4th Annual BPG Buick Horsepower Nationals
August 3 - 5, 2007

THE BUILD SHEET
October / Novemver Volume 5, Issue 5

Convert Tim Rife's

1972 Gran Sport 350

1 of 645 built
1 of 68 sold in Canada

The Buick Performance Group

Buick Performance Group
1150 West 5th Street
PO Box 614
Marysville, Ohio 43040-0614

Buick Performance Group
Mission Statement

The Buick Performance Group (BPG) is a non-profit membership organization dedicated to the performance, preservation, maintenance and restoration of Buick powered performance cars. The BPG offers a member focused, family oriented community environment that encourages and promotes: (1) the sharing of information; (2) the development of new products; and (3) interaction and participation between all members.

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The Buick Performance Group is a non-profit, member run organization. We value all input from our members, and would love to include your car, tech tips and any article that you would take the time to submit to us.
To submit dues or articles, tips or your car for a feature, mail your information and pictures to this address:

Buick Performance Group
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All written inquiries and payments to the B.P.G Club be made out to: Buick Performance Group

www.Buickperformancegroup.com

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IRS Recognition

I am pleased to announce that the Buick Performance Group, Inc. has been officially recognized as tax exempt from Federal income tax under section 501 (c) (4) of the Internal Revenue Code.
This application had been in process for several years with continued exchanges of documentation including tax returns and club information. I want to thank Karen Choa of the IRS for her help and cooperation to successfully complete this process.

John Schmidt
Chairman

Where Do We Go From Here – Part 2

By John Schmidt - Chairman

The decisions have been made about the 2007 BPG Nationals and we are headed for National Trail Raceway (NTR) in Hebron, Ohio. As part of this decision comes the announcement that the Buick Horsepower Nationals (Indy) has decided to combine efforts with the BPG to create the 2007 BPG Buick Horsepower Nationals. The announcements have been made on all of the Buick websites and information about host hotels is available through the BPG website. The track schedule, race classes, car show criteria, and payouts are being prepared. Evening festivities are also being worked out. NTR and the host town of Heath, OH are excited about the BPG event. They get to host our Buicks one weekend then the MOPAR Nationals the next weekend. We need to take this opportunity to show this town real Buick Class.

I am also pleased to announce that John Chamberlain has agreed to accept an appointment to the BPG Board of Directors and will be Event Director for 2007. John brings a lifetime (he's old so that means lots of years) of Buick experience along with his past success as Event Director with the GSCA Nationals and the Buick Horsepower Nationals. Welcome aboard John.

Now what do you the members need to do to make the 2007 BPG Buick Horsepower Nationals a success? Obviously, you need to plan to attend. You need to bring a friend and show some Buick hospitality. You also need to talk to your Buick vendors and Buick parts suppliers. Invite them to the event. Spread the word. Let them know we are going to have fun. After all, the BPG is all about HAVING FUN.

BPG Invaded By Okies

I wanted to take this opportunity to thank the Oklahoma Buick Performance Club (OBPC) for their overwhelming support of the BPG. Led by Dick Walker, Director, the OBPC has turned to the BPG with their full support of club membership. An OBPC membership now includes membership into the BPG.

Look for more news from the folks west of the Mississippi. They have already provided coverage of the 2006 Buick vs. Ford Shootout and their latest claim to fame – PINKS. Their heavily concentrated turbo car membership will provide the BPG with more insight into the faster side of Buicks. And, if you have not had an opportunity to attend one of the 12 OBPC Buick vs. Ford Shootouts, you have missed out on a fun event. As expected, they are always looking for a few more "Fast Buicks" to do battle with the Fords. The BPG is a proud sponsor of the Buick vs. Ford Shootout.

For more information about the OBPC please check out their website at: www.okbuicks.com.

John Schmidt
Chairman

P.S. Dick said I could call them OKIES ☺

My 1972 GS 350 Convertible – 1 of 68 Sold In Canada

BY TIM RIFE

While I was on a local endorsement course for the Boeing 737 in Oct 2000, a gentleman in my class and I were talking about Buicks, since he owns a 1987 Buick Grand National. I was telling him about my car and he said he knew of one possibly sitting near his house, very rusty but complete. We went to look at it, and turns out it was a 1972 GS 455, #'s matching but the engine had a spun rod bearing. I thought it would be good for parts, so we asked the owner if it was for sale...turns out it was, but I had to buy BOTH cars and when I asked about the other car, he replied that it was a 72 GS convertible! Despite my better judgment (never let fear and common sense hold you back!) I ended up buying them. I've always wanted a convertible, so both cars were purchased November 13, 2000. This is the ragtop once I had it on a friend's farm. (Shown below)

It was later trucked back to my garage (I had no place to put it when I first bought the car, but have since moved into my new house). I was told this car had an interior fire in 1987, and has not been driven since. The previous owners had collected a small amount of parts for its rebuilding and had already replaced the doors. The top mechanism has some damage and obviously the interior is gutted. This was probably a good thing, since the carpets were thrown away and the floor was bare, this kept rust from starting in the passenger floor area (which is a really common problem on convertibles). Also, they had removed the floor drain plugs, which was a good idea. You can see the front fenders have the usual rot in the lower corners (I have already found some fenders) and the lower quarters have some rust as well...pretty minor stuff for a 28 year old convertible.

Since my convertible was built in the US and then sold new in Canada, a quick phone call to George Zapora of GM's vintage department resulted in a letter that listed all the options and some information on the car. The convertible was built in Flint, MI on September 1, 1971 (well that is what the paperwork says but the date code on the trim tag is 08E or fifth week of Aug 1971) and sold new at Jenner Pontiac Buick Ltd of Edmonton, Alberta, Canada. It was Flame orange (ironic, isn't it??) with a covert (light tan) top and saddle (brown) interior. Earth tones were the style in 1972, I guess.

Some of the options include notchback bench seat, tilt, tinted glass, power windows, power steering, power disc brakes, chrome road wheels, rally suspension, 3.08 posi, rally gauge cluster, map light mirror, and a factory tape player in addition to the radio (anyone got any 8-tracks laying around? (LOL). Buckets were not available in 1971 or 1972 on the GS convertible. I have confirmed that it does indeed still have the original engine. I will most likely remove and store it but have not decided whether to replace with another Buick 350 or

go the 455 route.... Also, GM stated that this car is one of sixty-eight (68!) GS convertibles sold in Canada in 1972. Total production of 1972 GS 350 convertibles was 645, with 601 automatics like mine, 39 four speeds, and five "three on the tree" cars.

There were additional 126 GS 455 convertibles (114 auto, 12 4-speed), and 81 Stage 1 convertibles (66 auto, 15 4-speeds) built in 1972. I Did a VIN search for previous registrations and any accident damage. The car was sold new in Edmonton, Alberta, yet the first time it was registered in this province was Sept 1, 1984 (so where was it for the first 12 years?). The registration was then transferred on September 8, 1987, and then again on September 22, 1987.

You can check out my web site http://members.shaw.ca/ritc1 for all the details on the restoration, I promise you it is well detailed. Follow the five links on top of the web page for the restoration of this unusual car. I included here some updated information on the 1972 Buick GS convertibles, maybe you will find it useful.

There were 645 GS 350 convertibles like mine, 126 GS 455 convertibles, and just 81 Stage 1 convertibles in 1972. There is no breakdown between the three models in the following chart it simply applied to all 852 cars.

1972 Buick GS Convertible Paint Color Breakdown

NUMBER PRODUCED	COLOR	SALES CODE	DATA PLATE CODE
131	Flame Orange	Z	65
113	Burnished Copper	M	63
101	Fire Red	R	75
87	Sunburst Yellow	Y	56
76	Stratomist Blue	B	26
59	Hunter Green	I	48
47	Seamist Green	F	43
40	Arctic White	C	11
40	Antique Gold	U	57
38	Heritage Green	H	36
33	Cortez Gold	Q	53
30	Sandalwood	J	50
11	Silver Mist	V	14
10	Regal Black	A	19
10	Cascade Blue	T	24
10	Crystal Blue	D	21
5	Deep Chestnut	K	67
4	Vintage Red	X	73
2	Nutmeg	N	69
2	Royal Blue	E	28
2	Unknown, Special Order	SCO	SCO
1	Emerald Mist	G	45

Top breakdown:

NUMBER PRODUCED	COLOR	SALES CODE	DATA PLATE CODE
498	White	1	A
201	Black	2	B
99	Sandalwood (Covert)	5	T
54	Green	9	G

Interior breakdown:

NUMBER PRODUCED	COLOR	SALES CODE	DATA PLATE CODE
429	White Notchback Bench	245	135
197	Saddle Notchback Bench	246	136
150	Black Standard Bench	128	138
76	Green Notchback Bench	240	130

Some things to note here: Black was only available with the standard bench. Buckets were not available on the 1971 or 1972 convertible. Also, 1972 white is either off-white or bright white depending on whom you talk to! As always, changes were ongoing and not always documented.

Here is a sample of some of the more interesting options on the 1972 Buick GS Convertible. This is for all 852 convertibles built.

NUMBER PRODUCED	OPTION	PERCENTAGE	OPTION CODE	SALES CODE
526	Air Conditioning	62 %	C60	I6
517	Power Disc Brakes	61 %	JL2	C1
463	Tinted Glass	54 %	A01	L1
429	Chrome Plated Wheels	51 %	P05	V2
257	Power Windows	30 %	A31	R1
253	AM-FM Radio	30 %	U58	D5
251	Tilt Steering Column	29 %	N33	S7
248	Rallye Steering Wheel	29 %	N31	X2
193	Through Bumper Exhaust	23 %	N25	E6
185	Gauges And Clock	22 %	WB7	U9
165	Rallye Firm Ride And Handling Package	19 %	F41	H6
146	Wide Oval G60-15 White letter Tires/Chrome Wheels	17 %	PJ4	F7
115	Speed Alert	13 %	U15	K3
107	8 Track Player	13 %	U57	D0
106	3.42 positraction	12 %	HT5	G1
103	3.08 positraction	12 %	HT4	G4
90	14.6 to 1 Fast Ratio Power Steering	11 %	N41	C5
89	Gauges and Tachometer	10 %	WB8	U7
68	Canadian Special Items	8 %	Z49	R2
66	Custom Seat Belts/Front Shoulder Belt	8 %	AK1	J3
62	Cruise Control	7 %	K30	S6
56	Rear Window Defroster	7 %	C50	M7
54	Block heater	6 %	K05	M8
50	Electric Door Locks	6 %	AU3	T2
4	Super Sport Wheels	0.5 %	PA6	V7
1	Hood Mounted Tachometer	0.1% !!!	UB5	UB5

Engine and Transmission

NUMBER PRODUCED	ENGINE OPTION	PERCENTAGE	OPTION CODE	SALES CODE
645	**350 Powered**	**75.7 %**	**L77**	**A7**
601	350 & T350 Automatic	70.5 %	L77 & M38	A7 & B5
39	350 & 4 Speed Manaul	4.6 %	L77 & M20	A7 & B3
5	350 & 3 Speed Manual	0.6 %	L77 & M13	A7 & B6
126	**455 Powered**	**14.8 %**	**L74**	**A9**
114	455 & T400 Automatic	13.4 %	L74 & M40	A9 & B2
12	455 & 4 Speed Manual	1.4 %	L74 & M20	A9 & B3
81	**455 Stage 1 Powered**	**9.5 %**	**L75**	**A1**
66	455 Stage 1 & T400 Automatic	7.7 %	L75 & M40	A1 & B2
15	455 Stage 1 & 4 Speed Manual	1.8 %	L75 & M20	A9 & B3

Some interesting things here: 62% of all 1972 GS convertibles had air conditioning. A surprising number did not have disc brakes. Surprisingly few had the rallye ride option, which again is odd given the cars "performance" nature. Only 54 cars came with a block heater, so that pretty much tells you where most cars were sold new (kind of odd, you would think all 1968's that came to Canada would have block heaters although I suppose on the west coast it is not needed). The front shoulder belt option was not very popular (go figure). Gauges and clock were more popular than gauges and tachometer. The Canadian special items I do not know much about, it did include

extra anti-freeze and fuel though. The 350 powered 3 speed manual was the base driveline package. Just make a note that all percentages rounded off to the nearest 1% for options, engines to the nearest 1/10 %.

My Quest For the 8's - Part 1

By Mike Lyons

I thought I would take the time to write about how things have been coming along with my Turbo Street Outlaw (TSO) car for the last three years since it was first shown here after I first bought the car in February of 2004. As usual when buying someone else's semi finished project you find yourself re-doing or rebuilding everything, which is exactly what I did for most of the first year. After getting the car home the first stop was the chassis shop were I had the roll bar updated to a full cage and certified. In addition we added front and rear QA1 coil over shocks for ease of adjusted ride height along with a set of lightweight front UCA's and Wilwood front brakes I had from a previous project. I got the car back shortly before the 2004 GSCA Nationals in Bowling Green in May, and as usual it was a last minute thrash to make it there. We made the race but were far from being competitive with a lot to still be learned and sorted out. We were 1 of 3 cars that showed that year and ended up being disqualified for an open wastgate. I had planned to run Q16 as a result but ended up having to leave early Saturday morning due to severe storms at home causing my basement to flood, which continues my unfortunate luck with this race.

After returning from Bowling Green it was again a rush to sort out the motor and combo before the first annual BPG race in August. The S2 motor I got with the car had some good pieces in it but was down on power due to a questionable rebuild and poor ring seal. I wasn't excited about the rocker arm geometry of the M&A heads with the stud mounted offset cheapie SBC hardware and wanted to replace them. I decided to setup to a new set of Champion R-heads with shaft mounted T&D rockers and found a new set of the "latest" castings on the net for a reasonable price from a guy who was abandoning his project. I bought them and pulled the motor for a complete rebuild. I got the motor back together with fresh pistons and the nw heads the week before the BPG race and its first outing was the first day of the event on Thursday. The first thing I noticed was the significant increase in power the new motor was making over the old. I made a few shakedown runs and the car was running mid 9's at 19psi of boost where as before I needed 28psi to run the same number. On the last pass of the day on Friday I had a real eye opener at the 1000' mark the car started to get loose and was going to the center at 145mph! I lifted and thankfully the car straightened out.

On the return road noticed my coolant temp gauge pegged and thought that can't be good. When I returned I found the freeze plug missing on the front of the passenger side head. I loaded the car up and went home to find the problem. The first thing I figured was a blown head gasket and pressurized the cooling system but both the leak down and compression test showed no signs of a head gasket leak. The plugs also looked good along with the data logs. I replaced the plugs and figured it was a bad soft plug and a fluke. I returned Saturday for the Saturday night qualifying. My first pass I got out the 1/8th mile mark and my windshield was covered with water and the car got bose again. I thought no way not again, this time the freeze plug on the back of the drivers head blew. I immediately loaded the car and went home to thrash all night. We pulled the motor replaced the plug and pinned all four of the soft plugs checked the HG put the motor back together and back in the car. I was pulling into the track Sunday morning and as I'm driving by the staging lanes as the TSO class is pulling up for the last qualifying run for which I haven't qualified yet! We unloaded and made in line as the last car was just pulling up to the burnout box. I got up to the line and made a pass. It was a nice clean pass resulting in a 9.36 at 146 mph, which ended up being good enough for low qualifier. I was happy to just make the race at this point and really stoked that I at least had a competitive car. I had one race prior to then a bye run to make the finals against Jack Cotton. To this point I didn't have to run the car hard since the qualifying run I made earlier. I got up to the line and heard a whistling noise and couldn't spool the car at all. I had a really poor 60' and needless to say lost handily to Jack. When I got back I found the EGT probe was only hand tight and blew out on the pass prior to the final round. Oh well, Jack's car was running pretty good that weekend and he deserved the win anyway. I took RU and set LQ, which wasn't bad after having the heads off and motor out of the car the night before.

Buicks at Norwalk was in early September that year due to being rained out earlier in the year. I made the race without any real changes to the car since BPG. I looked everything over really good and again didn't find anything wrong so I again figured the flying freeze plugs were a fluke and maybe a bad batch. I made one pass at Norwalk for Q16 qualifying and was leaking coolant really bad from the head. Further investigation

revealed many of the usual cracks in the heads. Once I got the motor out and apart it was obvious the heads were significantly cracked on the outside along the lower bolt holes and into the spark plug area. After speaking with Jack Cotton and Tom at Champion I had come to find out the heads I had were actually first generation castings that have been known to have cracking problems. Tom at Champion was very helpful and replaced the castings with a new set and I was able to work out a deal with the gentleman I bought the heads from originally.

I was able to get the car back together before the end of the season and finally started to get things worked out. I made several 9.0 passes in the 155-156 mph range and the car was really starting to come around. My last pass of the season was a 9.01 at 156, SO CLOSE. I was at 30 psi of boost and the car was running out of steam at the end of the track. I was only seeing 6% converter slip with 7200rpm in the traps. I was still conservative on fuel and timing and could've put more in to see that 8 second pass but figured it wasn't worth beating on it to just run a number. I was still down on power and needed to figure out why.

Over the winter of 2004/05 I planned to switch out my BtoB FAST for a sequential unit and go from a 3.70 gear and 28.5 tire to a 3.50 gear and 29.5 tire. I had decided to put my engine on an engine dyno to find out why it was nosing over on the big end. After speaking with Lonnie Diers he had convinced me to switch to an Accel Gen 7 and he was going to help me dial it in on the engine dyno. We found a local shop with a dyno and a hell of a nice guy who ran it. We ended up having the engine on the dyno for 2 weeks and testing several different variables.

We learned a lot on the engine dyno and it was a great experience all together. This story is by no means ended. I will get you more results in our next issue as I make my quest to the 8 second zone.

Dues Are Due

By Rick Martinez

Just an important reminder for all you annual paid members, it's the new year and time to re-new yours dues. This is a friendly reminder as there will be one more issue under for the 2006 year, which should be out shortly after this issue.

I am well aware that the Build Sheet has been late going out. I am not here to say anyone is at fault; I just want to let everyone know the reason for this. On doing the newsletters we set our goals on having each issue containing at least 20 pages, so it is very frustrating when we do not have enough information to fill an issue. So please keep in mind getting the information at times can be difficult, so this in turn delays getting it out to you all. Lastly if you are doing a project, got some tips, send them to us. You vendors out there, I always said in the past that if you have any helpful tips, new products, testing results, send them out to me. It's free advertising and the membership will appreciate the great information sent!

Most importantly, of all of those members that have sent us articles, tips, photos, suggestions, etc. we want to thank you all! You ladies and guys really are a tremendous help not only to us but also to the entire BPG membership and Buick community!

NAME: _____ E-Mail: _____

ADDRESS: _____

TELEPHONE: _____ CELL/WORK#: _____

NEW MEMBER: YES NO BPG MEMBER NUMBER: _____

Check off below only it you are already a muli-year or lifetime member, and just fill out and mail in this renewal form.

Multi-year/Life time member: _____

CIRCLE ONE: 1 Year - $35.00 2 Year - $65.00 3 Year - $90.00 Life Time - $500.00

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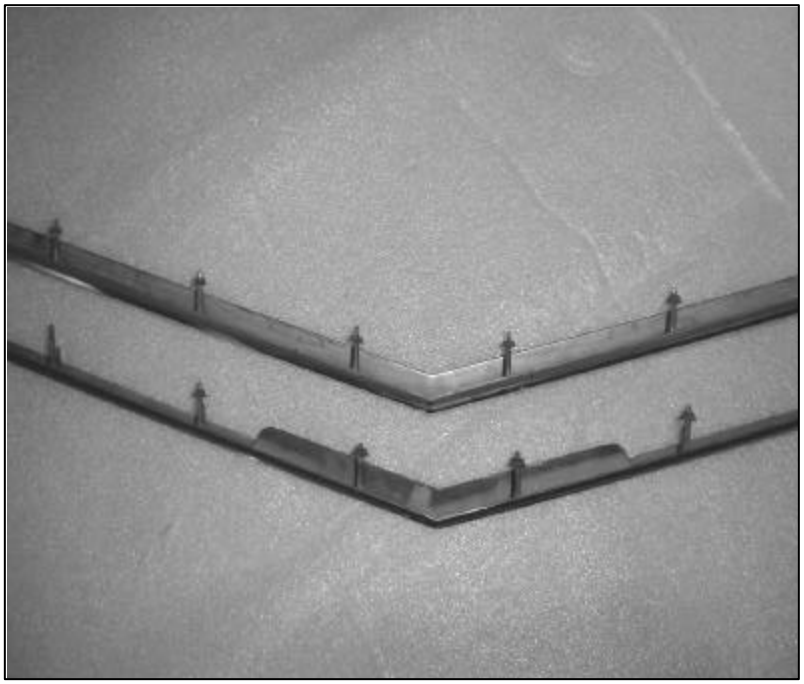
Tidbits For The '72 Guys

By Tim Rife

For the 1972 model year the Buick A-body had two styles of hood moldings and one style of headlight bezel. However even these changed in production and can help in identifying a car or checking for repairs. The Skylark Custom (444 series) received the "straight" hood molding. This one has a band of ½ chrome along the bottom edge and does not turn down on the outboard edges. The Skylark (433) and the GS (434) received the other style of hood molding, this one the chrome "strip" turns down on the ends to match up with the headlight bezels. This second style of hood molding has two versions, both using the same part number, 1239086.

One has the lower chrome edge (visible with the hood open) that extends the full length of the hood molding (top in picture). The later style has the chrome edge only in the middle third of the molding (below left photo). It appears this change took place in late November early December 1971.



The 1972 headlight bezels also went through a mid year change. Again, same part number (LH is 1239159 and RH is 1239158) and style, but with the hood open looking down on the top edge there is a "thin" early style edge and a "thick" late style edge (top in the picture shown below). This change appears to have happened at about the same time as the hood moldings.

Duane Heckman mentioned to me that this later style bezel for 1972 was possibly to help prevent paint chipping, as the early thin style chipped on the top edge very easily according to an assembly line worker he talked to. Oddly enough the thin style bezel was replaced by the heavier bezel, while the heavy hood molding was replaced by the lighter style one. Some bezels have date codes on them, other don't. All the thin style I have seen were coded up to October 1971, the thick style castings are date coded November 1971 on.

As always there are exceptions to the rule, and the dates quoted are educated guesses due to the date codes and plants (Flint and Fremont) of the cars I looked at. Hopefully, this info will help you be aware of the differences when looking for parts.

How Not To Pull An Engine Out Of Your Buick

By Tim Rife

OK, go to farm today and pull the engine out of Buick Estate Wagon. Cows are there, eating away. Bob and I get the 455 on the truck and then Bob has to head into town...he says to make sure gates are closed before I leave. No worries. I am working in car, taking dash and wiring out. It's 30 degrees C outside, I'm sweaty and dirty and as I finish up I notice the cattle are nowhere to be seen...must have gone to the far side of the buildings as they would have had to go right past me and the truck to get out the gate. So I pack up and leave, drive the truck out and close all the barbwire gates behind me.

I start out and then I see them. The cows are eating Bob's lawn!!!! WTF??? Now what am I supposed to do? All I know about cows is not how to overcook on the BBQ. So I drive the truck around them and come back up trying to force them back...don't forget engine is bouncing on the back of the truck and the ground is rough...they don't move...just stand there looking at me and chewing...its like talking to management...so I honk and honk.... they don't even stop chewing, just keep staring with those big round eyes. NOW what am I gonna do?? Nobody around and the cows (all 10) are loose!!! If they get to the road I'm in big trouble!

So I get out and start hollering like you always see in those cowboy movies, they start moving, good stuff...so I carry on and then I realize I had closed the gates!!! The silly buggers head towards the "corral" though which is open and with some extra prodding finally end up in there. Good stuff. Truck is still running. 0 mpg. Some sixty minutes later they are all they're back inside, except for one big bull.

He's just standing there, snot in his nose, grapefruit sized nuts hanging, looking down at me...won't move for anything. Even the dog nipping at him isn't helping. I see this shovel. Now, what would any red blooded Canadian man do in this situation? I called my wife.

After she stopped laughing, she advised me not to stand behind him if I prod with the shovel. Seems like good advice, so with a few gentle nudges I got the big guy moving, but its scary he kind of wanders, can't imagine what he weighs. What if he farts? Yikes! My cell phone goes dead, figures! Plugged my phone into truck and called wife back, all her friends are laughing hysterically at me, especially my comment about his nuts. Don't blame them.

Finally got him in there too, and the sad part is I can't get a hold of Bob so I have to call his son at work and tell him what happened. He tells me the cattle will be fine in there, no need to worry, he was coming out anyway. I get home and change. My new runners are no longer white....

And after all that I get the engine unloaded and taken apart to discover the #2 cylinder is full of water and pitted. Hopefully it cleans up but who knows. Might be scrap. Maybe I'll get a crank out of the deal but at this point I don't care anymore…

…I had steak for dinner. Bastards!

Detailing Tip From Scott At JayWax

*How to Remove Spots on **Brushed** Aluminum Wheels*

This is how we have done this in the past, which should give you a great finish and it's pretty easy to do in just 2 steps.

Step 1

Get a hold of some 2000-grit wet/dry sandpaper. Wet the surface and LIGHTLY sand the surface until the spots are gone.

Step 2

Now - here is what will make it really easy. Mother's has a Powerball that is the whip. It will make the job of polishing really easy. They also have a mini Powerball as well - depends on the size of the nooks and crannies that you are polishing as to which one you want. It is worth every penny.

We don't make a metal polish. Companies that make metal polishes usually stay within that niche. The best one that we found is from California Custom and is called Purple Polish. I have demo'ed Purple Polish against Mothers and others, time after time and it's the whip! Use the polish with the Powerball and your wheels will look as new. Hope this helps! Let us all know how this works for you! We're at www.jaywax.com

How To Find A Good Machine Shop…
…And A Fine Bowl Of Chili

By Mike Phillips of Automotive Machine & Performance

One way is to come to the Buick HP Nationals and look me up and I will give you a personal explanation then you can go to Skyline Chili to eat.

The next way, maybe more comfortable but less tasty is to pop a bowl in the microwave and read the following.

The following are the guidelines that I set for certain machine shop procedures and questions that might be asked of the shop before leaving your prized pieces to be fondled by those that might not be as interested in the quality that you might be.

Cylinder preparation: Cylinders must be bored with a boring bar whether deck mounted or positioned by the crank, in either case the deck is used to center the bore unless a BHJ bore-tru is used, which corrects bore centers and bores perpendicular to the crank housing bore. At least .003 must be left to hone to remove the fracture left by the cutter (all ring manufactures recommend this). A power hone such as the Sunnen CV-616, the older CK-10 or the new Rottler is the only way to hone a cylinder round and without taper unless the operator has the patience of Job. With a torque plate and a power hone as described .003 to .005 can be removed in less than an hour with accuracy of within .0002, that's two tenths roundness and less than .0005, that's one half a thousandth taper. The exception to the taper is that the Buick blocks V-6 and V-8, as with several other factory production models have unsupported sections of the cylinder at the bottom and this unsupported section may measure a couple of tenth's smaller. A shop with a lesser machine may only bore to size and hone only about .0005 (one half thousandth) because it would take several hours to do the job described without a power hone. The finish should be that as prescribed by the ring manufacturer. The finished size should be at least the minimum clearance as described by the piston manufacturer.

Crankshaft housing bore preparation: All align honing machines that I have seen will do a good job of straightening and correcting the inside diameter. Don't use an align boring machine to try to straighten or size the housing bore, it's function is not for this purpose, it is used to correct drastically damaged housing bores and when different caps are used, then must be honed for size and straightness. The finished size must be within the factory tolerances. The exception to this is the new CNC machines like Rottler and Rogers Machine.

Cylinder deck preparation: Most machines capable of re-machining the deck of a block are pretty much the same as far as the end result, but those that set up off the crankshaft housing bore will produce what is generally called a square deck and will leave the same deck height end to end. Again as with the Bore-Tru, BHJ has a fixture for most engines that corrects the deck end-to-end and also side-to-side.

Rod re-conditioning: Most machines made for this operation do a good job as long as the operator is qualified and wants to do a good job. The finished size should be within the factory size.

Crankshaft preparation: Any good high performance crank should be ground to nearly perfect tolerances and it takes very little extra time by a qualified machinist and a good machine to do a crank for a stock application the same way. Rod journals should not have more than .0002 (two tenths of a thousandth's) difference measured four ways on a journal and also journal to journal. Three tenth's (.0003) is the limit. The same applies to the mains except the thrust might be .0005 smaller. Actual sizes of the crank depend on the application and the clearances desired by the engine builder. The clearances should be ground into the crank after the rod and crank housing bores have been re-machined and bearings installed and inside diameters checked with a precise gauge for the rods and a dial-bore gauge for the mains.

Cylinder head preparation: Valves should be ground with a machine capable of less than .0005 (one half thousandth) run-out. Seats should be ground the same way, less than .0005 run-out. The more modern way of doing seats is with a seat and guide machine that uses three angle and radius carbide cutters. These machines do each seat precisely the same and also the same depth which is also important in trying to maintain proper stem length on non-adjustable valve trains such as stock Buick's. An easy way to check seats are to have the heads clean and positioned so that you can drop the valves in. If the valves pop back up easily the seat is pretty close. Another way is to rest the valve in the seat and wiggle the valve in four directions if they move the same, turn the valve 180 degrees and do it again, if again they move the same the seat and the valve are concentric. With new valves and guides the movement will be very little.

If the valves seem to stick when dropped in or won't move in one of the directions when seated and wiggled, the job is not done properly.

It would be impossible to put everything necessary in just one column but the idea is the same in any procedure, a better machine and a qualified machinist does a better job. How good does you job need to be done?

If your shop had been satisfactory to you, by no means change because of any mention I have made to certain procedures. A good machinist is better than a better machine and a lesser machinist. If you are dissatisfied with your current shop and want a change, ask questions of your next one before you try it. If he can offer the services and quality previously described you have a better than average chance of getting the job done right.

A few tools are necessary to check the work done by the machine shop and yes I said check the machine shops work, erasers are put on pencils for one reason…everyone makes mistakes.

A set of micrometers that measure in tenth's of thousands are necessary to check the crank and a dial bore gauge is necessary to check the housing bores of the rods and the mains in the block, also to check the cylinder bores. Be advised that cheap dial bore gauges are not as accurate as say a Sunnen but at least you will be in the ballpark and not out in the parking lot.

If you are spending thousands of dollars to build an engine, spend a few hundred to make sure it is right when you put it together.

I hope everyone that attends the BPG Buick Horsepower at National Trails Raceway in Ohio will have as good a time as I hope to. See you all there!

1973 GS Stage 1 – The Holy Grail

By Eric Britton

I spent over 100 hours of research and number crunching has come to fruition. The attached summary is based on the research of 728 individual vehicle records. My hope is that this will spark more interest in the 1973-1974 Gran Sports. There is a combination of options listed on the table: engine, transmission, Sun Coupe, and A/C. This is usually the most popular combination desired. I would love to hear from anyone wanting a different combination of options. All of the records are in a database so the possibilities are endless and easy to create.

I wasn't sure it would be worth the effort, so thanks to Jeff Britton, Pat Harmon, Brian Albrecht, and Marco for providing needed encouragement. Thanks to Jeff Taylor of the Sloan Museum for supporting this research. I am sure this information can also be included on Pat's and Marco's website soon. Please realize I must keep the data secure so the Sloan museum is still the only source of documentation for your 1973 Stage 1 vehicle.

Here are some interesting '73 Stage 1 fun facts

- The most popular color was burgundy (my personal favorite).
- The most popular interior was white buckets; more cars were built with white buckets than all others combined.
- 92 were built with 4-speed.
- 14 were built without power steering
- 22 were built with wire wheel covers.
- 16 were invoiced as dealer "demonstrators", including two 4-speeds.
- 17 were invoiced as "Fleet" sales (Rental?), including one 4-speed.
- The second 1973 Stage 1 built at Flint still exists and belongs to Benny U. (based on info in Marco's registry).
- The last 1973 Stage 1 built still exists and belongs to me.

1973 Buick GS Stage 1 Option Breakdown

Engine	Transmission	Sun Coupe	Air Cond
Stage 1 = 728 vehicles	4-speed = 92	Hardtop = 83	Air Cond = 41
			No Air = 42
		Sun Coupe = 9	Air Cond = 5
			No Air = 4
	Auto = 636	Hardtop = 600	Air Cond = 495
			No Air = 105
		Sun Coupe = 36	Air Cond = 32
			No Air = 4

Exterior Color	No. of Veh.
Regal Black (A)	60
Arctic White (C)	73
Medium Blue Metallic (D)	21
Mediterranean Blue (E)	65
Midnight Blue (F)	76
Jade Green (G)	43
Willow Green (H)	12
Green-Gold Metallic (I)	33
Midnight Green (J)	18
Colonial Yellow (L)	25
Harvest Gold (M)	42
Silver Cloud (N)	38
Special Order - (O)	4
Special Order - Burnt Coral (P)	6
Special Order - Midnight Gray (R)	1
Taupe Metallic (Q)	11
Brown Metallic (S)	54
Burgundy (T)	127
Bamboo Cream (U)	19

Trim	No. of Veh.
White Buckets (415)	468
Green Bench (420)	5
Sandalwood Bench (424)	9
Saddle Bench (426)	10
Black Bench (428)	23
Green Notchback (450)	9
Sandalwood Notchback (454)	17
White Notchback (455)	45
Saddle Notchback (456)	44
Black Notchback (458)	67
Burgundy Notchback (459)	31

Assembly Plant	No. of Veh.
Flint	508
Framingham	86
Fremont	134

Option Description	No. of Veh
Stage 1 Engine	728
Turbo Hydra-matic "400" Trans.	636
4-Speed Manual Floor Shift Trans.	92
Full Length Operating Console	395
Convenience Center	21
Power Steering - Fast Variable Ratio	343
Power Steering	371
Optional Radio and/or Speaker	718
California Emission Testing	37
Optional Tires	679
Air Conditioner	573
Color Coordinated Custom Seat Belts	184
Speed Alert	139
Soft Ray Tinted Glass	638
Soft Ray Tinted Windshield	47
Engine Block Heater	33
Electric Rear Window Defogger	220
Rear Window Defogger (Blower)	94
Bumper Protective Strips	728
Bumper Guards	411
Door Guards	494
Remote Control Outside Rr View Mirror	86
Outside Rear View Sport Mirrors	578
Carpet Savers	420
6-Way Power Seat	195
Power Windows	281
Cruise Master	169
Tilt Steering Wheel	408
Electric Trunk Release	164
Electric Door Locks	185
Sunshade Map Light and Trunk Light	347
Deluxe Wheel Covers	57
Chrome Plated Wheels	267
Wire Wheel Covers	10
Deluxe Wire Wheel Covers	12
Protective Body Side Moldings	500
Rallye Steering Wheel	374
Sun Roof - Electric Operation	23
Sun Roof - Manual Operation	22

NOTE: This document is for reference only; official documentation for 1973 Buicks is available from the Sloan Museum.
NOTE: For questions regarding this summary information contact Eric Britton.

1972 GS Battery Cables

By Tim Rife

According to my 1972 Assembly manual Buick used side post battery cables throughout the entire 1972 production year. While doing the restoration, on my 1972 ragtop, I discovered nobody makes correct Buick reproduction side post cables. I tried the Chevy style, and they were too short and smaller gauge...also they had the code "VD" imprinted on them, and I wasn't interested in THAT!! ☺

I should mention my ragtop has been upgraded to a 455 and though incorrect for the car I did want it looking authentic when the hood is popped.

I have a 72 GS 455 hardtop (probably parts car) and luckily enough it still had the original cables in it, correct codes and all as per the assembly manual. I called up M&H wiring, sent them pictures and dimensions and they agreed they could make them up for me. This is where things get interesting.

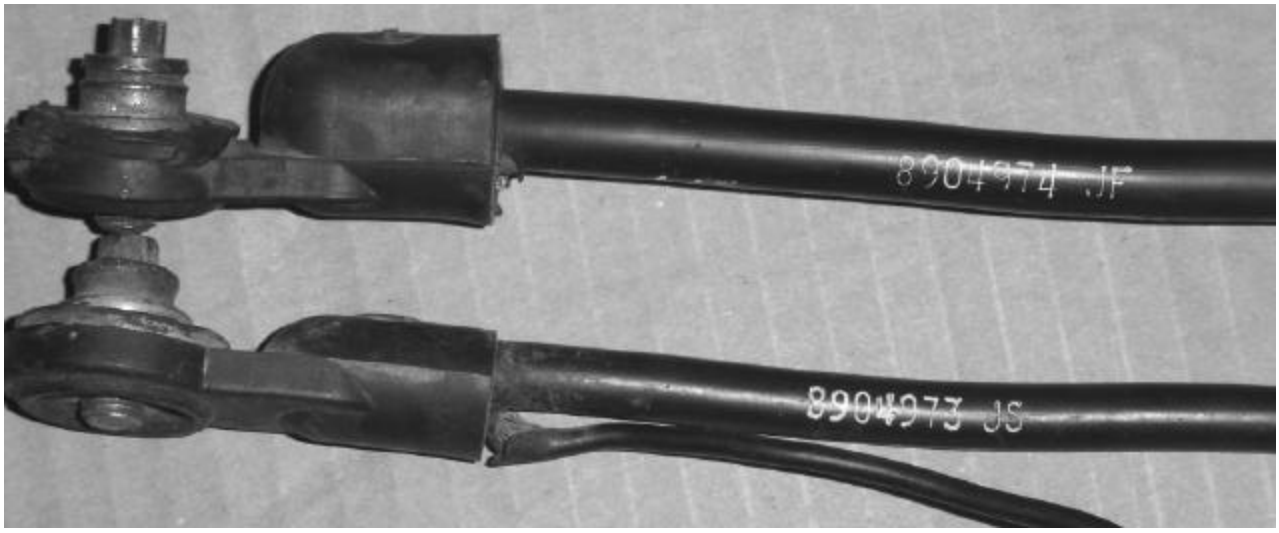
A short while after I contacted them they called back and said they had found the official drawing for these cables. Not sure where they got them (I didn't ask) but they said the positive cable should have a red terminal end and black cable. I told them my original cable was completely red and they said no problem, they could do that too (my original 350 positive cable was also completely red).

The routing block that Buick used is no longer available. I had one here (but it was rough) and they said they could run the cable through it and install the end once its in place. I told them no, I would add the block later on and just needed the cable (I had visions of it going on the wrong way etc).

So they made my positive and negative cables. Imagine my surprise when they showed up with the exact stampings and codes on them as well. Wow!! I had made no mention of having codes etc stamped on the cables. The even stranger part is the original negative cable p/n 8904974 has the entire part number stamped in it (8904974 JF) yet the positive one only has the last 4 digits (4123 RC) even though the part number is 8904123; EXACTLY like my originals. Anyway, the red positive cable looks excellent and stands out once installed. (See below picture)

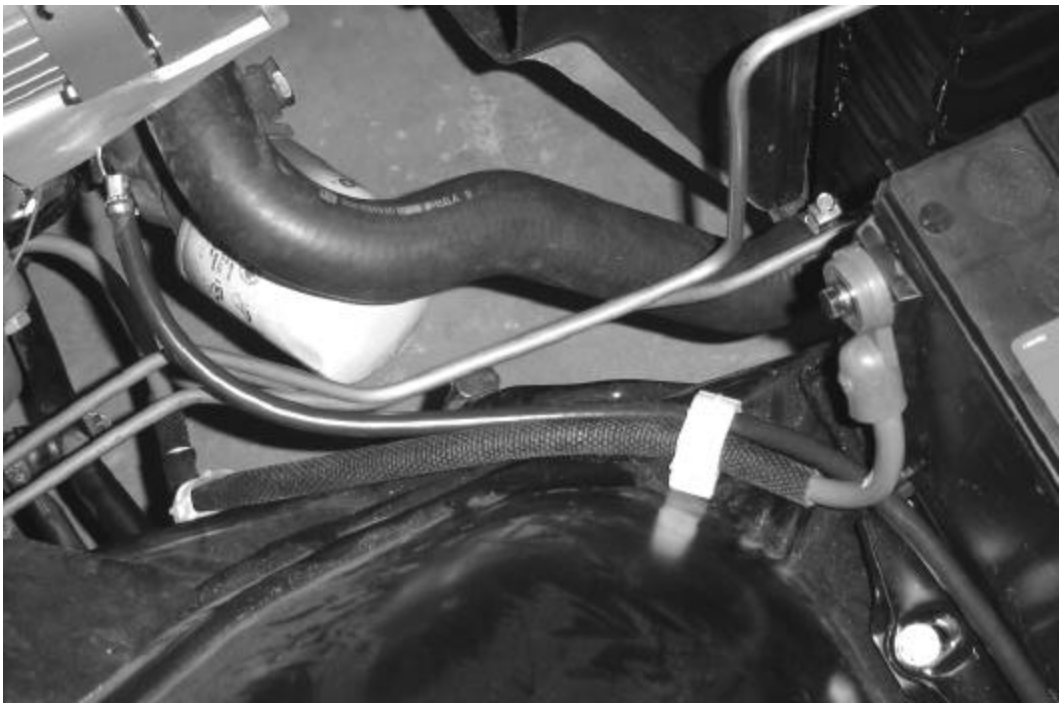
For the block I ended up cutting out one lower corner of where the cable travels and installed two pins on the one side. If you cut carefully you can leave a bit of overhang so the cable actually snaps into place, the pins hold the cut out section and once installed into the retainer it is very solid and hardly noticeable. We need to get these blocks re-popped, but that's another story.

Keep in mind the need to use the correct gauge cables in your car. The 350 ones are tiny compared to the 455 style. The picture below shows an original 1972 negative 455 cable with a negative 1972 350 cable below it. (Which is the original one off my ragtop) Note the pigtail is missing off the 455 cable and note the difference in wire gauge between the two cables.



M&H said they were going to add the cables to their catalog, I haven't seen them yet but if you want a set the p/ns are 39497 (Negative) and 39496 (Positive). NOTE that you will need to specify all red if that is what you want as their drawings show black cable but red end for the positive cable. Also, if you want to re-use the routing block you will need to send it to them first.

After all that, I used the incorrect battery (sorry Duane!) ☺ Below is a picture of the finished installation. I hope this article helps others restoring 72 cars. Enjoy.



2007 BPG Buick Horsepower Nationals
Hotel Information

The Board of Directors are pleased to provide the following information about hotels in the Heath/Newark area for the 2007 BPG Buick Horsepower Nationals. There are a wide variety of hotels from which to choose. All are within 10-15 minutes of National Trail Raceway.

Hampton Inn - HOST MOTEL
1008 Hebron Road
Heath, OH 43056
740-788-8991
800-HAMPTON
800-426-7866
Use 'BUI' for ordering. Rate is $75 + taxes.
http://hamptoninn.hilton.com/en/hp/h...tyhocn=NEHHHHX

This is the newest motel in the area. Situated in the center of the "strip" within walking distance of restaurants and shopping center. Additional trailer parking will be provided in the Kroger parking lot next to the motel. Security will be provided by the Hampton Inn for the vehicles parked in the Kroger and motel lot. NO PETS.

Quality Inn
733 Hebron Road
Heath, OH 43056
740-522-1165
1-877-424-6423
Rate is $65 + taxes.
http://www.choicehotels.com/ires/en-...ult=1&nchild=0

This is an older "ex-Holiday Inn" with over 100 rooms. It has a courtyard layout with outdoor pool, restaurant and bar. A very short walk to the Cruise In. Sort of reminds you of a Holidome without the dome. Plenty of trailer parking on site. No additional security. Pet friendly.

Holiday Inn Express
773 Hebron Road
Heath, OH 43056
740-522-0770
877-270-6397
No Rate Offered

This motel did not offer us a good group rate. Their advertised rates for August were over $100 but were willing to give us an $89 rate provided we guarantee purchase of 20 rooms. We did not put up the guarantee. The motel is adjacent to the Quality Inn. A short distance from the Cruise In. NO PETS.
http://www.ichotelsgroup.com/h/d/ex/...lsearchresults

Econo Lodge
1266 Hebron Road
Heath, OH 43056
740-522-6112
No Rates.
http://www.choicehotels.com/ires/en-...ult=1&nchild=0

A small Econo Lodge with standard services. Limited trailer parking with no additional security. About ½ mile from the restaurants, shopping, and Cruise In. Pet friendly.

Super 8
1177 South Hebron Road
Heath, OH 43056
740-788-9144
1800-800-8000
No Rates.
http://www.super8.com/Super8/control...Avail&rate=000

Located about 1 mile from the center of Heath. We did not pursue getting a rate from the motel. Pet friendly

Best Western – Lakewood Inn
122 Arrowhead Blvd.
Hebron, OH 43025
(740) 928-1800
No Rates.
http://local.yahoo.com/details;_ylt=...cb=KcrUesezDK7

This is a 70 room motel located immediately off the I70 exit 129. New in 1999, they are in the process of switching from the Amerihost chain to the Best Western. Rates were not available. This motel is 7 miles from the Heath area.

Red Roof Inn
I-70 at Lancaster Road/SR 37, Exit #126
10668 Lancaster Road Southwest, Hebron, OH 43025
Phone: (740) 467-7663
No Rates.
http://www.redroof.com/reservations/...px?searchtype=

This motel is located at I-70 exit #126, the same exit as National Trail Raceway. The track is 2 miles from the motel and 10 miles from Heath. This is a truck stop motel located directly across from a TA truck stop. Exit #126 consists of truck stops and gas stations.

There are many other places to stay in the area. The following link will highlight those in the Newark/Heath area. We considered "The Place Off the Square" in Newark. It is in an attractive "town square" setting 3 miles from Heath owned by the Longaberger basket company. However, it is the only Hotel/Motel in the area. This is something to consider for 2008.
http://keyword.netscape.com/ns/boomf...io_lodging.htm

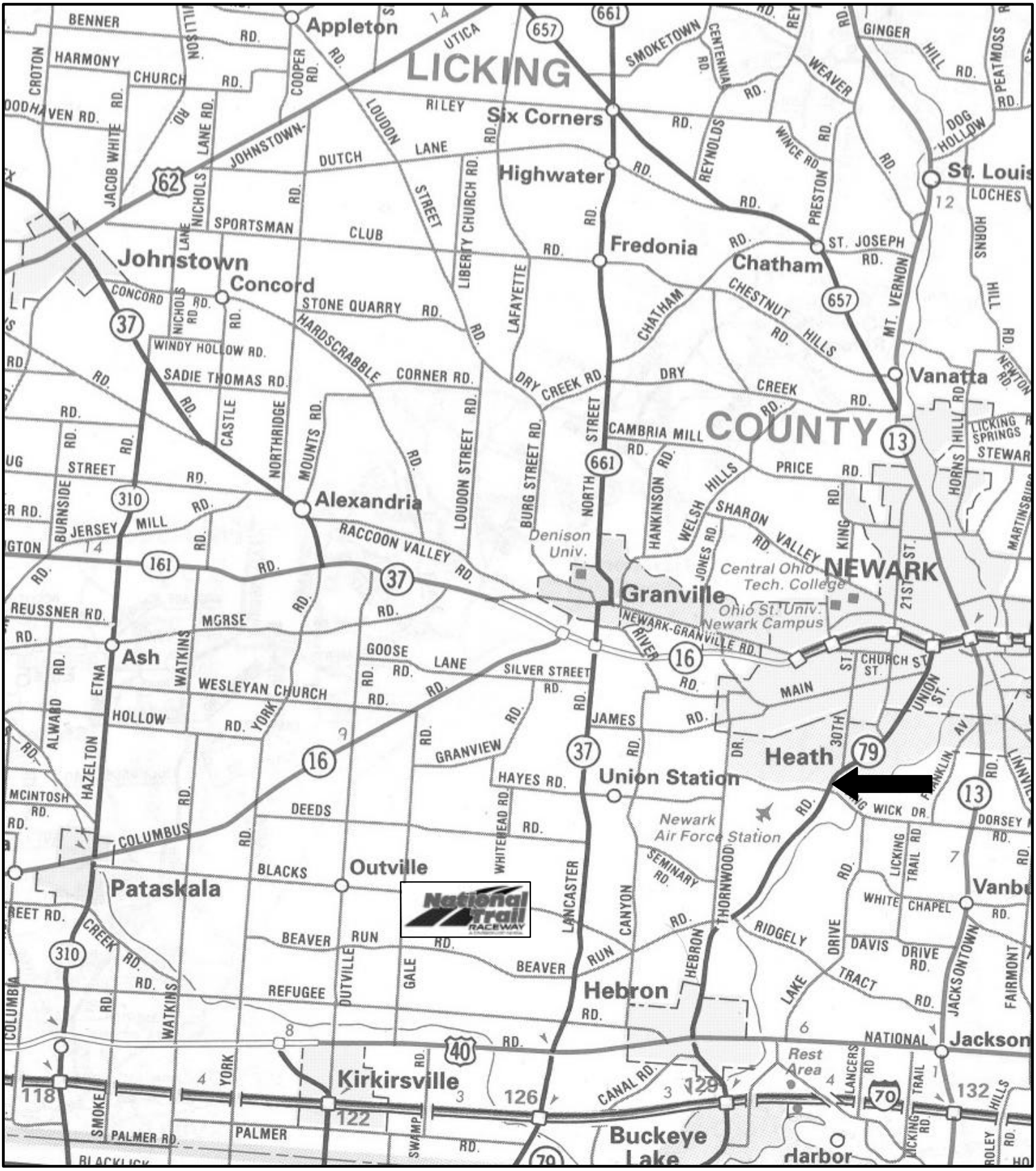
It is the intent of the BPG to give those attending as much information about the area as becomes available. The BPG is working with the Licking County Convention and Visitors Bureau to make your trip to National Trail Raceway as pleasant as possible. We have chosen Heath because of its convenience, location to the track, and services available.

National Trail Raceway is about 20 miles east of Columbus on old U.S. Highway 40, one mile north of Interstate 70 at the Kirkersville exit. From Columbus, take I-70 to Highway 158 north and follow the signs, or take I-70 to Highway 37 north to U.S. Highway 40 and follow the signs.

Regarding the distance to all of the hotels, which are fairly grouped close together. If you Map Quest the distance from the Host Hotel to National Trail Raceway, located at 2650 National Road SW, Hebron, Ohio you will find it just over 8 miles. We hope that the map on the proceeding page will also be helpful.

Detailed map, vicinity of National Trail Raceway, Hebron, Ohio
Host Hotel, Hampton Inn, Heath, Ohio

Map Quest distance between the two is 8.42 miles



2007 BPG Buick HorsePower Nationals

August 3-5, 2007 National Trail Raceway Hebron, Ohio

Several Race Classes

V6 Turbo - Small Block - Big Block

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