

Networking

Newsletter



Tech Training



Day time Training Classes!

Two years ago we decided to offer some of our training classes during the daytime only. Needless to say, we discussed this option with many area shops and the local industry responded by saying "it would never work". Last year we increased the daytime classes to include all level one and level two training sessions. This year we added the rest of our classes and only offer daytime sessions for all local Indianapolis training.

The response has been amazing! First I thought that some would refuse to attend daytime classes, but much to our (pleasant) surprise, all seats were full early in January!! I felt and honestly believe that it is time we all think about this topic and work on our schedules to allow this to happen. First of all, we offer 5 eight hour days plus our three day conference. This will total over 50 hours of technician support training. Secondly, the technician now comes to class refreshed after a full night's rest, enjoys a donut and coffee with us and has greater retention during the class. (Compare this to the old way of attending evening classes after a hard day at work, tired and beat up after what could have been a very bad day!) Special thanks to all the area shops that supported (even if reluctantly) our change to this daytime only training.

Diesel Training at LTS?

Yes, you read the title correctly. LTS just conducted two 8-hour classes on the 7.3 Ford Power stroke Diesel, taught by Bruce Amacker. This is a first for LTS, but had been requested by several of our area shops. We had many technicians attend who were not from the Indianapolis metro area and had a few technicians from other states; Illinois, Kentucky and Ohio.



I have conducted many training seminars across the country and talked to service technicians who had attended Bruce's classes and gave him rave reviews. Bruce showed up with a trailer that housed a complete Ford Power Stroke engine on a stand along with hundreds of pounds of visual aids to go along with an awesome PowerPoint slide presentation and first class manual. After two days of intense training, the reviews from our guys were great as we expected.

Bruce's company is called Turbo Training and more information is available at:
www.turbo-training.com.

Next up is the "Dutchman" himself, Mac Vandenbrink, for a dynamite class on Ignition System Service. Mac has been a favorite of our local group for many years and we're looking forward to having him back once again.

-Jim Linder



Analysis from the “Sleuth”, Michele Winn



This month’s case study is a 1993 Chevy Lumina equipped with a 3.1L engine and around 140,000 miles on the odometer.

Customer complaint is the vehicle idles very rough when hot, sometimes dies at idle and is hard to re-start when hot. After sitting overnight or all day in the parking lot at work, the vehicle will start and run well until it warms up again. The check engine light comes on at various times, but was off when I drove the car into the bay for testing.



This month’s case study will be a little different than you’re used to reading. For the next several months, Jim and I are doing an experiment on the different methods that a technician could use to help identify and fix a broke car. I will try to show you several things:

1. What options are available
2. How much time was spent diagnosing the problem using each option
3. Did it actually fix the car or did I have to back track and try something else?

Picture #2 shows the view under the hood. Many of you are already suspecting the fuel injectors could be causing this problem as they are a known pattern failure item. As I turned to grab a piece of test equipment, I tripped over Doug who was standing close by drooling over the prospect of another set of injectors and chanting “it needs injectors” in my ear. Let’s refer to this option as: Pattern failure. I have to admit that I gave into the peer pressure and quickly did a current ramp check of the injectors, but everything looked fine. Total time spent: 10min. (this included finding power source for my dead Fluke 98). Not much time spent, but I don’t know what’s wrong with the vehicle yet. I sent Doug back into his room with his head hung low and picked back up where I left off.

I grabbed a Tech-2 to scan for codes (2 minutes). In this case, the approved GM scanner for a 1993 model year vehicle would be the Tech 1. However, I prefer the Tech-2 when I can because I can view more data on the screen. I found a Code 32 (Digital EGR Circuit Fault). Let’s assume I don’t know what the problem is and I need some more information. Let’s explore my options:

- € **Pull a flow chart.** For this I would use Motor/Alldata online or Mitchell online. LTS subscribes to both.
- € **Check on iATN** for any posts with similar problem. In order to be able to search archives, you must be a sponsoring member, which we are. Basic membership is free, but to have access to all areas on the website, you must be a sponsoring member which costs \$10 per month for an individual or \$20 per month for a shop.
- € **Pull out a reference manual such as AQR** (Automotive Quick Reference) and look through it for this code or symptom. AQR produces several different manuals. More information about these manuals will be available soon on our website at: www.lindertech.com and choose books, manuals and software from the home page.
- € **Call Identifix** or a similar hotline. For more information about Identifix, you can visit their website at: www.identifix.com and click on product information.
- € **Call someone** you think may have had a similar problem and ask them if they have any suggestions.

Analysis from the “Sleuth”, (cont.)

Let’s begin with the flow chart. I went into my office, jumped on the internet and went to motoralldata.com. In 4 1/2 minutes, I had a flow chart and wiring diagram in my hand. I spent another 90 seconds quickly reading thru the flowchart to see what tools and equipment I would need to do any testing. Another two minutes went by as I left my office, went hunting for the proper tools and made it back over to the car. Eight minutes have passed and I’m just now ready to do some testing. The flow chart only had 3 steps and within 2 minutes, I was told I had a faulty EGR valve and/or bad connection. In my estimation, 12 minutes (including time spent scanning for codes) isn’t too bad.

Let’s recap:

- € Pattern failure was the first option explored. Ten minutes were spent testing only to find out this was not the problem and more testing was needed
- € Flow chart was the next step. In this case, 12 minutes were spent, but it did pinpoint the problem
- € I didn’t look through any books, search iATN or call a hotline mainly because this was a fairly easy problem.
- € Talking to a friend turned out to be the fastest way to the correct fix, however, this system can be unreliable and at some point, Randy would quit taking my calls. After all, he can’t spend his entire day on the phone fixing cars for me :)

Let’s talk about what it took to fix the car. After pulling the Code 32, I used the bi-directional controls available on the Tech-2 and opened each EGR orifice while the engine was running to make sure the passages were clear and confirm the wiring was good. The problem with the car was indeed the EGR valve which was pinpointed by the flow chart. This is a picture of it removed from the vehicle.



The largest of the three orifices was fine, but the smaller two would stick open. The car would start and run fine first thing in the morning. Then, the customer would hop on the highway for 20 minutes, get off on the exit ramp (at which time the EGR would open) and when he came to a stop, the car would idle very rough or maybe die. The EGR valve opened, but the two smaller orifices stayed in the “open” position. Then, after it would sit all day or even overnight, they would eventually close and would run fine once again until the first time the EGR valve turned “on”. In the past, I have been able to clean many of these EGR valves by putting them in our large ultrasonic tank to clean for several hours. I tried cleaning this valve, but still had the same problem, so I ordered a new EGR valve.

The point of this case study is to help you see that there isn’t just one “right way” to diagnose a vehicle. As I discussed, there may be several different options and those will depend on what type of equipment and service information you have available to you. My hope is that after looking at several case studies in this manner, we may be able to:

- € Identify a diagnostic path that **consistently pinpoints the failure**
- € Recognize how much actual **time is wasted each day chasing proper equipment and/or looking for information**
- € Convince those of you who diagnose problems for free that there is a lot of TIME spent in many cases trying to diagnose a problem and this TIME should be charged for!

Next Month: 1996 Chevy Truck

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CONGRATULATIONS!



As many of you already know, the third AC Delco “Technician of the Millennium” contest is underway. Congratulations to our LTS webmaster, Mike McFarland, for being one of the 80 winners from Phase I. Thousands were tested in the U.S. and Canada during the first phase. We have heard from some who didn’t make the cut that scores of 92% and 93% were not good enough. Mike, along with the other Phase I winners from the U.S. and Canada, are ready for the next step. Phase II, which begins during the first week in April, involves diagnosing and repairing predetermined “bugs” on test vehicles. One finalist from each region (8 in all) will be chosen to compete in the final competition.

Mike isn’t the only one we’re proud of. Several of our fuel injector customers and many who have attended our training classes are also among the distinguished list of those who will be competing in Phase II.

**Congratulations to the Phase I winners and
GOOD LUCK!**