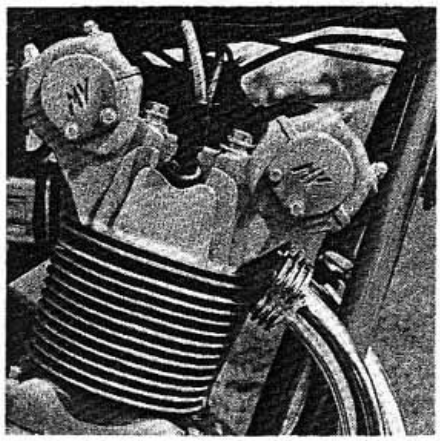
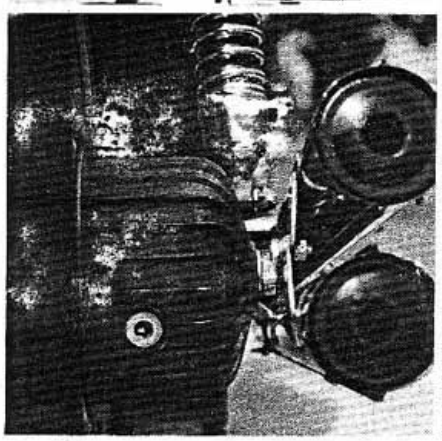
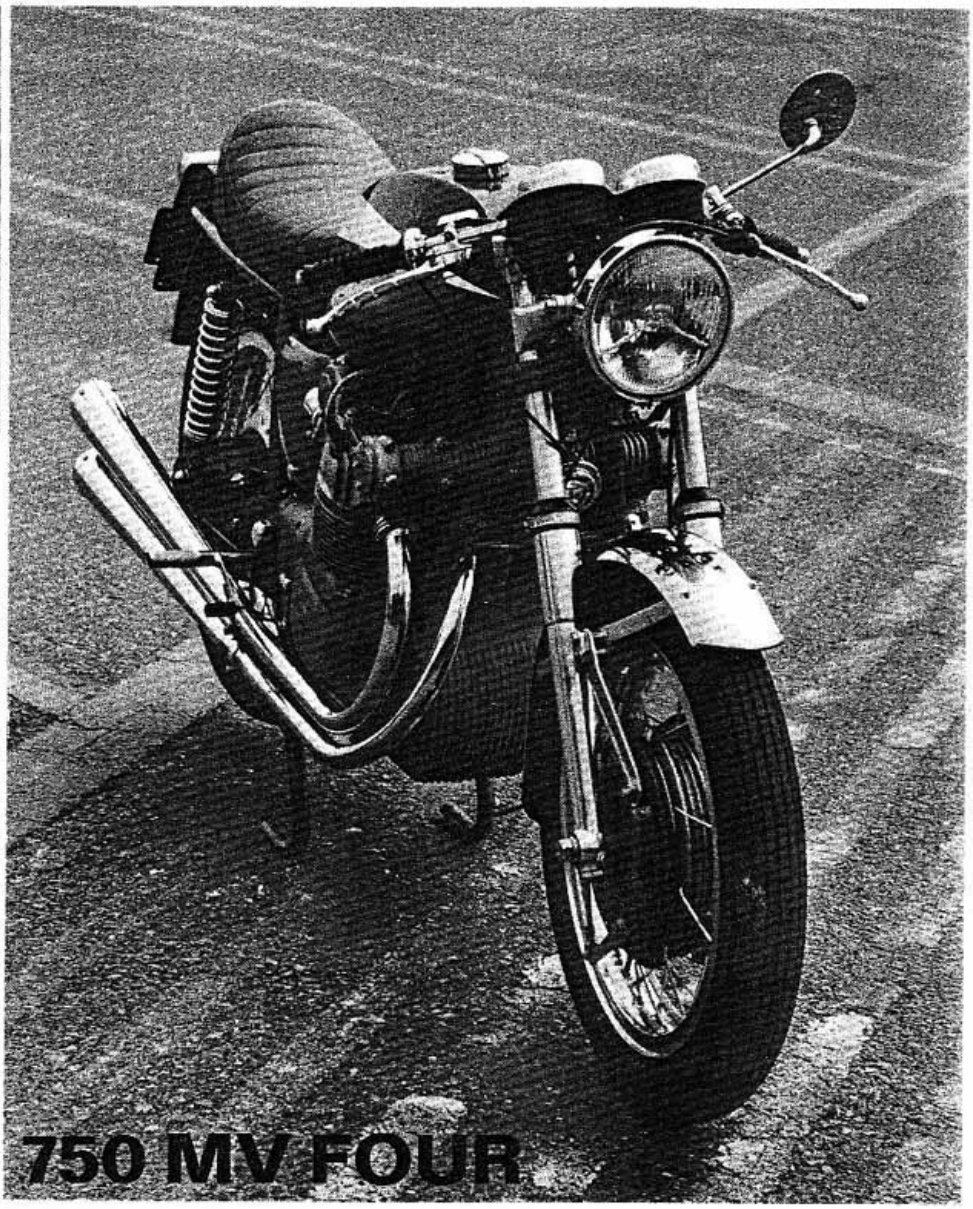


CYCLE WORLD

ROAD TEST







750 MV FOUR

Exclusivity Comes In Large Doses

"IT'S HERE!" announced Carlo Perelli, CYCLE WORLD's Italian correspondent, referring to the MV Agusta 600 Four in the July '67 issue of CYCLE WORLD. "The most fabulous roadster ever produced, the 600 MV Four, is now on delivery, at $1860 in Italy, and we've been lucky enough to have one for a day. Fantastic!"

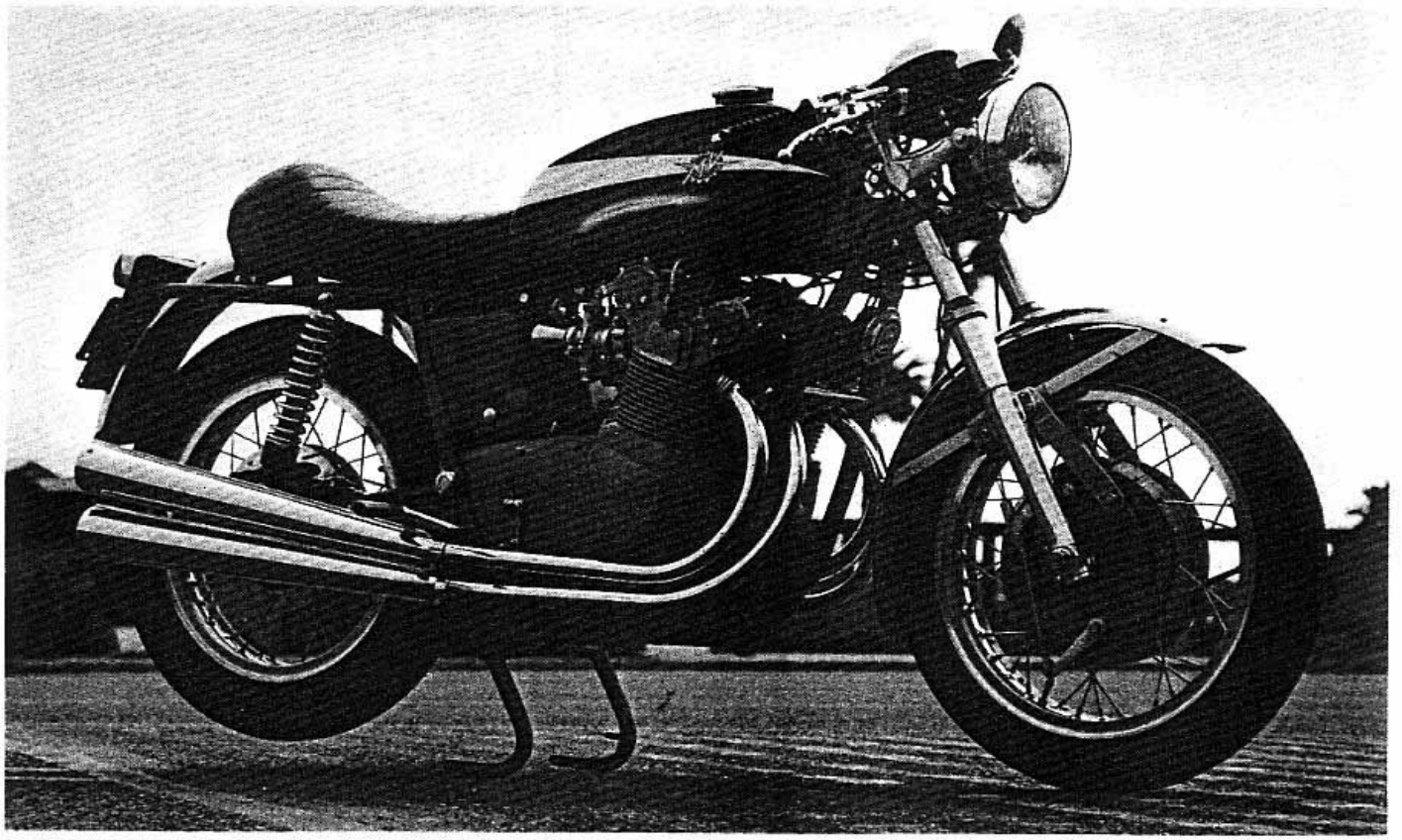
Fantastic, it wasn't. The 600 was comfortable, smooth and handled relatively well, but was hardly sporting enough to satisfy most of the people who would be inclined to buy such a machine.

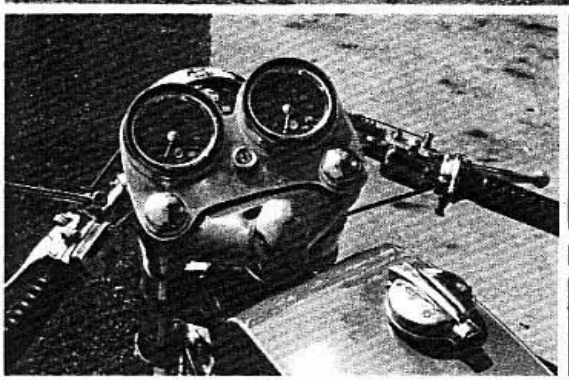
The reasons for the 600's guise were few, but well taken. Because of it's rather odd engine displacement, it would be more than a little difficult for a privateer to sleeve one down to 500cc for use in road racing. The shaft drive further complicated matters, as gear ratios couldn't be easily altered, and the gearbox's internal ratios were way too wide for racing. The Count wanted to build a premiere roadster, not a production racer, and did just that. Smooth, well finished and heavy, and not the sort of machine that invited spirited cornering or stoplight-to-stoplight contests, the 600 nonetheless steered well and stopped adequately. The biggest problem was that not many found their way to these shores, nor for that matter, were many produced at all.

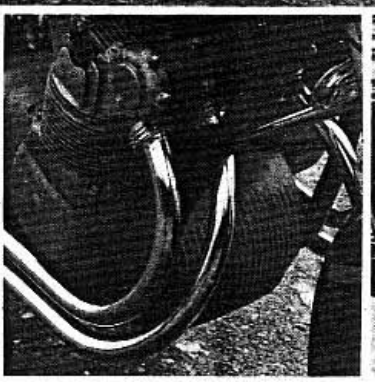
When Carlo announced the arrival of Count Agusta's 750 Four last year, and supplied a couple of photographs, we were more enthusiastic. Here, at last, was a machine that showed its racing heritage, right down to the clip-ons and rearsets. A racing roadster, with a typically sexy gas tank that only an Italian could design, a road-racing-type seat, four gradual-taper, megaphone-type silencers and four Dellorto carburetors operated by a single cable and rod assembly. Our mouths watered anticipating the possibility of getting one to test, but the prospects didn't look at all bright. Not many more than a dozen were going to be produced, and most of them had already been sold in advance. The price in Italy was about $3200.

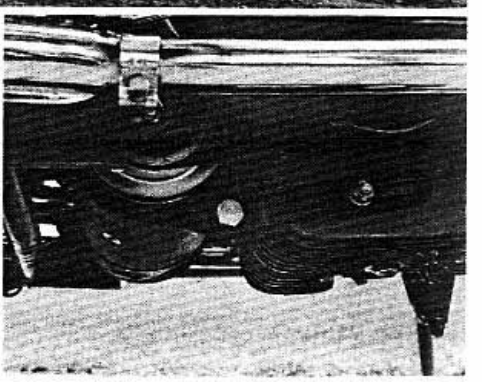
Our day was saved when long time friend, John Taylor, super enthusiast and boss of Yankee Motor Corp. rang us and announced that he was assured of getting an MV 750, and wondered if we'd like to test it. That was a little like asking the Pope if he's really a Catholic!

Several months later the bike arrived, just in time to be >









A red charging light in the tachometer extinguished at approximately 2500 rpm when the generator section begins charging. The headlamp pattern is one of the best, throwing a sharp, clear beam of light on high beam. Switching to low beam gave a sharp cut-off with a raised right-hand half illuminating the curb area. And surprise, an audible horn!

MV has always been noted for nimble, good handling motorcycles, and while the 750 isn't really what you could call agile at low speeds, it has close to perfect steering geometry. Ceriani forks combine excellent spring rate and rebound damping characteristics with a rather limited amount of fork travel, precise steering and shock absorption.

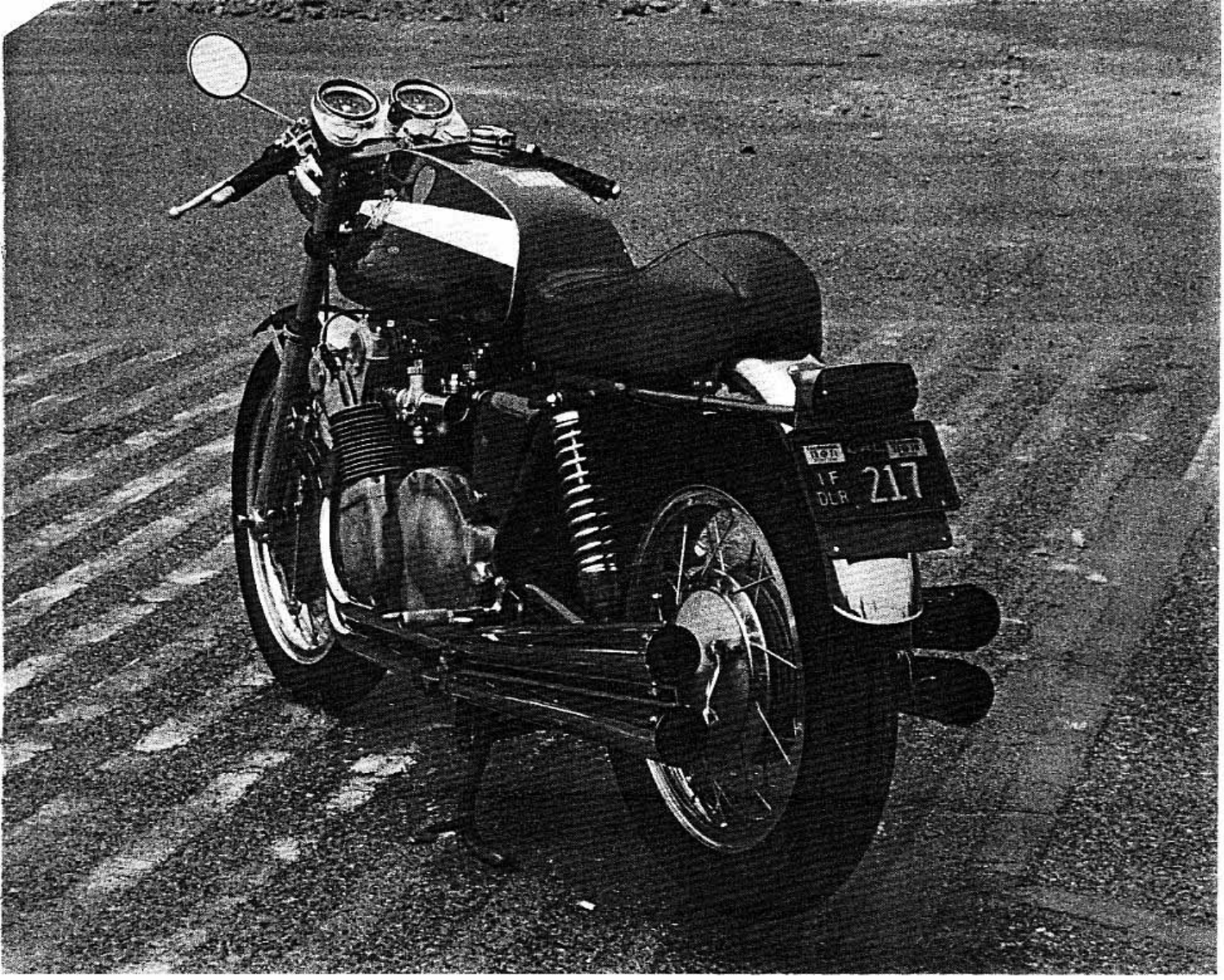
The real fly in the ointment was the rear suspension, also Ceriani. The rear unit's spring rate (which is a little too soft) could be adjusted up by moving a hand lever, but damping action was regrettably missing. This lead to an annoying "rocking chair" ride, which became more like a pogo stick when a bump was hit in the middle of a corner. As long as the road was smooth, the MV tracked as though on rails.

Everything is well tucked away, which precludes hanging up the stands, exhaust pipes or footpegs while cornering, in spite of a rather low 5.5-in. ground clearance.

As previously mentioned, the front brake is a bit too severe at low speeds, but does an excellent job of dragging the machine down from high speed on the first stop; however, fade sets in rapidly. The rear brake is smooth, powerful and much more predictable, but also tended to fade during the braking tests.

Lavish might almost be too slight a term to describe the appearance of the MV 750. Absolutely perfect welds join the sections of the double-cradle frame. Rich, Italian racing red paint is applied copiously to the satin smooth metalwork and the top of the 5-gal. fiberglass gas tank. The sides of the tank are a rich, dark blue with a white stripe. In spite of the rough engine castings, the overall quality of the finish is what you'd expect to find on a $20,000 Ferarri. The chrome adorned headlamp shell, handlebars and exhaust pipes and the stainless steel fenders are truly a work of art.

In general, the MV 750 is not the sort of machine everyone would want, even if everyone could get one. There are minor annoyances here and there, but the overall package is intriguing and inspiring. With just a few minor changes, the MV 750 could be transformed into the most pleasurable motorcycle in the world. It lacks the neck-snapping performance of today's "superbikes," but the package is utterly fantastic! ◻



outside a grand prix circuit. Rather like riding in a Ferrari GTO!

Final drive is by driveshaft, as on the MV 600 and all BMW motorcycles, and no doubt contributed to the uncanny smoothness of the 750. The shaft, housed within the swinging arm's right-hand member and driving through an automotive-type ring and pinion set up, uses a universal joint at the front to allow for up-and-down travel of the swinging arm itself. A slight rise of the machine's rear end under acceleration was accompanied by a similar dip under deceleration, but no side-to-side torque reaction (common to the BMW and Moto-Guzzi V-7, for example) was experienced. The differential housing weeped a little oil, but hardly enough to cause concern. The inherent cleanliness, silence and smoothness of a shaft drive unit greatly outweighs that slight imperfection, even though such a system reduces engine power more than a chain drive.

Seat, footpegs and handlebars are set up in a semi-road racing style, and proved to be very comfortable except when threading through five o'clock traffic. The forward crouch allowed by clip-ons is counterbalanced at speed by wind pressure, taking the strain off the rider's wrists. Even with the forward lean, the bend in the rider's legs is not enough to cause discomfort or cramping. The seat/footpet/handlebar relationship is comfortable for a person of average size.

Hand controls are well situated and work smoothly except for the front brake, which has inordinately heavy return springs. The rider must squeeze quite hard to overcome the return springs before any braking action takes place. When it does come on, action is sudden, and the rider must be careful not to lock the powerful, overly sensitive brake.

Thumb switches for the horn, headlight dimmer and electric starter are within easy reach of the handlebar grips. A four-position ignition/light switch is located on the highly polished aluminum dash panel, which also houses a 12,000-rpm tachometer and 240-kph speedometer. This panel should have been painted matt black, however, as it reflects sunlight into the rider's eyes. Operation of the tachometer was smooth and accurate, but the speedometer flailed wildly over a plus-or-minus-20-kph range at normal cruising speeds.

The MV 600's rather faint-hearted 12V, 18 ampere-hour battery has been retained, but this one handled the 135W starter (which doubles as the generator) easily. The Dynastart unit is bolted to the underside of the engine, which helps keep the overall width down, and is driven by two automotive-type V-belts.

750 MV FOUR

displayed in CYCLE WORLD's booth at the CYCLE WORLD SHOW. The photographs didn't lie; it had to be one of the most beautiful machines ever formed from metal.

The engine is a direct outgrowth of the Gallarate factory's fabulous racing Fours. Ensconced within the single cylinder head casting are twin camshafts, driven by straight cut gears in a tunnel between the center two cylinders. Valve action is controlled directly by the cam lobes pressing on shim caps which ride on the coil valve spring tops. Valves are adjusted by substituting caps of various thicknesses as they wear down from the rubbing action of the cam lobes. In the interest of maintaining good power throughout the rev range, the intake and exhaust valve sizes are rather modest at 30mm intake, 25mm exhaust.

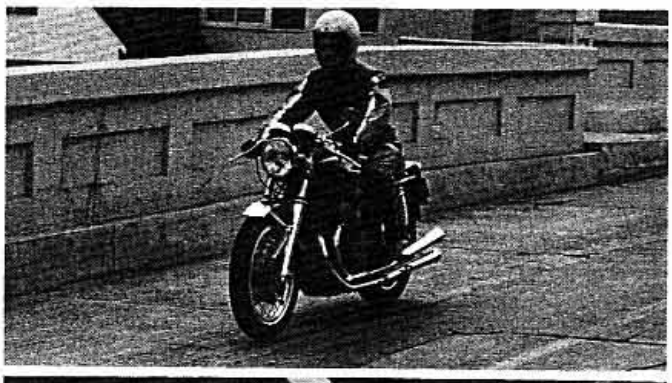
Carburetion is by four tiny 24-mm Dellorto units with bolt-on float bowls and curved air horns to clear the ignition distributor in the middle and the rider's legs on the outside. No aircleaners are fitted. This seems just one step short of blasphemy, as it is far too easy for airborne dirt to be ingested into the beautiful engine and act as a grinding compound. Lack of space is not a factor in the omission; there is room beneath the seat and in front of the battery case for an aircleaner.

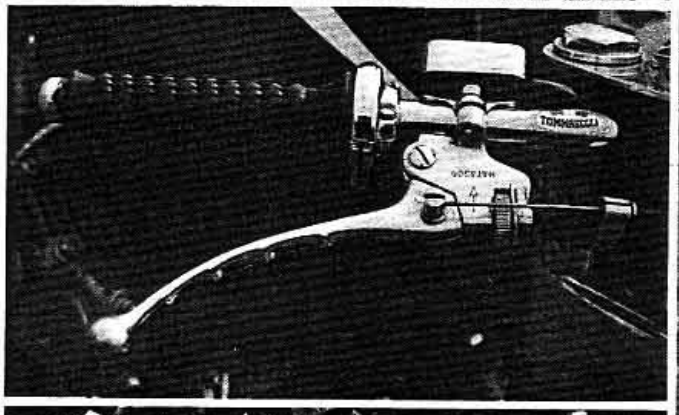
A small point that could be improved upon was the throttle linkage arrangement. A single cable from the twistgrip pulls a transversely mounted rod on the intake cambox which in turn has short arms to which are connected four individual throttle cables and adjusters.

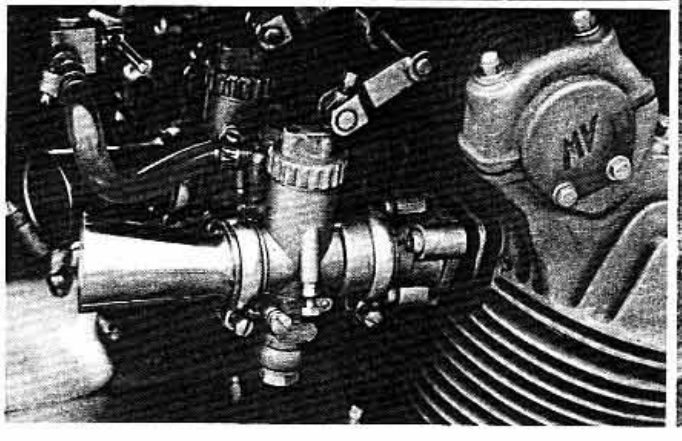
Fine, you might think, and fine it might be except for the fact that all four carburetors are rubber-mounted on short intake manifolds. As the throttle is opened, the manifolds compress slightly, but not all at the same rate. This makes it impossible to exactly synchronize the opening of all four carburetors. This produces a slight imbalance which results in less than smooth running unless a load is kept on the engine. And there was a problem with keeping a load on the engine; the power delivery was so smooth you soon found yourself exceeding the legal limit. The other alternative was to accelerate slightly and then roll off the throttle, which is easier on the engine anyway.

The 58-mm cylinder bore of the 600 has been increased to 65mm to give the 750 an actual displacement of 743cc. The light alloy cylinders with cast-in austenitic liners are inclined forward 20 degrees and house 9.3:1-compression-ratio, three-ring pistons. All the engine castings are sand castings with the traditional rough surface, which increases the cooling effect and gives the unit a purposeful, racing-type look. The head gasket is solid copper.

Downstairs, roller bearing connecting rods are fitted between the flywheels of a pressed together (built up) crankshaft assembly. The crankshaft assembly is secured to the crankcase by light alloy clamps, in which roller and ball bearing supports are mounted. The crankshaft is both statically and dynamically balanced, and the incredible smoothness of the machine from 2000 rpm past 8000 bears witness to this fact. Only a slight tingle could be felt through the handlebars and footrests at 4700 rpm. Circular grooves are incorporated within the crankshaft counterweights for connecting rod lubrication, the oil being slung outward by centrifugal force from holes drilled in the main roller faces. One counterweight is toothed to drive the clutch gear, and the center counterweight is toothed to drive the camshaft and ignition timing gears. All those straight cut gears shriek as the engine revs build up, but that's one







sound a connoisseur might regard as music. The lower portion of the center gear drives the double gear oil pump's shaft.

Clutch action is incredibly smooth for such light lever pressure and a wet clutch. One would normally associate light clutch pull with a dry clutch which can be jerky in operation if allowed to become hot. Some slippage was necessary to get the heavy machine underway from a standstill, but even after riding around town, slipping or dragging did not occur. Several brutal runs at the drag strip made it protest, for excessive slippage was necessary to move the bike briskly off the line. After a few runs, we ceased abusing the clutch and went into another phase of the test.

The transmission's five closely spaced ratios were nearly ideal for a machine of the MV's weight and power output. Due to its 520 lb. and light flywheel effect, getting off the line smoothly was a bit of a trick, but was soon mastered and taken for granted. The upper four ratios are staged like a road racing machine, and the short travel gearshift lever snicked through the gears in a notchy fashion, not unlike most good racing machines we've ridden.

In the lower four gears, which are all indirect, the transmission's noise blended audibly with the gear train's whine to produce the most exciting cacophony of sound

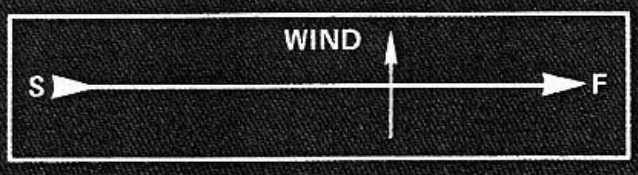
750 MV FOUR

SPECIFICATIONS

List price	N.A.
Suspension, front	telescopic fork
Suspension, rear	swinging arm
Tire, front	3.50-18
Tire, rear	4.00-18
Brake, front, diameter x width, in.	(2)9.05 x 1.18
Brake, rear, diameter x width, in.	8.0 x 1.77
Total brake swept area, sq. in.	96.6
Brake loading, lb./sq. in.	5.78
Engine, type	dohc in-line Four
Bore x stroke, in., mm	2.52 x 2.20, 64 x 56
Piston displacement, cu. in., cc	45.4, 743
Compression ratio	9.3:1
Claimed bhp @ rpm	76 (SAE) @ 7900
Claimed torque @ rpm, lb.-ft.	N.A.
Carburetion	(4) 24-mm Dellorto
Ignition	battery and coil
Oil system	wet sump, gear pump
Oil capacity, pt.	8.2
Fuel capacity, U.S. gal.	5.02
Recommended fuel	premium
Starting system	electric motor
Lighting system	12V generator
Air filtration	none
Clutch	multi-disc, wet
Primary drive	gear
Final drive	bevel shaft
Gear ratios, overall:1	
5th	4.74
4th	5.17
3rd	6.11
2nd	8.01
1st	11.26
Wheelbase, in.	55.9
Seat height, in.	31.3
Seat width, in.	10.0
Handlebar width, in.	25.2
Footpeg height, in.	12.3
Ground clearance, in.	5.5
Curb weight (w/half-tank fuel), lb.	528
Weight bias, front/rear, percent	44.6/55.4
Test weight (fuel and rider), lb.	658

TEST CONDITIONS

Air temperature, degrees F	82
Humidity, percent	59
Barometric pressure, in. hg.	29.90
Altitude above mean sea level, ft.	50
Wind velocity, mph	16-20
Strip alignment, relative wind:	



PERFORMANCE

Top speed (actual @ 7182 rpm), mph	114.06
Computed top speed in gears (@ 8000 rpm), mph:	
5th	127
4th	117
3rd	99
2nd	75
1st	54
Mph/1000 rpm, top gear	15.97
Engine revolutions/mile, top gear	3758
Piston speed (@ 8000 rpm), ft./min.	2935
Lb./hp (test wt.)	8.66
Fuel consumption, mpg	53
Braking distance:	
from 30 mph, ft.	31.5
from 60 mph, ft.	149.0
Acceleration, zero to:	
30 mph, sec.	3.3
40 mph, sec.	4.2
50 mph, sec.	4.7
60 mph, sec.	5.5
70 mph, sec.	6.5
80 mph, sec.	9.0
90 mph, sec.	12.0
100 mph, sec.	17.0
Standing one-eighth mile, sec.	8.82
terminal speed, mph	77.45
Standing one-quarter mile, sec.	14.50
terminal speed, mph	94.73

