BONNEVILLE COMMEMORATIVE DECEMBER 2001

CBXpress©

DEDICATED TO THE PRESERVATION OF THE CBX MOTORCYCLE™

Los Leos at Bonneville

Los Leos *at Bonneville*

The Bonneville Salt Falts, Speed Week.
The Texas 1147cc turbocharged CBX is entered in the 1350 cc Modified Blown Fuel (MBF) motorcycle class as #606.
The first run is 149mph with a severe head shake. After the steering bearings are tightened, the second pass is at 164, the average speed of the two is 156 for the first record for the class. The rider, Les Ranger of Sacramento, says he held the motor at 11,300 rpm and the bike felt real good.
A little more gear and it would have gone faster.

Then the Los Leos CBX runs two passes at 174.1038 and 175.989 for an average of 175.039 and another class record!

That's where it will stand until somebody comes along and goes faster.

Pete Ruff, ICOA Membership Director

Les Ranger

Right: (L to R) Pete Ruff, David and Tom Neimeyer, Mitch Banks

UNOFFICIAL TIMING SLIP

Southern California Timing Association

Bonneville National Speed Week

2000

☑ BNI ☐ FIM ☐ FIA ☐ WF

B-606
VEHICLE NO

SAT	SUN	MON	TUE	WED	THUR	FRI
8/12	8/13	8/14	8/15	8/16	8/17	8/18
☐	☐	☐	☑	☐	☐	☐

☐ Down Run ☐ Return Run ☑ Shrt Course ☐ Long Course

2-1/4 Mile	3 Mile	4 Mile	Kilo	5 Mile
176.832	177.145	___.___	___.___	___.___

Official: _____ Board Member: _____
(Licensing Run)

1. David Neimeyer at GO

2. Father, Son, Salt, CBX

3. Motor on the Lake

1.

2.

3.

The Los Leos CBX
Bonneville Experience

Before the start

Before the finish

The Bonneville Salt Flats are 1773 miles from Houston Texas, overcoming that distance was the easiest part of this endeavor. Tom Neimeyer, David Stremmel and Mitchel Banks, Los Tres Leos, got their start one afternoon in David's garage. Everybody was telling their favorite CBX war story when Mitchel mentioned how neat it would be to take a CBX to Bonneville. The discussion then changed to "could a CBX could go 200 mph". I don't think anybody thought it could, but the seed was planted. Later in the discussion we realized that we were all born in August, our birthdates all within a few days of each other. This makes us all Leos, thus the name Los Leos. Three Lions with an idea, is a serious situation.

When you have never been Land Speed Racing the place to start is with the rulebook. We decided early on that we were not going to chase any records, none of us had enough money to do that. Looking through the record book, it didn't appear we could get close to any records, trying to compete with modern machinery would be difficult. Finally a decision was made to run in a 1350cc Blown Fuel class. This is an unpopular class because there is no streamlining allowed so it limits the speed attainable, and it also had an open record.

Bike on lift in garage during construction

With these decisions made, we started planning the project. Who had what parts, where can we get this, how the hell does this work. After several months of brainstorming we started putting it all together. The frame was a stock 1979 CBX that had been raked. A CB900F 39mm front fork assembly was grafted on to the frame. Honda rearsets were then installed to stretch the riding position out. We chose a CB1100F swingarm based on its ability to accept a wider tire/rim. CB1100F wheels were chosen after we found it difficult to get ZR rated tires (200mph certified) for stock CBX rims. The engine started life at 1047cc's. When we got through with it, it was 1147cc's thanks to a set of 68mm flat top pistons with aluminum buttons. In went a set of Carrillo rods, a necessary addition if you want to keep it together. Cams were from a 1980 CBX; they have less lift than '79 cams, but they have less overlap which is good for turbo engines. A copper head gasket was sandwiched in there somewhere. The turbo kit was made by Mr. Turbo, using a Kehin carb.

A timeline was developed, drop dead dates were highlighted. On the timeline, in the last box before "pack trailer" was the comment "fix everything broken". Things were starting to come together, or so it seemed.

Each time you re-read the rulebook you find something you didn't see before: this usually means more money. Have you ever tried to buy a steering damper for a CBX? "What is a CBX?" was a common response. Sometimes I was told "they never made them for that bike". Time to start fabricating parts. The Los Leos machine shop consists of a 16-speed drill press, a 4" bench vise and a 4-pound hammer. Before it was over, we broke the vise and the hammer.

The search for a rider had begun, anybody that had a set of leathers would be considered. Who the hell would be willing to ride a bike with a reputation as a "bad" handler? Nobody seemed willing to ride an unfaired bike at 170-180 mph. Les Ranger, a seasoned Bonneville rider, record holder and CBX owner stepped up to the plate. Les is 51 years young and acts like it. He was the perfect choice, he wanted to ride the bike and he was pumped about it. Les lives in California, so he never actually saw the bike.

I placed a few pictures of the bike on the Internet and pretty soon after that, we got a call. "This ain't gonna work" were some of the words he used. "I'm 6' 5", you need to make some rear sets, get rid of the front brakes, hook the front master cylinder up to the rear brake and finally, move the exhaust." Les currently holds several motorcycle records above 200 mph. If he says do it, it needs to be done.

Let's see, it's now June 1st, Speed Week is August 12th-18th. Now might be a good time to put the engine together. Honda engineers are a sick bunch. The system they use to identify bearings, connecting rods and crankshaft journals is a nightmare. Bearing selection is a measure 3 times, cut once operation, mistakes are not tolerated. It's also something that should be done sooner in the project than we did. Honda promptly back ordered them and we waited. June 20th, with bearings in hand, we now started the "pull the threads out of the case" part of the assembly. In a matter of days, we had progressed to the "break the 6mm case bolt" operation. The final assembly stage was the "snap the cam holder bolt" saga. I know what you are thinking "Don't these fools own a torque wrench?" maybe "Don't they know how to use it?" The answer to both questions is, yes. Lesson 138, always check used bolts for stretching; in most cases it can be visually seen, so throw them away!

July brought more good news. A CB1100F swingarm with an 1100F wheel will not align either with the engine sprocket or the front wheel. At this point, we were lower than whale poop at the bottom of the ocean. Five gallons of gasoline and a match seemed the next step. Several calls to other CBX enthusiasts convinced us to proceed. Those of you that told me to "sleep on it, it would be better in the morning" were wrong, the

David Stremmel welding exhaust.

Tom N making steering damper

swingarm still didn't align. The T-Rex people put us on to the idea of using a late model pro link swing arm. We had tabs welded on for the shock mounts. Next time we will ensure the welder puts them on correctly, no need to elaborate on this any further.

Along the way, a total loss ignition system was chosen. This allowed us to rid the engine of the alternator and voltage regulator. The Dyna coils and ignition got rid of the pulsers. The wiring system had to be designed to in corporate a "deadman" shutoff. Purchasing the wrong "deadman" switch ensured another wiring design change. Each change or problem encountered set us further behind the schedule. The use of an electronic tach allowed us to increase the oil cooling capacity by eliminating the tach cable clearance problems. The engine roared to life on the 7th of July. It sounded great, click it into gear and let out the clutch, nothing happened. Tear it apart and find the clutch

Los Tres Leos workbench

problem was next step, this step took most of a day. While we were fixing the clutch, we noticed the oil pump drive was very tight, it would not spin freely, something was out of alignment. The engine had to be taken out, cases split, oil pump aligned. The engine was back in the frame on the 16th, dyno test tomorrow the 17th.

Lesson 253; never take your CBX to a Harley shop for a dyno test. Just kidding, the folks at KT's cycle shop in Baytown are a good bunch of guys, they worked real hard to help us dyno the bike. They don't usually dyno Hondas, especially six cylinder Hondas. After 12 dyno runs and three calls to Dyno Jet, we had no idea how much horsepower the bike made. What we did learn is that it would shift gears and rev well past redline in each gear, it had a monster bog when you cranked hard on the throttle, and the boost gauge was not working.

Diversity is a great thing; everybody brought something to this party. While David and I turned the wrenches on the bike, Mitchel made phone calls crounged parts and kept my morale up. He got people to sponsor us. He lined up tires, coils, ignition parts and oil. People like KOWA, TIMS, Redline, Stubbs Cycle and Progressive came to our aid. These people's good will and faith in us was unbelievable. I hoped we would do well and make them proud of their association with us.

We leave on August 8th, it's now the 24th of July, and the bike is two months away from being ready. What kind of jetting will we need at Bonneville's 4300-ft elevation? Will the engine pull the 18/34 gearing? What spare parts should we take? I just remembered, I need to install tie downs in the trailer floor. After glancing through the rulebook, I noticed the fuel class required a mechanical fuel shutoff, I wonder if they ever made one of these for a CBX? By now, the Los Leos machine shop had acquired some files and sandpaper, that's right, we could chuck things in the drill press and smooth them down, that fuel shutoff would be no problem.

August 7th, on our limited racing budget, hard decisions have to be made. Let's see, would I rather have an extra head gasket or a working boost gauge. The boost gauge won and was installed on the bike the night before we left, with the bike already loaded in the trailer.

Over the last few months people told me it would be very hard to go fast at Bonneville here are the two main reasons, altitude and slippage. Due to the Altitude, or more correctly, the air density, an engine loses 15-20% of the horsepower it makes at sea level. Jetting for these density changes is a nightmare. Often engines run lean and destroy themselves; this makes it a short week for racing. The salt is another matter. Will it be wet or dry? How much tire slippage will we have? With the slippage will we have enough gear? All these are unknowns until you get there and run.

Unfortunately, one of the Leos could not make the trip; David stayed behind and bid us good luck. Just outside of Cortez, Colorado is a small town called Pleasant View, Colorado. Pleasant View seemed like a good place to shred a trailer tire at 65 mph. A quick trip back to Cortez netted two new tires and back on the road. Two and a half days after we started, we arrive in Wendover, Utah, speed capital of the world. There are land speed vehicles everywhere; this must be the place. Even checking into the motel proved to be fun: somehow, our reservations got messed up. The Manager made it right and soon we had rooms in Wendover's newest Casino, the Rainbow

Mitch and Tom putting decals on sidecovers

Casino. I have always wanted to go to Bonneville. It has been a dream for many years. Having never been to the salt flats I did not know what to expect. We drove to the edge of the salt where the paved asphalt disappears into a white ocean. What I saw was awesome. For as far as your eyes can see, salt! Bright white salt, desolate, immense, maybe even mystical. For people that want to go fast, this is what dreams are made of.

August 11th, we drove onto the salt at 7am. We're here, now what? Being rookies, we had no idea, which line to be in or where to go. A veteran racer, Jim Bickford, who I had met on the Internet, took us under his wing. Les and Jim have been racing together for a long time, Les also rides Jim's bike. We set up our pit, that's right, chairs, table, sunshade all were packed in the trailer and are must have items. Ground cloths have to be placed to help preserve the salt. At this point I realized we needed a way to get the bike around on the salt but all we had was a 12' enclosed trailer. We had planned on using the truck but the bike was so low that it would "high center" on the tailgate. Oops, rookie mistake number one.

Les wanted to check the bike over prior to going to tech. He was going to check every bolt on the bike; the first bolt he checked was loose. This is not the way to gain the rider's confidence. The more bolts he

David and David and Tom assembling an engine

checked the better he felt. When he was done, he again had a good feeling about riding the bike. We then trailered the bike to tech inspection. Now we find out if they read the same rulebook I did. Four hours later, it is our turn to be scrutinized. Up to this point, each bike was taking 45-50 minutes to get tech'd in. The first comments were "I haven't seen one of these in 20 years". We were getting a lot of attention by now, everybody that came by related a story about having a CBX or about their buddy that had one. Ten minutes in Tech and we were done, not one complaint or suggestion from the inspectors. This was a big relief. The first smile in two months escaped from my mouth.

August 12th, all tech'd in and ready to run. We wait in the staging lanes for several hours, moving slowly to the starting line. Les had warned me, first time runs often end in early turn outs or blown engines. "Don't be disappointed if it does not make a full run, we got all week." Finally it's our turn; the starter walks up to the bike and rider. He discusses track protocol, track conditions, and emergency procedures. The starter does this with every rider regardless of experience. The starter gives us the O.K. to start the bike. The bike roars to life, it sounds good. With the tall gearing, Les has to rev the bike and feather the clutch to get off the line. First gear winds out, shift to second, third, fourth and into fifth. We scramble into our chase vehicle and tear off down the return road to retrieve the bike and rider. One of our goals was for the bike to make it to the end of the track in one Piece: it did. Over the CB radio we hear the mph, 149.075, I had hoped for more but I'll take it. When we get out of the truck, Les is shaking his head.

"This ain't gonna get it, it's got a violent shake in it at 149," he said. "It's got more in it but it can't get through the shake."

Another bit of information was that it was only making five pounds of boost. His animated actions and sounds took the edge off the problems. This run qualified us for a record--the bike now goes to impound. While in impound you get 4 hours to work on your bike. We tightened the steering head bearings, added some air to the forks and the front tire, pulled the bars back some more, and make a turn tighter on the waste gate screw. Tomorrow we will try to backup our 149 and set a record.

August 13th, my birthday, the salt opens at 6 am for record runs. By 7:45 we are at the line talking with the starter. The second run started out the very same as the first run, first gear, second, third, fourth and finally fifth. The voice on the CB crackles; Les Ranger riding bike 606, 164.238. Yes, this is more like it, this is fun! My wife said, "You haven't smiled this much in the last ten years". When we get to Les, he is all smiles, "What a ride, that was fun!" Our two run average is just over 155 mph, setting a new record for our class. For now, it's the long tow back to impound.

On the 13th of August, I got two birthday presents, first a Bonneville record and second the opportunity to tear the cams out of the engine so they can verify displacement. An extra pair of hands is always useful, and luck was with me as Richard Horowitz, a friend of Mitchel's, showed up. Richard was on his way back from Sturgis going home to Las Vegas. He rolled up his sleeves and jumped in to help. Pulling the cams is done in impound, 100 degrees, no shade and salt blowing everywhere. Giving up is again looking promising. With the cams out the tech inspectors fill the cylinder with ATF through the spark plug hole. They then turn the engine over by hand; the amount of ATF displaced times 6 equals your displacement. They measured us at 1140, well below the 1350 limit. Once the displacement is certified, they put a lead/wire seal between the case and the cylinders. Provided we don't break the seal, we won't have to do this again. The record is certified and Los Leos is in the record book at just over 155-mph. Now all we have to do is put the dang thing back together, hopefully keeping the salt out.

The 14th of August, Mitchel's birthday, we can't set a record today but we might qualify for a record run tomorrow. Another turn on the boost screw and into the staging lanes we go. Same as the day before the bike takes off, running straight and true. Bike 606 on the short course, 174.087 boomed across the CB. Where was the guy that said a CBX can't go fast? Imagine he had the nerve to tell me I was wasting my time. Back to impound we go.

August 15th, a good day for Los Leos to set another record. Each day more people break their toys and go home. It is now easier to get to the start line. Anticipation, anxiety, nervousness sets in. Can it do it a second time? The starter waves Les down the track. Bike 606, 175.989 in the mile. Yes, Yes, Yes another record, 175.038!!! This ain't too hard. At the end of the track, Les is jumping around, everybody is hugging each other. This is what it is all about. The bike is running 13 pounds of boost and turning 11000 rpm, but we have run out of gear. Jim has a 19 tooth counter shaft gear back in the pits, let's do it. We put the gear on and get back in line. At the line, we fire the engine, a faint chirp is heard, but it fades away as the bike warms up. The starter gives us the lane, Les blasts off. The voice on the CB shrieks, bike 606 177.145 in the mile. When we catch up to Les he gives us the bad news, the head gasket is gone. This is it for the big motor, our toy is broke. The bad news starts to sink in, the Team gets quiet, we load up the bike and go back to the pit. Like the loss of an old friend we mourn for the engine. Five minutes later, we start taking it out. A decision has been made to put in the stock engine we brought along as a spare.

The 16th August, a visitor shows up, Pete Ruff. It's been a long week and a friendly face is like a breath of fresh air, much appreciated. By 11:30 am the engine swap is completed. Realizing the stock engine will not perform as well as the big engine, it's now time for just fun. Our 22-year-old son, David wants to get his competition license and this engine will allow him to do it. This is a difficult decision to let him ride on the salt. He attends a Rookie training session; we borrow a set of leathers and get back in line. Since this is his first time down the salt we start him off slow, keep it below 6500 in fifth. The first run netted him a 117 and a smile from ear to ear. Next run, 7000 rpm and a 132-mph time slip and his first competition license. 8000 rpm on the third

Rear sets in place

Car was built in one car garage with car in it

run was good for 144 mph, not enough for the next license. The bike still has more in it, but a rainstorm blew in and our fun was cut short.

August 17th, 2000, with a grin from ear to ear and a turn on the boost screw, it's time to get serious. "9700 is the limit, no more, do you understand?" These were my instructions to David. The next sound heard over the CB was "Bike 606, 155 in the mile." All 105 pounds of 22-year-old kid was excited when we got to him. "Pumped" is not enough to describe his pleasure. Let's go back and do it again! At the starting line, the bike once again roared to life, but this time it was making a little more noise than it had last run. It wasn't a rod, cam chain maybe? Should I let him make the run? Does it have one more run in it? A few minutes later, "Bike 606, 156 in the mile" roared across the CB. Screams of joy echoed through the cab of the truck on the return road. Our toy is again sick, let's call it a day, and go back to the pits.

August 18, we have exhausted our supply of engines and the week is at a close. What a week! What an experience! Six months of hard work, one week of non-stop excitement. As I write this I am reliving each day, each experience. For each experience I relate, there are five more in my mind. The smile I now wear may be permanent. It's been there for about a week now. Will we go back-I don't know. Can we go faster--yes! To all the people who helped Los Leos, THANKS. In life, it's not the quantity of friends, it's the quality of your friends that counts. Whether it was with parts, advice, words of encouragement or cheap labor, they made a difference! TIM'S, Red Line Oil, Progressive Suspension, Stubbs Cycle, KOWA, all believed in us. Many relatives and friends also helped. Without the help of these fine people this dream week at Bonneville would not have happened. Thank you. For additional information:

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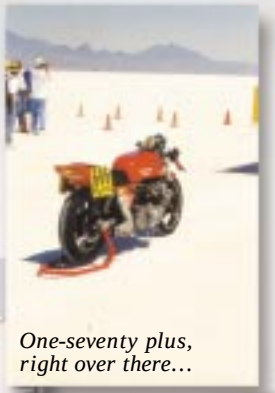
Back to Bonnev

One CBX, 8736 hours of work

Tom and David with 606 on the Salt



One-seventy plus, right over there...

David at the long course start line

David and Tom putting in hour 8739

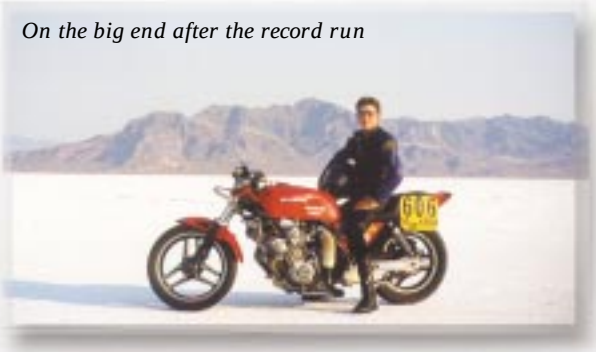
At the ready!

*T*here's an old saying among Landspeed Racers, "If it was easy, everybody would have a 200 mph Pinto". After Bonneville 2000, I was not sure if I wanted to go back. Could we do better? Would we do worse? Would somebody get hurt? Were we just lucky ? These questions and a thousand others were bouncing around in my head for months. Once the decision was made to go back, Mitchel immediately got on the phone and talked to our sponsors, we were going racing. Our goals for 2001 were to go faster than last year and raise the record, or break the thing trying.

The engine would be different this year. A decision was made to run higher compression and less boost to give the bike more off boost performance. For pistons, we decided to go with the 1147cc Wiesco kit from TIM'S.

story continued on page 16

ille!



On the big end after the record run

T-minus five and counting

Pete and David talking with a race fan

L-R, Good friend and helping hand Richard, David, and Tom

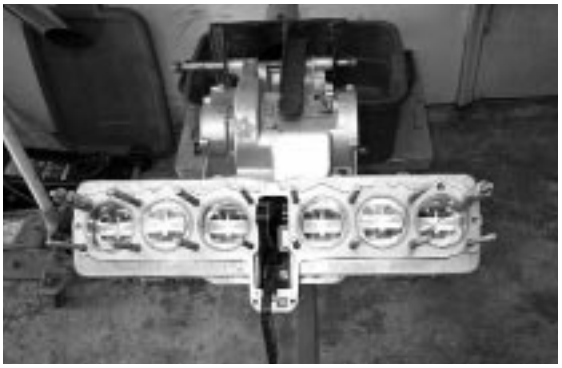
David and Pete putting in hour 8745

Michel, David and Tom awaiting starter's orders

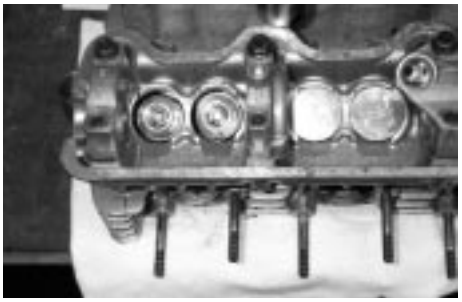
David and the Salt Flat he owns

Taking off on the record run

story continued from page 12



These are very nice pieces and the kit is first class. Vance and Hines bored the sleeves and O-ringed the cylinders. I reworked the head, smoothing out the castings, removing the factory tooling marks. Mike Martin came up with a set of Megacycle "Turbo" cams. Compared to stock cams, these cams have less duration and overlap and a little more lift. They are very "scary" as they have steep ramps and very pointy lobes. Along with the cams, Mike sent some shim under bucket lifters. This was my first experience with "shim under bucket" lifters and was quite taken aback by it. It took me a day to shim the valves. During the head assembly, I noticed the exhaust lobes were hitting the casting. A quick call to Dave Severns verified that the head needed to be "relieved" to allow clearance for the exhaust lobes. The head had to be disassembled, ground,



Head ground for exhaust lobe clearance

cleaned up, clearances checked and re-assembled. The final addition to the engine was a set of Falicon "knife edged" rods replacing the stock pieces. Falicon rods were chosen because, stock rods are too weak and Carrillo rods were extremely expensive and we could not get them to give us a delivery date. The engine assembly went smooth this year, no broken bolts or last minute surprises.

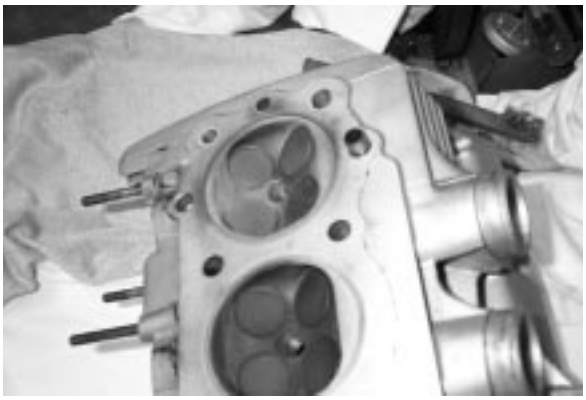
We also had to get a different turbo. First we tried to get a Garrett T03/04 turbo to replace the RaJay we used last year. There were enough physical size differences that it would not work. The scrolls of the turbine and compressor hit the frame rails. We then tried to get the same setup as last year, a RaJay F40. RaJay parts are getting scarce so finding a turbo was difficult. David Severns again came to the rescue, he had some parts for a F40 he was willing to part with. I found some more parts in Shreveport and retrieved them. Carburetors were yet another story. We purchased two Zenith carbs and an S&S Super "B". Aluminum spacers had to be made to adapt the various carbs to the turbo. At the last minute, the fuel system was garnished with a handmade fiberglass velocity stack.

We thought that detonation would be our biggest problem. Since our plan was to run 10:1 pistons and 15 pounds of boost, cylinder pressure and temperature would be high. A methanol/water injection system was added to help cool the engine and prevent detonation. A 50/50 mixture was used. The system we came up with consists of a water reservoir, an inlet and outlet check valve and an injection nozzle. The inlet line is _ inch tubing and the inlet check valve spring pressure was 1/3 pound. The outlet line was 1/8 inch and the outlet check valve spring was 5 pounds. The larger line and low spring pressure on the inlet would allow quicker pressurization of the tank.

The water tank used manifold (boost) pressure to inject the methanol/water solution. The outlet line check valve would open when manifold pressure exceeded 5 pounds. The injection nozzle was a .017 jet. An EGT monitor was added to help identify detonation. Additionally, an Air/Fuel ratio meter was added. The A/F ratio was to be used as an aide to keep from "leaning" out the fuel

turbo vs. stock '79

mixture, causing extremely hot cylinder conditions. The A/F meter proved useless as the bright sunlight made it impossible to read the gauge.



Lean, with denotation

Gearing was a big concern since last year we had ran out of gear. This year we had a 19 and 20 tooth sprocket made for the bike. The new gears were made by cutting the center out of stock 18 tooth gears and inserting them into industrial sprockets, which had the centers removed. The cutting operations were done on a lathe, to keep them straight and square while also allowing them to be a pressed fit. The inside edges of the press fitted pieces were beveled and TIG welded together.

Welded 19 tooth gear

The engine roared to life on the first try. We heat cycled the engine several times, increasing the amount of heat each time. After about 30 total minutes of running time, we changed the oil. There were a lot of shavings, sealant and lint in the pan. In addition to that, the screen was partially plugged. I encourage everyone to occasionally pull the pan and look at the screen, maybe every third or fourth oil change. We cranked it back up and ran it for 20 minutes, varying the RPM to complete the break-in.

The last item to build was a small trailer to drag the bike around on the salt. Last year we borrowed one from a friend. The trailer was made to take apart and store in minimal space. Mitchel brought the big trailer over and we loaded everything, we were about to go racing.

In any project, there are a million unanswered questions, the following question was the one that was bothering me the most. Who would ride this thing? It was a very hard decision to allow my son, David, to ride the bike.

Mitchel and I discussed it several times. My wife and I discussed it several times. When you take a bike that was designed to go 140 and go 175, you never know what to expect. Are the wheels rated for that speed? What if the engine seizes or throws a rod? What is the condition of the wheel bearings?

Last year he went 150+ many times and all went well, he put in a lot of time working on the bike, it was decided, he would ride.

We arrived at Wendover at 2:30, checked into the hotel and then out to the salt. The salt was beautiful, just like I remembered. We dropped the trailer off at the "end of the road", the spot where the salt starts. Everybody has a place where they feel they belong, I feel that way at Bonneville. As I said last year, Bonneville is a mystical place. I have seen the sun rise at Bonneville many times, it still stirs my soul, warms my blood and calms me like nothing else I've ever experienced.

Friday, up at 5 am and out to the salt. We hooked up the trailer and were #7 onto the salt, we were trying to get a pit on the trackside of the pit. We failed to get a pit trackside, they were already taken by racers that came out early to help set up the track. After unhooking the trailer we put down a ground cloth, set up the shelter and unloaded the bike. David started the ritual of checking every bolt on the bike for tightness. Tech opens at 11 am and we wanted to be first in line. When we got in line it was 11:00 and we were back about 30 bikes. Each bike was taking 20-25 minutes. When our turn came, the inspectors fussed about our number plates being too low and covering too much of the rear wheel, they maintained that they were in violation of the "no streamlining" rule. They also wanted us to adjust our steering stops. Back to the pit to make changes, 30 minutes later we are back at Tech. The changes are approved and now it's time to race.

Saturday morning we finished prepping the bike, mixed the methanol and water, filled the tank. Racing starts after the drivers meeting at 11:00. We got in line at 11:50, it was 100+ in the shade, but we were in the sun. We

made our first run at about 2:00, bike 606 on the short course, 155.462 mph.

The bike made it to the end of the course, David was all right, my fears started to subside. Since it was a shake down run, the speed was not important. Inside I was disappointed by the speed but I was determined to go slow and easy. Talking to David, he indicated the bike ran straight but it had only made one pound of boost and the EGT was 1130 degrees. We pulled the plugs, they looked good, in went a fresh set. We measured the amount of methanol/water used and refilled the tank. A turn in on the waste gate screw and we were off to the starting line. Several hours passed before we got to run again. When it was over, 158.569 mph. Boost was up to three pounds, EGT still 1130. That was all for the day, they chase you off the salt at dark and it was now dark.

Sunday, with the smell of nitro in the air, it had to be a better day. We turned the boost screw in two turns, checked fluids and got back in line.

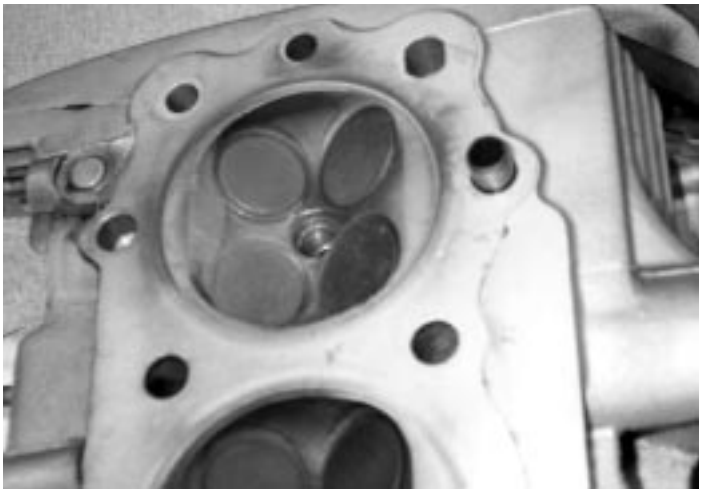
Bike 606, 163.016 on the short course. David indicated that boost was now at six pounds, EGT still 1130. We were getting faster but not equal to my calculations. Back in the pit we changed plugs, measured fluids and scratched our heads. Another couple of turns on the boost screw and away we went. Our last run of the day netted us a 166.416 time slip. At this point,

I was concerned. Something was being over looked, why aren't we going faster? When I looked at the data from last year and compared it to current data, I should have been very happy. We were going faster than we had last year at this point, but I was disappointed. I had set some high expectations and we weren't getting them done. The high point in the day was when Richard Horowitz showed up in the pits. Richard helped us wrench last year and we were glad to see him again.

Monday 8/13, my birthday, a good day to go fast. I had stayed up most of the night trying to figure out why we weren't going faster. I made a list of items to discuss with the Team and other racers. It was decided to pull the clutch. It turned out to be a good decision. The steel plates were glazed over and slightly burned. We scuffed up the steels, then David and Richard reassembled the clutch. We checked the plugs, refilled fluids, put the bike on the trailer and got back in line. On the short course, times are measured between the 2 and 3 mile marks. You get a speed at the 2 _ and the 3. These two mph readings tell you if the bike is still accelerating, a nice piece of information. Bike 606, 171.649 in the quarter, 174.380 in the mile, boomed the timer. Yes, Yes, Yes, now we are racing. It was late, we were happy, time to celebrate, we were in the hunt. Just rebuilding the clutch was worth 8 mph. The final surprise of the day was when Pete Ruff showed up at the hotel that evening.

Tuesday 8/14, Mitchel's birthday, a good day to qualify for the record. Since it was late when we completed our last run on Monday, we had not had time to look the bike over the previous night. This morning, we noticed there was a lot of oil blow-by coming from the catch can. We determined the problem was the oil from the hole in the end of the alternator shaft was being entrained into the vent stream. We took a small sheet metal screw and inserted it into the hole, stopping the flow of oil into the vented cavity. Since we do not use an alternator, we do not need this oil flow. Again we checked everything and were off to run again. To qualify for a record, you need to exceed the previous record by .001 mph. Our record was 175.038. Once again the timer booms out, Bike 606, 173 in the quarter. It seemed like we waited years for the next words from the timer. Bike 606, 175.861 in the mile. Awesome, we were now qualified for the record, the bike now needs to go to impound. On the way to impound, David relates to me that the turbo is only making 10 pounds of boost, EGT 1230. In addition to being in impound, the 175 mph run qualified David for a Class "B" license.

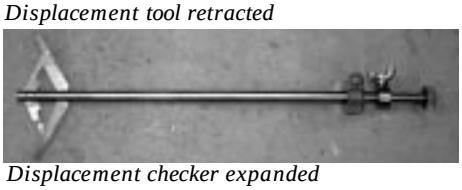
Wednesday 8/15, this is like shooting fish in a barrel. Record runs are held early in the morning so out at the track at 6 am, in line by 6:30, running down the track by 7, leaves you little time to tinker with things. It's now time to prep the bike. Realizing the turbo is not as strong as we would like, we turned the boost screw in all the way. About this time, we noticed a kink in the water/methanol line, this would explain the high EGT last run. We frantically worked to replace the line. We had to rush to get in line. The next thing we heard was, bike 606,



Destruction to head - a Bonneville tradition

177.052 in the quarter, 177.334 in the mile. Woo, Woo, a new record! Back to impound to have the displacement verified. Last year they filled the cylinder with ATF and on the next run, we blew a head gasket. This year, Mitchel purchased a "displacement checker". It is a "butterfly" device or rod that fits into the cylinder through the sparkplug hole. Once expanded, it can be marked, extracted and reopened to the mark and measured. Last year the disassembly, inspection and re-assembly took 8 hours, this year, 45 minutes. They verified our displacement and sealed the engine cases. We are officially in the record book again, 176.597. Having exceeded 175 mph, we have the option to run the long course, 5 miles. I have never thought a turbocharged CBX could or would hold together for 5 miles of wide-open throttle. A run on the short course takes about 1 minute and 50 seconds from start to stop. On the long course, David would travel the last 3 miles in just over 1 minute, about 20 seconds a mile.

Displacement tool retracted



Displacement checker expanded

Since we were at our boost limit, and wanting to go faster, we decided to try the long course. The starter gives David the course instructions, they are different from the short course. They discussed emergency procedures, as this is his first time on the long course. The Starter waved David down the track, 163.790 in the quarter, 167.140 at the 3, 175.687 in the middle mile and 175.790 out the back door. Imagine 4 miles in excess of 160 mph, two miles in excess of 175 mph. The back tire had lost traction several times and David had to roll off the throttle to get hooked back up. It was not enough to qualify for a new record and it being late, we called it a night and put the bike in the trailer.

Thursday 8/16, another old Landspeed saying, "Experience is directly proportional to the amount of equipment destroyed". We arrived on the salt early to prep the bike. Upon pulling the plugs, we noticed #1 plug looked different than the rest. It appeared to be coated with something. This can't be good, but how bad is it? We pull the exhaust pipe for that side, the inside of #1 pipe is coated with this same dull aluminum substance. All that is left is to pull the head and find out what is wrong. Once we get the engine apart, our suspicions are proved. We have "washed" out the head and burned a piston. The aluminum on the plug and in the exhaust is from the head and piston. The aluminum in the area between the exhaust valves is gone. You can see the inner edges of the valve seats. Game over, do not pass GO, do not collect $200.

Bonneville is a harsh teacher, each year the hopes and dreams of hundreds of people are scattered on the salt. This year there were over 400 entries and more than 1500 runs made. About six out of ten people go home with broken toys. Less than one in five go home with a new record. To compete at Bonneville is a great experience. In the end, we achieved all our goals, making it a successful endeavor. I wish we could have gone faster. You can not

Burned piston

story continued on page 24

story continued from page 19

imagine the second guessing I have been doing about this years effort. I am already thinking about different combinations to try for next year. I don't even know if we will go back next year. What does it take to go fast at Bonneville, I don't know. I want to thank my partner Mitchel and my son David for giving me one of the greatest experiences in my life. I am very fortunate to have such a good friend and to be able to do things with my son.

In addition to the Team, there are many people to thank individually. Tim and Betty Ware helped make this happen again. Parts from Mike Martin were appreciated. Many thanks to Jerry Sutton and Stubbs Cycles. Tim Kerrigan, the owner of Red Line Oil. KOWA Tools and Progressive Suspension all pitched in with quality products. David Severns put up with many phone calls, e-mails and helped us get hard to find parts. Richard Horowitz and Pete Ruff were welcome sights around the pit. They turned wrenches, helped with the bike, provided moral support and did whatever was needed, thanks guys.

Tom Neimeyer,
ICOA# 4393

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TECH TIP REPRINTS

Now available from the ICOA is the complete reproduction of the Tech Tips taken from the CBXpress. Entitled the "Tech Tip Chronicles", this compilation of Tech Tips have been cleaned-up for easy reading and include eight tabbed and index sections with all illustrations, and come three hole punched. Tech Tips Chronicles can be purchased as a full set or individually. You can pay for these reprints with a check, MasterCard or VISA. Checks should be made payable to the ICOA and sent to Mike Martin at the following address. You can also speed things up by calling him after 6 pm EST.

Michael D. Martin
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Woonsocket, RI 02895
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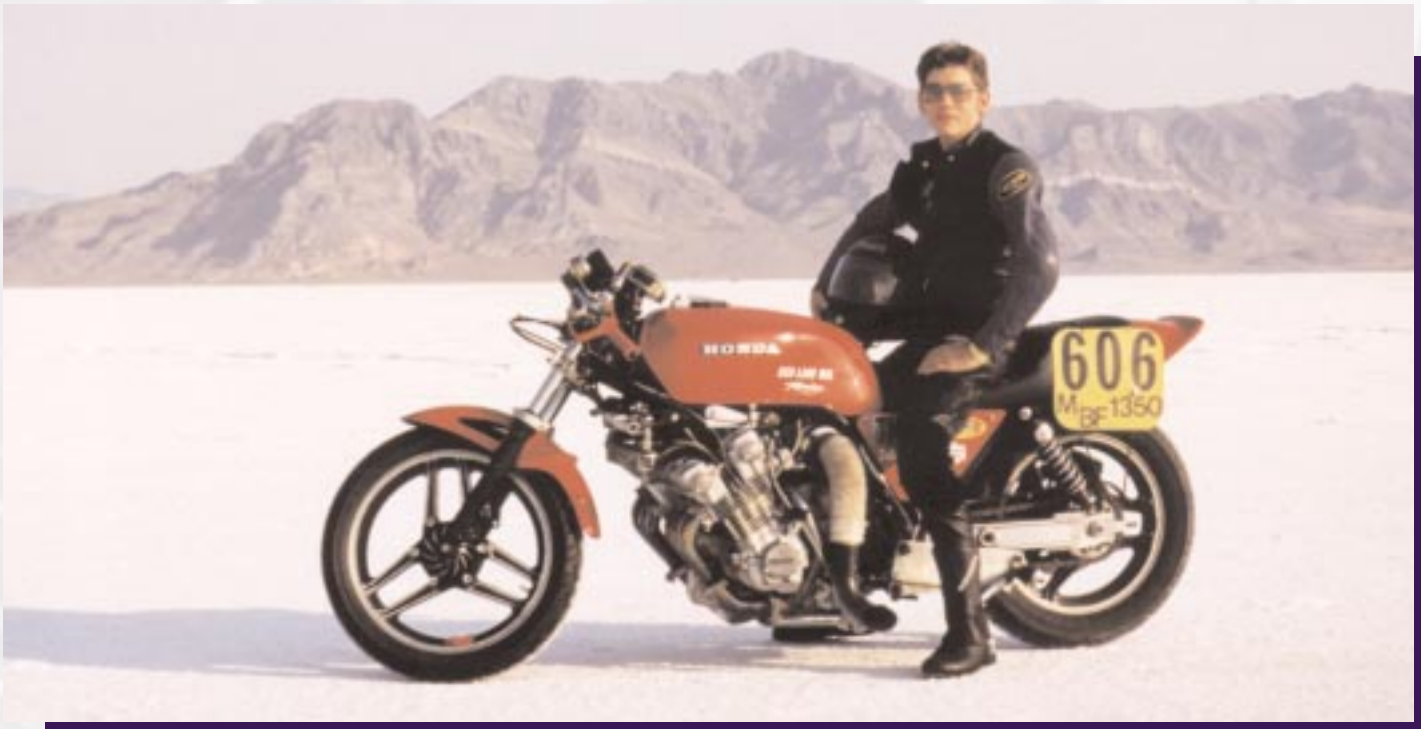
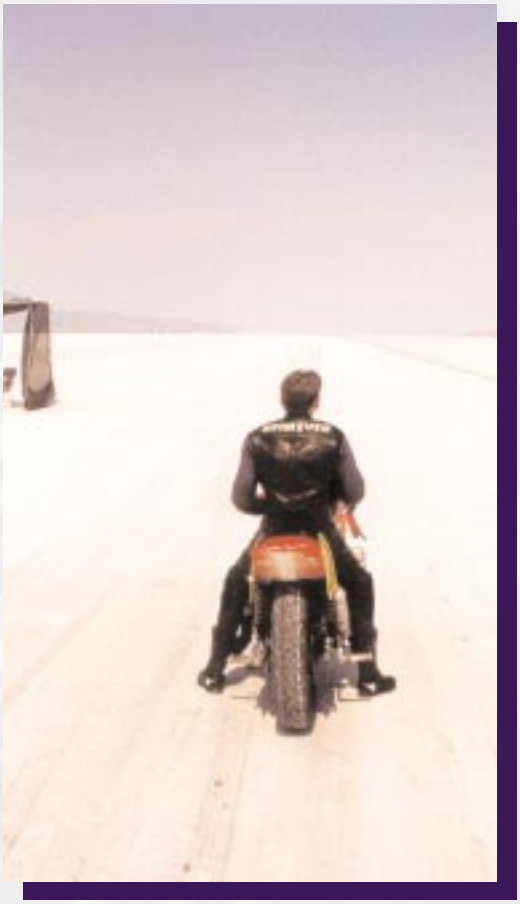


Back to Bonneville!



"Everybody has a place where they feel they belong…"

-Tom Neimeyer

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We want to have the full international diversity of our membership represented in the CBXpress, and encourage international and domestic members alike to contribute a photo, article or letter.