

Moto Guzzi's Norge 1200

Challenging the
BMW R1200RT

by Dave Searle



Judged on the drivability of their respective powertrains, we'd have to give the edge to the Moto Guzzi. Despite BMW's improvements to its fuel injection, finally banishing the infamous "surging" problem to the history books, the new counterbalanced Hexhead engines still have significant driveline lash, which can be felt strongly with any throttle openings and closings at rpm below 4000 (most of the time). You quickly learn not to change the throttle in corners.

By comparison, the Guzzi's Marelli injection is not at all abrupt with throttle transitions, and its final drive has very effective shock dampers on both ends, which suppress lash. Except for some clashing in the driveline which can still be felt at very low rpm, the Guzzi is extraordinarily smooth running and feels completely devoid of lash. You adjust the throttle as you flow with the road, without negative effects, just as you do the steering and brakes.

BEFORE THE SPORT-TOURING market became crowded with competitors, there was really only one machine that defined its essence: BMW's boxer-powered RT. Capable of conveying a rider vast distances in comfort, yet also able to let him fully enjoy the challenging roads that make sport-touring special, the RT was literally created to explore the Alps, a short distance south from its Munich birthplace.

Moto Guzzi's new Norge springs from the other side of those same Alps and has the same mission. Both have recently been thoroughly updated, the RT in 2005 and the Norge, as the sport-touring version of the new Brevia, for 2007. Their remarkable similarities justify such a comparison: Both have twin-cylinder, oil/air-cooled pushrod engines, torque-controlled shaft drive, six speed transmissions featuring helically cut gears, the same size tires, wheelbases within .4" of each other (the RT 58.4", the Norge 58.8"), wet weights within mere pounds (the BMW at 625 and the Guzzi at 616.5), and standard equipment electric windshield, ABS and heated grips, just to name a few.

So, it's only natural that riders who might be initially drawn to one of these machines should seriously consider the other as well. Yet we also find their differences significant and that the contrast between them provides interesting perspective on each company's priorities.

Because the very point of sport-touring is to be able to make multi-day trips to search out great roads in far-flung places, and deal with unpredictable weather and road conditions that might arise along the way, the concept of a relatively lightweight touring mount makes a lot of sense. While a number of heavier four-cylinder sport-tourers have appeared that can blaze long distances on straight roads with less effort, both these twins have built-in advantages when the chance to choose the longest distance between two points ultimately means more smiles per mile.

For one, both engines use longitudinally mounted crankshafts, rather than transverse; the BMW an opposed 180° configuration, the Guzzi in a 90° vee. Because the gyro stability imparted by spinning a transverse crank (in the same direction as the tires) essentially resists steering efforts, both of these twins possess an agility that's a pleasant surprise, providing handling prowess that belies their size and weight.

Building on the advantage, the Guzzi's transmission is also exceptional, with very short shift lever travel and buttery smooth gear changes. Blipping downshifts on the Norge is so easy and intuitive partly because the engine's throttle response is so perfectly matched to the job. And don't underestimate how constantly satisfying such effortless shift quality can be, particularly on a winding road, where matching drive and engine braking to the road makes such a difference to performance and rider control, subtly transforming a good ride into a great ride.

The BMW uses a bore and stroke of 101 mm x 73mm to make 1170cc, while the Guzzi's bore/stroke measures 95mm x 81.2mm to displace 1151cc. Note that Guzzi's 90° vee doesn't put such a penalty on engine stroke as it doesn't have to worry about cornering clearance to wide-set opposed cylinder heads like the BMW. And while the BMW's shorter stroke and four-valve heads, vs. the Guzzi's two-valve types, might be expected to have a rev-range advantage, the BMW has the lower redline instead, 7500 on the RT's rev limiter vs. 7800 at the Guzzi's indicated redline plus the ability to climb even higher—the dyno measured 8250. In addition, the Guzzi's lower first gear pulls harder and makes it easier to launch. Both bikes also share automotive-style dry clutches which aren't ideal for hot starts, and the BMW's taller gearing means it has to work harder. Compared to its cousins the Brevia and Griso, the Norge has shorter gearing overall, with a 1.45:1 primary drive ratio, to the Griso's 1.38:1 or the Brevia's 1.31:1 (all other ratios being the same).

Thus, although the dyno confirms that the Guzzi's peak power is indeed less, 71.3 hp vs. the Beemer's 96.5, they don't feel as different. In fact, a stoplight dash to 60 mph is nearly a tie, the BMW barely ahead with a time of 4.08 secs. to the Guzzi's 4.10 secs. While the BMW's power is clearly stronger at higher speeds, "enough" is the operative word in this class, and the Guzzi never feels weak—a happy combination of muscular and responsive mid-range power and a fast free-breathing top end rush.

And although MCN has tested the Moto Guzzi Brevia 1100 (August 2006) and naked Griso 1100 models (December 2006), this is the first of the new 1200 Guzzis we've ridden. Both bored 3.0mm and stroked 1.2mm to achieve its larger size, the new motor is still plenty smooth running, but seems to have a much

more visceral presence. As Americans, the sound of a vee engine, as in all those Detroit V-8s, resonates in our psyches, and the Guzzi sound tickles something deep in our brains. Where the boxer's even firing order sometimes has a droning sameness to its tune, the vee has a rousing personality and popping overrun that would do justice to a Harley-Davidson. The sound is perhaps even more focused because the Guzzi's cylinder heads point upward, unobstructed on either side of the big gastank. Earplugs are a must and also hide any clatter from the pushrod valve gear, which becomes less noticeable as the engine warms.

Interestingly, the Griso 1100 was even more powerful than the Norge, at 74.19 hp, but it also made 4.5 more than the Brevia 1100. A different chassis and smaller gastank allow the Griso to have a much less restrictive airbox, which accounts for the extra horses.

All the Guzzi motors also wear dual sparkplug ignition, like the BMW, which is particularly helpful on large-bore engines as the time required for flame travel becomes such an issue for efficiency. Oversized combustion chamber shapes also make for ragged power curves, and the Beemer's larger bores do indeed evidence more dips on the dyno chart. Both bikes also use right-side mounted drive shafts and left side single silencers with catalytic convertors to meet Euro III emissions.

In terms of suspension, both machines use nearly identical travel, 4.7" front/5.7" rear for the Norge, to the R1200RT's 4.7" front/5.4" rear. Naturally, the RT uses BMW's Telelever leading-arm fork, which is inherently dive resistant, minimizing weight shift with braking. The Guzzi uses conventional female-slider 43mm cartridge forks. Both work well to soak up larger bumps, although the BMW's Telelever doesn't provide the direct steering feel of the Guzzi and, as we've noted before, the Telelever's lever action shock doesn't smother the effect of low-amplitude ripples as effectively. Also, the Norge's fork is adjustable for preload, while the BMW isn't.

Both share knob-adjusted rear preload and rebound damping, and both separate the shaft final drive's torque reaction from the suspension with floating torque arms, named the Paralever on the BMW and the CARC system on the Guzzi. The main difference is that the torque arms are on opposite sides of the driveshaft, the BMW's below and the Guzzi's above. Both work well. However, each time we ride one, we notice that the Guzzi's rear brake is also exceptionally effective, providing noticeably better than average power and good feel without being easily locked, so perhaps the higher torque arm placement helps.

Braking is both another similarity and a difference. Both have a pair of big 320mm floating front discs covered by four-piston calipers, with two-piston calipers in back, the BMW using a 265mm rear disc, the Guzzi a 280mm. Both offer ABS as standard equipment, which is often a big selling point in the sport-touring category, and our best tested stops were extremely close: 119.4' for the BMW, 120.25' for the Norge, just 10.2" apart.

BMW has finally abandoned their controversial electrically power-assisted ABS in favor of a simpler valve-controlled system

without power assist for 2007. The system's feel is much improved, and the engineers have retained a "partially integrated" arrangement in which the rear brake is independent, and the front lever adds a computer calculated proportion of rear brake as well. While BMW's effort to "idiot-proof" the brakes is well-intentioned, many riders prefer separated systems, to personally control the front/rear braking proportion. If you've developed good braking skills, you might prefer Guzzi's simpler "two-channel" design, which pulses noticeably through the controls to let you know when it's working, and also incorporate an "ABS Off" button for dirt or gravel roads (the RT's ABS can't be shut off).

Controls are all top quality on the Norge. The hand levers are four-way reach adjustable over a useful range (while the RT's clutch lever is a long reach away, even at the closest setting). The Guzzi's foot controls have tips in eccentric mounts, Aprilia style,

for adjustable length as well as height and are easy to access (covering the RT's rear brake requires turning your ankle inward). The rider's seat is a lot lower, just 30.4" off the ground (vs. the RT's much taller, two-position 32.25" or 33.125" saddle).

The Guzzi's instruments are among the most complete available, with trip computer functions: average and instantaneous mpg, trip time, distance covered, average speed, maximum speed, a lap timer (40 laps max.) as well as ambient temp., black ice warning, battery voltage, an adjustable shift light and

all the usual info and warning lights. A gear indicator is also provided, but we found that it was too slow to react to be helpful when locating neutral.

Innovative switchgear enables toggling between the different readouts, adjusting instrument lighting brightness and mile/kilometer scales, and also includes a Euro-style passing flasher for the high beams. You could hardly ask for anything more, and it is all standard equipment.

The Norge's standard equipment also includes three-way heated grips (BMW's have two positions), an electrically adjustable windshield and large fitted saddlebags that are equipped with secondary clasps at their rear edge for additional security. The RT's bags are big, but look larger than they are, as they have double walls for a smooth interior. Carrying capacity between the two bikes is virtually identical. A centerstand, in addition to the sidestand, is also standard on both.

However, BMW's innovations, like the ESA electrically adjustable suspension, tire pressure monitors, and heated seats are not available on the Moto Guzzi Norge.

Norge Riding Impression

A momentary touch on the start key initiates the starting sequence, and the engine promptly comes to life with a slight OHV clatter emanating from the cylinder heads. Cold start is automatic. Like the Beemer, no fiddling with a choke is required, and the engine is immediately responsive. Premium fuel is required, like the BMW.

The Guzzi's handlebars are on high cast risers and fairly wide apart for good leverage, but you have no placement options. Their



reach is a bit far from the seat, but well-suited to those with 34" sleeves. The seat is firm and well-shaped with a usefully wide front section that offers good long-term thigh support. A 300-mile day didn't dampen our enthusiasm for its comfort. The seat is also low enough to allow good leg support at a stop, although the pegs feel a touch too close to the seat, as least for those with 33–34" inseams.

The engine's response and aural personality are a delight, and its powerband and flywheel inertia are delightfully well-matched to the six gear ratios, while the clutch is easy to modulate and shifting is intuitively easy to match with rpm.

At very slow speeds, the bike doesn't have an ideal balance, feeling slightly unsteady and top heavy, as if the weight of the fairing has some pendulum effect and it must be balanced from below. As soon as you gain some speed, stability returns.

On the freeway, running the prevailing 80+ mph traffic speed, the mirrors will start to blur, but they are well spaced for a great rear view and stay clear at lesser speeds. Alas, the electrically adjustable wind-screen proves too narrow to prevent turbulence from buffeting the sides of the rider's helmet, which interferes with vision clarity and equilibrium to a noticeable degree at high speeds. Its adjustment range allows the roostertail of wake to be directed from the middle to over the top of the helmeted head. Again, at slightly slower speeds, say 70–75 mph, it's not a problem. Also, its Metzeler Roadtec Z6 tires tend to track grooved freeways somewhat.

Once on winding roads, the bike's nimble handling (a function of its longitudinal crank layout) is almost astonishing, and corner entries don't seem to demand lifting the throttle to reduce the typical gyro effect. And even deep lean angles are very neutral in response to steering angle, so that the rider always feels in control, able to tighten a chosen line if necessary with relaxed confidence. If sport-touring is about unravelling great roads, the Moto Guzzi is ready.

However, perhaps its worst aspect is that the centerstand's ground clearance is too low. The stand's foot lever on the left side grounds out early, restricting lean angle to much less than you'd expect, and the centerstand supports even hit on the right side at steeper lean angles. Because the stand impacts rubber frame bumpers, road contact doesn't immediately try to lever the tires off the ground, but the grinding is clearly felt and sounds a loud warning to slow down. Situations like uphill turns press the bike even lower into its suspension, so the stand hits even sooner. This situation is bad enough that we'd be tempted to remove the centerstand, despite its potential convenience benefits, and because actually hoisting the Guzzi onto its centerstand takes hernia-inducing effort in any case. The RT doesn't have this problem and allows excellent lean angles.

The Guzzi's big analog speedo, tach and fuel gauge are all well marked and easy to read under way, however its LCD info display at the lower right is often obscured by glare off the broad silver upper fork clamp and its gray on green graphics have poor contrast. However, at night, the instrumentation is dark red on red and

quite easy to read. The four headlight illumination, with two low beams and two high beams, is also very effective. The low beams give a broad spread of even lighting and the spotlight style high beams provide a powerful illumination into the distance, but with some distracting hot spots closer to the bike.

The fuel tank is a rated at 6.0 gallons, and we averaged 44.1 mpg, for a range of over 260 miles. The tank is made of a polyester material for durability, and although it doesn't allow magnetic tankbags, it is well shaped to allow padded pants adequate knee room, where the BMW can be tight in this area for long-legged riders.



The styling on the two machines provides the clearest differentiation. The BMW R1200RT wears the latest Teutonic body architecture, with strong character lines, expanses of nearly flat panels and has grown so wide at the front that it approaches the look of a Gold Wing. The Norge, on the other hand, is composed of more complex shapes with greater surface detail and looks much sleeker and sportier in spite of its nearly identical dimensions. The BMW's much bigger wind-screen is certainly more effective and both bikes provide useful wind deflection away from the rider's hands, the Guzzi via the pointed "shoulders" on the fairing, the BMW with its low-mounted mirrors, which aren't quite as effective at their job as the Guzzi's classic bar-mounted types.

We did feel some engine heat released through the vents ahead of the Norge rider's boots, resulting from both the engine and nearby exhaust pipes most likely. In conditions that ranged from 60° to 80° it wasn't bothersome, but might be in much hotter weather.

In term of detail, the Norge offers the more complete toolkit and packs an owner's manual that's 4" x 5 3/4" and a massive 1 3/8" thick—only 1/4" of which is in English!

Bottom Line

We really enjoyed our time on the Norge and consider it a strong contender for the same customer as the excellent and popular R1200RT. Value-wise, it is also significantly less expensive than the BMW, priced at \$14,990, or \$2370 less than the R1200RT's base price. However, the Moto Guzzi warranty is two years, while BMW provides three years coverage. Maintenance costs will likely be higher for the Guzzi, as valve adjustments are specified nearly twice as often, 6250 miles on the Norge vs. 12,000 miles on the RT, although with such easy access to the valve gear, the cost shouldn't be particularly high.

Except for the centerstand's poor ground clearance, the only thing that would give us pause is Moto Guzzi's sparse dealer network and the Piaggio Group's lack of a track record for parts backup. To be fair, as their ownership of Moto Guzzi and Aprilia and the Piaggio Group's presence in America are all so new, any current difficulties may be only teething problems, but only time will tell. We hope Piaggio appreciates that long waits for scarce parts can spoil a very promising future. The new Moto Guzzis are the right product at the right time. Let's hope they become the success they deserve to be. 🍷



Left: Guzzi's older 1100 motor is bored 3mm and stroked 1.2mm to reach its new '1200' 1151cc size. The pushrod two-valve heads make a bit of clatter until it warms up, but its fuel injection behavior is excellent and no driveline lash is evident at cruising speeds for great drivability. The V-twin sounds great, too.



Top: The tach (left) has a shift light at the 7800 rpm redline, but the engine can spin to 8250 for optimum performance. The LCD display (lower right) is chock full of info, but often obscured by glare from the fork top.

Below: A close look at the cockpit reveals wide-set mirrors that provide an excellent rear view and just how narrow the wind-screen is. The saddlebags hold a lot and are nicely integrated into the bike's styling.



Top: The seating is firm but well-shaped and the forward portion offers good thigh support for excellent long-term comfort.



Right: The two photos at right illustrate the windshield's adjustment range, deflecting wind from mid-helmet to fully over the top.



Above: Brembo provides both the wheels and brakes. Two-channel ABS (no front/rear integration) is optional and very effective.

TESTERS' LOG

Until Aprilia purchased Moto Guzzi, I confess I was not a fan of the bikes from Mandello del Lario. But the latest Guzzis have changed my mind. Not only do their engines have great personality, but their formerly outrageous torque reactions on/off-throttle have been tamed—in fact less noticeable than the BMW boxers'. Their transmissions have gone from being the worst I'd ever used to among the very best you can buy. Combined with a driveline that eliminates lash, perfect fuel injection behavior and ideal flywheel weight, they can be shifted up or down with uncanny ease to maintain drive or supply just the engine braking for the occasion. And I really like that Guzzi's ABS is the simpler two-channel type, too, so that I control the braking front and or rear, without computer "integration."

I'd probably unbolt the centerstand and stash it in the garage. It's too low and too hard to use in any case. Otherwise, a slightly wider windshield would have it ready to go, and the Norge's agile handling and rousing exhaust note would keep me grinning all day long.

—Dave Searle

Moto Guzzis in general have more character than the average bike, and the Norge is no exception. The engine is torquey and responsive, especially in the mid-range, and it feels like it will run forever, which many Guzzis do. I rode a Brevia 1100, which shares a similar drivetrain, in the Alps and Dolomites and it just motored along, day after day, at high altitude, in near-freezing cold and pouring rain with nary a whimper. Shaft drive is great to have on a sport-touring bike, too.

Riding the Norge, you can feel that it carries a lot of its weight up high, especially with a full tank of gas. However, Moto Guzzi's factory is surrounded by mountains and these bikes have to be good on twisty roads. Consequently, the Norge feels fairly nimble at speed and the steering is lighter than expected and stable as a rock. Lean it over and it feels good until that darned centerstand starts grinding away at the pavement—just a little too soon. Overall, it's a good machine with European panache and styling, along with a very capable drivetrain.

—Ken Freund

2007 Moto Guzzi Norge 1200

SPECIFICATIONS AND PERFORMANCE DATA



ENGINE

Type:air-cooled, 90° V-twin
 Valvetrain:.....OHV, 2 valves per cyl.,
 screw and locknut adjustment
 Displacement:1151cc
 Bore/stroke:.....95.0mm x 81.2mm
 Comp. ratio:9.8:1
 Fuel delivery: Magneti Marelli IAWSA,
 2x40mm throttle bodies
 Exhaust:2 into 1 w/ catalytic converter

DRIVE TRAIN

Transmission:6-speed
 Final drive:Shaft
 RPM @ 65* mph/redline* 3980/7800
 *Actual, not indicated *rev-limiter @8250 rpm

DIMENSIONS

Wheelbase:58.8"
 Rake/trail25.0°/4.7"
 Ground clearance:5.25"
 Seat height:30.4"
 GVWR:1054 lbs.
 Wet weight:616.5 lbs.
 Carrying capacity:437.5 lbs.

SUSPENSION

Front:45mm telescopic hydraulic forks,
 preload adj., 4.7" travel
 Rear:single-sided swingarm with
 progressive linkage, adj. preload and
 reb. damping, 5.5" travel

BRAKES

Front: 2-channel ABS w/dual 320mm
 discs,4-piston calipers
 Rear:282mm disc,
 2-piston caliper

TIRES & WHEELS

Front:120/70ZR17 Metzeler
 Roadtec Z6 on 3.50" x 17" wheel
 Rear:180/55ZR17 Metzeler
 Roadtec Z6 on 5.50" x 17" wheel

ELECTRICS

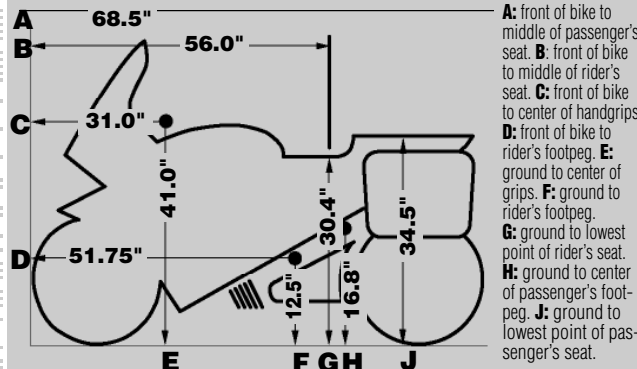
Battery:12V, 18Ah
 Ignition: Inductive discharge, digitally
 controlled electronic twin spark
 Headlight: low 2x55 W, high 2x55 W
 Alternator output: 550 W @ 2000 rpm

FUEL

Tank capacity:6.0 gal.
 Fuel grade:Premium unleaded
 High/low/avg. mpg: .46.0/43.0/44.10



ERGONOMICS TEMPLATE



MISCELLANEOUS

Instruments: analog speedo and tach,
 odometer, tripmeter and data, alarm
 display, clock, ambient temperature,
 lap timer, maintenance warning display
 Indicators:hi-beam, t/s, neutral,
 oil pressure, low fuel, ABS, stand down,
 check engine, shift
 MSRP:\$14,990
 Routine service interval6250 mi.
 Valve adj. interval:6250 mi.
 Warranty:2 years
 Colors:red, silver

TEST NOTES

PICKS

- Excellent powertrain drivability
- Remarkable handling balance and agility
- Handsome styling and detailing

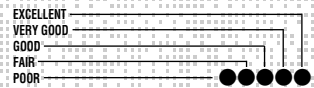
PANS

- Windshield is too narrow for adequate wind protection
- Centerstand grinds early, spoiling handling fun
- Ergonomics favor longer arms and shorter legs

PERFORMANCE

Measured top speed123.5 mph
 0-1/4 mile12.42 sec.
 @ 104.73 mph
 0-60 mph4.10 sec.
 0-100 mph12.00 sec.
 60-0 mph120.25'
 Power to Weight Ratio1:8.65
 Speed @ 65 mph indicated62.7

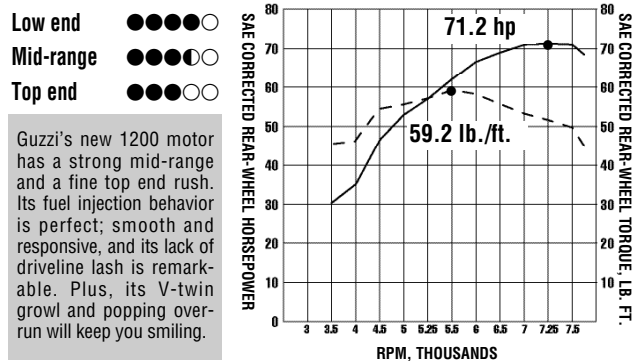
M/C RATING SYSTEM



Open Sport-Touring

Engine	●●●●○
Transmission	●●●●●
Suspension	●●●●○
Brakes	●●●●●
Handling	●●●●○
Ergonomics	●●●●○
Riding Impression	●●●●○
Instruments/Controls	●●●●●
Attention to Detail	●●●●○
Value	●●●●○
OVERALL RATING	●●●●○

DYNAMOMETER DATA



STANDARD MAINTENANCE

Item	Time	Parts	Labor*
Oil & Filter	1.0	\$16 + \$50	\$80.00
Air Filter	0.5	\$33	\$40.00
Valve Adjust	1.0		\$80.00
Battery Access	0.1	MF	\$8.00
Final Drive	0.75	\$10	\$60.00
R/R Rear Whl.	1.0		\$80.00
Change Plugs	0.25	\$5	\$20.00
Adjust carbs	1.5		\$120.00
Totals	6.1	\$114.00	\$488.00

*MCN has changed the estimated labor rate to \$80 starting March 2007