

# RUSS Pavey and KEN Lowe Race Report



## Sydney NITRO Champs 3-6 May 2013

We want to start by saying a very big thanks to all of our sponsors who help us so much and we are very proud to take their message to the FINISH line.



We want to start this report with a BIG thanks to Ben and Vic Bray because without their support and assistance we could not get to the race track. We reckon that Vic Bray is the Godfather of Australian Drag Racing because he had not only help us he has helped so many others as well. Thanks, Mate.

Our crew of Pete Richards, Brett "Robbo" Roberts and Jeff Stone all produced a terrific effort and are hugely responsible for any success that we have.

### 2 April 2013

Our last race was at the Western Nationals ANDRA round in Perth. Our last three passes were all 6.0 numbers and the last one was another 6.01 but with a poor 60 foot number because our clutch was toast, burnt toast, or more accurately the shape of a potato chip. Running the SLAMFEST Series is good for us and good for drag racing as it takes the show out to venues that simply could not afford to produce this type of high quality event. That is the upside. The down side is that although many of the tracks we race on will have a pretty good start line because it has been groomed so well the tire machine but out at 350-400 feet often there is just nothing there or at least not enough for a 3500 HP engine, and as a result we can simply just smoke the tires at almost 200 miles an hour. We have put all of our wing "in" and it is still not enough, so right now our only option is to take some timing out to keep the car from just blowing the tires off.

Since the Winternationals 2012, Perth was our first opportunity to get on a good race track and work on our good track tune up. We are hoping to find the cash to get to Sydney to get some more track time on a sticky track. We reckon it will be fast there, for us, as well as all the other competitors making the qualifying harder than ever. For the spectators it should make for a great show. Our calculation is that we will have to run better than our current best ever number, just to get in. With our development plans reaping rewards after Perth we are confident we can do this.

We know we have to qualify on one clutch and then change it out for a fresh one for first round. Since we travel with Vic and Ben Bray in their trailer it is limited how much we can take with us and certainly cannot take a clutch grinder with us so we need a fresh spare clutch. So far we have assembled some extra clutch disks with the right Rockwell number and some spare floaters and a spare flywheel. For us a spare pressure plate assembly is out of the question (cost) so if we had a spare ring or "donut" (the part of the pressure plate assembly that actually applies the pressure to the clutch

disks) then we could just swap that out. If your finances are strong then you will own an all Titanium clutch assembly, flywheel and pressure plate assembly (hat and donut), if you are a budget then you own an aluminium flywheel, hat and a Titanium donut. The Titanium donut is essential because the heat will kill an aluminium donut as they will warp very easily. Ken says don't even try it with an aluminium donut as you will be very disappointed. A Titanium donut for our clutch is about \$2000 dollars which is beyond our budget, at this time. If we had one of those then we would have enough parts to change out the clutch for a fresh one. We are hoping some last minute cash will arrive.

The inspection of our hardware after the return from Perth we found that after almost 80 runs we needed a new ring and pinion as the many sub one second sixty foot launches in a 2750 pound car had finally taken its toll. In fact we might have gotten a few more passes out of it but we are conservative and a gear failure can have catastrophic results even with a rev limiter on the ignition, as during a free wheel situation the inertia of the rotating mass will just blow right past the rev limiter and into the RPM stratosphere causing much engine damage. Eighty runs on a nine and a half inch ring and pinion is exceptional life in a Top Door car. If we had an eleven inch ring and pinion diff then we would expect more but as usual the eleven inch diffs are quite expensive so for now we are racing with our nine and a half ring and pinion.

Engine disassembly found everything very happy, so Ken is happy with where the tune up is. He is very conservative and makes modest changes, because, well, we can't afford to hurt parts. We run the softer M series bearings which will "tell" us sooner if we are jumping on the engine. Ken says that there are many ways to tell if the engine combination is too aggressive. The fact that we have well over 80 runs on our crankshaft means ours is certainly not too aggressive. Ken says he uses several different indicators to know if the engine is being abused. A combination of spark plug reading, rod bearing observations and finally the EGT data all come together for the final conclusion to understand the engine. One might call it being an engine whisperer. Ken says that different data will manifest what is occurring at different parts of the race track. Spark plugs won't tell you what is happening in low gear but the bearings and wrist pins will. That is why we run the soft M series bearings which will show a load much easier. Ken says now that we are happy with the nozzle stagger and the fuel distribution so when the time is right, we can move to a harder V series bearing that will deform less under load.

Our crew's performance at Perth was exemplary. In order to grow that skill set, while we are back at the workshop we did some crew training to expand their skill set.

A couple of changes in the United Tools Top Door car, we are making a new clutch stop which should improve the driver's consistency. On the original one, when you adjusted the clutch stop to set the air gap, it allowed the pedal to be in a different spot as the clutch pack gets smaller due to wear. Not that this is a big deal but drivers are funny critters, if something is different in the car it is just one more thing they have to get used to. When the clutch pedal is in a different position each time it becomes a distraction and distractions don't help the driver. Now the clutch pedal is ALWAYS in the same place when the clutch is disengaged. Now the air gap is set by turning a left and right hand hex link. A quick check tells us that one flat on the hex link equals .001 on the air gap. Kind of handy to know if you are in a hurry someday.

**Tuesday 23 April** - We found *some* money, not enough to cover the whole deal but our plane tickets are bought (cheap seats), entries paid, car has new plug wires, EGT probes, new ring and pinion, new engine bearings and a fresh clutch. We are getting the car back together tonight so it can be taken to Vic and Ben's place on Saturday for the trip to Sydney in the back of their truck. Tonight we have to finish assembly of the car and verify the EGT probe calibrations and change the wiring on the clutch lock up release valve.

**Saturday 27 April** – We all arrived at the workshop early today with Pete, Russ and Ken getting there at seven am. The diff was final assembled and put in the car. The new big MSD cap was installed and a new set of plug wires installed and all verified with the ohms meter. We double checked the rotor phasing on the mag. We made some changes to the wiring on the car to tidy it up a bit. Rocker gear reinstalled after being removed and disassembled to inspect all the shafts and rollers. The new EGT's were final fitted as well. All we have to do now is check the valve springs and the car is

ready to load. The workshop got a big tidy up and the car will be going to Vic and Ben's shop on Monday to be loaded for the trip to Sydney. Next weekend we know we will have to run our best ever number just to get in the field and that is OK because we are confident we can do this. Let's hope it is not just a bit of hubris on our part. Our plan is to start where we left off in Perth but with some fresh hardware, springs, clutch, bearings all those sorts of things. Ken bought a heater for the engine oil so we can warm the engine oil before we start the engine. Our plan is to make a decent pass in the first session (depending upon track conditions) from where we were in Perth. If that all goes well we have a few things we want to do to step the car up a little. Having said that we all know how easy it is for wheels to fall off the bus when you do these things. So far at the level we are currently at there are no big nuggets of performance left. Ken says it is just a matter of turning small screws just a little bit.

**Friday 3 May** – The relay to the airport. Ken drives to Pete's place and then Pete and Ken drive to Robbo's place then Pete, Ken and Robbo drive to the airport. We meet Russ and Caroline there for the cheap flight to Sydney. I mean these are CHEAP seats. No frills here, Ken reckons if it were a boat they would ask us to row. But you can put up with almost anything for two hours. The difference between cheap flight and a normal flight is a set of valve springs and we would all rather have a spare set of valve springs.

After a little and only moderately uncomfortable cheap seat plane ride to Sydney we pick up our hire car for a hours trip to the race track. Once at the race track we get our United Tools Top Door Corvette out of Vic and Ben's trailer and push it into our little pop up tent where we share a pit space with a Junior Dragster team. Our little pit space is the size of our pop up tent about 3 meters x 8 meters. Get the extension cords all unravelled and air hoses connected we get our car up on the jacks and ready to work on. We have to get the shocks reset after the trailer ride, get the wheelie bars on and car is pretty much ready to go so there is not much to do tonight. We will put the push rods in tomorrow morning and set the lash then. Now we have to find the motel and get some dinner. Russ has found us a very cheap little, but clean motel and we have dinner at the local take a way to save money.

**4 May Saturday**, we find a cool overcast morning. Yesterday the track chat was about how good the track conditions were. We are all worried that the cool track temps will not let us stick to the track today. Our fears were unfounded. Russ had to bolt out and pick up a drum of Methanol for us while we got the car ready to start with push rods in and lash set.

The warm up showed us all the EGT's were working and the data logger was doing its job. We finally got the flow meter installed and it is reading as well. The later run results confirm the flow bench numbers with the on-board flow meter numbers making it much easier to tune the car.

The sky cleared and by the time for our first shot at qualifying arrived, the track conditions were very promising. Our race strategy was conservative; (as usual) we wanted to go back to



the start line with the same tune up as Perth except with fresh clutch and valve springs. The first shot gave us our first five with a 5.98 at 241. Now don't get me wrong, we were all very happy as we finally had that 5 second "monkey" off our back and it put us in the field (for now, as there are some very fast racers not in yet), but Ken said he was a little disappointed as he had anticipated a bit better, he expected a 5.95 and a review of the data explained a lot. Between

the air and track conditions the car wanted more clutch in some places and less in others. The maintenance we had performed back at the workshop when we inspected the rod bearings had told Ken the tune up was safe and the nozzle stagger was spot on with only one nozzle needing to be bumped .002. A small fuel system change with the clutch changes we went back to the starting line for the second session. While we are waiting in the staging lanes the air is dropping like an elevator so Ken has a re-think on the fuel system change and reaches in his pocket for a different jet to compensate for the improving air change. There are people who think that getting a race car to go quick is like baking a cake, like a recipe maybe, but that is just not the way it is. Yes, the basic ingredients have to be there but each pile of parts must be adjusted (tuned) to suit not only track and weather conditions but as a consideration of what that pile of parts actually wants. Listen to the parts and they will tell you a story. You will know when they are happy, and when they are not, and if they fall out on the ground, they aren't happy.

Russ makes a clean straight run, launch was right, all the gear changes were right and for our efforts we got a 5.89 at 245 time slip. That pass was a thing of beauty to behold. It was sheer poetry. Today there are no lollypops in the dirt today and everyone gets ice cream (Thanks Robbo). This puts solidly in the field at number four. We had originally planned to skip the third session because we had thought it would be too cold to stick to the track. We were wrong about that, it was cold but Kapiris made it stick to move to number one qualifier position but we felt our qualifying position was safe and we wanted to do some maintenance. So we do skip the third session, and stay back and do the maintenance. Chasing the valve springs a few needed some shims and a rod and main bearing check made all of us very happy and put a nice smile on Kens face. The parts are happy and the EGT's are very safe. None of the rod bearings were mashed at all and the main bearings all looked good as well, rear main still looked OK but we changed it anyway as it had pushed a little bit of metal but was not mashed at all and it is still a softer "M" bearing too. Pete gets the transmission out and the clutch out and put in our fresh disks, floaters and flywheel but the clutch ring needs grinding so we are on the bum a little bit. Kapiris has a clutch grinder but it is late by now but they ran the last session (giving them a number one qualifying spot, and new national record), so it is too late to hassle them tonight so we will ask in the morning. After the run, Ken reviewed the data and the bearing results told him that we have a bit or maybe more than a bit left in the "package" so we are very pleased with our development program. Let's face it we have a five year old blower that has never been restriped, an off the shelf MSD44 and a pretty generic BAE engine all of this in a homemade car without one bit of carbon fibre on it anywhere. It does not get simpler than this.

We pack up for the night, and head for the motel, on the way we stopped for our 5.89 reward dinner at Hungry Jacks. We are on a budget you know, but we did get double Whoppers instead of single ones. As we walked in to Hungry Jacks we could smell the steaks from the Outback Steak House down the street. Now we have to figure out what it takes to get a steak. Ken says he knows what that is, and says that tomorrow night we may get steak.

**5 May Sunday**, morning was clear bright and cool and a quick check of the air found the air was even better than the evening before. We still have a few hours before first round, so the air will fall off a bit, but we reckon it will still be better than the night before as it is obvious that a high pressure front has moved through. (Clear skies) We have heaps to do this morning as we have to get the clutch ring ground up, the pressure plate reassembled and the clutch back in the car and the car reassembled. At race time we were right about the air, the RA was 800 and the moisture was 40gpp. Damn this thing is gonna haul ass.

HAVE A GREAT DAY

Qualified Positions for ... TOP DOORSLAMMER 4:27 PM 3/MAY/2013  
 Lap ECT ... 3.855 Sec 844 JOHN ZAPPA 4 PETER KAPIRIS

#	CLASS	DRIVER	HOMETOWN	CAR	MOTOR	ET	QTIME	TOP MPH
<b>2013 NITRO CHAMPS 3-5 MAY 13</b>								
1.	946	T/O JOHN ZAPPA	WATERLOO IA	71 HO MONARD	HENK S14	5.855	248.10	248.1
2.	4	T/O PETER KAPIRIS	MELTON VIC	DOODGE SARATOGA	BAE S21	5.859	257.50	257.5
3.	1000	T/O HARVEY B SOMMER	ALEXANDER HEIGHTS WA	FORD FM FALCON	BAE S11	5.882	242.15	244.9
4.	3318	T/O RUSSELL PINNEY	ARMUEL QLD	63 CORVETTE	BAE S21	5.889	245.26	245.3
5.	67	T/O MARK BELLEDERE	STONEY NSW	CHEV CAMARO	FX S22	5.922	224.25	224.9
6.	1281	T/O NICKY BIRBY	KALLANGUR QLD	CHEV COUPE	BAE S21	5.967	233.96	233.9
7.	3281	T/O PAUL CANNELL	FREESTON NSW	68 CHEV CAMARO	BAE S21	6.000	241.84	241.8
8.	2299	T/O DANIEL GREGORINI	SMYR VIEV WA	68 CHEV CAMARO	BAE S21	6.917	226.81	226.9
9.	522	T/O NATHAN DACK	MARTIN WA	FORD BA	HENK S20	6.921	246.26	246.3
10.	144	T/O PENE PROSDLO	STIRLING WA	37 CHEV	CBV S21	6.941	241.33	241.9
11.	2620	T/O BEN BRAY	KALLANGUR QLD	HOLD MONARD COUPE	BAE S14	6.952	243.33	243.3
12.	799	T/O STEPHEN HARPOD	NSW	43 FORD MUSTANG	BAE S21	6.948	199.81	199.6
13.	4220	T/O MIKE JAMES	SYDNEY NSW	70 PLYM DUSTER	DANE S21	6.756	221.86	221.9
14.	1636	T/O GERRY BUCKDEN	GLENBROOK NSW	CHRYSLER SARATOGA	HENK S21	7.338	191.59	191.5
15.	1004	T/O JEFF WILSON	ROSWAY COURT NSW	85 CHEV BELAZR	BAE S21	7.461	133.24	133.2
16.	415	T/O ANDREW SUTTON	ALICE SPRINGS NT	CHEV CORVETTE	HENK S21	76.712	28.74	28.7



Time for first round of eliminations and we have to race Belleri who qualified right behind us at number five with only a couple of hundreds separating us. It should be a hell of a race but Ken is sure the car will go quicker in this session.

It takes a thousand things to go right and none to go wrong to win a race, unless you are just lucky. Luck has never been our associate. We have danced with Luck, but we never get to take her home after the party.

We fire the car and complete the tire warming and cleaning process (burnout) to find the lock up cylinder had charged and the car would not back up as the clutch would not release. Two things had happened, one the vibration of the burnout had allowed the poppet in the charge solenoid to allow the CO2 to pass and charge the lock up cylinder, and the lock up cylinder had been adjusted incorrectly as well. Both are easy fixes but they cost us a race. A remount of the lock up charge and release solenoid on a rubber foot mounted plate will (should) fix this problem and some training on the lock up cylinder adjustment will fix this problem.

Belleri goes on and makes his pass, wins the race but has serious engine damage just past half track.

Damn. Well, good for him anyway, hope his damage is not too big.

Belleri raced Kapiris in the next round and won when Kapiris had to pedal mid track but again Belleri did some engine damage but he is in the final. Sadly the damage to Belleri engine is much bigger this time, he had a LOT of work to do for the final.

In that round O'Conner raced Zap and for some reason during staging O'Conner just left, red lighting before the tree was activated and Zap left with him disqualifying both of them. You can't blame Zap too much; his reaction is entirely normal in that situation. Many of us have been there and done that, still doesn't relieve the pain though.

With no one to race, this left Belleri as a solo in the final, but he has serious engine damage and could not possibly make a full run so he just starts takes the green and shuts off and wins the race. As we watch that race the typical thoughts pass through our heads. Wow, look what one little (maybe not so little) mistake can cost !!!

Good on Belleri, but Damn we could have been there is we had not lost to him. That is why you don't phone it in, you have to be here on the day, do your job and not screw up. We could have had steak tonight!

We are not at all pleased with what we did in the first round loss (our lollypops are in the dirt today and I should add, no steak tonight either) but we do take solace that our 5.89 put us in group of only six other people in Australia and on our non-existent budget, we are pretty proud of that. Hate to be always complaining about a lack of money, but that is the way it is when you have none. This is a home built car with an all-volunteer crew and Ken says that there is more in the "package" yet to be released. Now all we need is a good track and some good air. Winternationals, maybe?? That will be the last time for a while that we will get on a good track. We do have two SLAMFEST rounds after that at Gladstone and Mackay.

Let's just hope the crankshaft holds up, we are not beating up any parts as nothing is getting assaulted, but our crankshaft has quite a few laps on it now (four years) and even though we have not abused it we do have some concerns. Everything has a life span let's hope our crankshaft will live to the end of the season.

Monday morning getting home is the reverse relay. Robbo is staying in Sydney for his work, but the rest of fly home on the cheap seats. Ken has caught a bug and is not well. Pete and Ken drive to Pete's place where Ken picks up his car and continues on to his house going straight to bed. Tuesday is back to work for all of us except for Ken who is still horizontal. Wednesday, Russ called Ken to see if he was OK to find out he was back to 85% and had actually gotten dressed today.

Even though the car only has one burnout on it since the last maintenance there are just a few things to check before the Winternationals. We will look at the valve springs again and check the clutch to see if it has changed after the burnout. Russ wants to take

the cover off the diff and have a look at the new ring and pinion just to make sure everyone is happy.

It is worth noting that some of the things we have learned about our good track tune up can apply to our SLAMFEST Series races too.

