The Compression Gauge!

by Tom Endy

There are times when an automotive compression gauge comes in handy, like when you are standing along side of the road trying to figure out why your Model A won't run. A compression gauge will tell you real quick if you have a blown head gasket or a valve that is stuck open.

There was a compression gauge type on the market a number of years ago that had a rubber snout that you could press against the spark plug hole while someone rotated the engine with the starter. This type of gauge had two drawbacks. One was that you needed two people to operate the gauge, and when you went to use it you usually found that the rubber had turned so hard with age that it would not seal off the cylinder. Modern compression gauges screw right into the spark plug hole and one person can operate them very well. Unfortunately they don't make them for a Model A head with a 7/8" spark plug boss. So what is a body to do?

Pep Boys sells an Actron compression gauge for about $25. that you can easily modify. The part number is CP7827 and it comes with a snap-in hose and several adapters. One of the adapters is a 14mm threaded devise that connects to the snap-in hose and is normally used to thread into the spark plug hole of a modern car.

Locate an old Champion 3X spark plug. Take it apart and discard all but the bottom section. Grind off the spark ground tab that is attached to the bottom. Run a 1\2"-20 tap through the tunnel in the 3X spark plug base. If you have a lathe, and know how to use it, turn down the 14 mm adapter until all the threads are gone. If you don't have a lathe, and like me, wouldn't know how to use it if you did, grind the threads off with a grinding wheel. Run a 1\2"-20 dye over where the threads used to be on the adapter. Wrap a number of turns of nylon tape around the new threads on the adapter (just in case your grinding and threading ability is not too accurate). Screw the two parts together and you are good to go. Put all the stuff that goes with the gauge in a bag and keep it with your tools. You might want to run a compression test on your Model A and record the readings for each cylinder and keep it with the gauge so you will have a handy reference.

What you are looking for is consistency between cylinders. The actual compression values are not as important as the fact that all four readings should be within about 10% of each other. ☺

The modified base of a 3X spark plug and the adapter attached with 1\2"-20 threads.

Everything that is needed to run a compression test while standing along side the road.

The gauge itself up close. A wire coat hanger allows it to be hung on the radiator support rods.