

BENELLI 250 PHANTOM

The Phantom comes with two big mysteries. Where's the oil injection system? Where's the horsepower?

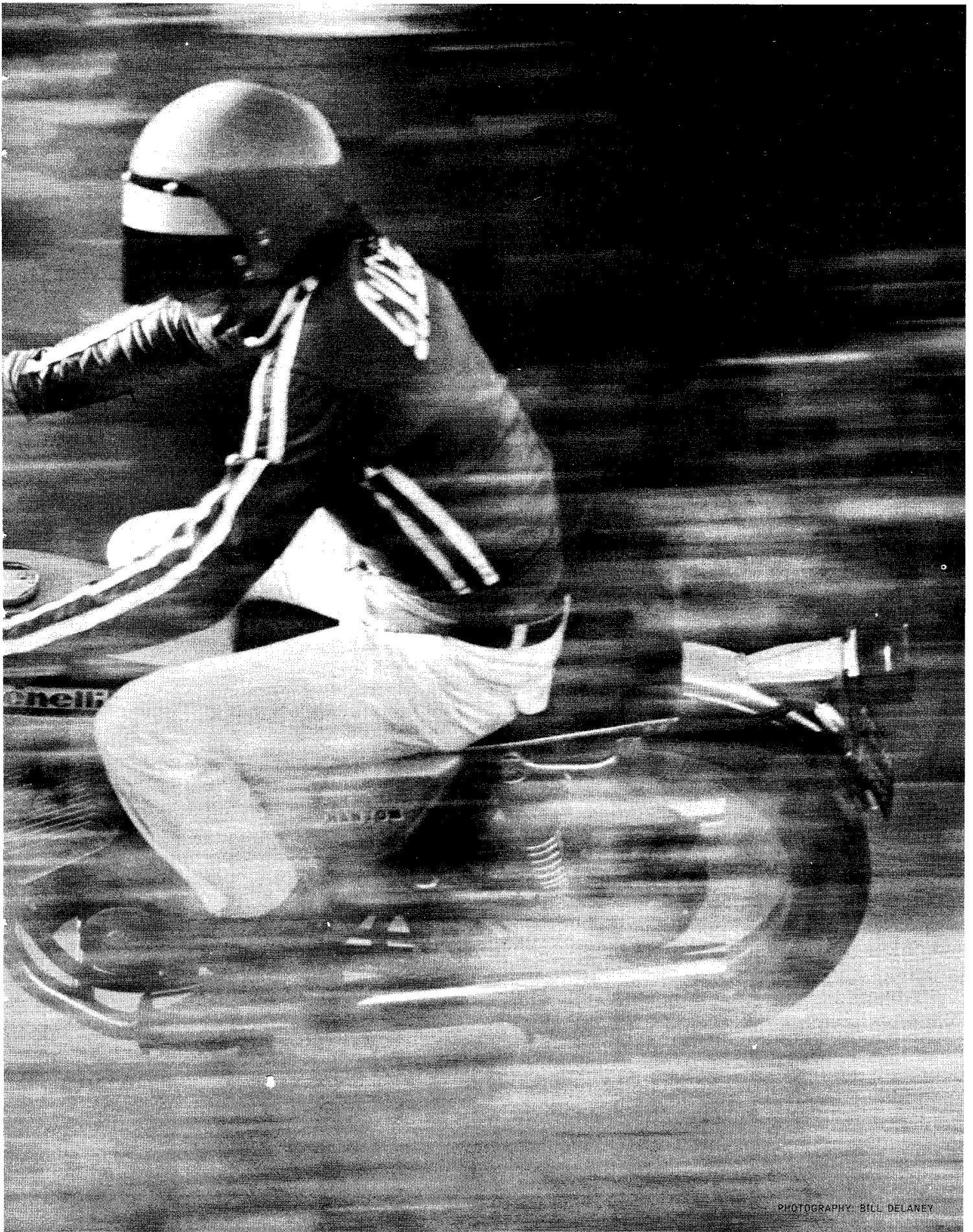
• Benelli and Moto Guzzi have been, as they say in the finance world, *acquired* by Alejandro de Tomaso. The surviving Benelli brothers had lost interest, and a series of strikes brought Seimm (Guzzi's parent firm) to its financial knees just as de Tomaso was persuaded to liquidate his Ford Motor Company joint venture. De Tomaso, a flamboyant Argentine who has both the inclination and the knack for attracting a lot of publicity, jet-sets about the globe attending to his many investments.

As witnessed by the ill-fated Ford Pantera soap opera, de Tomaso's main influence on his projects is to guide their surface appeal. It cost Ford staggering amounts of money to rebuild the Pantera's chassis in outside job shops after the cars were imported and before they were sold to the public. Consistent with that, noises from within Benelli and Guzzi indicate that engineering feathers will remain relatively unruffled by the new de Tomaso management.

Before the advent of de Tomaso, Benelli had eked out marginal sales success in this country with their stodgy-looking, dated, indifferent-performing line of bikes. Only the 650cc twin has shown that it is an acceptable buy as well as an excellent motorcycle. And who knows, someday they may even get around to putting air cleaners on it. Moto Guzzi on the other hand has built a steadily improving big touring V-twin since the first one started down the assembly line. And the U.S. buyers have rewarded Guzzi's diligence proportionately. Too, Guzzi's single-cylinder four-stroke enduro, a bike that anyone can buy in Italy, has never been seriously marketed here even though it has won gold medals in the ISDT.

Our Phantom is the first real production motorcycle we have seen that bears the mark of de Tomaso. It is a two-stroke vertical twin that Benelli engineers have been developing for several years, but which bears the obvious angular styling taste of Alejan-





PHOTOGRAPHY: BILL DELANEY

dro. Some of our staff liked the sharply chiseled panels and bob-tailed lines of the headlight, tank, fenders, and chainguard. Other members of the staff were reminded a bit of early Honda Dreams.

The test got off to a bad start. While being air-freighted to us from the distributor (Cosmopolitan Motors in Hatboro, Pennsylvania), a moderate amount of cosmetic damage and cable kinking had occurred. Then, after the visible dings had been shaped, we found that the clutch was rubbing on its case so hard we couldn't hear the engine run. There are three little nubs behind the Benelli insignia plate which anchor its little rivets. Either the fellow who put the first miles on the bike was deaf or the case got nudged hard enough on the plane to foul the clutch. At any rate a rotary file on the inside of the case nubs quieted the uproar. By that time we were quite late for a photography session and several other small bothers had us in a frenzy while we got going. Oh frustration, anger, curse. Sitting still on the bike and revving the engine produced a lot of buzzing in the footrests and we were quite prepared to dislike the Phantom intensely. But in between sharp turns on a back road a very small voice began to whisper, "thou fool." The bike was actually very smooth and while not exhilaratingly fast, very much fun to ride hard. Soon we were smiling, using the brakes harder, and even sliding around a little bit in the corners.

The suspension is taut, steering is as precise as a micrometer, and the seat is damned firm. A width of 27 inches and four inches of rise allow the handlebars to afford our six-foot rider a very slight forward crouch: about right for all-around riding, and too high for fast riding on twisty roads. We have found that if the handlebars allow the rider's body to lean forward at about 20 degrees from vertical and at the same time place his arms in a comfortable position, the rider will be in better control of the bike and endure less fatigue. If a rider sits up straight at 70 mph for a couple of hours, his arm and pectoral muscles will be aching from holding tightly to the bars to overcome the wind pressure against his torso. The 20-degree stance will just about balance body weight (as felt through the hands and wrists against the handlebar) and wind pressure at 70 mph.

Except for throttle grip action the control positions and feel are superb. Excellent Tomaselli levers are extremely carefully shaped to fit the contour of your fingers and large ($1\frac{1}{8}$ -inch) diameter cable-adjusting wheels with click stops are built in to the lever assemblies. A short finger lever on the brake/throttle plane controls the cold-start enriching device in the carburetors. Only 60 degrees of wrist twist are required to open the throttles; of course the slides don't have very

far to go (about which we'll have more to say later). While the wrist doesn't have to move the grip more than a sixth of a turn, a horrendous amount of force is required. The Dell'Orto square-slide carburetors are of the same design as those on the 650 Benelli we tested two years ago and we have exactly the same complaint about them. Incredibly stiff return springs are used, and they fairly kill the rider's wrists. The effort required is completely foreign to the bike's handling nature and detracts greatly from the enjoyment of the machine as a back-road bomber.

The shift lever geometry is such that it isn't necessary to move the foot off the peg to change gears in either direction. Travel is 3.5 inches on a six-inch radius. The huge rear brake pedal is level with the footrest, which makes it extremely easy to use repeatedly without calf-cramp.

With the advent of night some of the joy faded. A G.E. 40/45 watt sealed beam headlight is fitted to the Phantom, but there is evidently some problem with supplying enough current with the six-volt system. The headlight will not operate until the engine is running and even then the lumens are few and far between. And the headlight's dimness is matched by that of the instruments. When we got over to the freeway it was necessary to wait until a street lamp came along to see between which seven-mile-per-hour group of numbers the speedometer needle was wobbling.

With many machines, the freeway's expansion joints create a numbingly regular beat in the suspension that is particularly irksome. With the Benelli's stiff springing, which was the source of the pleasant non-oscillatory ride in the hills, we were afraid that the freeway seams would beat us to death. But hard seat and all, the Phantom was much smoother over the same route than some of the big touring bikes. The very light wheels and resulting low unsprung weight had a lot to do with this surprise.

Both brakes worked powerfully time after time in the mountains. The rear one is identical to those having a built-in shock absorber for the drive chain (which have been used on many Italian lightweights for years). A twin pair of single-leading-shoe backing plates gives the front stopper 42.4 square inches of lining area. The cables from the double-sided brake join in a junction box under the headlight and a single cable goes up to the lever. Quite heavy hand pressure is required to make the brake work hard but the braking action is entirely predictable and fade is not a problem. Both brakes operate the stop light.

We had felt that the Phantom's engine was a little short on power while we were tooting through the hills, but the handling and brakes were so good that we were not

prepared for the bad news that came from the drag strip. Winging the throttle wide open and slamming the clutch out at 7,500 rpm induces the Phantom to slog disconsolately off the line, and from there on out it casually strolls down toward the lights. A best elapsed time of 16.81 seconds at a terminal speed of 76.6 mph caused us to look inside the engine to see if anything was wrong. The ignition timing was spot on, both spark plugs showed healthy mixture residue, and both cylinders pushed the compression gauge up to 145 psi readings at kickstart speeds. Then the cylinders were unbolted and the evidence was laid bare. The ports are very small and their open duration is short. The exhaust port timing allows the power peak to occur at 7,200 rpm, which is in the ball park, but the tiny 22mm carbs just won't supply enough air to feed the hungry cylinders. The exhaust port on the Benelli occupies barely 42.5 per cent of its 47mm stroke and the corresponding figure for a 250cc Yamaha twin is over 47 per cent. Benelli's transfer ports are open for 19.57 per cent of stroke and Yamaha's are open 27.7 per cent. The Yamaha has 28mm carburetors. So you can see that the Benelli's engine characteristics are purposefully mild.

Finish detail and construction hardware are both excellent on the Phantom. High tensile strength alloy steel bolts with rust-resisting cadmium-plated skins are universally used on the whole bike. Both suspension assemblies are made by Marzocchi, and they are among the best that can be had. The paint and chrome are both good and the bike even has stainless steel fenders. The only questionable items we saw were the painted spokes, which, without care, will rust in time. Our bike came without turn signals or mirrors, though we don't know how they are delivered to dealers across the country. Both items are required by law in many states this year.

For most riders the lack of an automatic oil injection system will be a major deterrent. It is really a hassle to screw around with a container of oil each time you pull into a service station, which is every hundred miles for the Phantom. The mounting lugs for an oiling system are cast into the cylinders and cases of the Phantom, but there is nary a sign of a tank or pump. It is unfathomable how a manufacturer in this day and age could repeat the same mistake which killed such nice street bikes as the Bultaco Metralla. No oiler: no sale.

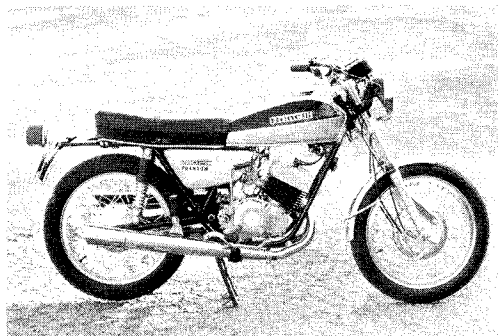
And the Phantom strikes again for a wallowing \$939, plus shipping charges from Philadelphia, plus dealer setup fee. The Yamaha 250cc six-speed RD 250 will cut a 15.15 quarter mile at 85 mph and goes for \$759 POE. A 500cc Suzuki Titan, which has oil injection and which will cruise at the

CYCLE



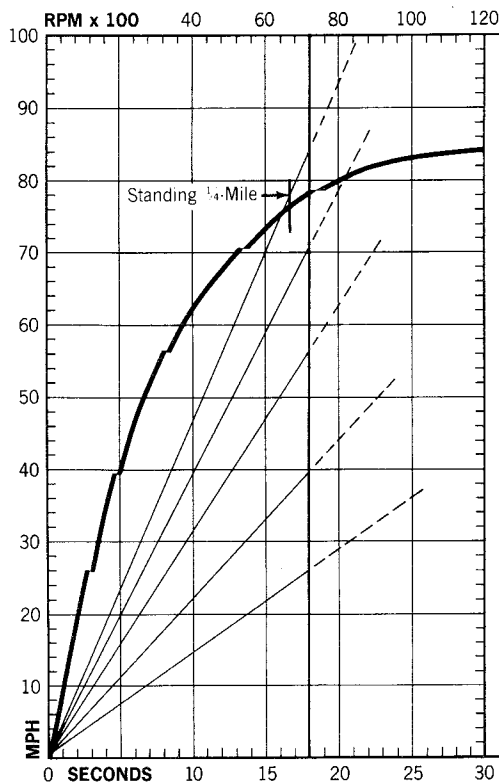
Phantom's top speed, will set you back \$969 POE. With its \$939 price, the Benelli needs a lot going for it to justify its premium tag in the cost-conscious 250 class.

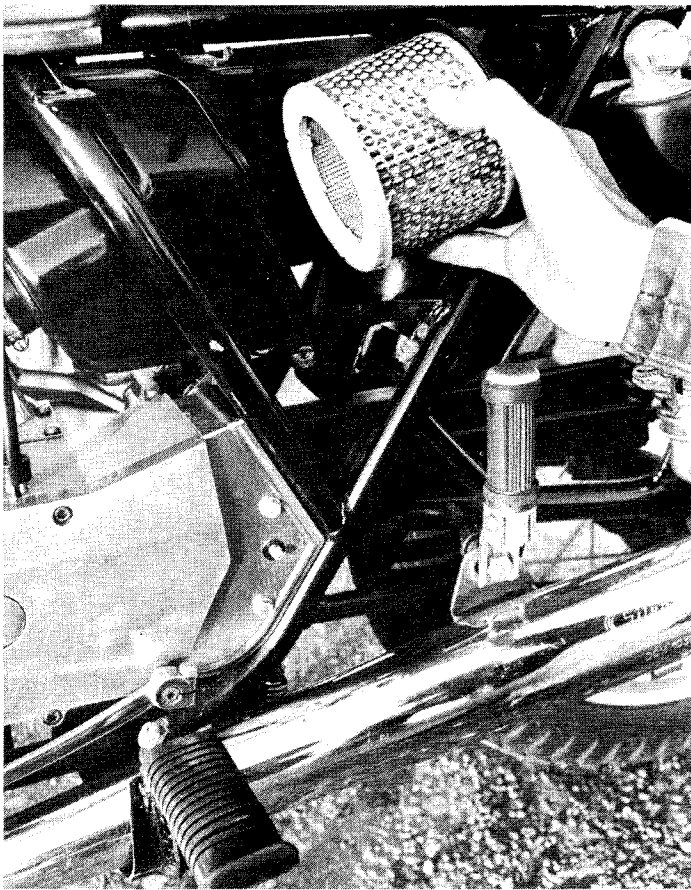
In summation the Benelli Phantom handles, corners, and stops superlatively with its present power characteristics, and it sells for about \$160 more than its counterparts. If it acquires competitive horsepower and an automatic oil injection system the Benelli might be a viable addition to the fiercely competitive 250cc street sporty-bike market. As we tested it, the bike is a pleasant enough alternative for the guy who wants a sound motorcycle that is different from the others and doesn't mind paying the price in dollars, fueling convenience, straight line performance, and parts and service availability. Good as it handles and sharp as it looks, though, bikes like the Suzuki 250 and Yamaha 250 make the Benelli and all its demands more trouble than the package is worth.



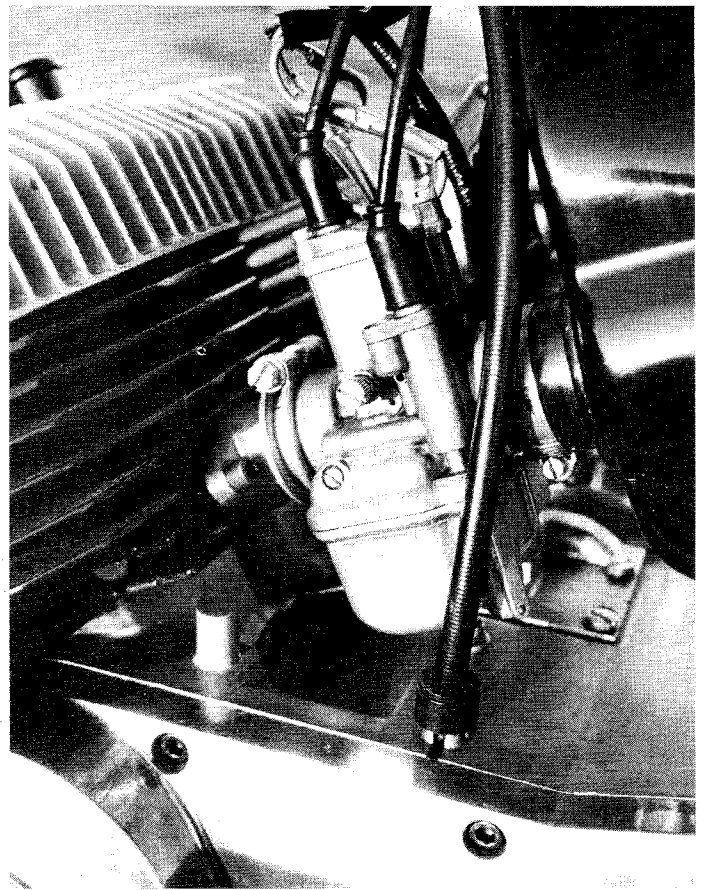
BENELLI 250 PHANTOM

- Price, suggested retail East Coast, POE \$939
- Tire, front 3.00 in. x 18 in. Pirelli MT 76
- rear 3.25 in. x 18 in. Pirelli MT 53
- Brake, front 0.95 in. x 7.1 in. (x2)
- rear 1.15 in. x 6.25 in.
- Brake swept area 75 sq. in.
- Specific brake loading 6.25 lb/sq. in., at test weight
- Engine type Piston-port two stroke twin
- Bore and stroke 2.162 in. x 1.850 in.,
56mm x 47mm
- Piston displacement 14.1 cu. in., 231.4cc
- Compression ratio 10.6:1 Nominal
- Carburetion 2; 22mm; Dell'Orto
- Air filtration Dry paper micronic
- Ignition Battery and Coil
- Mph/1000 rpm, top gear 11.67
- Fuel capacity 3.3 gal.
- Oil capacity Mixed with fuel
- Lighting 6v, N.A. watts
- Battery 6v, 9 ah
- Gear ratios, overall (1) 20.1 (2) 13.18 (3) 9.22
(4) 7.41 (5) 6.21
- Wheelbase 52 in.
- Seat height 30 in., with rider
- Ground clearance 7 in., with rider
- Curb weight 308.8 lbs., with full tank of gas
- Test weight 468.8 lbs., with rider
- Instruments Speedometer, Tachometer
- Sound level, Calif. Std. 84.5 dB(A)
- Standing start 1/4 mile 16.81 seconds 76.6 mph
- Top speed 85 mph (est.)

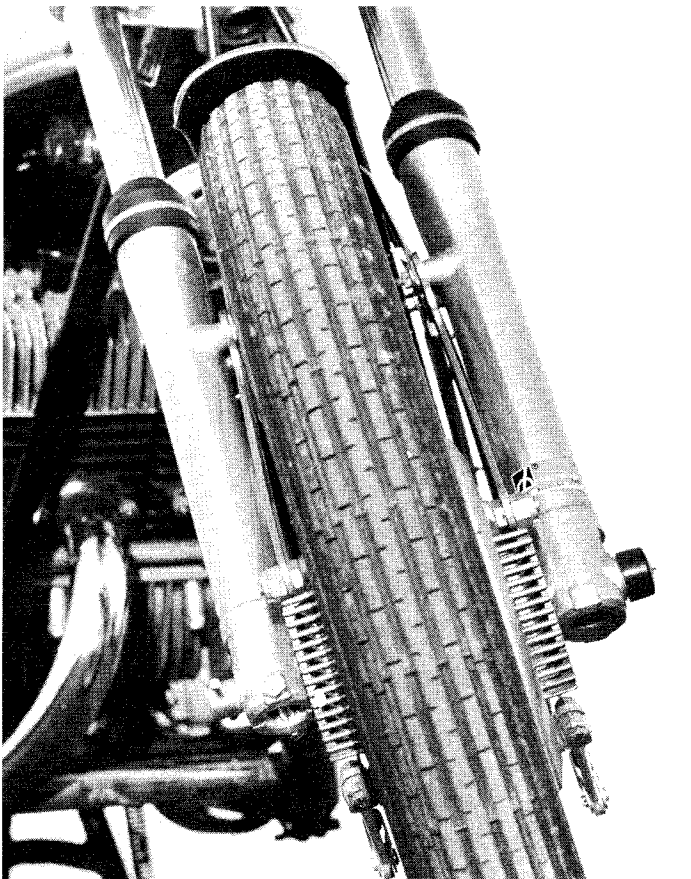




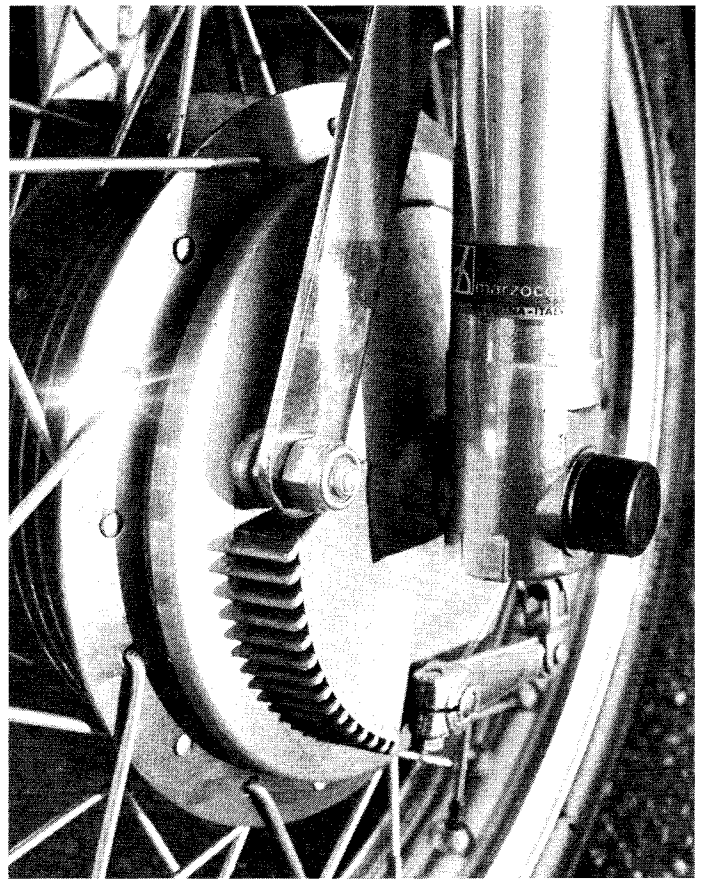
Filter element lives inside a huge still-air box; the channel runs the air from the inside to the outside of the filter, and then to carbs.



The tiny 22mm carbs have wrist-fatiguing return springs which are required to seat slides firmly, in order to avoid air leakage in the square bores.



The Marzocchi front forks proved firm on the road, but they don't give a jolting ride. Forks have enough travel to eat up the bumps.



The air intakes are real, but there are no exits drilled in the backing plates. But exit-hole outlines appear in the castings inside backing plate.