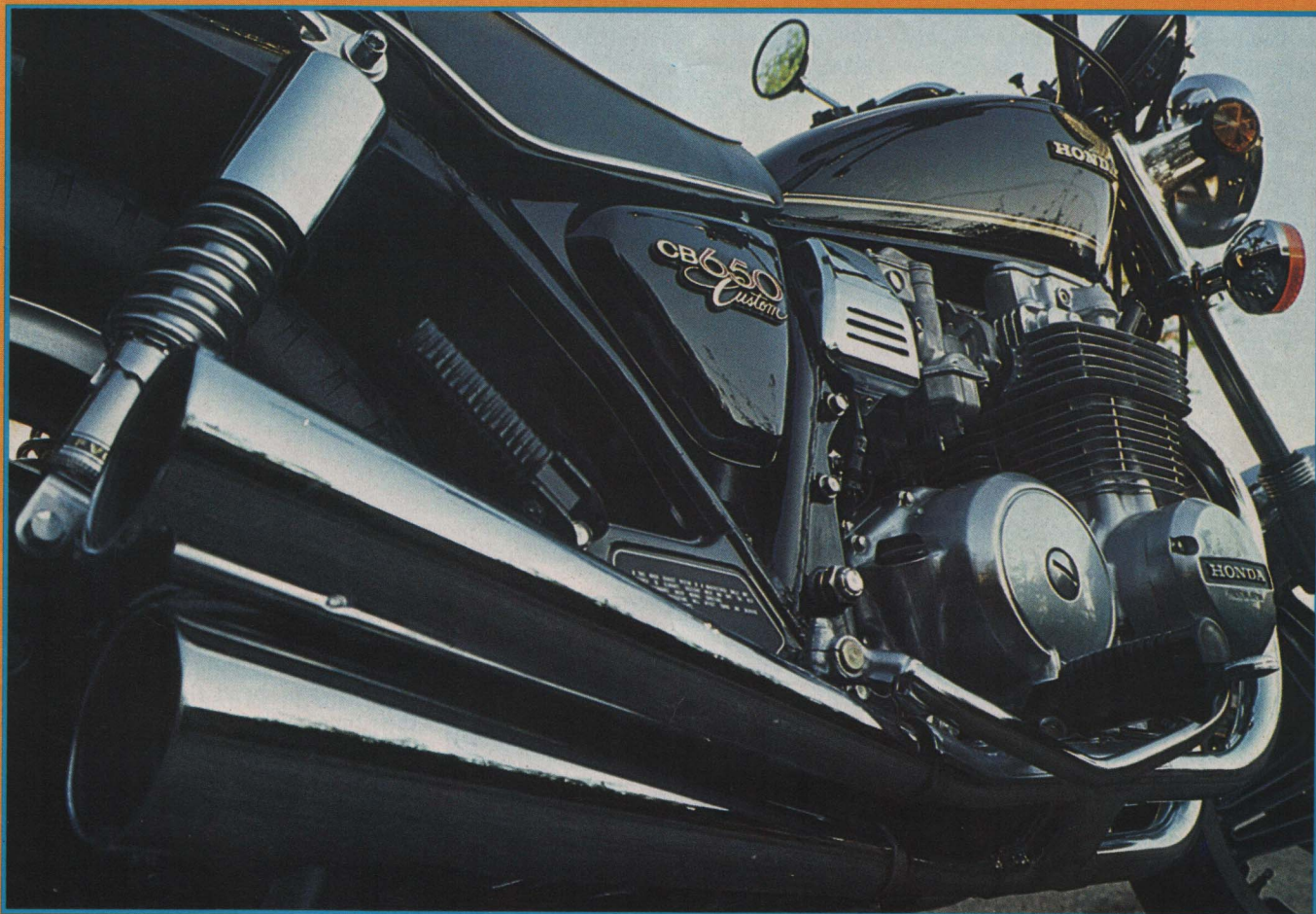


ROAD TEST:

Honda CB650 Custom

*Honda defines the American-flavored motorcycle:
a little bland, but pretty nice.*

BY STEVE THOMPSON



If you're one of those who believe that the torrent of factory customs from Japan advances motorcycle sport about as much as roller disco, you're not likely to think that Honda's restyled CB650 four is very important. The last thing this country needs, you might argue, is another hybrid motorcycle; another teardrop tank, pull-back bar and lowrider seat grafted onto a Japanese chassis and motor.

Technically, of course, you'd be right, because there is absolutely nothing technically outstanding about the bike you see here. Nothing at all. In fact, in most important ways it's mechanically identical to its

1979 predecessor (tested in the February 1979 issue). But none of that makes it unimportant. Far from it. Because of its new styling, this motorcycle is expected to be one of Honda's hottest sellers in 1980, something not true of the '79 version. Moreover, since the CB650 is now available in two versions—the two-pipe, wire-wheeled, short-fork "Standard" and the high-zoot "Custom"—it is even possible to say that Honda has done the inflationary, improbable: The 650 Standard is actually cheaper than last year's bike by a whopping \$250. And to hammer the point home, the four-pipe Custom has exactly the same

suggested retail price as last year's 650—\$2498.

None of the above can heat the blood of a technofreak, of course, but it's dead-nuts certain to perk up the ears of a whole lot of riders clutching thin wallets and trying hard to rationalize a four-cylinder motorcycle. Which is why the Custom is important: It, more than any other bike in the 650 class, is *their* kind of bike.

Who are "they?" You, maybe. Or your barely post-novice friend over there. The guy who bought a '76 Hawk 400. The guy who aspires to four-cylinder ownership, who "likes bikes but doesn't know much

Continued

about 'em," who needs an easily maintained, low-hassle motorcycle, not just because he doesn't know much about bikes, but also because he needs to pinch every penny, doing as much of the work on his wheels as possible, so that his bucks can go to the mortgage, the doctor and the supermarket instead of the local bike shop. Honda's convinced that he'll understand the 650 Custom immediately and will buy it as his next step up.

The wizards in Honda's market research department are the guys who are behind this bike, not the 100-hp-per-liter enthusiast-engineers, not the Gold Wing touring designers and not the roadracers. The market people have studied your buddy with the Hawk and know him like an open book. They have impressive and exhaus-

tive computer printouts to prove that for him, the CB650 isn't just a good choice, it's the *only* choice. They know that it's just fast enough, just cheap enough, just maintainable enough and now just pretty enough to captivate him the moment he walks through Honda's door.

Consider its speed. Despite the fact that Honda's engineers didn't break the magic 100-hp-per-liter barrier with this 627cc single-cam four, it'll still knock down consistent mid-13-second quarter-miles. And serious riding should extract a run like our best, a 13.1-second, 99.8-mph blast. For comparison, keep in mind that Kawasaki's 650 Custom managed a best of 13.16 and 100 mph. But we ran the CB650 against a KZ650SR ('79 model) and found that the Kaw ate the Honda alive in roll-ons. Oth-

erwise, despite its lack of CB750-style high-tech valve gear, the Custom is competitive. The only real factor that might inhibit someone's use of large doses of the Honda's high performance is vibration; at any speed above 60 mph in fifth (5000 rpm), the motor pumps out VHF vibes in bucketsful, resulting in buzzing footpegs and handgrips. The engine will rev to the red zone, but it's smoothest and happiest between 3000 and 5000 rpm.

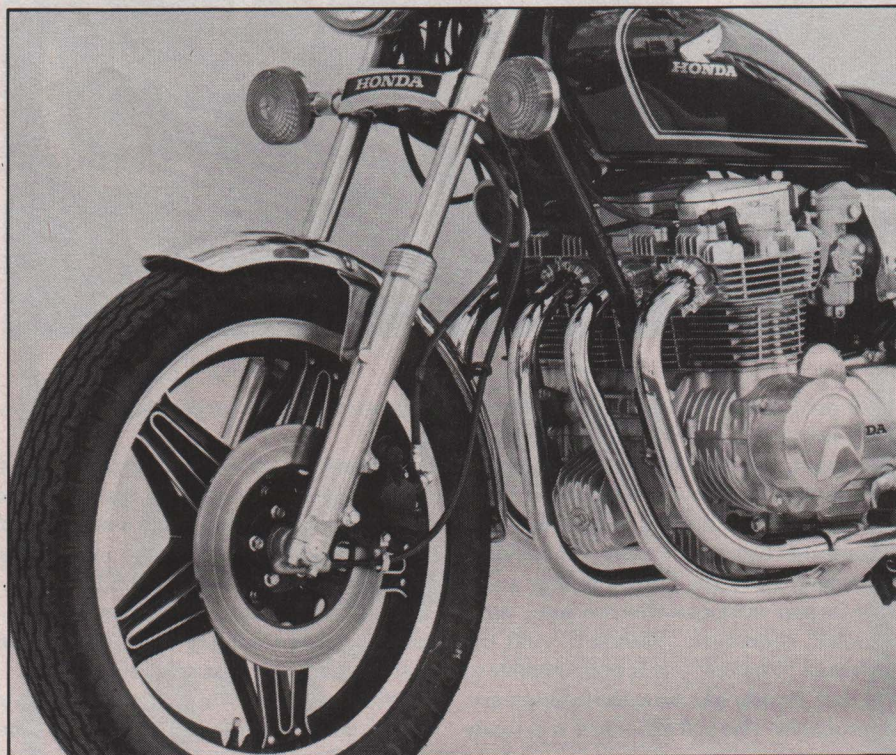
Work that zone out on your cascade gear chart. You'll find that in third, fourth and fifth gears, it means the bike is smoothest and happiest between about 40 and 60 mph. Message: This is a short-haul motorcycle, capable of Interstate cruising, but not really at home away from stoplights.

As you'd expect if you knew Honda's



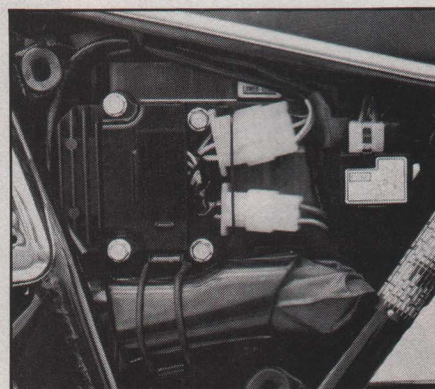
Cruise-controller's view: new locking gas cap, dashboard and wheelbarrow bars

The look is Laid Back, but the feel is Slouched Over & Up Tight.



Fidelity to the Custom Look: extended fork, raked front end, reverse ComStars

But the real goodies are the better brakes, tubeless tires and CBX fork tubes.

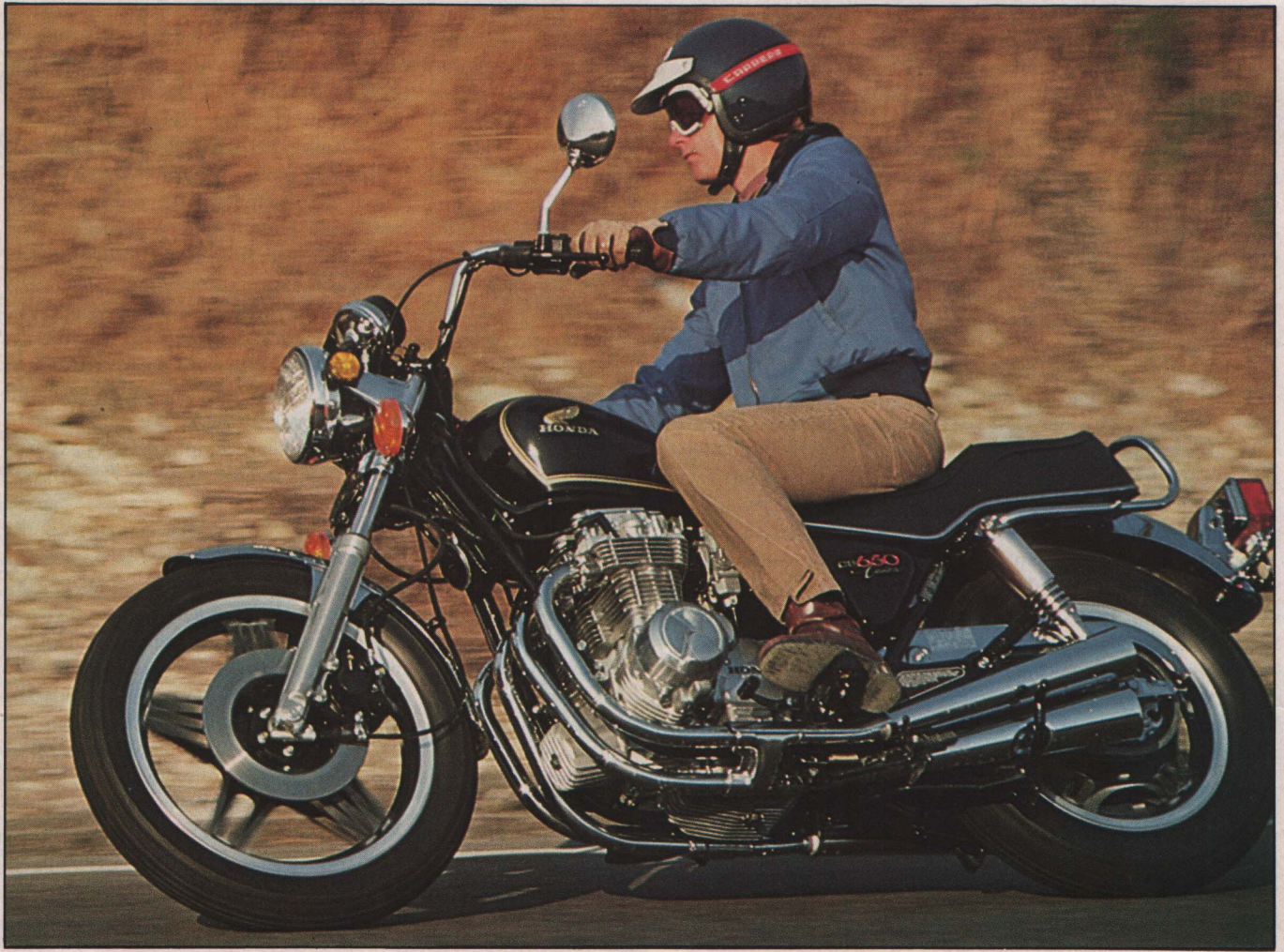


Styling's effects on underseat space

Tools so hard to get you won't bother.

thoroughness in matching its street-bike machinery to design goals, it's no accident. Demographic input showed that this bike's buyers spend almost 70 percent of their time on short trips. Commuting, visiting friends, running to the store, taking a leisurely, two-up Sunday ride to someplace within a tankful of gas. With the 3.6-gallon capacity of the Custom and Standard this year, that means—considering its 40-50 mpg fuel economy—a range no greater than 185 miles or so. Hardly the equipment of a tourer, but just fine for people whose daily ride takes them past Franchise Row, where the Texaco station butts up against the Sunoco.

Likewise, the suspension is set up for short runs, not canyon racing or long-haul stuff. There's also the usual amount of travel in the fork and shocks, but they both use up available damping very quickly, which makes the bike weak in the knees while diving into corners or breasting concrete waves on the superslab. Both our test bikes manifested a strange choppiness in the front end, a phenomenon amplified on the Custom by fork sliders which have been extended 56mm. This extension also adds



over an inch of wheelbase to the Custom and more than a half-inch of trail, as well as the additional handling peculiarities common to long-forked, long-trailed bikes. In order of importance, these peculiarities are: First, an increase in the amount of effort required to initiate a maneuver and a subsequent increase in pulling it out; an awkward, this-thing-is-too-long feeling at low-speeds; and a heightened consciousness of the transition point from low-speed turn-the-bars-right-to-go-right steering to turn-the-bars-left-to-go-right steering at faster speeds. The two-inch fork extension is no doubt required to give the bike its arrogant stance, but at least in this case there have been some handling tradeoffs, which are especially clear when you jump from the standard 650 to the Custom.

Unlike other standard-to-custom factory conversions, this 650 Honda Custom has not achieved anything like the same geometry as its standard stablemate, and the reasons lie in its steering head angle. The Custom has almost three degrees more steering head angle (measured from the vertical) than the Standard, thanks to the extended fork; and without using some

device like a leading-axle fork or greater-offset triple clamps, that's bound to increase all the dimensions that can cause the radical difference in the two bikes' handling.

Don't read all that to say this bike is some kind of evil handler, though; on the contrary, the Custom will seem to a neophyte like a friendly bike. As a result of the same geometry that defeats its scratcher capabilities, it requires a substantial blow on the handlebar before it will seriously deflect from the straight-ahead. This makes the bike seem reassuringly stable, especially in daily urban and suburban riding, where corners are things at intersections.

Given this elaborate rationale for the bike's handling characteristics, it's no surprise that the 650 already has proven to be the all-time favorite of the Honda service people, who say that as a rule, this 650 just doesn't experience many problems. Especially not problems outside the competence of the all-thumbs home mechanic. This aspect of the 650's personality was one of its principal attractions last year, and Honda has made no changes to the

formula. We calculated, for example, that a '79 CB650 would cost its owner only about one-fourth as much to have serviced as a '79 Kawasaki 650—a direct result of simple valve adjustment procedures, hex-head case screws, all-rubber reusable case-cover and valve-cover gaskets, and a set-it-forget-it transistorized ignition. Since the '80 650 is mechanically identical (except for minor carb jetting changes made to meet 1980 EPA rules), what was true in '79 should be true today: The 650 is a cheaply—and simply—maintained motorcycle.

None of that may convince you to write a \$2500 check for a Custom, but Honda thinks that the new cosmetics—the tank, seat, side covers, pipes, restyled dashboard, 16-inch reverse-spoke Com-Star rear wheel and wheelbarrow bars will do it for the guy who moves up from the three year-old Hawk.

One thing is certain: This motorcycle has a radically different personality than its predecessor. It begins with the styling, and ends with how you feel after you get off it at home. Last year's bike was thought by many to be the quintessential UJM—not just another Universal Japanese Motorcy-

Continued

cle, but the *perfect* Universal Japanese Motorcycle. Combining all the styling clichés into one bike, it managed to make a statement about none of them. Clearly, the '80 Custom does not suffer the same fate. It is obviously intended to be an "American-flavored" motorcycle—those are Honda's words—whose performance profile encompasses more boulevard nights than racetrack days.

Think of it as the best of the old 750 Hondas with the aftermarket gas tank and chopped mufflers that you saw in the high-school parking lots of America, circa 1973.

The 650 Custom acts, if that's its goal, precisely the way it looks. The seat—more than an inch lower than last year's, courtesy of some minor frame changes—forms a foam-rubber bucket with a single riding position that, at least for tall riders, proves butt-numbing in less than an hour. The wheelbarrow bars, which look right for the styling concept, turn out to be as uncomfortable in use as any on the other factory customs. At speed, you must pull yourself into the downward-angled bars, straining both against the unnatural wrist angle and the wind. Coupled with high-speed buffeting and high-rpm vibrations, the awkward position can tire you easily. In fact, some staffers noted with a kind of numb amazement that they continually had to reposition their hands on the grips, since the vibes and the angle conspired to drag their hands downward. In addition, grabbing a

handful of front brake lever with this kind of bar is always difficult. And with the spongy feel of the 650's front brake, slowing the Custom rapidly becomes a full-concentration affair.

Moreover, the Custom's footpegs are mounted higher than either the Standard's or last year's bike's, so the crouched/slouched position of the rider is magnified. Add a six-foot rider to this bike and the result is a motorcyclist who nearly bangs his knees on the handgrips in slow turns, whose back is uncomfortably arched, who is forced too close to the handlebars by the stepped saddle and whose feet are too high and too far forward for comfortable high-speed freeway riding.

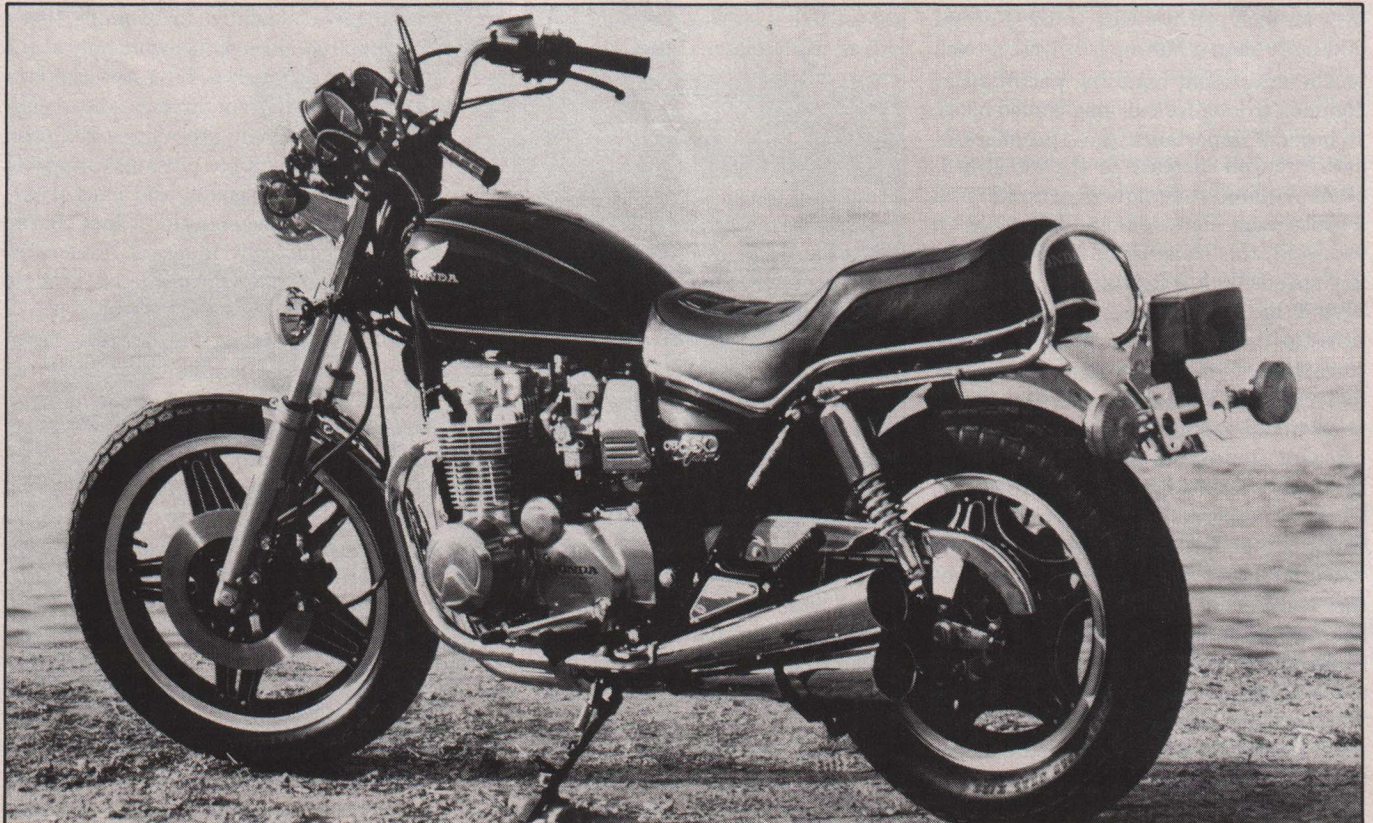
The picture changes when someone smaller gets on the bike. Our office sample showed that a height of about five-foot-nine seems best for the Custom; the bars clear the knees and the seat isn't nearly so restrictive to someone of that height. This may seem another marketing/designing gaffe until you recall that, basketball players notwithstanding, a lot of Americans—especially *young* Americans—fall into the sub-six-foot category.

Still, the ergonomic agonies imposed by the Honda stylist's "American flavoring" can put a rider in a bad frame of mind about the 650's performance peculiarities, which are considerable. First there's the warm-up period. Although the Custom is much less cold-blooded than last year's

model, it still stumbles for quite a while after a cold start. And even when hot, its off-idle response isn't exemplary. You snap open the throttle to clear an urban obstacle, and maybe the accelerator-pump-assisted Keihin carbs will deliver an increase in rpm—or maybe they won't. And even if you do get the revs, while your bike is still new you'll have notchy gears to contend with. The shift from first through neutral to second requires either a consciously loaded lever (keeping the foot against the lever to load the spring) or a deliberate two-stage shift: *thunk-pause-thunk*. Both of our test bikes and one photo bike suffered notchy shifting, so it's unlikely to be rare. The message is simple: Don't expect a slight nudge to engage a gear. The throws are too long.

Once you get past the engine-response and stiff-shifting blues, the 650 dances to a more graceful tune. All the ancillary controls work with the precision and casual ease we've come to expect from Honda-made items. You can see what you have to see—speed on the new 85-mph speedo, revs on the tach, miles on the tripmeter and so on—without any problems. The two weak areas lie in seeing what's behind you and getting what you see in front of you out of the way. Despite the Custom's vibration-damping mirrors (introduced last year on the 750s), a mild case of the fuzzies strikes them at about 50 mph and gradually worsens with speed. And the

Continued



Honda CB650 Custom

SPECIFICATIONS:

IMPORTER: American Honda Motor Co.
100 W. Alondra Blvd.
Gardena, California 90247

CATEGORY: street

SUGGESTED RETAIL PRICE: \$2498

ENGINE

Type four-stroke transverse vertical four
Valve arrangement single overhead camshaft
Bore and stroke 59.8mm x 55.8mm
Displacement 626.9cc
Compression ratio 9.0:1
Carburetion four 26mm Keihin slide/needle
Air filter disposable paper element
Lubrication wet sump
Starting system electric only
Ignition battery / dual electronic pickups / dual coils
Charging system 12-volt, AC generator, solid-state voltage regulator / rectifier

DRIVETRAIN

Crankshaft-to-jackshaft drive Hy-vo chain
Crankshaft-to-jackshaft ratio 1.66:1
Jackshaft-to-clutch drive straight-cut gears
Jackshaft-to-clutch ratio 2.35:1
Clutch wet, multi-plate
Final drive type #530 chain ($\frac{1}{8}$ -in. pitch, $\frac{3}{8}$ -in. width)
Final drive 16/39: 2.44:1
Gear Internal Overall MPH per
gear ratio gear ratio 1000 RPM
I 2.50 16.68 4.3
II 1.72 11.49 6.3
III 1.33 8.90 8.1
IV 1.07 7.17 10.1
V 0.88 5.87 12.3

SUSPENSION/WHEEL TRAVEL, IN.

Front 35mm stanchion tube diameter / 5.5 in. (140mm)
Rear 5-way adj. spring preload / 3.9 in. (100mm)

BRAKES

Front single-action hydraulic caliper, 10.9 in. (276mm) disc
Rear drum, single-leading shoe, rod-operated

TIRES

Front 3.50S19 Dunlop F11
Rear 130/90-16 Dunlop K127

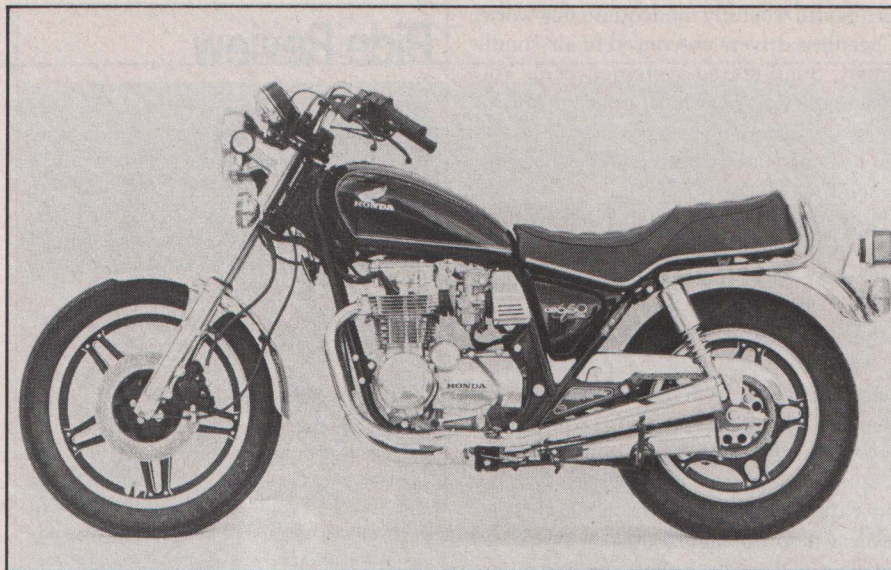
DIMENSIONS AND CAPACITIES

Weight 447.5 lbs. (202.9 kg)
Weight distribution 45.9% front, 54.1% rear
Gross vehicle weight rating 835 lbs. (378.7 kg)
Wheelbase 58.3 to 59.4 in. (148.1 to 150.9cm)
Seat height 30.5 in. (775mm)
Handlebar width 27.8 in. (706mm)
Footpeg height 12.0 in. (305mm)
Ground clearance 6.2 in. (157mm), at center stand
Steering head angle 29.3 degrees from vertical
Front wheel trail 4.76 in. (121mm)
Frame tubular mild steel, single front downtube
Oil capacity 3.7 qt. (3.5/)
Fuel tank steel, 3.6 gal. (13.5/),
including .9 gal. (3.5/) reserve
Instrumentation tachometer, speedometer, odometer, tripmeter

PERFORMANCE

Fuel consumption 43.8 to 51.8 mpg (18.6 to 22.0 km//)
Range, maximum 157 to 187 miles (253 to 301 km)
Range, reserve only 36 to 43 miles (58 to 69 km)
Speedometer error, 30 mph indicated 31 mph actual
Speedometer error, 60 mph indicated 61 mph actual
Best $\frac{1}{4}$ -mile acceleration 13.10 sec., 99.8 mph (159 kph)
Top speed (calculated) 113 mph (182 kph)
Stopping distance from 30 mph 34 ft. (10.4m)
Stopping distance from 60 mph 131 ft. (39.9m)

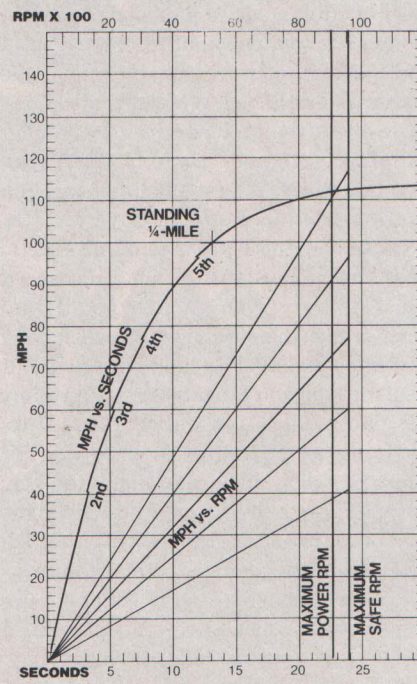
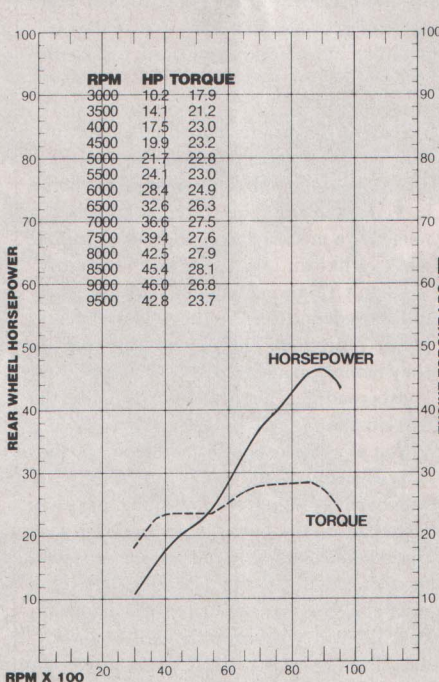
All weights and measurements are taken with machine unladen and fuel tank empty.



COMPARATIVE TEST DATA:

Make	Quarter-Mile, sec / mph	Top Speed, mph	Weight, lbs	Stopping Distance From 60mph, ft.
Honda CB650 Custom	13.10/99.8	113	447	131
Kawasaki KZ650 Custom	13.16/100.2	116	483	125
Suzuki GS750LN	12.87/103.5	120	526	129
Yamaha XS750SF	13.18/101.2	116	521	163
Triumph Bonneville Special	13.94/96.2	110	411	175
Honda CX500 Custom	14.12/92.9	102	468	146

PERFORMANCE:



horn is still woefully inadequate in a world of heedless drivers ensconced in air-conditioned, quad-stereo-systemed cars. You need some AA/Fuel horn-power to make the guy in the Buick move over, but the 650 has only a thin, reedy voice when you punch the yellow horn button.

How can all this add up to a bike a semi-novice can love? Simple: He won't know any better. Most rookies are tough on machinery anyway, so the shifter won't bother them. And after riding a 400 twin for a while, the 650 will seem like a silky-smooth turbine. Its handling won't scare them, because for all its shortcomings for specific uses, it is plenty stable and predictable enough (you can drag everything under the bike on a corner, even force it to stay down and dragging, and all that happens is a widening of your line and some mild wiggles in back) for someone who will probably never touch the little feeler-balls on the bottom of the pegs to the tarmac. And the 650's riding position probably won't bother someone who usually rides less than ten miles.

If this good-enough philosophy of engineering bothers you, you're probably one of those who needs a bike of superb specific talents anyway. And, to be fair, in the final analysis it would be nice if a motorcycle existed that *would* meet the demands of novice and expert alike. But such a bike does not exist, and if it did, it would probably require a short-term mortgage to buy. This Honda is not such a bike, and was clearly not meant to be.

At the same time, you should not think of the criticisms mentioned here as evidence of an under-engineered, dangerous piece of equipment. Not at all. Given what Honda has told us about the 650's goal—and the goal seems reasonable to us—the bike is well-designed. Who, after all, knows more about the problems of four-cylinder motorcycle engines than Honda? And who, therefore, is best qualified to build one optimized for a specific buyer?

In the end, this 650 Custom isn't exactly what Honda says it isn't: Not a roadracer, not a tourer (even though you'll find touches like the turn signals, which were located to accommodate saddlebags without fuss, that tell you otherwise) and certainly not a hotrod. It's a bike that simply looks good to a lot of people—novice and Triumph nostalgic alike—and that is unlikely to make any real enemies, either on the road or in the service shop. It isn't the bike that will shove the whole world of motorcycling forward one great leap, but it doesn't pretend to. It's just a petty nice bike. And there are a lot worse things than that.

Roller disco, for instance. ●

Ride Review

• I am filled with admiration for the way the CB650 Custom looks. Like last year's bike, it captures the essence of the styling school it belongs to. The 1979 model perfectly reproduced all the clichés of Japanese Traditional, while the new bike speaks the language of American motorcycles.

I only wish I could be as complimentary about the way the Custom works. The aggravations of last year's CB650—cold starting and poor throttle response—are amplified by the four-piper. In addition, I'm sure I'll never get a speeding ticket on the Custom because it vibrates so badly at 5000 rpm that I'll avoid high speeds at all costs.

In many ways this motorcycle reminds me of a 1980s version of the CB350 Twin—the perfect motorcycle appliance which inspires no entangling emotional attachments. Except that bike probably does a better job of it. —Michael Jordan

• Visually, the 650 Custom plays the role of the semi-chopped street cruiser to a Saturday-night T. But functionally, that super-macho image doesn't hold up for me. I've always thought that boulevard specials are supposed to boom out buckets of torque horsepower delivered with all the subtlety of a punch in the mouth. But the 650C has a rev-me-or-else, almost roadracy sort of engine that must have made a wrong turn and ended up in Boulevard Bomber Body Shop. And for my tastes, a buzzy, high-strung engine belongs on a street-badass motorcycle about as much as clip-on handlebars or knobby tires. Admittedly, the 650 Custom is impressively fast when you keep it zinging above seven grand and it's a pretty nice all-around ride, but it's going to be a while before I get used to a bike that makes you pose like Peter Fonda and think like Kenny Roberts. —Paul Dean

• Even a mother-in-law couldn't complicate my life like the CB650 Custom does. This bike antagonizes me everytime I ride it. Consider that the 627cc engine is too noisy for a modern inline four: at 55 mph it whistles like an 18-wheeler on the freeway.

I don't think customs should have four individual mufflers, either. Those megaphone pipes look too racy for this custom; they belong on a bike such as the 750F that boasts roadrace, not a street cruiser like the 650 Custom.

You say these are petty nuisances that only a son-in-law could find fault with. Maybe, but further, the low-slung seat gives me a pain in the butt. Compound this with the buckhorn-style handlebars that slouch me forward, and the pain travels right up to my neck. No, you can have this custom-in-law, I'll stay with more friendly motorcycles. —Dain Gingerelli

MINITEST:

Honda CB650 Standard

Another example of less being more.

• Because it carries a list price \$250 less than the 650 Custom, you might think the CB650 standard some kind of strippo. And in fact, Honda itself sees the bike as a price leader, a viewpoint backed up by the numbers in which it will be imported: The mix of Customs to Standards is expected to be something like 65 percent to 35 percent. Even Honda doesn't expect much of a fuss over the two-piper.

That's a pity, because to an enthusiast (read "Super-Sport lover"), the stock CB650 has more to offer than the zoot four-piper. For instance, while the engines, frames, gas tanks, side covers and seats are identical, the standard bike has more ground clearance, less weight, a better riding position, and in our test bike, an inexplicably freer-breathing engine. Result: The 650 stocker likes corners better and even rides better than the Custom.

Some of the 8-pound weight differential comes from the stocker's wire-spoke wheels and some from the two fewer pipes, but wherever it went, the weight is better gone. Likewise, much of the surer-footed handling comes from the shorter trail and steeper steering head angle of the standard 650's fork (which, like the Custom's, has all-new CBX slider legs). Both bikes have the same—or nearly the same—wheel travel, but because of the geometry, the Standard's suspension works a little better to soften the blows. And, of course, lowering the steering head has helped the Standard's center of gravity, too. In addition, while both bikes have 3mm-larger swingarm tubes, the 17-inch rear tire of the Standard seems to grip better than the 16-incher on the Custom.

While stiffening the subframe to strengthen it against the expected forces generated by that 16-inch tire, Honda also enlarged the carburetor airbox capacity by 15 percent, which the engineers hoped would help offset the EPA tuning for 1980. The Customs we rode didn't seem too happy with maximum revs, but the combination of the big-volume twin pipes and the bigger airbox *clicked* on the Standard, because all our riders reported the stocker to *feel* much faster.

All this adds up to a far more conventional motorcycle. The handlebar seems much like a narrowed CB750F bar, which, although rising seven inches, leans the rider forward more than

HONDA CB650 STANDARD

IMPORTER: American Honda Motor Co.
100 W. Alondra Blvd.
Gardena, California 90247

Category	street
Suggested retail price	\$2250
Engine type	four-stroke transverse vertical four
Valve arrangement	single overhead camshaft
Bore and stroke	59.8mm x 55.8mm
Displacement	626.9cc
Carburetion	four 26mm Keihin slide / needle
Gearbox	5-speed
Front fork / wheel travel	35mm stanchion tube diameter / 5.5 in. (140mm)
Rear shocks / wheel travel	5-way adjustable preload / 3.9 in. (99mm)
Wheelbase	57.1 to 58.2 in. (145.0 to 147.8cm)
Seat height	30.5 in. (775mm)
Weight	443 lbs. (200.9kg)
Best ¼-mile acceleration	13.37 sec., 98.5 mph (158 kph)
Top speed (calculated)	113 mph (182 kph)
Fuel consumption	45 to 50 mpg (19.1 to 21.3 km/l)



the wheelbarrow handles on the Custom. The seat therefore seems less restrictive, the pegs a little farther back, and the throttle-return spring much less aggravating—all because the grips are in a more “natural” place.

Trying to discern the natural place for the whole bike is more difficult. It is still not a super sport, nor is it any better as a tourer or drag-racer. What it's better at is simply motorcycling; down to the you-name-it and back, all in the cause of transportation and fun, economy and kicks. Consequently, a lot of CG staffers began to think of the standard 650 as not just a “nice” bike, but a “good” one—a substantial shift from their sentiments about the Custom.

Considering that most of the Standard's

styling elements are identical to the Custom's, it shouldn't be too hard to see the stocker as a better basis for some genuine customizing, and even this, to me, enhances its value. Moreover, if Honda wanted to concentrate on the Triumph Look, then the twin pipes and glittering wire wheels actually help the bike achieve it better than the Custom's clumsy ComStars and clearance-eating multiple exhausts.

In the end, what all the parts-deleting and substitution means to me is that the 650 stocker is the better bike. It looks better to me and works better as well. It shares the drawbacks of its stablemate—it didn't stop very well either, for instance, its front-brake action still spongy and vague—but somehow it is a

cleaner package. Even the paint schemes reflect that: While the bodywork's muddy black is shared with the Custom, the stocker's red is a brilliant hue, easily outclassing, to my eye at least, the somber metallic burgundy that is the alternate Custom color.

Maybe the most impressive thing to me about the standard CB650 is this: Whereas last year's UJM 650 was a boring, awkward and ultimately puzzling motorcycle, the same engine and frame in the Standard this year somehow mesh with the styling in such a way as to make me want to turn and look at it when I park it after a ride. Last year, all I wanted to do was close the garage door. Not bad for a strippobike.
—Steve Thompson

