## Tech Tip by Alan Dille

This tip concerns tools that may be needed for those of us in the club, or even in the hobby that do work (or some of the work) on our own cars. If you don't do a lot of stuff for a living there are a lot of tools on the market that you may never need so I'll go over the some of the basic tools.

First you need basic hand tools. Sockets, ratchets, some extensions and universal joints. Some of the most common sizes for drives are $1 / 4 \mathrm{in}, 3 / 8 \mathrm{in}$, and $1 / 2 \mathrm{in}$. The $1 / 4$ in drives are ideal for smaller headed bolts that are in tight spaces, such as access to areas under the dash. A nice assortment of sockets in a range of sizes from up to $1 / 2$ inch or 13 mm are usually all that is needed, in shallow well and deep well configuration is all that is needed for most small jobs.
$3 / 8$ drives are sometimes the most commonly used for most of the engine, transmission, suspension and body applications. Various extensions from 3inches long to 18 inches long are usually all that is needed to perform just about every type of repair that you may need to perform. An assortment of sockets in both 6 point and 12 point are more than sufficient for any type of bolt that was used by any automaker. As above both SAE (standard) and metric are what is needed for anything you may have in your driveway or garage.
$1 / 2$ inch drives are also used for engine, transmission, suspension and drivetrain work. I find as above the same assortment of sockets and extensions are usually all that is needed. Also a variety if spark plug sockets always comes in handy in both $3 / 8$ and $1 / 2$ in drives.

Ratchets can be in a variety of lengths and those with a swivel head can help get into some tight spots. Another item that no toolbox should be without is a torque wrench. The most common is in a $1 / 2$ in drive and commonly uses the ft.lb. ratings. Some of the offerings in the $3 / 8$ drive are mainly rated in inch pounds, commonly used in transmission work. Also breaker bars in every size are needed to break loose bolts like head bolts, balancer bolts, and rear suspension components.

