



# SNAKESKIN

COBRA CAR CLUB OF WESTERN AUSTRALIA

NOVEMBER 2012

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# **Congratulations Dave & Regina**



Check out the smile, have you ever seem a happier face. Congratulations Dave and Regina on getting the car completed and registered. Dave and Regina both worked very hard on this project, on what is truly and owner builder car right down the upholstery and painting. Well done and happy motoring.



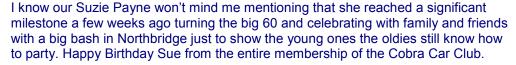
## PRESIDENTS REPORT BY DAVE KENT

#### G'Day Cobra nuts

All too quickly it seems the festive season is upon us again so it's time to bring out the decorations and make plans to spend time with family and friends over the Christmas break. So to all club members and their families have a happy and safe break and we look forward to catching up with everyone in the new year.

Special thanks must go out to Ron & Nola McNally for offering up their fantastic Dawsville residence for the annual Cobra Club Christmas function on Saturday 01 December 2012 and for their efforts in arranging catering for this event so everybody can relax and enjoy what will hopefully be a great Cobra day.

By now all the stories of the run to Tony Pernechelle's magnificent Ford collection on the 14<sup>th</sup> of October have probably done the rounds and judging by the comments heard on the day all and sundry had an excellent time despite the questionable weather on the day sending Cobra owners scurrying to cover cars when the showers arrived with perfect timing just after our arrival. Several big thank yous are in order firstly of course to Tony Pernechelle for allowing us to enjoy his collection and the warm welcome we received on our arrival with Tony being only too willing to explain the history of many cars in his collection. Secondly a huge thank you to Maurie & Liz Whittles for their donation of a personally signed (Bob Bondurant) and framed poster which was presented to Tony for display in his new museum which is currently under construction. Thank you Maurie and Liz this kind gesture was very much appreciated by all and well received by Tony. And last but not least thank you to "Mr Hogs Breath" Miles Wood for providing all the buns, burger patties, etc to make sure everybody was well feed on the day ably assisted by Jessie Kent with all the salads.



Don't forget there is no club meeting in December so we will see everyone after the break for the meeting in January 2013.

To one and all have a Merry Christmas and a happy new year.

Cheers

Dave Kent



# OFFICE BEARERS FOR 2012

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CCCWA 2012 / 2013 Club Calendar								
Updated Club Ru			Event	Depart / Start	Information	Organiser		
Septem- ber	<b>Day</b> Wed	Date 26	Veteran Car Club (BBQ)	Time 6:30 PM	BBQ and September General Meeting	Club		
October	Sun	14	Tony Per- nechelle Muse- um	9.00 AM	Depart Caltex Midland for Hills run to Tony's	Dave Kent		
October		0	Go Karts Wan- neroo	TBA	Club Kart Champion	Troy Kent		
October	Wed	24	Veteran Car Club (BBQ)	6:30 PM	BBQ and October General Meeting	Club		
Novem- ber	Sat & Sun	21	Dunsborough Overnight Run	8:00 AM	Depart Ye Olde Nar- rogin Inne, progressive pickup from Pinjarra	Jessie Kent		
Novem- ber	Wed	14	Whoop Ass Wednesday		Motorplex	Alan Dewar		
Novem- ber	Wed	28	Veteran Car Club	6:30 PM	November General Meeting then Hamburg- er Hill Run via tunnel	Club		
Decem- ber	Sat	1	Christmas Function		Ron & Nola's Dawsville Resort	Ron McNally		
Decem- ber	Sat	8	Twilight Run	ТВА	Depart Mandurah Bun- nings - Progressive Pickup to TBA			
January	Sun	13	Beach Break- fast Run	7:00 AM	Depart Ye Olde Nar- rogin Inne			
January	Wed	23	Veteran Car Club (BBQ)	6:30 PM	BBQ and January General Meeting	Club		
February	Wed	6	Committe Meet-ing	ТВА	ТВА			
February	Sat	9	Valentines Run	5:30 PM	Depart Kings Park to Kent Balirama	Jessie Kent		
February	Wed	27	Dick and Leone Hogen-Esch	6:30 PM	Departing Hungry Jacks Baldivis - depart 7:00PM.	Ron McNally		
February		0	Whoop Ass Wednesday		Motorplex	Alan Dewar		
March	Sun	10	Harry's Fish and Chip Run	5:00 PM	Progressive Freeway Pickup from Mindare South for Fish & Chips	Harry McClymans		
March		0	Classic Car Show	8:00 AM	CCCWA Show and Shine - Whiteman Park	Ron McNally/Dave Kent		
March	Wed	27	Club Meeting	6:30 PM	BBQ and March General Meeting @ South Perth Foreshore	Club		

# DAYTONA BUILD BY RICKY VIRAGO (PART 7 -FINAL)

Reassembly of the car promotes some excitement in that things are finally being fitted for the last time. The first thing was to install lights and terminate them. Next the fuel filler was installed and connected. The rear hatch and spoiler was fitted, quarter windows were drilled, tapped and installed.





Spoiler, lights, fuel filler and hatch fitted





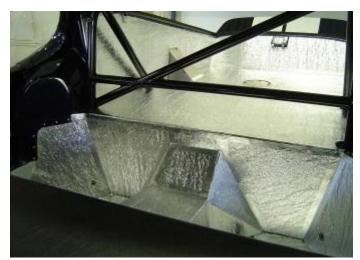
Body fitting details

After fitting the external body parts, I decided to line the car with some sound deadening material prior to carpet. The material is a heavy foil faced material designed to add mass to panels to remove tininess from the large panels. This was glued into place with sikaflex and then the edges taped over with foil tape.

# DAYTONA BUILD BY RICKY VIRAGO (PART 7 -FINAL)









Insulation and carpet installation completed



# DAYTONA BUILD BY RICKY VIRAGO (PART 7 -FINAL)





The car at this stage is pretty much complete and was lowered onto its own wheels and rolled into the sun for the first time as a complete car.

The only remaining thing needed was the engineering sign off prior to licensing. This was a relatively smooth process requiring all the appropriate paperwork to be completed by the engineer along with 5 gas emission testing, noise tests, etc, which were then submitted to DPI.



### GARDNER DOUGLAS MK4 COBRA - BY PETER GRAY

Quite a lot of progress since my last set of notes -

Critical job was to push on and complete all the body work and get the main body into a condition that allowed it to be shipped off to the 'Stock to Shock' spray shop for Matt Grimwood to work his magic.

My initial intention had always been to complete the car with the factory gel-coat finish and if I was building a track day car - that's without doubt the way I would go with a GD. However, in the end I decided to go for a show finish; probably one of the hardest - certainly one of the most costly decisions in the whole process of building the Gardner Douglas. Not least of which is the fact that I am totally crap at colour selection and co-ordination (just ask the wife!)

I had some time to think about colours while Matt did the body prep and managed to get myself into a total meltdown as to what to do. In the end I decided I was completely overthinking the process and jumped onto the web to look at some US spec Cobras and Corvettes. Finally I settled on *Monterey Red Tint* a colour that was extremely popular a few years ago on Corvettes. It took a while to sort out the correct paint code as it seems it was only ever available on certain Corvettes. Eventually we got the code from the USA and Matt pushed on with the work. At this point I should probably admit that due to my complete lack of colour 'sense' I was extremely concerned as to whether I had made a good choice. I saw the finished car for the first time a few days ago - it blew me away - to me it looks absolutely stunning - it has a deep cheery red lustre in dull light and then changes ('pops' I'm told is the correct expression) to a lighter brighter colour in sunlight - it is difficult to describe just how pleased I am with what Matt has produced. I leave you to make your own decision - the pictures do not do it justice....









#### GARDNER DOUGLAS MK4 COBRA - BY PETER GRAY

The body arrived back in the garage on Saturday and now I'm paranoid about going anywhere near it to work. Guess that's something I will just have to get used to... at least now the final assembly can begin.

Whilst all that has been going on in the shop I was completing the final bits and pieces around the chassis and getting the whole thing ready for the first engine run ....

I jury rigged the peddle box and clutch line as I wanted to check the clutch function for drag etc rather than discover an issue once the body was fitted - it would also allow me to run the transmission and drive train.

Although the engine is a stock Gen 5 LS3 the ECU and control system is from MASTMotorsports in the USA. It will provide me with a good deal more HP and is programmed to meet both the local [Texas USA] and European IVA 3 gas requirements - from the empirical data I have its going to be a challenge to meet the 5 gas levels I have been quoted for WA. We will cross that bridge when we get there.. The Mast system is friendly and quite easy to set up. The ECU is preprogramed so it is simply a matter of downloading the control 'stuff' into a laptop and connecting it to the on-board system once it was powered up. All fairly straight forward - the devices immediately communicated and it all looked good on the laptop 'dash' system. Next job was to recheck oil, water levels, remove the plugs and ignition and spin the engine over until I had some oil pressure (I have fitted a mechanical capillary system even though MAST has an electronic transducer and gauge system.)





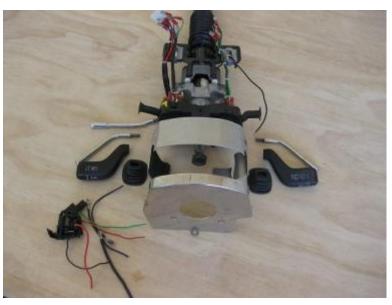


### GARDNER DOUGLAS MK4 COBRA - BY PETER GRAY

The engine was spun for about ten seconds at a time and at the end of the second turn the oil pressure appeared and settled at 35psi.

Fuel was then poured into the tank – a quick check for any drips or wet joints and to confirm that the fire extinguisher and hose were close by - we also had a plan B of some strops attached to the chassis so it could be dragged from the garage and into the street if for some reason we did have fire of any sort...and then it was time to turn the key and push the button in anger ......which resulted in.....nothing. Several hours of investigations determined that yours truly had failed to connect a 12V loop together and had actually carefully and neatly isolated each cable end -

I have no idea why I did it - senior moment! but the end result was no power to the ignition circuit. After connecting the offending wires - try again.....result.....a spinning engine but no attempt to fire. More investigation revealed no fuel could be bled from the fuel manifold ( which I have to admit I forgot to do at the first attempt) and that the fuel pump sounded a bit 'odd'. I eventually tracked the problem down to the fuel inlet and the tank spillback line on the filter regulator





were crossed - easily fixed with a couple of minutes on the spanners – bled out the fuel manifold via the Schrader valved - touched the button - instant engine start and lots of noise.

The engine was run for about 20 minutes whilst P's and T's were checked and manifolds/exhausts checked for any gas leaks - all was good. What was impressive was just how vibration free the whole assembly was. In the past I have built these cars with Ford engines that have a different firing order, lumpy cams and carbi systems that throw the engine and passengers all over the show. Whilst this is very much in keeping with the original 427/8's the GD Mk4 was always intended as a tribute to the original genre and is GD's interpretation of the classic but updated to latest modern specs... The result is an exceptional ride quality and silky smooth, vibration free power delivery [but still very noisy...!] Even though this makes it an extremely easy, smooth and 'calm' motor to drive - it can still 'Cobra' and bite you very quickly and badly if not shown appropriate respect.

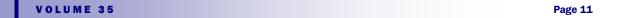
#### GARDNER DOUGLAS MK4 COBRA - BY PETER

The engine run did throw up a couple of issues.. there were a couple of problems with the Mast system in that I had no oil pressure from the electronic side so the MIL light was on and I had to override the auto shutdown - the fan kicked in too early and the Smiths hot wire dash gauges had an offset compared to the values indicated on the computer. The oil pressure issue was resolved with the purchase of a new GM sender after which I was pleased to see that the MAST measured value was identical to the indicated pressure on the Smiths capillary system. After delving around into the MASTMotorsport website and a call to their support team I was provided with a couple of sheets on how to calibrate the Mast system output drivers so the Gauges indicated the same as the computer - a couple of hours sat quietly saw the water and oil temp gauges lined up between the Smiths dash and the Mast computer drives and the fan control set at a more reasonable temperature control. I also ended up calibrating the speedo - an interesting exercise that necessitated the rear wheels being removed, the chassis/suspension resting on chassis stands - running the engine through the complete drivetrain with spinning discs at the rear. Indicated 200kph in the garage!! OHS&E at its very best! Again, the smoothness and lack of any harmonics throughout the whole drivetrain was very impressive.

The other work complete has been the modifications to the steering column. To do this the top of the column was disassembled and the front replaced with a polished St Stl plate - wiring from the control stalks was extended to mate with the GD loom and lastly the ends of the control stalks were sawn off and the remaining part drilled and tapped so they could be fitted with very lovely St Stl arms supplied by GD. I have one remaining job to measure and drill in two M4 eng bolts to act as activating pins for the turn cancel mechanism at the rear of the column. It all looks pretty good when put together and no doubt will look even better when the dash is covered in leather and the rear of the steering cover is also covered with matching leather. A trial fit of the dash and its component parts did highlight just how little room there is behind the dash, particularly as the ECU, the relay panel and MAST control box all have to fit behind the dash along with the windscreen and tunnel vent system, the dash loom and the wiper system. In the end I decided to claw some room back by not fitting a glove box. I had been looking at the box for many months trying to figure out how to make a neat job with hidden hinges etc but had failed to come up with any sound ideas. There was also the issue of trying to dress out the inside to avoid stuff and rubbish banging and rattling around inside - in the end I decided it was easier not to fit a glove box. It will mean a nice clean dashboard but it did mean my re-glassing the panel I had previously cut out for the glove-box back into the main dashboard. It also enabled me to re-glass the toggle switch holes for the lights, heater and fog switches as I am fitting a much more robust units that the original Lucas 'lookalikes' and to glass in some M5 dash mounting blots so the dash can be bolted to the body without any bolt heads showing in the tub.

Next time... wiring loom.. carpets...doors, bonnet and trunk lid .... Hand brake and hopefully a drivable vehicle ready for Engineering and Rego...

As ever, my standing offer remains - if you're in my area on a Sun - a quick phone call [0406933899] and if I'm in the garage, your welcome to come in for a cold one and a chat/look and any spannering that needs doing...



#### The following article was provided by Wallace Wyss for publication in our Snakeskin.

WALLACE WYSS is a historian in Southern California who has made it somewhat of a specialty to write about Shelbys, Cobras and GT40s. Eric Musarra, a computer consultant and reporter in So Cal, interviewed Wyss for our publication.

MUSARRA: How did you become interested in Cobras and Shelbys?

WYSS: I was walking along a street in Detroit and a lady in a 427 Cobra came broadsliding around a corner and pulled up to me and asked "Which way is the convention center?" I told her I'd show if if she gave me a ride and she did (at 140 mph!) and once there I met Shelby and crew setting up a display for the Detroit Auto Show. That was my introduction. I decided to write a book a few years later.

MUSARRA: What book was that?

WYSS That was Shelby's Wildlife: the Cobras and the Mustangs. What happened there was that I called up Motorbooks, the publisher and asked if they wanted a book on Ferrari. The publisher said "No, there's too many books on that, I want one on the Cobra." I said "No, I don't care about domestic cars," but then a couple days later realized I as unemployed, why not take him up on it. I called him back, wrote the book and it sold 50,000 copies over the next 17 years.

MUSARRA Then you went on to other marques?

WYSS: I have always been a Corvette fan and bought one in 1969. I wrote three books on that and books on Ferrari, Porsche, etc. before I came back to the subject of Carroll Shelby.

MUSARRA: What made you come back?

WYSS: Well, ironically even though I had concluded back in the '70s that my Shelby book petered out in sales because of all the competitive books, I knew Shelby had hung in there and developed more cars, including ones for Chrysler. So I kept noodling about on how can I do this subject in a new way? Then I read Brock Yates' book about Harley Davidson and realized that it a car book doesn't just have to be a story about nuts and bolts, i.e. "In 1967 they switched to the such-and-such engine" but there's explaining the raw appeal of the machine and, using a combination of Yates' approach and that of Tom Wolfe ("The Candy Colored Tangerine Flake Streamlined Baby") I was able to get a handle on how to approach the subject in the book that became SHELBY The Man, the Cars, The Legend. Since Shelby is such a colorful character I put a lot of anecdotes in there. In fact, one of the self-appointed critics on Amazon.com criticized me for having too many Texas jokes and so for the new edition I put in even more because that is one of the great things about Texas—how they have such a sense of humor about themselves.

MUSARRA: But this new book was for a different publisher?

WYSS Correct. Tom Warth, who had founded Motorbooks, had gone on to start a new firm called Iconografix which was mainly doing picture books. But I talked him into doing a primarily a words book just this once and since he was the same bloke what commissioned Shelby's Wildlife decades before, he gave the OK. And I'm happy to say he didn't try to tell me how to write it, though I notice in the second edition,

— which just came out--they took out a line that was a little too graphic regarding the frequency of driver's deaths in the Fifties.

MUSARRA: So what can we expect in the new edition?

WYSS: More pictures, still black and white, but almost another 100 pages larger. I added a lot to the LeMans sections because I feel that is one of the areas where Shelby contributed most to Ford, helping shape up the losing GT40 into a winner. Also because a British TV production company has a scriptwriter writing an adaptation for a 13-part TV series and I wanted to give them more insight into the headspace of Ford and Shelby back then.

MUSARAR: So we can see this on the telly?

WYSS Not yet. The project is only in development and I have since found out that production companies have many projects going simultaneously so you can't count on it seeing the light of day until it's done and bought by distributors. We might see a feature film of A.J. Baime's Go Like Hell, which also tells of the Ford vs. Ferrari battle at LeMans come out first though I think that's also languishing in development.

MUSARRA: When you wrote your Shelby books did you talk to many of the original people that made up the company in the Sixties?

WYSS Of course when I wrote Shelby's Wildlife I went and interviewed Shelby--that was before he had gone to Chrysler and was almost a forgotten person. Replica Cobras weren't being made yet. When I did the SHELBY The Man, the Cars The Legend he was ten times busier—even though in his '80s-- and I never did talk to him because he was a little miffed that I had been one of the only two questioning the provenance of the "left over" uncompleted big block Cobras he had "found" in the '80s. But he made plenty of public appearances and I monitored those and got enough info to see where he was going with his businesses in the '80s through 2012.

MUSARRA: So your book is critical of him?

WYSS: I call a spade a spade. There are plenty of other books on him that are what we in the journalistic trade call "puff pieces," i.e.

glowing testimonials but like all of us, the man had his flaws.

Overall, though, I think his biggest contribution was making sports car racing a sport for the middle class instead of just the high class. Before he came along—a failed chicken farmer, it was a sport that was isolated for the rich swells like Briggs Cunningham. Once he began to win, more Americans became interested in the sport.

He also showed the Europeans that a car didn't have to be as complicated as a Ferrari was to win a race like LeMans. Those GT40s that won LeMans were pushrod, iron block engines not that different from what you could order in the showroom.

MUSARRA: What about other employees?

WYSS: Through the years I visited them here and there. One was a school bus repairman who gladly showed me pictures of the day when he worked on cars that went 200 mph at LeMans. Another was Phil Collins who built Shelby race cars. Still another was Phil Remington who I think is still working for Gurney though he's in his '80s. All in all it is a great group of guys and I think, for many of them, working at Shelby American was the greatest job they ever had.

MUSARRA: Didn't one of them write the forward to your new edition>

WYSS: That was Bob Bondurant. In the latest edition I tell more of what a cheeky lad he was, defying Alan Mann when he went over to drive the Daytona coupes in '65. Bondurant was young, ambitious and didn't much like being put behind the British drivers in finishing order. He went on to found a famous driving school—one I sent my first wife to—and still is a great spokesman for the glory days of Shelby American today.

MUSARRA: Why did you choose to do your book in small paperbound form with black and white?

WYSS: Because there are many competitive books out, like those by Randy Leffingwell, or Colin Comer, that have beautiful color pictures but those books are heavy and not something you want to tote around a car event. Look at the authorized biography of Shelby by Rinsey Mills—it weighs over 2 lbs. and has over 500 pages. That's a history, not a short bio like my book. I wanted something you could buy at a car show and carry around.

MUSARRA: You added a quiz too?

WYSS: Yes, the quiz shows my life of trivia. Often in the text of a book you can't take the time – interrupting the story narrative, as it were--to add a myriad of details like how it was one 427 Cobra chassis has a coupe body originally designed for a Fiat. But in my quiz I can ask questions about the most arcane subjects and in the discussion section answer those trivia questions. It's all for entertainment. I think that's where my book is different from all the others—I still see automotive histories as partially for entertainment besides the elucidation of facts—there's lots of boring books that do that now.

MUSARRA: And you are doing some artwork as well?

WYSS That started by accident. I did an oil painting of Carroll Shelby in 2007 and took it to the Beverly Hills Concours. I was walking around selling copies of SHELBY The Man, The Cars, The Legend when a guy bought one and I showed him the photo of the painting and he said "Where is it?" and I said "In my car" and he said "Go get it, I want that too." So on the long walk back I thought I have to figure out how to make prints and I subsequently connected with a printer and now have painted over 100 paintings of Cobras, Shelby Mustangs, GT40s and Ferraris.

MUSARRA: This interview is for Australia Have you been to a car event there?

WYSS: No, I did go there as a tourist in the '80s and enjoyed driving around. I froze in the Blue Mountains, not realizing Australia had cold areas, but enjoyed the enthusiasm of Australians for cars built in Europe and America. I am glad to see some Cobras are still racing there after all these years. By the way I tried to get pictures of Ken Miles racing a 427 Cobra at Lakeside but even though I corresponded with the reporter he gave a ride to, I never got any shots so if anyone has them please contact me for the next edition!

MUSARRA: Where can we get your book?

WYSS: It's out now, and probably at the larger automotive bookshops in Australia.

MUSARRA: What about your art?

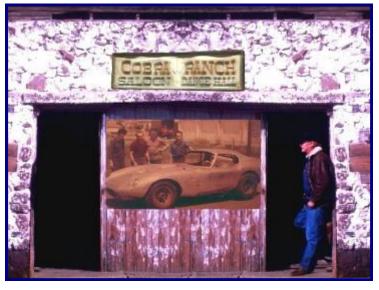
WYSS: I have prints, write me at <a href="mailto:photojournalsitpro@gmail.com">photojournalsitpro@gmail.com</a> and I can refer you to a source to order them from. They're printed on watercolor paper and shipped rolled up. I sign each one of them. I'm not a full time artist—I just consider them an "accessory" to the book and even take jeans-material shirts and embroider them with the name of my ranch "Cobra Ranch, Mendocino" so Cobra fans will have something to wear.

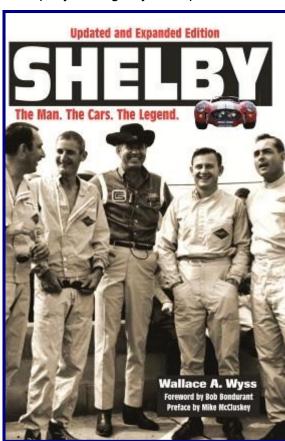
#### MUSARRA Tell us about the ranch?

WYSS; I own part of a 20-acre ranch about 5 miles from the ocean in Northern California. Actually I only go up there occasionally as I am learning about thoroughbred horses down in Southern California where it's warm. I was proud when I sold my first thoroughbred horse a couple years ago—just as proud as when I published that first book!

MUSARRA: Thank you.









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# COBRA BUILD STORY BY ANDREW FINCH

Andrews build commenced after taking delivery of his G-Force replica in 2002. Initially the car was housed in a hanger at Jandakot Airport. Andrew's no1 helper was his "Baby" brother Michael. Actually the only person who appears to be doing anything is Michael. Andrew obviously assumed the role of photographer. The body in the old shape G-Force very close to being the last one before the mold was changed.







During the build Andrew was transferred to Kalgoorlie. The rented house did have a garage but it was very narrow and as you can imagine quite hot during the day. Andrew eventually secured his own house in Kalgoorliie with a larger shed and was able to start making some real headway now that he had a little more room to move.





# COBRA BUILD STORY BY ANDREW FINCH



Andrew eventually returned to Perth and the car moved yet again back the hanger at Jandakot. Andrew jokes that the cobra travelled in excess of 1000 kilometers before the engine was even fired. Great fuel economy!

Andrew experienced quite a few hurdles along the way as do most builders not the least of which was the clutch fit up.

"The first clutch didn't fit, in the end I resorted to getting another one. This is before I learnt about laser cutting, a sandwich plate might have done the job here."















VOLUME 35 Page 17

# COBRA BUILD STORY BY ANDREW FINCH

Form the previous page

11: Obtaining a gemini handbrake whilst visiting friends on their farm.

12: The injection computer wiring begins. I swear I had more hair at the start of this process.

13 & 14: Brad Guellfi (Profire LPG) assisting with running the motor in on the dyno, this allowed us to seat the rings without damaging cam lobes etc.

15: The dash is connected as a module via two multi-pin plugs allowing to be unhooked and removed reasonably quickly.













Andrew set out initially to build a car so that he could use the experience to increase his knowledge of just how a car works. In Andrews words; "This whole exercise was a massive learning curve and I came away knowing so much more than I would have ever imagined"

Andrews hard work paid off when he was awarded the ,members choice award for best presented car at the 2012 Whiteman Park car show. Very well done Andrew.

## TOOLS EXPLAINED

**DRILL PRESS:** A tall upright machine useful for suddenly snatching flat metal bar stock out of your hands so that it smacks you in the chest and flings your beer across the room, denting the freshly-painted project which you had carefully set in the corner where nothing could get to it.

**WIRE WHEEL:** Cleans paint off bolts and then throws them somewhere under the workbench with the speed of light. Also removes fingerprints and hard-earned calluses from fingers in about the time it takes you to say, 'Oh sh--!'

**SKILL SAW:** A portable cutting tool used to make studs too short.

PLIERS: Used to round off bolt heads. Sometimes used in the creation of blood-blisters.

BELT SANDER: An electric sanding tool commonly used to convert minor touch-up jobs into major refinishing jobs.

**HACKSAW:** One of a family of cutting tools built on the Ouija board principle... It transforms human energy into a crooked, unpredictable motion, and the more you attempt to influence its course, the more dismal your future becomes.

**VISE-GRIPS:** Generally used after pliers to completely round off bolt heads. If nothing else is available, they can also be used to transfer intense welding heat to the palm of your hand.

**OXYACETYLENE TORCH:** Used almost entirely for lighting various flammable objects in your shop on fire. Also handy for igniting the grease inside the wheel hub out of which you want to remove a bearing race.

**TABLE SAW:** A large stationary power tool commonly used to launch wood projectiles for testing wall integrity.

**HYDRAULIC FLOOR JACK:** Used for lowering an automobile to the ground after you have installed your new brake shoes, trapping the jack handle firmly under the bumper.

**BAND SAW:** A large stationary power saw primarily used by most shops to cut good aluminium sheet into smaller pieces that more easily fit into the trash can after you cut on the inside of the line instead of the outside edge.

**TWO-TON ENGINE HOIST:** A tool for testing the maximum tensile strength of everything you forgot to disconnect.

**PHILLIPS SCREWDRIVER:** Normally used to stab the vacuum seals under lids or for opening old-style paper-and-tin oil cans and splashing oil on your shirt; but can also be used, as the name implies, to strip out Phillips screw heads.

**STRAIGHT SCREWDRIVER:** A tool for opening paint cans. Sometimes used to convert common slotted screws into non-removable screws and butchering your palms.

**PRY BAR:** A tool used to crumple the metal surrounding that clip or bracket you needed to remove in order to replace a 50 cent part.

**HOSE CUTTER:** A tool used to make hoses too short.

**HAMMER:** Originally employed as a weapon of war, the hammer nowadays is used as a kind of divining rod to locate the most expensive parts adjacent the object we are trying to hit.

**UTILITY KNIFE:** Used to open and slice through the contents of cardboard cartons delivered to your front door; works particularly well on contents such as seats, vinyl records, liquids in plastic bottles, collector magazines, refund checks, and rubber or plastic parts. Especially useful for slicing work clothes, but only while in use.

**SON-OF-A-B1TCH TOOL:** (A personal favourite!!) Any handy tool that you grab and throw across the garage while yelling 'Son of a B1TCH!' at the top of your lungs. It is also, most often, the next tool that you will need.

# FOR SALE





Four rear shocks for Cobra with Jag rear end. Shocks are Boags with Kings Springs. They have travelled no further than 200 klms.

New cost \$754, Sell for \$500 (set of 4) ONO

Contact Eddie or Tony 0400 599 168







Light set. 4 amber single filament, 2 red dual filament. \$150 (set of 6) ONO Side repeaters \$24 (pair) ONO Contact Eddie 0400 599 168



Andrew, seriously what are you doing to Alan's car?

# **CCCWA Supporting Companies**





# NA.SA

# **Neil Atwell**

**Electrical - Maintenance** 

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