



Luis Guarch's Oval widow bug in the Blue Mountains

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Puma resumes production Automatic choke adjustment Developments in shock absorbers Tatra- The Other Aircooled

and much more....



A CLUB VEEDUB SYDNEY PUBLICATION

Proudly a member of the Council of Motor Clubs



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<u>Please have respect for the committee</u> <u>members and their families and only call</u> during reasonable hours.

2005 VW Nationals

Easter - March: Saturday 26th & Easter Sunday 27th Sydney Australia

We wish to thank our continuous 17 Year VW Nationals Sponsors

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Monthly Club meetings are held at Greyhound Social Club Ltd., 140 Rookwood Rd, Yagoona, on the third Thursday each month at 7:30 PM. All members and visitors are most welcome.

All mail should be addressed via the Secretary, c\- 14 Willoughby Cct Grassmere NSW 2570

Zeitschrift is produced monthly by Club VeeDub Sydney. Classified ads are free to members, send your add to the above address or send an email to the

editor. We welcome all letters and contributions, which will be published if name and address is supplied. Views expressed in Zeitschrift are those of the writers and do not necessarily represent those of Club VeeDub Sydney. Articles may be reproduced with an acknowledgment to Zeitschrift. Club VeeDub Sydney, its members nor its contributors to Zeitschrift can be held liable for consequences arising from information printed in the magazine. Back issues are available from the Secretary.



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20 Years

WWW.VWPARTS.COM.AU donna501@bigpond.com ph: 0427 695 203

30th July — 2nd August

SUNday 20th: Day Trip - Razorback Search for the Elk

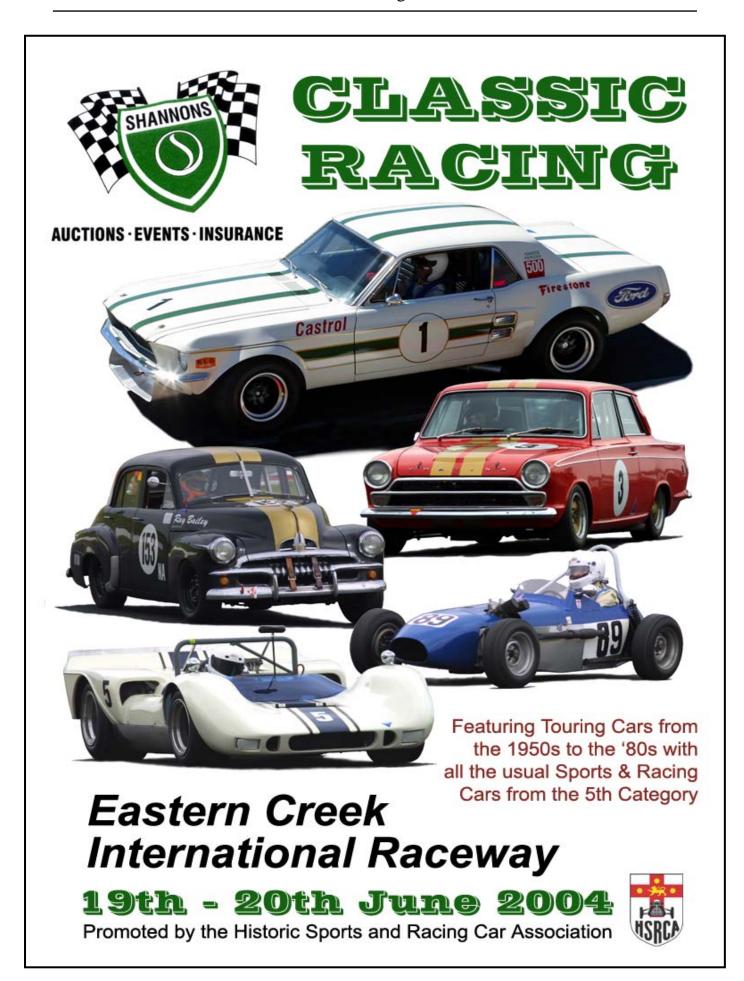
8:30 - Meet at Uncle Leo's Roadhouse at the Ampol Casula Service Station, Campbelltown Road, just past the Glenfield Rd & Hume Hwy intersection.

9:00 - Depart Uncle Leo's For a 60 minute drive to Historic Picton via Denham Court, Narellan & Razorback.

10:45 - Depart Picton for a 10 minute drive to Razorback lookout and enjoy the 360° views of the surrounding countryside and Sydney if the day is clear.

11:15 - Depart Razorback Lookout, Snake our way down the back of the mountain taking in more views of the city and surrounding countryside on our way to . Make our way through Camden, Narellan and Luddenham to the Hubertus Country Club for a late lunch (I'll book it for 13:30)

I'll need to know some numbers so that I can make the booking. Please call me on 040 820 7228 or email me at rwhr@tpg.com.au



It's on again! Boris' VW Swap meet & picnic day 2004

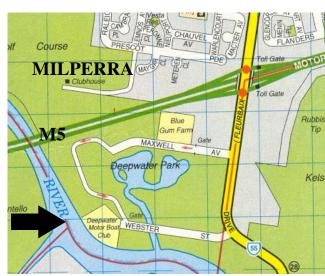
Club VeeDub Sydney Inc.

- ♦ When: From 9 am Sunday 19th September 2004
- ♦ Where: Deepwater Motor Boat Club, Webster St Milperra. Just off Henry Lawson Drive.
- ♦ Sausage sizzle
- Swap meet
- Privateers, clean out your garage
- Dealers, load up your trailer with your old stock
- ◆ Cars for sale
- ◆ Car display (no judging or trophies)
- ♦ Raffle
- ♦ Bring your VW, come rain, hail or shine
- ♦ Call Boris on (02) 9789 1777 bh for more info
- ◆ General admission, \$5.00/car Swappers \$10.00 (includes general admission).
- ◆ Cars for sale \$10.00 (includes general admission). Fees are charged to offset the cost of ground hire

All proceeds go to Club VeeDub Sydney Inc.







Volksfest South Australia 2004 Tour

Club Vee Dub Sydney has been invited to attend the Volksfest 2004 to be held at Glenelg in South Australia. We have made some enquires with a specialist tour Coach Operator and have come up with a great deal that will allow Club Vee Dub Members and hopefully other VW club members the opportunity to travel to South Australia to take in Volksfest 2004. Don't miss this opportunity to travel to South Australia in an air-conditioned Coach to partake in what is looming to be a great VW show and Shine and VW drags weekend.

To ensure that you get a firm booking on this trip, please contact Dave Birchall with your cheque for \$100.00 per person by the 1st of September 2004 Book early to avoid disappointment.

Date November 5th, 6th, 7th and 8th 2004

Location :- Glenelg, Adelaide South Australia

Depart :- Greyhound Social Club, 140 Rookwood Road, Yagoona, all vehicles can be parked at rear of club in lockup area. TBA

Departure time:- 8.00 am Friday morning November 5th

Club Vee Dub Sydney is organising a coach tour, to visit the Volksfest VW show in Adelaide, held by the Volks Enthusiasts Club of South Australia. The coach can either be a 53 or 46 seater depending on numbers.

This will be a non profit tour and all fees, will be at cost

The coach will have a toilet and video set up, so we can watch movies or you can take in the scenery, the trip will take approximately 17 hours each way, with stops for food.

Coach cost is envisaged at approximately \$100.00 per person. Club Vee Dub members will have the cost of the coach subsidised so the whole weekend could cost as little as \$100.00 per head plus food. This deal is only available to financial members of Club Vee Dub Sydney. Other clubs may be offered limited number of seats if the bus isn't filled Club Vee Dub members.

We envisage arriving in Adelaide late on Friday night, and checking into a motel in the Glenelg area. Cost for motel per person 2 nights share twin including breakfasts for 2 days will be \$ 100.00 per head.

All meals apart from the Motel breakfasts will be at your own cost. Hopefully we can arrange a dinner for our Saturday night TBA if the Drags are not on in evening.

On the Saturday November 6th we intend on going to the Volksfest Drag racing venue, which is north of the city and or have some sort of tour for those that don't want to attend. TBA. Drag racing is possibly in the late afternoon 4.00pm to 11.00pm TBA, so we will be having and outing during the day. TBA

On Sunday morning we will be checking out of the motel and the bus will be taking us all to the Volks Fest VW show, at Colley Reserve, Glenelg. The show starts at 9.00am to 5.00pm TBA. Your free to do any other agenda you like on the day, but make sure your at the VW show at 3.00pm for the coach departure back to Sydney. If you don't make it back by then, have a safe flight. Glenelg is apparently 15 minutes South West of the city on the beach side.

It is presumed that we will depart straight after the trophy presentation, heading back to Sydney, driving through the night and hopefully arriving back at the Greyhound Club by mid day on Monday November 8th

Expressions of Interest and deposit will be required by 1st September 2004

Please call David Birchall

8304-4109 bh 9534-4825 ah

South Australian contacts

David & Rachael O Conner, 08-8271-9103 ah or 0416-202-770

Peter & Adam Debasi 08-8262-7533

Presidents Report

The winter months are upon us, I have been finding it hard to get out into the garage at nights, trying to do some work. Its better to sit in front of the computer, much more comfortable and enjoyable.

Last months run, up to Blackheath. I believe we had about 18 cars attend, and take in the spectacular views of a few of the lookouts around the town. Peter MacQueen led us astray down a bit of a goat track to observe the southern views of the Megalong valley. The view was great but there was about 3 or 4 kilo meters of dirt track... so it was slow going for most of us as we didn't want to throw any rocks up and dent our cars. Lunch was at the pub in the centre of town, I have dined there in previous years. The food is great, and not lost any of it reputation. Thanks to Joe and Mary for organising an enjoyable day and social function.

If anyone has an outing they would like to plan, please tell us and we will find a free day well in advance.

Its great to see the second issue of the new Volkswagen magazine for Australia. Have a look at the article on page 56. I wont spoil your surprise.

This months outing will be on Sunday June 20th, with a run to Razorback and surrounding areas, to find the Elk (ask Raymond) see the advert, in this issue. Please bring friends along, as you don't have to be a Club member to attend.

This years Boris Picnic day will be on Sunday 19th September, so if you want to get rid of any old VW stuff you have lying around, please bring it along for the swap meet.

The Club is planing a weekend coach trip to Adelaide in early November, to attend the Volksfest VW show, held by the Volk Enthusiasts Club of SA. Please read the flyer else where in the magazine, and advise me if you're interested. We need numbers quickly so we can determine the coach size.

Précis of Committee and General meetings: -Blackheath run, Razorback run, Boris Picnic day, Volksfest day SA.

Please note that all events listed in the Zeitschrift Calendar or on the Club web page are sanctioned by the club and its Committee.

KeeponKruzin



Club Calendar

June:

Thursday 17th:- CLUB VW MONTHLY MEETING at the Greyhound Social Club Ltd., 140 Rookwood Rd., Yagoona (right next to Potts Park). Get the latest VW news and views, plus VW socialising, drinks, films, trivia, and plenty of prizes. Lots of fun, all welcome. 8:00 p.m.

Sunday 20th: Day Trip - Razorback, The Search for the Elk, see page 3 for more info.

Sunday 27th: Porsche Club Motorkhana at Eastern Creek Skidpad.

July:

Thursday 1st:- Cut-off date for articles, letters, for sales etc to go in the next issue of Zeitschrift.

Thursday 8th:- Committee Meeting at the Greyhound Social Club, 140 Rookwood Rd., Yagoona (right next to Potts Park). This is the permanent venue for all future meetings.

Sunday 11th:- Huntley Hillclimb, Huntley Rd West Dapto. Come & see the VW's fly! Starts 9.00 am. For further info call Wayne Penrose (02) 4272 5644

Thursday 15th:- CLUB VW MONTHLY MEETING at the Greyhound Social Club Ltd., 140 Rookwood Rd., Yagoona (right next to Potts Park). Get the latest VW news and views,

plus VW socialising, drinks, films, trivia, and plenty of prizes. Lots of fun, all welcome. 8:00

Sunday 18th:- Porsche Club Supersprint at Wakefield Park, come and see the VW boys having fun with Porsches.

August:

30th July — 2nd August VW Spectacular at Valla Beach.

Thursday 5th:- Cut-off date for articles, letters, for sales etc to go in the next issue of Zeitschrift.

Thursday 12th:- Committee Meeting & Magazine assembly night at the Greyhound Social Club, 140 Rookwood Rd., Yagoona (right next to Potts Park). This is the permanent venue for all future meetings.

Thursday 19th:- CLUB VW MONTHLY MEETING at the Greyhound Social Club Ltd., 140 Rookwood Rd., Yagoona (right next to Potts Park). Get the latest VW news and views, plus VW socialising, drinks, films, trivia, and plenty of prizes. Lots of fun, all welcome. 8:00 p.m.

Sunday 21st:- Porsche Club Supersprint at Oran Park, come and see the VW boys having fun with Porsches.

September:

Thursday 9th:- Committee Meeting & Magazine assembly night at the Greyhound Social Club, 140 Rookwood Rd., Yagoona (right next to Potts Park). This is the permanent venue for all future meetings.

Thursday 16th:- CLUB VW MONTHLY MEETING at the Greyhound Social Club Ltd., 140 Rookwood Rd., Yagoona (right next to Potts Park). Get the latest VW news and views, plus VW socialising, drinks, films, trivia, and plenty of prizes. Lots of fun, all welcome. 8:00 p.m.

Saturday 18th:- Porsche Club Supersprint at Eastern Creek, come and see the VW boys

having fun with Porsches.

Sunday 19th:- Boris Picnic day see page 4 for more info.

25th and 26th Canberra VW Weekend. The third annual weekend away in Canberra will run the same format as last year. Cruise and Picnic Saturday from 12 midday Show and Shine Sunday from 8:30 am Come on down for a fantastic weekend away with other Dub enthusiasts Enquiries Steve Crispin - 0419 429 453 stevecrispin@hotmail.com

October:

Thursday 7th:- Cut-off date for articles, letters, for sales etc to go in the next issue of Zeitschrift.

Thursday 14th:- Committee Meeting & Magazine assembly night at the Greyhound Social Club, 140 Rookwood Rd., Yagoona (right next to Potts Park). This is the permanent venue for all future meetings.

Thursday 21st:- CLUB VW MONTHLY MEETING at the Greyhound Social Club Ltd., 140 Rookwood Rd., Yagoona (right next to Potts Park). Get the latest VW news and views, plus VW socialising, drinks, films, trivia, and plenty of prizes. Lots of fun, all welcome. 8:00 p.m.

Sunday 30th:- All VW Shootout 2004. The Whitlam Centre, Memorial Ave Liverpool. Space is limited so pre entry is advised. For further information please ring Alison 97987829 or Murray 96182205. Presented by the FLAT FOUR VEE DUB CLUB

November:

Thursday 4th:- Cut-off date for articles, letters, for sales etc to go in the next issue of Zeitschrift.

5th, 6th, 7th and 8th Volksfest South Australia 2004 Tour, see page 6 for more info.

Thursday 11th:- Committee Meeting & Magazine assembly night at the Greyhound

Social Club, 140 Rookwood Rd., Yagoona (right next to Potts Park). This is the permanent venue for all future meetings.

OFFICE: 9651 3870 Fax: 9651 3746 TOWN & COUNTRY MICHAEL SAID Principal PUBLIC ACCOUNTANTS REGISTERED TAX AGENTS P.O. BOX 217 SPECIALISING IN SMALL **BUSINESS CONSULTING ROUND CORNER 2158**

Thursday 18th:- CLUB VW MONTHLY **MEETING** at the Greyhound Social Club Ltd., 140 Rookwood Rd., Yagoona (right next to Potts Park). Get the latest VW news and views, plus VW socialising, drinks, films, trivia, and plenty of prizes. Lots of fun, all welcome. 8:00 p.m.

Sunday 28th: Day of VW Melbourne.

2005

March:

26th & 27th VW Nationals 2005.

For Sales

Classifieds are free to Club VeeDub Sydney members and \$10.00 for non club members, adds will appear for two months, longer if requested.







Agreed value means agreed value. If the car is a total loss you will receive the full sum insured.

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In addition to appearing in the club magazine all adds will be appear on our club website www.clubvw.org.au Photos can be included on the website but not in Zeitschrift. Photos for adds can be posted to or emailed to webmaster@clubvw.org.au

PLEASE NOTE; All classifieds will first appear in our club magazine to give our club members a chance to see them, then they will be transferred to the club website on the 3rd Thursday of the month. Non members can post a cheque or money order for \$10.00 to: Club VeeDub Sydney Inc. c\- 14 Willoughby Cct Grassmere NSW 2570.

For Sale:- Official service Manual (Robert Bentley) Fastback & Squareback 1968-1973. As new, i.e. no greasy fingermarks \$75.00 Phone Phillip 0408-441-725 (Sydney)

For Sale:- 1973 Superbug 1600L, Red, regularly serviced, reliable, good mechanically, body & paint reasonable. all receipts for last 7

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years. Thousands spent, including new floor and rear apron. Looks good, drives well, ideal daily driver or for restoration. Oct.2004 rego \$2,500 ono 02 9621 1471 or salesfam@tpg.com.au.

For Sale:- 1966 1300 Beetle, looking for a new family, polar white, only 2 owners, always garaged, very nice car in very good original condition inside and out. No rust, 5 near new tyres, near new exhaust system, registered until May 2005, asking \$5300.00 negotiable, located in Woodford, Blue Mountains, Phone Steve on 02 4758 7876

For Sale:- Tyres Yokohamas 185 x 65 x 15 Practically brand new. Perfect condition \$400.00 ono Phone Matt. BH 9540 7402 or AH 9523 1371

For Sale:- 1 early model engine lid and 1 late model engine lid. Phone Laurie Toscano at Nelson Bay on 0249 811779

For Sale:- VW 1600 motor, dismantled for inspection, standard crank, twin port heads, valves and seats cleaned, spares include two carbies, two distributors, chrome tappet covers, excellent flywheel with good ring gear, several miscellaneous items including Speedo, lights, door handles, tinware (zinc plated) spare standard camshaft and crankshaft, Best offer around \$300.00. Buyer must take the lot, please contact Brian Parry on 02 47 393960 or 0417 295 074 or email bjparry@bigpond.com

For Sale:- 1963 VW 1200 Beetle, good condition, all original, Reg NSW May 05,One owner. Contact: 0417648224.or 02-66744163. beefy@better.net.au

For Sale:- 1965 Beetle, runs well. 1600 cc engine, Webber carb, 12 volts, interior in good condition, some surface rust, mechanically OK, needs new hub and new boot. \$2,000. Car located in Gladstone Qld, call Heidi on 07 4978 6945.

For Sale:- 2 1956 oval window Beetles, complete cars, both have been garaged for last 7 years. First car runs, small amount of 1100 cc

Wanted

Your add in this space.
The cost for 11 months is \$100, this does not include the annual VW Nationals program.
Contact Steve on (02) 9153 6782



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Contact Raymond Rosch

0408 207 228 or rwhr@lycos.de engine. Second car has been stripped and undercoated, no rust, 1100 cc engine plus spare parts. \$7,000 for both. Cars located in Gladstone Qld, call Heidi on 07 4978 6945. or you can buy all three of the above cars for \$8,000 including some Type 3 panels. Prices are negotiable.

For Sale:- Assorted VW parts, mudguards steel & fibreglass, doors bootlids, whaletail, bonnets, steering box complete, fibreglass bumper covers, chrome strips, hubcaps, front ends, taillights headlights, door handles, window wipers, speedos, 6 volt radios, new original front & black seat covers, 72 auto Beetle & 74 Beetle convertible, unfinished project. Call John 9605 9562 ah or 9725 0245 bh.

For Sale:- 1966 Beetle, painted Ford Blueprint, full body kit, new 1640 Kombi motor, it has only done 6,000 km and runs on unleaded petrol, 10 months Victorian rego (car is located in Victoria), interior reupholstered, converted to 12 volt, electric windows, CD player, lowered (legally), quick shifter and new tyres. \$4,500 or ONO. Call Ralph on (03) 5281 5301

For Sale:- 1974 Superbug convertible. New pink respray, no rust, good tyres, new battery, a very reliable car. Registered until September \$6,000. Call Lauren 0402 782 090 or Garry on 0422 270 344.

For Sale:- 1971 Semi Automatic Superbug, need new motor and respray, Interior all original red leather bucket seats and original service handbook all in excellent condition, This car has had two owners in same family and sad to see "topsy" go Asking \$2200.00 ONO please call Jennifer on 0403 216 756

For Sale:- 1974 compliance super bug L. In excellent condition. In family since new . Log books 190,000K only. 12 mths rego- runs like a rocket. Reluctant sale. Needs a good home. \$7,000. Phone Tom Muzevic 0411419471

For Sale:- Fully restored 67 floorpan IRS rear end with type 3-rear gearbox and brakes all four stud pattern. Link pin disc brake front end, all new parts, wheel cylinders, master cylinder, all new brake shoes, CV boots, brake lines, hand brake cables, etc. Unfinished project. \$2000





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Two 1600 dual port engines, One 1300 engine. Various other parts to suit 67 beetle all glass, seats, guards, door, headlights, 5 stud rims etc. Contact Scott Phone: (02) 65 734229

For Sale:- (Reluctantly) - 1968 Volkswagen Type 3 Notchback - A really fine example of this rarest of Type 3 body types in two-tone White/blue baked enamel finish. Red leatherette interior. Kenwood stereo car radio/cassette. Three owner car. original handbook plus receipts for most current mechanical work.

1600 and 12v. Manual 4 speed. Very solid and reliable - \$6,500. Contact Mark on: E-mail:borowikm@hotmail.com or phone (02) 6230 4344 or Mobile: 0403 474 402 can e-mail photos if interested.

For Sale:- VW Golf! No it's a seat Cordoba, Spanish Volkswagen! Seat Cordoba 96' GLX German engineered, Spanish design, Tornado red, 1.8 Litre, 5spd man, power steering, e/ windows front only) + mirrors, dual airbags, fog lights (front + rear), heated spoiler, immobilizer + alarm, Alpine CD player, eyebrows, clear side repeaters, Tinted windows(30%), 15" alloys, new tyres Falken (ZE326), H&R (German) springs 35mm, K&N air filter, High flow Muffler (chrome) new front disks, car bra, tow bar, serviced regularly, 6mths Rego, great condition, 1 owner, service history, 148,000 k's (147800) Great Value \$9,200 o n o VSF-523 Brad. blglasson@optusnet.com.au bg1974@hotmail.com

For Sale:- 1972 VW Superbug, 1600 engine, registered to May 2004, \$6,990 ono. Excellent service history, all documents kept including original logbooks. Body in top condition, resprayed in 2000 with original 'radar red' Engine fully rebuilt in 1997 and runs well Recently replaced front and rear bumpers. New sunroof. Carburettor, fuel pump, steering shaft and steering box recently replaced. Tyres in good condition and new 'spare'. Good interior, fitted with modern seat covers and working 70's style radio. Original keys. Contact Angela (Dulwich Hill) on tel 0425 200 665, or email asiggens@myplace.net.au

Wanted:- Old Gregory's Sydney Street Directories. I'm looking for editions from 2002, the early and late 1990s, early and late 1980s and the late 1970s. I already have some from the early 1970s and late 1960s, so if you have any others I would be interested. Especially if you have one from the 1950s you want to part with! Check your garage, your old bookcases, your glovebox and under your VW seats and let me know what you have. Ring Phil on 0412 786 339.

VW To Check Rear Seat Buckles on 60,000 Touaregs



Rear seat belts to be examined

Source: Volkswagen AG

Wolfsburg, 25 May 2004 - Volkswagen is checking the rear seat belt buckles on 60.000 Touareg sold worldwide.

The driver's and front passenger's seat belts are unaffected by this measure. All Touareg vehicles produced between October 2002 and December 2003 will be checked.

Volkswagen's quality tests have established that the shaft pin that forms a firm connection between the seat belt buckle and the anchorage fitting may have been incorrectly riveted. However, no cases of inadequate rearpassenger restraint system performance have so far occurred anywhere in the world.

The owners of the vehicles concerned will be informed shortly, and will incur no charge for the check and eventual replacement work.

Puma resumes production



Club member from Uruguay Daniel reports that the beautiful VW based Puma is being produced again as featured in the January 2004 issue of Zeitschrift.

They are available as a turn key car (either coupe or hard top) at US \$6500 using fully restored Brasilia components or body only at US \$3000. if you have any questions about these cars contact Daniel via email: abarth356@hotmail.com



This is reported to be the only Puma in Australia. Owner: Carl Bruce





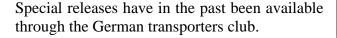
THE TOY DEDARMENT

Due to popular demand I have sourced some images of some dual cab split window Kombis. These models are the HO scale models, which are very rare finds.



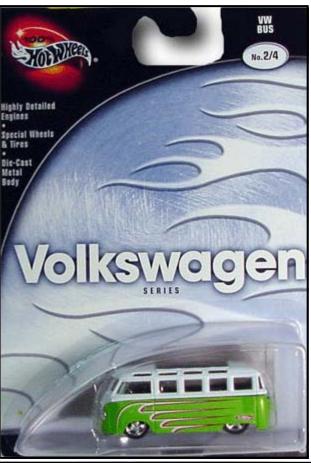






The red model was a limited edition for the Hot VW magazine.

On my travels I found myself at KTC models in Fairy Meadow. Situated on the Princes Highway on the south coast. Here you will find an Aladdins cave of fine model cars.







I was able to pick up these two Hot wheels Volkswagen series buses in two tone red & green.

They were good value at under \$20.00 each.

Finally this month another version of the new

Concept Microbus by Matchbox. This one is available in the five packs but to date I have not seen one for sale in the stores.

Tony Bezzina

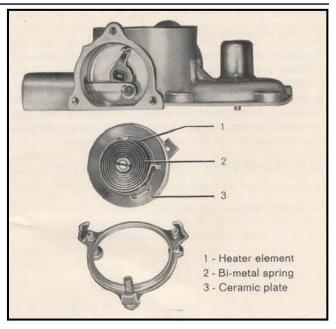
Automatic choke adjustment

By Ron Van Ness

With the weather changing in most places, this info should be beneficial to a few auto choke-carburetted folks out there. Who only have the Muir manual to go by...

First, disconnect the wire to the choke and remove the throttle return spring that goes from the throttle lever to the arm atop the carb. Loosen the three screws around the plate that holds the choke down so that they no longer screw into the carb body—they will still be held loosely by those white nylon washers. When you have loosened all three you can gently pull the plate back with all the screws/washers attached and put it somewhere safe, being careful not to drop those washers and screws. The element should look just like an old clock spring to you and there should be no distortion in the spring (i.e. the element should wind around itself with smooth curves and evenly--if it appears bent/mangled or if it falls out of its housing, you know you'll need a new choke).

Now to adjust the choke (do this with the engine cold). You'll notice when you look at the element it terminates in a little hook. That grabs the lever that moves shaft/butterfly valve on top of the carb. Loosen the clamp holding the rubber tube from the air cleaner to the top of the carb, pull the rubber end off the carb throat and push it back out of your way. For a visual aid, put a hand held mirror over the carb throat so you can see the valve and move the lever that the choke controls. You'll see that when you move the lever down (assuming you properly engaged the element hook on the lever) the butterfly valve closes all the way. With the choke removed move the lever back and forth--the shaft should open and close the valve smoothly. If it does not, you have a bent shaft or worn bore on the carb and that could be the cause of your problem--getting a good top half off a



used carb (it's the bottom end throttle bushing that tends to wear out more than the top) will quickly solve the problem. Now put your choke back in place on the carb (forget about the plate/screws for now) and place it on so that the element hook will engage the lever when you push it in place. Watch the mirror and move the choke slightly forward and backward. You'll notice that the valve opens (choke rotated back) and closes (choke rotated forward). You want to set the choke so that the valve just barely closes for cold weather. To achieve this, gently turn the choke so that the valve just closes and then back it off just a hair so the valve is open a sliver. You'll have to tweak this initial setting a bit to get it just right--I'll describe that later--but this will get you in the ballpark initially.

You'll notice that there is a dot stamped on the choke disk that lines up between 3-4 ridges on the carb body. Lining up this dot with the lower ridge (choke more closed) is a good setting for cold winter days that require longer warm-ups. Lining the dot up with the upper ridges will open the valve which is better for warmer days when you don't need the choke to engage the lever for very long. The element does not expand/retract based on engine heat (though engine heat affects it somewhat), but primarily on the duration of the electrical current heating it from the coil wire, so even on a warm day, you'll have to wait almost as long for the choke to spring open the same amount. That's why you have to manually adjust its position when the climate changes.

If you find when you turn the choke

element so that it just closes the valve that the dot does not line up at all with the ridges on the carb body (i.e. it's way below them) you have a distorted element and you'll have to replace your choke (you probably noticed this in your visual inspection--could've been the result of someone overturning the choke in the past or the element has simply worn itself out of shape).

If the choke looks good and you position it so that the valve is just cracked open, you can put the plate/screw assembly back over the choke and tighten the screws, being careful not to disturb your setting. DO NOT put a lot of pressure on those screws. Just enough to snug them down to hold the choke in place—the nylon will compress a little giving good fit. It's tempting to give them an extra turn, but you will strip the housing if you are too zealous. If you strip the threaded housing the quick solution is easy: just find a slightly bigger screw at a hardware store and thread it in. But you don't want the hassle of potentially damaging the threads on the carb body so go easy on them and you won't have a problem. Reinstall the spring on the throttle arm and reconnect the choke wire.

You'll probably have to make adjustments to your choke setting to zero it in after observing a few cold start warm-ups. Before starting the engine, pump the pedal once--this will pull the throttle arm back and the choke element will act as a spring to snap the valve closed and set the step cam. For you first warm-up, you might notice that your engine rpm is high a little longer than it should be, or it idles too low and stalls when cold. In this case, your choke setting needs some tweaking. This is because the choke not only closes the butterfly valve; it also controls the stepped cam on the left side of the carb that will affect your idle speed. When your engine is cold, notice on which step the throttle arm screw rests. The higher the step, the higher the idle, the longer the warm-up time before the choke disengages. If your engine idles high for a little too long, just remove the throttle return spring and loosen the three choke screws a bit and gently slide back your choke a hair--now the idle screw should rest on a step lower. Tighten the screws and reinstall the spring. Reverse this procedure if your choke does not hold the step cam at a high enough rpm (your engine will stall when warming up at idle because the choke element will disengage the lever too soon). You will eventually get it just right.

Use both the step cam and the dot on the choke relative to the ridges on the carb body as your guides for positioning the choke and if you get really good at it, you can tweak the adjustment a tad even when the choke is warm so that for the next cold start-up, your choke will be set perfectly.

Another thought: Look at the step cam and you'll see a little slot cut into it--a roll pin should be visible. This pin limits the rotational travel of the cam and is secured in the carb body. If the roll pin has vibrated itself out and is no longer there, your step cam could fall back and make idling cold difficult. If it's missing you just have to tap a new roll pin in place.

Also, make sure the wire going from the coil to the choke is actually connected on both ends--that might be your only problem if your choke is set properly.

You have to tweak the choke a few times a year if you live in a region that gets seasonal changes (most places) so that your morning warm-up is hassle free. Don't disable your choke as Muir advocates, just keep it properly adjusted.

Good luck,

Developments in shock absorbers

What do shock absorbers do?

The term 'shock absorber' is a misnomer because the device does not, in the strictest sense, absorb shock at all. The shock absorber is designed to dampen the movement of the springs—be they coil, leaf or torsion bar—limiting the road shock transmitted through the tyre, wheel, hub and spring mount. Bushings absorb the rest. The spring must also support the weight of the vehicle. The sole purpose, however, of the more accurately named 'damper' in any suspension system is to control the spring's oscillations. If they are damped, the

tyre is able to stay in contact with the road surface. The net result is a more comfortable ride, precise handling, efficient braking and smooth acceleration.

How do they work?

There are many types of shock absorber, but the most commonly used work with hydraulics (oil). There are two examples of this type—mono-tube and bi-tube. The low-pressure gas type, launched in 1985 by Monroe as 'Gasmatic', combines the features of both.

In the bi-tube, oil is forced by the piston into a reserve tube through a series of compression valves. Since this requires considerable force, there is resistance to any rapid movement and the bouncing movement of the springs is dampened. The bi-tube shock absorber is found on 90% of vehicles today. It can be adapted to all suspension types (conventional and strut) and increases resistance to external influences.

In the case of the mono-tube the reserve tube is replaced by a high-pressure cushion of gas, which is compressed to make room for displaced oil. Bump and rebound is controlled by valves in the shock absorber pistons. The main advantage of the mono-tube shock absorber is that it can operate in all directions: horizontal, vertical, head at the top and head at the bottom. On the other hand, it is more susceptible to wear and more fragile than a bi-tube shock absorber. The rod on the bi-tube shock absorber is actually protected by an interior tube and runs less risk of deformation caused by shock.

The Monroe gasmatic is a twin tube design, but the reserve tube, instead of being at atmospheric pressure, is sealed under a low-pressure cushion of gas. The twin tube cycle is thus modified in that oil quickly flows back from reserve to compression tube, reducing the risk of air bubbles forming.

Superior ride control is governed by a vehicle's suspension system, including its shock absorbers and struts. Shock absorbers and struts help maintain vertical loads placed on a vehicle's tyres to help keep the tyres in contact with the road. A vehicle's ability to steer, brake and accelerate depends on the contact between the vehicle's tyres and the road. Worn shock absorbers and struts can allow excess weight

transfer from side to side, which is called 'roll', from front to rear ('pitch') and up and down ('bounce'). Variations in tyre-to-road contact can affect a vehicle's handling and braking performance and the safe operation of a vehicle. Shock absorbers are designed to control vertical loads placed on tyres by providing resistance to vehicle roll, pitch and bounce. Thus, by maintaining the tyre to road contact, ride control products are designed to function as safety components of a vehicle, in addition to providing a comfortable ride.

What is driving innovation?

A number of companies have been developing active suspension systems that would give a perfect ride whatever the road conditions. The problem with developing a genuine active suspension is the system's high consumption and cost. Both Citroën, who have the Activa system, and DaimlerChrysler have come close to the concept of active ride, while the latest Land Rover Discovery has an active roll control system. Mercedes-Benz has spent 20 years developing their ABC (Active Body Control) system that will appear on Mercedes-Benz CL coupé. Mercedes abandoned the idea of a full active ride control and developed a system with limited authority in terms of frequency response and wheel movement to reduce power consumption and cost. With ABC, the hydraulic system only controls suspension movements at a rate of up to 5Hz, conventional shock absorbers and coil springs are used for higher-frequency vibrations. ABC is said to reduce body movements by up to 68% when starting from rest, cornering and braking. The Lotus Active Suspension system, which has been used on experimental cars, is one in which springs and dampers are replaced with high bandwidth electro-hydraulic actuators under digital control. Meanwhile, the MagneRide system developed by Delphi uses magnetorheological (MR) fluids and valveless dampers instead of more expensive electro-mechanical valves. The system can achieve a much broader damping range and respond more rapidly without generating noise. MagneRide will be seen on production vehicles from 2003.

What are the latest technical advances?

There have been some advances made to shock absorbers which may be referred to as trends. Notably, the increasing use of aluminium in shock absorbers used on luxury vehicles with MacPherson struts in an effort to reduce weight. Manufacturers claim that by using aluminium instead of steel, they can shed 20-30% of the shock absorber's weight. To improve ride comfort without adding to cost, manufacturers are creating a longer shock absorber movement. Some up-market passenger cars are also being fitted with electronically assisted pneumatic shock absorbers.

In March 2002. ArvinMeritor's Commercial Vehicle Systems Ride Control division launched its new Gabriel electronic stability control system and load-sensitive pneumatic adjustable shock absorbers, both designed for North American heavy-duty applications. Manufactured at the company's production facility in Toronto, Canada, these systems are being offered to North American vehicle makers. The company's new shock absorber allows the air spring pneumatic pressure to automatically optimise damping under varying load conditions. In addition to providing improved vehicle handling and driver comfort for different load conditions, it isolates road inputs from the vehicle's chassis and reduces the possibility of vibration damage.

Beginning with the 2003 model year, Ford Motor Co sports utility vehicles will go to an integrated shock-and-spring module to be assembled by PASA Modules LLC, the joint venture between Piston Automotive and Sachs Automotive. Sachs and Ford will be involved in the module design/engineering work and PASA will carry out the manufacturing/ engineering. A shock module would mean better tuning ability and a lower vehicle step-in height via the altered suspension geometry.

'Green' shock absorbers

Tenneco Automotive (Monroe) recently introduced its 'green shock', a new oil-free shock absorber. Since there is no use of oil, it is not temperature-dependent and the green shock absorbers can be mounted in any position. The product, which is undergoing validation confirmations through durability testing in the

lab and on the road, is expected to be released in the market in the 2004 model year.

'Off-road' shock absorbers

For off-road vehicle applications, Monroe also recently introduced a new aftermarket shock absorber for all-wheel drive vehicles named the 'Adventure'. The Adventure is said be capable of delivering performance without sacrificing on-road capability. The mono-tube design allows maximum airflow to the shock absorber to reduce the heat that commonly reduces the performance of liquid dampers, by losing rigidity, reducing rebound damping damaging seals. The design also allows the use of a larger than usual piston which is more sensitive to wheel movement, with a further floating piston that separates the oil from a chamber filled with nitrogen pressured at 360psi. This arrangement eliminates contact between gas and oil, which conventionally results in foaming and uneven operation. During the compression stroke the man piston reduces the area available to the oil which compresses the nitrogen; on the rebound stroke the piston rod moves out again and the gas gently pushes the floating piston back.

Japan's Unisia Jecs has also developed a new shock absorber that absorbs all vibrations that conventional hydraulic shock absorbers cannot control. A rubber ring is fitted inside the piston cylinder and when the piston is moving slowly, friction created by the rubber ring absorbs tiny vibrations and when the piston movement is faster, the rubber ring stops producing friction and enables conventional hydraulics to work.

If you Use Oil you need ROIL

In each issue of the Jaguar Magazine, a monthly publication for Jaguar car enthusiasts, they independently test and review a product that the editors feel might be of interest to their readers. In December 2002 they reviewed a product, which in the next issue they made the following statement.

It's gratifying when we receive a strong response to products we mention in the

magazine, but in our nineteen years of production, we have never experienced one like we have had to the Roil Metal Conditioner. We tested that product for our previous edition and have been overwhelmed with enquiries and endorsements from readers in places as widespread as Canada, England and New Zealand.

And what is the product that Jaguar owners have been raving about? It's a product that people would generally classify as an oil additive. In the past, these products have been the subject of some disbelief and scepticism. However, here is what the Jaguar Magazine said in its opening paragraph about the product.

Here is an amazing product you probably have never heard of. It can't be bought off the shelves, is used in winning V8 Supercars, successful Bathurst 24 Hour racers, and Australia's 2000 Top Fuel dragster champion. It has been exhaustively tested by the State Government's Queensland University of Technology in Brisbane. Be sceptical, but we have seen further tests performed which back up their results.

The product which has stirred up this enthusiastic response from car professionals is ROIL GOLD, a US developed metal conditioner. It's not an oil additive – it's a metal conditioner. It treats the metal not the oil – the oil is just the carrier, which takes the Roil to the metal.

You put it in your engine (petrol, diesel and most other types of engine), gearboxes, and differentials. You can apply it to any metal surface, which is subject to friction. In fact, one of Australia's major tourist theme parks uses it on its rides to reduce wear, while cutting running costs, because less friction in its engines means more power with lower maintenance and running costs.

In simple terms Roil Gold puts a new compound on a metal surface. Its effect can be compared to the opposite of a magnet – instead of the metal surfaces being attracted to each other they are repelled, which means they are effectively just gliding by each other.

Mick Atholwood, a qualified engineer and the owner of 'Saintly', Australia's 2000 Champion nitro fuelled dragster, observed that many additives end up in the oil filter or the sump, but he has never been able to find a trace of Roil. His tests also showed that there was no trace of Roil in the engine oil either – the Roil had been correctly transported to the metal surfaces and not left a trace in the oil itself.

Everybody agrees that the biggest problem is getting people to try Roil in the first place; however once they try it they find that their engines, gearboxes and differentials all run smoother and quieter and are less costly to run. Then they are customers for life.

The International Standard Falex tests conducted by the Queensland University of Technology are widely available and compare friction levels using various oil, and even water, before and after treatment with Roil and some well-known additives.

As reported in the Jaguar Magazine, the highlight was Cat Diesel oil which broke down after having 750 lb of force applied to it. When Roil was added to the same oil by Q.U.T. scientists, and put through the exact tests, it passed 4500 lb – and didn't break down at that point even! Other published tests are equally impressive."

It is recommended that Roil Gold be added in ratios of 1:14 for car engines, 1:40 in automatic transmission or manual gearboxes, 1:64 for power steering or hydraulics, 1:5 for grease and 1:100 for various other uses. Roil Gold contains no suspended solids such as Teflon, graphite or moly. And it doesn't contain films, or build up on internal moving parts. It is only applied every 20,000 kilometres for engines and every 60,000 kilometres for transmissions and gearboxes.

What it does is reduce engine heat by cutting friction and increasing heat transfer, guards against corrosive build up, minimizes repair costs, helps prolong tool and equipment life and is formulated to blend with petroleum or synthetic oils.

Roil also have a Roil Fuel System Treatment. It cleans the components of your engine's fuel system this results in cleaner and more efficient fuel combustion and therefore you'll get greater fuel efficiency, faster acceleration, lower maintenance costs and lower levels of exhaust emissions. Once again, simply do one treatment every 20,000 kilometres.

By using Roil you'll find that that you'll increase your fuel efficiency by around 10%. This means that the savings in fuel costs alone will more than pay for these products. On top of that, you'll be reducing your maintenance and operating costs.

Obtain your ROIL GOLD Metal Conditioner and ROIL FUEL Treatments by calling Brian Pollard direct on Office 97937583. or Fax: 02 97937583

NOTE** This is the promo the Jaguar Magazine forwarded to this office prior to publication:

Tatra- The Other Aircooled up to 1945



Most people have never heard of the Czech auto firm of Tatra. Despite producing quality cars from 1897, right up to the early 1990s, Tatra was a very forward looking and technologically advanced automaker. However, the firm that could have done so well had two historic events that effectively prevented it from ever becoming a mainstream contender. Firstly, Tatra was involved before the war in production of innovative aircooled peoples cars, when the Germans moved in 1938 while production went on in limited numbers the company could never mass produce a rival to Germanys own peoples car. Secondly, the firm fell under the Soviet sphere after the war, The Russians nearly killed the firm, but eventually decided to let Tatra produce large, relatively models for the luxurious Czech state bureaucrats and officials and left Skoda to concentrate on cars for the masses.

What makes Tatra so important was that they were doing exactly what Ferdinand Porsche

was looking into, cheaper cars for the masses. Both Hans Ledwinka of Tatra, and Ferdinand Porsche were contemporary car designers, and would have known about each other work. Both favoured backbone chassis and rear mounted aircooled engines. In most ways Tatras designed were more advanced, and Tatra easily beat Porsche in the first production of this type of car (indeed Tatra successfully sued VW in the 1950s). Both approaches were lucky to survive the war; VW was lucky enough to come under British control, and then German management. Tatra survived the war, but under Soviet control would never flourish to rival the western auto companies.

In many ways the fate of Tatra would have been that of Volkswagen, if they had been unlucky enough to fall under the Iron Curtain.

Tatra-Fritzmaurice

streamlining The era at Tatra foreshadowed in October 1933 by a special prototype displayed by the British Tatra concessionaire, one D. Fitzmaurice, at the Olympia Motor Show in London, England. It was called the Tatra-Fitzmaurice and had a streamlined body designed by D. Fitzmaurice and made by Thomas Harrington Ltd. (of England) mounted on a special Tatra-supplied chassis with a front-mounted 1.48-litre aircooled 4-cylinder engine (a modified T75 unit). It was offered for sale at a very high price and no copies were built.



The Tatra goes rear aircooled

Nineteen-thirty-three also marked the beginning of the era of Tatra automobiles with rear-mounted (directly behind the rear axle) aircooled engines, a requirement for the truly aerodynamically efficient automobile - at least as established scientifically by the Hungarian streamlining specialist Paul Jaray. As well this engine placement had an effect of reducing engine noise (air cooled units do tend to get noisy) inside the vehicle and allowed the front of a car to be as short as possible while prompting a long tail, both of which were aids in reducing aerodynamic drag. Of course one disadvantage of placing the engine in the rear is that it creates difficulty in attaining good weight distribution. The somewhat related concept of positioning the engine in front of the rear axle (so-called "mid engine" layout) would be better in this regard but very impractical for a multiple-passenger luxury automobile. And as a side note, having the engine and driving wheels on the same end has advantages, such as weight reduction, less efficiency loss in the drive, no vibrations caused by a long drive shaft, and a flat floor.

The V570 prototype

The importance of streamlining in automobiles cannot be overlooked. Aerodynamic efficiency has numerous advantages; some of the more significant are reduced fuel consumption, increased stability, possibility of higher speeds, and greater safety. In addition, it obviously creates an opportunity for interesting styling ideas.

Tatras first concept

Since about 1930 the Tatra design team, headed by Hans Ledwinka and composed notably of Erich Uberlacker and a few other engineers, had been considering the concept of mounting an air-cooled engine at the posterior end of a back-bone chassis.

In 1931 an experimental prototype rear-engined Tatra was constructed with a conventional body which looked to be made up of standard components. It must have been successful as



indicated by another prototype developed in 1933, the V570. This was a very advanced study-vehicle with an aerodynamic body of steel sheets covering a wooden structure and capable of seating 4 persons. An 854cc horizontally-opposed 2-cylinder air-cooled engine drove the rear wheels.

Production - the Tatra T77

The 5th of March, 1934, is certainly a date to remember. On that day took place the official introduction of the Tatra 77, having the honour of being the world's first serially produced aerodynamically styled automobile powered by air-cooled rear-mounted engine. massive and roomy, seating for six provided, luxury car had an exceptionally low coefficient of drag. The occupants sat low and comfortably between the axles of this V8-powered and astonishingly low 4-door automobile. With the steering wheel situated centrally at front, the driver must have had quite a view out the 45degree slanted windshield. There was lots of luggage space, above the rear suspension and in the nose, where the spare tires and battery resided. The efficiently streamlined body, complete with stabilising dorsal fin, was mounted on a central tube chassis welded to a box-type frame, which forked at back to surround the motor. Unfortunately placement of the engine so far back did cause weight-distribution problems coupled with the swing-axle suspension which greatly affected handling, something that required quite a bit of getting used to. Nonetheless, the T77 was still a remarkable achievement considering, among other things, that its relatively small 2.97-litre



77 is not exactly known but presumably is very



power-plant propelled it to a top speed of over 140 km/h. The then chief engineer Erich Uberlacker was mainly responsible for the design and actually suggested the use of aerodynamic bodywork, for the construction of which a license from the Budd Manufacturing Co. of USA (where incidentally Hans Ledwinka's relative Joseph Ledwinka worked) was obtained.

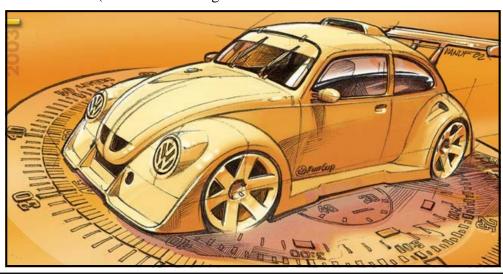
1935 Tatra T77a

In 1935 followed the improved Tatra 77a. An extra central headlight was added and could optionally be made to turn with the steering wheel (more precisely, three different directions of the headlight were possible), that must have been quite the experience for night drivers! Increasing the capacity of the V8 to 3.4-litres raised output to 75 bhp and maximum speed to 150 km/h. Driving characteristics were also improved and the styling (aesthetically speaking) cleaned-up was Aerodynamics were still awesome with the drag coefficient of 0.21 (the cd of the original

similar).

The production of both the T77 and T77a was very limited, numbering 105 of the former and no more than 150 of the latter. It is also important to note that, since both models (like most Tatra models) were hand built, no two were exactly alike.

From Wheelspin, The magazine of the London and Thames Valley VW club.



Club run too Blackheath Photos by Luis Guarch & Raymond Rosch















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