



# LINE - LOCK

Northstar Chevelle  
Club Newsletter

Editor: Zman August 2009

## SHOP TALK



Have you ever wondered why your machine has, all of a sudden, started running a bit doggy? Here is one area that is often overlooked; spark plug wire connectors. I have seen the following installation on more cars than I can remember.

The examples shown on the left are from MSD straight, supposedly multi-angle, plug boots but can apply to other manufacturers as well. Look at picture 1, looks fine right? Now look at picture 2; with the insulator removed. The tabs between the spark wire crimp and the spark plug cap connector are severely bent and broken, picture 3; perhaps from constant removal or re-adjusting. The fractured tabs can cut away at the insulator causing a potential for burn through, picture 4; that is, spark going anywhere (to headers, steering shaft or other metal objects) instead of the spark plug. I find the MSD connectors particularly problematic. Wire angles must be established prior to installing on the spark plug or that connection will not fit well. You can usually find this issue by lifting the hood of your car and watching this "lightning" going on in a dark garage or driveway. If continued without correction, the plug connector and spark cap may never even meet, picture 5.

Can these deformed connectors be repaired? With care they can. The material is rather durable and lends itself to repairs. Tools needed include needle nose pliers, regular pliers, pin punches (used as a mandrel to reform and straighten out the bent tabs) and a tack hammer to gently nudge them back into shape. Once they are reformed, establish your wire angle by bending the two side tabs carefully and be sure to close the gap on the spark cap end and test the fit with a spare spark plug before re-installing in your muscle car. Then slide the insulator on to the plug.

The original problem may have been caused by using the wrong connectors, maybe 90, 115 or 135 (45) degree boots would work better. Some final tips. 1) take the time to layout your spark plug wire routing, lengths and boots needed. 2) before running them next to the firewall, make sure that the protruding sheet metal screws are either ground off or put a dab of RTV over them to prevent them from penetrating the spark plug cable due to vibration or abrasion. 3) use wire looms to help organize the wires and make the installation look as professional as possible. Let me know if you find this article helpful or you have further questions.

- Zman.