

# Cycle

FEBRUARY 1982

**Laverda Jota**  
**1000 Triple**

**Yamaha IT250J**

## **Kawasaki's GPz550** **Single-Shock Speedster**

**Turbo Outrage!**

**Suzuki 1100**  
**Puffer**





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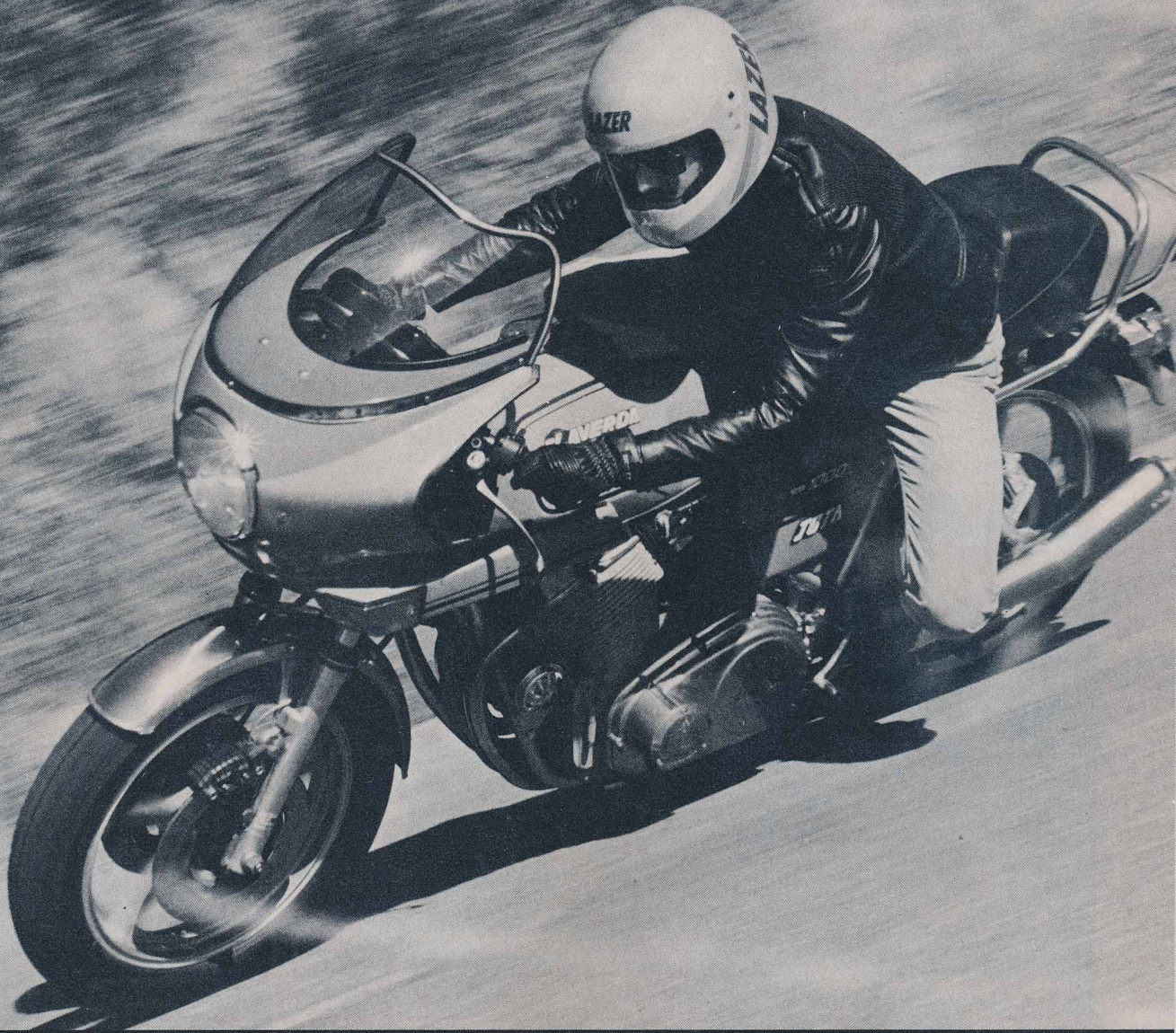
*This Month's Cover:* Here you see the Kawasaki GPz550 at speed and at tilt; what you do not see is its single-shock rear suspension, tucked neatly away and hard at work thanks to Mark Homchick. Yes, he's paid to gas-it-up. The Dave Hawkins Magic Brownie catches the bend-it-over action and what's not there anymore—the twin shocks. The road test begins on page 28.

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# LAVERDA 1000 JOTA

*This Italian Flashbike has real amperage behind its high-voltage glitter. It's called horsepower, the stuff that sparks 11-second quarter-miles and makes the kind of speed that has the scenery backing up in a hurry. Now who needs to be Italian to understand that?*

● THE LAVERDA JOTA 1000 IS THE TYPICAL Italian sport bike with a twist. Its handling is slow and stable, its ride stiff-legged, its seating position the classic road-racing hunker-down-on-it, its mechanical design both interesting and unusual. So what's the twist? This 1982 Jota squirts through the quarter-mile in 11.93 seconds—and its 115-mph terminal speed, exceptional for *any* bike, is especially remarkable for a machine with such long-legged gearing. Only a few muscle-bound Superbikes—geared 10 to 15 percent lower—

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can beat it: the Suzuki GS1100 and Katanas, and the Kawasaki GPz1100 and KZ1000.

This speed and quickness originate in a series of 1982 changes. Although a cursory examination will uncover little, the 1982 Jota contains no fewer than 227 component changes. A new cylinder head that's an adaptation of the head used by the factory on the 1976 works racers is primarily responsible for the performance increase. The 70-degree valve angle is the same as that of former

models, but the combustion chambers are shallower and the valve heads 2.0mm larger. These new standard valves are the same works valves offered as a racing modification since 1976. New camshafts feature slightly more lift, which helps power at lower engine speeds. The pistons have a flattened dome yet still retain a relatively high 9.6:1 compression ratio.

Although our pre-production test machine was supplied with spigot-mounted carburetors, production units will be rub-



## LAVERDA 1000 JOTA

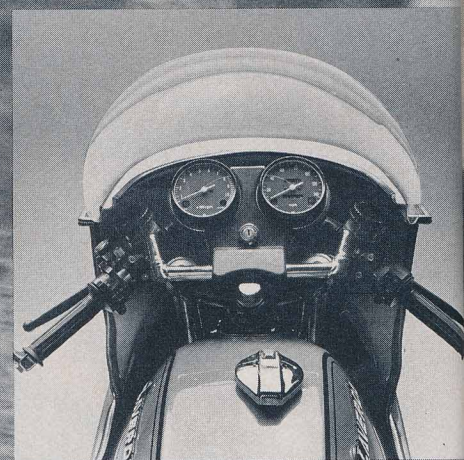
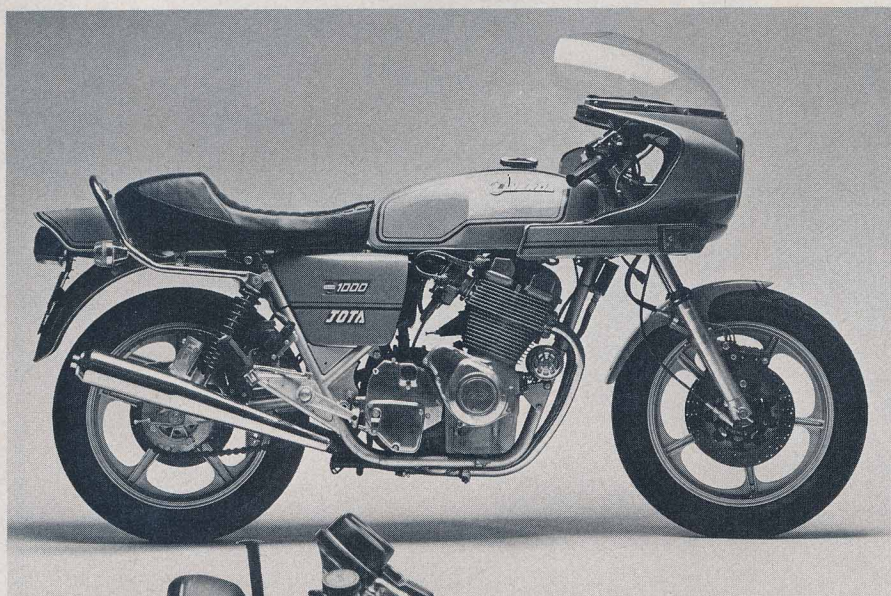
ber mounted. Engineers incorporated rubber mounts not to isolate the carbs from engine vibration but to stop engine heat from being transmitted to the carbs in hot weather. The ignition advance curve of the Nippondenso-made solid-state control unit, added in 1981, peaks very suddenly at very low engine speed—it's not the slower advance of former Bosch units. As a result, hot intake mixture causes the idle speed to rise enough to advance the timing, which further increases the idle speed. Laverda representatives report that the rubber mounting has cured this self-generated racing idle, which was present in our machine.

The all-roller-bearing engine received a new oiling system. A high-volume pump circulates large quantities of oil under very low pressure the way previous

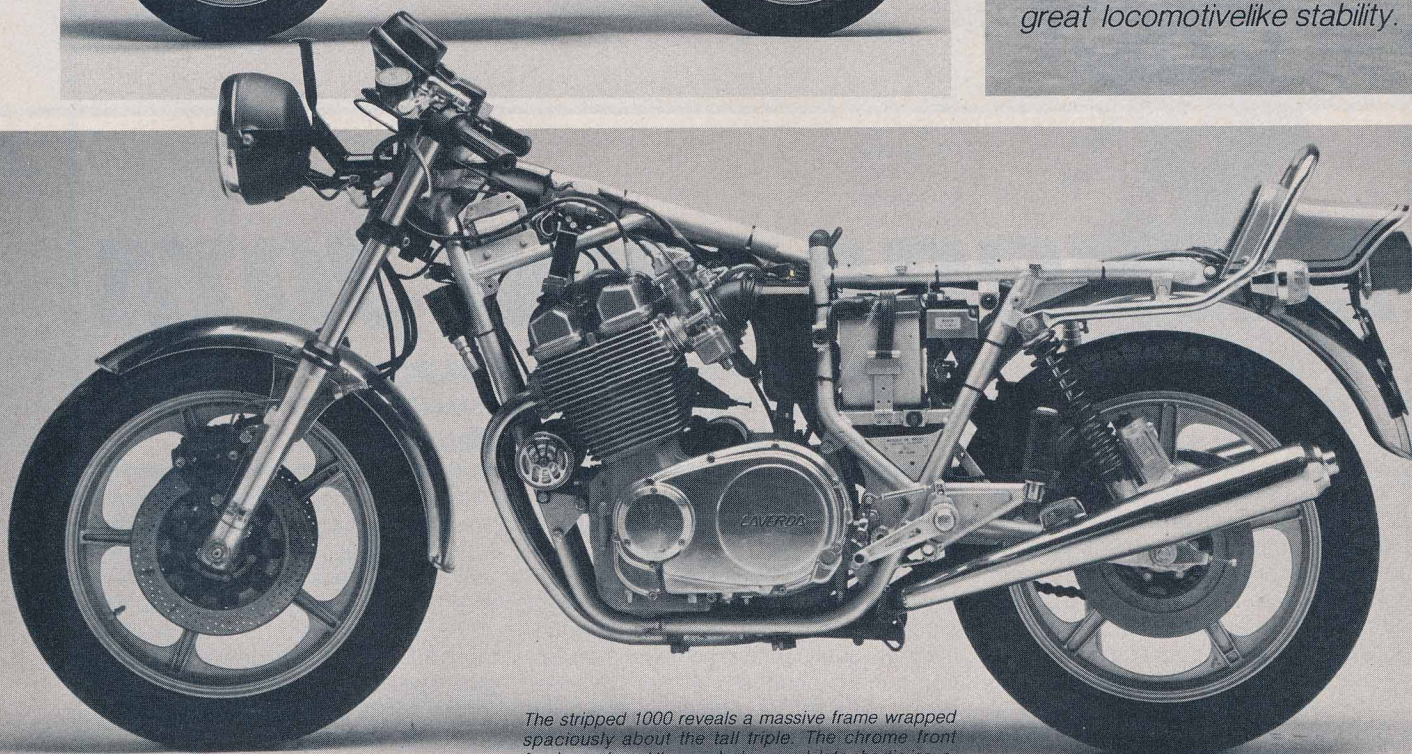
models did, but the Jota has a new full-flow oil filter with a disposable cartridge. The oil passes through a cooler on the frame's front downtubes.

The 1982 crankshaft is also new. The generator, secured by an Allen bolt rather than a nut, is on the right, and Laverda lengthened the crank's left end to mount the ignition triggers. Laverda has added an outrigger needle bearing at the clutch to ensure that the triple-row chain is held in alignment. The starter clutch, located on the crankshaft, keeps the starter motor's drive chain disengaged except when cranking.

The sand-cast engine cases, already impressively massive, now have extra ribbing. The clutch, altered to reduce a rattle when disengaged, runs under an outer cover with sound-deadening ribs. These modifications help the Jota comply with EPA noise regulations.

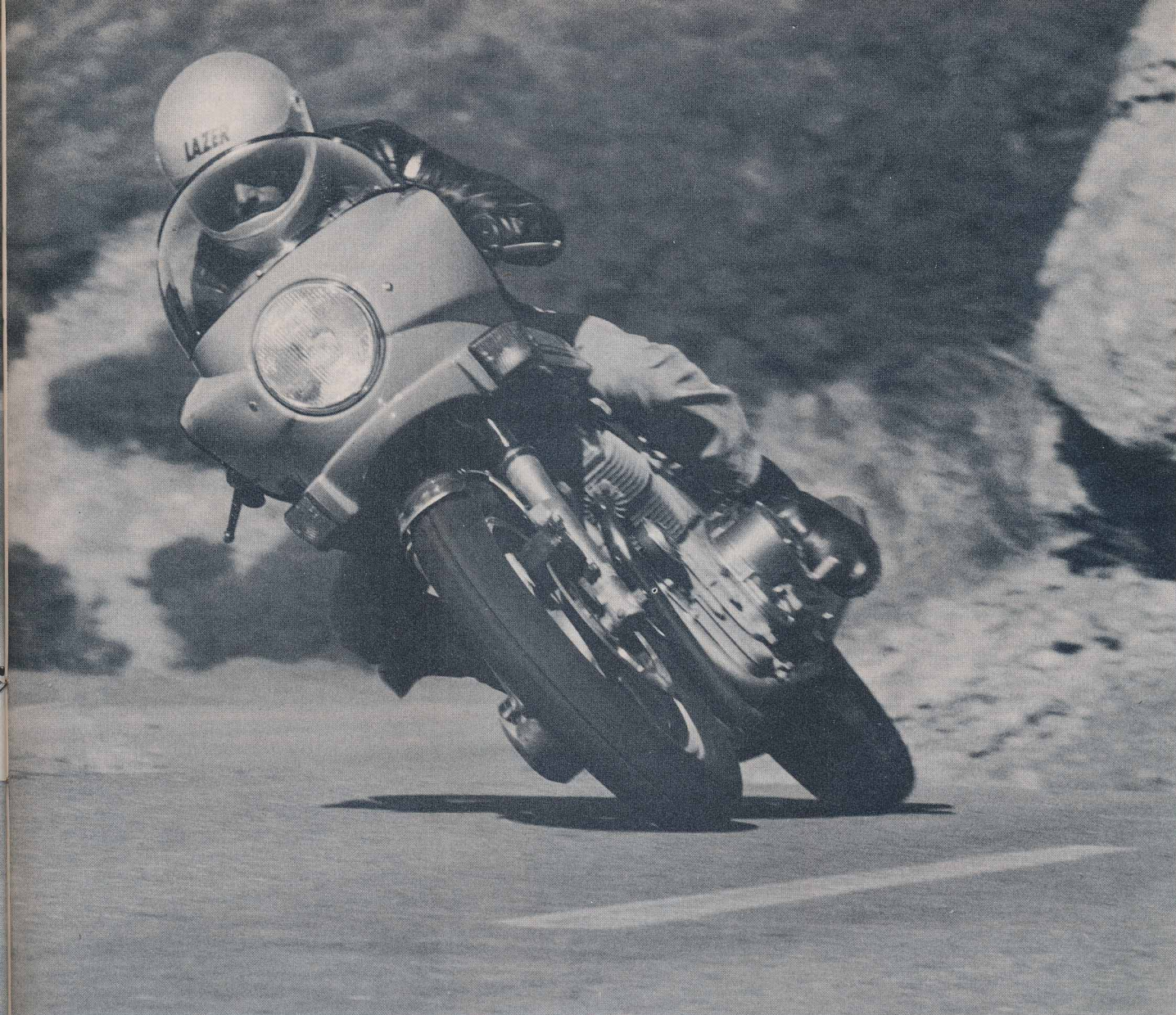


*A trimmer engine gives the 1982 Jota greater right-side ground clearance. The large-section front tire contributes to the Laverda's slow steering and great locomotivelike stability.*



*The stripped 1000 reveals a massive frame wrapped spaciouly about the tall triple. The chrome front fender replaced the crash-damaged Jota shortie issue.*





The clutch is now hydraulically actuated, the first clutch of this type we've ever tried. The lever operates a master cylinder, and a fluid-coupling hose runs to the slave cylinder in the engine side-cover. The hydraulics can be retrofitted to earlier 750 models, Mirages and Jotas.

An important alteration in the electrical system has provided much greater right-hand cornering clearance. A new, smaller Nippondenso three-phase alternator with increased output replaces the Bosch unit. In the switch, ignition triggers were moved to the left-hand side, as noted above. Engine width has been reduced about two inches on the right without affecting left-side clearance. Extremely aggressive riders can grind the cases, but only after passing the safe-riding threshold.

Though big, the Jota has a fairly compact seating position. The high and narrow pegs are close to the seat; the relatively narrow tank provides tuck-in room for the knees; and the low bars require a short stretch across the tank. The seat

height is remarkable—nearly three feet above blacktop level. Those with shorter-than-average legs will have a difficult time maneuvering tight quarters at toe-dabbing speeds.

For our staff's preferences, the Jota handlebar was too low and too far forward for long-term comfort. The wind would help keep the rider's weight off his hands and arms, but the fairing breaks up this onrushing support. The ride isn't windless, however; the air-stream coming off the bubble catches the rider at mid-helmet. The bar, though short, is adjustable for angle. In terms of controllability, the bar is good since the rider can get weight on it, even though it provides little leverage.

The Jota's short, narrow, hard seat drew the ire of every staffer who spent more than an hour on it. It's far too hard for normal American riders. The seat's upward slope toward the gas tank prevents riders, especially short ones, from sliding forward enough to take the load off arms and wrists. The semi-solo saddle

does let the rider stretch, but it restricts passengers to little more than a quasi-comfortable short hop. The 1200 Mirage seat is offered as an option at no extra charge.

Footpeg and seat positions situate the rider's center of gravity directly over the pegs. This allows the rider to move around easily. That's a Good Thing because the bike with its tall profile, heavy steering and short handlebar needs lots of power-assist from the rider to initiate cornering.

At frisky speeds on twisty roads the Jota's slow and heavy steering response demands full concentration—the rider must initiate turning early enough to lock the motorcycle on the desired line. As one staffer insisted, if a rider doesn't know how to countersteer he'll learn or miss the corner. Once it's on lock, the Jota has confidence-inspiring stability. Dips and bumps don't upset the Jota's steadiness; any deviation from an established line in the middle of a corner requires deliberate, forceful inputs.



## LAVERDA 1000 JOTA

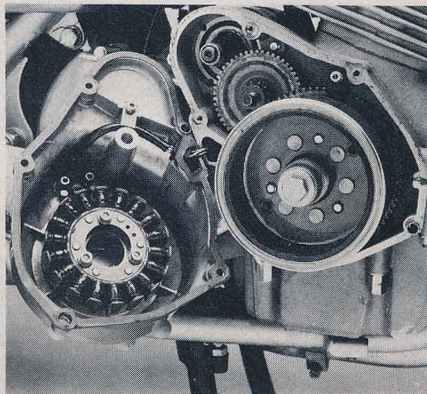
Our Jota's front tire—a 4.00H x 18 Pirelli Gordon—added to the bike's strenuously deliberate steering. The Gordon is an excellent all-around tire, giving a nice combination of traction and wear qualities at the expense of heavy steering. Jotas roll out of Laverda's factory with three possible sets of tires: The mix is about 50 percent Dunlop TT100 and 50 percent Pirelli; half the Pirellis are Gordons, half Phantoms.

Our sources at Laverda claim the Jota steers considerably lighter with the 100/90V x 18 ribbed Phantom. Our experience with these tires on other motorcycles would substantiate this. The Phantom, however, doesn't have the Gordon's large full-lean footprint and doesn't wear as well. Roger Slater, the U.S. distributor for Laverda Motorcycles, points out that Laverda dealers will install the standard tires of the rider's choice at no extra charge.

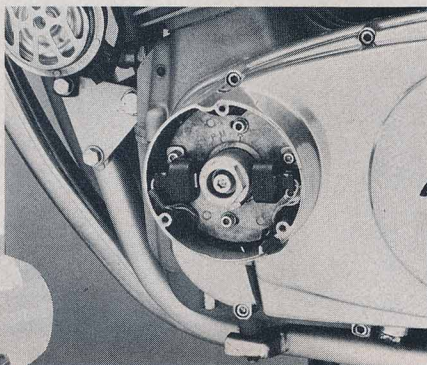
The air-charged, remote-reservoir rear shocks, new for '82, with five spring preload adjustments, have non-adjustable damping. Although the fork is likewise non-adjustable, the Marzocchi suspension controls wheel movement very well under a variety of conditions, providing excellent road-holding and a reasonable ride. The fork has some stiction, and the ride at the rear is moderately firm for riders over 140 pounds. In this respect, heavier riders will be the happier ones.

"Jota" (pronounced "Hohta," for the uninitiated) is the name of an old Spanish gypsy dance in which one romps gaily in

rapid triple time. This Italian motorcycle version, with its triple cylinders, does its own vibro-jitterbug. Buzzing is present at nearly every engine speed. Most intrusive is the handlebar vibration. Our test Jota had its crankpins set at 180 degrees—two up, one down. Laverda has built 120-degree triples, with the crankpins set in even intervals, and we would imagine the interest in 120-degree cranks relates to the present motorcycle's propensity for shaking.



1982 changes: A more compact and powerful Nippondenso alternator (above) replaces the previously fitted Bosch electrics and slims the case. Ignition's magnetic triggers (below) move to the port side.



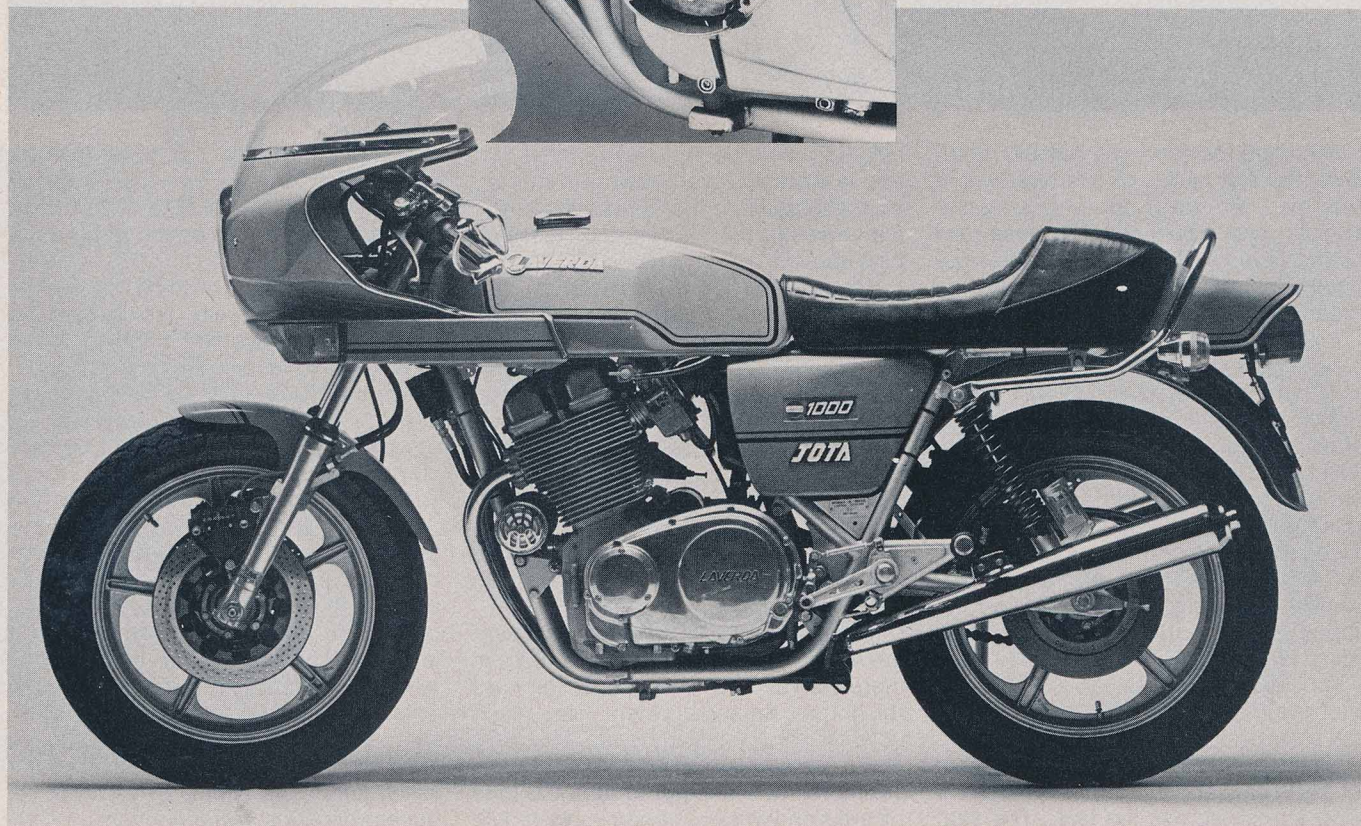
The Brembo front brakes on our test machine required heavy lever pressure. Nonetheless, sheer stopping power was very good—enough to squeal the enormous 4.00-section front tire.

New aluminum carriers mate to Brembo's premium lightened rotors and replace the old integral disc carriers. The components reduce unsprung weight, significantly easing the task of the suspension units.

The hydraulic clutch lever should be a paragon of lightness, at least in theory. But, strangely, the lever pull was extremely heavy, and the hydraulics seemed to obscure the exact take-up point for engagement/disengagement. These high pull-pressures, together with the engine vibrations, make riding the Jota long distances wearisome.

The engine has a lot of low-end punch and it pulls eagerly right off idle. Throttle response is good. At 6000 rpm the engine begins to make power with real authority and carries strongly to redline. Yet the Jota is deceptive. The power feels incapable of Superbike acceleration, but keep the tachometer needle elevated and you'll see the scenery around you back up in a hurry.

It's possible that the Jota can make more horsepower than it actually did on our dyno, where a combination of too-hot spark plugs and too-rich carburetion hurt upper-rpm power figures. Since we were supplied with an incorrect primary gear ratio, our dyno-calculated rpm figures proved four percent high—the engine produced a maximum horsepower reading of 78.16 at 7690 rpm, well below the





# Cycle TEST SPECIFICATIONS

Make and model ..... Laverda 1000 Jota  
 Price, suggested retail (as of 11/25/82) ..... \$5950

Curb weight, full tank ..... 251.9 kg (555.4 lbs.)  
 Test weight ..... 324.4 kg (715.4 lbs.)

## PERFORMANCE

Standing start ¼-mile ..... 11.933 sec. @ 115.23 mph  
 Engine rpm @ 60 mph, top gear ..... 3400 rpm  
 Average fuel consumption rate ..... 38.7 mpg  
 Cruising range, main/reserve ..... 170/35 mi.  
 Load capacity (GVWR less curb weight) ..... 188.1 kg  
 (414.8 lbs.)  
 Maximum speed in gears @ 8500 rpm ... (1) 52.5 (2) 79.6  
 (3) 109.1 (4) 127.8 (5) 149.9

## ELECTRICAL

Power source ..... AC generator  
 Charge control ..... Solid-state regulator  
 Headlight beams, high/low ..... 60/55 watt  
 Tail/stop lights ..... 8/23 watt  
 Battery ..... 12V 32A

## ENGINE

Type .... Four-stroke, transverse three-cylinder, air-cooled  
 with twin overhead camshafts, chain-driven  
 Bore and stroke ..... 75.0 x 74.0mm (2.95 x 2.91 in.)  
 Piston displacement ..... 981cc (59.86 cu. in.)  
 Compression ratio ..... 9.6:1  
 Carburetion ..... (3) Dell'Orto 32mm slide-valve  
 with accelerator pumps  
 Exhaust system ..... Three-into-two  
 Ignition ..... Battery-powered, inductive, magnetically  
 triggered with solid-state advance  
 Air filtration ..... Foam element, washable  
 Oil filtration ..... Paper element, disposable  
 Oil capacity ..... 3.3 liters (3.1 qts.)  
 Bhp @ rpm ..... 78.16 @ 7690 rpm (see text)  
 Torque @ rpm ..... 54.38 @ 6250 rpm

## INSTRUMENTS

Includes .... Speedometer, odometer, resettable tripmeter,  
 tachometer with 8500-rpm redline; indicators  
 for neutral, high beam, turn signals  
 Speedometer error, 30 mph indicated, actual ..... 28.51  
 60 mph indicated, actual ..... 58.29

## TRANSMISSION

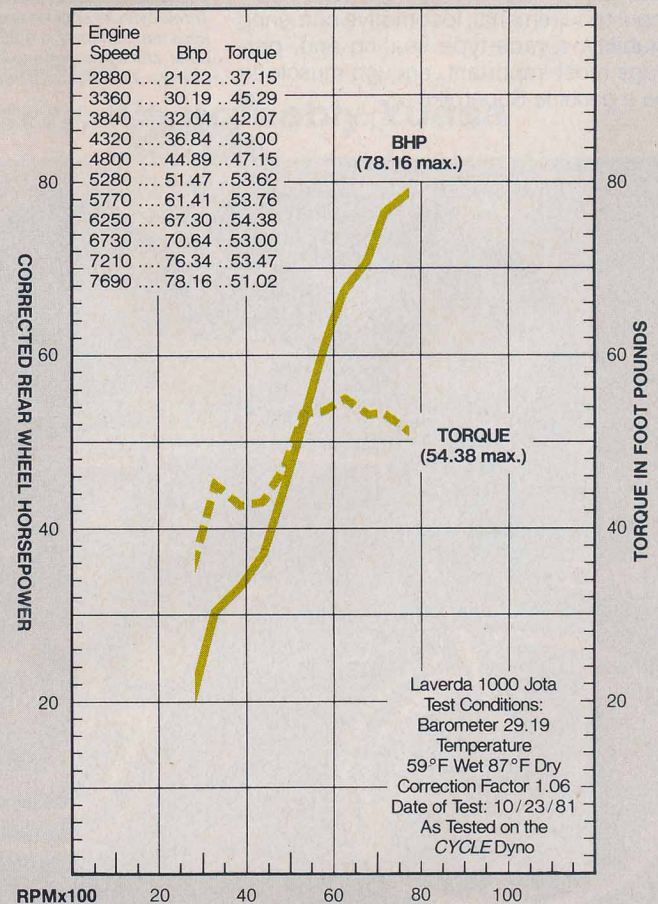
Type ..... Five-speed, constant-mesh  
 Primary drive ..... Triple-row chain, 25/51; 2.04:1  
 Final drive ..... 3/4-inch chain, 16/34; 2.125:1  
 Gear ratios, overall ..... (1) 12.385 (2) 8.163 (3) 5.956  
 (4) 5.085 (5) 4.335

## CUSTOMER SERVICE CONTACT

Slater Brothers  
 1920 Lawndale Road  
 Kenwood, CA 95452  
 (707) 833-2622

## CHASSIS

Type ..... Twin-downtube, full-cradle frame  
 with single-tube backbone  
 Suspension, front ..... Marzocchi, center-axle, coil-spring,  
 oil-damped fork (140mm travel)  
 rear ..... Marzocchi air-charged oil dampers  
 with five-position spring preload (121mm travel)  
 Wheelbase ..... 1470mm (57.9 in.)  
 Rake/trail ..... 28° / 109mm (4.3 in.)  
 Brake, front ..... Hydraulic, dual-disc, 280mm (11.0 in.)  
 rotors, with single-piston calipers  
 rear ..... Hydraulic, single-disc, 280mm (11.0 in.)  
 rotor with single-piston caliper  
 Wheel, front ..... Cast aluminum, 2.15 x 18  
 rear ..... Cast aluminum, 2.50 x 18  
 Tire, front ..... 4.00H x 18 Pirelli Gordon  
 rear ..... 120/90V 18 Pirelli Phantom  
 Seat height ..... 845mm (33.3 in.)  
 Ground clearance ..... 152mm (6.0 in.)  
 Fuel capacity, main/reserve ..... 16.5/3.5 liters  
 (4.4/0.9 gals.)



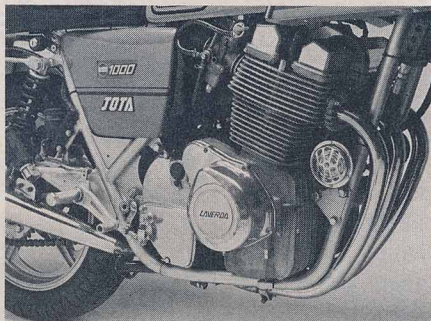
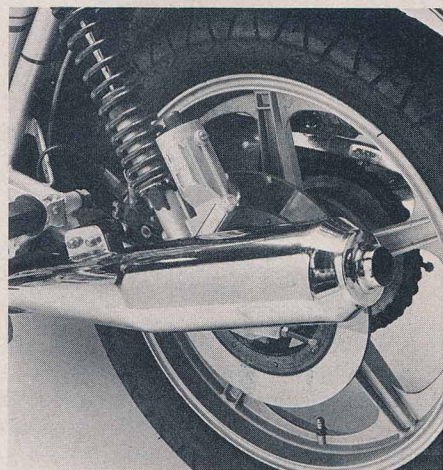
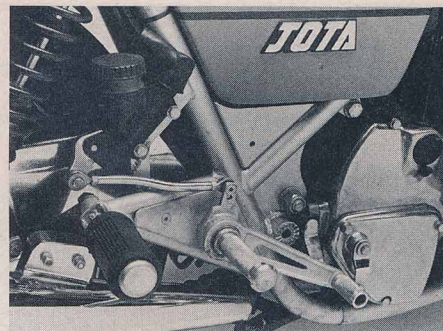
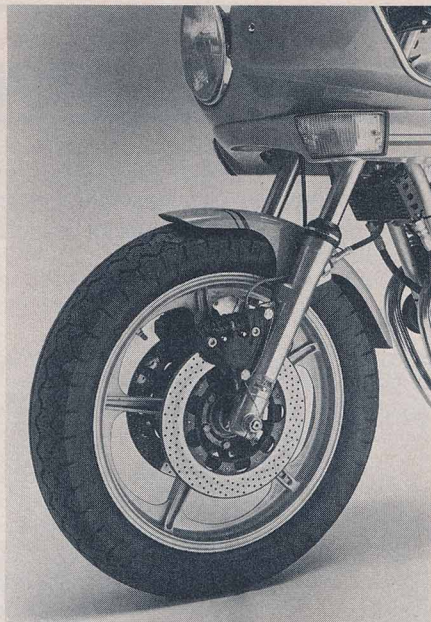


## LAVERDA 1000 JOTA

engine's 8500-rpm redline. However, we run engines on the dyno until power begins to fade or, in the case of the Jota, until misfiring begins. Incidentally, the Jota clocked its 11.9-second quarter under the same conditions in which it ran at the dyno.

The Jota comes equipped with two very tidy rearview mirrors that mount to the fairing. You'll not see them in the accompanying photographs. Sadly, the mirrors fell victim to the Jota's hurried schedule. First it was rushed to *Cycle* for road-test photography, then carted off to an endurance race where it crashed, and finally after much attention returned to the magazine for a road test. We never saw the tool kit, but we're told it is very complete. Moto Laverda went to great efforts to produce a new rider's handbook especially for the American market. The tool kit fits into an under-seat tray and the handbook can be carried in the storage area in the seat's tail-section, which, like the tool tray, is accessible by lifting the hinged and lockable seat.

On balance the Laverda Jota is a narrow-spectrum motorcycle, aimed at the sporting set whose predilections run to things Italian, and who insist Europeans know best. For example, they won't find and wouldn't want a sidestand to hinder cornering clearance or a digital-readout dashboard to distract them. The Jota has real ground clearance, high-effort rider-input requirements, locomotive cornering stability, a race-type seating and, perhaps most important, enough muscle to be a genuine Superbike. ●



Three-cylinder engines are unusual, and Laverda positions the crankpins in a 360-180-360 scheme: the two outer crankpins rise and fall together, and the center pin runs 180 degrees away from the others.

