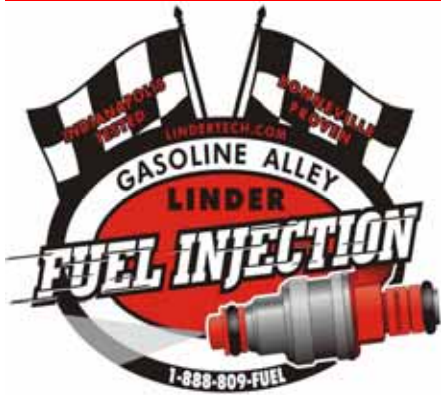


# LTS Networking News



## Linder Technical Services

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1st Quarter 2009

Company News: Jim Linder

This is the first newsletter for quite some time, I can't really say why the newsletter stopped, but it did! A year ago Michele Winn (who usually wrote the newsletter) broke some bones in an after hours event, and was off work for a few months. Then we got busy with other things, and the newsletter project got pushed aside. Now here we are a year later with a fresh start and a new look for 2009. So here's to all our friends and customers, thanks for all your patience.... So let's start with the present company news:

- Our three day Guru II class originally scheduled for February was moved to a new date in March due to the remodeling project going on in the main area of the shop, and by the end of February it was officially canceled due to lack of attendance. We may re-schedule the class for early 2010. It takes approximately 30 students to run this class and we think due to the economy the numbers were way down. Sorry for any inconvenience this has caused.
- Michele Winn no longer works for LTS after being here 9 years. She has left to work in a local repair shop and we wish her all the best.
- Our business plan has changed somewhat with the addition of "Bubbashot Rod Shop" moving into the main injector building. Fuel injection service will continue to be our main business as always but additional services will enhance the overall business structure.
- These additional services will include: Custom Fuel Injection Service, Ignition Systems and traditional Hot Rods as well as our existing Teardrop Trailers. Over the last couple of years each of these have grown into a viable service business.
- Our one week Guru class in July is sold out for 2009
- LTS will not hold an annual Technician Conference for 2009. Our conference center location has been sold and we can no longer have the dates we have planned on and used for the last several years. Finding a new location for 300 technicians as well as vendors is not that easy and is not in the picture for this year.
- Watch all our websites for upcoming information: [www.lindertech.com](http://www.lindertech.com)  
[www.bubbashotrodshop.com](http://www.bubbashotrodshop.com)  
[www.bubbastrailerpark.com](http://www.bubbastrailerpark.com)
- Our new newsletter will be in a quarterly format for 2009, and will be downloadable from our main website. We are looking forward to keeping you updated and informed again on a regular basis.

Thanks Again Jim Linder



### Words from the Wizard:

#### MULTEC II PORT FUEL INJECTORS



In 1999 General Motors started phasing in the Delphi Multec II design injector. The outside diameter of the Multec II injector is about ½ the size of the Multec I and has one flat side.

During the phase in period (1999 – 2000) GM vehicles could have been equipped with either of the two Multec designs. Since the injectors are not interchangeable it is important to know which design you have. This will require a visual inspection because the engine code (8th digit of VIN) is the same regardless of which injector was installed.

#### Some of the reasons given for the Multec II design injectors are:

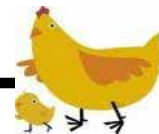
- The smaller design allows the injector to have a more versatile positioning capability in the intake manifold. This improves fuel targeting on the intake valve particularly on Siamese ported engine designs.
- The ball valve lift is approximately twice as much as the Multec I permitting wider flow ranges and improved contamination resistance.
- An improved fuel flow path increases spray velocity and creates smaller spray particles. The path also minimizes internal contamination traps.

Even though the reasons for the new design was to improve the Multec functionality, here are some of the problems we see with the Multec II:

- The fuel discharge area is not well protected from tarnish and carbon build-up. This may cause the fuel flow to decrease and the spray pattern to become distorted. On car cleaning may not restore the flow and pattern back to specification. It is also a good idea to perform an intake cleaning when servicing the injectors.
- Some have been known to stick open and flood the cylinder with fuel.
- The filter is sunk in the top of the injector. This can create a space where debris may linger and require longer rail flush time when doing an on car fuel system service.
- The pintle cap may come off during removal. These are available for LTS.

There also has been some concern regarding with the electrical connectors and condition called “Fretting”. “Fretting” is the rubbing motion that occurs between two surfaces. “Fretting corrosion” is the build up of insulating, oxidized debris that forms on the electrical connection. Vibration of the engine, injectors and harness movement are contributors to the fretting motion. Fretting corrosion is microscopic and nearly impossible to see. If the oxides create enough resistance in the circuit, insufficient current will be available at the injector to open it properly. This condition may come and go as vibration moves the contact points. This may show up as a PO200 code (Injector Circuit Fault). G.M. recommends that if you suspect this condition you remove the electrical connectors and apply a small amount (about the size of a BB) of dielectric grease.

# Networking News



## Mother Hen's House:

Well cool beans, I get to write something in each newsletter this year. So I have decided that I want to pass on a little news and a lot of recipes, so pass this newsletter on to the wife after you read it so she will have a new recipe to try each time.... Thanks!

Well Jim has given you about all of the current news for this issue, so I will just let you know that we are very excited about the business changes at **LTS** for 2009. We are going to miss not having a conference this year, but we will work on having a new place scoped out for 2010 and we'll hit the ground running. Actually what Jim did not tell you is we had a new place picked out and it was a bit closer to the shop and quite a bit larger and we were all ready to sign the paperwork in February and the big snow came (about 17 inches in 24 hours) and the roof caved in on this brand new building and we were back to square one and more than a little upset, you can imagine how the building owners felt, the building was just finished in April of 2008, bummer!

Well I said earlier that I was going to include a recipe in every issue, this will be something that has been tested in the Linder Kitchen and Bubba's approval for good taste, guaranteed !! This recipe is an **LTS** favorite and tastes great on a cool day!

### Bubbas Vegetable Beef Soup

1 pound of sirloin tips or chunks browned in skillet with a small amount of oil  
seasoned with lawry's seasoned salt (or tiger salt if available)

3 cups of Spicy V8 Juice (or regular V8 for a milder batch)

1 Tablespoon of worchestershire sauce

2 Tablespoons of soy sauce

3 Tablespoons of brown sugar

1 large can of stewed tomatoes (mexican style for extra spicy flavor)

2 large Cans of homestyle Veg-All (larger cut veggies) (drain the juice and reserve)

after you brown the meat, add it to a large soup pan and add remaining ingredients...

let simmer for 30 to 60 min... until the meat is tender...

add any additional seasoning to taste, if more liquid is needed use veggie juice otherwise discard.

- serve with hot bread
- serves up to 8 people & stores and freezes well

See ya next time, Peggy

## Shopping with Suzie:

Each month in this section we will let you know what is on special, what we have overstock on and just what's new in general, this months specials include:



- NEW FOR 2009

### **AUTOMOTIVE FUEL AND EMISSIONS CONTROL SYSTEMS** by James Halderman and Jim Linder

This is a must for students and beginning technicians.

This manual features a practical and real-world approach to automotive technology and service with clean, straightforward language.

The text features and hands-on tips from master technicians brings the "real-world" into the classroom with tech tips, safety tips, fixes and FAQs.



**Price \$95.95**

- 2008 LTS Conference T-shirts (overstock)

We have a few dozen conference t-shirts left over this year, all sizes are available at this time from med to 3x ...call quickly for best selection...

**Price \$10.00 each**

- **We have a large selection of various training materials at a great price, call Susan for details**

**You can order or inquire about any item featured here by calling Susan at (888) 809-3835 Toll free, Thanks Suzie!**

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### Welcome to our new section called “ Bubba World”

I started servicing antique cars at the Newport Indiana yearly hill climb 23 years ago and have attended the event for 28 years. They say I have a Tennessee accent and thus the name Bubba.



We called this service area ( provided by the Newport Lions Club) Bubbas Garage and one of our special services just happen to be “ignition systems”. As a automotive instructor for almost 40 years, ignition systems had become not only my job of many years but also a hobby. Believe me after fighting a complex late model electronic problem all day, a 40 Ford ignition system is relaxing to work on.

After a few years at Newport these systems starting following me back to Indianapolis and I’ve done a few as they came in just by word of mouth. Then the flood gates opened up due to the internet and a couple traditional old car , hot rod web sites. The largest is [www.jalopyjournal.com](http://www.jalopyjournal.com) and the HAMB board contained within that sight. I guess I would consider it the iATN of the hot rod groups. So after a few traditional hot rod builds, over 30 Teardrop vintage campers and a few hundred distributors, we are now officially in the vintage ignition business as well. So with that, welcome to “Bubba’s Hot Rod Shop”. Each quarter I will use this space to let you know what’s happening at Bubbas and fill you in on the special events we host each and every year. For now read up on some of our conversions at [www.bubbashotrodshop.com](http://www.bubbashotrodshop.com).

*Does this mean you won’t see me teaching a seminar at a conference near you? Nope, I have already scheduled some seminars for next year and our training business core is still alive and well. As I turn sixty this month, I have become more selective in what I do and I love what I do here each and every day. Stay tuned !!!!!!!*

**Jim (Bubba) Linder**