1962 Ford Unibody Pickup "Jake" D/PP Land Speed Racer

Bonneville 2012 by Tim McMaster

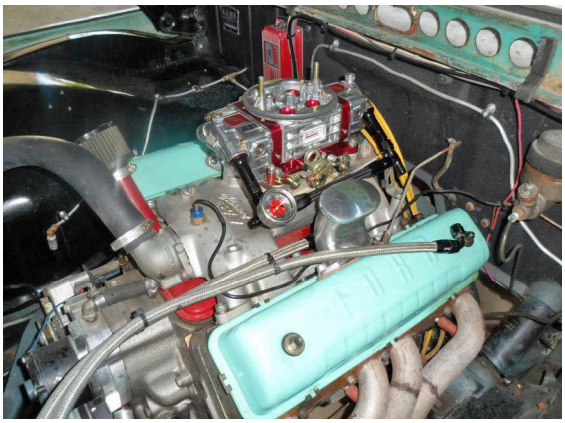
2011 was a good year for the Unibody crew, although I would call it a "testing" year. Most of our time, money and effort was put into the building of the truck, and not so much the engine, but still, I would say that the old Y-Block did very well. The engine we used was just an old core that was given to me by Todd Jolliff (+.060 292). I took it apart, cleaned everything, lightened the pistons, balanced the whole thing, and put it back together with a hone job, new cast rings and the same bearings that it came with. The heads were C1TE castings that I cut out for 1.9" intakes and 1.6" exhaust valves, then did a little port work. With this simple combo, fed by a 725 cfm BG Road Demon Jr. carburetor on top of a "cleaned up" Ford "B" intake, we were able to go out and run 120 mph for three consecutive passes. Not to bad for pretty much stock Ford parts with mods most anyone could do themselves. Next, we swapped heads for a set of ECZ-Gs that were originally run on Charlie Burns' "Flyin' Yellow Brick", put an "Extrude honed" Blue Thunder intake on loan from Ted Eaton, and ran 127 mph. After Bonneville, we took the truck to El Mirage, and with a little work, we were able to get a best pass of 126.5 mph. It's not to easy to match speeds with Bonneville at Elmo, as the surface is different and the distance is shorter, 1.3 miles vs. 3.0 miles on the salt. I think we did good for our first year out.

**"Jake"**

2012 started with a fresh block from the pile. I decided to go .080" over on this one since I was allowed up to 305 cubic inches and this would put me at 304. I'll save that 1 extra for later. I had a set of "H" beam rods that I got from Charlie Burns in a trade that are 2.124" on the big end, .912" on the bushed small end, and 6.312" long, with the bearings install that calls for a 2.0" rod journal. Next was a phone call to Ted Eaton in Texas to have him order me a set of Wiseco pistons. Since he has dealt with them before and had the design down, this was the thing to do rather than try and re-invent the wheel. We came up with an 18cc dome that would give a 13.4:1 compression ratio with the milled 113 heads I would be using.

Back to the crankshaft now. Because of the connecting rods, I would have to grind the journals down to 2.0". Normally this would be a good opportunity to get a bit more stroke, but as I'm limited to a certain cubic inch displacement, more stroke would be against the rules. What this did do for me though, was let me "index" the crank. I set the crank in the grinder, centered the first journal and set the stroke at exactly 3.3". When I was done with the #1 journal I rotated the crank in the chucks exactly 90 degrees, then ground the next journal. On most production cranks, there is a little bit to be adjusted to center the journals from one to the others, because of twist, age, and just an imperfect manufacturing process. No adjusting on this crank, just turn 90 degrees and

grind, turn 90 degrees and grind, turn 90 degrees and grind. What I end up with is a crank that is exact on the stroke for all four journals, and exactly 90 degrees apart. Now, to put that in my block that has been "squared" so the decks are exactly 90 degrees from each other, and equal distance from the crank center line, and you have as close to a blueprinted block as I can come up with. To make it even better, when I assembled the short block, it all checked out right on the money! The cam I chose was dialed in, the 113 heads that were given to me by Greg Gordon were installed (these heads were already ported), but I still did a little clean up to satisfy myself. 2.02" intakes, 1.6" exhaust valves, 5/16" tubing push rods, a set of pressurized 1.54:1 factory rockers, and we were ready to go. The engine swap took place one week before the season opener at El Mirage, but it was done with 20 minutes break-in, just in time to head out to the lake bed.



I had changed the rear end ratio from 3.89:1 to 3.7:1 shortly before the engine swap, so there would be some big differences from the year before, and we didn't really know what to expect. We got to the dry lake early Sat. morning after a bit of an eventful drive with a few problems from the F-350 tow rig. After a run into town to get a new alternator and installing it, we were ready to run. First pass felt good until I got the time slip, 126 mph? That's what we ran last year with the old engine. Back to the pits and let some air out of the rear tires. As I mentioned earlier the surface of the lake bed is hard to work with, traction is always a battle. Back into staging with hopes of a better run, as we inch up to the line there are a few problems and delays, so when we get to within three cars from the line it's 3 o'clock. Racing is done for the day! I really wanted to run, but this puts me right at the front for the next day and a new course. This is a very good thing, as by the time I get to run usually the higher HP cars have ripped up the lake bed, leaving powdery dust that is hard to get a grip on. The next morning we were ready, and although the sun was in my eyes leaving the line, I could already feel better traction. First pass, 131.491 mph. Although I wanted to see more, this was much improved over the day before. We will have time for one more pass this day but now the course is going to be torn up as the day before. I do a jetting change and decide to remove the front half of the bed cover, this has always been suggested to me by Mr. Burns, but because of vanity, I thought it looked better fully covered. As I head down the course I feel confident that this is going to be a good pass. 132.506 mph on the time slip, a full mph faster than the last pass on a better surface. I will never run with the front cover on again. With a lot of work and a new engine, we managed to better our speed from last year by 6 mph (at El Mirage). Although it may not seem like much, every mph is hard to gain in land speed racing, and I knew there would be more in the months to come.


**"Jake" made the El Mirage Poster**

There is a meet at El Mirage every month except August (that's when Speed Week is at Bonneville), during the summer, so I should have two more months of "test and tune", but this was not to be. A nasty cold in June put me out, and an over due trailer order in July botched that one. So in August, we are loaded up and ready to haul out to the salt. In Nov. 2011, I purchased a '77 Ford F-350 with a 460 to be my new tow rig, and although it performed well, it had had it's share of problems, but I felt that I had most of them sorted out for the 900 mile trip to Bonneville. So I started off. Day one was a short five-hour trip up to Pollock

Pines to my sister-in-laws house with a stop for lunch in Modesto with Todd Jolliff. After a good nights sleep and my last shower for days, I headed over Tahoe pass and across Nevada. The trip was pretty un-eventful and I pulled up to "lands end" on the salt that evening around 4 pm, after burning several gallons of gasoline at the rate of 6.8 mpg. The old F-350 got me there though.

Tech inspection was a breeze, as most of the inspectors had come to know the Uni and saw it as a very well built racing vehicle. That makes life a little easier, and we had a full day to roam the pits and see what everyone else had to offer for racing entertainment. Also a good time to meet and greet other Y fans such as Ted Eaton, Keith Cornel, Samuel Gable and of course "Ole Don" Cyr. I had seen on the SCTA/BNI web site that there was another truck registered to run in D/PP class, but there was no other info on what type of truck. So I was looking for the "competition". With one pass of the pits I had found him and much to my delight it was a 1970 "scrub" short bed step side. I went over to introduce myself and have a good look at what I was up against. The guy was out of Midland Texas, and was very friendly and helpful as are most all racers. He told me about his Dart block and heads, 305 cubic inch small block built by a pro "Sprint car" engine builder that had been dynoed at 590 HP. I thought to myself, this is going to be a formidable adversary. Then I went back to my pit area and got ready for the next day.

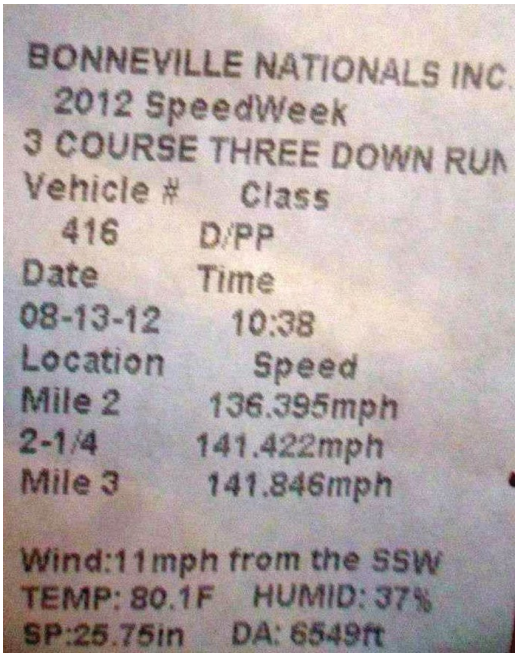
**Ted Eaton standing**
**Keith Cornel piloting**

Saturday came and the weather looked good. It had rained quite a bit the night before, and the salt was pretty wet in places. This closed down the #1 course for the day but did not affect the #3 course in a bad way, and that is where we would be running. After the drivers meeting and driving the course it was time to get into staging. Over on course 3 we were waiting our turn in the 90+ degrees heat, then came time to suit up and get ready. Sitting in the truck strapped in and ready to go, there was delay after delay (just another day land speed racing). After sitting in the truck suited up for about 40 min. they told us it was going to be a while longer so you might as well get out and cool off. Good thing, I was starting to get a bit light headed even with cold water and a fan blowing in my face. When I had my wits about me again, it was time to go. With all this waiting my frustration level was very high when the starter wanted to argue about the legality of my head and neck restraint, even though it had passed tech and starters approval at many meets before. Finally, they decide to let me go and I GO! Truck is running tops! Mile one! Mile two! Mile three! Shut down! Slowing down I'm watching the exits, too fast for the first two, so I take the third. Looking for the return road as I cross it at about 60 mph. A sharp 90-degree turn to the return road? Who laid this out? I roll to a stop out in the rough, wondering what the heck just happened. This has been one of the weirdest first passes I have ever had, but when Trent Knight and Lance Hampton (my crew) came to pick me up, they tell me I just ran 136.035 mph, my best time so far. Come to find out the course was set up that way by accident, and we all had a little trouble till we learned how to deal with it. That was my one pass for the day. I later met up with the "scrub" driver and asked how he was doing. Two passes, 114.875 and 124.773 mph. This is what 590 hp does in a Chevy? I suddenly felt a lot better about the day's events.

Day two finds us in staging for course three again. I had installed an Air/Fuel ratio gauge under the Tach in the truck months before but never got to try it until the day before. So with a minimal amount of data we decided to lean the mixture a bit for our first pass of the day. Suited up and ready to go, the starter waves me onto the course. All feels good, and I

know about the exit and the return road now. When Trent and Lance pick me up, now accompanied by my wife Kathy, they tell me the time is 138.669 mph. We're getting faster. With what I've seen on the A/F gauge, and what I feel by the seat of my pants, we lean the carb. a little more, and get back into staging. This time I notice that the guys with the step side "scrub" are in the lane next to us. This is gonna be good! The weather isn't always good out on the salt, and we see a bit of a storm coming across. The tower shuts everything down for a while as the storm passes. Seems pretty mild to us on course three, but we get word that it is wreaking havoc in the pits some five miles away. Racing is given the green light again, and we inch up towards the starting line.


When we get there, we are staged right next to the red Chevy pickup. This is not Drag Racing, so it's one vehicle on the course at a time. Too bad, that might have been fun. They let the Chevy boys go first, then it's my turn. The old Y-Block feels very eager with the cooler air from the recently passed storm, and the starter waves me onto the course. The Y screams up to 7000 rpm, second gear! 7000 again, third gear! Hold it to the floor as long as I can. 7000 rpm once again, and I'm in fourth. The rpm is still climbing as I go through the one and a quarter mile mark at 135.418 mph, still climbing at mile two with a speed of 139.624 mph. I can still hear a little more in the engine as I go through mile three at a top speed of 140.338. I shut everything down one by one, foot off the gas easy, fuel pump off, then the ignition. I make the turn on to the return road and roll up behind the Chevy. My crew comes to me with the news of my speed, and tell me the 590 hp Dart "scrub" had just ran 136.536 mph. We go back to the pits with a very good feeling about our 50+ year old REAL Ford iron. This to me was the high point on Speed Week, although we did go out on Monday and run 141.846 mph, our best time of the meet.


BONNEVILLE NATIONALS INC.
2012 SpeedWeek
3 COURSE THREE DOWN RUN
Vehicle # Class
416 D/PP
Date Time
08-13-12 10:38
Location Speed
Mile 2 136.395mph
2-1/4 141.422mph
Mile 3 141.846mph
Wind:11mph from the SSW
TEMP: 80.1F HUMID: 37%
SP:25.75in DA: 6549ft

What will happen next year at Bonneville remains to be seen but with a new carburetor and an "X" pipe on the exhaust, we had a best speed of 142.506 mph at El Mirage on a 1.3 mile dirt course. I think we've got some more speed to look forward to on the salt.

TimMcMaster@yblockguy.com