

1996 Ford Mustang Cobra – Mystical Mission

The Quest for 200 Mph Is What This Limited-Edition Cobra Is All About

Written By: Eric English

July 1, 2003



Horse Sense: Few efforts such as John Karwoski's occur unless the owner is a car builder by profession or has developed a close relationship with a top-notch shop. The latter is true for John, and he wants to be clear that credit for building this wild ride goes to Brad's Custom Auto in Seattle, Washington. Owner Brad Seibold and technicians Scott Hicks and Brian Holsten have spent untold hours and countless late nights slaving away on the Mystic beast. Rather than just showing up to pay the bills, John is usually present to lend encouragement, muscle work, and liquid refreshment to the endeavor-although doing computer work for a Seattle airplane manufacturer is his trade by day.

Lest you be jaded by the frequency with which Pro 5.0 drag racers are posting 200-mph trap speeds, such triple-digit numbers are some of the most noteworthy in all motorsports. Near as we can tell, the first fuel-burning dragster officially credited with the feat did so in 1964, the first NASCAR stocker in 1970 (one lap average), and the first Pro 5.0 drag racer in 2001.

But perhaps the mark is best summed up by the old T-shirts and posters of a vintage Ford GT with the caption "Life begins at 200," a reminder of the exotic 200-mph-capable Ford Le Mans effort. We think life can be plenty good at slower speeds too, but there's no denying 200 mph as a legendary automotive accomplishment.



Enter John Karwoski and his '96 Mystic Cobra. More than simply posting the kind of brief, 200-mph banzai that would please most enthusiasts, John is hoping to average such speed in an upcoming run at the Silver State Classic/ Nevada Open Road Challenge—a legal, 90-mile blast through the Nevada desert. As with most over-the-top automotive efforts, however, John's didn't start off to be this serious. A self-described Ford "freak," John has had several trick rides prior to this current missile, including a couple of vintage 'Stangs and a well-modified '91 GT.

The GT was eventually sold to free up house-buying funds, but John convinced his wife on the idea of a new '96 Cobra a couple years later. The clincher to spousal approval? The fact that Cobras came so well-equipped—you know, such good brakes, horsepower, and so on—that there'd be little need for modification. Yeah, right. Exhaust and gears came soon after driving off the dealer lot, and the rest just snowballed from there.

Mustang purists will freak when they see what's been done with 1 of just 1,999 Cobras to be sprayed with the chameleon-like Mystic hue, but we think it's cool. John admits he wouldn't have chosen such a low-production car if he'd known how far he'd stray from the factory build, but once the ball began rolling, it just didn't make sense to start over again.



The cockpit is all business. After all, traveling 200 mph for almost 30 minutes demands the utmost in monitoring and safety equipment. Frequent engine and driveline checks are conducted through an array of Auto Meter and VDO gauges, while navigator Matt Chambers also employs multiple stopwatches, an intercom, and a GPS. Both occupants are secured in their Sparco seats by Schroth six-point harnesses and surrounded by a gorgeous rally-style rollcage by Cascade Autosport in North Bend, Washington. A Halon fire system is present in case of disaster.

Aptly assisted by navigator Matt Chambers and the mechanical crew from Brad's Custom Auto, John's Cobra appears to have a legit shot at reaching its goal during one of the Nevada events scheduled for 2003. The team has gone through some typical teething during three prior visits and actually figured to accomplish the task at the spring '02 run, only to be denied by lousy weather. Every year has seen John and the Custom Auto team up the ante a bit. The '03 effort will be run in Silver State's Unlimited class, where nearly anything goes and speeds are-well-unlimited. Other classes are divided by mph categories, sort of a break-out affair where running too fast will get you DQ'd.

We could take up a ton of space describing the progression of the Mystic '96 to its current iteration, but let's focus on the current goods instead. Front and center is the Vortech T-Trim-boosted 4.6 Cobra mill, which has posted 622 rear wheel horsepower on the Mustang chassis dyno at Auburn, Washington's Blood Enterprises. That number came with a safe-read slightly rich-air/fuel ratio, deemed a necessity when running so long and hard. Internals consist of a stock forged crank, Manley rods, custom Ross forged pistons, and ModMax plasma-moly rings, while a set of Anderson Ford Motorsport Stage 3 ported heads ride along on top. The T-Trim builds upward of 20 psi at redline, and it is augmented by Vortech's Power Cooler and an AFM Power Pipe. The intake tract also consists of a Pro-M 87mm air meter, a Ford Racing Performance Parts throttle body, and a ported factory intake.



Body modifications all serve to further high-speed flying, whether by saving weight or improving aerodynamics. A case in point is the aluminum rear wing from a former Lou Gigliotti World Challenge Mustang. The hood is a carbon/ Kevlar piece from Cutting Edge Com-posites, while the backlight and rear quarter-windows are fabbed from Lexan. The 200-mph treatment also includes a couple items you can't see in most of the photos, such as bellypan tinwork because it's-well-under the car, and a rear air diffuser that was removed so we could drive to and from our photo shoot on public roads of varying quality.

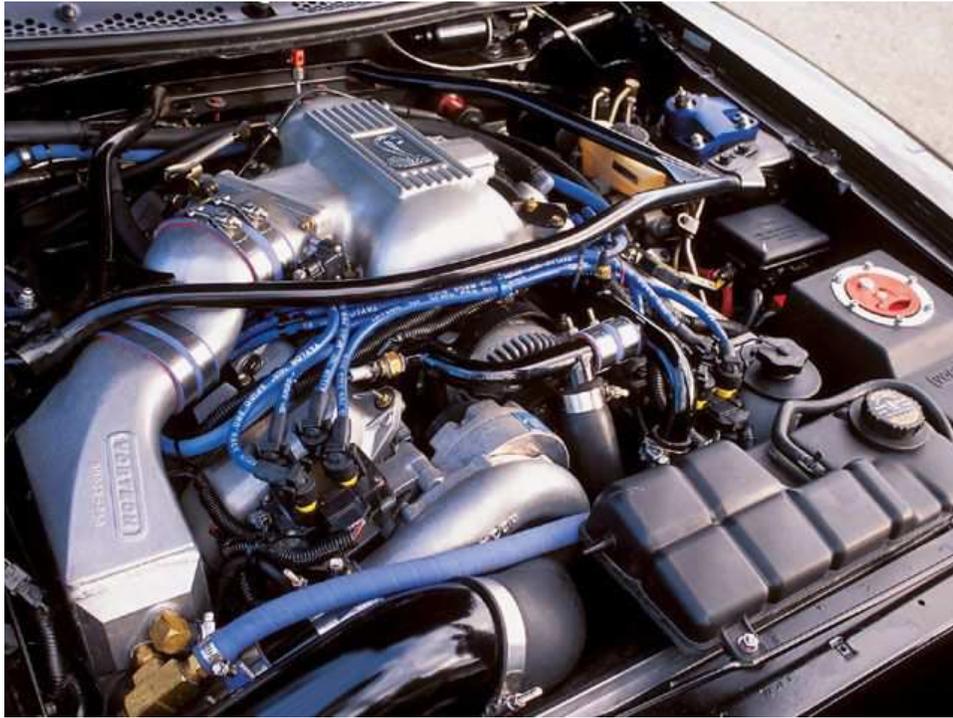
Fuel is sourced from a pair of Fuel Safe cells, the smaller of which was added after the team moved up in the power/consumption department, only to realize the primary cell couldn't carry a sufficient load for the entire 90-mile run. An Aeromotive pump supplies the 104-octane juice through 11/42-inch braided-steel supply lines, an Aeromotive regu-lator, Sean Hyland rails, and 50-lb/hr Holley injectors. FRPP's EPEC computer system provides the basis for a spot-on tune, while remaining ignition responsibilities are shared by MSD, ACCEL, Taylor, and Denso components.

A Tremec T56 six-speed plumbed for auxiliary cooling sits behind the boosted 4.6. It's actuated by a Pro 5.0 shifter and Spec Stage IV clutch assembly. Power is delivered through a Mark Williams aluminum driveshaft before reaching a Griggs Racing-prepared 8.8-inch rear. The assembly features 3.27 gears, Strange 31-spline axles, a Black Gold diff, and decambered 9-inch axle ends. As does the trans oil, the rear gear lube is circulated through its own external cooler, which is force-fed air from the ducts in the rear quarter-windows.



With all the modifications to the driveline, the suspension on this high-speed snake meets all expectations for being equally beefed. Up front that means Griggs caster/camber plates, a tubular K-member, severe-duty control arms, and a double-adjustable Koni coilover assembly. Delrin bushings eliminate any and all slop, while Brembo four-pot calipers with Performance Friction pads slow things down in a hurry. Out back there are no surprises, just more Griggs. We're talking the company's beefiest torque arm, Panhard bar, control arms, and coilover affair.

After reviewing the specifics of John's Cobra, it's clear why the team feels prepared to enter the top-dog class at Silver State in 2003. Mix in meticulous preparation, event experience, and an insatiable desire to nail one of motorsports holiest grails, and admirable performance seems assured. But what about topping the illustrious 200-mph average? Ogling the '96 for a few hours made us believers that it can happen, but the team knows such performance isn't a slam-dunk. Brief 200-mph top speeds seem almost certain, but the 200-mph average will require the right combination of weather, driving, and reliability. Tune in to John's Web site at www.overbudgetracing.com for post-Silver State updates. We wish the guys the best of luck as they promote the Mustang name in yet another arena of high performance.



Northwest Ford specialist Dave Bliss performed all the necessary machine work during the engine buildup, while Brad's Custom Auto handled the assembly. Dave has vast experience as a pushrod traditionalist, but he got into the modular swing after Custom Auto came knocking with engine after engine.



5.0 Tech specs

Engine AND Drivetrain

Block	0.020-over aluminum Cobra
Connecting Rods	Manley H-beam
Pistons	Ross w/ModMax plasma-moly rings
Cylinder Heads	Stage 3 ported by Anderson Ford Motorsport
Camshafts	Stock
Intake	Ported Cobra
Throttle Body	FRPP single-blade
Exhaust	BBK long-tubes, Dr. Gas 3-in X-pipe, SpinTech mufflers
Power Adder	Vortech T-Trim w/2.95-in pulley, Vortech Power Cooler, Anderson Power Pipe
Fuel system	Aeromotive pump and regulator, 11/42-in supply, SHM rails, Holley 50-lb injectors
Mass Air Meter	Pro-M 87mm
Transmission	Tremec T56 six-speed, Spec Stage IV clutch, Fidanza aluminum flywheel, Pro-5.0 shifter
Rearend	Griggs 8.8, Black Gold diff, 3.27 gears, Strange 31-spline axles, 9-in ends

Electronics

Engine Management	EPEC
Ignition	MSD
Gauges	Auto Meter and VDO

Suspension and chassis

Front Suspension

K-Member	Griggs tubular
Struts	Koni double-adjustable struts
Springs	Coilover
Brakes	Brembo w/Performance Friction Pads
Wheels	Fikse 18x10
Tires	Yokohama professional endurance racing slicks

Rear Suspension

Traction Device	Griggs torque arm, Panhard bar, and control arms
Shocks	Koni shocks
Springs	Coilover
Brakes	Stock w/Performance Friction pads
Wheels	Fikse 18x11
Tires	Yokohama professional endurance racing slicks
Chassis Stiffeners	Eight-point cage by Cascade Autosport, Griggs subframe connectors