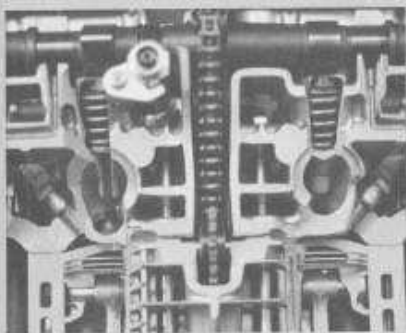
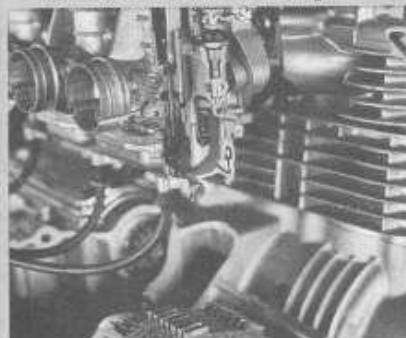


# KZ650 Road Test ~ Cycle World - November 1976

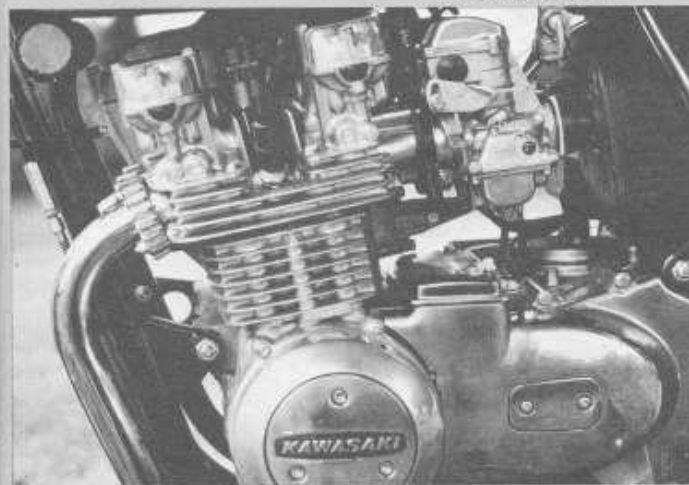


Camshafts operate directly on the valves via cam followers. The shims used for valve adjustment have been relocated under the follower. This necessitates camshaft removal when adjusting valves.

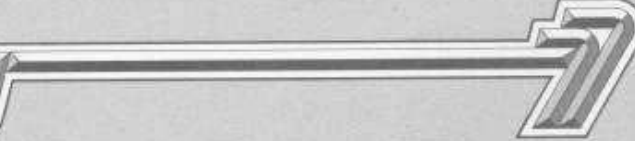
Clutch is typical wet, multi-disc. Four 24mm Mikuni carburetors are rubber-mounted to prevent vibration-induced fuel frothing.



Photography: Bob Alkinson



Instruments are similar to those fitted to the Z1.

preview 

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## Kawasaki KZ650

### Big Bike Performance And Comfort At A Considerable Savings In Price.

**P**ERFORMANCE. That's what Kawasakis are made of and what has traditionally set them apart. Consider the 500 H1 Triple. It didn't handle, it wouldn't stop. But it would out-accelerate all but the very best Nortons and Triumphs. Enter then the 903cc Z1. It handled better, had good brakes, and set performance standards that other machines have yet to equal. Now there's the KZ650, a double overhead cam Four that will outrun most 750s.

Saying that a 650 will outrun most 750s is a bold statement indeed, but Kawasaki had every confidence that the machine would do just that. To prove it, they invited us to the famed Bonneville Salt Flats for top-speed runs, and then to Fuji Speedway in Japan to evaluate handling and overall performance.

At Bonneville, it's possible to accelerate for miles before entering the speed trap; the salt area is that vast. But because the KZ650 is a street machine, it was decided to limit the acceleration area to one mile. Even so, speeds were in the 115-mph range. Translate that to sea level performance and you have a machine capable of just under 120 mph.

On to Japan and Fuji Speedway. The uniqueness of the course demands full concentration at first, but the orientation period also allowed time to get the feel of the motorcycle. Initial impressions of the bike were of lightness, quickness, responsiveness and stability. In no time at all it imparted a feeling of comfort and confidence. Overall, it was damned impressive.

A trip down the straightaway began the test of the KZ650 in earnest. By the end of the straight, the bike was running flat out in top gear. Stability was excellent. At the end of the straight, you enter a 40-mph hairpin turn, a chance to test the bike's reaction during heavy braking. The rear end began skating slightly. While not damaging, the action is a little disconcerting when riding hard.

Next comes a downhill drop that immediately leads to a left- then a right-hand sweeper (S curve). A slight clearance problem revealed itself here. When you really lean into a turn, it's possible to drag the footpegs.

The S curve also has some rough pavement to contend with. The bike did wiggle, but only because it was being ridden as hard as it would go. The longer we continued, though, the worse it got. The problem? At least in part, the rear suspension.

Exiting the S curve, you find yourself on a downhill, heading for a hairpin left. The

fastest way through this turn is to pitch it in under full braking. Cornering in this manner reduces ground clearance even more than normal, making it possible to drag the centerstand.

After the hairpin's apex, the Fuji track widens. Through the remaining right-hand sweepers the bike was wound out. Stability remained good through second, third, fourth and fifth gears. Just before the straight it was necessary to shift down to fourth. At this point, the bike had to be leaned over as far as it would go in order to enter the straight without having to brake. Once on the straight, we grabbed fifth gear, tucked in and wound it up to 9500 rpm, or just under 120 mph.

What all this means is that the KZ650 is not a racer. The tires and suspension are obviously not designed for that. The brakes fade after several stops from 100 mph. We don't criticize severely, however, because you'll never be able to push this bike hard enough on the street to get in trouble. The balance between available engine power, chassis and chassis components is an even one.

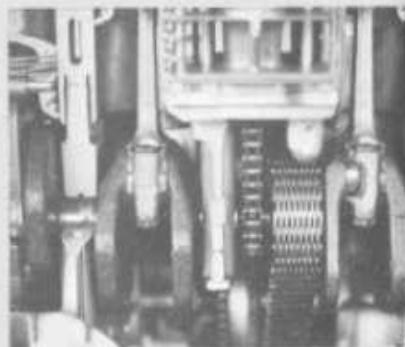
To further qualify the 650's power and handling, let's take a moment and compare it to the Z1. Physically, the 650 is smaller and lighter. Suspension is moderately better than the Z1's, but rider comfort is far superior thanks to a redesigned seat.

Both the 650 and the Z1 accelerate hard, with the edge understandably going to the Z. The 650 covers the quarter mile in 13.1 seconds; the Z1 covers it in 12.3. In addition, the Z1 has a 10-mph top-speed advantage. Unlike the 650, the Z has considerably more engine than the chassis can handle. Consequently, it wiggles much more than the smaller Four.

Styling of the two bikes is very similar, but technically they bear little resemblance. The 650's crankshaft and connecting rods ride on plain bearings. Primary drive is taken between the center two cylinders, and instead of the conventional gear, Kawasaki chose a very efficient Morse Hy-Vo chain. Center drive is a good way to go because it distributes the crankshaft load to the bearings equally. The transmission is integral and is lubricated in common with the power-producing portion of the engine by a wet sump. The oil pump pickup is centrally located and sufficiently baffled to prevent oil surging and subsequent air locking of the pump.

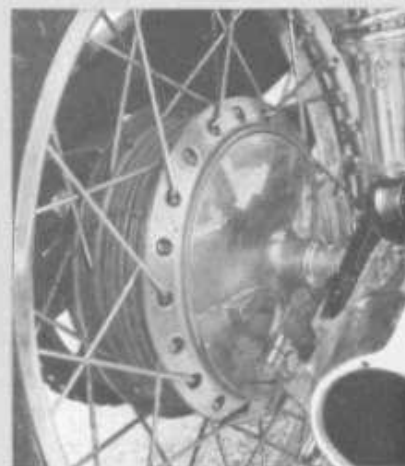
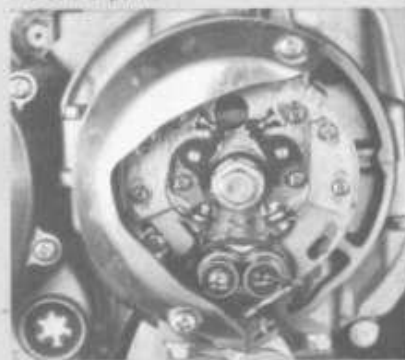
Pistons are conventional, but the camshaft/

*(Continued on page 82)*



The Kawasaki 650 crankshaft rides on plain bearings. Note the Morse Hy-Vo chain which transmits power from the crankshaft to the transmission. The single-row chain next to it drives the double-overhead camshafts.

Ignition is conventional battery and coil with two sets of points.



A drum brake is used at the rear instead of a disc.


## KAWASAKI

Continued from page 32

valve arrangement shows considerable thought. The camshafts operate directly on the valves via cam followers. The shims, used for valve adjustment, have been relocated under the follower. This makes it impossible for the shims to be kicked out at high rpm. A secondary benefit is a reduction of top-end noise. As is common practice, four carburetors are used for intake. Exhaust is handled by four individual header pipes that merge into two mufflers. Two mufflers are used primarily to eliminate a rusting-out problem inherent in the four-individual-muffler design. One cylinder feeding one muffler simply did not generate enough heat to remove the moisture produced by condensation.

Unlike the new Yamaba, the Kaw retains spoked wheels. Additionally, there are no self-canceling turn signals. Features like

these would be nice, but their absence is understandable in light of Kawasaki's desire to sell the 650s for considerably less than other manufacturers' 750s. This is significant because it gives dealers something to talk about. For example, if a customer comes in looking for a 750, a dealer can say, "Our 650 is better because it will outperform most 750s at a price scarcely above that of most 500s." Following the same logic, if a customer is shopping for a 500, the dealer can say, "Why not spend just a little extra and get a 650? After all, bigger is better, right?"

The KZ650 may be a motorcycle of unusual displacement, but that is precisely what Kawasaki intended. It will appeal to more than one market segment (500c and 750cc), and will do it in terms of both price and performance. The machine is definitely a handler. It is light in feel and has enough power for either touring or spirited riding. Add to those qualities the fact that the chassis is capable of handling all of the engine's power, and you have a very desirable machine indeed. 

### KAWASAKI KZ650

#### SPECIFICATIONS

List price	.....	\$1995 (approx.)
Suspension, front	.....	telescopic fork
Suspension, rear	.....	swinging arm
Tire, front	.....	3.25-19
Tire, rear	.....	4.00-18
Engine, type	.....	four-stroke, dohc Four
Bore x stroke, in., mm	.....	2.44 x 2.13; 62 x 54
Piston displacement, cu. in., cc	.....	39.77; 652
Compression ratio	.....	9.5:1
Claimed bhp @ rpm	.....	64 @ 8500
Claimed torque @ rpm lb.-ft.	.....	41.9 @ 7000
Carburetion	.....	(4) 24mm Mikuni
Ignition	.....	battery and coil
Oil system	.....	wet sump
Oil capacity, pt.	.....	7.4
Fuel capacity, U.S. gal.	.....	4.5
Recommended fuel	.....	unleaded or low-lead
Starting system	.....	electric, kick
Air Filtration	.....	dry, treated paper

#### POWER TRANSMISSION

Clutch	.....	multi-plate, wet
Primary drive	.....	Morse Hy-Vo chain
Final drive	.....	single-row chain
Gear ratios, overall:1		
5th	.....	5.968
4th	.....	6.974
3rd	.....	8.516
2nd	.....	10.930
1st	.....	15.624

#### DIMENSIONS

Wheelbase, in.	.....	55.9
Ground clearance, in.	.....	5.7
Front fork rake angle, degrees	.....	27
Trail, in.	.....	4.25