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Minutes of Meeting 25 July, 1996

The meeting was called to order at 8:08 p.m. by president Michael Fertitta. All officers were present except Howard and Sharon Renshaw, and Kathy Hills (she came in later). According to the sign-in roster, there were 34 members present, and seven Panteras in the parking lot.

New Members/Guests: There were several new faces in the crowd. Longtime PCNC members **Rich and Candace James** have returned from their two-year vacation and are now looking to settle down in the Bay Area again. While they enjoyed their time criss-crossing the country in their motor home, they're more than ready for a home with no wheels!

Steve Liebenow, the club's most active non-member, was in attendance for yet another meeting.

He explained to the crowd that his wife limits him to membership in only one marque club, but he's planning on switching allegiance from the Cougar club to PCNC come 1 January.

Next, we had a brief talk by **Lisa Devlin**, the well-known Shelby Club personality (and prior owner of Mike Coffel's pushbutton Pantera). She was on-hand not only because she's once again looking to own a Pantera (preferably of the pushbutton variety), but also to promote the Nor-Cal Shelby Club Mini-Nats, a three-day Shelby and Performance Ford convention. Look for the details and a flyer elsewhere in this newsletter.

Finally, **Bob Adams** of the Woodside Car show gave a quick spiel and handed out flyers.

Changes to Last Month's Minutes: There were no changes noted.

Library Report: Since the club librarian was absent, there was no library report.

Club Store Report: There was much discussion of modifying our "Now That's Italian" t-shirt; Bill had a lot of feedback that something was needed for the front side of the shirt. The crowd finally decided on a front view of the Pantera with the words "Mama Mia!"

Past Events:

Brentwood Corn Fest Car Show: Don Gerig gave a brief rundown of the Brentwood show. His was one of four Panteras in the show. The day was oppressively hot, which may have contributed to the smaller crowd present for this year's event.

Sharp Moving Party/Intake Tech Session: Roger and Bill discussed the moving party held at Roger and Pam's new hooch. Bill had elected to change his intake manifold from an Edelbrock Torker to a Performer and install roller rockers at the party, a job which he thought would take two hours. He got started at noon, with Ellis and others lending a hand, but predictably ran into problems, and didn't get finished until almost 8:00 p.m. He reported that the car runs much stronger now, however!

Roger reported on the efforts required to move his extensive tool set; he finally used an engine hoist to lift his tools into and out of his truck!

Engine-Building Tech Session: Michael Harper and Steve Liebenow briefly discussed this marathon event. Murphy was very much in attendance, as the engine had to be assembled and re-assembled three times before it was finally done (!) Michael thanked everyone for their help (since the motor was destined for his car), then asked if anyone could help him finish the project...

Look for the full story elsewhere in this newsletter.

Upcoming Events:

Blast In The Grass Car Show in Petaluma — 25 August: Mike Coffel sent an update on this car show sponsored by the Sonoma County Mustang Club, which is featuring Panteras as the featured marque. The Checkered Flag Racing Assn. will have a display of race Panteras, and

there will be quite a few street Panteras as well. Mike and Ed Kornegay will be hosting a hospitality tent for all PCNC members, featuring munchies, beverages and shade! Each Pantera that is entered will receive a goodie bag filled with 'stuff', and there is a \$5.00 discount for Panteras that pre-register.

Mike expects to see quite a few cars from the North Bay, and hopes that with the support of South Bay members he can exceed his goal of 20 Panteras on the grass. For more information, give him a call at (707) 579-1040.

Nor-Cal Shelby Club Mini-Nats — 30 August - 1 September: Lisa Devlin made the pitch for Panteras to attend this all-Hi-Po Ford event at Sear's Point sponsored by the Nor-Cal Shelby Club, especially the car show. The event features something for everyone, including a laid-back car show and barbecue on Friday, open track action on Saturday and Sunday, and banquets with raffles and guest speakers on Friday and Saturday night. Several POCA members are entered in the event, which is traditionally attended by Ford fanatics from as far away as Canada and the mid-west. Check out the flyer elsewhere in this newsletter.

Sports Car Olympics — 31 August - 2 September: Brief mention was made of the Sports Car Olympics, an absolutely super event held up at Boreal Ridge ski resort in the Sierras. PCNC is traditionally represented by the Britschgis and DeRykes, but they're hoping more people will join in the fun this year.

Woodside Car Show — 22 September: This car show featured the Pantera last year, and all the proceeds went to benefit the kids at Woodside High School. Organizer Bob Adams described some of the projects undertaken with the almost \$25,000 raised by last year's events, including installing computers and an LAN, and purchasing video and audio equipment, electronic scales and graphing calculators, even potting wheels for the art department. This show has quite an eclectic mix, featuring everything from exotic cars to tanks to antique machines to helicopters. Look for the flyer elsewhere in this newsletter.

Mission City Classique Car Show — 28 September: Doris briefly mentioned this show to be held in Central Park in Santa Clara, benefiting the Santa Clara PAL and the SCUSD Education Foundation. Look for the flyer elsewhere in this newsletter.

Checkered Flag Open Track at Thunder Hill — 29 September: Ed Kornegay has again organized an open track event that provides absolute maximum track time for the dollar. He was on-hand to describe the opportunities available. He has already had 15 people sign up, so they're just about at the break-even point. The event is filling up fast, so make sure you sign up soon!

"Big Brothers" Rally/Tour: Tony Harvey proposed an event which would pair up Pantera owners with underprivileged kids. The idea would be for us to act as role models, to let the kids gain exposure to us and our Panteras. While he was short on specifics, it appears that creating a rally and letting the kids act as navigators would be a workable idea. The idea met with support, and Tony will continue to work on it and come up with a firmer proposal later in the year.

Club Business:

Nor-Cal Race Team Award: Ed proposed an award to be given at the club's Christmas party to each member of PCNC who participated in a motorsports event (be it open track, au-

tocross, or whatever) driving a Pantera. A motion to that end was made and passed.

PCNC to Take Over Las Vegas Open Track: Continuing the discussion of last month's meeting, Ed discussed the various aspects of managing the Las Vegas open track. There was some discussion of dollars and cents, track options, management, etc. Ed is willing to organize the event, but wanted help from the membership. A committee consisting of Michael Harper, Ellis Woumm, Mike Drew, Jack DeRyke, Mike Fertitta and Bill Santos formed on the spot, and PCNC is now more or less committed to the idea. Watch for more news as the event date draws nearer.

SMOG! There was much discussion of the new, draconian smog laws. A few horror stories were bandied about, and then talk turned to the notion of political activism. It was tentatively decided to align ourselves with the California Council of Car Clubs, an organization with a paid lobbyist in Sacramento working for our interests. Tony will be bringing in specific information on the Council to the next meeting.

Raffle Results: Larry passed the hat, collected the bucks, and dispensed the prizes, with the following results:

Guara Shirt — Russ Britschgi
Pantera Patch — Steve Liebenow
DeTomaso Pin — Nancy Haney
Luggage Tag — Ken Levin

The meeting then adjourned to the parking lot.

NEXT CLUB MEETING

THURSDAY, August 29, 1996
8:00 P.M.

COCO'S RESTAURANT
1209 OAKMEAD PARKWAY
SUNNYVALE, CA
(Take Lawrence Expressway South Exit off Highway 101)

UPCOMING CLUB EVENTS

August 25 ————— Blast In The Grass Car Show (Mike Coffel)

30 August - 1 September ————— Nor-Cal Shelby Club Mini-Nats (Lisa Devlin)

31 August - 2 September ————— Sports Car Olympics (Doris Britschgi)

22 September ————— Woodside Car Show (TBA)

REMINDER — NEWSLETTER ARTICLES DUE BY 15TH OF EACH MONTH

A Cleaner Cat!

by Steve Liebenow

There was a time when I would pull up to a stop light and nearly be asphyxiated by the fumes from my own tailpipes as they caught up to my now-stopped Cougar. Now, these foul vapors are a thing of the past, or at least I've taken steps to clean up after my Cat a bit more. The steps I took to clean up my Cougar will work on your Pantera as well.

The cause of the vapors is a result of the combustion process. The internal combustion engine is not very efficient...just ask any big-block owner! Part of what you put in your tank ends up coming out of the tail pipe in the form of unburned gasoline. Improvements in combustion technology have been made however. The recent horsepower/mileage figures of new cars would seem to substantiate this.

Now some of these improvements are not feasible to retrofit to your Pantera, such as a catalytic converter. It would prove too costly, not to mention that the cars weren't built with the high heat in mind that the converter produces. However, there is one conversion that is relatively inexpensive and is easy to install with only simple hand tools and tune-up equipment.

Ford products from 1974 and up were available with a DuraSpark II breakerless electronic ignition system that provides increased spark energy to burn that gas that I mentioned earlier. This is a transistorized ignition system that eliminates the points and condenser and replaces them with a system that has no moving parts...or at least fewer moving parts.

This DuraSpark II is the system that I installed in my Cougar. Due to the increased spark energy, I was able to lean out my carburetor idle jets so that I don't get such an obnoxious cloud following me around. This should make for a cleaner Cat when it comes to the ol' smog check time. (Since installation, I've not had the specs rechecked officially.) The theory, in part, behind this being that with the increased spark, there is more combustion, requiring less gas to do the same amount of work, thereby producing less gases to be released into the atmosphere.

There are only a few components involved in this swap. The distributor and coil from your car are set aside and replaced by a new distributor, coil, ignition module, and wiring harness. There are three types of DuraSpark II distributors; 289/302, 351W, and 351C/351M/400/429/460. Make sure to get the correct type for your engine!

There are two types of solid-state ignition coils but both are functionally the same, the difference being the type of top connector. The earlier ('74) version has standard posts that would plug directly into your Pantera. The later ('75 & up) style has connections that take a snap-on connector.

The DuraSpark II module comes in many flavors! You will need one that has a blue strain relief and six wires (two

separate two-wire and four-wire connector plugs). These are typically found from 1975 to 1984. There are some nine-wire and seven-wire types out there too. The seven-wire system is found on 1974 models. The extra wire is a ground wire, so it should work just fine with the corresponding wiring harness. The nine-wire system is found on 1978 cars...I wouldn't recommend this one!

The wiring harness is the last component and varies greatly by vehicle model. I found that the '76 harness is probably the most simple to install on the Cougar, and presumably the Pantera. It needs only two new connections and one old connection to operate, these being the START, RUN, and +IGN respectively. The rest plugs in directly. The 1974 harness is a direct plug in. Two additional connections, START and RUN, are required with this harness also. The 1978 harness that I found would also work fairly easily. This was the nine-wire set up. However, this would work with the six-wire module because the extra three wires go off to a separate solenoid that is not part of the main harness.

Essentially, any harness will work. It's just a matter of how much splicing and fabrication you want to undertake. I have mentioned the easiest seems to be the '76 style. The '75 and '77 versions would seem to be close, but I haven't verified them.

Once the proper components have been located, it is a simple matter to install them. Locate a good spot on the firewall for the control module, and make sure that the harness you have selected will reach it! Install the distributor and coil. You may need to enlist the help of a friend to install the distributor, it can get tricky if you've never done it. Don't let it stop you though! Once the components are installed, connect the harness to the proper components. The remaining connections can be tricky. The IGN wire that had gone to the plus side of the coil still has to go to the plus side of the new coil, but due to the connector being different, requires either splicing it in to the new wire or fabrication of a terminal to plug into the existing original plug. (Unless you are using the '74 version of coil, in which case just plug it in!) The remaining connections are the START and RUN wires to the DuraSpark II control module. These two can be run to the starter solenoid terminals that just happen to be the same...START and RUN!

With everything installed, start your Cat! It will be necessary to reset/check the ignition timing and idle. It would also be a good idea to regap the plugs to about .035" to handle the extra zap. You may reuse your original cap, rotor, and wires with this setup. However, due to the increased spark intensity, there could be a tendency to cross-fire in the original cap. If you encounter this, convert to the larger, later-style cap, adaptor, and rotor. The plug wires change also, so

get them too!

For troubleshooting, I found that there is *plenty* of info in the later shop manuals. I used the manuals for our '79 Lincoln to check mine. It was a breeze. They even told you how to construct a test jumper for use in the procedures. I didn't need it ('cause the carb was out of gas!) but it was easy to make and easier to use.

Now I could get deeper and talk about the spark advance curves, but I won't. Run the advance unit that you get with the new distributor. If you like it, leave it. If the performance is not what you had, use your original weights, springs, and advance unit out of the original distributor.

Here are a few additional points. If you would wish to retain your original distributor body, it is possible to modify it to accept the later model components. You will need to cut a slot in the housing to accept the sensor wires. This is fairly easy to do if you use a later distributor as a template. You will then need to replace the breaker plate and cam lobe assembly with the corresponding components from the solid state distributor. This is fairly easy to do if you use a long needle-nose pliers to remove the retaining clip found under the felt wick under the rotor.

For Cleavelands, the '74-'76 or '78 (however long it was that Ford actually used them) versions will be the hot ticket. Also, the 400M or 351M versions will fit as will the 429-

460 versions. The only one to watch out for is the 351W version which has a different oil pump drive shaft than the 289-302 model. The 351W version will also fit the 351C but must have the drive gear changed to a Cleveland-style gear. (289-302 distributors will be too short to use in a 351W or 351C.)

Regarding the cap and wires and plug gap: If you would like to retain the stock look as much as possible, leave the plug gap where it is (factory setting) and simply use your old cap and wires. If you elect to use the larger gap specified in the shop manuals (.040-.045") then you may want to use the later model cap and wires as cross-firing may be experienced. The cross-firing occurs due to the increased plug gap. The spark is going to seek the easiest path to ground. Unfortunately, this path may be via the wrong plug wire, as the spark jumps to another terminal inside the distributor cap. The larger diameter cap helps guard against this as now the terminals are located further apart.

Another option, in keeping with the unmodified look, would be to use the '74-style coil. This coil has the threaded vertical posts on it like the coil that you probably have on your car now. This coil, along with the proper wiring, can be used, instead of the coil with the clip-on connections, to keep your Cat looking stock while benefiting from the later technology. Not quite nitrous...but it's a start!

Building the Cleveland from Heck!

by Steve Liebenow and Mike Drew

For several months now, several of the club's tech gurus had wanted to throw an engine-building tech session, sort of a crash-course in Clevelands for those of us who were forced by our mothers to take Music Appreciation instead of Auto Shop in high school. Quite a few PCNC members had left-over engine parts, and between them, almost the makings for an entire engine.

Call it serendipity if you will, but Michael Harper had blown his Pantera's motor over a year ago, and hadn't had the wherewithal to get it fixed yet. Suddenly it seemed like a Perfect Plan: The club could build a budget Cleveland using junkyard and leftover parts, then this engine could serve as a 'loaner motor' for club members, a temporary engine to be used while a Pantera's primary engine was undergoing repair (or construction). The idea was bandied about, and enthusiasm for the project swelled. Soon an ambitious plan came together, whereby we would gather at Larry Stock's Pantera Parts Connection early in the morning, put the motor together, install it in Michael's car during the afternoon, and he'd drive it home that evening!

When we arrived at Larry's shop early Sunday morning, there was the subject, on a pallet, on the floor. A junkyard variety 351C fresh out of a station wagon, or an LTD, or just who cares!?! It was greasy and filthy and it was not ready to be installed! Several members were standing around staring down at it wondering what next....

With a few words of discussion, it was decided that we needed to see the inside of this beast. So, in short time, the intake and heads were off and we were now looking at a well-used shortblock.

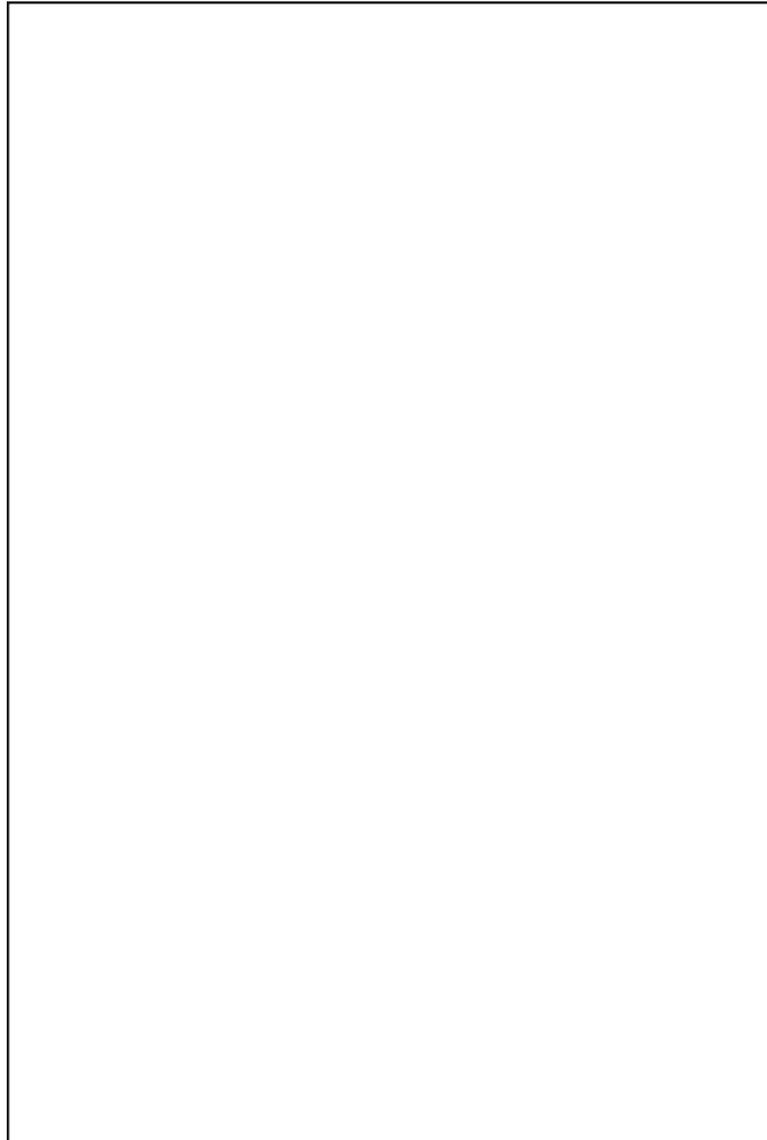
Working on the pallet was a pain, so with a bit of heaving and grunting the shortblock was fitted to an engine stand. Much easier to get at stuff now. Off came the original well-damaged oil pan, exposing the inner workings of the 351C. The interesting thing was, this sucker had a couple of number 2 and a couple of number 6 connecting rods, indicating that someone had been here before! Where was the number 5 rod?

After Mike Reilly and Larry Stock scraped off the old gasket materials, a couple of other folks took the shortblock outside and degreased it. They also applied the first coat of Ford Blue paint to it. (The line of the day: "This engine isn't getting blue-printed, just blue-painted!")

On the technical side, the block looked good.

The fact that a couple of rods had been replaced was no big deal. They were installed correctly and that is all that counts. The cylinder bores were reasonably straight with about 4-8 thousandths of wear at the top of the cylinder. Okay for the purpose of this adventure.

There was one cylinder that we found a good scratch in. After pulling the piston out, we found out why! The person that assembled this motor last time violated one of the primary rules of engine building! Never, never, never line up your oil rings all at the same spot! (Unless of course your directions say to do this...but not in Fords!) So, this engine may leak a bit of oil in this spot, but perhaps it will varnish up and eventually seal itself up...we hope! We ro-



tated the rings to new locations and put the piston back in its place. A quick check of a couple of rod bearings revealed nothing out of place and showed normal bearing wear, so we left them alone.

The cam was badly worn, so it would have to be replaced, and the timing chain was trashed (Cleveland timing chains wear out quickly), so a new chain was on the menu as well.

How to reassemble the motor? We could use some of Michael's original parts, which consisted mostly of a lot of scrap metal! And there was

stuff off the new/old motor, and there was also stuff that Larry had lying around too. Once we had figured out what parts were to be used, the assembly process began. Up front, we installed a new cam and a double roller timing chain for durability. Originally, we were going to use Michael's cam out of the grenade motor, but the drive pin was broken off during his engine's blowup. In an effort to save this cam, Larry and Jack DeRyke spent a good half hour on a mill, drilling this out. Turns out the inner metal is soft while that last little outside diameter is hardened! They had a tough time getting it but eventually prevailed. We then stuck the cam in, only to discover that the timing gear bolt had been sheared as well, with the end remaining well-stuck inside the nose of the cam! So, this is where the new cam came in. It was sitting there, with its original cam tag, and didn't need any work, so it went.

The bottom end was basically done except for oil pan and oil pump. Well, Michael's stuff was hopelessly scrap material. The oil pickup was smashed and torn. The oil pump was in multiple pieces which only a welder could put back together, leaving only the oil pan as useable. However, we couldn't use the special pan as it required the special pickup which was smashed to bits! So, back to the stock stuff. We used a stock oil pump and pickup, but opted for a newer oil pan that Larry pulled out of somewhere in his shop. The original oil pan off of the "boneyard" motor had been badly abused and poorly repaired. Looks like they did some "Dukes of Hazzard" type driving, with the oil pan paying the price! Another part for the scrap pile!

Cylinder heads were another adventure. Two barrel, four barrel, open chamber, closed chamber...what's a gearhead to do!/? We were trying to keep the underlying

goal in mind that this was to be a "club" motor, and that it was going to be available for use as needed. In that light, we were trying to keep from using too many of Michael's old parts, which he will need when he starts assembling his real motor.

So, Michael's heads were ruled out. Eventually we settled on a set of heads that Forest Goodhart had won at a POCA raffle several years ago. Supposedly freshly-rebuilt 4V Open-Chamber heads, ready to bolt on. Well, we bolted them on, only to find out afterwards that there were no valve seals on the valves! We then questioned the quality of the heads, but elected to forge ahead. Jack DeRyke jumped in with Mike Drew and they blasted over to Jack's house to retrieve a valve spring compressor. After modifying Larry's compression gauge flexible coupler, we had a setup to blow air in the cylinders to keep valves from dropping onto the pistons. This worked great and we soon had new valve seals on 16 valves without having to remove the heads from the block.

Through much of this, Michael had been slaving away cleaning pushrods and rocker arms. Lifters were new as we could find only 14 of the old ones (need 16), otherwise we would have used them because the ones we did have were in very nice condition. With pushrods and rocker arms lubed up and installed, the intake manifold was next on the list. We installed the new valley tub gasket (yeah, that great big thing...) with sufficient quantities of silicone sealer (Larry says, "use a lot!") Then came the intake. Here we had to take great care; there are several things that you must watch for all at the same time. You don't want to lose the front and rear seals, you want to torque it down evenly, and you don't want to over-tighten it since it is an aluminum intake

and will distort! We “walked” the torque up to specs, about 10 to 15 lbs at a time until reaching the final value.

Now it was beginning to look like an engine! We had new high-tech water pumps to choose from, but since Michael’s car uses custom Aeroquip fittings, his old pump would have to be used. Of course, the old pump was back in his garage! After a quick blast across the bay and back, the water pump was mounted, and the harmonic balancer and pulley was installed. There was even a set of Mickey Thompson valve covers that helped to dress the thing out! Unfortunately our good fortune ended here!

We had been debating the method to find TDC (top dead center) for purposes of installing the distributor. Tony Harvey dropped in the distributor of choice, having to fiddle with it a bit to get the oil pump drive shaft to fit into the bottom of the distributor shaft. Eventually Tony prevailed and the distributor was seated fully in the bore. Then, Tony asked why he was still able to rotate the distributor shaft? Did we have a broken drive pin? Nope! Just fine! Dropped it in again! Still rotates! What gives!?

Looking down the distributor hole, we could just see the teeth where the distributor gear should engage. However, they were way out at the edge of the hole. There was no gear that would engage this cam gear! It was a brand-new cam; let’s check that paperwork again! Yep! It says “351C - 400C”, so it should work fine! Well, the cam may be for a 351-400C but the cam gear is for something else. Some sort of factory goof up. And we walked right into it!

This was Not Good. Almost everything that we had accomplished this day would have to be undone and redone. Intake off. Valve covers and rocker arms off. Harmonic balancer off. Water pump off. Timing gears off. Lifters

out! New cam out! Old cam in!!!

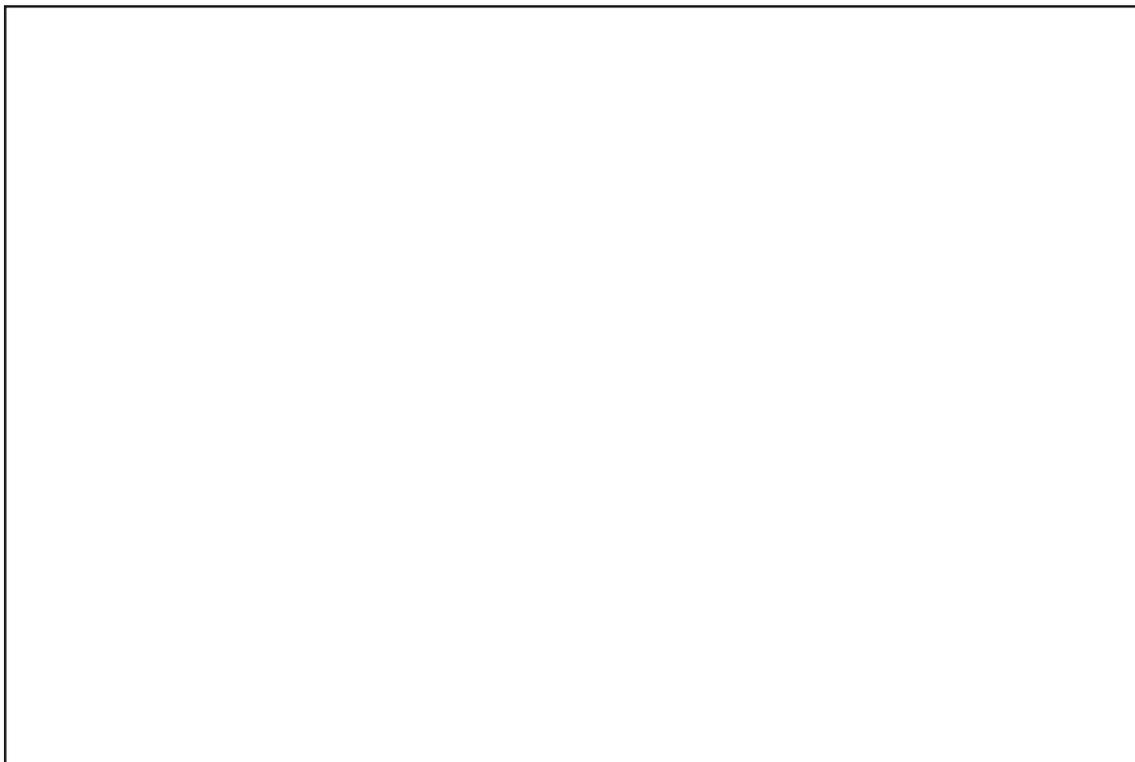
Just as all appeared lost, Ellis came proclaiming victory over the broken cam gear bolt on Michael’s original cam! Using this cam was now the only option. The boneyard cam was trashed and the new cam wouldn’t drive the distributor! This was a blessing in disguise, as Michael’s cam is a Crower performance unit, not just a stock Ford station-wagon cam.

The group which had numbered as high as a dozen or more had dwindled down to three or four by this point. We pulled a marathon wrench session and stripped the engine down again to accomplish the cam swap, and blasted it back together again, finishing around 11 p.m. or so. What a day!

Due to all the custom fittings in Michael’s car, a bit of parts-chasing was necessary, so he spent the next few days running around to auto parts stores and hardware stores. Steve Mooney, Tony and Ellis got together with Michael and lowered the engine into the car the next weekend, then spent almost *ten hours* trying to fit the 180° headers in place. (Lesson learned—the headers are designed to be affixed to the motor *before* it’s lowered into position!) Eventual attempts to fire the engine were unsuccessful due to a dead battery. A jumpstart only produced one loud backfire through the carb. It was late, and they called it a night. A few more evenings were spent hooking up gearshift linkage, halfshafts, etc.

Finally, Michael, Mike and Russ Britschgi got together the *next* weekend to get the beast moving under its own power. Investigation revealed that the distributor had been installed 180° out, which is certainly an impediment to efficient combustion! Getting it out proved easy; getting it back in was a chore that took over an hour, and lots of profanity.

Finally, with everything hooked up, we disconnected



the coil wire and turned the motor over (with the brand-new 1000 amp battery) to set the timing. Then we hooked up the wire, and Michael turned the key.

VAROOM! With a *big* cloud of smoke, the engine was running! It was smoking, too, so we had him slowly drive it outside. Smoke poured from the exhausts, and poured from the valve cover breathers. But it was running!

An hour or so was spent properly filling the cooling system, in an attempt (only partially successful) to bleed the air out of the system. Minor details were attended to, such as adjusting the ride height on his rear shocks (which Ellis had borrowed a few months earlier), and then he was ready for the first Test Drive.

Extremely tentatively, he set out onto the road, followed by Russ in his VW. In the excitement, Michael forgot the instructions to “just keep turning right, and drive around the block a few times,” and instead took off driving through the town.

Well, sure enough, the car stalled about a mile from the shop and wouldn't re-start. Russ drove back to the shop, picked up a few tow ropes, and about a half-hour later, returned towing the Pantera.

While this looked bad, and Michael thought there might be electrical problems, Mike thought it might simply have been Operator Error. A quick jumpstart revealed the car to be working fine, so Michael was sent back out on the road, this time with *stern* instructions to “just keep turning right.”

After about 20 minutes of driving around and around the block, it appeared that the engine was working fine, and actually producing decent horsepower, although it was still smoking quite a bit, especially from the side with the scored cylinder. It had become dark by this point, and we were ready to go home. Just one last test, though. Michael was instructed to go to the corner, turn around, and floor it in first and second gear, simulating a freeway on-ramp situation, to ensure there were no carb glitches that might cause heartache.

Imagine our surprise when he instead floored it right away, and went screaming towards a solid retaining wall at 80 mph! A flash of brake lights, lots of smoke, engine noises you *never* want to hear, and then the car lay dead in the middle of the road, 20 feet from the wall.

Hmm. Seems the throttle had stuck wide-open! Well, this is where you want to learn stuff like that. Turns out that when Larry had installed the carb, he had just set it in position and tightened all the connections finger-tight, figuring somebody else would go back and check them. All of us thought the carb had been installed fully, and didn't bother. Another lesson learned!

Part of the throttle-cable linkage had rotated down and jammed against one of the runners of the intake, holding the throttle wide-open. We got it unstuck with a screwdriver, and with a bit of knuckle-burning got the appropriate screws and nuts tightened.

With Bill Santos following in his Pantera (just in case), Michael finally drove home from Larry's shop at about 9:30 Sunday night.

Several lessons were learned which might make something like this go smoother in the future. Probably the biggest lesson involved preparation and planning. One crew had disassembled the blown-up engine several months earlier (in a fairly speedy and haphazard fashion) and a second crew performed the new engine's reassembly. The disadvantage was not knowing exactly what bolts or fasteners came from where! It didn't help that all factory fasteners had been replaced with allen head fasteners either! Hopefully, future projects of this nature will see all removed fasteners placed in holes punched in cardboard labeling them on the cardboard, or “tagged and bagged” where you write where the items came from on a sandwich bag, then drop in the items in question. We found ourselves searching for this or that fastener many times which was rather frustrating. But, this is why we do this, to learn!

This ‘one-day project’ had consumed the better part of three weekends and several weeknights, but ultimately it was successful, on many levels. Those of us who knew nothing about how engines worked had the opportunity to learn quite a bit. Some of us cleared a bit of junk out of our garages that might otherwise have sat for years. And most importantly, the club pulled together in the true spirit of friendship and camaraderie, with many folks pitching in many hours of their time to help a fellow club member get his car back on the road. That, people, is what the Pantera Club is all about!