

NEWTON'S NIGHTMARE

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conditioning, the CD player, power steering and anti-roll bars. Most of all, we didn't want to take the gut-and-go-fast path of most import racers. However, we did want to find maximum power and we wanted the truck to turn some serious elapsed times on the track. That was our mission.

To the shock of most everyone, our particular truck clicked off a stout 13.31 during the first real track test. I must admit, though, the day was perfect for racing. It was a midsheet. The air was rich with oxygen, the traction was grippy, and we even benefited from a rare tailwind at Englishtown. The downside of setting such a quick baseline was that a typical run (on normal conditions) was in the 13.60-13.70 range, and it would take quite a bit of horsepower to best the 13.31 standard.

Nevertheless, we set the number and now we had to live with it. At least our friends at SVT were happy.

Those who have been following along know we've tried quite a few parts and pieces along the way. Some parts worked well and are still on the truck, while others are now on the shelf. That's not to say everything we took off was junk, or that they didn't work; it's just that on new parts hit the market, we felt obligated to try them. Actually, the fun part of owning a Generation 2 Lightning truck is that virtually every week the aftermarket responds with exciting new parts. It's like living the 5-liner craze all over again.

Rather than waste valuable magazine space talking about what didn't work, we'll kick right in and focus on the current combination and tell you all about our most recent drag test. First we'll begin with the modifications.

What's important to note is that our truck runs well because we have hit on an exceptionally good combination. While some parts really picked up the power, no single part is solely responsible. In essence, we simply tweaked what John Coletti and the boys at Ford Special Vehicle Engineering have started with.

Since the engine is the first thing to cross the finish line, we began with a few underhood upgrades. This included a 2001 Lightning intake, blower and intercooler, along with a single-blade throttle body from Paul's High Performance and a JDM open-element filter. The advantage with the newer parts lies in the ability to stuff

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more air into the engine. The 2001 OE engine supercharger gets air to a larger intercooler, which has more cooling capacity than 1999-2000 models. This keeps intake air charge temperature down and allows for a more aggressive tuning curve. We complemented the blower with a stock 90mm mass air meter from an '01. Otherwise, our 5.4 is identical to any 2001-present Lightning engine. The cam covers have never been off.

Exhaust exits through a Bassani system with shory headers, cats and big twin mufflers. Ignition is some stock, in fact, the only electrical add-ons are the JDM-tuned Superchips performance module and JDM electric fan. Add to this a 169-degree thermostat, a Cobra R aluminum water pump and that's about it. There's also a level 10 torque converter and transmission upgrade.

We realized that Coletti and his gang must know their stuff so we also swapped in a few other '01 items including an aluminum driveshaft and 3.73 gears. And with all these '01 parts installed we decided to go for the '01 look with a set of newer-style headlights and tail lenses courtesy of JDM Engineering.

Performance on the street and on the track has been nothing short of outstanding. The more we tried, the more power we made. And with this came improved track times. "I follow all the articles and I think it's fantastic," said John Coletti, manager of Ford SVT. "You guys are continuing to prove that we must have re-defined the laws of physics with those Lightning trucks. I had one for over a year and a half and I loved it."

SVT's Alan Hall agrees, "You have made our day in terms of a project vehicle. The performance of that truck is outstanding. We've seen great interest in it both at events and on the internet. M&E/F has done really good work."

While the praise from Ford is great, we think the readers are the true beneficiaries of our efforts. Because we really get out there and test, you can learn from our adventures. Like a part we tried? Then go out and get it. Don't like the results? Leave it alone.

So far we don't have any regrets about anything we've done to the truck. Along the way we passed on such modifications as ported heads, tiny blower drive pulleys, and even a meeting with a Sawzall to light-

on the load (which Winnie Kung suggested). Kung even suggested removing the bed at one point, but Campy would've had a fit. The bed stayed. Additionally, we always ran with full exhaust, including the catalytic converters so we could use pump gasoline (even though we've used 100-octane unleaded on occasion). Keeping close to stock has been the key in my opinion.

As you can tell, we limited the modifications to off-the-shelf parts that any Lightning owner has access to. We've never added 116-octane race gas and a chip with a ton of tuning advance, as that would be considered "cheating."

So this brings us to the latest drag test, one that we're pleased to speak of. For northeast drag racers, October is that time of the year when the weather breaks. Those hot summer days are gone and welcomed is the cool dry atmospheric conditions. Because of this, I was pumped to get back to the track and unleash the Lightning. Our last outing resulted in a 12.56, just one hundredth off our all-time best of 12.55. However, the 12.56 came at a race weight that was 200 lbs. heavier than the 12.55. So, if we could remove the weight, the truck would run an easy 12.30-something, right?

To make matters more interesting, "Rocker" Rick Jensen, associate editor for M&E/F sister magazine GM Hot Rod Tech PERFORMANCE, had laid down the smack. He claimed he was going to wipe the track with me and my Lightning with his older turbocharged Buick T. "Fast with class," the kid said with a Hollywood smile. Campy, Hedenburg and even Steve O'Bar told me like a pony. I took it all week and was not going to lose to Jensen. No way.

"OK," I told the rookie, "I'll be there." And on the scheduled day, I got to the track early with tools in hand. Our came the passenger seat, the front and-rear bar, the spare tire, and the tailgate. Too. On went the Micleys and a bag of ice. For the record, I even brought Jensen some of the frozen stuff for his Buick. Mission be damned, I'm going for broke.

Finally, some 30 minutes later, Jensen arrived to find me stripping the truck like a low life on the Cross Bronx Expressway. He shook his head and said, "I didn't know you were going to do all that."

All is fair in love and racing—besides, he never set any rules. After all, he is from Nebraska. While Jensen prepared the Buick by draining the tank to add race gas (for the record, I had three gallons of 100 octane in the tank) I lined up for a practice run.

I heated the slicks and staged shallow.



A single-blade throttle body from Paul's High Performance controls the flow of air into the supercharged 5.4 Triton engine.

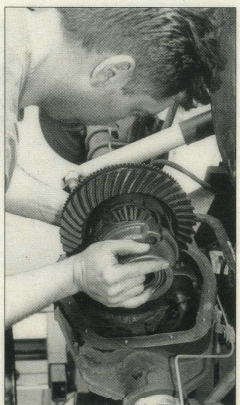


John D'Amore of JDM Engineering is responsible for much of the success. He has a good grip on tuning the oh-so-important clips and he uses many products to make loads of additional power.



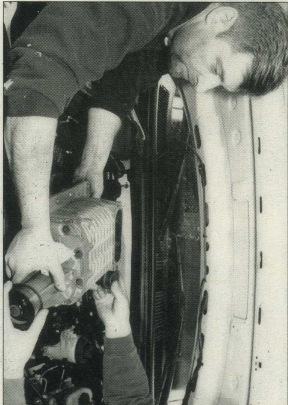
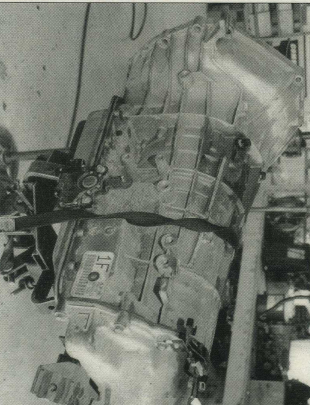
Traction comes by way of Paul's High Performance shocks and shackles combined with Mickey Thompson ET Street tires. The shocks control the rear under hard acceleration and the shackles add a few degrees of negative pinion angle. This all helps the MT tires grip the track with maximum bite. Best 60-foot time has been 1.694, but best of all we recorded three 1.69 60-foot times in a row. Consistency wins races.

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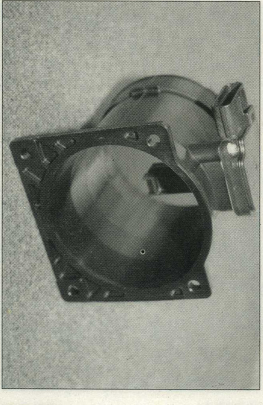


(Left) Our list of simple modifications includes 3.73 gears.

(Below) Recently Level 10 Transmissions freshened the 4R100 transmission and added a custom torque converter.



(Above) Last year we upgraded to a 2001 blower, intercooler and mass air meter.



(Left) The meter is a 90mm unit made of lightweight plastic. Hey, it works.

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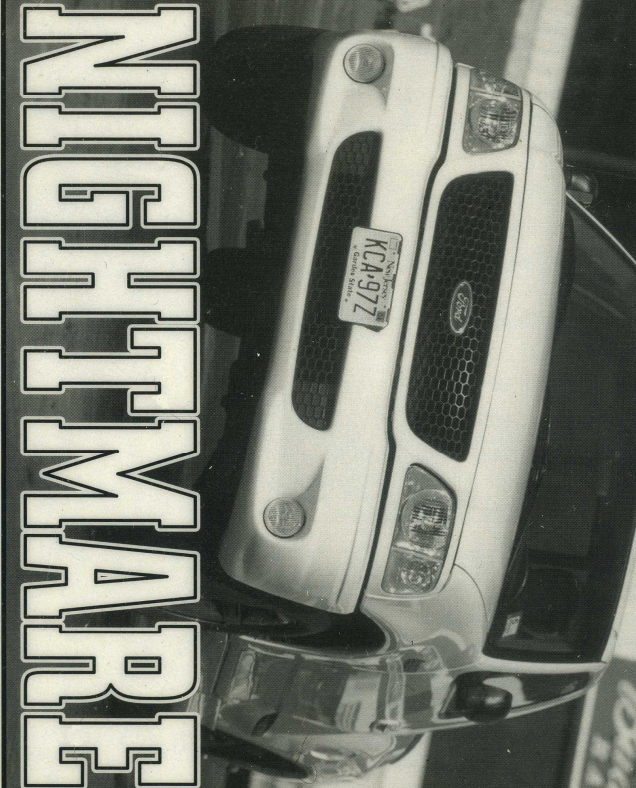
but launched on the soft side. The track took it well (1.77 60-foot) and spit out a 12.21 at 109.79 mph. Needless to say, Jensen was floored. To his credit, he didn't back out of the race, he just went to work to find some extra power.

After a 30 minute cool-down I went back to the line for another shot. This time I launched harder, with about 2300 revs per minute showing on the tach. Holy mother of acceleration, this thing was trucking. A 1.69 60-foot was displayed on the scoreboard and the truck was motoring like crazy.

Pat Barrett of Level 10 did his job well, as the tires barked with authority on each gear change. A stiff 10-mph headwind fought the truck at the top end, but it didn't stop us from running 12.144 at 109.14 mph! Take that, Buick boy! Jensen, though a bit rattled, hopped in his Buick and clicked off a 12.81 and then a better 12.77, but it was a tad off our pace.

Though he was off by a half second or more, he cooled down his six and staged alongside the truck. We went at it head to head and despite slowing to 12.16, I still beat Jensen, who slowed a touch to a

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The fridge was looking like mad during our most recent test session. With assistant test editor John Hedenburg at the wheel, the Lightning nearly lifted the left front wheel off the ground on launch. Best 60-foot of the day was 1.69 and we did it three runs in a row.

Laws of physics be damned—our 4500-lb. brick runs 12.14 at 109.79 mph. We're happy and so are the boys at SVT.

BY EVAN J. SMITH
PHOTOGRAPH BY THE ADORN AND JOHN HEDENBURG

In June of 2000 we began our very first MUSCLE MUSTANGS & FAST FORDS pickup truck project. Now we're not complaining: it was a Lightning, with 360 supercharged horses under the aluminum hood, but it is a heavy truck, something we're not used to. We know there was great potential as Ford SVT and SVE designed amazing power and handling into the F-150, but still, we wondered just how far a human could push a two and a half-ton

truck. For one thing, supercharged engines can be temperamental, and even hard on parts like pistons and head gaskets. Additionally, with lots of drag racing scheduled for our project, we had to question how well would the transmission, U-joints and rear end would fare.

So, with these potential problems in mind, our goal with the SVT Lightning was to make the truck fly, but (A) without blowing up the supercharged 5.4 Triton engine (or the driveline for that matter), and (B) without sacrificing everyday drivability. Going fast would not come at the cost of comfort, either. We like the air

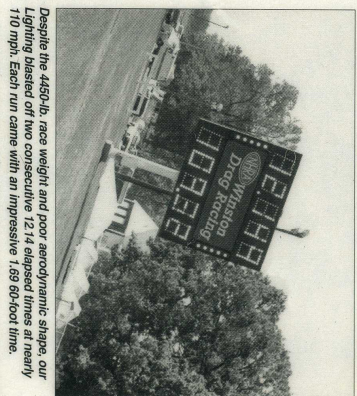
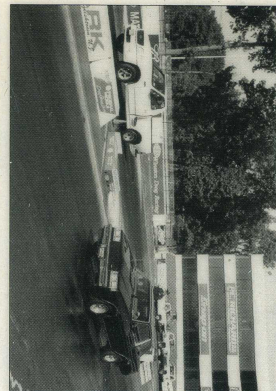
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Pickup truck doubles as nice lunchroom. Busting off quick elapsed times did not stop the MM&FF crew from throwing down some Jersey pizza between runs.



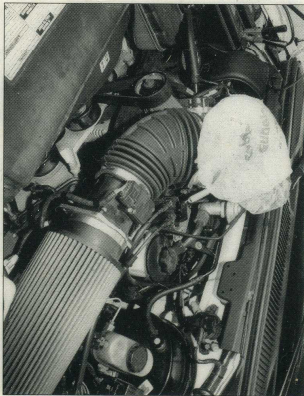
(Below) "Rocker" Rick Jensen, associate editor for MM&FF sister magazine GM High Tech Performance called out yours truly to an old fashioned grudge match. I don't know if Jensen was trying to retire the old Buick vs. Mustang rivalry of years past, but Lightning made easy work of the Turbo T running 12.16 to the Buick's 12.79 in the side-by-side match. To make for a "more fair" race, I replaced the essential street items and we tried it again. Even with 200 lbs. back on board we had enough to dispose of the GM car with a 12.29 to his 12.48. Next time Jensen should pick on guys his own size.



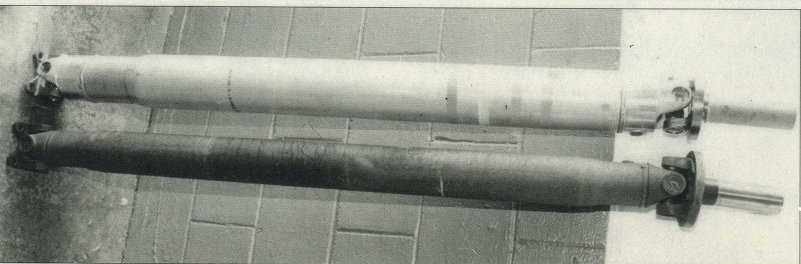
Despite the 4500-lb. race weight and poor aerodynamic shape, our Lightning blasted on two consecutive 12.14 elapsed times at nearly 110 mph. Each run came with an impressive 1.69 60-foot time.



Ok so it took a little work to get our big rig in the low 12s. In order to optimize the engine's performance, we swapped the factory seat (with attached console and CD), the turbo heat exchanger, and we ditched the factory trailer hitch. Fridge had 12-pack of gas



A bag of frozen H₂O and our 40W electric fan helped cool the engine between runs.



Though we haven't proven whether there's a performance advantage, we did switch to a 01 aluminum driveshaft (left).



Squat and go. Check out how well the Lightning digs in, even with most of the weight removed from the rear of the truck.