

Cycle Magazine
1983 Kawasaki Voyager ZN1300 Review





Good old Blake was a fine one to talk. His friend Coleridge was the guy who went to extremes, dabbling with opium and dreaming of Xanadu. Nevertheless, Blake is right. How much is enough? Or (as the thought pertains to our discussion), how big can a touring bike be before its size intrudes *unforgivingly* on performance? Motorcycle designers, like racers, can't know for sure till they cross the border, hanging it out to discover how Newton's laws apply to the business at hand.

Kawasaki's new touring bike is right on the line. Nine-hundred-fifteen pounds (that's right, *nine hundred*) of luxury motorcycle. Anywhere except on the straightest open road the Kawasaki's size does indeed intrude, at times unforgivingly, on performance. But wait! This is a TOURING bike—designed exclusively for setting your sights on the next state, or even the next country, and making the big break.

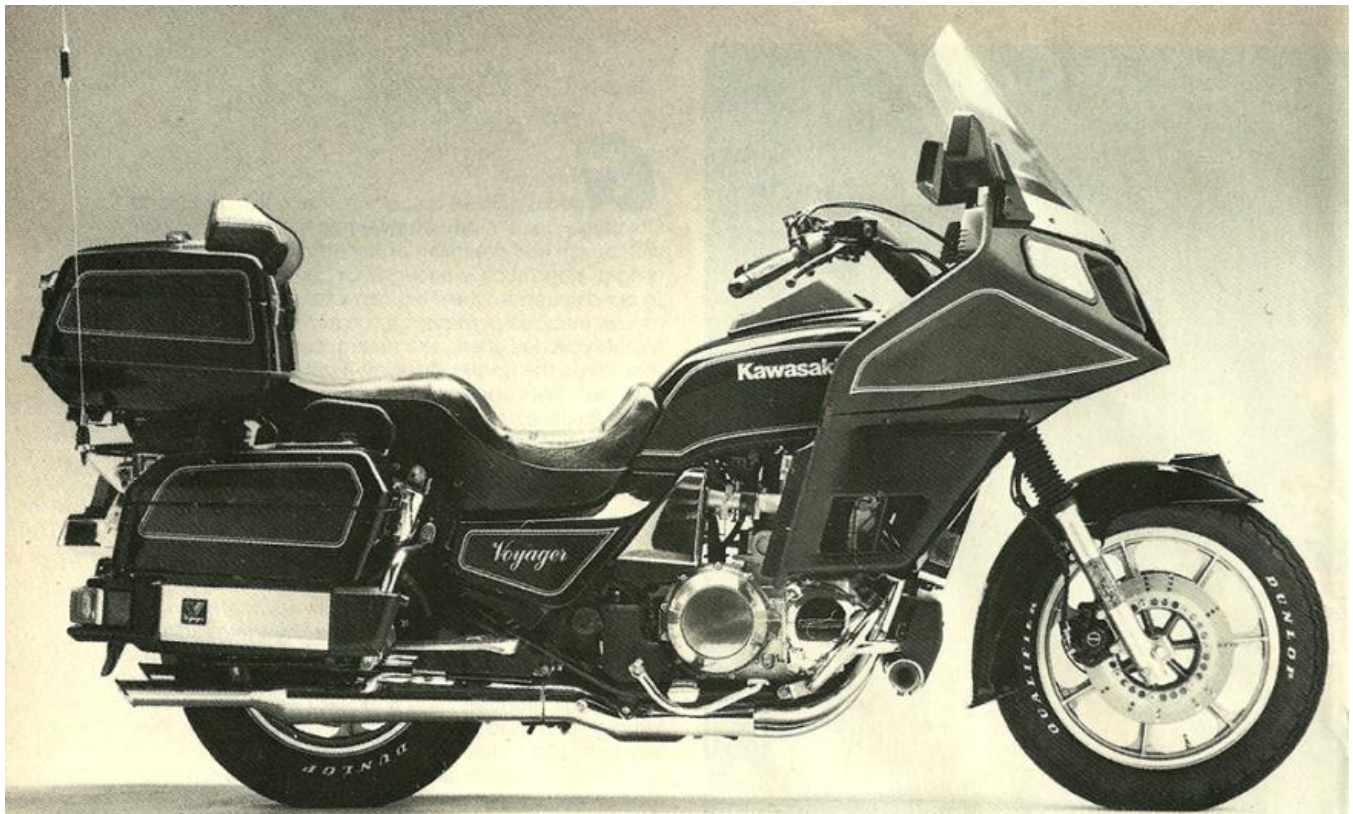
Okay, we'll bite. We'll play angel's advocate. On a highway across rolling farmland the Voyager cradles you in comfort and provides you with every diversion and entertainment known to the modern nomad. It's powerful, smooth, comfortable, and equipped with high-quality luggage and wind protection. One-dimensionally, the Voyager is first-rate.

Touring comfort encompasses seating accommodations, suspension compliance and engine smoothness. The Voyager's seating position is excellent. Its handlebars adjust up and down and back and forth, and the angle of the pullback alters. Although the seat and pegs are non-adjustable, their positioning fits five-

KAWASAKI ZN1300A1 VOYAGER

"You never know what is enough unless you know what is more than enough."

—William Blake

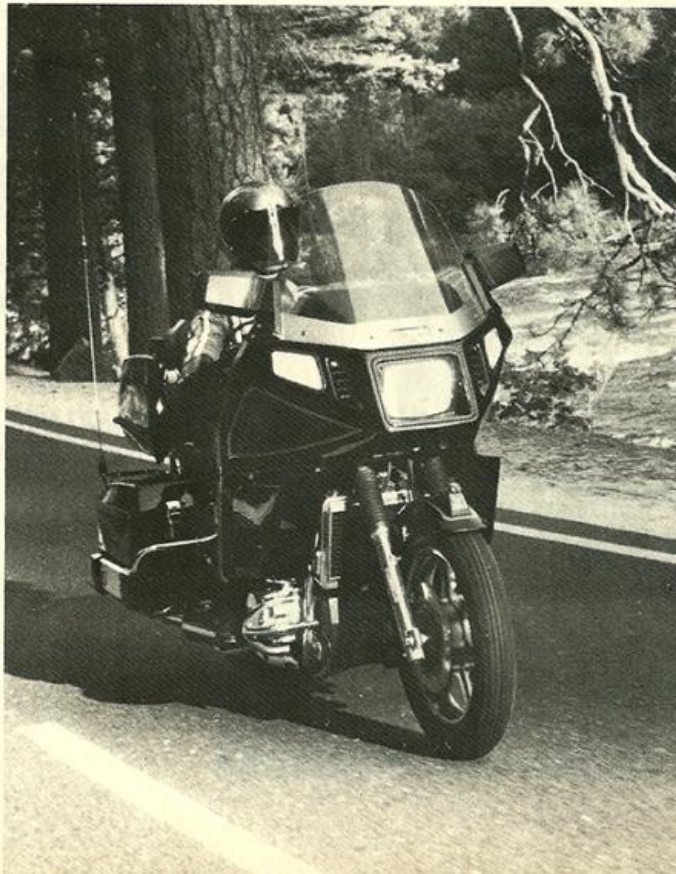


KAWASAKI VOYAGER

eight to six-foot riders well. They sit comfortably, their bodies in a classic touring posture—torso dead vertical, thighs horizontal, lower legs vertical. The passenger too has some freedom of adjustability: the flick of a latch lets the tail trunk slide back and forth about two inches. With the trunk forward the passenger sits in the classic posture; with the trunk back she leans back slightly. The passenger's feet rest on floorboards rather than pegs—a nice touch. Both the rider and passenger find their seats firm but comfortable. Our riders would have uniformly preferred a softer foam composition, but throughout a full day's ride the quality remains 100 percent consistent.

With its range of adjustability (air front and rear, compression damping at the rear), the suspension provides settings for vastly different loads and road conditions. Fully loaded solo or two-up, the Kawasaki needs about 15 pounds of air in the front and 40 at the rear, with a number three or four damping adjustment to complement the stiff springing. Set up thusly, the wonderfully compliant suspension reacts quickly to small bumps or highway expansion joints, with enough travel to soak up the potholes.

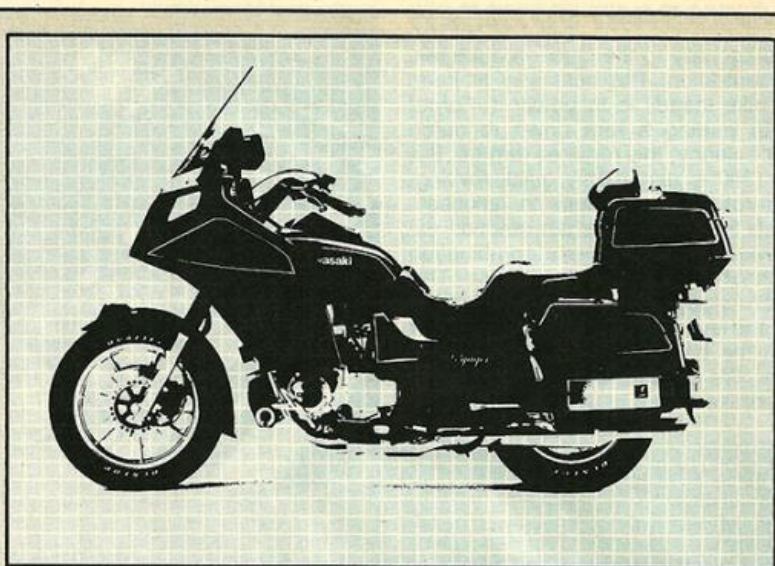
With six cylinders stroking beneath



you there's no mistaking the mechanical activity going on, but the high-frequency vibration is perceived generally rather than through any one point. At most rpm levels you sense an electric-like hum through the seat and bar; it's an almost pleasant sensation enhanced by the level rise in power delivery. Overall, we must rank the Voyager nearly as smooth as the Gold Wing or Venture but distinctive, like a BMW, with its own brand of smoothness.

That's open-road performance, but every road eventually turns. So, to give the whole picture, it's time to play devil's advocate. When you abandon the runway-straight interstate for the more curvy state highways, you feel every one of the Voyager's 915 pounds. That weight affects both handling (around town, on semi-tight roads and in special conditions on the open road), and performance (acceleration and fuel economy).

There may be a guy around big enough to jump on the Voyager and muscle it out of the parking lot, but none of our staffers fits the bill. We had to develop a little technique to maneuver the bike at low speeds without wobbling like a novice. The Voyager is so heavy, and the weight located so high, that simply getting under way can be exciting, turning tight in a parking lot is always an accomplishment, and tricky maneuvers—like backing down-



OF COMPUTERS AND HARDWARE

□ The Voyager's array of instruments and gadgets is both impressive and imposing. For discussion's sake, let's divide the system into three parts: the dash panel, the audio controls on the left side of the fairing, and the tank-mounted computer. The dash panel's basics include a set of warning lights and an odometer. Then there's an LCD digital-readout speedometer (miles per hour or kilometers per hour at the press of a button), an LCD tripmeter, and LCD analog displays (tachometer, fuel meter, and a temperature gauge—the last of which does double duty as a voltmeter). When you first switch the key on or when you change channels on the radio, the clock automatically displays the AM or FM channel in lieu of the time. A compass helps you stay the course; it's actually mounted on the front fender but displays an LCD readout on the dash. Toward the right a display lets you know which CB channel you're on. In the middle of the console is the Clarion AM/FM cassette player, a high-quality unit with auto reverse and a locking cover (which incidentally does a good job of keeping the rain out).

Five switches next to the ignition key control many of the dash's instruments. One switch resets the tripmeter. Another converts the digital fuel injection to the "Cruise" mode; this in fact leans out the mixture to improve fuel economy and works only in fifth gear. Two others connect to the speedometer and temperature gauges to convert their functions from mph to kph readouts and from engine temperature to electrical system voltage. The fifth electronically raises or lowers the headlight. That's the simple part of the system.

Jump down to the tank-mounted trip computer for some real entertainment. (Don't be confused by the nomenclature. "Trip" here refers to journey, whereas it usually refers to "reset.") To utilize the system as it was designed, it's best to set everything when you first fill the gas tank, so let's start there. With a full tank you turn the ignition key on, and the computer blinks at you. Push the mode button and bring the cursor to TTL F CONSP. This measures fuel consumed beginning with a full tank. Whenever you select this mode, the computer tells you how much fuel you've used since you last filled the tank—or, more precisely, since you last *told* the computer you filled the tank, which you do by punching FUEL.

Onward. Let's say you add a buck's worth rather than fill it up at one stop. Move the cursor to the FUEL ADDED mode and punch the FUEL button. It registers 0.2-gallon increments until you get to the amount corresponding to one dollar (let's say 0.8 gallon). Now punch mode again and that enters new data into the computer—namely, that you've added some gas. This has a couple of results. Your total fuel consumption decreases (there is, effectively, less fuel gone from a full tank). And your FUEL RANGE increases. Ah, yes, fuel range. The FUEL RANGE mode indicates how far you can travel before you get to reserve given your current gas mileage.

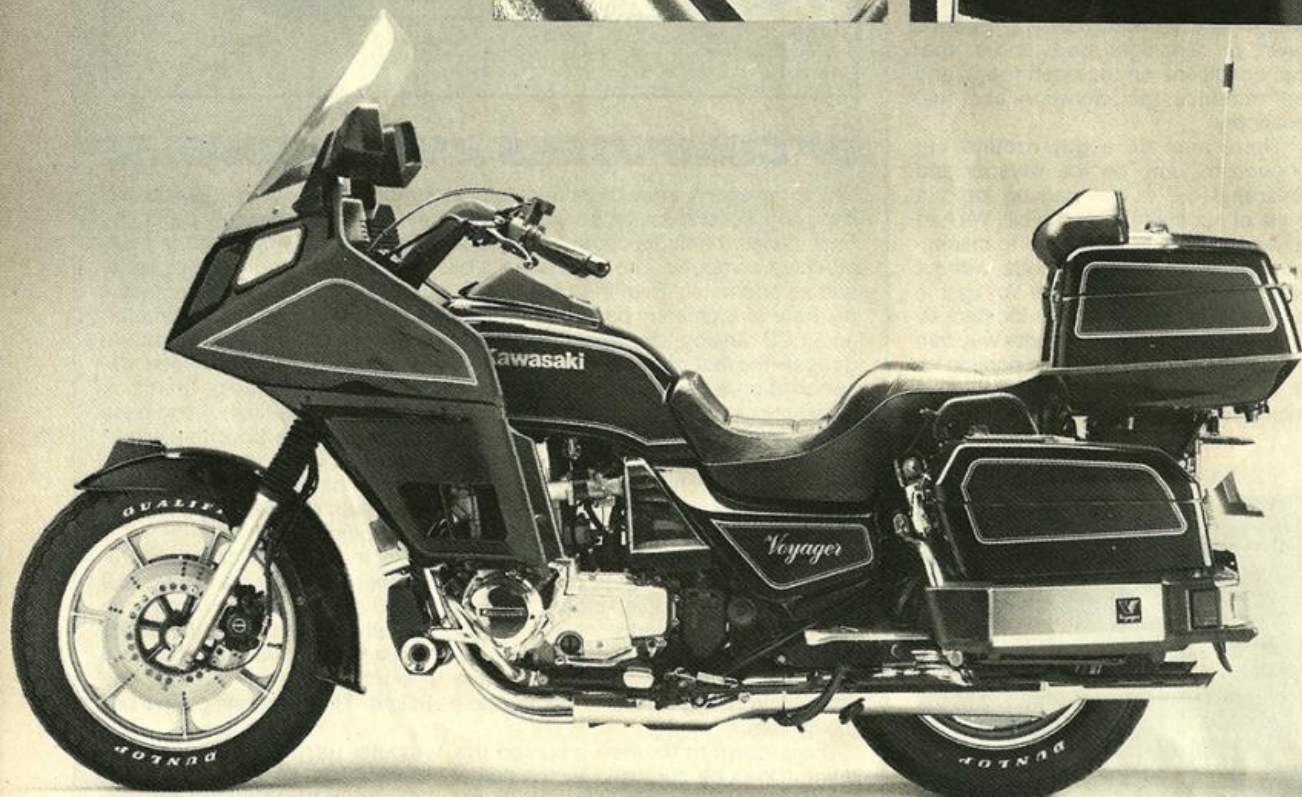
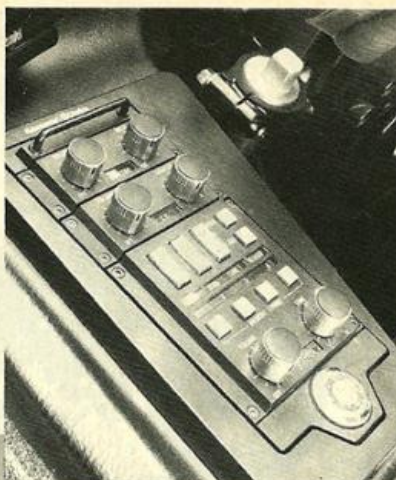
The additional modes monitor your current situation or journey. First, the current situation. Bring the cursor to the stopwatch; it ticks off seconds initially, then minutes. CURRENT MPG is the most entertaining mode. What



Motorcycle instrumentation reaches new heights—analogue and digital LCD readouts monitor vital signs on the Voyager. Most are standard fare for big touring bikes, but the compass (left of radio) is a new touch. It uses a sensor set on the front fender, declination adjustable. Controls right of the ignition include cruise lean-out for the DFI.

KAWASAKI VOYAGER

hill diagonally to the curb—require real concentration. The best way to keep the bike steady is to power it. Forget about putting a foot down to catch your balance; this requires throttle. But the 1300 is remarkably quick revving, so throttle alone results in jerkiness, which the moderate shaft reaction exacerbates. That means a combination of throttle and clutch is best. The clutch engagement is a touch sudden and the lever's engagement point is far from the bar, so a little practice is in order. We occasionally dialed in a little rear brake action at the same time. No

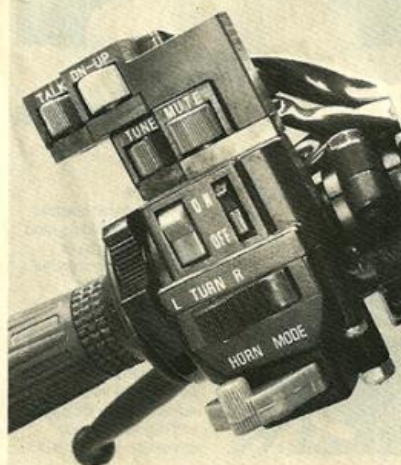


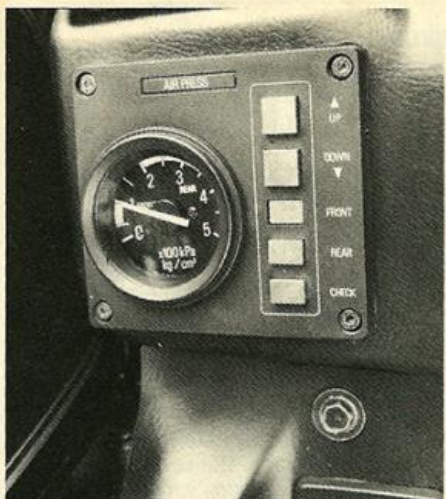
matter how smooth you get, the abundant fork flex will always amaze you and sometimes make your low-speed wobbling downright comical.

On suburban streets, country roads or through the mountains, the 1300 demands respect. It steers well, and not just for a bike of its size. Response is quick, and requires minimal input. Handling, though, involves more than steering alone. Pick your line, steer into it and inertia overcomes your plans unless your speed is well within bounds. The Voyager, if you're riding briskly, may not follow the line you're used to. It drifts—wide. And if you try to roll it in

tighter via countersteering, or reduce speed by braking, you may lose ground clearance. Most likely, you'll accept it and go wide, or drag something if necessary, then tone down the speed for the next turn. And the next one after that. On the positive side, for a bike its size, the ZN has pretty good ground clearance. The pegs touch down if you have too little air in the suspension or if you're moving along smartly, but that's truly an excellent warning system. And the tires stick well.

Side winds affect the Voyager unusually on the open road, another consequence of its mass. On one





The Voyager is a button-pusher's, knob-twister's delight. Controls for the intercom, CB, and an AM/FM cassette live in the fairing's left side. Tank-mounted trip computer locks down over the gas cap. Air compressor controls and gauge fit in the fairing's right side. The rider's left thumb stays busy with no less than nine switches to work.

particular test ride, a 20-25 mph side wind made the Voyager's wheels feel as if they were rolling out from under the bike sideways. The result was sudden leaning of up to 10 or 15 degrees off vertical, and wandering in the lane, quite literally from white line to white line. Two other bikes during the same test, the Harley-Davidson FXRT and the Yamaha Venture, cut through the wind much better.

With any vehicle, sheer horsepower is only half the story. A locomotive may have some pretty impressive numbers, but its acceleration from 50 to 80 is wanting. The power-to-weight ratio more directly affects the motorcyclist. It's not a surprise that the ZN's roll-on acceleration is standard. From 2000 to 4000 rpm in the lower gears (first to third) the Voyager gives a good strong surge of acceleration. It quickly reaches cruising speed and readily passes traffic on tight roads. If you're already at a cruising speed and want to pass traffic, a downshift from fifth to fourth is definitely in order and sometimes you'll need to go from fourth to third. For comparison's sake, the Venture runs away from the Voyager in a fifth-gear roll-on from 50 mph. In fact, the Venture pulls away from the Kawasaki when the Yamaha is in fifth and the ZN is in *fourth*. To its credit, power delivery is smooth and strong right up to redline, and the Kawasaki runs happily all day long at 85 to 90 mph.

Using a lot of horsepower to move a lot of weight requires a lot of fuel—about one gallon every 35 miles. There's no drawback to the marginal fuel economy, assuming you don't mind handing over about a dollar more than a Venture rider does for a fill-up.

OF COMPUTERS AND HARDWARE

if you're running across Kansas and you've become a trifle bored with the scenery? Bring the cursor to the CURRENT MPG mode and it will read out what your fuel consumption is at that moment, readjusting its measurement every 2.5 seconds. Let's say it's 34.5 mpg. Grab a handful of throttle and it drops to 29.8. Coast for a while and it says 59.4. You'll soon find yourself going for records. We registered 99.6 mpg coasting down a hill in fifth at about 90 miles per hour.

On to the particular journey. The left side of the computer lets you know about your "trip." Whenever you turn the ignition key you begin a new trip, and all the averages begin again. Unless, that is, you push the START/STOP button when you turn the key and before the wheel turns. Make sure the cursor is on the left side when you push the button, and the averages from your previous trip will remain. From there it's strictly logical. You start riding and, for instance, travel 17 miles in 34 minutes, consuming one gallon of gas. At the end you're curious about your trip so you run through the modes. It will read back FUEL CONSP 1.0. AVG MPG 17.0. AVG SPEED 30. TRIP MILEAGE 17. TRIP TIME 0:34. Of course, if you want that information en route, bring the cursor to a particular mode and the current average will read out.

How does it work? Technically, just fine. That is, it's accurate and does exactly what the manual says it will. Subjectively, though, it's a pleasant diversion at best.

On the left side of the fairing's interior is the control panel for the stereo, CB, and intercom system. Both the CB and intercom are optional; the CB runs \$378.30 and the intercom costs \$79.95 for open-face helmets, \$72.00 for full-coverage. The stereo controls are straightforward and feature memory tuning. Above those switches are controls for the CB (also straightforward) and the intercom. Speakers and microphones for two helmets enable the rider and passenger to talk to each other, or listen to any of the audio equipment.

Next to the left handgrip are a glut of override controls, some of which save you the trouble of reaching to the computer or to the left fairing panel. You can punch TALK for the intercom, mute the radio, tune the radio, or move the computer's cursor. Naturally you'll find the standard controls there: horn, hazard lights, turn signals, high beam, and a nice touch—a switch to convert the automatic turn-signal canceler to manual.

The bike's other important feature is an on-board air compressor whose controls are mounted on the right interior fairing panel. When the bike is in neutral, select either front or rear, then check to get a reading on the gauge. To alter pressure push either DOWN or UP; one releases air, the other pumps it in. Considering the unit's size (it looks like a miniature fuel pump) and its modest weight, this is a truly worthwhile feature. Its convenience encourages you to alter the suspension settings to take advantage of the air assist.

The Voyager also benefits from a spacious and well-designed fairing and luggage system. The fairing features a tall windscreen and integrated lowers. As with any windshield, the selection of its height is inherently a compromise. If it's tall enough to offer optimum wind protection, then it's definitely above the rider's line of sight. That means when it rains the rider ends up looking through three layers of drops. Most full-dressers get the tall shield; there's always wind out there, but not always rain. The Voyager's shield does, in fact, adjust up or down about an inch. Someday we'll have truly adjustable shields—up or down four to six inches for optimum performance in all conditions.

Far more important is cruising range. Since the ZN holds 6.6 gallons, it has an actual run-it-dry range of 232 miles, making it easily comparable to the Venture (with a 226-mile cruising range) or the Asphecade (218 miles).

Living with the Voyager, you note many other impressions not solely applicable to its function as a luxury tourer. The Voyager incorporates a trick (and patented) two-part centerstand. To hoist the ZN, first slip the stand's legs down so they're brush-

ing the ground. Then kick the trailing part of the stand down to touch the legs; that piece levers the bike up. It's about as easy as raising a standard 550. Nice. Getting the bike off the stand is more difficult; that requires jerking the bike forward like you really mean it. Other features include three hot leads for accessories (like electric garments). There's one behind the right front turn signal, another under the left grabrail, and another behind the right sidecover.

KAWASAKI VOYAGER

The Voyager uses an updated version of the original six-cylinder 1300 engine, and the engineers modified it well. The '84 ZN features new pistons with a squish-shaped crown. The new pistons still yield a 9.3:1 compression ratio, and promote quick flame-front travel so well that even with its fairly high compression ratio the 1300 burns any grade of pump gas.

The updated engine includes a new clutch—smaller, lighter and more compact. Where the R&D guys could trim weight and maintain performance, they did. The new clutch (except for the short span of engagement) works well.

The old engine had an automotive-style harmonic balancer on one end of the crank to absorb vibration instead of allowing it to excite the loose-end of the long crankshaft. The new engine has a second alternator on the left crank end instead. The dual-alternator setup allows the ZN to produce spectacular wattage—300 from the primary alternator and 200 from the secondary.

Kawasaki has a fair amount of experience now with fuel injection, from the original Z-1 Classic and the first GPz1100 (both used electronic fuel injection) to the current GPz1100 and the ZN1300 (both use digital fuel injection). The DFI works much better than the EFI, thanks to some subtle changes.



The new Voyager uses flat-crown pistons (right) that have a clear squish band. Old, low-dome piston is on left. Flat-top piston aids flame propagation.

With EFI, a swinging gate in the intake tract measured airflow, the rate of which dictated the duration of the squirt of fuel. (EFI does not vary the amount of fuel flowing per se; it varies the duration of the squirt, up to 6.0 milliseconds.) The problem? With EFI the gate created turbulence in the intake tract, resulting in some hesitation off idle. DFI differs fundamentally from EFI by having no gate in the intake. Instead, sensors measure throttle opening, engine revs, air and engine temperature, and atmospheric pressure to regulate the duration of the squirt. It works well on the GPz, and it's effective on the ZN. Throttle re-

OF COMPUTERS AND HARDWARE

The Kawasaki's fairing offers a wide and tall pocket of still air for both the rider and passenger. Neither feels much buffeting, and the rider's hands and legs are well protected; air brushes his ankles and the outside of his arms, but lightly.

Coping with a problem found on the old 1300s, the Kawasaki designers built in an effective ventilation system. Two vents mid-fairing (off to each side of the headlight) direct ambient air to the rider's upper torso, while two other vents direct air to his legs. Some engine heat still wafts up to the rider, but not in a concentrated blast.

In its other details of construction, the fairing is top of the line. The mirrors adjust easily, mount solidly and reflect crystal-clear images. A four-by-eight wallet/glovebox sits in the right interior of the fairing; it's about three inches deep and opens with the twist of a knob.

The tail trunk easily swallows two full-coverage helmets. Kawasaki supplies a pullout nylon bag which conforms to the shape of the trunk so you can pack your goods and plop them in. In addition, two zippered pouches, mounted to the trunk's lid, give even more storage space. Between them a vanity mirror swings out. Finally, two small shock absorbers enhance the solid feeling of the trunk by controlling the lid's opening and closing. Underneath the trunk is a deep storage compartment, big enough for tools, flares, emergency water and any other small items for roadside repairs.

The side luggage combines with the trunk to provide plenty of room for two to pack their gear. Each case measures about 8 x 20 and is about 12 inches deep below the level of the lid. There's room above lid level toward the rear of each case but not toward the front; there, room is taken by the recessed goody compartments which you can reach from the exterior. Passengers can easily open these six-by-six compartments while on the go. The left is a simple box; the right has a molded drink tray.

The case and trunk designs are excellent. Like the trunk, each case carries a high-quality nylon bag with a hard plastic bottom to prevent it from mashing up while transporting soft goods. In the bottom of the cases and trunk removable plastic liners protect the actual case material. The liners attach with Velcro so they're easily removed for cleaning either the case or the liner. The side luggage, again like the trunk, has thick rubber weather stripping between case and lid. It seals wonderfully—after two days of rain riding, we didn't find a drop inside. In contrast, both the goody compartments set in each lid's top and the wallet/glovebox leak even though all have rubber sealing. With the lid-top boxes it's understandable (they have no lips), but even with a lip the fairing box allows water in.

A final note on the actual design of the luggage: we prefer the Kawasaki's removable-lid/nylon-bag approach over side-loading luggage. The bags slip out easily for toting to the hotel room. The Honda Wings share this design with the Voyager, while the Venture has side-opening removable luggage with handles: you take the whole setup inside.

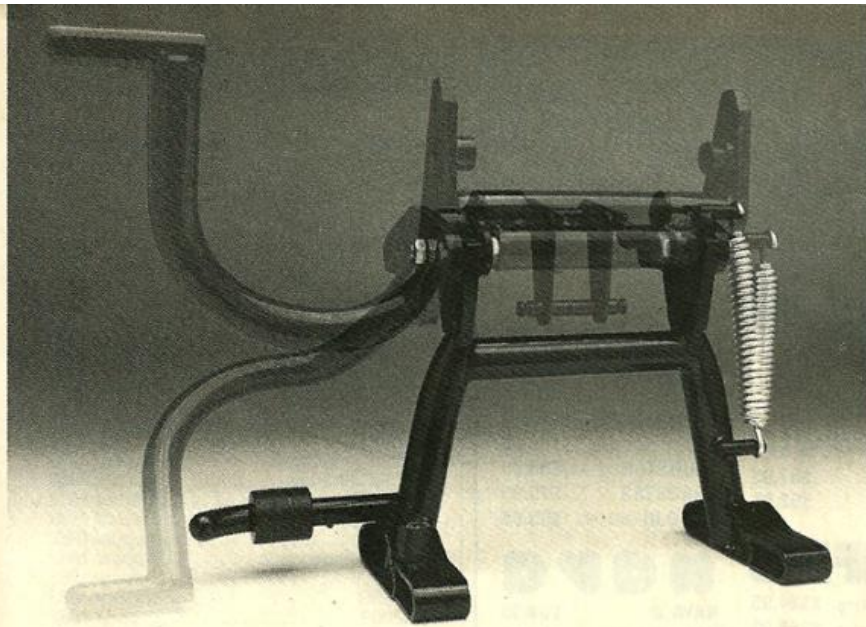
The Kawasaki's ignition key operates all the locks. It unhooks the computer so you can get to the fuel tank cap, removes the audio control panel, secures the anti-theft cover on the cassette player, locks the luggage, opens the helmet locks and the fasteners that actually secure the trunk and side luggage to their mounting bracketry. This final chore, removing the luggage entirely, is a two-second affair and makes servicing a breeze. All in all, the luggage is second to no other system—well designed, well manufactured and spacious. ■

sponse is instantaneous and crisp.

Engine aside, the Voyager is a new bike. The frame, its geometry, the suspension, brakes and, obviously, all the bodywork are new. New, though, does not mean different in concept. The decision to use the original 1300 engine as a starting point dictated what the Voyager would be—big. That original powerplant was nearly 300 pounds. Though the designers came up with new rolling stock, they didn't downsize; more to the point, they couldn't. A 300-pound engine requires a stout chassis, and that the Kawasaki has. In-

deed, to accommodate all the items Kawasaki believes will make this a gadgeteer's/audiophile's/touring rider's dream, the designers had to make it bigger yet, evidenced by the 2.3-inch increase in wheelbase and the need for larger components all around—the one-gallon-larger fuel tank, for instance.

That makes the Voyager analogous to the old 1300. Each is the largest example of its genre for its day, but ultimately it turns out that smaller machines can do the same job better. In '78 sport meant speed, with ill han-



Innovative two-stage centerstand lets even a lightweight rider lift the ZN effortlessly. Getting the bike down requires more deliberate effort.

dling something you put up with. It sounds like folly now, but the odd priorities were not so apparent then. Remember, that was when 750s were mid-12 quarter-milers and the CBX was king. The 1978 KZ1300, all 710 pounds of it, steamed through the quarter in 11.96; only a few bikes had done that before it. So the KZ was billed as a sport-tourer. Times changed quickly. Handling became paramount, especially when 750s broke well into the elevens.

Today many people understand luxury touring as comfort, and to get the comfort they put up with the ill handling. (Sound familiar?) But we are in the process of discovering that smaller machines can provide comfort and protection the equal of the bigger machines and handle much better.

The Venture Royale and the Honda Aspencade are the Voyager's direct competitors. The Venture was all new last year so we don't expect Yamaha to update it drastically. Compared to the Venture, the Voyager is slightly more comfortable (thanks to a touch better suspension compliance), has more luggage capacity (and here, more is better), and much better wind protection. It's also ill handling and comparatively slow.

Against the '83 Aspencade the Voyager is comparable, with roughly equal wind protection, luggage capacity, smoothness and power. It's harder to maneuver and less enjoyable on country roads than an Aspencade, but we could see a big guy putting up with it

for personal reasons—intangibles. We do, however, suspect that Honda might react to the introduction of the Venture, which outperformed the Aspencade in a number of ways. A more powerful, better-handling tourer from Honda will widen the gap between it and the Voyager.

You can divide any category of motorcycles into 47 sub-categories (luxury-touring with a bias toward sport on slick downhill right-handers), but touring is touring. Of course compromises pertain (a certain shield provides either wind protection or optimum vision in the rain), but a carefully considered compromise does not launch a bike into sub-category 47-a. So for now the Yamaha is still the best touring bike on the market, regardless of its slight bias toward sportiness.

The Voyager? It's exactly enough on the open road. When you're bound to run through a few turns on your way to the wide open plains, however, it's too much. ■

TEST SPECIFICATIONS

Make and model	Kawasaki ZN1300A1	box-section steel swing arm
Price, suggested retail (as of 8/20/83)	\$8299	Suspension, front
Performance		Leading-axle, air-adjustable fork with 41mm tubes and 6.3 in. (160mm) of travel
Standing start 1/4 mile	13.07 @ 100.78	rear
Engine rpm @ 60 mph, top gear	3382	(2) air-adjustable shock absorbers, adjustable for rebound damping, producing 100 in. (3.9mm) of rear-wheel travel
Average fuel consumption rate	35.2 mpg (15.0 km/l)	Wheelbase
Cruising range, main/reserve	197/35 mi. (317/56 km)	64.8 in. (1645mm)
Load capacity (GVWR less curb weight)	370 lbs. (168 kg)	Rake/trail
Maximum speed in gears @ engine redline	(1) 53 (2) 75 (3) 99 (4) 122 (5) 145	29.5°/5.5 in. (140mm)
Engine		Brake, front
Type	Four-stroke, transverse six; liquid-cooled with two chain-driven overhead camshafts; two valves per cylinder	Hydraulic, dual-disc with single-piston calipers
Bore and stroke	62.0 x 71.0mm (2.44 x 2.80 in.)	rear
Piston displacement	1286cc (78.5 cu. in.)	Hydraulic, single disc with single piston caliper
Compression ratio	9.3:1	Wheel, front
Carburetion	Digital Fuel Injection	Cast, 2.15 x 18
Exhaust system	Six-into-two	rear
Ignition	Battery-powered, inductive, magnetically triggered	Cast, 3.50 x 16
Air filtration	Paper element, disposable	Tire, front
Oil filtration	Paper element, disposable	MR90-18 Dunlop Qualifier F11
Oil capacity	6.3 qts. (5.9 l)	rear
Transmission		MU90-16 Dunlop Qualifier K427M
Type	Five-speed, constant-mesh, wet-clutch	Seat height
Primary drive	Hy-Vo-type chain; 32/24, 29/21; 1.84	29.8 in. (757mm)
Final drive	Shaft and bevel gears; 19/26, 34/10; 2.48	Ground clearance
Gear ratios (transmission)	(1) 41/16, 2.56 (2) 36/20, 1.80 (3) 33/24, 1.38 (4) 30/27, 1.11 (5) 27/29, 0.93	5.5 in. (140mm)
Gear ratios (overall)	(1) 11.72 (2) 8.23 (3) 6.29 (4) 5.08 (5) 4.26	Fuel capacity (main/reserve)
Chassis		5.6/1.0 gal. (21.1/3.8 l)
Type	Double downtube, full-cradle frame;	Curb weight, full tank
		915.0 lbs. (415.0 kg)
		Test weight
		1075 lbs. (487.6 kg)
		Electrical
		Power source
		(2) Alternators, (1) 300 watts, (1) 200 watts
		Charge control
		Solid-state voltage regulator
		Headlight beams, high/low
		60/55 watts
		Tail/stoptights
		(2) 8/27 watts
		Battery
		12V 26AH
		Instruments
		Includes
		Speedometer, odometer, tripmeter, tachometer with 8200-rpm redline, Fuel gauge, temperature gauge, voltmeter, compass, clock; warning lights for stand, oil, fuel, headlamp, temperature, DFI (see sidebar); indicators for high beam, turn signals, neutral
		Speedometer error,
		30 mph indicated, actual
		27.79
		60 mph indicated, actual
		56.21
		Customer Service Contact
		Kawasaki Motors Corporation
		3630 Garry St.
		Santa Ana, CA 92704
		(714) 540-1600