

# TRIUMPH ROCKET 3

## Motorcycling's Big-Block Hot-Rod

by Dave Searle



**D**ID GOD ORDAIN that cruisers had to be powered by V-twins, or did we just get stuck in a rut somewhere? The Rocket makes you question the faith.

In fact, there are actually a lot of good reasons to build a vertical three-cylinder like the Rocket III's. Car-like as it might look from certain angles, what's behind its finned cases is nothing of the kind. The clutch and flywheel are located in front and drive back to the transmission, positioned on the left side, giving the driveshaft a nice straight shot to the final drive—slick.

### Engine

Created around a 101.6 x 94.3mm bore and stroke, the heart of the beast is capped by a state of the art cylinder head: DOHC with four valves and two sparkplugs per cylinder, utilizing steeply downdraft intake tracts topped with big, 56mm-bore Keihin double-butterfly fuel injection.

Because it didn't need to be tuned to make more than one hp per cubic inch, the cams are tame and the compression a modest 8.7:1, so that enormous torque is produced from very low rpm—more than 140 lb./ft. basically as soon as you grab a handful of throttle. It idles at a slow 600 rpm, generating an almost tractor-like rumble. Cruising, it has a nice growling presence that doesn't pummel you with a twin's excessive vibration, while avoiding the electric-motor feel of the flat-six configuration.

Although our testing showed it didn't justify the hype that it is the strongest accelerating bike ever built, its thrust from very

low rpm might actually be the best ever. It simply hurls itself forward at the slightest provocation, so you only need to "think" about more power and it's there—it's almost telepathic—and very endearing.

Also, because it doesn't have to work very hard, the engine doesn't even get that hot in normal running. You can touch the chromed exhaust header covers after miles of cruising and they won't burn your fingers. Neither does the heat released into the wind from the giant radiator feel especially hot against your legs.

However, at the strip, the momentum of its tire-shredding acceleration is interrupted with every shift at what seems like too low an rpm, breaking the beast's stride. And although a 6500 rpm redline is not unusual for such a large motor, as it goes, the Rocket's quarter-mile performance, a corrected 11.44 sec. @ 118.33 mph, is certainly strong, but hardly amazing when several open sportbikes can break into the nines. For instance, the GSX1300R Hayabusa, often mentioned as the Rocket III's natural enemy, is *much* quicker, doing a quarter in 9.84 sec. @ 142.76 mph. Of course, the fact that the 'Busa weighs 550 lbs. to the Rocket's 796.5 lbs. makes even the Triumph's hulking 240mm rear tire inadequate for a truly fast takeoff. In the critical blast to 60 mph, the Rocket posts a best of 3.59 sec. vs. the Suzuki's 2.76, and the Triumph rider will have to work to minimize wheelspin—but at least he doesn't have to worry about wheelies.

But the new Vulcan 2000, which is the most powerful stock V-twin (90.0 hp/116.9 lb./ft. of torque), gets its meat smoked by the

Rocket. Besides being less powerful, the big Vulcan is actually 21.5 lbs. heavier, for a best quarter-mile of only 12.15 sec. @ 106.7 mph, with a 3.95 secs. 0-to-60 mph elapsed time.

But raw power without control is a real drag, so we're happy to report that the Rocket's engine management and Keihin fuel injection works beautifully, giving excellent response without any excuses.

### Transmission

The Rocket's shifting effort is surprisingly low when you consider how large the five-speed's cogs must be. Your upshifts snick quickly into gear with minimal noise, and blipping the throttle makes for downshifting that goes just as smoothly. But if you're coming to a stop and just kicking down through the gears, the box will get a bit clunky, especially when going into the lower gears.

However, once you're in high gear, you can just about forget the nice transmission, as you rarely find a reason to shift. Plus, the bike really doesn't need any extra revs to move out from a stop, as even at idle speed it makes monster torque.

To prevent damage from violent acceleration, a large, spring-loaded shock damper is located between the transmission and driveshaft. And although you will occasionally hear the mechanism clashing when you're on and off the throttle at very low speeds, it's nothing to worry about, and it remains quiet during cruising.

The clutch deserves a word of praise, too. Oddly cable-operated when you might have expected hydraulic operation, it nevertheless works very well; strong enough to deal with the cruise ship power, and with low effort and an easy engagement feel.

### Suspension

The ride is not perfect. It is noticeably bouncy at the back as the rear springs are too stiff and their rebound damping inadequate. Five rear preload settings are the only suspension adjustability (at either end), and the Rocket's twin shocks are supposed to be set on "one" with just the rider on board, and cranked up as high as "five" with a passenger and luggage. But, even with the rear preload on "one," additional rebound damping was needed, and the firmer the setting, the more you'll wish for.

Its stout, 43mm inverted forks are much better, firmly sprung without being too stiff and fitted with cartridge damping that smooths road irregularities very well.

As it is, the bike is still comfortable enough to ride and it even handles fairly rough pavement without hammering the rider. But in bumpy conditions at speed, or even on the freeway, the bike porpoises

more than we'd like, making its ultra-long 66.5"-wheelbase very apparent. Also, long freeway rides will be extra fatiguing until a proper windshield is fitted, as the handlebars turn the rider's torso into a big sail.

### **Brakes**

Triumph is known for good brakes, and the brakes at both ends of the Rocket are huge. Its double front discs are 320mm in diameter and float on large diameter carriers. A pair of four-piston calipers take care of generating the necessary friction, and produce good feedback together with great power. Out back is another disc nearly as large, 316mm across, gripped by a twin-piston, single-action caliper. However, a big rear brake can often be too strong for good feel, and when you need to brake quickly, the action of shutting off the throttle causes the ring and pinion in the final drive to try to lift the rear wheel just as you are getting on the brakes, so you may find yourself locking the rear wheel inadvertently. And despite the rear tire's enormous 240mm cross section, Metzeler Marathons are hard compounds, meant to deliver decent mileage, rather than maximum grip, and they conspire to limit ultimate stopping distances. Our tested stops were not exceptional, although the brakes themselves are strong and easy to modulate, and behave very well in routine riding conditions.

### **Handling**

Twisting the bike through corners takes lots of deliberate countersteering, but with the wide bars, you've got plenty of leverage so the effort isn't too high, and the bike feels very solid. The big rear tire will sometimes hunt on large, straight-ahead pavement grooves, but for the most part, it doesn't produce any weird handling effects, as so many big rear tires will do.

And when the pavement is smooth, the bike is actually great fun to ride quickly, banking deep into turns with a very steady, low-C of G sense of stability.

Although it wasn't hard to grind the peg feelers during our action photography, in normal use the bike has plenty of lean angle for sane riding (although the feelers were perhaps a bit shorter than stock afterwards). And, we noted that when you did bend it in hard enough to scrape, your boot heels touched down first, so we learned to get our heels well up on the pegs when charging.

### **Styling**

Because it breaks the cruiser mold, you can't immediately fit the same mental tem-

plates that tell you how well it looks compared to the standard V-twin's appearance, which is always a point of reference based on Harley-Davidsons.

In fact, the Rocket's wide gastank, massive radiator, chromed header cover and giant rear tire all suggest the Boss Hoss to anyone who's seen one up close, and the bike's catapult-like response to the throttle reinforces the image. But where a Boss Hoss weighs 1100 lbs., the Rocket is a virtual lightweight at less than 800 lbs., and its riding dynamics are much less the car-motor-powered-motorcycle than the motorcycle that acts like a big-block muscle car.

Judging solely by the reactions we invariably received, the bike makes a great impression, and jaded as we've become, we were genuinely surprised at the level of enthusiasm. We'll call it a home run.



### **Riding Impression**

The handlebars are nearly three feet apart at the ends of the grips, and swept well back to reach the rider, positioning the grips at an unnatural angle, and making your inner forearms ache on the freeway. A good windshield would do wonders. And although we fully expected to see the bike approach redline in top gear, at nearly 160 mph, the spread-eagled riding position created such enormous wind resistance, the best we could do was 145.9 mph (even with our tester's feet back on the passenger pegs). Also, he avoided using both hands on the bars, because, pulling so hard to hold on, when bumps were encountered, his body would initiate worrisome oscillations.

But, the rider's seat is wide and relatively flat, allowing for some fore/aft movement to break the monotony, and we concluded that it must be quite comfortable as we rarely thought about it. But the passenger's portion is a style item rather than a real long-distance seat—tapered and sloped to the rear. If ever a passenger deserved a backrest.

We like the sound escaping through the slim EPA-legal triple exhausts. Muted by a

large muffler ahead of the rear wheel, it has enough character to be satisfying even if it doesn't try to sound like the cannon concerto from the 1812 Overture.

### **Instrument/Controls**

Apart from the overly wide handlebars, the hand controls are adjustable for reach and the foot controls are mounted on rails which bolt to the engine's crankcase, providing some isolation from vibration and engine heat. And the footpegs themselves look very custom, chromed with raised rubber inserts and fitted with pretty knurled stainless end caps, very trick.

The gastank is asymmetrical between the rider's legs, the left side a bit wider to clear the intake cover, but not uncomfortably so, and the wind doesn't try to pry your knees apart the way it does on so many cruisers at freeway speeds—a real plus.

### **Attention To Detail**

The wide handlebars help to put the mirrors way out where you can really get a good rear view, and as the Rocket's bars are some of the widest around, so are its mirrors some of the best placed, and they don't blur from engine vibration.

We like the handgrips, too. They are large diameter and smoothly textured for a comfortable handhold and, as usual, Triumph has fitted their ends with really handsome stainless bar-end weights.

### **Value**

Priced at \$15,990, The Rocket is roughly \$1500 more than the Vulcan 2000, but then, it's also \$11,000 cheaper than the Honda Rune (which is only  $\frac{1}{100}$  sec. quicker in the quarter-mile than the Vulcan). Emotions count for more than logic in a case like this, and top bragging rights are always worth a little extra dough, so we think Triumph has made the Rocket a good value, as well.

### **Conclusion**

Motorcycles that really perform are always fun, but when that performance is truly refined and easy to live with, you've got a bike that leaves a very positive lasting impression, and the Rocket does: Nimble enough to be fun on a canyon road with good brakes, a comfortable seat, and an unparalleled sense of massive power that nonetheless is completely under your control. Although this "naked" version makes the most sharply defined style statement, this is a bike that begs to be fully dressed with a comfortable rear seat, windshield and bags. And with a motor so powerful, the additional weight should be insignificant to its performance. 🍷



**Left:** “¿Quién es más macho?” The Rocket III is all about its motor. A DOHC, twin-plug, four-valve triple displacing 2300cc, it produces a massive 140 lb./ft. of torque just off idle. Ferociously responsive to the throttle, you’ve never experienced anything quite like it. Although its near-800 lb. wet weight and hard rubber prevents world-beating performance numbers, it has an intimidating presence that draws stares of disbelief. “No, that’s *not* a car engine, but the biggest production motorcycle engine ever built.”



**Top:** The asymmetrical gas tank holds 6.6 gals up high and you’ll feel it slosh to the side when cornering. The instruments sweep back for a good view, but the long tiller handlebars are nearly three feet wide. The lack of wind protection and splayed riding position will make the rider into a veritable mainsail at high speeds—uncomfortable and inefficient.

**Bottom:** Triumph’s typically have good brakes, and the Rocket III’s are plenty strong with good feel, but the hard compound Metzeler Marathon tires didn’t allow especially good stopping distances in our testing.



**Above:** The rider’s seat is big and well-shaped, sized like the controls to carry a large rider. But if you think you could sit on that tiny passenger seat and stay aboard the bike when the rider grabs a handful, you’re kidding yourself.



**Right:** The rear tire is a monster 240/50-16 on a 7.5"-wide rim, wider than most cars. The rear suspension travel is fairly short, just 4.13", allowing the shapely rear fender to hug the contours of the giant meat perfectly. The rule for customs is that a bigger rear tire is always badder, but its profile requires that you countersteer strongly to force the bike into an arc, so that the handling takes some getting used to at first.



## TESTERS’ LOG

I wasn’t all that excited by the prospect of testing the Rocket III, thinking its exhausts would probably cook my right leg, and its enormous size would make it less than fun to ride on my favorite canyon roads, but I’ve changed my tune. The headers don’t get too hot, the cornering clearance is sufficient, and the beast is actually much more fun to ride than I would have ever imagined.

Handlebars cut maybe four inches narrower would reduce your sail area considerably, but a windshield would help even more. Softer shocks with adjustable rebound would answer our only other real complaint.

In college I occasionally got the chance to borrow my friend Davy Albright’s 427 ’66 Corvette. Big-block power is incredible, but no motorcycle ever reproduced the Vette’s sense of bottomless torque until the Rocket III arrived at our doors. The 500-cubic inch 10-cylinder Dodge Viper is the current automotive equivalent, and incidentally, the Rocket’s pistons are the same size as the Viper’s.

Nicely detailed, with plenty of smoothly finished chrome to polish, and a wealth of styling details that make you take a second look every chance you get, Triumph got it right. —Dave Searle

The original Rocket III was a lean, sexy looking bike. Unfortunately, like many people as they age, the ensuing years weren’t kind to the Rocket. For me the bike is too long, too wide, too heavy, and just too much! Of course, if excess is your cup of tea, then the Rocket III may be your perfect ride. You want big? You got it, with a three-cylinder 2300 cc engine stuffed into the chassis, a massive rear tire that could be used for a small car, and 800 pounds of heft. The front end is quite heavy and tends to “fall in” during low-speed turns. Changing directions also requires some rider effort—once a turn is initiated you must maintain a steady pressure on the bars or the bike will straighten up. The rear shocks offer a harsh ride, similar to the Rune, and the riding position is too stretched out for me. I need longer arms and legs to fit the bars and pegs.

On a positive note, the Rocket really does have stump-pulling torque, enough to rip 100-year-old oak trees out of the ground. And the exhaust note is like music to my ears; I just love that 3-cylinder growl.

—Walt Fulton

# 2004 Triumph Rocket III



## SPECIFICATIONS AND PERFORMANCE DATA

### ENGINE

Type: .....Longitudinal in-line three  
 Valvetrain: .....DOHC four-valve  
 shim-over-bucket valve adjustment  
 Size: .....2294cc  
 Bore/stroke: .....101.6mm x 94.3mm  
 Comp. ratio: .....8.7:1  
 Fueling: .....Sequential multi-point EFI  
 with three 56mm throttle bodies  
 Exhaust: .....3-1-3

### DRIVE TRAIN

Transmission: .....5-speed  
 Final drive: .....Shaft  
 RPM @ 65\* mph/redline ..2500/6500  
 (\* actual, not indicated)

### DIMENSIONS

Wheelbase: .....66.5"  
 Rake/trail.....32°/5.98"  
 Ground clearance: .....5.2"  
 Seat height : .....28.5"  
 GVWR: .....1287 lbs.  
 Wet weight: .....796.5 lbs.  
 Carrying capacity: .....490.5 lbs.

### SUSPENSION

Front: .....43mm inverted forks  
 4.72" travel  
 Rear: .....Twin coil-over shocks  
 adjustable preload  
 4.13" travel

### BRAKES

Front: .....Twin 320mm floating discs  
 with four-piston calipers  
 Rear: .....Single 316mm disc  
 with two piston single-acting caliper

### TIRES & WHEELS

Front: .....150/80V17 Metzeler 880  
 Marathon on 3.50" x 17" wheel  
 Rear: .....240/50V16 Metzeler 880  
 Marathon on 7.5" x 16" wheel

### ELECTRICS

Battery: .....12V, 18AH  
 Ignition: .....Integrated digital inductive  
 Headlight: .....Dual 60/55W

### FUEL

Tank capacity: .....6.6 gal.  
 Grade specified .....89 octane (R+M)  
 High/low/avg. mpg: .....35.1/28.4/31.3



### PERFORMANCE

Measured top speed .....145.9 mph  
 0-1/4 mile .....11.44 sec.  
 @ 118.33 mph  
 0-60 mph .....3.59 sec.  
 0-100 mph .....8.29 sec.  
 60-0 mph .....129.1'  
 Power to Weight Ratio .....1:6.27  
 Speed @ 65 mph indicated ....59.2

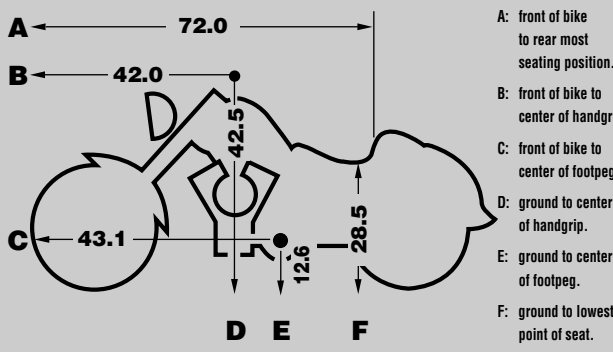
### M/C RATING SYSTEM

EXCELLENT .....  
 VERY GOOD .....  
 GOOD .....  
 FAIR .....  
 POOR .....

### Open Cruiser

Engine .....  
 Transmission .....  
 Suspension .....  
 Brakes .....  
 Handling .....  
 Styling .....  
 Riding Impression .....  
 Instruments/Controls .....  
 Attention to Detail .....  
 Value .....  
 OVERALL RATING .....

### ERGONOMICS TEMPLATE



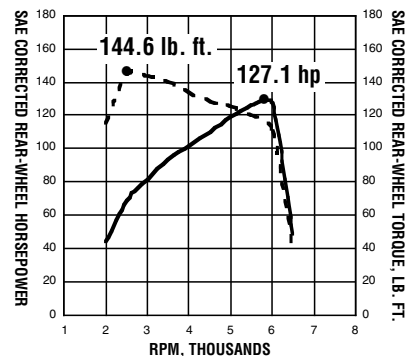
### MISCELLANEOUS

Instruments: .....Analog speedometer,  
 tachometer, odometer, dual tripmeters  
 Indicators: ..... Check engine, high  
 temp/low oil pressure, low fuel, neu-  
 tral, turnsignals, high beam, alarm  
 status (optional)  
 MSRP: .....\$15,990  
 Routine service interval: ....10,000 mi.  
 Valve adj. interval: .....20,000 mi.  
 Warranty: .....2 years, unlimited miles.  
 Colors: .....Jet Black, Cardinal Red

### DYNAMOMETER DATA

Low end .....  
 Mid-range .....  
 Top end .....

A three-cylinder engine makes a good alternative to the ubiquitous V-twins. Smooth-running, with its torque reaction minimized by counterrotating balance, input and final drive shafts, it rumbles, growls and it flat goes like no other cruiser.



### TEST NOTES

#### PICKS

- The world's biggest-displacement production bike engine
- Brakes that are up to the job; strong and easy to control
- Attractive muscular styling enhanced with nice detailing

#### PANS

- Handlebars so wide your body becomes a drag chute
- Overly stiff, underdamped rear shocks
- A passenger seat in name only

### STANDARD MAINTENANCE

Item	Time	Parts	Labor
Oil & Filter.....	0.25	\$13.02 + \$70	\$15.00
Air Filter.....	0.2	\$33.57	\$12.00
Valve Adjust.....	2.8	\$38.40	\$168.00
Battery Access.....	0.5	MF	\$30.00
Final Drive.....	0.15	\$0.38	\$9.00
R/R Rear Whl. ....	0.3		\$18.00
Change Plugs (6) ...	0.95	\$33.00	\$57.00
Synch EFI .....0.25			\$15.00
<b>Totals</b>	<b>5.4</b>	<b>\$188.37</b>	<b>\$324.00</b>

Note: MCN Labor rate changed to \$60/hr. from \$54/hr. in May 2002