

# LAP 21 — MYTH BUSTING

**A** popular television show seen on the Discovery Channel is named "MythBusters." The hosts, Adam Savage and Jamie Hyneman along with their team of experts, recreate situations that allow them to prove or disprove certain "truths" as fact or fiction. In the Mustang world there are many similar "truths," propagated as fact that are in reality only fiction. You can use the knowledge gained from looking at real facts to disprove or "bust" common myths and thus become a safer, faster driver with a more reliable Mustang. Here are five common myths, let's see if we can "bust" them.

## MYTH # 1

Everyone knows a smallblock Ford bored more than 0.030" over the standard 4-inch bore is a candidate for overheating? The "theory" being that the resulting thin cylinder walls do not conduct combustion heat into the water jackets as efficiently as stock and thus the engine runs hot. Everyone also knows a "friend of a friend" that had this problem because they "stretched" an overbore to "0.040" and the engine overheated. Correct? This must prove the theory is a fact. Right? Your machinist told you this when he called to tell you your block wasn't usable on the last rebuild didn't he? Let me give you real performance facts that should change your opinion. You can easily run up to a 0.050" overbore with no problems provided wall thickness is checked with an ultrasonic tester to verify no significant core shift when the block was cast. Today, there are plenty of race engines running a 0.050" overbore with no cooling issues whatsoever. I'm talking about road race applications with very high compression running flat out for hours with absolutely no problem. Don't you think this would be good enough for your street Mustang? Additionally by doing this you save your block and pick up an additional 3 cubic inches of displacement. Taking a stock 302 that is nominally 306 cubic inches at a 0.030" overbore out to 309 cubic inches at 0.050" over. That's free horsepower! Myth Busted!

## MYTH # 2

"I need to add power brakes to my Mustang before I get on the track because they are better." Most race cars have manual brakes because they're simpler to maintain and work fine without creating any additional pedal effort. On the track, what you need is modulation or "feel", so you can better work the edge of tire adhesion for maximum braking effect. Power brakes use a heavy booster servo to apply extra force to the master cylinder. Problem is, the servo is between your foot and the brake master cylinder, which dampens feel and limits your ability to effectively brake at the limit. Myth Busted!

## MYTH # 3

"You need 31-spline axles because they're "stronger." In road racing, weight reduction is the best way to improve lap times. Thirty-one-spline axles are extremely heavy and not necessary when road racing because unlike drag racing you're not launching the car from a standing start. What you need are

good, high-quality axles built to take the high cornering loads seen on the road course. There are several aftermarket axle vendors that make these products. Myth Busted!

## MYTH # 4

"A high performance water pump will improve my cooling." Water pumps are of centrifugal design and not positive displacement. This means they will only flow high rates against relatively low head pressures. Beginning with the thermostat, there are numerous restrictions in the Mustang cooling system that restrict flow and thus never take advantage of a high performance pump design. The stock pump is properly sized for the application and works quite well, even when under driven by smaller crankshaft pulleys. Myth Busted!

## MYTH # 5

"The Detroit Locker is too harsh for road racing, it's a drag race only item." Most road racers run Detroit Lockers because they're bulletproof and guarantee maximum acceleration. There are many competing designs, but none come close to the simplicity and reliability of the Detroit Locker. Much has been written about the effects of a Locker unlocking in the middle of a corner and tossing you off the track. I'm sure someone out there has blamed this rare occurrence on the Detroit locker but I have never heard a driver come off the track and blame the Detroit Locker for this sort of mishap. Myth Busted!

Recently, the MCA has successfully created numerous opportunities for you to enjoy your Mustang outside the confines of the judging arena. Over the past several years, we are really starting to see more Mustang owners enjoying their cars out on the track thus resulting in more people to race. Whether you have an early model or late model Mustang, you owe it to yourself to experience its true potential out on the track.

Consider signing up for some track time at your next MCA event and why not use these facts to join us?

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