

Bikes Referenced by Engine and Frame numbers

1972-1973 Z1-900

FRAME NUMBER: Z1F-000001 >

ENGINE NUMBER: Z1E-000001 >

COLOUR: CANDY ORANGE/BROWN OR CANDY YELLOW/GREEN FOUR CYLINDER, FOUR STROKE, FOUR EXHAUSTS, FOUR CARBS, DOUBLE OVERHEAD CAMSHAFT, FIVE SPEED GEARBOX, 903 CC PRODUCING 82 BHP

This was the first of the Z-range, the first true SUPERBIKE of the seventies. The biggest and best ever motorcycle that the Japanese had produced. THE KING OF THE ROAD.



1974 Z1-A

FRAME NUMBER: Z1F-020001 >

ENGINE NUMBER: Z1E-020001 >

COLOUR: CANDYTONE BROWN/ORANGE OR CANDYTONE GREEN/YELLOW

Major changes for this model were the silver engine finish, redesigned tank and tailpiece markings and a stop lamp failure light in the tachometer. The idiot light cover was also changed, the warning lights were now placed in a different order. The best gets better



1975 Z1-B

FRAME NUMBER: Z1F-047500 >

ENGINE NUMBER: Z1E-047500 >

COLOUR: CANDY SUPER BLUE OR CANDY SUPER RED

Major changes for this model were paintwork and markings, larger side panel badges and the adoption of an 'O' ring chain instead of the previous built in chain oiler. The switchgear was slightly cosmetically changed and the Speedo was now in 10-mph increments. The fuel tap was changed from black to silver and the carbs were modified to improve performance.



1976 Z900-A4

FRAME NUMBER: Z1F-085701 >

ENGINE NUMBER: Z1E-086001 >

COLOUR: DIAMOND DARK GREEN OR DIAMOND BROWN

Major changes for this model included colour and marking, different side panels and badges, airbox, twin front brakes, locking fuel cap, three way fuse system, hazard warning lights, audible flasher indicator, square tail light, improved instrument cluster and a change to smaller 26 mm carbs. Power was down to 81 bhp but the Z900 was a much better bike to ride. A few extra models rolled off the American production line in Lincoln in 1977 known as the KZ900-A5.



1976 KZ900-B1 LTD

FRAME NUMBER: KZ900B-500011 >

ENGINE NUMBER: Z1E-108503 >

COLOUR: CLASSIC RED

This was the first Japanese custom cruiser. Assembled in the states in limited numbers for the disconcerting motorcyclist. An abundance of chrome and bolt on goodies made this Kawasaki a 'RICE BURNER WITH ATTITUDE'. The rear wheel was a fat sixteen-inch item.



1977 Z1000-A1

FRAME NUMBER: KZT00A-000001 >

ENGINE NUMBER: KZT00AE-000001 >

COLOUR: DIAMOND WINE RED OR DIAMOND SKY BLUE

This was the natural successor to the 900 range. Bored out to 1015 cc and producing 83 bhp, the biggest difference to the Z1 was the four into two exhaust system and the use of a disc brake at the rear instead of the previous drum brake. "The king is dead, long live the king!"



FRAME NUMBER: KZT00A-027501 >

ENGINE NUMBER: KZT00AE-042501 >

COLOUR: LUMINOUS GREEN OR LUMINOUS RED

Major changes to the A2 were paint and decals, the repositioning of the front brake calipers to behind the fork leg and the use of lower handlebars on the UK model. The front brake master cylinder was changed from round to triangular and a diaphragm fuel tap was used for the first time on a Z. The United States got another colour option of black/gold and a special edition model, in white and fitted out with a fairing and panniers called the A2A to commemorate the Americanisation of Kawasaki.



1978 Z1000-D1 Z1R

FRAME NUMBER: KZT00D-000001 >

ENGINE NUMBER: KZT00DE-000001 >
COLOUR: METALLIC STARDUST SILVER.

The Z1R was the first Japanese custom 'cafe racer'. The angular styling was not to everybody's taste. Major changes were the four into one exhaust, a cockpit fairing, solid wheels, drilled discs and self-cancelling indicators. The front wheel was reduced to an eighteen inch one and the engine was once again painted in black. The kick-start pedal was considered redundant and fitted as an emergency measure under the seat. A move back to 28-mm carbs increased the power to 90 bhp making this the most powerful Z yet. Poor sales resulted in Kawasaki producing a larger 20-litre fuel tank and a sintered metal brake kit in an effort to increase sales. UK dealers were still selling this model four years later!



1979 Z1000-D2 Z1R

FRAME NUMBER: KZT00D-017501 >
ENGINE NUMBER: KZT00DE-017501 >
COLOUR: EBONY OR LUMINOUS DARK RED

For 1979 the Z1R was fitted with the MK11 engine and all its improvements. A four into two exhaust system was fitted and there was a move back to a nineteen inch front wheel. It was known as the Z1R-II but was not sold in the UK due to poor sales of the D1. Power was up to 94 bhp.

1980 Z1000-D3 Z1R

FRAME NUMBER: KZT00D-017801 >
ENGINE NUMBER: KZTOODE-017616 >
COLOUR: EBONY

The only changes worth while mentioning on this model was the graphics and side panel badges. The UK still went without this bike.



1979/1980 Z1000-A3/A4 MKII

FRAME NUMBER: KZT00A-038427 >
ENGINE NUMBER: KZT00AE-081566 >
COLOUR: LUMINOUS NAVY BLUE OR LUMINOUS DARK RED

The MKII was modified greatly from the previous models in all departments. Power was up to 93 bhp, helped by the return to 28-mm carbs and the use of transistorised ignition. Modified exhaust and angular bodywork give the MKII a completely different look. The traditional round cam end covers was changed to a square design and the motor was once again finished in black. A class act but not everybody's favourite.



1979/1980 Z1000-E1/E2 ST

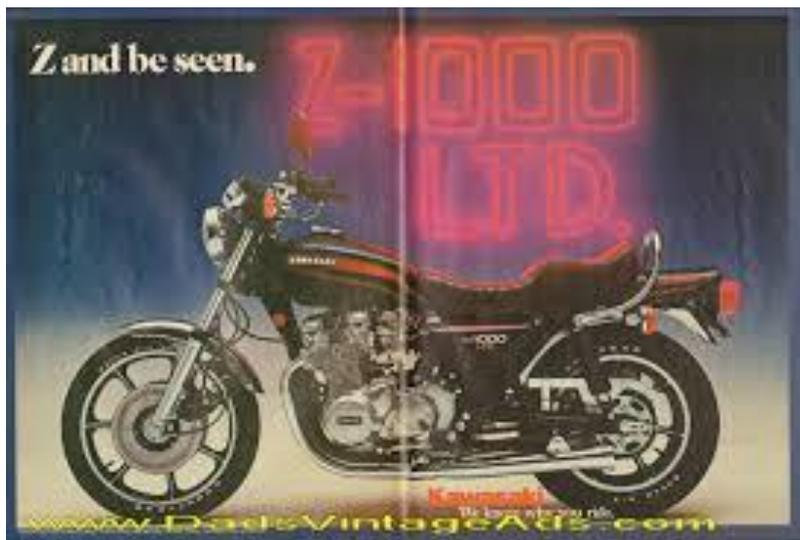
FRAME NUMBER: KZT00E-000101 >

ENGINE NUMBER: KZT00EE-000101 >

COLOUR: LUMINOUS DARK RED OR LUMINOUS GREEN

The E-models or ST (SHAFT TRANSMISSION) was Kawasaki's first shaftie. It was basically a MKII with minor modifications including tubeless tyres, a fuel gauge, thicker leading axle forks and a larger fuel tank. Basically maintenance free Kawasaki. It should have sold well, unfortunately it didn't. The United States got an extra colour option, black pearl.

The E2 enjoyed the same differences as the A4 MKII. Remote rear brake reservoir and quartz-halogen headlamp. The United States got another colour option, luminous dark red. Kawasaki produced a full touring kit for this model, courtesy of the American VETTER Company.



1977-1980 KZ1000-B1-B4 LTD

FRAME NUMBERS: KZT00B-500015 >

ENGINE NUMBERS: KZT00AE-010006 >

The KZ1000 LTD was available in the states from '77-'80 in various colours including black, blue and red. Sharing much of the same modifications as the original KZ900 LTD did. The B3 and B4 models were fitted with the MKII engines but finished in silver instead of black. Imports into the UK have made this once rare bike a popular sight.



1978/1979 Z1-R TC

The relative poor sales of the standard Z1-R prompted Kawasaki America to team up with the AMERICAN TURBO-PAK Company to produce the Z1-R TURBO. Basically a standard bike with a turbo kit bolted on. No warranty was offered and a few hundred were sold in 1978 in the original silver blue colour. In 1979 a couple of hundred more were produced but this time the bike was painted in black with red, yellow and orange stripes. Very tacky and very seventies. Power output was quoted at anything between 100 and 145 bhp, depending on how much boost the rider dialed in. 160mph was available, on a bike which struggled handling the standard engine output. Performance was exciting, for all the wrong reasons!



1980 Z1000-H1 EFI

FRAME NUMBER: KZT00H-000001 >

ENGINE NUMBER: KZT00HE- 000001 >

COLOUR: EBONY

The H1 was basically an A4 MKII with electronic fuel injection or EFI for short. This was another first for Kawasaki. The black and gold bodywork was finished off with gold wheels and for the first time the front fender was painted. Some models had the Kawasaki logo printed on the side of the seat in white lettering. Power was up to 96 bhp due to the injection system. America did not get this model, instead they got the KZ1000-GI Z1 CLASSIC, which was basically a customised version not unlike the KZ1000- LTD.

Model History: Z1900 and Z1000



KAWASAKI 900 Z1 SUPER FOUR.

Originally destined to be a 750, the Z1 was beaten to the market place by the HONDA CB750 in 1968. Kawasaki engineers, horrified at this well kept secret launch, returned to the drawing board and redesigned the bike to be bigger and better. In late 1972 the Z1 was introduced to the world and instantly became a best seller.

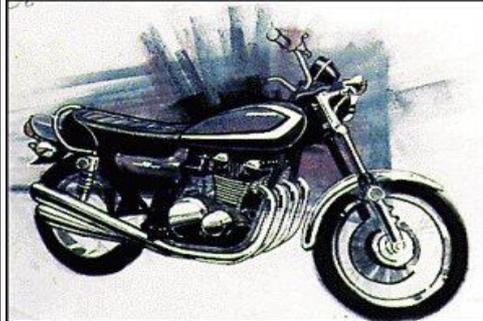
The idea of a four-cylinder four-stroke was conceived way back in 1967, when Kawasaki focused mainly on developing two-stroke motorcycles. The decision was made to develop a high-performance motorcycle which would far exceed the 650W1, the largest motorcycles in Japan that time. The goal was a fast, yet comfortable 750cc motorcycle with good handling and brakes.

Coordinated by Sam Tanegashima, a project planning group was established and development code T103 was born



The mock-up was completed in October 1968. However, Honda announced a new 750cc single-over-head-cam (SOHC) motorcycle at the Tokyo Motor Show held the same year. The Kawasaki management staff realized it was meaningless to come out with a similar model after Honda had already introduced theirs, so all development efforts on Kawasaki's 750cc model were stopped.

In 1970, the Z1 developing project team was reunited with the best staff in all the fields joining the project. This group repeated research and experiments to develop an even better bike. Kawasaki resumed U.S. market research in March of 1970 and collected customers' opinions from various sources such as random samplings of dealers and editors of major motorcycle magazines. Finally, the management staff concluded there was a strong market for a high-speed, eye-appealing motorcycle with enough power to use as a reliable touring model.



Early Prototype Models Circa 1971



Early testing of the 1972 Z1, poorly disguised as a Honda CB750 !!!

The Z1 went on to become the basis of most of Kawasaki's models for many more years, changing the face of motorcycling forever. Never before had the average man had the chance to own the fastest, biggest, most technically advanced motorcycle in the world for so little money.

The true age of affordable SUPERBIKES had arrived

Kawasaki's 900 Super Four Z1 did more than blow past Honda's CB750 in terms of performance, refinement and all-around ability. It was the world's first superbike.

"A velvet blunderbuss, and every inch a King."—Cycle, November 1972

For just a moment, imagine you're Kawasaki's Sam Tanegashima in the fall of 1968. As a project leader you've been slaving night and day for the better part of two years on what was then internally known as N600. It is going to be a groundbreaking road-burner that will become the most important motorcycle in the world, with a contemporary mass-production first of an air-cooled, DOHC, 750cc inline-four. Testing is all but complete and has gone swimmingly—your finger is metaphorically poised to push the button to begin production early next year. You might even allow yourself to think life is going to be very, very good.

And then you get the phone call from the 1968 Tokyo Motor Show. It seems competitor Honda had the same idea—only a bit sooner—and has knocked motorcycling on its ear with the revolutionary CB750 Four. Suddenly there is indeed a new most important motorcycle in the world—but it ain't yours. Shame and frustration taste more acrid than bile. One remembers it with startling clarity.

So it was for Kawasaki's N600 project team as they returned to Akashi to lick their wounds—and vowed to kick Honda's ass from Tokyo to Tucumcari to Turin and back by building something bigger, faster and even more sophisticated—a true King of Motorcycling. It would take the better part of four years, an eternity compared with current two-year product cycles for today's 600cc and 1000cc sportbikes. But Kawasaki was determined to get it right.

At the time Kawasaki was in the midst of changing its entire approach to building motorcycles. As Tanegashima says in Micky Hesse's book *Z1 Kawasaki*, "One motto [we had] for developing the Z1 was to create one piece of motorcycle. Before the Z1, Kawasaki had developed several very fast motorcycles like the A7, H1 and H2. It was not sure if we were selling engine/horsepower or motorcycle.

"From the very beginning of Z1 development," he says, "we made sure to develop one piece of motorcycle, not independent engine or chassis or designing."

Tanegashima added that the Japanese were well known for their me-too approach—going along to get along, so to speak. "Our people tend to like to do the same thing as [their] neighbor. In product development, this tendency leads to [copying] some competitors or leaders. However, [our] motto in developing the Z1 was to make it completely different from Honda's CB750. This [is] a very rare case in Japanese society."

Equally interesting is a passage from Kawasaki's museum Web site (www.khi.co.jp/mcycycle/museum/index_e):

"[With the Z1] Kawasaki changed their engine design policy so that the powerband was not set near the engine's [rev] limit, thereby pursuing elegance and smooth engine performance."

At its heart, that change stemmed from Kawasaki's decision to substitute four-stroke powerplants for two-strokes in making top-of-the-line models. After all, Kawasaki had in 1963 absorbed Meguro, one of Japan's oldest motorcycle manufacturers and known for its four-strokes, so Kawasaki had four-stroke engineering expertise. (To this day, the firm still uses Meguro's logo on packaging and signage.) Indeed, Kawasaki's talented engineer Ben Inamura had already developed the firm's previous foray into four-strokes, the BSA-like 650cc W1, from a Meguro 500cc K2 vertical twin. And it was Inamura who would become the project leader for Kawasaki's N600 750cc engine and then for the Z1's 903cc powerplant.

Still, the question came up at the Z1's model-introduction press conference in the fall of 1972: Why was Kawasaki seemingly abandoning its two-stroke heritage to create this four-stroke? In *Cycle* magazine's road test of the Z1 in the November 1972 issue, Kawasaki's Motorcycle Division General Manager T. Yamada's response was cited: "Lots of reasons, he said. Kawasaki wanted to build, in their words, the King Motorcycle, a bike beside which the finest motorcycles in the world would shrivel in comparison . . . a bike that would leave a hot and smoking scar across the face of the sport . . . And you just can't do it, Yamada was saying, with a two-stroke engine . . . In the first place, Yamada said, the King Motorcycle must have an engine that sounds right.

"No less important, said Yamada, is the way the engine looks. Who could imagine a King Motorcycle with an engine that looked like a two-stroke engine looks, all crankcases and cooling fins? The King . has to have an engine that looks impressive. And only a big four-stroke is right."

Another important consideration at the time was the greening of America—in the face of rising vehicle emissions. Even in 1972 it was obvious that stinkwheel-powered motorcycles were living on borrowed time. Besides this, Kawasaki had already done massive amounts of focus-group research that clearly indicated a big, four-stroke-powered road burner was absolutely right for the intended audience—primarily U.S. riders—and for the times.

Nonetheless, it's vitally important to remember Kawasaki developed the two-stroke 500 Mach III concurrently with the stillborn 750. That gave the company an exceedingly high-performance motorcycle to sell as it tested, retested and refined the Z1, which had its code name changed to T103 in 1968, then changed again later to 0030; final prototypes were designated 9057. Perhaps the most famous code name/internal reference was New York Steak, although one wonders, given Kawasaki's desire to create the ultimate King of Motorcycles, that someone didn't dub it Filet Mignon or even Châteaubriand.

Even if it were to be known as Montmorency, Kawasaki was taking no chances whatsoever with the Z1's program of testing and refinement. For example, a gaggle of 9057s were shipped to the U.S. in February 1972, where two teams flogged the horns off the poor, unsuspecting prototypes. Bryon Farnsworth, Kawasaki America's senior test rider, was joined at Willow Springs and at Talladega Superspeedway by the company's race team, including Gary Nixon, Paul Smart and Hurley Wilvert, who cheerfully abused the remarkably stoic motorcycles. On Talladega's 2.66-mile tri-oval course, they ran the bikes WFO for the time it took to drain the 4.7-gallon fuel tanks. Testers also ran some 5000 miles on real roads in this country, going coast-to-coast-to-

coast, Los Angeles to Daytona Beach and back. After so much development on dynos, roads and racetracks, the only even slightly unseemly trait the Z1 demonstrated was an apparent appetite for rear tires and final-drive chains, consuming the former in about 6000 miles, the latter in roughly half that distance.

Farnsworth had been working for Cycle magazine when he was approached by Kawasaki to take on the role of senior U.S. test rider, specifically for Z1 development. "I was the first round-eye to ride the Z1," Farnsworth says, "and I was the only American to go over to Japan to test the bike."

So in 1971 Farnsworth was sent to Japan. Initial plans called for riding the bike around the vast, 3.4-mile banked oval of the MITA test track, but those plans fell through. Kawasaki then found a parking lot and threw out some cones to create an impromptu "handling circuit."

Farnsworth, who figured he was being paid to tell his employers the truth with no sugarcoating whatsoever, did so. "The bike immediately started dragging its mufflers around corners," he says. "I told them it was a rakuta, or water buffalo in Japanese." Eventually the testing team made it to a real track, Tsukuba circuit, but even that was short—just over a mile long—and not really suited for wringing out the King of Motorcycles.

See, at this point in the Z1's development, Kawasaki was deeply concerned about the bike's durability and reliability, and rightfully so. Such problems could have not only scuttled the Z1 in the marketplace, but they could have sunk Kawasaki's reputation as well. Of course Farnsworth knew just where to go—Talladega Superspeedway. So in late 1972 the entire Kawasaki Z1-testing entourage descended on Talladega, which they'd rented for 30 days.

"They were holding it wide open for an entire tank of gas," Farnsworth says, "doing about 140 miles per hour." Nothing of consequence broke, but this was back in the day, before manufacturers learned something about shock damping and frame stiffness. "It was a wiggler at the time," he says, "but only if you let off. If you had the balls and held it wide open, it was OK.

"It took about 10 years for them [Kawasaki, and other manufacturers] to figure out the steering head was connected to the swingarm pivot and that you can't put an engine in there that's going to try to twist the frame apart!"

As a side note, Farnsworth mentions that the Japanese engineers tended to hang out together—especially at the hotel at night, after testing was done. No big deal, right? Except that they were squatting down in a big circle drinking beer outside a hotel—in the South. Alabama, to be precise. So of course the Heat swooped in and carted them all off to jail, and Farnsworth had to bail them out.

But that's not all. From March 13 through 15, 1973 (after the Daytona 200 had run), Farnsworth brought a full-factory assault team to beat Suzuki's record set in 1968 of running 90.11 mph for 2172 miles. Included were Kawasaki's American roadrace team riders of the day—Yvon Duhamel, Art Baumann and Gary Nixon, among others—and several U.S. moto-magazine editors, including Cook Neilson of Cycle and Motorcyclist's own Art Friedman. Ultimately they slaughtered Suzuki's record, posting a new one of 109.641 mph for 2631 miles. A special one-off Z1 tuned by Yoshimura and ridden by Yvon Duhamel set a new record of 160.288 for one lap.

So what was this King of Motorcycles? How was it configured? What was it really like?

From the beginning, the Z was always all about its overachieving powerplant. Kawasaki claimed 80 horsepower for the air-cooled, transverse inline-four—handily about 15 bhp more than Honda's CB750. Cycle's test described it this way: "Horsepower flows . . . like water from an Artesian well. It simply never stops."

To further distance the Z1 from the CB750, the Z utilized square bore x stroke dimensions of 66 x 66mm, rather than the Honda's old-school long-stroke numbers, to get 903cc of displacement. When asked why, Kawasaki answered with a shrug, saying, "That's all it needs." This was a very early indication that the Japanese manufacturers were no longer interested in archaic, rigid and limiting class displacements. A sophisticated DOHC induction system (still rare on mass-production bikes, if not on Euro performance cars) was fed by a bank of four 28mm carbs.

Down in the crankcases lived a nine-piece, pressed-up, roller-bearing crank, with caged needle-rollers for each

con rod to ride on —evidence enough of Kawasaki's massive two-stroke design background. Sufficiently impressive, apparently, for Cycle to write, "The lower end looks like it came out of a Porsche Carrera." Power then transferred to a massive, wet, multiplate clutch and to an equally overbuilt five-speed transmission. This strength would serve the bike well on the streets, racetracks and dragstrips of the world for many, many years.

Although the DOHC system with its shim adjusters was slightly more complex than the screw-and-locknut adjusters of most other bikes, Kawasaki tried to make amends by keeping other maintenance procedures as simple as possible. As a result, any major top-end wrenching that might be required could be done with the engine still in the frame.

Where Kawasaki really made a breakthrough, however, was in emissions control. For instance, sintered valve seats made them impervious to unleaded fuel, while a low, 8.5:1 compression ratio ensured the Z's mega-motor could run on the wateriest swill pumped anywhere in the U.S. More important, though, was the crankcase fumes rebreather. A canister on top of the cases and behind the cylinders separated

oil from blow-by, then routed the fumes to the airbox. Absurdly simple, but a scheme claimed to reduce hydrocarbon emissions a full 40 percent.

By comparison, much of the rest of the motorcycle seemed, well, conventional. Yes, the stylists managed to make the big Zed appear slimmer and more lithe than Honda's four-cylinder, but to quote Cycle once more: "The bike's styling is conservative by normal standards, and positively funereal by Kawasaki's, the company that gave the sport laser stripes and lollipop paint jobs!"

Others, though, felt the Zed was eminently more lustworthy than the CB750—or any other motorcycle, for that matter. Such considerations, along with the Kawasaki's crushing performance advantage, made the bike a smash hit with a bullet when it hit U.S. dealers' floors in November 1972. Likewise, the press was just as bowled over.

"The thing that impresses you about the 900 is its great straight-line stability at very high speeds. We could cruise at 120 mph sitting bolt upright." —Cycle Guide, October 1972

"The Kawasaki 903 Z1 is the most modern motorcycle in the world. It is also the fastest. It is above all the first of a new generation of bikes, a generation which will run quietly on the streets of America, a generation which will attempt to solve motorcycles' tiny contribution to the world's dirty air; it is the first of a generation of motorcycles which will come close to being within reason all things to all people, capable of nattering down quiet country roads packing double one minute and rotating the Earth with incomprehensible acceleration the next." —Cycle, November 1972

"The Z1 is one of those shockingly understated GT machines, the kind on which you can look down at the speedometer and discover, 'My God, I'm doing 90, I'd better shut down.'" —Cycle World, March 1973

"A Z1 is the only bike left to which those famous lines from a mid-'60s road test on a Harley Sportster still apply: 'It will make hair grow on your chest, and if you've already got it, it will part it down the middle.'" —Cycle

". . . the first 903 Z1 four-cylinder had velveteen refinement and enough performance to place the most refined gentleman in a state of serious sweat." —Cycle, May 1987

". . . Kawasaki, like a black-sheep uncle, has never failed to pat us bad-boyishly on the head, give us a surreptitious snort from a hidden flask, and affirm our suspicion that life without suspense is no life at all."

Cycle World, April 1993

In short, Kawasaki's 900 Super Four Z1, as it finally came to be known, was a revelation, a motorcycle that pointed the way to the future for virtually every other manufacturer on the globe. The direction was definitely toward performance, but it wasn't the harsh, demanding type that characterized Kawasaki two-strokes such as the Mach III and Avenger. Instead, it was a kinder, more civilized performance—but at an even higher level—and as inviting and inclusive as the two-strokes felt hostile and divisive to some. Even so, the Z1 didn't quite generate the all-inclusive, big-tent appeal of Honda's

CB750. There was still just a bit of an edge, a subtle feeling of Us versus Them. Where the CB750 had this wonderful malleable quality that allowed it to accommodate whatever role the owner had in mind, the Z1 wasn't quite as obsequious. It's not that the bike wasn't capable of such shape-shifting; it's just that the Z1's performance (especially the engine's) was so inviting and user-friendly.

Such qualities guaranteed Kawasaki's Z1 would be remembered as the motorcycle that ushered in the Superbike era—and cemented its place in history.