

A New Year, A New Look!

Around the end of November the decision was made to expand the Fuel Injection Lab. It was an easy decision to make as the injector business just keeps growing. The question was where and what needed to be done. Jim decided to move the “Tear Drop Trailer” shop to our facility at 30 Gasoline Alley. This move freed up the old paint booth area giving us enough space for our expansion.

The core room, which was located behind the Injector Lab, was maxed out. We already had core bins for 684 different injectors and still had more to be put into inventory. So it was agreed that it would be one of the areas to be moved. There would also be enough space in the new room to move the injector-finishing table and give me room for an office.

Our first step was to give the floor a coat of paint, clean the walls and put a red stripe around the room to give it some color. Terry handled getting this done. A job well done! Cabinets were ordered to form walls for my office, Peggy got me a desk and I got the shelves moved from the old core room with help from Stan. We got new part bins mounted on the wall for o-rings, pintle caps and filters. Added some new shelving to keep fuel rails and TBI units stored on.



We now have the space for over 800 different injector core bins, which seem to be filling up every time we get in a bunch of cores. We proudly refer to this room as the “clean room”. All the injectors stored here are ready for the reconditioning process. The new room also gives us space to store our trade show booth and supplies.

The old core room got a couple of new workbenches, some new cabinets and a new agitator wash. This area is now known as the “dirty core room”, although Stan keeps it extremely clean. This is where all the dirty cores come in and are sorted. We made some modification to the media blaster to help control the noise and dust in this room also.



Doug's new office



New workbench in old core room



New core room w/ core bins

Fuel Injection Expansion, (cont. from page 1)

The Injector Lab got a new stainless steel workbench and some more cabinet to store completed sets of injectors in. The bench was a must because we added another ASNU machine, which bring our total to seven. The cabinets were needed because our inventory keeps expanding. We now have over 300 different sets in stock ready to go out the door.



Now that the first phase of expansion is complete, we have added one new ASNU machine with plans to add more in the near future. We have also added more than 100 more core storage bins and still have room to add more as needed. These factors combined with the addition of another full-time employee will allow us to ship more injectors on a daily basis and serve our fuel injection customers more efficiently.

Thanks to all of you for supporting Linder Technical Services thru the years. This expansion would not be possible without you!

—*Doug Garriott, The Fuel Injection “Wizard”*

All of the expansion was in place for the Performance Race Industry “Gasoline Alley” tour on December 3rd. (For more information on the PRI tour, go to www.performanceracing.com) That night on the tour, LTS was visited by hundreds of racing enthusiasts, part manufactures and suppliers. The high point of the evening was a visit from the owner of ASNU, Phil El-lisdon, and the U.S. distributor, Sam Jackson. Phil came in town all the way from England for the show and had told Sam “We must go see Linder’s operation”. They spent the evening in the Injector Lab with Doug, Greg and Tim discussing the “Reconditioning” process. They were very impressed with LTS shop and our crew. Phil even sent one of his engineers out the next day to see the Injector Lab.



Help us welcome our newest employee, Stan Kratowicz

Stan started helping out part-time in the fuel injection lab back in November. At that time, plans were already in the works to expand the fuel injection lab which meant producing more fuel injectors and needing additional help. Stan proved in just a short time that he’s not only a quick learner, but a very hard worker. So, once the expansion was complete, he joined the LTS crew as a full-time employee on January 1.

Right now Stan is still in training. He is working on learning the different types of injectors (example: Bosch vs. Multec) and sorting cores into the correct bins. He is also working on the “finishing” process where the injectors are packed, o-rings are lubed and capped and finally boxed and ready to ship. Eventually he will progress to flow testing and matching injector sets as well as testing injectors on the current load bench.

Just like the rest of the LTS crew, Stan is a “car guy”. He has been a member of the Indy Hi-Winders Car Club for 4 years. He owns a 1986 Chevrolet Monte Carlo with a 355 engine and when he’s not busy with his three children, he likes to take his Monte to the drag strip.

Computer Based ASE Testing



This is a press release sent directly from ASE:

We are pleased to announce that during January and February 2004, ASE is expanding certification opportunities by offering computer-based testing (CBT) in the following areas:

Automobile Technician A1-A8

1. Advanced Engine Performance Specialist L1
2. Automobile Parts Specialist P2

These tests will be delivered at secure, proctored computer-based testing centers throughout the U.S. to ensure the security and reliability of the ASE tests. They will not be available over the Internet.

Computer-based testing will create more opportunities each year to take ASE tests, allow the choice between paper and pencil testing or computer-delivered testing, and provide unprecedented flexibility in scheduling.

The CBT test fees are: Registration fee: \$68 per person Test fee (A1-A8, P2) \$35 per test Test fee (L1) \$70

The registration window is January 5-9, 2004. The tests will be conducted between January 20-February 15, 2004. The only way to register for the ASE CBT format tests is by calling 1-800-525-6929 beginning January 5, 2004.

Please visit the newly redesigned ASE website www.ase.com/cbt for more information and a demo CBT tutorial to assist in navigating the computer-based testing platform. FAQ's and a complete listing of the CBT test centers can also be found there.

Analysis from the "Sleuth", Michele Winn



This month's case study is a 1989 Lincoln Town Car. Normally I wouldn't take in a vehicle that old, but the owner was an extremely nice older gentleman and he was more than willing to leave the vehicle with me for as long as needed. His complaint was a misfire or chug at cruise speeds and light load along with a very intermittent stall at lights, but it would always restart.

I took the car for a test drive and couldn't verify either complaint. It ran great, had lots of power and never stalled. I pulled it into the bay and popped the hood only to find what I had already suspected. This vehicle had previously been in at least one other shop and had most of the ignition components replaced to include: spark plugs, wires, distributor cap, rotor and distributor. Well, I can't say that isn't a normal occurrence around here. Customer takes a vehicle to multiple shops, spends tons of money without any results and ends up in our shop. Sound familiar? Remember, I was trying to "help" this nice older gentleman.

Since the test drive went fine, I decided to hook up a current probe and my Fluke 98 to the ignition and let it run inside the shop. I set the Fluke 98 on "flight record" mode which means it will continuously record until you tell it to stop. My idea was to let it run, do a few other things around the shop and if I heard it misfire, skip or start to die, I would stop the recording. No luck. It ran for almost 2 hours with no problems. I had run out of other things to do, so I had to take it for a test drive and invest my time and money into this car.

With the Fluke 98 placed in the passenger's seat, I took off down the road.

Continued on back page

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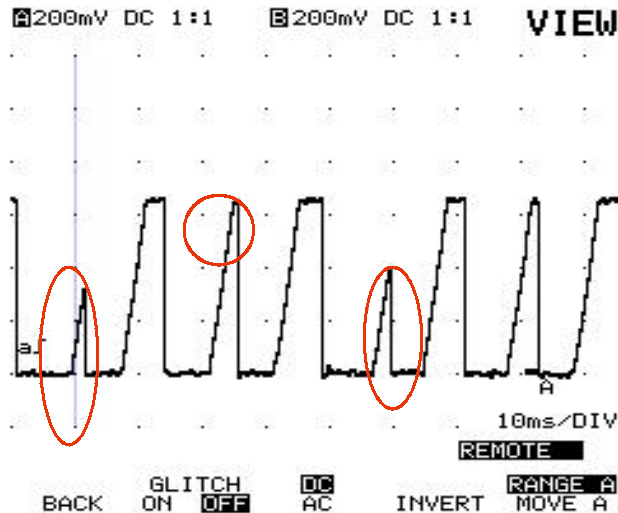


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Analysis from the Sleuth (cont. from pg. 3)

Approximately 10 minutes down the road I started to notice a very slight misfire or chug as I went from a steady speed to accelerate. The farther I drove, the more pronounced it became. Finally, a red light caught up with me. I happened to glance over at the Fluke 98 to see the pattern below. At the same time, the car stumbled and acted like it was going to die.



Notice that about every other time the coil fired, it didn't reach peak amperage or if it did, it was for such a brief period of time that you see the sharp point at the top of the pattern. This indicated to me that the coil was able to produce, but was being limited or not being given enough time to do so. This is the function of the ignition module.

The module was easily replaced without having to remove the distributor. A few minutes later, the car was back on the road running great! If only they were all that easy, right?