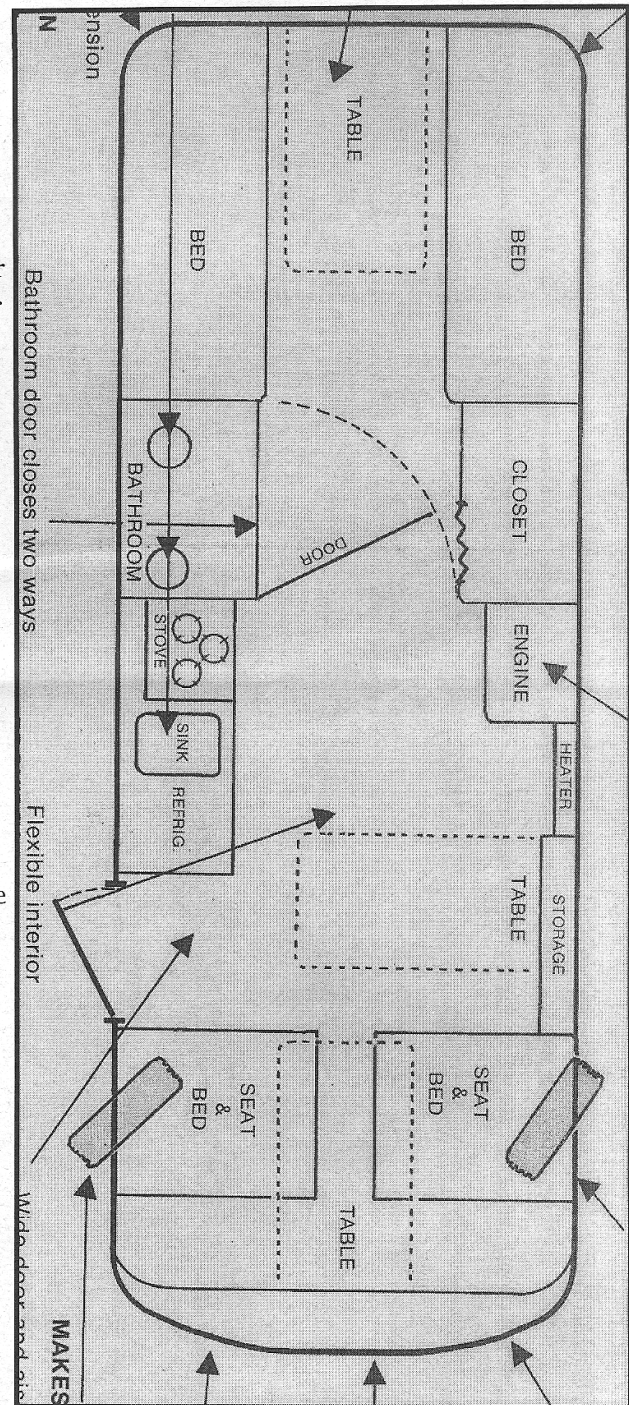
The 600 Series Ultra Van

by W. Christy Barden

After the Ultra Van production shut down in 1970 at Hutchinson Kansas, David Peterson came up with the idea of a new Ultra Van Series. He used the same monocoque construction used in the earlier Ultra Vans, but a different technique. He had a special aluminum extrusion made to fit from a base on each bottom side of the Ultra Van. He used aluminum extrusions "U" and "H" channels for the "frame over the special bottom side pieces. Then covered it with .032 aluminum, much the same as the former Ultra Vans, using fiberglass in the compound corners. The prototype Number 601 was built in 1971 - 72. He built it in his Alameda, California shop. He used the same early 1960's Chevy Step-Van window shields. But there were a big differences in this 600 Series, it had a side mounted mid-engine. The unit was 23 feet long (one foot longer than the previous models) and had a solid rear axle. The front suspension was like the old one, a double wishbone "A" arms. The difference was air bag suspension was used all the way around. The combination of a solid axle and air bag suspension made it a very good handling vehicle. Not the tail wagging that happens in some of the older Ultra Vans. The engine was an Olds 350 V-8 marine engine. This will let you cruise at 70 MPH with about 14-17 MPG. Again the aerodynamics is the reason for the good mileage. It has a full body pan under the vehicle and rounded corners that make for a low drag coefficient.

He lent this Ultra Van #601 to FMC to test. They were involved in developing a side mounted engine motorhome at this time. They made 3 prototypes (4 wheel drive), but dropped the idea because of inherent problems. I remember taking some photos of them in the early 1970's, but can't find them.

After this David Peterson decided to build this new 600 series for production. A New Ultra Van Corporation was formed by a friend of Dave's son, Roger Dillon. He capitalized the company and set up business in Sonoma California, with David Peterson as a consultant. They attended many Ultra Van rallies to promote the new company using the Ultra Van # 601 as a demonstration unit.



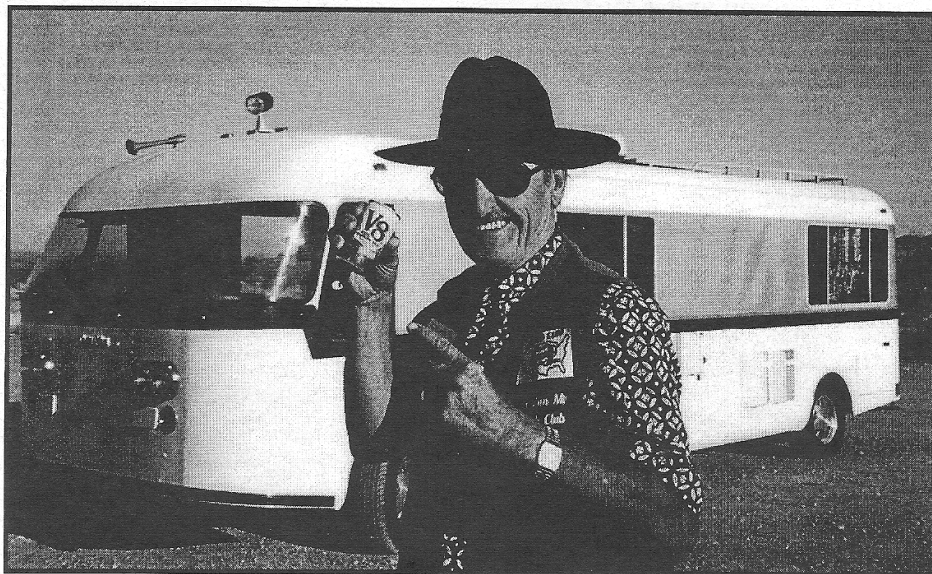
This is the floor plan of the Ultra Van Number 601 as was published in the sales brochure from 1972.



Jim Craig's # 604 rear view taken out in the desert.



Note the radiator out let on the lower side ahead of the rear tire. There is another radiator laying flat under the forward side window. The engine is just behind the forward side window. Jim says it runs cool with the two radiators.



Jim Craig is saying "Don't you wish you had a V-8". Note the low profile of the Ultra Van.

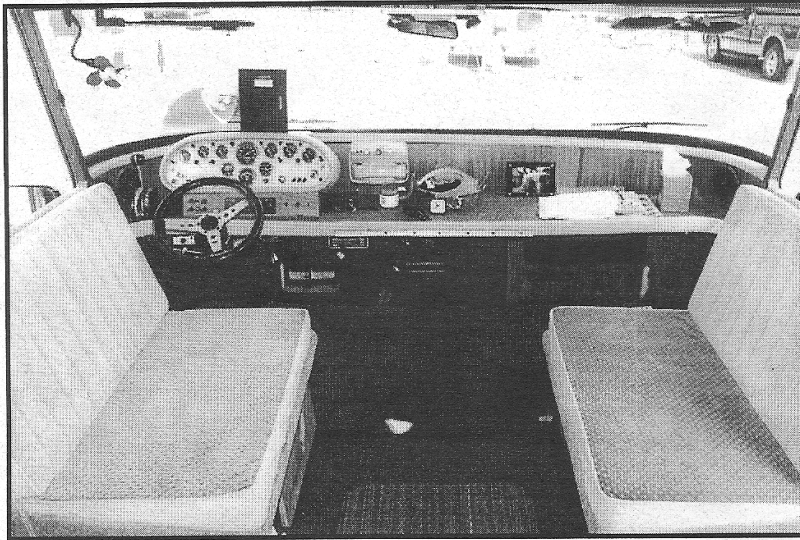
During this time David had contracted with Earnest Newhouse and Phil Phillips to build two of these units but in a 26 foot version. They were Number 603 and 604 respectively. He started the units side-by-side in his Alameda, California shop. I remember going through his shop at that time and taking photos (can't find them) of these units before the floor and interior and floor were installed. These units were moved to the Sonoma operation and completed and sold from there. Number 602 is owned by Richard Nelson in Los Gatoes, California and he is converting his to a front wheel drive and engine unit. I was at his place

Introducing
**THE MOST EXCITING
DEVELOPMENT IN THE
HISTORY OF
MOTORHOMES!**



The **ULTRA VAN**

This is the cover of the 1971 sales brochure. It shows Ultra Van # 601 as it appeared at the Sonoma facilities.



Left. The dash has a convenient cluster of gauges. The shifter lever is on the left of the dash. Note the smaller steering wheel, which means that the power steering must work fine.

The seats have a table (keep in the back) that is placed between the seats for a dinette. For driving the seats pivot and face forward. This allows full use of this area as a sitting place, driving place, or in a pinch the table drops down and the area can be used as an extra bed.

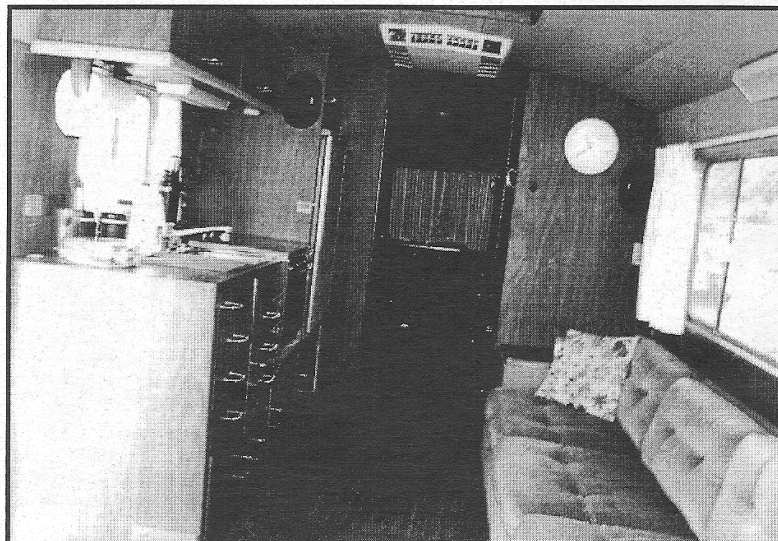
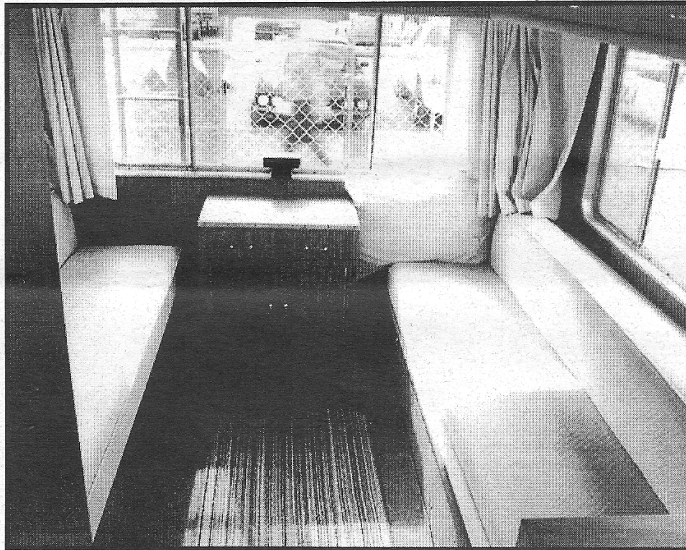
A hot water radiator is located under the dash to heat the front area while driving.

Right. The rear twin bed area. Both beds are located over the rear wheel wells. Behind the wheels, there are batteries on the left and propane tank on the right. The area is presently made up as a sitting area. At night the bed backs fold down and make a nice comfortable single bed.

Note the large rear window which makes for good visibility in your interior rear view mirror used in the driving area.

The fuel tank is located under the Van behind the rear axle, it has a 30 gallon capacity.

The area is well heated with the use of the Suburban 30,000 BTU propane heater which is located under the kitchen sink and piped to other areas of the Van.

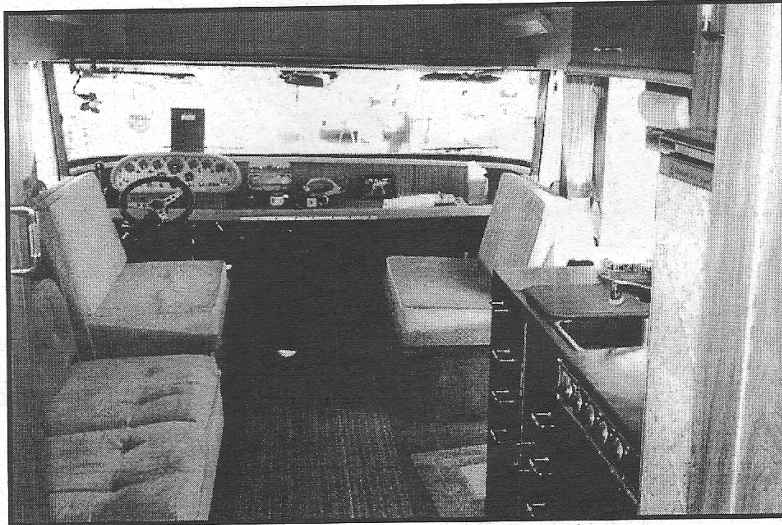


Left. This is the kitchen area looking from front to back. The sofa on the right folds down into a bed as well.

The refrigerator is on the left next to the toilet area. The four burner stove and oven is just forward of the refrigerator.

A double sink is located next to the stove top, which gives plenty of room to wash and rinse dishes on the road.

There is plenty of storage space above the sink and plenty of drawers under the sink area.

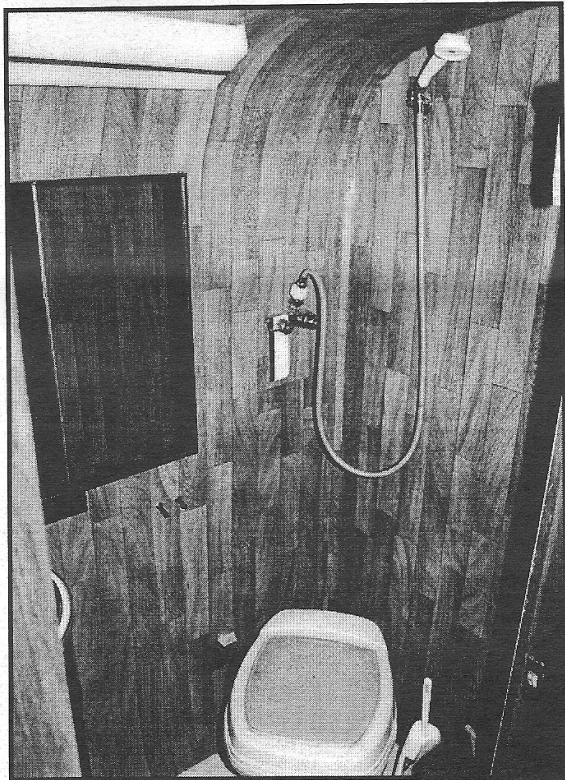


Left. Looking forward from the back of the Van. A better view of the stove and sink (half is covered with a cutting board). The refrigerator is on the far right.

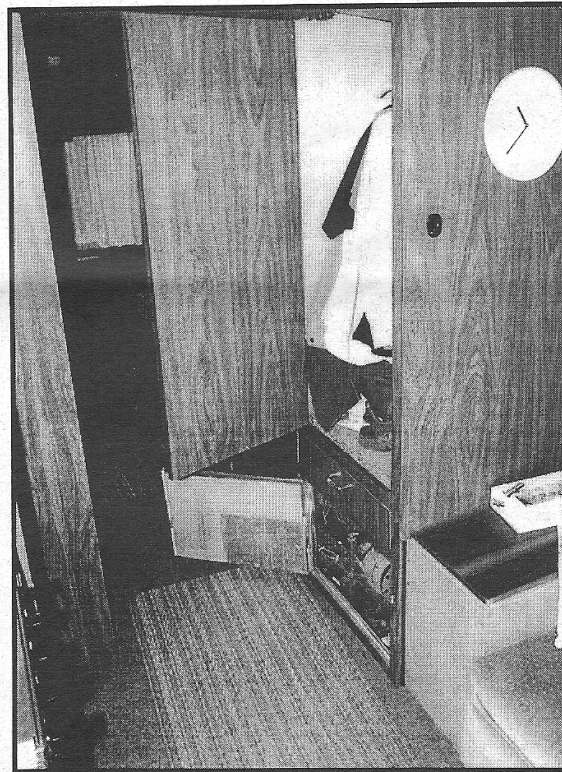
With the sofa and forward seating area, there is plenty of room to do some entertaining.

The fresh water tank and the final holding tank are located under the mid part of the Van on the right side. They hold 50 gallons each.

The engine is located below and to the left out of view in this photo. That puts the weight of the engine and transmission on the left



The toilet area has a fresh water flush that drops directly into the final holding tank. The wash basin is located at the far left of the photo, just showing the edge. The shower is a hand held hanging on the wall. The drain is in the center of the toilet area and goes directly into the final holding tank. A vanity mirror and medicine cabinet is located just above the toilet on the wall. It is a big area and allows for plenty of room to take a full shower.



There is a closet on top. The small door under the closet is access to the engine compartment. We are looking at the right side of the Olds 350 engine. You can get to the spark plugs, the automatic transmission fluid level and the distributor with opening a simmualr door just behind the door that is open.

There is an engine access on the left side of the Van to check the oil and add some when necessary.



This photo shows the relative small size of the Ultra Van compared to a big rig.

This also show the right side of the Van. The entry door is located behind the front passenger window. It also shows the awning holder that covers the side when parked in a camping spot.



Marlene Craig is shown pouring some coffee for visitors. She really loves the convience and open space of the Van. She & Jim have owned may Ultra Vans and she thinks this one is the best all round one they have had. An a recent trip to the races they had a party with about 10 people attending.

Whales on Wheels

several years ago, but haven't heard a recent update on his progress. Number 605 is owned by Roy Muranaka in Northridge California (he also owns the one off number 700, that is another story), this is a 23 foot unit.

Numbers 603, and 604 were delivered from Sonoma and no further units were sold from there. Number 605 was a work in progress when the Corporation closed it's doors. George Truman bought this unit and did quite a bit of work on it before he passed away (See WOW Summer 1992). His wife sold 605 to Roy Muranaka.

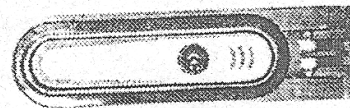
There was a try to interest Winnabego in the Ultra Van project, but it never happened. Would have made a hell of a small unit. Number 603 is owned today by me (Christy Barden), 604 is owned by Jim Craig, and the prototype number 601 is owned by Ed Gurr in Mariposa California.

The Ultra Vans were either 23, or 26 feet long. All were 8 feet high and 8 feet wide. The delivered weight was about 6,500 pounds. I have 135,000 miles on mine now and haven't had the heads of the Olds 350 marine engine, yet. I'm planning to place a radiator in front of the engine to see if I can get it to run cooler.

Flush Door Latch

Locking type. Includes striker. Fits standard 2" width door or has bushings that can be cut to fit narrower doors. Code 8

Cat. No. M-242-000 \$44.50



Richard Finch sends us a source for a new door latch for our Ultra Vans. He writes he ordered one of these NEW, SHINEY, CHROME door latches and it is exactly like his Ultra Van Door Latch. Order from Wag Aero Group P.O. Box 181, 1216 North Rd., Lyons, Wisc. 53148. Phone: 1-414 763-9586; Fax: 1-414 763-7585.

Dori & Joseph DeCamillis have an Art Show in Birmingham.



The mobile studio. Joseph and Dori inside the UltraVan, Wisconsin State Fairgrounds, Milwaukee, June, 1994.

Dori and Joseph DeCamillis are having an showing of their art work at the Birmingham Alabama Museum of Art, February 13 through April 30, 2000. They have been Ultra Van owners for some time. They have lived in their Ultra Van all over the country doing art work as they go.

Dr. David Moos, Curator of Paintings says of the DeCamillis: The open road is as much about physical travel as it is predicated on imaginary transport. At one point, for instance, they stayed with a 75 year-old woman (Group Ultra Van member Hilda Green in Torrance, CA) in the Los Angeles area, living in their Ultra Van that was parked in her driveway for several months. The painting *For Hilda* (1998) is an homage to this generous woman and a direct reminiscence of that urban segment of the voyage. In this composition Hilda is only vicariously present, represented through her brown, padded easy chair. Nearby are various objects of personal signifi-

cance: atop a side table, framed photographs of family members, various books, and a rug imprinted with monarch butterflies. Beyond this interior environment, where the arrayed objects seem to be placed with the precision of props on a stage, we can gaze out of the cinema-scope picture window and see across the lawn to the street full of traffic. This carefully ordered outside view - which is a reference to the driveway, the neighborhood, and open road - clearly echoes the DeCamillis strategy of treating the domestic environment as a still life, a tableau and template that registers symbolic significances.



For Hilda, 1998

Broken E-Clip in Transmission How to Get Home Without It

By Bob Ballew

Your Low to Drive shift sometimes seems erratic. You suspect that the infamous E-clip may be missing or broken. What if I were to tell you that you can determine for absolutely sure, without ever dropping the Powerglide oil pan or pulling the valve body, or even crawling under the Ultra Van!

This will take a running Ultra Van and a helper. Have your helper fire up you Ultra Van and let it run until the engine is off the fast idle and idling around 500-600 RPM. If it idles faster and has good brakes, that will be okay. Next, disconnect the throttle linkage coming our of the fire wall from the carburetor cross shaft. The air cleaners most likely will have to be removed to get at the linkage. Pull to the rear on the disconnected throttle linkage until you feel it stop as the throttle lever on the Powerglide touches the detent in the

valve body. It is not necessary to pull the linkage through this detent. At this point, have your helper put his foot on the brake and shift the selector to Drive. You should not feel any movement of the throttle linkage. Continue holding the throttle linkage up against the detent and have your helper shift the selector to Low. If you get a sudden pull on the throttle linkage, this indicates a missing E-clip. If no pull, the e-clip is present and doing its job of keeping the throttle valve in the valve body in place. Your erratic shifting is caused by something else.

If it is the E-clip, you can get home by doing the following. Put the selector lever in Drive and accelerate normally. To shift to from the Low gear to High gear, put the selector in Neural then back into drive. This should shift the transmission into high gear.

The October 1999 issue of the CORSA Communique also has another article by member Bob Ballew. He describes how to drain all the transmission fluid out of your torque converter, using compressed air pressure. Ed.

The Powerglide Governor Demystified

by Bob Ballew

THE STOCK CORVAIR GOVERNOR less WEIGHT COVER

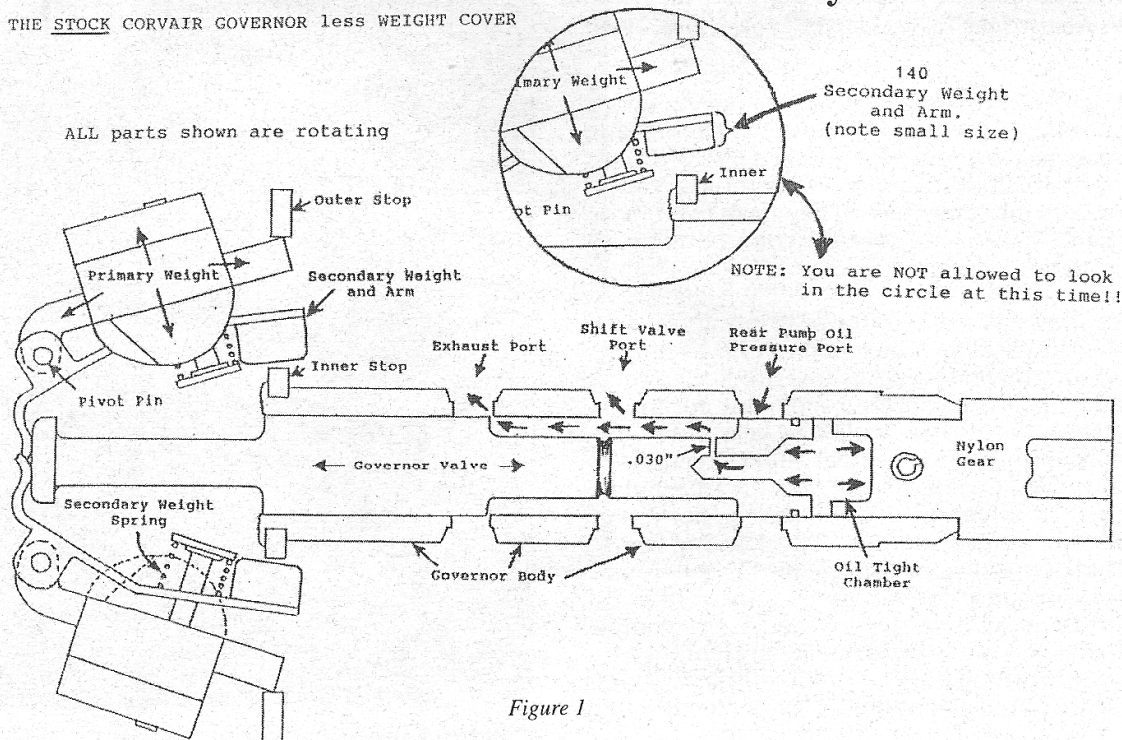


Figure 1

A stock governor in Low at about 20 MPH (Half Throttle). The primary weights are against outer stops by centrifugal force. The secondary weights balance between the left movement of the Governor Valve by the oil pressure in the Oil Tight Chamber, and centrifugal force on it's weights plus compressing it's springs. The drawing (Fig. 1) shows the instant the oil pressure in the chamber exceeded the centrifugal force of the secondary weights and opened the exhaust port. As the pressure drops in the chamber the secondary weights start to move towards the outer stops, moving the valve right, closing the exhaust port and opening the rear pump oil port, and building the chamber back up via the .0303" hole. It's the secondary weights which control the oil pressure which is routed to the shift valve to affect the shift to Drive.

Three Governor Malfunctions Effecting Shifting.

The cut-away drawing (Fig. 2) shows the Governor Valve, it's body and part of the main Powerglide housing in which the Governor Body and Governor Valve rotates. The weight assemblies and cover which would be on the left are not shown.

The parts marked 'A', 'B', 'C', & 'D' are part of the main Powerglide housing in which the Governor Body and Governor Valve rotates. The drawing shows three malfunctions at the same time.

The first is the Nylon Gear. Due to heat, old age, drying out, or just plain wear, the Gear is no longer a press fit in the Governor Body. It is this press fit that makes the Oil Tight Chamber, "Oil Tight". As you can see from the drawing the oil from the Rear Pump on it's way to the Shift Valve finds the tiny ".030" hole" leading into the Oil Tight Chamber which would normally begin to increase the pressure in the Chamber and push the Governor Valve to the left, which would also pivot

the weight in. Any increase in speed the weights would swing out moving the Governor Valve back to the right. This will result in a balance between the Weights and the Oil Tight Chamber oil pressure. However with the Nylon Gear lose in the Governor Body the oil pressure can't build up in the chamber. Only a lose fit of only .002" is enough leak to prevent the build up. Since their is no way to exhaust any excess oil pressure, the FULL Rear Pump Oil Pressure goes to the Shift Valve resulting in an EARLY shift to Drive. (Bigger the leak the earlier the shift)

The second malfunction is shown as a leak past a badly worn Governor Body Journal between the Shift Valve Port and the Exhaust Port. Strangely enough it is the STEEL Governor Body that wears more than the aluminum. The stock size of the Body Journal is .800". Stock size for the aluminum bore is .801". I have never found a bore worn more than .003", but have found Body Journals worn as much as .011". If you figure the area of that .011", that's a BIG LEAK! Let us assume at this point that the Nylon Gear is okay and the left and right movement of the Governor Valve is balancing out everything in a normal manner. We would now be sending the proper oil pressure to the Shift Valve. However, part of the pressure is bled off by this 2nd leak and much less than the proper pressure is now being sent to the Shift Valve. Only by speeding up can we get shifted to Drive which will result in a extremely LATE shift to Drive. (Bigger the leak the later the shift)

In regards to the two leaks listed above and the resulting malfunctions, if both leaks were occurring at the same time I haven't a clue as to the results, I'm sure it wouldn't be a normal shift.

The third malfunction is shown as a chunk of Nylon Gear missing. This can be caused by two things. First; during the assembly of the

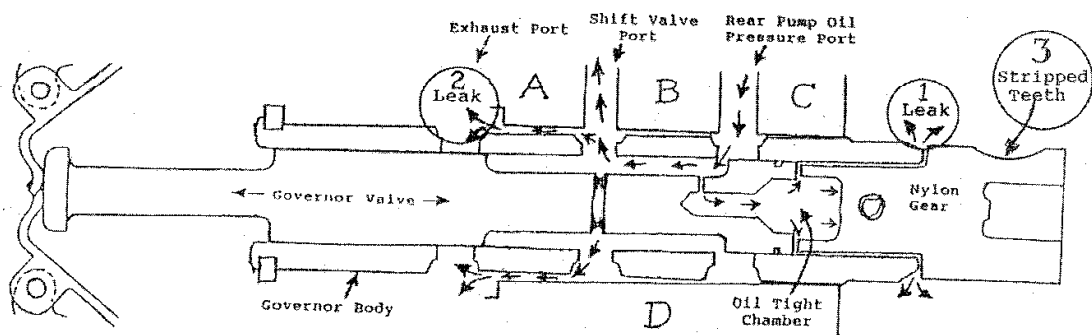


Figure 2

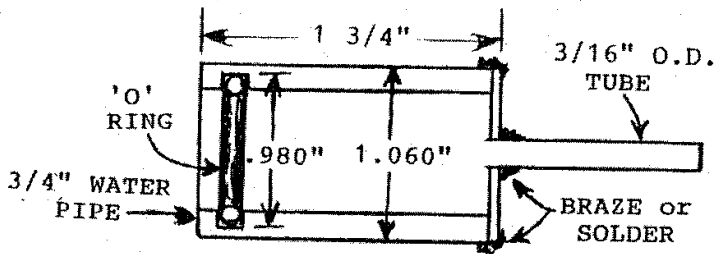


Figure 3

Powerglide to the differential, or during repair done to the Differential the Steel Governor Gear located on the Differential Pinion Shaft, one of the teeth of the Steel Governor Gear was damaged and this burr or dent of the Steel Gear tooth will eat away the Nylon Gear till it strips a section out. Second; the guide pin the Nylon gear turns on in the Powerglide housing is binding the Gear and this friction causes excess heat, softening the gear which eventually results in stripped teeth. In either case, the Governor will no longer turn. However, the car will still move, the rear pump will still pump, but since the Governor isn't turning, the weights aren't turning, the oil pressure from the rear pump can easily move the Governor Valve to the left thereby opening the Exhaust Port wide open and none of the Rear Pump pressure can now reach the Shift Valve so the car remains in LOW range and not shift to Drive.

Checking out you're old Governors. To check the Governor Journal at 'A' (see Fig. 2), that's the Journal just sticking out of the neck of the Weight Cover. A one inch Micrometer will work nicely. The journal is usually egg shaped so measure across at four different angles. Stock size is .800" and ROUND. A couple of thousandths would most likely be okay. Next, a loose or leaking Nylon Gear would be next. If you can wiggle it, you know it's leaking and should be replaced. Some times the split pin will prevent it from wiggling, but still leak. Couple of things you can do their. Drive the split pin out and if the Nylon Gear just falls out, you know it's leaking. If you can't budge the Gear, it's a winner, put the pin back in and tag it. WARNING: DON'T use a vice to hold the Governor Body ain't all that strong.

There's another way to check for leaking Nylon Gear. This doesn't require driving out the split pin, however it does require a couple of special tools. If you have a machinist friend, he can make you a tool to check for a leaking Nylon Gear out of a short piece of 3/4"

water pipe as shown in Fig. 3. The replaceable 'O' ring is a Push Rod Tube 'O' ring. A little oil on the 'O' ring and the first Journal and push the tool on over the Nylon Gear with a twisting motion, attach a vacuum pump and if it can hold vacuum for at least ten seconds it will be okay.

Fig. 4 is a holding tool for the Governor Body made out of a piece of 3/16th" steel. It slides into the Shift Valve Port (the one with the groove). It can be held in a vice while you remove or replace a used Nylon Gear that is quite snug. I have to remove the Nylon Gear when I am checking the Governor to see if it is one of the RARE 140 GOVERNORS (that procedure later in the article). The Holding Tool can also be used to hold the Governor Body vertical in a hydraulic press to install a new or reproduced Nylon Gear. Remember it's a 'Press Fit', not a slip in and you could damage or bend the Governor Body as it ain't too stout.

The Pitfalls of Reproduced or Aftermarket Nylon Gears.

If you are the proud owner of a bunch of NOS GM Nylon Gears, you can go ahead and replace them without checking or measuring anything, they are of the correct configuration and will fit perfectly. However if you only have the reproduced ones, their are a few things about them you should check before you press and drill. Fig. 5 is a cutaway drawing of a GM NOS Gear and a reproduced Gear.

As everyone knows, G.M. dosen't waste any money on frills that aren't necessary, with this in mind I would like to bring you're attention to the two parts of the G.M marked 'A' & 'B'. This extra machine work most likely didn't cost much but with over a million units built their must be some reason this extra money was spent. We like to brag about our 200

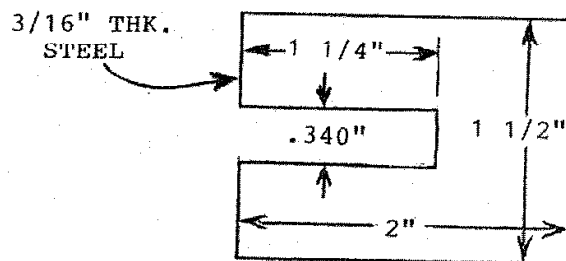


Figure 4

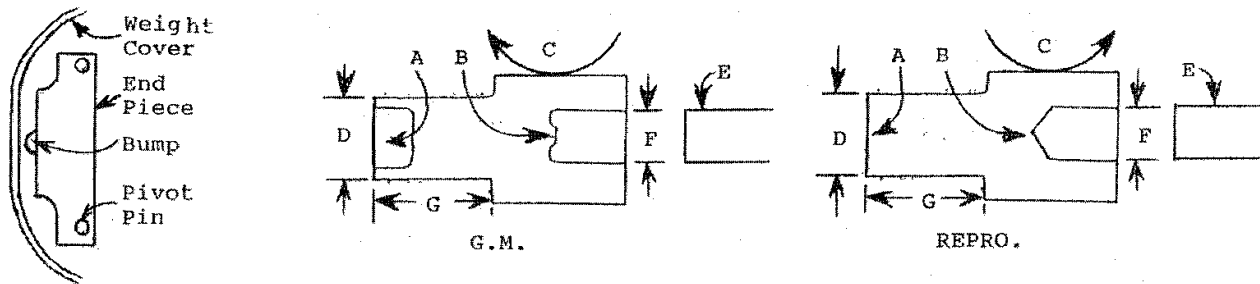


Figure 5

thousand mile bullet proof Powerglides and it's little extras like this that make it possible. The little cavity marked "A" is half of the "Oil Tight Chamber" which between it and the Weights gives us the proper Oil Pressure for Shift Timing. The engineers that designed it wouldn't have put it there if it wasn't needed. The nylon is flexible, it's possible that the Cup lips seal off the chamber better under the Oil Pressure and heat of operation.

Another frill, 'B', a little 'Bump' in the middle of the G.M. Nylon Gear Guide Pin Hole. When you're tooling down the highway the Guide Pin 'E' isn't even touching that 'Bump'. It's as much as 3/32" away from it. What's this, more money being spent for a frill? No, it's designed that way for a purpose. When you're tooling down the highway the Steel Governor Gear 'C' mounted on the Differential Pinion Shaft is turning in the direction of the curved arrow (That's what rotates the Governor). The friction of this turning moves the Nylon Gear and all the rotating parts of the Governor to the left. Inside the Weight Cover (fig 6) there is an End Piece mounted on the two Weight Pivot Pins. On this End Piece there is a 'Bump' which contacts the Weight Cover and this 'Bump' is what the rotating parts spin on (the Weight Cover does not rotate). Now

before everyone shouts, THEN WHAT THE HELL IS THE 'BUMP' IN THE NYLON GEAR FOR!!! Calm down, remember out Corvaire back up just like other cars. In backing up the Steel Governor Gear 'C' is not turning the other direction, (shown in 'C' in the reproduced drawing) this friction will now move the Nylon Gear and all the rotating parts to the right and up against the stationary Guide Pin 'E'. However the 'Bump' in the G.M. Nylon Gear Hole is centered on the flat end of the Guide Pin, and can spin quite nicely. Now, take a peek at the reproduced gear. The Reproduced Nylon Gear is being pushed up against the outer edges of the Guide Pin, and any deformities along that edge will start drilling into the Gear. Now a well thought-out design.

Let's go to two other possible problem areas on the reproduced Gear. First, the drilled hole 'F' for the Guide Pin. A new Powerglide pin is .309" (I pulled one out and measured the virgin end) a typical Corvaire size. Nothing, absolutely nothing is that size. A 5/16th drill is .3125" (.0035 too big). A 19/64th drill is .2969" (.012 too small. A letter drill "N" is .3020" (.007" too small. Yes, a typical Corvaire size!! With a bit of effort I took a 5/16th" grade '8' bolt (they are a couple thousands under in order to go through a 5/16th"

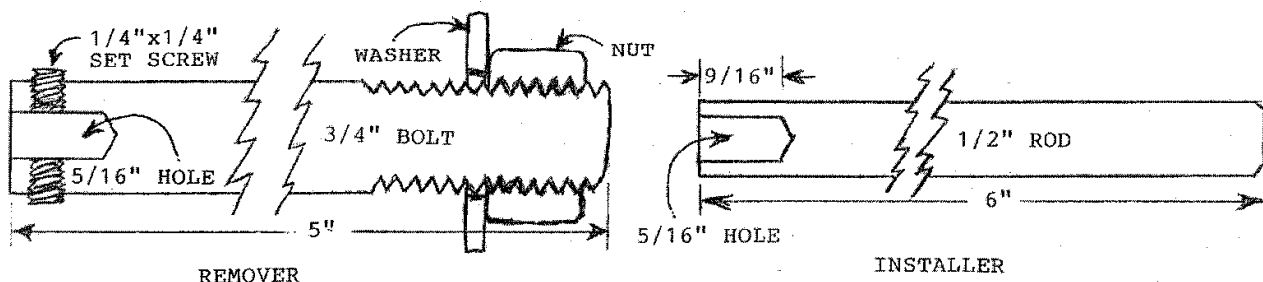


Figure 6

hole. With some emery paper and crocus cloth I managed to make some passable pins.309". Of course bolts are not drill stock, and hand grinding didn't make them perfectly round, so the following testing is not engraved in stone. I have six brand new reproduced Nylon Gears from an unnamed Corvair supplier and of that six only one will accept my.309" pin. It does so with great reluctance and when fully in almost impossible to turn. The other five won't accept even a fraction of an inch of them. Their is good news though. Their are not too many Powerglides with Guide Pins still in mint condition (not worn).

So the odds are with you here. Most of our Powerglides are high mileage units and the pins are worn down to where the reproduced Gears will have a fair chance to fit some. If you are thinking of pressing some reproduced Gears on you're Governors I would recommend checking to see if the Gears will slip on the pins first. I dug out two of my idle Powerglide cases and neither of the pins were worn enough to accept any of the five reproduced Gears. I got the one but could hardly turn it. So, CHECK FIRST!

The second thing that might cause a problem is the length of 'G' (fig.5) the part that presses into the Governor Body. The Governor Valve contacts this when it is in the position to open the port to the Rear Pump Oil Pressure. In most of the Governors I measured, that opening was about.035" full opening. I measured all my old G.M. and NOS gears and all my reproduced gears and found the dimensions of 'G' of the reproduced averaged around.028" longer than the G.M. Gears. This means this extra.028" will only allow the port to open

about.008". Using the old saying 'because of the stack up of parts' their is a possible chance on some governors the port might not open at all. I haven't checked whether by pressing the reproduced Gears in, that the squeezing might make them even longer.

At this point I would like to report one good feature of the Reproduced Nylon Gears, they press in real, real snug! No problem with leaking to screw up shifting timing. However if you plan on pulling them back out to chance something, forget it, as they are really Bearcat to pull out!! The holding tool is a 'must' for attempting to remove the Gear.

What I am doing to modify the Reproduced Gears to get them closer to stock G.M. is as follows. For the cavity 'A', using a 3/8th" two flute end mill go in about.260' deep. While the Gear is still in the chuck, take off about.025" off the lip to shorten the length of 'G'. I am now in the process of grinding off (hopefully) a couple of thousand's off the 5/16th" end mill to enlarge the hole 'F' to fit my homemade.309" Guide Pins. Failing that I might grind down the ends of my homemade Guide Pins that fit in the Guide hole of the Gear to the smaller size to fit the Reproduced Gears. Possi-

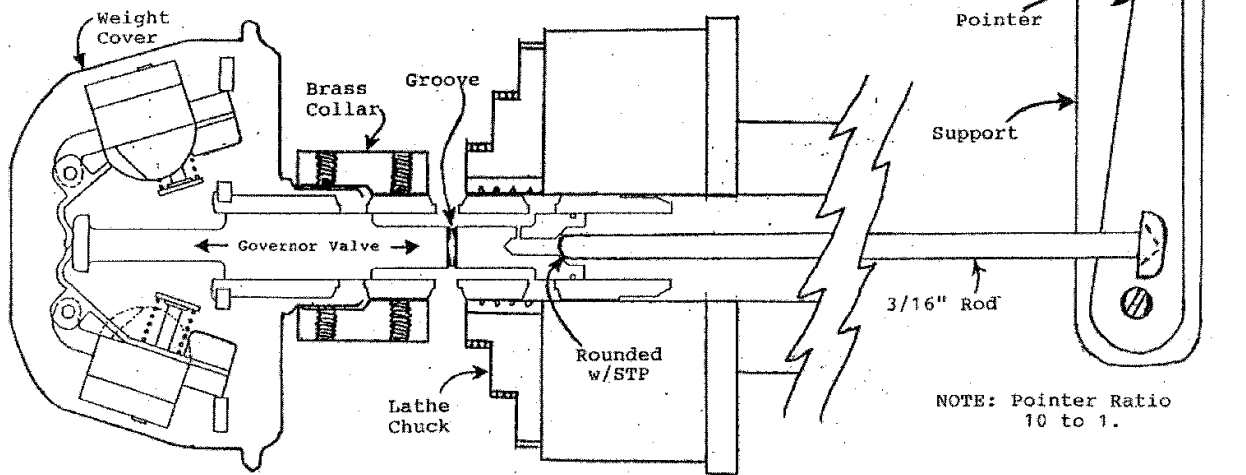
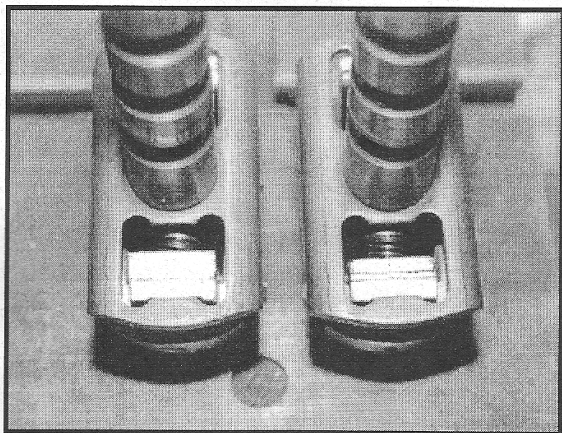


Figure 7

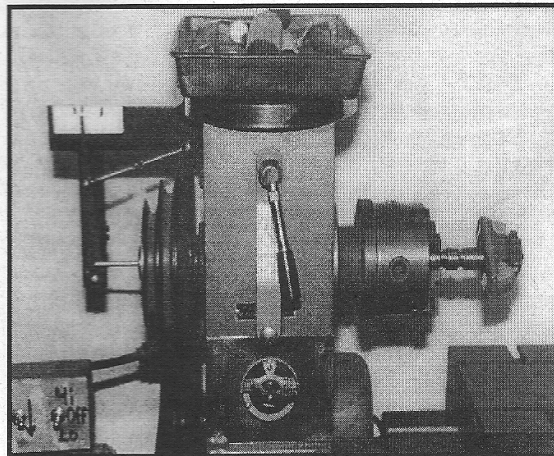
bly machining the ends to fit the 60° drill shape of the drilled hole in the Gears. How do I remove the pins from the case? See Fig. 6. Okay, you can look in the circle of Fig. 1.

Finding Those Rare 140 Governors.

The only difference between a Stock Governor and a 140 Governor is the 140 secondary weights are about 32% smaller (in size) than the stock secondary weights. The primary weights are the same size in both. All of them are sealed inside a Weight Cover and we can't see them. The difference in size is the 1st clue we have to work with. The outer and inner stops for the weights are the same distance apart on both Governors. That's the 2nd clue we can work with. Shown in Fig. 7 is a Stock Governor being spun at about 800 RPM on my lathe. The Weight Cover is held in place by a brass collar (home made) and 4 allen screws to keep it from interfering with the movement of the weights. At this RPM the weights are swung out to the outer stops, moving the Governor Valve to the right as far as possible. This has pushed the 3/16" Rod to the right moving the pointer to the STK (stock) Mark. When the Governor (less Nylon Gear) was installed in the lathe chuck, it was pushed up against the Rod and the pull of the Spring forced the weights in against the inner stops, the pointer was pushed to the 0 Mark, and then the Chuck tightened. When a 140 is checked, the 140 weights being smaller moves the rod further, moving the Pointer to the 140 Mark. EUREKA!!

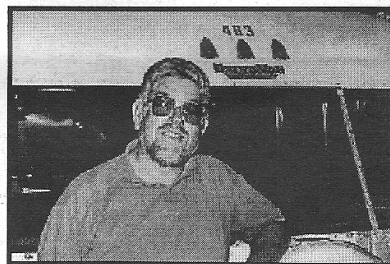


Standard weights on Left; 140 weights on Right. The 140 will move the valve further. That difference on the valve is only about .030".



A stock Governor at 800 RPM on Bob's lathe. This is a Governor with the cover off. The camera stopped the action. Pointer at STD. The weights were painted white and are against the outer stops.

A Pete Smith Special



Pete Smith with his Ultra Van

With great interest I read each issue of "Whales on Wheels". Gleaning every update, problem area, and breakdown by fellow whalers. I have very nearly done it all, and here's the story thus far.

About four years ago I was browsing the local wrecking yard with a friend, looking for some VW parts he needed. Out front set #463 with one rear wheel askew. The sign said "For Sale, Do Not Part Out". We peered inside. Do you remember the first time you looked into your's? I was amazed. It happened that I was looking to build a computer room for my daughters. The Ultra Van had more than enough room, and if I worked it right I could hook up the plumbing and they could even use the bathroom (or I could, ever live in a one bathroom house with three females and

you know how to hold "it!") I could landscape around it, put in a brick path, picket fence, two pink flamingos, it would look kind of kitschy.

I was told the price was \$1,200. Cheaper than the Home Depot bill I would pay to build it myself. Home I went to get my wife and convince her of the enterprise. Miracle's do happen, she agreed! As it unfolded, 1,200 bucks was just the latest bid. I'd have to bid \$1,300, then wait and see. The next two weeks they are called me for another bid almost daily. I topped out at \$2,500. I know nothing of Ultra Van history, the club, parts availability (namely Jim Craig), or their value. I was comparing it to the 2X4's and plywood. I lost the bid. Drat!!! A few weeks later Ecology (wrecking yard) called and asked if I was still interested. Of course, but at what price? Even though we were told that if you won the bid you had to go down there with cash immediately (I had a shoe box full of greenbacks ready), the fellow bidding against me was playing with Monopoly Money. He couldn't come up with it. So for \$3,000 it could be mine. I protested, explained that anyone could have jacked up the price with play money, I had a genuine dollars ready as they requested. We went round and round finally agreeing on \$2,000. The fun was about to begin.

Seems like if you tell a tow truck company that you have a motorhome they see dollar signs. Plus they all want to flat tow it on a dolly. Try to convince them that it would fit on a roll-back rig and they laugh out loud on the phone. Finally I found an understanding company and they come out. They did a good job if you take into consideration that he hooked the aluminum with his cable and filleted the front underbelly.

Home at last. Darned if upon charging he batteries it started. This is kind of neat. Luckily the Ryerson manual and owner's manual were inside. Read pretty neat, and there were addresses for "The Underground" and "Clark's". Parts are easy. I also heard about The Fan Belt Toss and attended. There I met Jim Craig, learned how to fix the suspension, and most importantly saw a dozen other Ultras. I'm hooked! Sorry girls, the computer stays in your room.

Ever have a vehicle with a "salvaged" title? I think Rod Serling's ghost resides in California's Department of Motor Vehicles. Had to get certified sales receipts from the wrecking yard, break and light inspection, and

have the Highway Patrol certify the I.D. numbers. Seems like #463 didn't have enough numbers to suit, plus being a 1969 they wanted me to put all the smog crud on. They wouldn't buy the sheet in Ryerson's manual that outlined the exemption. It took over a year to get everything done. The Highway Patrol had to put their own disgusting serial number plated on, but the best thing was Governor Pete Wilson signed a bill exempting vehicles 25 years or older from having smog checks. Instantly the nightmare was over.

It ran well to begin with, looked like heck, but I ready to hit the road in it. Ruidoso National Ultra Van gathering sounded good, I set sail. Hard to hear it pinging with a 45% hearing loss. It was running pretty bad, but running. I decided maybe I wouldn't make it and turned for home, made it ten feet beyond the turnoff to Ocotillo on Interstate 8, 120 miles from home when it shook, rattled and died. Somehow it started and I made it to an R.V. Park's storage yard. The next day my wife drove over and picked me and my dog up. Again, the Fan Belt Toss was just around the corner. I gathered all my tools, loaded the truck and went back and pulled the engine on #463. Once back home I found three valves seats bouncing around inside the engine. Off to the Fan Belt Toss with heads on my mind. What a great event. I found two nearly perfect heads ready to install. Home again, engine buttoned up, off to Ocotillo again. Ran great!

I'm involved in another unique to the U.S. car called the Mini. An English VW beetle kinda. There was a swap meet for them in San Jose, California, so off I go in the Ultra Van. This time I wanted a dingy, so I put my 500cc Yamaha behind the driver's seat. Went right in. A peculiar thing, with the added 450 pounds the Ultra Van handled great! Wasn't all over the road when a semi went by. I felt like I was on a magic carpet. The meet went fine, people seemed more interested in the Ultra Van than the Mini's, neat how that works isn't it? Well just north of Santa Barbara heading south the gas tank split open. When the wrecking yard acquired my Ultra they couldn't move it due to the broken suspension, so they used a fork lift. The forks crunched the fiberglass tanks which I able to refiberglass (minus the foam), but the aluminum fuel tank had to live with the tank repair goo that Pep Boys sells. Well the constant oil canning effect finally split the tank. No amount of sealer or gum would stem the tide. So here I am 2 feet from traffic along Highway 101 without gas. AAA came (I've since gotten

a cell phone) and gave me 5 gallons of fuel, but I was at such an angle it wouldn't pick up. The center fuel pick pipe was pushed up higher than the ends. The tow truck driver wouldn't rope pull me to flat area, it was tow or no tow. I thanked him and sent him on his way. Removed the gas tank from my Yamaha, sat it on the mattress, ran a hose to the engine and made it home, 3 gallons at a time. It was a long night.

How do you repair an aluminum tank? No one wanted to touch it. Many said to have it hot tanked first, but caustic chemicals in the hot tank would eat the aluminum. Finally I lucked on to a company that said to pour a cup full of Wisk laundry soap in it, plug up the holes, leaving one open, then run a hose into it and let it run until the water comes out clear. I did it twice to be sure. The shop took it, straightened it, strengthened, reinforced it and made it perfect for \$110. I was thrilled.

Ready for another Fan Belt Toss Story? Another year and off to Palm Springs I go. The meet and Ultra are great. Decided to take along way home and go through Anza Borrego, up through Julian. Six miles from home I give it gas and all I get is RPM's and the sound of a meat grinder gone wild. No forward motion. Out comes the cell phone, AAA (be sure to have RV coverage), and soon a rollback rig with an understanding driver. I learned enough to guide him through the procedure. Home again without cost or towing damage. Seems my differential gears decided to duke it out for supremacy. They both lost, shedding their teeth completely. What followed was a quick course in differentials, early vs. late, standard vs. automatic. A call to Jim Craig put me out of my misery, he had a perfect one. In it went only to have the transmission go BOOM! I'm not kidding, it went BOOM! Then nothing. Stumped even Bob Ballew. Ecology wrecking yard to the rescue finally. On the road again.

Off to this year's Fan Belt Toss. Ran perfect, got 16 miles per gallon, cruised at 60 MPH, I'm in heaven. Best part is I made it home without trouble. Felt kind of sheepish because everyone wanted me to park in the Ultra Van area on the field. NO curtains yet, haven't started on the cosmetics. Besides, what if the insulation in the bathroom isn't up to snuff? Know what I mean? People actually wanted to look at mine, no one laughed, I didn't get embarrassed.

I think I'm over the hump, there are a zillion

Whales on Wheels

things to do yet but I look forward to them. I went to college in Santa Barbara, while there I noticed a fantastic airplane parked out at the airport. It was designed to transport the Atlas missiles, and other over size cargos. Looked a great deal like our Ultra Vans. So I named #463 after that plane. It's "The Super Guppy".

If anyone out there needs their drive shafts rebuilt (I think my suspension broke because mine were too long, no play), I found a company that does a perfect job for \$105 each side. If like me you putting together a bullet proof differential and want the gear electron beam welded I found a place to do that for \$200. Or if you need gas tank service as I needed, please call me and I'll direct you to these helpful companies. Pete Smith (619) 463-7292.

Classified

1967 Ultra Van #321, 110 H.P. Corvair, Powerglide. Rjoof Air, Good straight body. \$6,000. Contact Jean McMasters, 916 Lighthouse Drive, North palm Beach FL 33408, (561) 626-0388

11968 Ultra Van #326, 110 HP, Corvair, Powerglide. Engine rebuilt May 1999, new rear wheel bearings and dual master cylinder. New polyurethane paint, converted to 3 tank system, rebuilt 3:55 positraction differential. White Ash interior, new carpet and upholstery. Large rear window. Contact: Harold Washmouth, 271 Church Tree Rd., Crescent City, CA 95531. (707) 465-1753.

1968 Ultra Van # 294, 140 HP, Corvair, Powerglide. Cherrywood interior. Bigger Fridg, generator. No dents, metal bumpers. Needs paint. Has been setting for a while. Widow wants to sell it along with an extra 140 HP engine, 3 extra Powerglide transmissions and a Oldsmobile 455 Tornado engine and transaxle. \$3,500 takes it all. Contact: Hilda Green, 1556 W. 226th St., Torrance, CA 90501. (310) 328-3741.

1969 Ultra Van #472, 110 HP, Corvair, Powerglide, 4:11 gears. Beautiful beige & brown trim glossy paint job, radials tires, white interior, blue inside trim, seats, curtains & etc. All glass is good & tinted for sun protection. \$6,995. Jim Craig 760 366 9104 or jrcraig1@juno.com

1969 Ultra Van #482, 110HP, Corvair, powerglide. new water pump, new batteries, and a new Onan generator, AC worked fine. \$5000 firm. Call James Carvin (850) 894-1700

1970 Ultra Van #547, Chevy V-8, Automatic. Many upgrades. Needs paint, \$6,900 Contact Jeff Stonesifer at the Corvair Ranch, (717) 624-2805

Ultra Van Rear Hubs (late model Corvair) Rebuilt to near zero tolerances for Ultra Vans. \$90 plus exchange and shipping. Contact: Rear Engine Specialists, Inc. 16010 W. 5th Ave., Golden, CO 80401. (303) 278-4889 FAX (303) 936-7420.

Rallies

March 21 - 25, 2000, Eastern Spring Rally, Airstream Park, Christmas, FL. 25525 E. Colonial Drive, Christmas, FL. St. Route 50, Exit 79, 195. Emergench Phone (407) 568-5207. This is a NO HOST rally.

June 15 - 18, 2000, Eastern Summer Rally, Fox Fire RV Park, Milton, WV. Hosts: Jack & "Skippy" Irwin, 224 Norway Ave. Huntington, WV 25705 (304) 738-2340. Sowears@aol.com.

April 13 - 16, 2000, Casa de Fruta Rally, Hollister, CA Casa de Fruta RV Orchard Resort, 10031 Pacheco Pass Hwy, Hollister, CA. Full hookups \$24.85 for 3 nights. Phone 1-800 549-3813. Hosts: Jim and Marlene Craig, (760) 366-9104, jrcraig1@juno.com.

July 18th - 22nd, 2000, CORSA International Convention, Daytona, FL. Plaza Resort & Spa, 600 N. Atlantic Ave, Daytona Beach, FL. (800) 767-4471. Sea Side Trailer Part (800) 441-1831 Full hookups at \$30 a night. This is 6 miles north of the host hotel. Group Ultra Van meeting is Friday, July 21st at 8 PM.

Sept 20 - 24, 2000, Ultra National Rally, Amana Colonies RV Park, Amana, Iowa Hosts Ron & Martha Zoutendam, 206 N. 7th St., Sheldon, IA 51201. (712) 324-4660

We need a new editor for Whales on Wheels. Please contact Pres. Galli.

WHALES ON WHEELS is a quarterly publication of GROUP ULTRA VAN, a CORSA chapter. It is dedicated to the preservation and use of the ULTRA VAN. This 22 foot unique motor home was designed by David Peterson and built in Kansas until 1970. About 365 units were built. Dues are \$6.00 annually, please remit to the Secretary-Treasurer. Submit all technical information to the Editor.

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