

Gessford Machine Strokes a Revved Automotive Concepts' Shelby 427 for its new Super Snake GT500SE



By Doug Kaufman 8/1/2009

In 1974, America watched 93 cars get destroyed in a 34-minute car chase. “Gone In 60 Seconds,” an independent film written, produced and directed by and starring Toby Halicki was an otherwise forgettable '70s movie.

The plot revolved around Mandrian Pace (Halicki) and his car thief cronies and 48 cars that they needed to steal to meet the demands of a South American drug lord. Most of the actors in the movie were Halicki's family and friends or actual members of the emergency services they were portraying, not professional actors.

The real stars of the movie, however, were not the men and women overacting and stumbling through dialogue. They were, in fact, the 48 classic, high-end muscle and luxury cars that Pace was to steal in less than a week.

Cars ranging from a 1930 Hudson Great 8 to Billy Joel's 1959 Rolls Royce Phantom V to Richard Petty's 1972 Plymouth Barracuda were targeted by the gang. Each car on the list was referred to only by a woman's name, but none was as coveted as the yellow 1973 Mustang Mach 1 codenamed Eleanor.

The climactic 34-minute chase scene in the movie was destructive, dangerous and downright awesome, and caused significant physical damage to Halicki himself (in fact, production of the movie had to stop several times while he recovered from injuries he sustained as he performed his own driving stunts). But it also is credited with setting the bar for future cinematic megadestructo-chases (The “Blues Brothers,” for example) and is still considered one of the greatest car chases of all time.

In 2000, “Gone In 60 Seconds” was remade with a new leading thief (Nicholas Cage as Memphis Raines) a new premise for the thefts and a new list of 50 cars that had to be stolen in just one night. Again, Eleanor was the real star of the movie but this time the leading lady was a pepper gray with black stripes 1967 Shelby Mustang GT 500. This version of the film was even more forgettable and had a less impressive climactic chase than the original, but it did one thing very well. It made the GT 500 – and specifically, Eleanor – a superstar.

“The car became a huge hit and in 2001 a group of Texas businessmen came to an agreement with Shelby Automotive Inc to begin building 1967 and 1968 Mustang GT 500Es as Shelby Continuation Vehicles, and Unique Performance was born” explains Sean Sawyer of Revved Automotive Concepts. “These vehicles were built under a licensing agreement that gave them a Shelby continuation serial number and included them in the Shelby registry. There were to be 400 Windsor stroker powered vehicles and 75 Stroker Supercharged FE powered vehicles to celebrate the original 1967 Shelby Super Snake.

Legal wrangling ensued over the next several years as the group that owned the rights to the movie sued Shelby and Unique Performance for trademark infringement on the “Eleanor” name. Eventually all references to these cars as Eleanor by Shelby and Unique Performance ceased and they were referred to only as a “GT 500 E.”

Currently the only company licensed to build cars and call them “Eleanor” is Classic Receptions in Yukon, OK who builds a licensed “Gone in Sixty Seconds” edition of these cars with the blessing of the group that owns the name.

Although the Unique Performance cars were built with top of the line components, Sawyer says, many of those parts required extensive modification to fit or were not the correct part for the application in which they were being used. “We began to redesign many of the vehicle systems once we realized that we weren’t just experiencing parts failures but complete system failures due to poor design.”

“I hired in to Unique Performance in late 2006 to handle post delivery customer service, technical support, and to build a quality control program,” Sawyer says. “Over the next few months this quickly snowballed into building a warranty department, a tuning department, and recruiting Jason Delago, the newly hired head of the “Special Projects” group to help re-engineer the cars to fix the multitude of production issues we were experiencing with cars in the field and in cars that had been sent back for warranty repairs.”

The first 23 Super Snakes utilized Shelby 468 cid supercharged engines built with Shelby aluminum 427 FE blocks, heads and intake manifolds. Later they received Shelby-licensed 482 cid supercharged FE engines built by Keith Craft Racing with Shelby aluminum blocks, ported Edelbrock heads and ported Edelbrock intake manifolds.

“The early 468 engines have some internal issues, such as a compression ratio of 10.5 or 11:1 used with a supercharger that can produce 8 lbs. that require us to rebuild every one of the early engines to a more boost friendly level,” says Sawyer. “We also offer an upgrade to CNC ported Edelbrock heads that have a much higher airflow than the stock Shelby head.”

Rebuilding a Classic – And a Reputation

Sawyer says it was a tough road unraveling the issues with these vehicles. “UP started building the FE-powered Super Snakes in 2003 and by 2006 the people working here before us had still not been able to figure out the problems with the vehicles. They experienced overheating, poor drivability, lack of power, carburetors flooding out, starters and flywheels grinding off teeth, the list goes on and on – it really was a mess for these owners. We started symptom by symptom and eventually re-engineered every system that UP bolted on the engine.”

Sawyer says one of his best moves was to get in contact with George Anderson at Gessford Machine in Hastings, NE. The 2004 Engine Builder Machine Shop of the Year and Independent Authorized Shelby Automobile Dealer has been in business for 54 years and building winning Shelby 427s for decades. “We started working with George and Neil Groff trying to figure out the problems with the Super Snake 427 FE engines. Being the FE experts, they helped us through a lot of the issues we were dealing with on the cars.”

Still working at Unique Performance, Sawyer, Delago and their crew had fixed most of the chronic Super Snake ailments by mid-summer of 2007 with the addition of Gessford power. “When we started, the Super Snakes would overheat in anything above 85 degrees and were barely making 400 hp at the wheels with a 750 crank hp rating,” laments Sawyer.

“By November of 2007 we had them making close to 600 hp and 600 ft.lbs at the wheels with redesigned air intakes, cooling systems, ignition systems, correct blow-through carburetors and replumbed fuel systems. We were finally able to drive them in stop and go traffic in 100 degree Texas weather without overheating and with enough horsepower to make a grown man giggle like a schoolgirl. We also upgraded the drivability with additional oil coolers, new alignment specs, improved clutch components, and working parking brakes among others to make them solid street drivable cars with usable horsepower.”

Unfortunately, although the cars had shown a remarkable turnaround in quality Unique Performance's customers soon felt like they had been targeted by Mandrian Pace or Memphis Raines. "We found out the hard way that the business was too far gone," Sawyer says.

In early November 2007, the Farmers Branch police department raided Unique Performance and impounded every vintage vehicle on the property as part of a VIN tampering investigation. "The only thing I know that has been proven to this date is that when Unique Performance had been restoring the shells they were not transferring the physical VIN numbers over to the new aprons as is common restoration practice when replacing an apron," Sawyer explains. "This gave the police enough reason to question whether there was fraud involved."

Although the cars were tracked through production and each car built with its owners selected options, the police feared that since there were not intact VINs on many of the shells the company could have been swapping shells and titles.

"Unique Performance had been struggling with finances for quite some time at that point and it seems the police impound put the final nail in the coffin," says Sawyer. "They closed the doors approximately 2 weeks later. In their 6 year run they produced approximately 32-34 Super Snakes and between 100-150 GT500Es, GT350SRs, Foose Camaros, and Foose Challengers." It was rumored there were nearly 130 contracts for cars that were unfulfilled.

By virtue of his attention to many of these customers over the previous year and gaining their trust by treating them with respect and helping them with their vehicles, Sean Sawyer continued to receive phone calls. Soon they were referring their friends who also had taken their high-end custom vehicles to him for help.

"Revved Automotive Concepts came to life simply on the principle that if you treat people the way you would want to be treated that they will keep coming back to you. In early 2008, we helped several customers get their vehicles out of the police impound and completely overhauled them," says Sawyer. "We not only have steady business upgrading existing Unique Performance vehicles but we also have three contracts to build new "Super Snakes" from clients that had cars on order with Unique Performance."

Revved Automotive Concepts has recently reached an agreement with Shelby Licensing to further help former Unique Performance clients by completing the build of their vehicles with all of Revved's upgraded components and build processes and have it recognized as a Shelby Continuation Vehicle with the moniker of GT500SE.

"Our first of these cars will be a red with white stripes GT500SE Super Snake with a Shelby 427 engine that has been bored and stroked to produce 511 cubic inches," says Sawyer. "Completed by the masters at Gessford, the workup of parts is a collaboration between my shop foreman Jason Delago working with Neil up at Gessford. They worked together on researching with manufacturers on the best parts to use, compression ratio, cam specs, blower and intercooler choice. Our goal is a conservative 1,000hp and 1,000 ft.lbs. of torque with around 8-10 lbs. of boost. The blower we are using is capable of nearly 30 lbs. for those clients who wish to push the envelope. Realistically the engine is built to handle considerably more horsepower but we wanted an engine that would be a nice driver as well as scare the hell out of anyone brave enough to mash the throttle."

The recipe for Gessford's team to build the 511 mill is as follows, according to George Anderson. "We started out with CSX Shelby Signature Big Bore 4.375" blocks from Robert Rice at Shelby Engines in Gardena, CA. Rice provides the blocks slightly under final specification on the cylinder bores, which Russ Kennedy finishes at Gessford to the custom Arias Pistons. These pistons, designed for use with a blower to our design standards have - 62 cc D cup, and run .005" below the deck with a 1.320" compression distance. Each cylinder's swept volume is 63.890 cubic inches.

“The crankshaft is a Scat 511 Steel Billet 4.250” racing crank mated to a set of Oliver Max Rod 6.700” I-Beam 454 BB Chevy connecting rods. An Innovators West aluminum harmonic balancer completes the rotating assembly.

MAHLE Clevite H-series performance engine bearings in the main and rod bearing locations, as well as Hastings piston rings designed for use with supercharged engines were specified as well.”

The Gessford staff includes Neil Groff, Master Engine Builder, Gessford veteran since 1992; Bert Wright, car builder/installer for all the CSX cars and other specialty cars since 1994; Russ Kennedy, block prep and machinist, with Gessford since 1989; Matt Schmidt, who handles the crankshaft work and all the engine balancing since 1990; Tony Powell, cylinder heads, Gessford employee since 2000; Shannon Fowler, Shop Foreman and specialty machinist who can make and fix anything and has been at Gessford since 1992; and George Anderson, who bought Gessford Machine from Jim Gessford in 1991.

“I spent every dime I had from 1967-1969 with Jim building and racing a 1967 Mustang with a 390 in it,” Anderson says, underscoring his experience with these iconic cars.

Gessford used Fel-Pro 1020 head gaskets that are .041” thick designed for use with aluminum FE heads. The Edelbrock 76cc heads were machined for bigger Ferrea valves (intakes from 2.09” to 2.190” and exhaust from 1.655” to 1.700”) and CNC ported and flowed.

“The Comp Cams hydraulic roller camshaft is custom designed by Chris Mays at Comp,” says Anderson. “Comp Beehive springs, Jesel Rockers, Smith Brother Pushrods and all McLeod Clutch Components were used as well.”

A Pro-Gear Double Roller Extreme Duty timing set, Melling High Volume oil pump, MSD ignition components and ported Edelbrock Victor EFI intake manifold were among the other aftermarket parts used. The engine was assembled using ARP fasteners.

“This engine (and its identical twin, which will be going into another Revved GT 500SE) will be force-fed by a Procharger F1-R centrifugal supercharger and will be intercooled,” says Sawyer. “Fuel management will be handled by a FAST XFI sequential fuel injection system with distributorless ignition operated by a FAST XIM module. We have custom machined pieces to make this system work on an FE-based engine with a stand-alone crank trigger and utilizing a modified distributor for a cam signal. A carburetor box will be used to house the throttle body to retain the vintage supercharged look. We are fabricating our own 3” exhaust system with a rocker pass through for the side exit exhaust.”

So after the trouble this customer has already gone through to get his car the first time AND the second time, what is the engine going to cost? While he wouldn’t be specific, Sawyer hints at a \$32,000-plus price tag for the engine before the forced induction and EFI. Our guess? The whole powerplant will land somewhere around the \$40k range.

That’s a lot of money, and Sawyer admits that the engine is overbuilt – in a good way. “We don’t believe in building something that looks good but isn’t functional. We overbuild everything to make it handle anything you want it to do,” says Sawyer. “Most of our clients have been down the road of owning cars like this that spend more time in the shop than on the road. By the time they come to us they understand that it needs to be done right – or not at all. The long-term investment value of these vehicles as genuine Shelby’s far outweighs the upfront investment for the upgrades.”

Of course, you don’t have to build to this level to have this level of professionalism. “With the technology available to custom car and engine builders today there is no reason why a 750 hp muscle car can’t be completely streetable,” concludes Sawyer. “Much of what we do in this industry comes down to thinking outside the box.

The term ‘bolt-on part’ is a misnomer – there is nothing bolt on in this business; you can’t open a catalog and order parts to build vehicles like this without properly planning out the

systems, choosing the right parts, and spending the time to do it right. Know what your end goal for the vehicle is before you start.”

And, as the collaboration between Gessford and Revved proves, taking the time to do it better can give some pretty fantastic results as well.



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