

Latest News

Rally and AGM

Derek has arranged a great venue for our September Rally, somewhere for all the family to enjoy, so please make an effort to come. It's not going to cost you anything apart from the travel, and let's face it, driving our Type 3s and 4s is a pleasure anyway. If you are worried about the M5/M6 interchange it's quite easy to avoid by routing round the country roads - just dig out the map and do it the way we always used to.

If you are planning to bring a tribe, it might be a good idea to pack some extra picnic as we can't guarantee to feed the 5,000. There is a good restaurant and a well-stocked shop, particularly if you like aircraft models! See opposite for more info. PS there's also the formal AGM meeting.

Club Camp

A little bird told me the Type 3 & 4 Club camp at Peppercorn was well attended, but I've no further details or stories to tell, unfortunately.

Club Stand

The Club has also had a stand at Stanford Hall, Stonor Park, and at BVF Malvern. These contact points for members and non-members are an excellent place to answer queries and compare the various models and their technical problems, and we are lucky to have members prepared to be there to help. Thanks to some who come with boxes of goodies, there's often a reward for those visiting the stand in the form of a rare item at an affordable price.

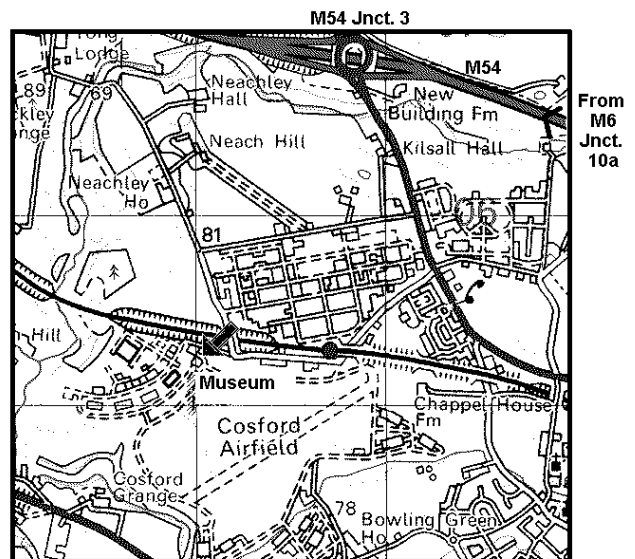
Overseas Shows

This year there have been a number of European shows that members have attended, in particular two shows on successive weekends, Büdel in southern Holland and the German Type 3 Club annual meeting in Saarberg. Reports on these appear elsewhere; some lucky members were able to take in both, and their travels in between bordered on the bizarre. The very devoted could have included Bad Hamburg too, but not without missing out on some of the Type 3 Club meeting. Next

year's is probably going to be near Leipzig - watch this space for advance warning.

Club Rally and AGM:

RAF Museum, Cosford,
near Wolverhampton,
on Sunday 28th September



This is a superb venue, with excellent facilities in a new purpose-built centre with an extensive aircraft collection, both military and civil types, together with missiles, housed in 3 hangars and dispersed about the site. There is also an impressive education area with hands-on experiments, a well-stocked shop and restaurant.

Derek has arranged a room for the meeting, and for a buffet. There will be no charge for this or entry to the museum, but donations are welcomed by the museum.

You are guaranteed a fascinating day out, whether you come alone or with the whole family.

Please do support this event - with your Type 3 or 4 if at all possible so we can have a good line-up to photograph. With luck we will be able to get some photos into the VW magazines.

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Büdel, Holland

This early June event comes highly recommended as a friendly, well-run camping weekend in a field of VWs, and so it proved. There was a 'Brit' corner in the pleasant family camping area, with a huddle of UK Type 3s, Larry's '62 Notch, Brian's '66 Notch, Danny's '63 Notch and Dave's '71 Variant. With single track drag-strip, big wheel, massive Bug sculpture and some superbly-presented VWs of all types it was very much as described. The autojumble, coming as it did the week before Bad Camberg, ensured most of the major players were there, but with prices a bit lower. There was more Type 3 stuff around than would normally be found in a UK event, and Wolfspeed Designs and VW Books to make you feel at home.

Again, Notches seemed the most common of the Type 3s, and Variants the rarest. There's a message there somewhere! The Type 4s were hiding at first, but a few revealed themselves as the weekend moved on. Unless it clashed with the European Type 4 weekend, we can beat Europe in the number and quality of Type 4 in the UK.

Then after a week driving in the Belgian Ardennes, a very pretty and under-rated part of Europe, and the odd stay in a Hari Krishna chateau for some and a former church for others, remnants of the group rendezvoused in Saarberg...

Typ3 Liebhaber Treffen – Saarberg

The German club certainly knows how to organise an event, and everyone mucks in. The venue was a superb hill-top leisure complex, with ski-lift down into the town below, fabulous views over the vineyards and the river Saar. Saarberg is a pretty town, easily explored on foot, while we invaded nearby Trier, the oldest city in Germany, and had exclusive parking in the former cattle market, now a paved open space right in the centre.

They laid on an open-topped double-decker for the tour of the sights, the branches sweeping across our heads. Another excursion saw a column of about 35 Type 3s snaking across the hill roads, similar to the sort of routes the Rally of Germany used a few weeks later. This time we ended with a picnic lunch, with outside caterers serving sliced gammon and salad which we ate at benches and tables brought along by the club.

Although we didn't have the usual communal breakfast, there was plenty of opportunity to chat with the others, from Germany, Holland, France and Luxembourg and catch up on the news.

The club meeting, at which they presented the UK Type 3 owners with gifts (or would have done if we weren't off in the restaurant at the time!) went on late into the night. Obviously some constitutional crisis, or maybe they were having trouble getting volunteers for the posts.

There's no doubt the facilities and weather made the event that much more memorable - onsite swimming pool complex, sun etc - but would we dare to put on such an event? We have a similar number of members - maybe Danny's successful Peppercorn weekend could offer a stepping stone. Would the channel fares and driving on the left really put off the continentals? Well, next year it's near Leipzig, so keep in touch if you fancy going - no dates finalised at the moment. Britain in 2005?

2004 Events – early warning

The 2004 USA Type 3 Invasion will be August 7th/8th in Hershey, Pennsylvania, USA!!

OK everyone... you have over a year to get your Type 3 running and reliable and get it to the invasion (UK Type 3-ers, to save the air-fare)!

I would like to announce that my co-host will be Ron Mann, the President of the Harrisburg VW club and he brings lots of experience in running shows and enthusiasm for the Air-cooled Volkswagen to the most intense levels.

This will ROCK! Events are still in the planning stage and the experience of the Parma invasion will help, but if you like Chocolate.... Hershey is the place to be!!

Stay tuned.... more coming soon, I'll be in touch with our Graphic Artist too :)

I will have my 2 Type 3's there ... Ron has a '65 Darkside (oooh) Notch and an immaculate '70 Square with 17,000 miles that will be there so we're starting out with 4 Type 3's.... Lets ROCK again!! Keith Park
Top Notch Restorations topnotch@nycap.rr.com
71 Squareback; 65 Notchback; 65 Squareback

To find out more take a look at the website at www.vwtype3.org, or join the e-mail list. There's one of Keith's FAQs on keeping your Type 3 reliable later in the Newsletter. Last time I got a 4,000 mile Type 3 ride to and from the event - there's time to make a friend or two on the group, and join up with a USA owner. You may even get your own car to drive as many have more than one.

TYPE 3 VARIANT RESTORATION

by Brian Keen

I purchased my Type 3 Variant, Reg. No. PPH342L, colour Brilliant Orange, in March 1973, from Walton Lodge Garage, Walton-on-Thames in Surrey. I later applied to VW in Germany and got a birth certificate which showed the date of manufacture as October 1972, which qualified the car for free tax. It was my first and only new car I have ever bought. I drove it daily until 1982 when I passed it on to my son. He used it until 1990 when he bought a VW Sirocco.

He sold the car to a friend who left it to rust intending to customise it one day. In 1994 I found out that the car was still in his garage and was to be scrapped shortly, and I decided to take it back into the family. It was resprayed and passed the M.O.T. and was used by me as a second vehicle.

In 1998 it was no longer possible to bodge up the rust for an M.O.T. I took it off the road and sought the assistance of Island Volkswagen Services here on the Isle of Wight. It was decided to go in for a full restoration.

We stripped the vehicle down where the full extent of the rust became obvious. I bought another donor vehicle (for £50) which gave a new front scuttle and airbox, front beam, steering box and windscreen. I bought new sills from Type 3 Detectives, and 2 front wings from California via California Classics. A sound bonnet was obtained and all were sand-blasted to bare metal. The rest of the body was stripped, repaired and all were repainted in Orange. The floorpan was stripped and repaired with new metal sections before repainting. All brake parts were replaced and new bearings fitted. One unusual job was replacing the top needle bearings in the front beam. New rubbers and seals were fitted and the two halves reunited.

The front seat covers were replaced with covers from TMI. I had to buy 2 sets to get one. TMI is a U.S.A. firm and they supply a Type 3 set which has high back seat covers as this was the only sort sold in America. To get low seat backs I had to buy a set of Beetle 1303 covers (the 1303 seat bottom is shorter than a Type 3 but the back is identical.) I purchased a new carpet set from Spirit of the 50's, together with a new headliner fitted locally to complete the interior.

The total cost for parts alone was over £3,000. Anyway, in 2000 the car passed the M.O.T. and I have driven it ever since.

The website for Island Volkswagen Services is www.classic-german-car-restoration.co.uk

I have been very happy with the restoration but the time has come for me to be restored. Unfortunately this has not proved possible. Back problems prevent me from sitting in a low seat and I have been advised to avoid this driving position.

The car is now up for sale for £3,500. I have a full step-by-step picture record, together with the service history, which will go with the car. I can be contacted on 01983 864727.

Brian Keen. January 2003.

Type 3 Door Window Scrapers

Ted Harding reports that as at June 2003, modified Type 1 scrapers suitable for Type 3 are available from Type 3 Detectives at £37.50 + VAT each side. If your anodised aluminium frame is OK, rubber scrapers are available from Status VW. These are Type 1 scrapers part no. 111 837 477/8. They are easily reduced in length to fit Type 3s and cost £12.50 a pair. The section profile of the rubber is the same as the early Type 3.

If you have this job to do, there is a full description of the task and some techniques to ensure it goes well in the Technical Handbook, which all members received on joining.

Did you hear the one about...

The late Type 3 owner who had fitted an early tank which has the under-bonnet filler. He was filling it late at night and the guy in the kiosk shut off the pump, thinking he was dousing his engine in petrol. He didn't turn it back on until the owner removed all the luggage to show there was a tank underneath.

... or another owner with a Squareback who often used to kid people who didn't know better that the Eberspächer under the bonnet was a special 20hp VW engine for economy motoring.



Reconditioning your Type 3

for Reliability by Keith Park

Are you one of those people who are constantly twiddling with this or that? Wondering if your beloved T3 will get you to where you're going? Car just doesn't feel right? Fed up with the FI? Well, after over 25 years of operation, neglect or buffoonery in the engine compartment, things usually need a good going over and perhaps even a subtle upgrade or two.

This article will center on a guide as to which areas need attention and what to do but the Bentley Official Service Manual is a MUST when doing the service work on the car and I won't try to duplicate procedures from it. I drive a 71 Squareback with 266K miles on it and don't think twice about driving it across the USA. It has been many years since I've had to do anything more than general maintenance and this car gets a lot of heavy use in the summertime, including boat towing.

CHASSIS AND SUSPENSION:

First off, let's start with the chassis and suspension. The front suspension really needs to be totally disassembled and checked. This can be done with the beam on the car but you should really check and make sure the beam hasn't rusted through under the clamps allowing water to enter it. This is a common problem, especially in the rust belt. They do last forever but when rust penetrates the beam under the clamps or its lowered or not greased properly problems develop.

You want to check the condition of the torsion bars (if you can get them out) for rust or cracks and coat the entire length with grease to protect them from future corrosion. Fastback and Notchback owners can upgrade to the Squareback larger stabilizer bar.

Check the lower torsion arms for bending (bar should emerge from the inner section in the MIDDLE of the circle) or pitting from bad needle bearings or excessive scoring from poorly lubricated inner bushings. Upper bars should be checked too but are less likely to have problems or get bent. The upper left arm should be checked to make sure the stabilizer hasn't been chucking around in there and tightened properly. Any looseness in its joint on the bar and both bar and arm should be replaced. It's sometimes possible to drill a new locking pit on the other side of that end. GREASE EVERYTHING!! Any problems and the parts should be replaced. Check to be sure the grease fittings are accessible through the holes in the beam clamps.

Next make sure the ball joints and tie rod ends have NO play or rust in them and that the boots are good, if not replace the boot or joint now. ANTISEIZE everything as you reassemble!!

Make sure the front shocks are good and that the steering damper is good. You will probably need to replace the rubber bushing where the damper arm enters the steering arm; this should be absolutely tight, the bushings are available anywhere. Early cars with grease fittings on the ball joints or tie rod

ends should grease them but DON'T blow the boot off!!

Lastly, replace the front wheel bearings and grease seals, they are cheap and available anywhere. A lot of work? YEA! But you'll never need to go in there again if you keep it greased unless you hit something or have a lowered car. Finish off the process with a good professional wheel alignment.

REAR SUSPENSION:

Rear suspension is MUCH easier!! Inspect it for bad rubber bushings or mounts and make sure the bump stops are intact and that's really about it! They are very robust and will last forever. A sagging rear end can most easily be raised with air shocks, adjusting the torsion bars is a real pain and they are sometimes frozen in place. I know that Monroe shocks are too fat for the mounts and Gabriel were fine but the Gabriel's have been discontinued so look for the skinniest air shocks you can find. Rear wheel bearings will be covered in the section on drive shafts.

BRAKES:

If the car has been sitting rebuild and replace ALL the rubber seals and boots. Calipers often seize so make sure both pistons are working freely and that the rubber brake hoses are good (sometimes it's good to just replace them). Make sure your pads/shoes are good. If you do overhaul everything convert to Silicone Brake fluid NOW! You won't be sorry.

Wheel cylinders on the rear are cheap so replacement is preferable and make sure all the springs are there and not too rusted. You will probably have to heat the adjusters to get them free and take them out. Clean them and anti-seize the threads and housing during re-assembly. Make sure the Emergency brake cables aren't cracked and are freely functioning.

Check the condition of the rear brake hoses and ALL the steel lines. The rear brake line that runs next to the accelerator pedal often rusts out at that location from moisture and debris from the driver's foot (mostly a problem on LHD). Peel back the boot on the master cylinder and make sure it's dry in there and not leaking where the actuating rod enters it.

Adjust the pedal free-play as per Bentley, this is factory set, but often misadjusted. Adjust by moving the pedal cluster not the locknut or dual circuit brakes may not function correctly. Lastly, lube the pedal assembly if it doesn't operate freely, this requires removal of it and disassembly.

WHEELS AND TIRES:

Stock works best, larger rear tires will give better stability in turns with less over-steer but will reduce gas mileage so I don't really recommend them. Fronts should be run at 21-23PSI for stability and good tire wear. Narrow or skinny tires on the front will greatly decrease stopping ability, and increase shock loads on the beam bearings (if they just plain don't get you killed!) and should be avoided if reliability, longevity, and safety are desired. Stock rims are best; make sure they're well balanced and not bent.

Aftermarket rims are usually fraught with poor ways of attaching them or change the offset and should be used with caution. They are not usually bolt on.

ELECTRICAL SYSTEM:

The stock harness is fine, even if it's a bit butchered you just need to recondition it. ANY spliced connections need to be soldered and over-coated with shrink tubing; tape will eventually start to come off. ALL scotch locks or other quickie type connectors should be removed and any spade or lug connectors you replace or add should be soldered.

The average person cannot duplicate the factory crimps even if they did have the \$300 crimping tool needed so soldering is a necessity. These pointers are even more important on the 6V cars where there is twice the current. 6V systems are no problem and will behave just as well if everything is done right.

Pre '68 ignition switches need to have a heavy-duty relay installed to off load the solenoid current from them. Early push-button dashes also desperately need this and is why most of them are gone nowadays.

Rear window defoggers are bad in 95% of the cases and require an aftermarket installed. Just do a neat job and lay the new lines over the old ones as the originals were etched in the glass and cannot be completely removed. The pre 72 defogger switches are also rather crappy and should be checked out.

The early Fuel gauge clusters need to have a separate ground installed to ground the housing so you don't have all those strange ghosts in there.

Voltage regulators should be BOSCH only, especially with FI, and checked to make sure they aren't getting corroded on the underside from rust holes that develop in that section of the car.

Wiper systems are sometimes a good candidate for rebuilding and reconditioning, the shafts can seize up and the arms can get worn out and floppy too. They come out fairly easily.

The steering wheel should be removed and the 4 screws that hold the directional switch assemblies tightened and a little Loctite used, as they tend to loosen. Clean contacts and lube things while you're in there and make sure the wheel goes back on in the same position on the column, as there is no keyway or offset.

TRANSMISSION AND AXLES:

First off.. The shift rod bushing in the tunnel beneath the shifter will need replacing; a pain as you have to remove the shift rod but things will be a world better when it's done.

Transmissions are pretty bullet-proof with a few minor and a couple major exceptions. Major ones.. The old swing trannie's have a bad tendency to stick in 2nd when the linkage gets worn, sometimes in cars with less than 100K on them. They can sometime be freed but your reliability is gone after that.

Reverse gears tend to wear out if abused, put it in reverse and listen to it as it glides down an inclined driveway with your foot off the gas, sound chunky? It should be an even whine otherwise you're looking at

reverse giving up in the next 20-30K or so. If you get a little grinding on downshift the problem is that the synchro's may be worn but they can go that way for a long time. Other than that, if its quiet, doesn't pop out of any gear, and shifts smoothly you're OK for quite a while.

DRIVE SHAFTS:

The Swing people will want to make sure their boots are good and replace the axle seals if its never been done. They will also want to redo all the bushings on the stabilizer bar if fitted, I don't think replacements can be found anymore but with some creativity something can always be fabricated to replace them.

IRS Folks need to re-grease their CV's and inspect the boots and such every 30K. There should be NO pitting on the balls or races and anything other than minor discoloration is time for replacement. I have found that very worn joints with deep worn marks on the races are good for another 30K but no more, so long as there is no pitting or galling. Boots seem to last forever in the North but should be checked carefully in arid climates.

REAR WHEEL BEARINGS:

I don't have any personal experience with the Swing axle bearings but am not aware of any real problems either. IRS should be re-lubed every 60K.

Bearings and seals are all still available and if there is any question about them should be replaced. The most important part of servicing them is that the axle nuts get torqued back to the factory spec of around 250 ft-lb. If they are loose then the assembly chocks around in there and eventually the splines will strip out. If the nut keeps loosening after being properly torqued (it will loosen but not back off with the cotter key in place) then your bearings and the spacer as well as possibly the hub will need to be replaced as their surfaces have worn down too much from being loose.

Rear wheel bearings on the IRS are usually good for 150-200K if properly maintained.

Lastly check the rubber bump-stops to make sure they're still in place and secure.

THE ENGINE:

The Type 3 engine is the most likely thing to give you problems but only if it's neglected or not repaired properly.

Type 3 engines are essentially the same as the T1 engine but the cooling system has less capacity. The engines don't really run hotter but they have less capacity to overcome loss of cooling air from plugged oil cooler fins, missing tin, dirty fins, etc. and have less ability to deal with larger displacement.

The absolute largest cylinders you want are 90.5mm and with those you decrease the life expectancy of 100-125Kmi by about 30%. Ideally the largest for reliability is 88mm and NOT the slip-ins, the thick walled ones are the only ones suitable.

Stroker Cranks are OK but are expensive and you should do other upgrades when increasing the HP output of the engine that much.

EXAMINING AND EVALUATING THE ENGINE:

Well, I'll start by assuming the engine you have is stock or close to it. There are several things to do to take an old engine and make sure it's ready for many more miles and won't let you down. First off, the best indication of the condition of the lower end is the oil pressure, it will slowly drift down about 15 lbs over the lifetime of the engine starting at around 40PSI at 3400 RPM at operating temperature. It should not drastically drop off when cruising on the highway as this indicates a case that is out of round and worn out. The oil light should not flicker at idle, if it does try another sensor but I find that by the time the light comes on you have practically no pressure at all. There should be no noises on startup that go away with oil pressure, this indicates really shot pressure-fed bearings.

If it fails any of these tests it needs a lower end rebuild, a lot of poorly rebuilt engines will have these problems and sometimes its amazing just how far they will go like this but your reliability is gone and that's what we're aiming for here. No Pressure gauge? Then you'll have to use the light but I always recommend a gauge.

Pass so far? A compression check will tell you the condition of the cylinders as well as any gross problems with the valves. The Valves can be checked for excessive play in the up and down direction of the valve guides but should be done every 60-70K, especially if aftermarket valves have been used. More than 3 times the play in the exhaust valves compared to the intake and it's time. Cheap valves can lead to one getting swallowed and then your engine is generally totally junk so if in doubt pull the heads and go through them replacing the valves and guides with genuine VW ones.

Your heads should not have any inserts or helicoils in the spark plug holes, sometimes this works out OK but being in the sticks and having a helicoil come out with the plug is a show-stopper not to mention that I've had one leak and melt out the spark plug hole. Reliability requires good original threads.

Replacement heads need to be of quality material too, look for signs of valve seat collapse, cracking, or bad exhaust manifold studs. If your heads don't have the original step where the cylinder sits, or some of it has been machined off (new ones had about 1/8") then you need to cc your heads and calculate the compression ratio. See the Gene Berg technical articles on this as too high a compression ratio results in detonation and greatly shortens engine life.

Check the pushrod tubes for excessive rust or leakage and replace as necessary. If not overheated the original heads should last a long time.

If not pulling the heads you should pull the upper tin and torque the head nuts. If one of the studs comes loose it's a show-stopper too but reliability requires all of them to be in good order. While the tin is off inspect the oil cooler, if there is any seepage remove it and replace the seals, being sure to use the correct ones.

Check to see that all the fins on the cooler are clean and not obstructing air flow at all. The final

song for many a T3 engine is when the cooler seeps oil, gets plugged up with dirt and cuts off the cooling air to cyl#3. Check to make sure all the fins are clean and clear.

Check the thermostat linkage for proper operation and that everything is there, if not replace the missing items and get it working. This is critical for proper engine life in ALL climates.

Crank Seals: Check the rear of the crank and fan for oil contamination, there is NO rear crank seal so if it's leaking then either the breather is plugged up or your rings are shot and that would have likely showed up on the compression test. Black Front main seals don't tend to last too long, look for leakage and ANYTIME the engine is out of the car should be replaced with the Red type.

If your engine has passed all these checks and has all the tin intact then you should be good for many more reliable miles. I recommend adding a quality 1.5 Qt sump extension as this prevents starvation on turns and dilutes the contaminants better than 2.5 quarts of oil do. The sumps do however hang down below so do NOT use them if the car is lowered in the rear. I also recommend full-flow filtration but installing this on an engine that is not already apart is probably not worth it.

NOW FOR THE PERIPHERALS:

The Generator: The brushes should extend beyond their holders and the springs holding them shouldn't be too rusty. There should not be excessive sparking when running and don't forget to check the belt. It doesn't need to be as tight as alternator belts, but if it slips it can eat into the aluminium pulley.

The Starter: Brushes should have some meat left on them and the little piece of braid that goes to the solenoid should be intact and in good shape. Starter drive should operate smoothly. Clean the brush gear and lightly lubricate the starter gear shaft. Check the starter bush in the bell-housing is not badly worn.

The Distributor: Disassemble and clean it, be sure that the springs don't get lost or put back in the wrong location. Use very little of the special cam lube. Make sure the ground strap for the advance plate is intact and in good shape. Install Standard Ignition Ventilated Lubripoints and you won't have to touch it for another 15K mi. or so. Check the vacuum advance with a small vacuum pump, syringe or the mouth and the Fuel Injected people should clean the trigger points with alcohol and a business card, never a file.

The Carburetors: I refer only to the stock ones here as anything else is likely to have problems I'm not familiar with. Get kits now while they're still available and rebuild them, it's not difficult as these are a straightforward Carb. Adjust and balance as per the Haynes manual and make sure the isolator blocks between them and the manifold are in place. Linkage should be tight and greased, and the throttle shafts not worn. Lastly make sure the access plug for the main jet (located on the side) is firmly in place, they

have a nasty habit of coming loose. You'll never get the chokes to track properly but with enough fiddling you'll get them so that it's driveable.

Fuel Pump: The FI folks never have to worry so long as the pump doesn't sit for long periods of time but the Carbed people have no way to really see how the pump is doing. Early models were re-buildable but the kits are long since gone.

Later replacement pumps are just a crapshoot; best bet is to carry a spare.

Fuel lines: FI lines need to be of good quality and less than 10 years old, if in question replace them all, they carry 30 PSI of fuel. Carbed cars don't have the pressure but should still keep them in good shape and changed about every 10 years.

Injection System: This is the part where people soon forget that it's the simplest and most straightforward system ever made. There is usually a lot of hack work done, which really gets to me when its done by mechanics who are supposed to be competent working on today's sophisticated FI systems. Where to start? Well start by assuming that the system is operational, if it's not see the FI FAQ or go through this procedure and see the FAQ if it still is in trouble.

Harness: Depending on the condition you may just want to take the whole harness out of the car, it's a separate entity from the rest of the car and only passes through one hole to the control unit and is designed to come back through that hole WITHOUT cutting anything.

Connectors look ratty? Brittle? Insulation cracked? It may be time to SOLDER (not just crimp) on new connectors and inserts for the gang plugs. The little inserts come out when the tang is CAREFULLY released with a thin electrical screwdriver, just DON'T lose track of where they go, all the wires and connectors are numbered but make sure the numbers haven't worn or been cut off. Remember that all cut wires and connectors must be soldered for reliability and use of a good flux is recommended in this. If it seems daunting there are many Electronic Tech's that can do it for you.

If your harness seems good just clean it up and replace any rubber boots that are bad (many replacements are avail), examine the connections and replace the corroded ones and use something such as shrink tubing to strengthen the joints onto the connectors.

With all this done you should be able to really depend on your T3 now. Mine have never left me anywhere in 15 years, and I drive them a lot. I have had occasion to need to pop the lid and rig a couple of things to get me home but about half the time I even need to do this is when I've used cheap aftermarket parts and not really getting what I needed. Next I'll include a list of things to carry with you to get you out of a jam, some will be more advanced things only needed for really long trips but with just a few items you can almost always get yourself going again.

SPARES LIST:

- 1) Fuel Filter (FI)
- 2) Fuel Pump (FI or Carbs)
- 3) Length of correct Fuel line with Clamps
- 4) Fuel Injector (FI)
- 5) Control Unit (FI)
- 6) Spare Pressure Sensor (FI)
- 7) Trigger contacts (FI)
- 8) Ignition Points, Cap, Rotor, Condenser
- 9) Generator Brushes, (or spare rebuilt generator)
- 10) Generator Belt (Gates 7395; 9.5x1000)
- 11) Fuse Assortment
- 12) Bulb Assortment
- 13) Regulator (Genuine Bosch)
- 14) Can of Brake Fluid
- 15) Set Brake Pads
- 16) Couple Quarts Oil
- 17) For the Truly prepared long Trippers: Set Front Torsion bars and Front main seal, extra Cylinder & Piston.
- 18) The tools you may need to do the job

Keith Park, topnotch@nycap.rr.com

Editor's note: Keith is the guy who drove from New York State across to Idaho for the Type 3 Invasion, then on to the West coast, and all the way back to Albany, NY without problems. He also has special FAQs on Fuel Injection and Suspension which I'm sure he would be pleased to e-mail you.

Parts For Sale in the USA:-

Type 3 shifter kits \$20, fuel pumps \$20, 4lug to GM 5lug wheel adapters \$80 set, main bearing set to 1600 \$20, flywheel oil seals \$5, Type 3 crankshaft \$100, Type 3 FI manifolds used \$30. Other parts for Types 1, 2 and 3 available. Sale or trade items. David 1-626-584-6957.



MoreAds

Haynes 411/412 manual for sale, just £1 plus p&p. Pete Missiuro, 07870-297823. Lower Castlebythe Farm, Castlebythe, Haverfordwest, Pembs. SA62 5DN.

Minichamps and other Models: Superb Type 3 and Type 4 models, so detailed in the 1:18 that even your mean editor has shelled out for the 1970-73 Variant. The engine cover has auf/open and zu/closed printed by the catches. Pretend to be a concours judge in the safety of your home! Available from:- Mark Bird, www.vwtoysdiecasts.co.uk. 01264-790443 or www.modelshowroom.co.uk (write VW T3&4 Club after your name and get 10% off).

Wanted for 69 Fastback:- rubber overflow pipe for petrol filler neck; aerial; front indicator wire and rubber outer; plastic door trim retaining clips; headlamp o-rings; jack handle; tool kit; wing retaining speed clips for screws; handbook. Symon Sheppard, 01787-315726.

Cars For Sale

Fastback, 1972 twin carb, one previous owner from new, strong engine, drives well, in current use with MoT. White paintwork, but with a few rust spots on the bottom of the front wings, regularly Waxoyled, very sound original condition, good chrome. Full MoT history; always serviced by VW but history mislaid at the moment. £1500 or offers to Chris Hull, 02392-587045, 07780-990030 (mob). (Gosport, Hants). 08/03

1973 model 1600 twin carb Variant, tax exempt (built Oct 1972), daily runner in good original condition, MoT to October, only 2000 miles past year, tidy and sound example. £1500 or offers. House purchase forces sale. Dan, 07814-798432 (Plymouth). 09/03

Moving to the Isle of Skye and need to sell our 1972 Fastback and 1968 Camper as soon as possible. Fastback has Porsche 2 litre dropped in it - lowered on Riviera alloys, quickshift, purple, looks cool and moves like shit off a shovel! Photographs and ad on the T3D website at £2400, NOW REDUCED TO £1600. campcrusaders@btinternet.com 08/03

1972 Volkswagen Type 3 Fastback, 1972, full restoration in 2001, including engine rebuild, new rubbers and carpets, a rare classic. £2,500 . ono. 07887 916100 (N. England ?). Autotrader 07/03

1600 twin carb Fastback, cal-look. last used Jan 1998, grp front wings, modified, floorpan rusty. £500. Andy Moseley. 01952-404307 Telford. 07/03

412LE 2-door sedan, 1700 FI, complete including petrol heater, off road since 1996, tax exempt, needs some work. £500. Andy Moseley. 01952-404307 Telford. 07/03

412LS Variant, 1800 twin-carb, N-reg, runner, body OK, front inner wings need some attention, interior very good. Stored in a barn for some years. Offers. Kaz, 0116-2202977 (Leicester). 07/03

1972 Type 3 Variant, twin-carb, one owner from new, Pastel white, 46,000 miles only, good condition, good engine, body is sound but needs cosmetic attention, floorpan is rust-free, Lots of history, MoT and taxed for 12 months (tax-free). Spares available. Peter Woodrow, 01843-593976 (Ramsgate). 07/03

2 Fastbacks, 1 complete but dismantled, the other a donor with running gear. £500 ono. 07773-767952. 07/03

Type 3 Notch, 1970, MoT, very sound condition, fully restored about 2 years ago, Savanna beige, grp front wings, centreline alloys, Weber twin-choke carb, original carbs available, slightly lowered, inc, spare front axle. £2,500 or reasonable offer. Tony, 01283-568951 or 07813998382 07/03

Breaking 411 Saloon, LHD. Injection engine, good chrome trim, NOS front wings (surface rust), all parts

reasonable prices. Carl 01706-211272 or 07739016255 07/03

1970 Fastback, superb car, orange, two owners since new, 48,000 miles, well looked after. Interior excellent, protected by covers and looks factory fresh. Unmarked spare wheel well area. Excellent paint; oil-tight engine. Some rubbers replaced (door seals etc). Wally Phillips, West Kingsdown, Kent. £3500 or offers. 01747 852579. 06/03

VW FASTBACK 1972, white, 1900cc engine fitted, been stored for 3yrs, loads of spares inc engine, totally rebuilt prior to storage, suit enthusiast, £1500 ono, 01342 321440 after 6.30pm. From East Grinstead paper. 04/03

Parts For Sale

Original low-back seats from my '70 Type 3, free as I have fitted the standard style high-back seats. The cloth covers are badly worn, but the padding and the frame are in good condition, so they'd be ideal to recover, or use the bases for aftermarket seats. 01293 428973 or 07958 995669. campen@eurobell.co.uk Dave Campen. 08/03

Type 3 rear wings in fibreglass, in various weights (ie from "race" to "top quality"). Only problem is the rear air vents need cutting out.

<http://www.ghiastudio.co.uk> 08/03

1966 6v Fastback beyond repair, drop me an e-mail if you need bits and I will send photos. Tom Stevenson. thomas_stevenson@yahoo.com (Central Scotland).

Top quality carpet sets as produced previously by Dylan Cheesley of Bug Rugs. Now made by Newton Commercial www.newtoncomm.co.uk 01728-832880. Clive Richardson says excellent quality, great range of materials. Only Beetles & Ghias are listed on the price list, so check for Type 3 prices.

Wanted

Twin carb 1800 choke units and solenoids. Carl 01706-211272 or 07739016255.

Really nice Type 3 1600 saloon or fastback, modified or original, preferably lowish mileage, but NO rust and in excellent condition with MOT and ready to enjoy. I live in the Guildford area and have a budget IRO £2,500+, but that might be able to go higher for something really special. RikLawlor@aol.com 08/03

Early front right hand side wing without a filler flap wanted. I am able to receive mail to an English bfpo address in Germany. Neil Verdon. Neil.Verdon@t-online.de 07/03

Fastback rolling project wanted, something that may need a bit of work for the MoT, but not a complete basket case, must be driveable and definitely tax exempt and under a grand. Prefer somewhere up north, but can travel within reason. Patrick Storey, patstorey@btinternet.com 06/03

