

KAWASAKI
H2 750

● For better and for worse, in every way that counts, Kawasaki's 750 triple is a genuine post-mesozoic dinosaur: uniquely and irrepressibly profligate, magnificently brutish, and irretrievably trapped in an evolutionary *cul-de-sac*. Given the circumstances of its creation the Mach IV could hardly have been anything else, as it assumed form when most of us still believed that general incivility could be justified by straight-line performance if the latter was somehow raised to sheer, eyeball-flattening proportions. We were enchanted with muscle, and our enchantment prompted Kawasaki to attempt building a Superbike to end all Superbikes—which is a fair description of what they did. The Mach IV made us turn toward a more balanced kind of performance, and thus assured the future of machines like the exquisitely contrived Kawasaki Z1. But in doing that we may have moved where the big two-stroke triple cannot follow, the ultimate performer in a world where people no longer worship just performance.

There's a new Mach IV these days, and it has been improved. But for all the change the improvements have worked in its fundamental character they might as

well have been giving *tyrannosaurus rex* a shot of underarm deodorant and a flea collar. The problem here is that while the improvements are subtle, the motorcycle is not. Fuel economy has been improved, so you get a solid 26 mpg average instead of the original 23 mpg and the bike still is very far from being a gas-miser. Thirsty it was and thirsty it remains. New mufflers have kept the Mach IV within the statutory noise limits, but only marginally at 86 dB(A) and may have something to do with both the slightly reduced fuel consumption rate and a small reduction in performance. Yes, that's right: the new Mach IV isn't quite as fast as the original—but it still can flatten your eyeballs, so you'd have to say it hasn't really changed in that respect, either. When all's said and done, the Kawasaki Mach IV hasn't been tamed or civilized at all.

At the heart of this motorcycle's obdurate refusal to become truly housebroken is its engine, which has three biggish cylinders all in a relatively wide-spaced row, crankpins spaced 120-degrees apart and porting arranged to give power at speeds where plenty of it is possible. There has been a sufficiency of propaganda telling us that we get smooth, evenly spaced power impulses from a two-stroke triple, and that much is true. It also is true that the layout has a dynamic imbalance, a strong teeter-tottering rocking couple that makes the in-line three a shaker—though not quite as harsh as a vertical twin of

the same displacement. So the Mach IV vibrates a lot despite the addition of some bits of rubber in its engine mounts, and it isn't ever going to be as smooth as its smaller three-cylinder brothers because its pistons are bigger and move farther.

The porting? Sure, that could be reworked to improve the Mach IV's willingness to plug along at 1500 rpm in 5th gear, and its ability to make distance on a gallon of gasoline. But such reworking would give you engine characteristics just like those of the water-cooled but otherwise similar Suzuki GT-750—characteristics totally out of keeping with the rest of the Mach IV motorcycle. Port to your heart's content and the Kawasaki isn't going to be magically transformed into a sweet-natured touring floater; all you'd succeed in doing is making the beast turn sullen.

Sullen is the one thing Mach IV definitely is not. Quieted and leaned-down as it is in its latest permutation the bike remains a wheeled rocket. You won't get any big surge yanking the throttles open when the revs are down, but let the tach needle swing past 4000 rpm and the motorcycle turns into pure animal.

The Mach IV's brakes and tires always have been a fair match for its acceleration; handling in the earlier models left some room for improvement and that has been made, with a fix that doesn't strike us as being overly imaginative but works well just the same. Kawasaki's engineers have taken the easy way and simply lengthened the Mach IV's wheelbase, stretching it from the original 55.5 inches to what our tape-measure says is 57.5 inches with the rear axle centered in its adjustment slots. It was the easy answer, because they did it by making the long swing-arm even longer—the reach from pivot-point to axle now being 21.75 inches.

They had a perfect opportunity to use the currently popular motocrosser's forward-mount shocks, but decided against the novelty and added extensions on the frame's seat rails to move the spring/damper units back with the wheel. They seem also to have stretched the seat a couple of inches in length, which means there now is almost room on the perch for three-up travel. Kawasaki would have done better to widen the seat a bit, as it is high-crowned with padding on the firm side for motorcycle seats, and a little too narrow for the average motorcyclist's seat.

Cycle-Test



PHOTOGRAPHY: BILL DELANEY

It seemed like a good idea at the time.

On the other hand, if the new Mach IV's seat was any wider it probably would have to be lowered before any but the tallest of riders could straddle the bike without getting up on tip-toe. One of our test riders has legs with a length in the 98th percentile for American males (by actual measurement at the GM Tech Center, where it was suggested that a motorcyclist also should have his head examined) and even this daddy-long-legs verged on being too short at the fork for the Kawasaki triple. It gives you a very long reach from seat to pavement.

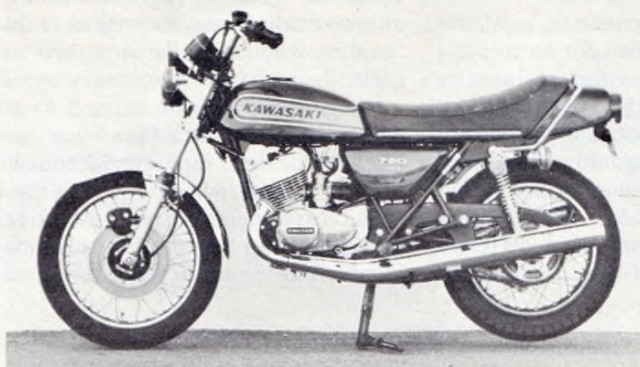
Maybe the tall saddle is a reasonable price to pay for one of the Mach IV's more attractive attributes, which is the unusual amount of cornering clearance it has.

Three separate mufflers should get in each other's way; those on the Kawasaki are high enough and tucked in closely enough to be all but undruggable by any half-sane rider. In fact, not even the resident *Cycle* berserker ever flopped the bike down so far as to mar the chrome on the twin right-side pipes, though he did wear off most of the kick-stand extension on the bike's opposite side.

You wouldn't have wanted to try anything fancy in the way of corner-carving with the older Mach IV. While Kawasaki's 750 triple has from the beginning been a miracle of cornering stability as compared with the infamous center-hinged 500, it would at times do some, well, *funny* little tricks just to keep you alert. There

always was a sense of impending trouble about the original 750's handling: a tendency to do a waver-verging-on-wobble in middling fast corners; a vague, rubbery feeling that would discourage the prudent rider from trying to use all the side-clearance and tire adhesion. Some traces of that behavior are discernable even in the new long-wheelbase bike, but at a much subdued level, and without the somewhat frightening undertones. Unfortunately, though the latest Mach IV won't put a lot of energy into tickling your scare gland neither will it offer you much help in keeping itself aimed. The front wheel tracks all right at higher speeds; it can't seem to make up its mind in slower corners—sometimes falling into the curve.





KAWASAKI H2 (MACH IV)

Price, suggested retail.....\$1825

Tire, front 3.25 H-19 Dunlop Gold Seal

rear 4.00 H-18 Dunlop Gold Seal

Brake, front..... disc, 1.63 x 11.65 in. x 2

rear drum, 1.4 x 7.9 in.

Brake swept area 131.8 sq. in.

Specific brake loading 4.94 lb./sq. in.

Engine type Three-cylinder,
two-stroke, piston-port

Bore and stroke 2.80 x 2.48 in. (71 x 63mm)

Piston displacement 45.63 cu. in. (748cc)

Compression ratio 7.0:1

Carburetion 3; 30mm Mikuni

Air filtration Synthetic felt

Ignition Capacitor discharge

Bhp @ rpm.....

Torque @ rpm.....

Rake/Trail..... 26.5° / 4.3 in.

Mph/1000 rpm, top gear 15.9

Fuel capacity 4.5 gal.

Oil capacity 2.1 qt.

Transmission oil capacity 1.5 qt.

Battery 12v; 6ah

Gear ratios, overall (1) 12.77 (2) 8.64 (3) 6.53
(4) 5.41 (5) 4.76

Primary transmission straight-cut gear

Secondary transmission $\frac{3}{8}$ x $\frac{3}{8}$ chain

Wheelbase 57.5

Seat height 33.2

Ground clearance 7.5

Curb weight 486

Test weight 651

Instruments speedometer, tachometer,
trip-meter

Sound level (California Standard) 86 db(A)

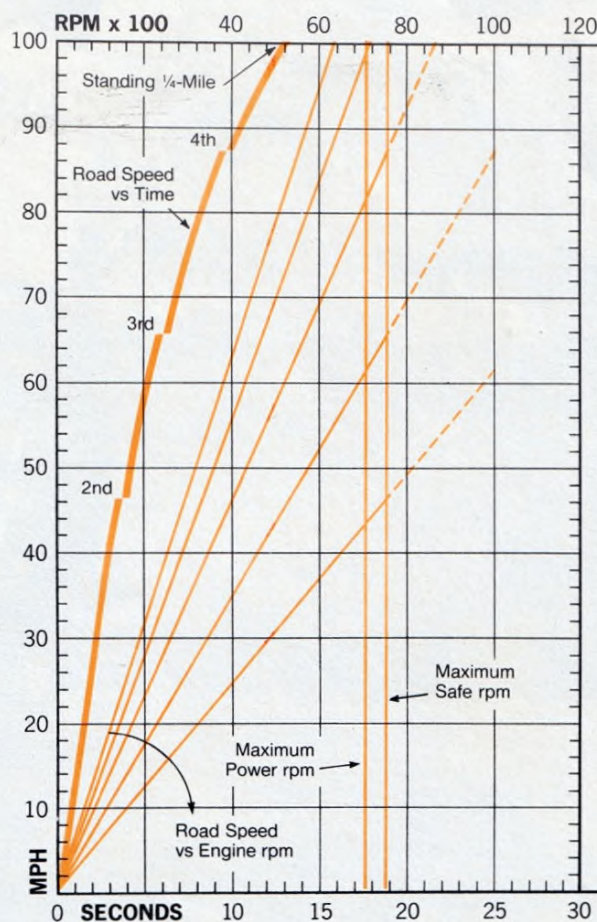
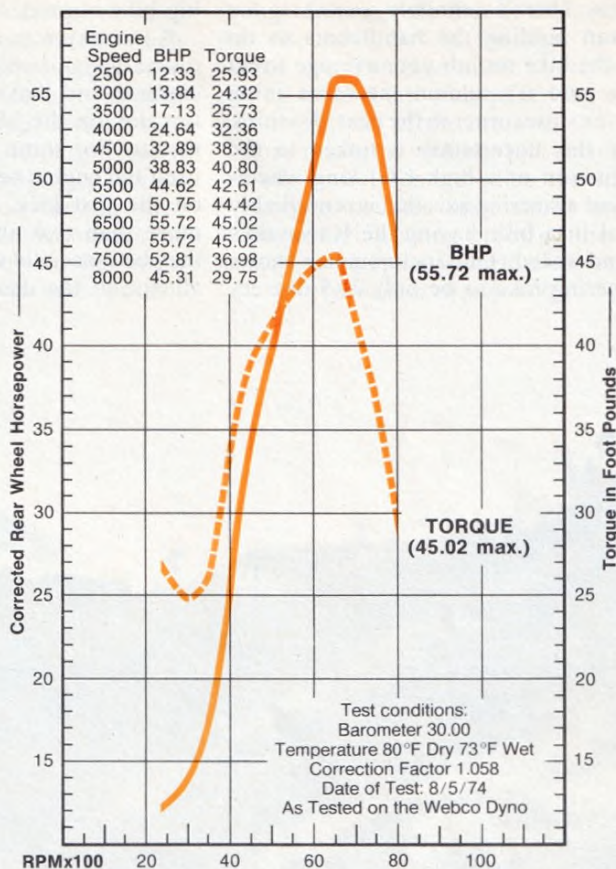
Standing start $\frac{1}{4}$ -mile 13.096 sec., 100.33 mph

Top speed 115 mph

Average fuel consumption 26.4 mpg

Speedometer error indicated 30 = 27.83 mph
indicated 55 = 51.04 mph

Braking force (actual)907 G



and sometimes needing to be pulled into position. There's definitely something for the man holding the handlebars to do when the bike rounds your average street corner, and it's seldom the same thing from one slow corner to the next. We think maybe this uncertainty is linked to the combination of a high CG, long wheelbase and a steering axis that is remarkably vertical in a bike having the Kawasaki's size and speed. Our inclinometer shows the steering rake to be only 26.5-degrees

and that's about 2-degrees less than the big-bike normal.

Kawasaki was a pioneer in capacitor discharge ignition systems for motorcycle engines, and that's what they're using to this day on the Mach IV—with excellent results. For some reason known only to itself the engine never would want to start on the first kick, but it seldom needed more than two and didn't demand that they be especially vigorous. Perhaps it was all due to the demand-type regulator in

the fuel valve under the tank, which is open only when the engine is running and automatically closes to prevent crankcase flooding when the bike is parked for the night. In any case it was very agreeable about starting on the second kick and would thereafter idle for what seemed likely to continue for hours without a trace of plug fouling, which is where the trick ignition system makes itself useful. It goes without saying that the bike also may be idled along in traffic without any show



of choking on its accumulating oil.

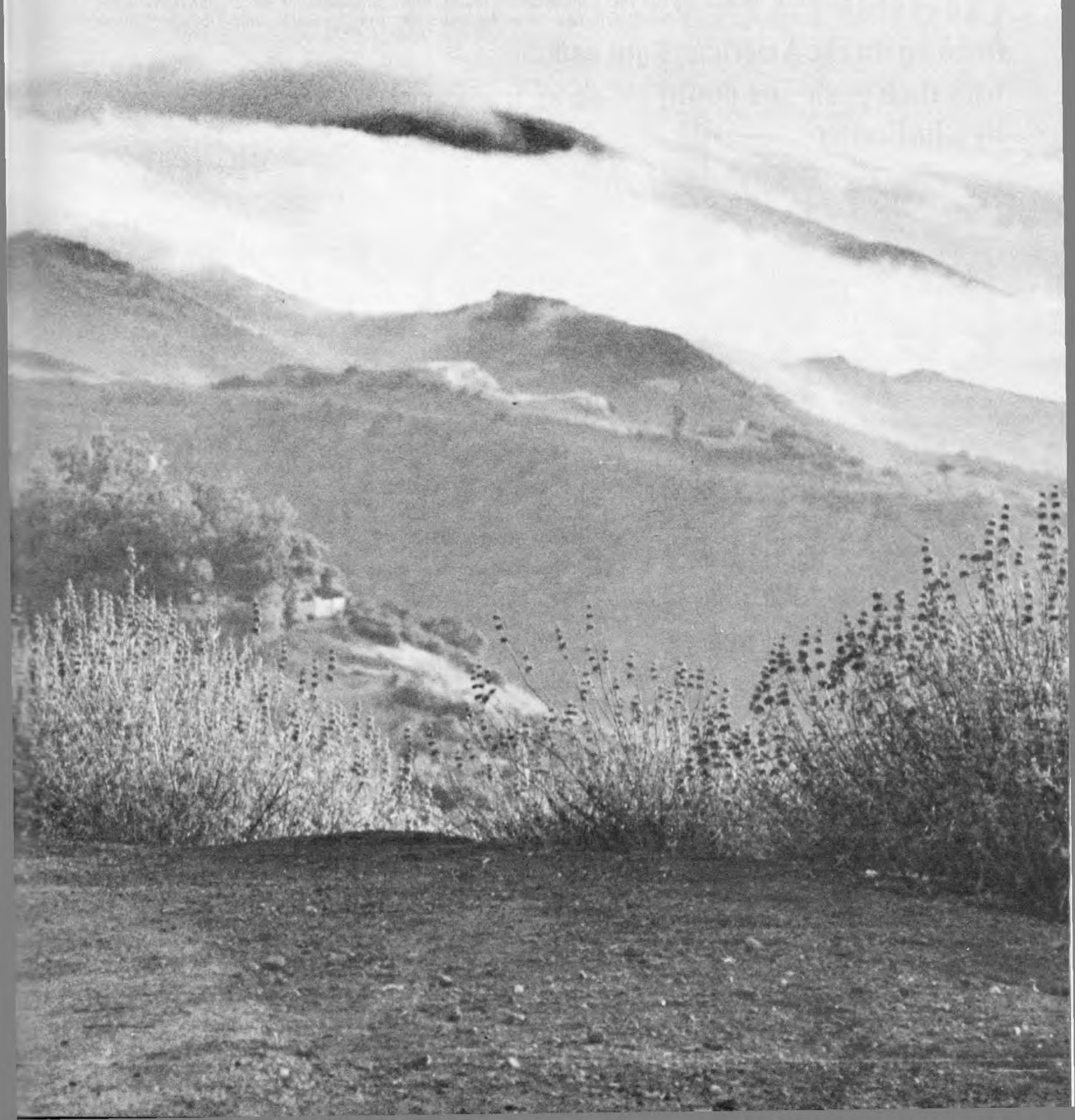
It is good that the Mach IV will idle without stalling, because you wouldn't want to restart the thing very often. Not that the kick-start lever takes much muscle to spin the engine; the difficulty is that the whole business is damnably awkward. The lever is long and its cranked end is very high in the air, moving even higher if you tilt the bike over against its side stand for the starting operation, which will make the situation even worse because the

side prop is short, the tilt is extreme and you find yourself almost kicking sideways. The alternative is to stand on the bike's right side and kick with your left foot, but then the height of the lever is such that you have to raise your kicking foot up to about belt level, holding it out a couple of feet and kicking inward toward your opposite knee. You can do your kicking from astride the Kawasaki, of course, but then the bike's top-heaviness makes it want to fall over and you still

have the problem of raising your foot high enough to reach the crank. Oh yes, and you also have to fold the right footpeg out of the way and then try to avoid getting it stuck up your pant's leg while you do the rest of the routine.

Your problems with the kick-start lever are not entirely ended when the engine is running, because once you're on the move, whizzing along enjoying the way scenery hurries past, you will discover that

(Continued on page 117)



the kick lever's shank and your own are trying to occupy the same space at the same time. The lever nestles hard against the inside of your calf if you like to ride with your knees against the tank, and if you don't keep your knees against the tank the wind will keep forcing them apart. Kawasaki should either put a curl in the kick lever to bring it in closer, or widen the tank, which could increase the fuel capacity of this short-range motorcycle to something a little more useful. The tank holds just over a hundred miles and in some areas that's not enough.

Apart from the deficiencies already noted (the footpegs that are ever so slightly too far forward) the Mach IV is now a fairly comfortable road machine. The seats/pegs/handlebar relationship is good, if not perfect (which may be an impossible goal, given the diversity in rider configuration) and the famous series H2 engine vibration has been brought under control at least to such extent that the bike is quite tolerably smooth if you're content with a sedate, legal 55-mph cruising speed. The difficulty you encounter in attempting to ride sedately is that all the urge built-in and there for the asking often is too much to resist, and the bike doesn't want to let you be restrained. At 55-60 mph you're using so little of the available power, and applying so little throttle, that the cylinders don't scavenge decently. The trickling breeze coming up through the transfer ports just won't clear away the residual exhaust gases. So the Mach IV's engine bucks and stutters when you try to ride conservatively, and the lash in the transmission engagement dogs converts the engine raggedness into a most remarkable snatching and banging in the drive chain. All of this is very annoying. However, it will give you something to tell the policeman who grabs you for doing a gargle-free 65 mph and the occasional clanging from the chain will remind you to pull the little knob that then dribbles a shot of SAE30 oil down on the links and rollers.

The chain oiler knob is half-hidden in the shadow of the Kawasaki's left side-cover, that triangular pan with the glittering "750 MACH IV" inscribed in chromed numbers and lettered decals. Pay close attention to the panels' fastenings before you try taking them off to get at the battery or oil reservoirs. Many bikes have their panels secured just by prongs held in rubber grommets, which is what you see looking down at the tops of those on the triple. But then, stooping a bit lower, you'll also see a security bolt, inserted through a metal tab that will get bent if you grab the panel and haul away.

A couple of feet forward from the chain-oiler knob is another knob and it adjusts the Mach IV's steering damper. You can have a lot of fun experimenting with different adjustments; we couldn't tell if one setting was better than another.

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as the motorcycle behaved itself whatever we did. Still, it's nice to see something on a bike that's as neatly thought-out as Kawasaki's horizontal shock absorber. Hydraulic steering dampers are always better than those that rely on friction discs; Kawasaki has been especially clever in compensating for internal volume changes and external adjustments by running the damper rod all the way through the damper body.

As a matter of fact, you can have a lot of fun with several of the Mach IV's features—particular emphasis being on the machine's performance. The big Kawasaki triple may use too much gasoline in getting where you want it to go, but it will get there faster than any other production vehicle on the road. Even when you aren't using the performance you can ride around with an inner smirk, knowing that the bike under you is the undisputed King of the tire-lighters. It may be a king who's a little out of touch with the times; it *rules* for all of that. So the vibration blurs the rear view in its mirrors, you can steady them by squeezing hard on the handlebar grips—and if you use the performance you'll be doing plenty of grip-squeezing in any case. You can luxuriate in the sheer, bountiful speed of the Mach IV, and enjoy its good points, one of which is a transmission that breathes a little life into the old wheeze about "shifting like a hot knife cutting butter." The old 750's transmission shifted like the gear housing was full of gravel; the new model sounds like the gravel is still there and maybe a pound of broken glass tossed in for company, but it shifts perfectly. (Now if only they had fixed the shift pattern to move neutral from its last-stop-down position to the more convenient and conventional slot between first and second.)

In all probability Kawasaki hasn't bothered to change the steering head angle, or fix the shift pattern, or do anything beyond detail improvement because they know it isn't going to matter. Federal regulation of noise and emissions and all manner of things the bureaucrat's mind can conceive loom just over Capitol Hill and that will kill off the Mach IV even if its own unruly nature would not. In time all the great Superbikes will have to go, pulled under by five mph bumpers and catalytic afterburners. Kawasaki's Mach IV, being the most super of all the Superbikes, will simply be the first to fall. And then someday, when we have super bikes but no Superbikes—if you grasp the difference—we'll remember the big triple, all its character flaws and single, shining virtue, and it truly will seem very remote, truly a relic of the past. Those who experience what the Mach IV still can offer will remember it fondly. The others? They'll see nothing but old dinosaur bones, forgetting that both the mesozoic thunder lizard and Kawasaki's thunderous Mach IV really were pretty good ideas at the time. ●

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