Cycle

MARCH 1979 • $1.00

TOURING: THE GREAT ASPENCADE EXPLOSION

6-CYLINDER KAWASAKI KZ1300...ZZAAAPP!

1-CYLINDER HONDA XR500...THUMP!

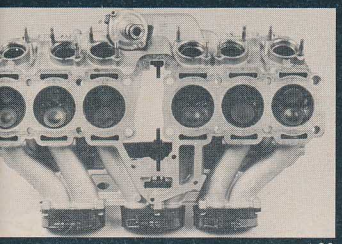
CAN-AM 250 QUALIFIER

YAMAHA IT400F

0 14024 14277 03
Cycle

Cycle®

March 1979 Volume XXX No.3



p.38

p.116

p.156

p.146

This Month's Cover: They may look different, but there's a lot in common between the XR500 Honda Single and the steaming Kawasaki 1300. They're both big for their age, powerful, technically interesting, and capable performers. Another capable performer: Robin Riggs, who built a studio in our shop just for *Cycle*'s March cover, then took the shots.

Road Tests

Features

Technical

Departments

CYCLE March 1979, Volume 30, No. 3. Published at One Park Ave., New York, N.Y. 10016, by Ziff-Davis Publishing Company—also the publishers of Car & Driver, Flying, Skiing, Popular Photography, Stereo Review and Popular Electronics. One year subscription rate for U.S. and Possessions $11.98, Canada $14.98, all other countries $16.98. Second class postage paid at New York, N.Y. and additional mailing offices. Authorized as second class mail by the Post Office Dept., Ottawa, Canada, and for payment of postage in cash.

KAWASAKI KZ1300

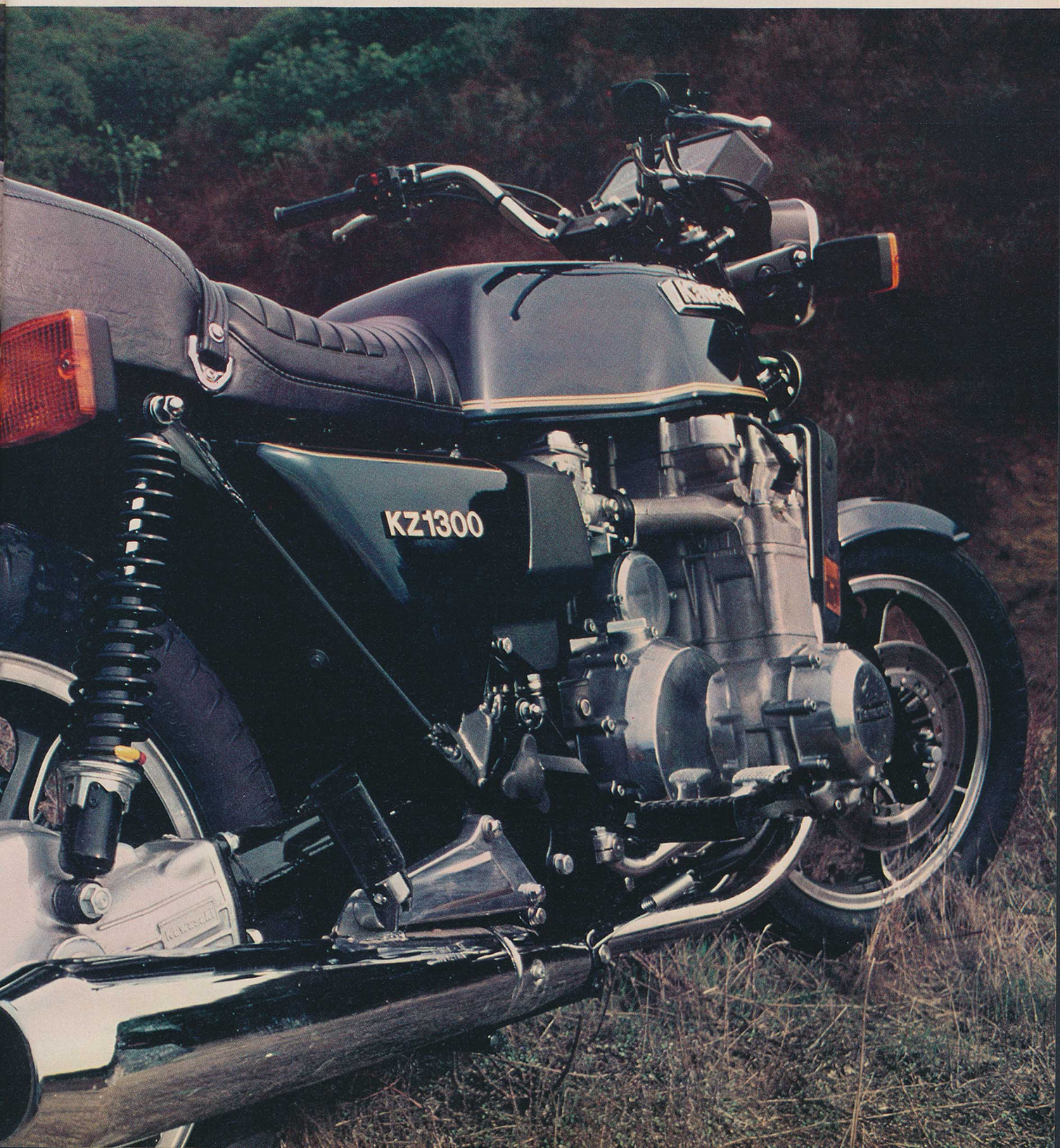
● THE NEW KAWASAKI SIX IS EVERYTHING people who hate Japanese motorcycles have always said they would come to: heavy, wide, fast, encrusted with technical ornamentation, lurchy, stiff in suspension, low, smooth, non-participative and immoderate in nearly every particular. It carries the most powerful engine ever fitted to a standard production motorcycle, and the heaviest. It is also equipped with a small, black, handlebar-mounted switch which selects between manual and automatic turn signal cancelling. The bike is a long way from a Triumph; purists would place it not so far from a Buick.

So young, and the 1300 is already a lightning rod for wiseass remarks: "Can you buy one with a dump bed?" "When does that place get to Compton?" And yet other than complaints about drive line snatch, cornering clearance and stiff springing, criticisms of the 1300 revolve around what it is, what it represents and what it portends, not how it works.

Is it Japan's version of the Harley FLH? Is it less than a motorcycle—or more? Does it make sense to add an extra 100 pounds of engine just to move an extra 100 pounds of engine? Can function be admired no matter the wrapping? How close to normal can life be like, this far from the middle ground? Is it finally time for a Displacement and Complexity Non-Proliferation Agreement? No, about the same, no, yes, surprisingly close, and you bet.

PHOTOGRAPHY: PAUL R. HALESWORTH, ROBIN RIGGS

How *does* it work? Just fine, thank you very much. The stoutest frame ever braided around an engine, 41mm fork pipes, and sturdy shock absorbers provide a level of high-speed straight-line steadiness and moderate-speed cornering stability that's out of keeping with the sheer size of Kawasaki's biggest bull elephant. Carefully-fiddled footpeg-handlebar-seat-tank relationships result in a riding position that is above reproach. Triple disc brakes, with the working surfaces of the rotors drilled in this year's trick pattern, do an acceptable job of converting kinetic energy into heat, and are better than most in the rain. OK, so the engine/radiator assembly weighs in at 286 lbs., a figure comparable to the weight of a complete, gassed-to-the-brim Yamaha TT500. The Kawasaki engine is also a marvel of smoothness, develops exactly the kind of power you would expect considering all that displacement, all those cylinders, and the name on the fuel



KAWASAKI 1300 TEST

tank, and delivers 38.3 mpg in the process. Except for a few Mercedes-Benzes, Volvos, BMWs and the occasional Japanese or Italian flash car, the 1300 Kawasaki makes more horsepower than any imported automobile on the American road today. Not just more speed or more acceleration—more *horsepower.* It is enough to bugger the mind.

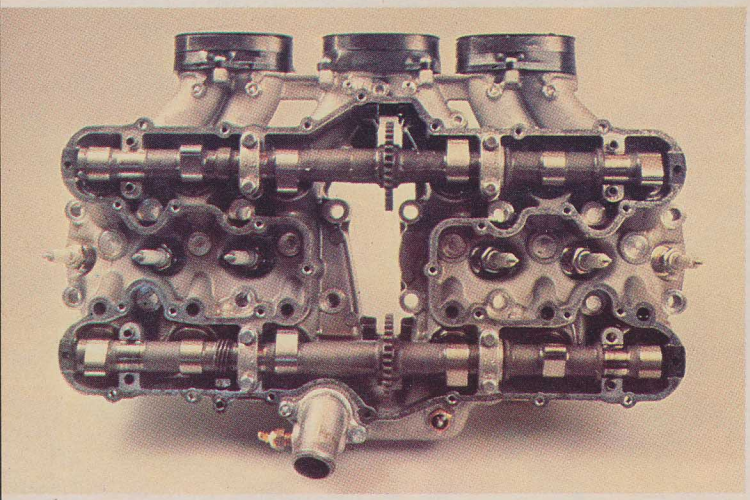
Where did it come from, and what was the thinking behind it?

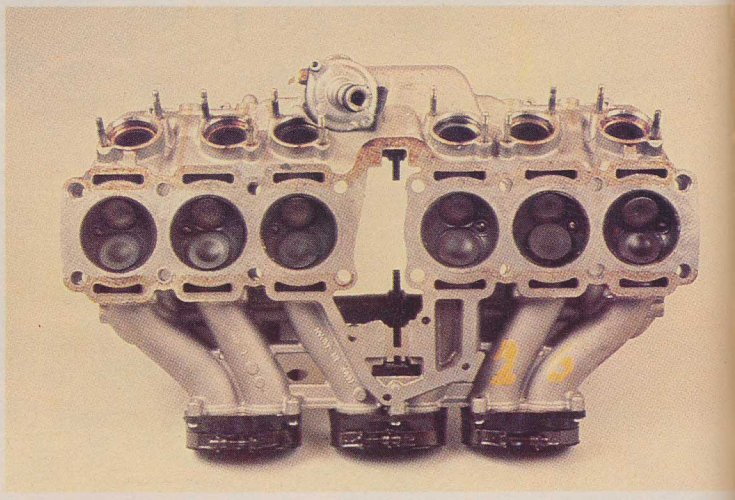
With the Z1 on the market and already a success, guidelines were laid out for the Six in June of 1973. It would be water-cooled, shaft-drive, about 1200cc in displacement and have six cylinders. By April of 1974 the first drawings were completed, a working prototype model was built by September of 1975, an updated prototype by August of 1976 and the 1300cc engine tested in January of 1978.

Kawasaki could not possibly have known in 1973 that early in 1978 Honda, Yamaha and Suzuki would all pop up with big-bore Superbikes and dominate a displacement category that Kawasaki, since 1973, had had all to itself. What Kawasaki *did* know was that 1) performance in 1978 or 1979 would be just as attractive as it was in 1973, and 2) would also be more difficult to come by, emissions limitations being what they were.

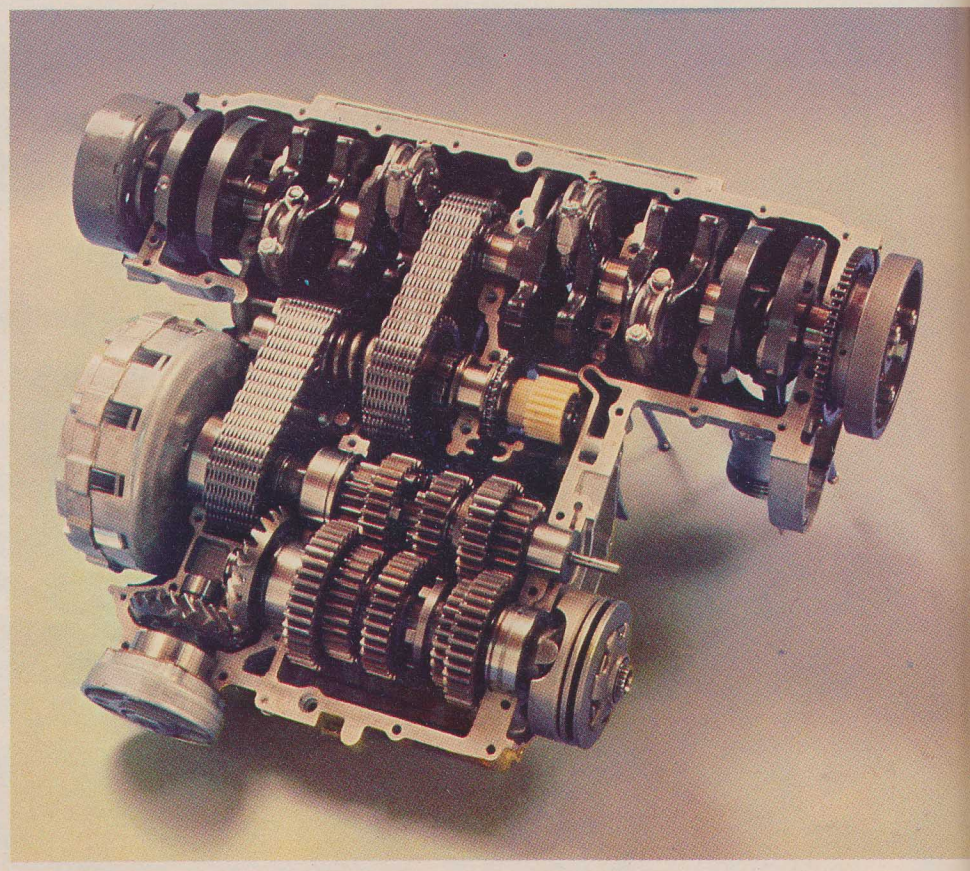
Kawasaki, in developing the 1300, followed a path that was well-beaten by the manufacturers of cars who aspired to engine performance: they went up on displacement to achieve the power they felt was necessary, and laid out an under-square engine to lower surface-to-volume ratio in the combustion chamber, thereby reducing certain pollutants (and also controlling engine width). Then, after wrestling to the ground what had been a sincerely-expressed desire to stay away from displacement categories containing the products of Harley-Davidson, they pushed the button and let 'er rip.

Kawasaki is candid about the reservations they had as the bike plowed through five years of development. From their literature: "The basic specifications did not change despite strong negative opinions from tradition-minded experts." Also, "There were many setbacks along the way which had to be overcome." The "negative opinions from tradition-minded experts" are easy to believe; the 1300 is the biggest horse in Japanese motorcycle





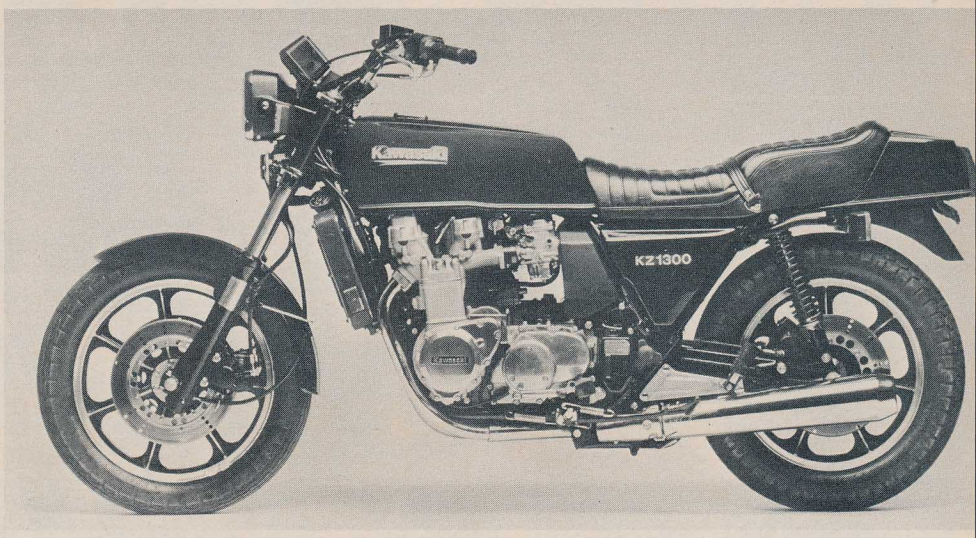
KZ1300's camshafts (above) are one-piece, hollow, and close to the KZ1000 in specification. The underside of the head (above, right) demonstrates the emphatically-splayed inlet runners. With the lower crankcase half removed (right), the Six shows off its goodies: harmonic balancer, double chain primary, monster clutch, jackshaft and output shaft driveline dampers.

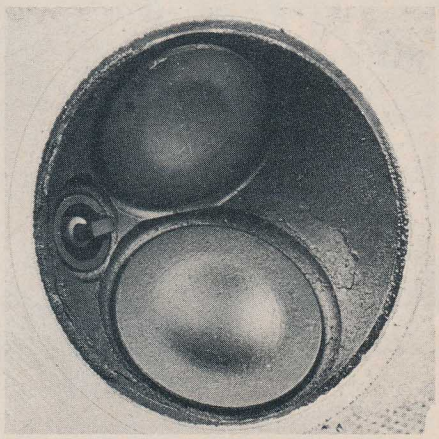


manufacturing history, and "experts" tend to be anti-big, anti-weight, anti-complexity, anti-ponderousness, anti-long, and anti-everything-that's different-from-the-way-it's-always-been.

But there were objections to the concept of the bike from other quarters, and for other reasons. Some American Kawasaki executives felt strongly that bigger-faster-heavier was a path that didn't necessarily lead to the future. In their view a "bike for the Eighties," which is how Kawasaki thinks of the 1300, would be narrow, lithe, smooth, quick, and if not elemental, then at least not significantly more complicated than, say, the Z.

But objections to the concept for whatever reason are moot; the bike is here, it is readily identifiable as a motorcycle, and however difficult functional success may have been, it has been achieved.

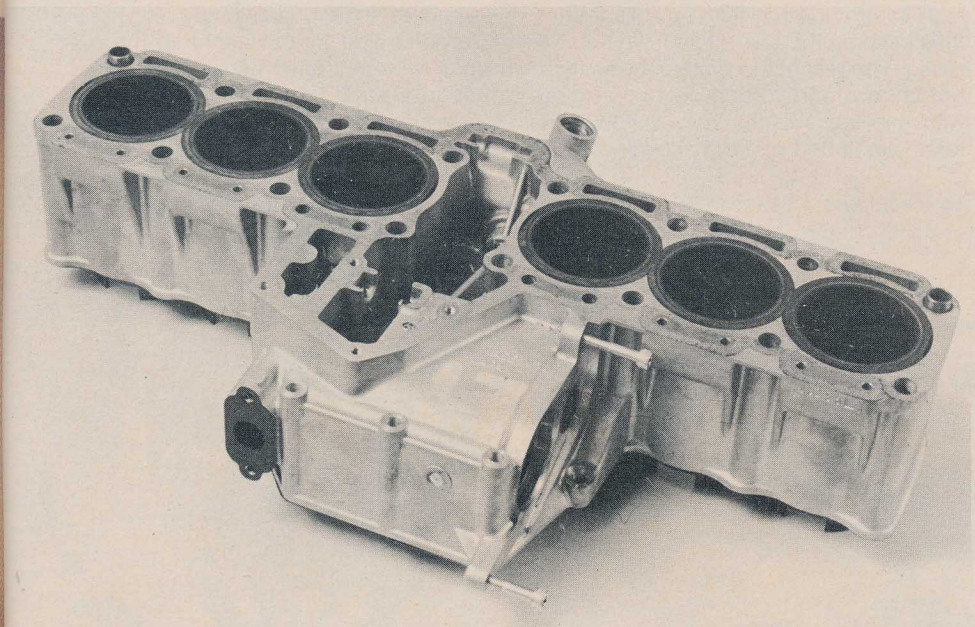




Valves (34.5mm inlet, 29.5mm exhaust) operate in shallow hemi chambers. Note narrow squish band.

On a motorcycle as spaced out as the 1300, you'd anticipate some technical innovations. They're around—but not necessarily where you'd expect to find them. For example:

- The Six is the first motorcycle in memory to be fitted with a formal, automotive-type harmonic damper. Its purpose is to take the edge off the torsional vibrations coursing through the 1300's rather long crankshaft. The damper (also called a Lanchester damper) consists of three main elements: an inner assembly which bolts to the left end of the crank, a thin layer of elastic material bonded around its circumference, and an outer ring to which the rubber is likewise bonded. Without the damper, a torsional impulse would race down to the end of the crank, excite it, then race back. With the damper, this impulse is absorbed by the elastic material; instead of continuing to excite the crankshaft, this spurious energy is resolved into heat and dissipated.
- Four separate flexible couplers of one kind or another are interposed between the crankshaft and the rear tire's contact patch. There's a coil-spring-backed ramped coupler on the jackshaft; a damper in the clutch basket; another ramped coupler (this one backed with four 100mm-diameter Belville washers, 2mm thick) on the transmission's output shaft; and a damper in the rear end.
- The 1300 has an extremely sophisti-

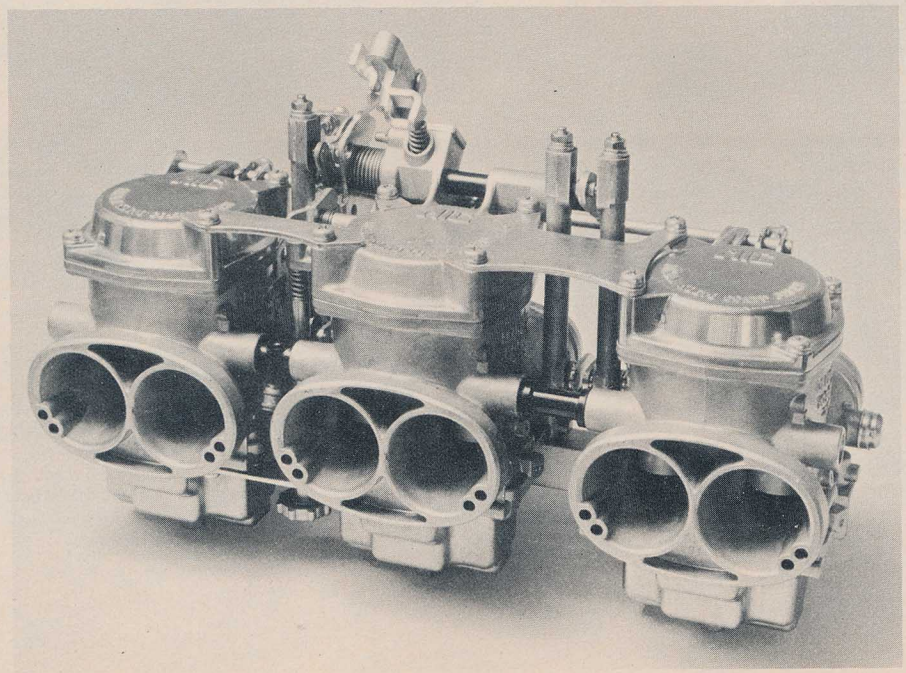


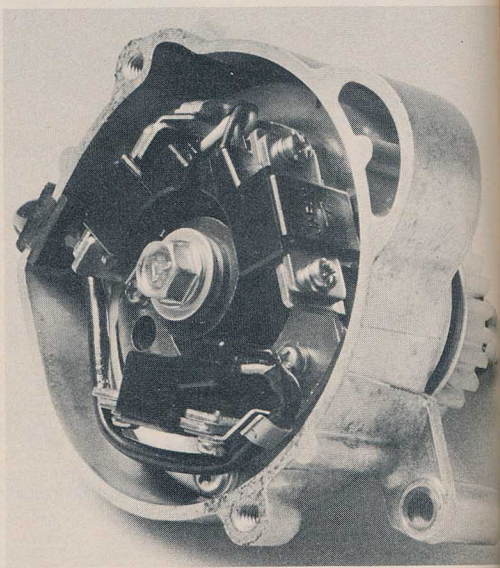
One of the most elaborate single castings in motorcycle history, the 1300's cylinder accomodates a housing on the rear. The housing contains, among other things, the shaft that powers the water pump and ignition shafts.

1300's rod big end parts on a bias so that rod and piston can be removed together through a cylinder bore

KAWASAKI 1300 TEST

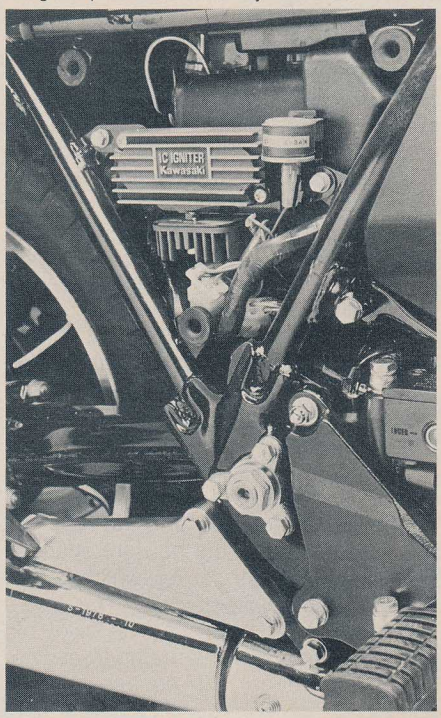
cated emissions control system which permits the bike to operate with few of the ultra-lean characteristics we have come to expect from late model street motorcycles, yet which is effective enough to meet all legal requirements. Part of the system is a formal PCV (Positive Crankcase Ventilation) valve, which meters crankcase blow-by back into the air cleaner assembly. The PCV valve is vacuum-sensitive; high inlet manifold vacuum pulls it shut, thus keeping the bike's idle from deteriorating. The rest of the system mixes technology ordinarily seen on two-strokes with thinking straight from Motown. Filtered air, tubed in from the air-cleaner housing, passes through a vacuum valve and then into compartments housed in the cam cover which contain reed valve assemblies. In response to negative pressure generated by pulsations in the exhaust system, this fresh air is pulled through the reed cages and down passageways in the cylinder head, and introduced into the exhaust port just down-

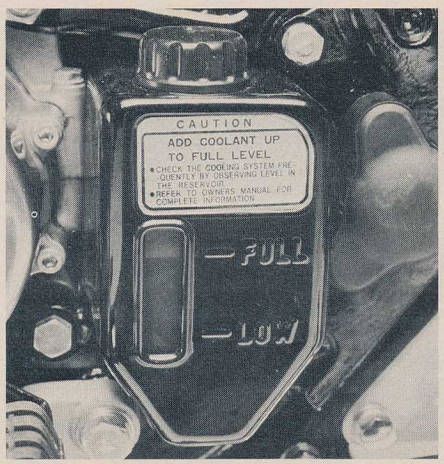




Single vacuum chamber controls both pistons of the Mikuni "two barrel" carb (left). Ignition is timed by pointless magnetic triggering complex, contained in its own housing below carburetors and gear-driven.

Radiator housing (facing page, left) is covered with thick rubber molding for protection. Rear chassis members are welded into steel forgings, which locate swing arm pivot. Note master cylinder's level window.

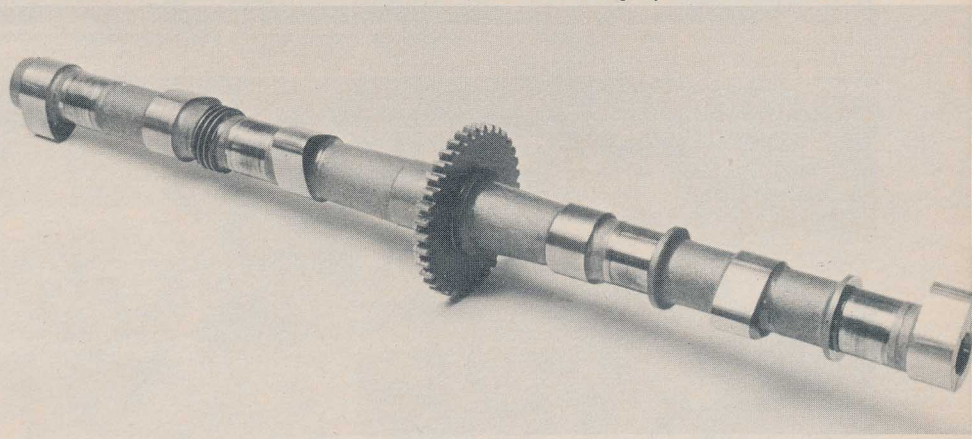




Radiator reservoir, also known as a catch tank, is behind left footpeg. Coolant checking is a cinch.

The sign on the cap may say, "Keep this cap close usually," but it means, "Keep this cap close alway."

KZ1300 camshafts are unusual mostly because the drive gears are cast integrally with the cam shaft blanks.



stream from the exhaust valve. Mixing with hot, unburned exhaust gases, the oxygen-rich fresh air promotes additional combustion, which takes place in the exhaust ports and in the headers.

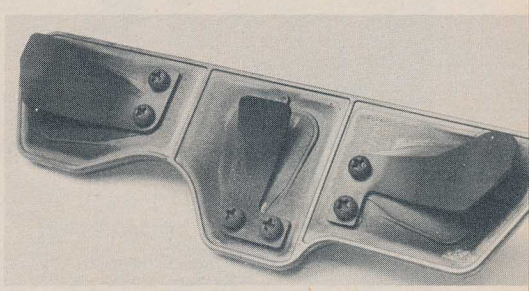
The vacuum valve, installed in the line between the air cleaner housing and the reed valve assemblies, controls the flow of air to the exhaust ports. It is in communication with the inlet manifolds feeding cylinders three and four. Under high vacuum conditions (i.e., throttle-closed deceleration), the valve shuts off the flow of air, which controls backfiring. (Certain late-model Hondas have a similar device, called an air cut-off valve, built into their carburetors.)

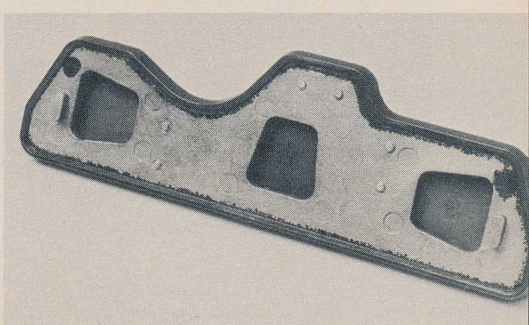
● The KZ1300 is the first motorcycle to be fitted with two Morse Hy-Vo-type primary chains. The Suzuki GS four-cylinders and the Kawasaki 1000s use a gear machined on the crankshaft to power a matching gear on the clutch basket; this is their "primary" system. For a host of reasons (some concerning noise, other having to do with the 1300's plain main bearings, still others revolving around the desire to take the power off the dead center of the 6's crankshaft) the 1300 uses a 33.6mm-wide Hy-Vo to power the jackshaft, and another, wider one (40mm) to carry power from the jackshaft back to the transmission's input shaft. Why is the second chain larger? Because there is a reduction between the crank and the jackshaft; this means the second chain has to accommodate more torque than the first.

● Until now, overhead camshaft multicylinder motorcycle engines had cams which were turned, at a straight 1:2 ratio, by a chain connected to the crankshaft (the Honda CBX has the exhaust cam driven by the crank and the inlet cam driven by the exhaust cam; still, the principle is the same). The 1300 does it differently. The single Hy-Vo-type 9.3mm cam chain runs off the jackshaft, *not* the crankshaft. Since there is a 24T crank sprocket and a 32T jackshaft driven sprocket (a 0.75 reduction), there must be an additional reduction between the jackshaft cam drive sprocket and the cam sprockets to achieve an overall 1:2 reduction. There is.

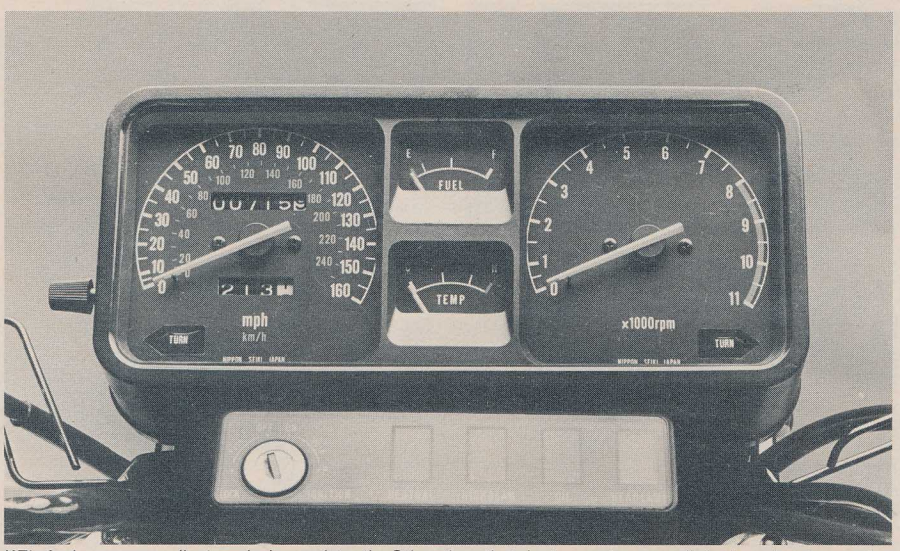
(This engine has more reductions than any engine in memory. There's a reduction between the crankshaft and jackshaft, between the jackshaft and the tramsmission input shaft, an overdrive between the two bevel gears comprising the output gear pair, and a final reduction between the ring gear and the pinion gear in the third member.)

● The 1300 has not one jackshaft, but two. The main one—the one we've been talking about—does the usual things: moves the drive from the middle of the engine off to one side so there's room for the transmission, powers the oil pump and accommodates a shock absorber. The second jackshaft is driven by a chain from the first, and nestles in a housing cast on the back of and integrally with the 1300's cylinder block. This second jack shaft does its share. In its middle is a bevel gear pair, which borrows some power, turns it 90 degrees, and routes it longitudinally between cylinders #3 and #4 to turn the water pump. The right end of the

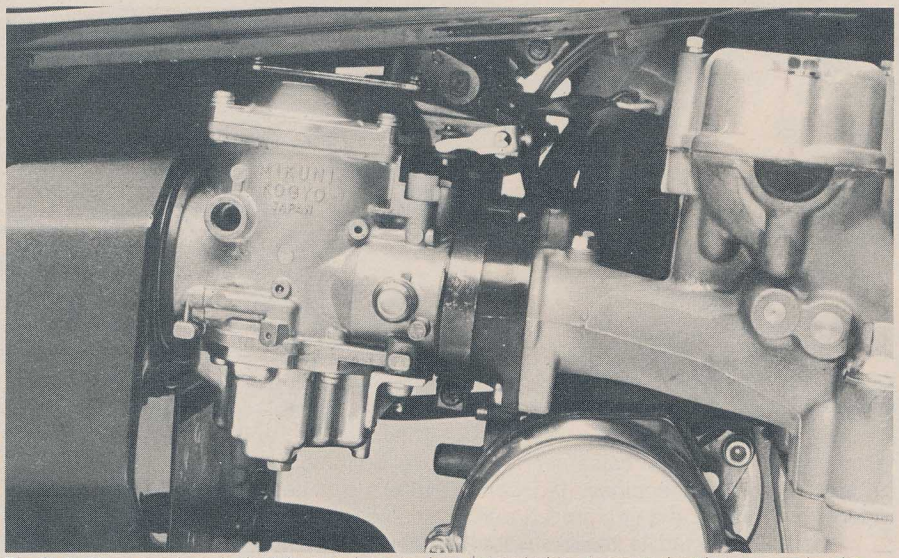




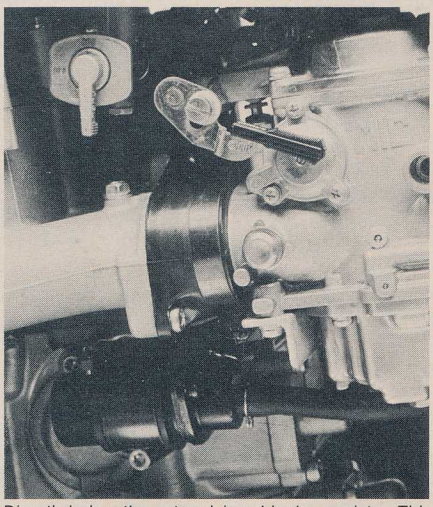
Reed valve assemblies are carried in compartments in the cam cover. They regulate air coming from the air cleaner and going to exhaust valve pockets.

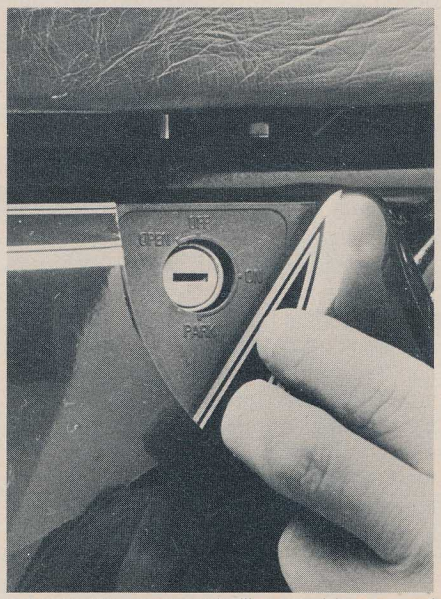


KZ's fuel gauge needle travels inconsistently. Other than that, instruments are well-designed and attractive.



The Six's 32mm two-barrels don't have to be extra-lean for emissions reasons; throttle response is crisp.


Directly below the petcock is a black cannister. This is an electronic fuel shut-off. We don't know either.



Behind a side cover's swivelling panel is a second electrical shut-off switch, integral with the seat lock.

second jack shaft terminates in a spur gear, which drives a matching gear on the end of the ignition rotor shaft.

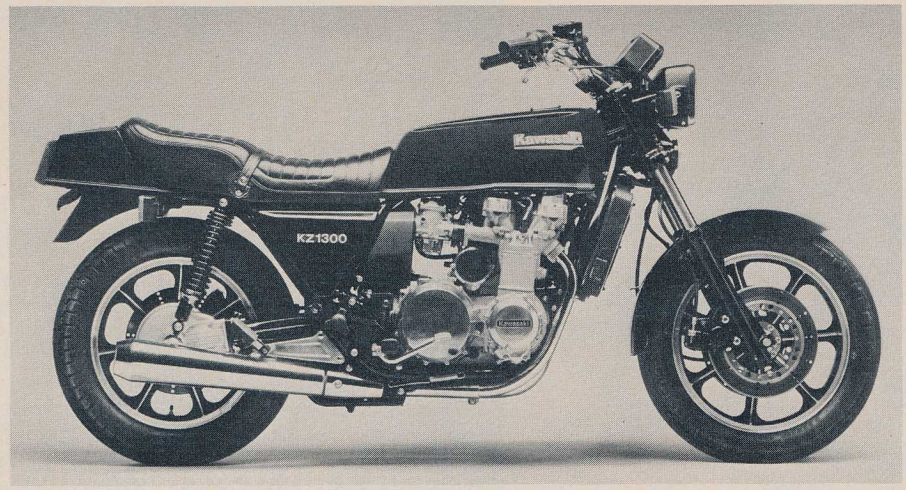
● The 1300's connecting rods do not part along a horizontal plane; they part along a bias. Ordinarily in a plain bearing engine, piston and ring maintenance is performed by simply removing the cylinder block. Not the case here. Because of the housing on the back of the cylinder, and all it contains, pistons and rings are most accessible by removing the bottom of the engine, removing the rod caps, and slipping the rod and piston assemblies up the bores and out the top.

But the 1300 is a narrow-bore engine: a conventionally-divided rod big-end would be too wide to fit out through a bore. By parting the big end along a slant, and then securing the rod cap with a semi-permanently-attached stud on the long side and a bolt on the short side, the big end of the rod is tricked into believing it's smaller than it really is.

● The 1300's rear shock absorbers do not connect to the swing arm on either side. The left-side shock bolts to the rear end housing; the shock on the right attaches to the brake caliper carrier, which is cast in unit with the caliper.

● For the first time since Tri-Power big block Chevrolets, we're seeing three two-barrel carburetors; "trip' deuces," as they used to be called. The Six's carburetors are Mikunis manufactured under license from Solex; similar basic designs used to grace the sides of British sports car engines. They are of the Constant Vacuum persuasion, and do not have accelerator pumps. Why not, when big-bore Hondas all have carburetors equipped with accelerator pumps? Because of emission control. Honda does it with extremely lean low-speed circuitry; to make a clean transition to the intermediate systems, supportive squirts into the carb venturis are necessary. But the Kawasaki Six, with its far more sophisticated emissions control array, can get away with carburetion settings rich enough to provide tight, sharp throttle response—so accelerator pumps are unnecessary, which may account in part for the Kawasaki's fuel efficiency when compared with, say, the Honda CBX's (38.3 mpg vs. 35.3 mpg).

Speaking of the CBX, the Kawasaki Six differs from it in several significant ways. First, the Kawasaki is heavier by 110 pounds, longer by 92mm (3.62 in.), wider by 41mm (1.6 in.) and more powerful by God knows how much. Second, the Honda Six presents itself as a sport bike while the Kawasaki is a performance touring bike. Third, the Honda represents engineering which sidesteps problems; the Kawasaki represents engineering which crushes problems. Fourth, the Honda CBX went from concept to the road in about two years, while the 1300 took the better part of five years to make



KAWASAKI 1300 TEST

the same journey. And fifth, the task the 1300 will be expected to perform is far more complicated than that facing the CBX, since touring bikes have to do everything sport bikes do, and be quiet, comfortable, understressed and reliable in addition.

The "understressed" and the "reliable" part seems to have been taken care of. There are suspicions, based upon the length of the 1300's connecting rods (about 120mm, or 4.72 in.), that the engine started out with a stroke of about 60mm, or 2.36 in., and a total displacement closer to 1050cc than to the present 1286cc. But other than the way the rod caps attach to the big ends, there is nothing to cause alarm. In fact, much of the hardware has already been proven in other Kawasaki models. Valves (34.5mm inlet, 29.5mm exhaust; 8mm lift inlet, 7.5mm lift exhaust) are close to the valves in the Kawasaki 650; buckets and shims are KZ1000 items; cam timing figures (inlet opens 20 degrees BTDC, closes 70 degrees ABDC; exhaust opens 70 degrees BBDC, closes 30 degrees ATDC) are practically identical to the KZ1000's; pistons are manufactured by ART.

Down below, there's the previously-mentioned jackshaft (turning in the same kind of plain bearings which support the seven-main crank), which is more of a chain terminal than anything else; three drive line shock absorbers; and the biggest, toughest clutch in motorcycling. The transmission shafts rotate on a mixture of ball and roller bearings, including a double-row thrust ball bearing just inboard of the final drive bevel gear. Like the new shaft-drive Suzuki, the Six gets away with two transmission shafts instead of the Yamaha Eleven's three. Power is transmitted from the gears on the mainshaft to

Make and model ..... Kawasaki KZ1300A1-Six
Price, suggested retail ..... NA

PERFORMANCE
Standing start ¼-mile ..... 11.96 sec. @ 114.35 mph
Engine rpm @ 60 mph, top gear 3557
Average fuel consumption rate ..... 38.3 mpg
Cruising range ..... 215.6 miles
Maximum speed in gears @ engine redline ..... (1) 54.8, (2) 75.4, (3) 98.2, (4) 117.0, (5) 135.0

ENGINE
Type ..... DOHC four-stroke, water-cooled transverse in-line six
Bore and stroke ..... 62 x 71mm (2.44 x 2.80 in.)
Piston displacement ..... 1286cc (78.47 cu. in.)
Compression ratio ..... 9.9:1 (full-stroke)
Carburetion ..... (3) 32mm Mikuni BSW32 two-barrel
Exhaust system ..... six-into-two
Ignition .. Inductive, transistorized, magnetically-triggered
Air filtration ..... replaceable paper element
Oil filtration ..... replaceable paper element
Oil capacity ..... 4.6 liters (4.86 qts.)
Bhp @ rpm ..... 120 @ 8000 rpm (claimed)
Torque @ rpm ..... 85.4 lbs/ft. @ 6500 rpm (claimed)

TRANSMISSION
Type ..... 5-speed, constant mesh, wet multiplate clutch
Primary drive ..... 40mm and 36.6mm Hy-Vo-type chain, 24T x 32T and 21T x 29T
Final drive ..... shaft and bevel gears, 2.651:1
Gear ratios, overall ..... (1) 11.20 (2) 8.14 (3) 6.25 (4) 5.24 (5) 4.55

CHASSIS
Type ..... Mid steel, tubular, double-cradle
Wheelbase ..... 1587mm (62.48 in.)
Rake/Trail ..... 28.5°/102mm (4.02 in.)
Brake, front ..... Drilled dual disc, 260mm rotor diameter
rear ..... Drilled single disc, 250mm rotor diameter
Wheel, front ..... 18 x 2.15 highlighted casting
rear ..... 17 x 3.00 highlighted casting
Tire, front ..... Dunlop tubeless Gold Seal F8, MN 90-18 4PR
rear ..... Dunlop tubeless Gold Seal K100M, MT90-17 6PR
Seat height ..... 809mm (31.85 in.)
Ground clearance ..... 142mm (5.59 in.)
Fuel capacity ..... 21.3 liters (5.63 gal.)
Curb weight, full tank ..... 710 lbs. (322.1 kg)
Test weight ..... 870 lbs. (394.6 kg.)

ELECTRICAL
Power source ..... Alternator, 145 watts @ 3000 rpm
Charge control ..... Solid-state voltage regulator, rectifier
Headlight beams, high/low 12V 60/55W
Tail/stop lights ..... 12V 8/27W x 2
Battery 12V 20AH

INSTRUMENTS
Includes ..... speedometer, odometer, trip meter, tachometer, fuel gauge, water temperature gauge; indicator lights for turn signals, neutral, high beam headlamp and oil pressure
Speedometer error, 30 mph indicated, actual ..... 29.64 mph
60 mph indicated, actual ..... 55.55 mph

CUSTOMER SERVICE CONTACT
Customer Relations Department
Kawasaki Motor Co.
1062 McGaw Ave.
Santa Ana, Calif. 92705
(714) 835-7000

KAWASAKI 1300 TEST

the gears on the layshaft; they're splined to the outer of two concentric shafts; a ramped coupler backed by Belville washers transfers the power to the inner shaft, which runs back across the transmission case and terminates in a bevel gear, which turns the driven gear on the front of the driveshaft.

If you suspect the complexity of the Six has resulted in weight, you're right. But if you suspect weight in any way impedes the performance of the 1300's engine, you're wrong. It jerks the 870 pounds of bike and rider to the end of the quarter mile in under twelve seconds (our bike went 11.96 @ 114.35; other examples were almost two-tenths quicker and 1½ mph faster), putting it in the rarified company of the Honda CBX and the Yamaha XS Eleven Special as an eleven-second runner. It also outpulled a slightly modified Suzuki GS1000 in a fifth gear, 50 mph roll-on, edged away from a Kawasaki KZ1000 chain-drive in a speed comparison beginning from 100 mph, and maintained an indicated speed of 141 mph (about 8400 rpm) for several miles with no indications of distress.

And it's not a bit temperamental. Other than showing a hint of overheating in heavy traffic and at the drag strip, the Kawasaki 1300 engine displays perfect manners. As well it should: power borne of displacement is nearly always mannerly. To achieve 100 hp., the engine only needs to produce 1.27 horsepower per cubic inch, or 77.7 horsepower per liter. When you consider that engines like the new Honda 750 produce over 85 horsepower per liter, it's easy to see how the 1300 can be both fast and happy.

Perhaps the most impressive component on the biggest KZ is its chassis. Although it looks like most other Japanese multi-cylinder frames, it establishes new high-water marks for beefiness. The main backbone is 45mm in diameter; the lower rails are 32 and 34mm; the swing arm member through which the drive shaft passes is 57mm high and 43mm wide. The chassis features pressed steel doublers here and there for even more reinforcement, and a pair of giant forged junctions into which all the frame tubes at the rear of the bike are welded. Tapered roller bearings are used at the swing arm pivot and at the steering head. Ultra-long (14.3 in., or 363mm), heavily-sprung rear shocks attend to the back of the bike; the front is carried on 41mm fork pipes each filled with 400cc of oil, a length of spring, and ten pounds of air. The front tire is an eighteen-incher—a first for a big-bore Japanese multi—and like the rear, it is tubeless. The front axle is offset forward, which provides more room for damper equipment at the bottom of the slider, which provides more room for overlap between slider and stanchion, which makes for a stiffer suspension complex.

Although additional fork springing provided by air is not new on street bikes, it is appreciated insofar as it provides the kind of adjustability riders like when they are faced with differing pavement conditions and changing load weights. Although it is difficult to match the air pressure in the fork pipes exactly (no gauge or pump is provided), slight mismatching doesn't seem to matter. In fact, due to a nick on one fork leg which chopped up the fork seal causing all the fork oil and most of the air to escape, we encountered a total mismatch and were unable to detect a significant reduction in handling stability.

What we most emphatically *did* detect was a reduction in cornering clearance, something the 1300 can ill-afford. Even with the recommended amount of air in the fork pipes and the rear springs set up, the bike drags a lot of stuff on the ground during cornering: footpegs, header pipes, mufflers, centerstand (two places) and one power chamber cover. While cornering clearance is certainly better than that of a Honda GL1000 or Harley-Davidson, it is a long way behind a Yamaha XS Eleven or a Suzuki GS1000.

And yet reduced cornering clearance seems the most intelligent sacrifice here. There is only so much room to work with on any motorcycle, and that room has been apportioned almost to the micron on the KZ13000. Room for cornering clearance depends on suspension length and stiffness, engine and engine paraphernalia width, where the engine has to be located for optimum center of gravity, how much equipment has to go beneath the seat and what kind of seat height is desired, etc. The 1300 appears to need more cornering clearance. Fine. Where do you get it from? Raise the engine and general handling quality may be eroded, along with looks and space for fuel. Lengthen the suspension units and there

(Continued on page 192)

KAWASAKI KZ1300 *Continued from page 48*

goes the seat height. Stiffen up the springs and there goes the ride quality. As it stands now, considering the width of the engine, there's not a great deal that could be done without seriously detracting from the bike's charms in other areas: it *is* comfortable even considering its somewhat-stiff springing, it doesn't handle badly despite its weight, length and geometry, and its seat height dimension makes it far more manageable for short-leggers than it would be with another few inches of altitude. The suspension is pretty good; not as all-enveloping as that of the GS1000 or the XS Eleven, but not as severe as that of the CBX or GL1000. Too, whatever harshness there may be in the suspension is somewhat ameliorated by the bike's extravagant 62.5-inch wheelbase; if there is stiction, and there is, at least it's happening a good distance from where you're sitting.

As we've mentioned before, the 1300 is a marvel of creature comforts. The seat is as good as you'll find anywhere—a perfect blend of softness and resiliency designed by someone who knows about shapes. The way the seat works, together with handlebar contour and rise, provides a seating position that's practically perfect. Some of our testers found the footpegs to be a shade too far forward, but when a full fairing is added and wind blast moves from the front to the back, the pegs too will be ideal.

Borrowing a page from Yamaha, Kawasaki has fitted the 1300 with self-cancelling turn signals—plus a switch that allows the rider to cancel the cancellers and do it himself if he wants. The bike has the finest high-low beam switch we've ever seen, legible, almost Toyota-esque instrumentation, an easy throttle and a man-sized clutch pull. Once you get past the shock of seeing the logo on the tank standing up off the surface as much as three-quarters of an inch, you realize just how successfully stylist Chris Kurashima has integrated the tank shape with both the rest of the bike and the upper contour of the engine. Finished in a teal blue, the tank, side covers and tail section do what they can to diminish the visual impact of a 710-lb. motorcycle with six cylinders. There are hard edges and slabby planes in abundance—this is very much a "square" motorcycle—but without an effort at crispness, the bike might begin to wallow around visually in its own size.

Speaking of wallowing, the bike doesn't do nearly as much of it as you'd expect. Even considering its cornering clearance limitations you can racehorse through the mountains with some rapidity. There seems to be a fair amount of compression damping in the rear shocks. Ordinarily compression damping does more harm than good, but on this bike it really helps. Heavy bikes have more trouble than usual with bumps in turns, because the weight produces suspension over-compression, which reduces clearance, which can start a real wing-ding. But just when the Kawasaki starts to sink down on its suspension the shocks' compression damping catches it, and helps keep things under control back there.

Still, the 1300 is hardly a Suzuki 1000 when it comes to handling stability. Ram it into a corner just a tad hot with the brakes on and a very low-frequency series of subtle deflections begins. Because of its length and front-end geometry the 1300 tends to understeer, and wants to straighten up if the front brakes are applied during cornering.

The brakes themselves are just fine—especially the rear. They're quiet (thanks to the drill patterns on the working surfaces), and they work better than usual in the rain (thanks to the etc.). Because of the terrific compression braking supplied by the engine, the rear brake assembly should be gentle and progressive to forestall lock-up. It is. Our only complaint concerning the front brakes is their "springiness." During serious stopping the master cylinder piston gives the impression that it's working against a compressible fluid. Since this violates the laws of physics it must be something else—perhaps brake line flex.

But all of these elements—handling, braking, suspension control—must be viewed as secondary. The 1300's engine is its message—and that message is far from a telegram edged in black. In terms of vibration control, throttle response, serene production of power and easy, peaceful running, the 1300 engine is absolutely in a class by itself. It can dawdle or it can streak, and it really doesn't matter which. It propels the bike's 700-plus pounds with unprecedented grace and unbelievable ease, and can deliver close to 40 mpg doing it. There is virtually no engine noise—liquid cooling has seen to that—but the bike's exhaust note has a bright, cutting edge that's hard to ignore.

The whole bike is hard to ignore. It is, after all, the *most* motorcycle ever offered to the public. Touring functionalists will consider what the bike can do and will conclude that it is a mighty piece of work indeed. Certainly it's heavy, and wide, and excessive to the point of being Brobdignagian—but boy, can it ever get the job done. Traditionalists would point out that bikes like the XS Eleven, BMW R100S, and Suzuki GS1000 can perform some tasks almost as well as the 1300, many better, and can do some tricks that the 1300 can't do at all. And Classical Romantics will be appalled by the Six: by what it is, by how it chooses to do what it does, by its linotypish complexity and above all by its unswerving, unblinking and unabashed *Japaneseness*.

We agree with the first group, understand the second and sympathize with the third. To all of them, to you, and especially to Kawasaki, we might add our own view: Enough. ◉