

LEARNING HOW TO DANCE WITH A TWIN FIRE 4-CYLINDER MONSTER

By Wayne Scraba / Photos By Dino Petrocelli

# QUADZILLA











## John Avola is a well-seasoned gear head.

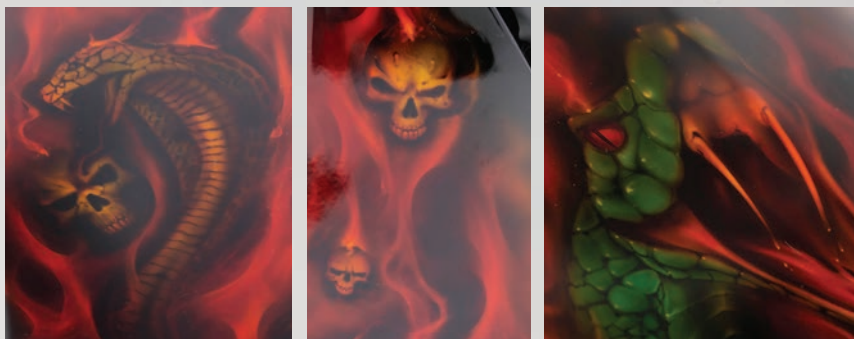
Along with his brother, he owns and operates an auto parts and repair biz in New Hampshire. They're not newcomers to things mechanical either. The shop has been in business for something like four decades. As the story goes, John took a bike over to Marc Rowe Customs for some work many years ago. While there, a break-in took place. John's motorcycle was stolen. Avola didn't have insurance on the motorcycle and Marc's insurance didn't cover it. Marc was clearly upset over the turn of events. To make amends, he offered to build John a new bike. John would pay for the parts and Marc would absorb all labor costs. It didn't take Avola long to agree. The reason is, Rowe is one of the unsung heroes in the world of custom motorcycles. His attention to detail and the quality of the builds is simply over-the-top. Additionally, Rowe has a long history of building NHRA Pro Stock drag race motorcycles. Machines from

his South Hampton, New Hampshire, shop have garnered NHRA best engineered awards in 1986, 1988, 1992, 1998, 2001, and 2013. He's also a member of the New England Hot Rod Hall of Fame, amongst other awards

And so it began. The build was based upon one of Marc's own softail chassis. The front end was set up with a rake of 35 degrees along with a set of Rowe's forks. The round tube swingarm is another of Marc's in-house pieces. Rolling stock was relatively tame by today's standards (this project was 13 years or so in the making—we'll get to that later): The softail wears Metal Sport 18" hoops front and rear. The front is a 130x18" Pirelli while the rear is a much fatter 280-series Metzeler skin. Stopping power is courtesy of Hawg Halters four-piston calipers on both ends.

Sounds simple and innocent enough, but where the project takes a really big turn is between the down tubes





of the frame. One day, when John was visiting with the Rowe shop, Marc dragged one of his old projects. It was an unfinished V-4 Knucklehead. Rowe suggested they should build something similar for Avola's machine. Needless to say, it grabbed gearhead John's attention rather quickly. The game plan for John's softail was to fuse two 88 cubic inch Evos together to create a V-4. The layout would be such that the engine would act like a big twin—firing the two front cylinders simultaneously followed by the pair of back cylinders. Basically, a double fire setup



similar to what was used decades earlier in the era of flathead Ford-powered hot rods. To build it, Rowe came up with a set of custom cases and at the same time worked out a system to tie two custom cranks together. Yes, it accepts modified S&S EVO cylinders along with S&S heads. But being a double fire engine, how do you start it (ponder the load on a starter trying to crank over what amounts to two engines)? That was one of our first questions, and the answer was rather ingenious: Rowe fit the V-4 with dual starters and dual batteries. One battery is the normal spot behind the





engine. The other is tucked into the primary. Both starters are timed to work together.

The big twin — err, *big four* makes use of a Delphi fuel injection setup along with four unequal length exhaust pipes. Internally, it incorporates many conventional pieces — S&S components familiar with most perusing these pages were used liberally throughout the engine. But according to Rob Swartz (owner of Rob's Dyno Service, Gardner, Massachusetts), the setup wasn't exactly easy to tune. Along the way, there was a considerable amount of development — things no one could have ever anticipated. For example, the four-cylinder engine absolutely killed pushrods. That was finally resolved with a set of custom Smith Brothers pushrods.



Excessive crankcase pressure proved to be another stumbling block. In total, it consumed two years of time to get it running, and during that time span they blew it up more than a dozen times. Each time, Marc Rowe went back to the drawing board and came up with the necessary fixes. Rob figures he still doesn't have the tune quite perfect, but it's close. And how much did it produce on Rob's dyno? For starters, at a mere 2,550 rpm, it cranked out 135 horsepower and 179 ft-lbs. of torque (yikes!). You can well imagine where it goes from there (no one is talking — suffice to say, this thing is a beast).

Backing up the monster motor is a Primo primary that works in conjunction with a Rivera clutch. Power is transmitted to a TP Engineering five-speed gearbox. The final drive is a chain setup. All pretty standard stuff.

What wasn't standard stuff is the drop-dead gorgeous paint and body by Keith Hanson (Hanson Custom Design, Stoughton, Massachusetts). You could call the paint "cherry" but it's far more than that. Just look at the accompanying photos. Up close, the intricate airbrush work is rolling art. And by the way, the front and rear fenders are from Fat Katz. Ditto with the gas tank. Marc Rowe fit the pieces and fabbed up the oil tank. Bright work was handled by Brown's Chrome Plating.

Rounding out the build is a custom two-up saddle from Ace Upholstery. The headlamp is a Headwinds piece while the tail lamp came right out of the Drag Specialties catalog. The handlebars are custom Marc Rowe components. Marc fit the machine with Custom Cycle Engineering hand con-





trols while down below, the floorboards and controls are Marc Rowe pieces. The speedo is another Rowe production while the mirrors came from Drag Specialties.

Once they finally stuck a fork in and called it done, John did the obvious: He test rode the machine. No shock here — the V-4 powered bike is an absolute beast. One simply cannot whack the throttle with impudence! Avola figures you really have to learn how to dance with the machine because the low-end torque proves simply endless. And in case you're wondering, John isn't much of a show-goer. But he did enter the machine in one event in the past year, and get this: He came back with six trophies(!). So, what are the plans for Quadzilla? That's easy! Ride it! Yee Haw. It's an over-the-top build, and you have to dig it. We sure do! **AIM**

## Tech Sheet

<b>Owner</b>	John Avola
<b>Builder</b>	Marc Rowe
<b>Year/model</b>	"2012" Marc Rowe Custom
<b>Time to build</b>	13 years
<b>Chromer/polisher</b>	Brown's Chrome Plating
<b>Painter</b>	Keith Hanson, Hanson Custom Design, Stoughton, MA
<b>Color</b>	Black Cherry with extensive airbrushed graphics

## Powerplant

<b>Engine</b>	"2012" Marc Rowe
<b>Builder</b>	Marc Rowe
<b>Displacement</b>	176ci
<b>Horsepower</b>	135 hp/179 ft-lbs. @ 2550
<b>Cases</b>	Marc Rowe
<b>Flywheels/balancing</b>	Marc Rowe
<b>Connecting rods</b>	Marc Rowe
<b>Cylinders/pistons</b>	S&S
<b>Heads/cam</b>	S&S
<b>Valves/lifters</b>	S&S
<b>Rockers</b>	Marc Rowe
<b>Push rods</b>	Smith Brothers
<b>Fuel Injection</b>	Dual Delphi Throttle Bodies
<b>Air cleaner/exhaust</b>	Marc Rowe
<b>Ignition/coils/wires</b>	Delphi
<b>Charging system</b>	S&S
<b>Regulator/oil pump</b>	S&S
<b>Cam cover</b>	Marc Rowe

<b>Transmission/case</b>	TP Engineering
<b>Gears</b>	Five-speed
<b>Clutch</b>	Rivera
<b>Primary drive</b>	Primo
<b>Final drive</b>	Chain

## Chassis

<b>Frame</b>	1998 Softail Marc Rowe
<b>Rake</b>	35 degrees
<b>Front forks</b>	Marc Rowe
<b>Swingarm</b>	Marc Rowe tubular
<b>Shocks</b>	Marc Rowe
<b>Front/rear wheels</b>	Metal Sport Wheel 18"
<b>Front/rear brakes</b>	Hawg Halters
<b>Front tire</b>	Pirelli 130x18"
<b>Rear tire</b>	Metzeler 280x18"
<b>Front/rear fenders</b>	Fat Katz
<b>Fender struts</b>	Marc Rowe

## Accessories

<b>Headlight</b>	Headwinds
<b>Taillight/mirrors</b>	Drag Specialties
<b>Fuel tank</b>	Fat Katz
<b>Oil tank</b>	Marc Rowe
<b>Seat</b>	Custom Ace Upholstery
<b>Handlebar/speedo</b>	Marc Rowe
<b>License bracket</b>	Marc Rowe
<b>Hand controls</b>	Custom Cycle Engineering
<b>Foot controls</b>	Marc Rowe