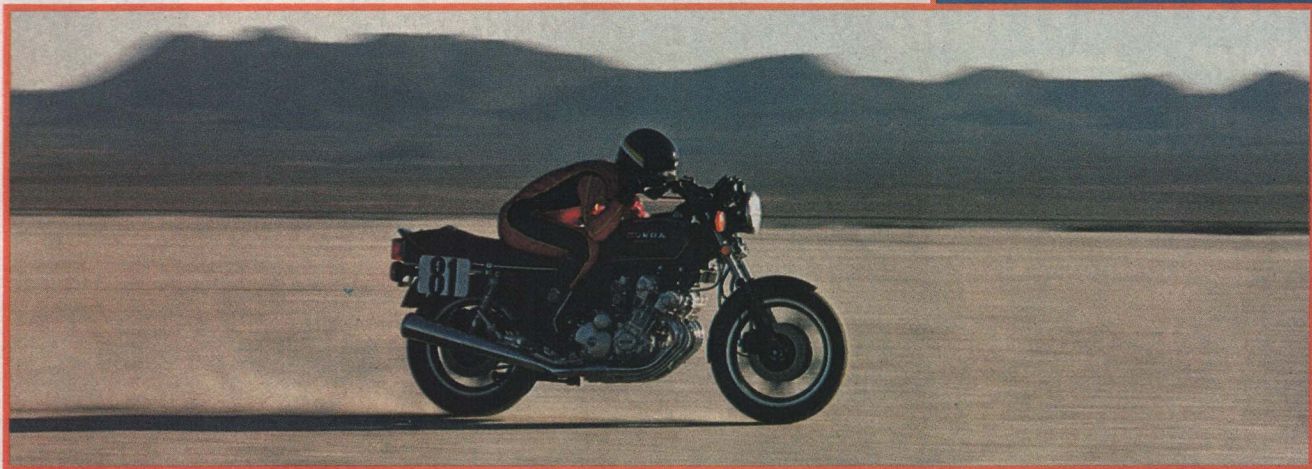


## ROAD TEST:



# Honda CBX

It was natural for us to run the 1980 CBX at Bonneville. Not just as something special, an added-on test, but as an integral part of the complete test of the bike. After all, no other motorcycle on Earth asks to be judged by the speed-freak's standards quite like the Honda CBX. Not only because of the bike's technical profile—its six air-cooled cylinders, 24 valves, dual Hy-Vo cam chains, CV carbs, accelerator pump, CDI, jackshaft-driven electrics and details like the I-beam handlebars—but also because of its reputation. And if the salt at Bonneville tells you anything, it's whether or not a machine's reputation is deserved.

The CBX came to our showdown on the salt with a rep not only unique but, to be fair, tarnished. True, last year's Big News was the Honda Six. Touted by so-called authorities before its introduction as the ultimate motorcycle, it ran into heavy weather as soon as production motorcycles were in the hands of testers and buyers. It was fast, all right, faster in a straight line than almost anything else available then. But it also wobbled. And then there was the problem of the safety establishment. It took one look at all those fins and pipes and technology deified and passed the word—quietly, so we're told—that such

demons were not considered savory company on American highways. So you began to see fewer and fewer Honda CBX ads extolling its Super Sport capabilities. And finally, you began to see fewer and fewer ads, period, even when the whispers in the industry flew that there were whole warehouses full of unsold CBXs.

So it was that when Honda delivered the new-and-improved 1980 CBX to us, there were formidable questions to be answered about it. Questions whose definitive replies could only come at the outer edges of the bike's performance envelope, where it had fallen behind bikes like the Suzuki GS1000 and even the Kawasaki KZ1000 MkII. That meant we would test the bike not only on the street, but also on the strip, at the roadrace circuit and on The Salt.

The black 1980 CBX that met these challenges in our test has been changed enough so that it must be considered a new motorcycle, rather than a warmed-over version of last year's. In some ways, the changes have been good—as with the suspension—and in some ways (power, for instance) not so good.

The engine's changes are largely emissions-related. Honda's dyno figures predicted that the '80 bike would be around five bhp down from last year's CBX, a re-

*The Bonneville Salt Flats showed us that the 1980 Six isn't The Fastest. But then, faster is not always better.*

BY MICHAEL JORDAN



sult of valve lift, valve timing, and carburetion. The exhaust valves open and close five degrees later than before, and the lift of both exhaust *and* intake valves has been reduced about six percent. And although the basic configuration and venturi size of the six Keihin CV carbs is the same, they have new bodies that eliminate one auxiliary metering system—surely to placate the EPA—and the accelerator pump has a new, recalibrated nozzle. The result of all these changes, taken as a whole, is really twofold: First, in spite of a new method of joining the header pipes to the muffler, the bike is essentially detuned in all respects,

although Honda claims its midrange is better. Second, and most important for Honda, the bike meets 1980 EPA emissions requirements.

Before serious criticism can be leveled at Honda for this method of meeting the EPA's mandates, though, consideration should be given to the alternatives available to the company. Basically, the original CBX was built to 1978-79 demands, and built to be the fastest bike on the street. It fulfilled its speed expectation, but subsequent fizzling of its sales presented Honda with a problem: Should the company invest huge new R&D money to both meet

1980 regs *and* regain the fastest-bike laurels, or should it simply detune the bike slightly? Seen in the harsh light of sales reality, doing the former must have looked suspiciously like throwing good money after bad, while the latter course offered fewer unseen pitfalls.

Serious criticism can and has been leveled at the bike's cornering habits, though, and Honda has taken heed of it. Consequently, this year's CBX has a much-improved suspension system, front and rear.

In back, the same thinking that went into the CB750F-80 was applied to the wobbly swingarm and shocks. FVQ adjust-

*Continued*

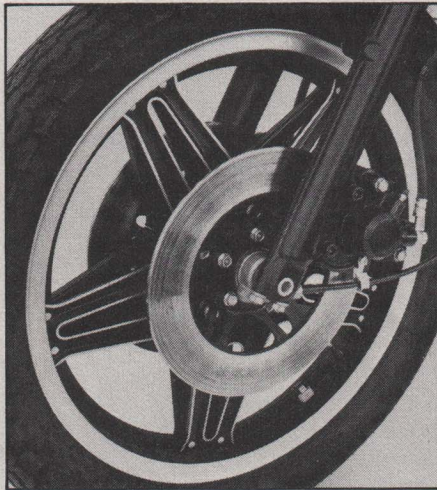






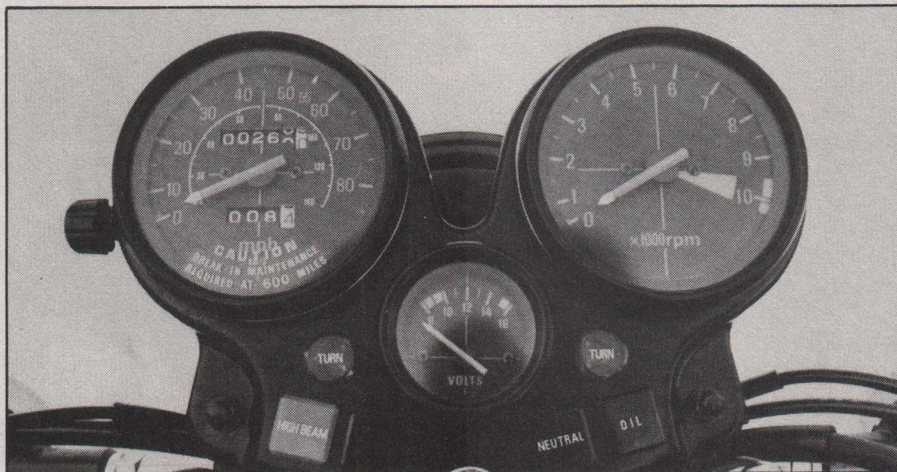
**Air caps signify air-spring fork**

*Stronger legs under pressure.*



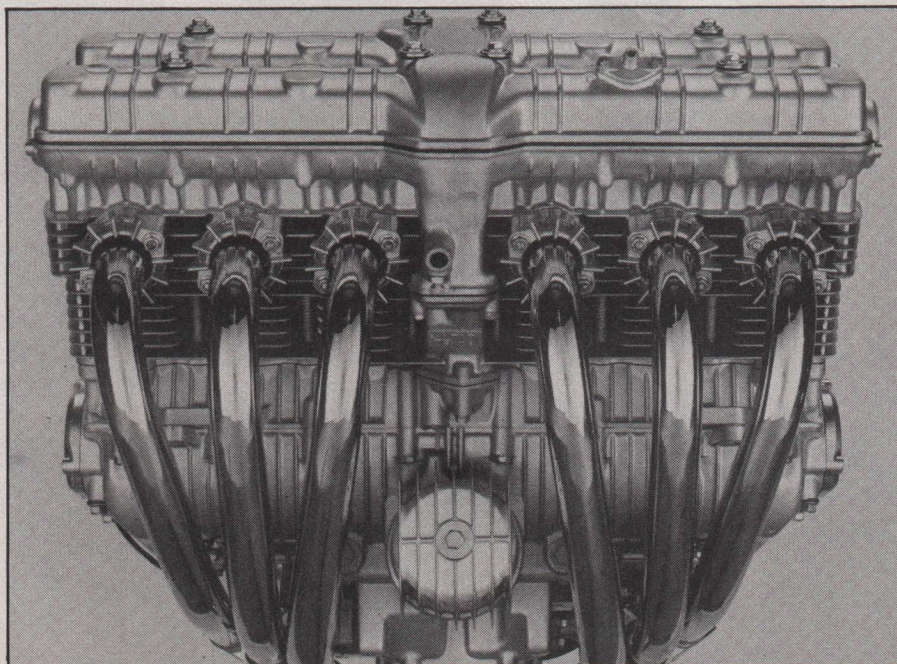
**Reverse ComStars, CB750 discs**

*New looks, but spongy brakes remain.*



**Federally mandated 85-mph speedometer elbows its way into CBX instrument cluster**

*Reinforcing legibility while sacrificing extra-legal thrills.*



**Larger oil cooler and fewer horsepower distinguish '80 version of the Big Six**

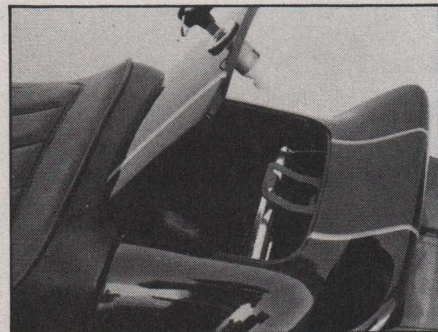
*Thrilling you with Honda's largest herd of high-strung ponies.*

able shocks with two settings for compression damping and three for rebound complement a swingarm stiffened by 12-percent heavier gusseting. In addition, the swingarm bolt itself grew from 14mm to 16mm and now rides in bearings (needles on the drive side, balls on the opposite) instead of nylon bushings.

Up front, the fork stanchion tubes swelled 1mm, but the real news is that the CBX now sports Honda's first-ever air-spring fork. The pressure adjustment range is from 7 to 13 psi, and the Showa fork has three-stage damping to harmonize with the progressive spring rate of the air-spring system. Each fork leg also has two anti-stiction rings this year instead of one. (They're placed top and bottom, *a la* CR250R motocrosser, one below the seal in the fork slider, the other fitted at the end of the tube.

Any street bike will lose its composure on the track eventually, of course, but the CBX loses *its* much sooner than the F-model. We found that for both test riders, the internal alarms went off about five mph sooner in every corner with the CBX than with the CB750. Yet to mention the CBX in the same breath as the CB750 is to realize how far the bike has come. Suspension control and a stiffened swingarm have made the bike at speed into a motorcycle instead of a loose-jointed bundle of bird-cage tubes with a 100-hp lump in its belly. You ride the CBX at the limit now with caution rather than wide-eyed fear.

All this adds up to a far better-balanced motorcycle than last year's bike. It's no

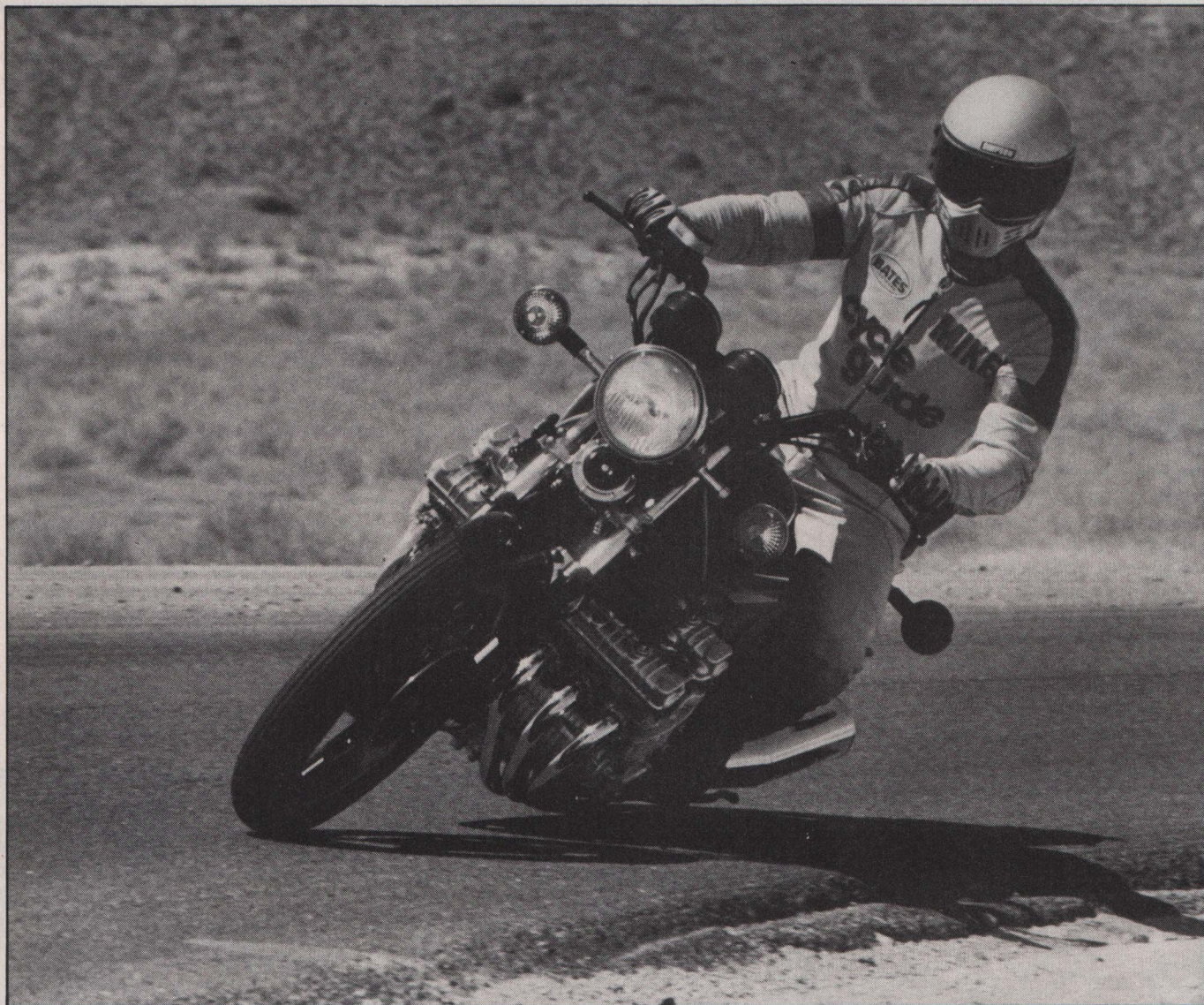


**Storage space for CBX's cable lock**

*Turning a fastback into a hatchback.*







DAIM GINGERELLI

longer necessary to keep it absolutely vertical before you dial in the full power. And you no longer have to wear a kidney belt to protect you from the shocks transmitted by the shocks. In other words, the suspension refinements of the CBX have relaxed the degree to which you must tailor *your* expectations to the *bike's* idiosyncrasies.

The same is true of the engine. The dial-back of power made necessary by the Feds has neither detracted from nor added to the CBX's reactions to your throttle hand. Already one of the smoothest engines around (the smoothest, perhaps, being the KZ1300 water-cooled Six), the CBX Six starts instantly and easily every time you punch the button. And then it will deliver enough power throughout the powerband (say, from 6500 rpm to 9000 rpm) to drive the blood to the back of your head when you snap open the throttle. Just like last year. In fact, out on the road, the difference in power between the two models is almost undetectable. You have to be on the drag-

strip to find the difference.

There, you find it fast. The 1979 CBX would wail through the lights at 117.6 mph, taking 11.66 seconds to do it. This year's bike demonstrated the textbook effects of valve lift, timing and carburetion changes by changing those figures to 114.5 mph and 11.86 seconds. In the manufacturer's dragrace for the World's Quickest Production Motorcycle, the difference is important, because it is probably enough to allow someone else's product to wear the laurels this year. But since both bikes acted just the same, and since the experience and rider know-how required to coax outer-limits ETs from hyperbikes like the CBX virtually insures that the average buyer won't be able to duplicate either one of the times, you can think of the five hp lost in the EPA changes as unimportant. Because in the face of Z1-R Turbos and Dunstall Suzuki 1000s, the bike wasn't The Fastest last year, barely a year after it exploded onto the world stage.

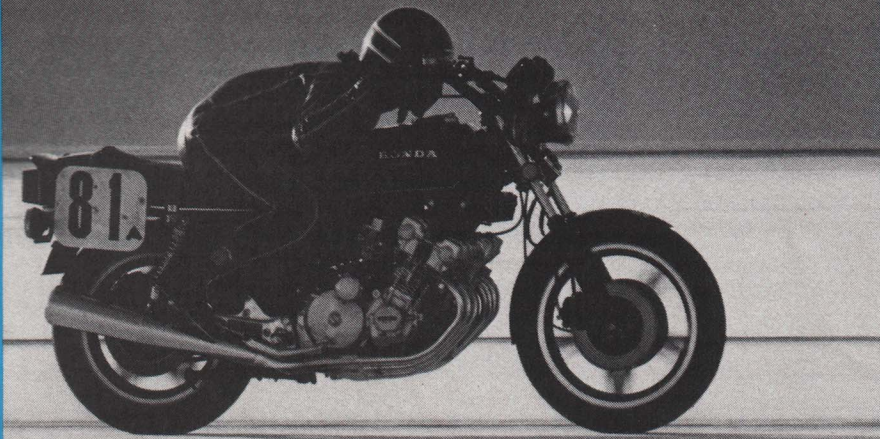
Which brings us back to Bonneville. The fastest street bike there in 1979 *was* a CBX, so we figured running ours on the salt was absolutely necessary. It turned out that the experience itself was worth it (see story, page 68), but the facts of life at 5000 feet and the EPA's rules slowed our test bike to 130 mph and some change.

Other driveline changes reflect Honda's concern with the subtleties of handling. The old H-rated tires—barely adequate for a motorcycle with the CBX's speed potential—have been replaced with V-rated rubber. Not only does this mean safer Bonneville speed runs, it also means less hunting in the corners, since the stiffer sidewalls of the higher-rated tires allow the contact patches to track better. A side benefit is that the change in tires hasn't hurt the comfort level; the sidewalls and carcasses *are* stiffer but the high-zoot suspension offers, in addition to improved cornering, a more-compliant, less-choppy ride.

But chances are that CBX owners this

*Continued*





## Exhibition of Speed

• It takes less than 30 seconds to travel one mile—that is, if your speedometer is registering 130 mph. I know because I took the Honda CBX to the Bonneville Salt Flats last September to find out.

The Salt Flats are about 100 miles west of Salt Lake City. You take the access road about two miles east of Wendover until it empties into a featureless sea of stark white salt. This is where about 200 gypsies of speed come each fall to probe the dark side of their

speedometers, the place where the fastest people on earth gather.

The *Cycle Guide* strategy for Bonneville was simple: Editorial Assistant Dean Taylor and I would ride the Honda CBX 900 miles from LA to Bonneville (followed by a motor-home). Then we would unleash Honda's beast on Bonneville's three-mile graded-salt runway. We didn't figure to break the 150-mph record for the 1300cc class with a bone-stock CBX, but we wanted to set a record of

our own. Taylor and I would ride as fast as the CBX would go, we would demonstrate the thrill potential of Honda's Six and we would set the unofficial Ride-It-Up/Ride-It-Back Land Speed Record, the kind of record that anybody who wanted to ride to Bonneville could test himself against.

Bonneville isn't restricted to professional speed merchants, you know. You can ride off the blacktop onto the salt and then walk right up to the registration trailer of the Southern California Timing Association (that organizes the event), put down your \$100 and be allowed to run just like Don Vesco or the latest rocket-car hotshoe. All you need is a copy of the rulebook (write the SCTA, P.O. Box 2729, Fullerton, California 92633), full leathers, a helmet and a motorcycle capable of passing the tech inspection (largely a matter of making sure everything is screwed on tight and having the appropriate speed-rated tires). We showed up with a stock Honda CBX, got our number—81, Editor Paul Dean's old flat-track racing number—and walked away from registration with the obligatory grab-bag of buttons, t-shirts and posters advertising that we had been at the 31st Bonneville National Speed Trials.

There were two lanes marked by black lines of oil that stretched into the distance and *CG's* first effort was scheduled for the



**Early morning prep prior to Ride-It-Up/Ride-It-Back LSR attempt**

*Box stock, but still in need of care.*



left lane. You run qualifying runs Sunday through Friday of Speed Week and if you crack a record you're invited back the following morning to make an official two-way record run. I lined the Honda up in the far left lane and began socializing with people around me, which is what you do in the staging lane at Bonneville.

I found out the salt was in its best shape ever, according to the old-timers. They also told me to expect a mild wobble at speed because of the salt. They warned me to ease off the gas after I passed the final timing marker or I would inadvertently induce a real pants-wetter of a wobble. And finally they advised me to arc toward the return road gradually, because at 100 mph the salt is as slick as ice.

At last I was next in line. I watched Rick Coatman aboard a CBX tricked to the limit of the SCTA rules set off on a warmup run of 142 mph. Bob Higbee, who has started every Bonneville since 1953, strolled over to me and with cool frankness asked me about my helmet. We talked about the Simpson RXM-1 for what seemed like hours until his face tensed and his radio headset buzzed. He spoke into the radio and then turned to me. "Okay, the course is clear," he said. "You can go any time you feel comfortable."

Rolling cautiously away from the security of the start line, I almost dialed in some

wheelspin just to relieve my anxiety. But I remembered to keep my head and engine as cool as possible. My speed built slowly as I shifted through the gears. When I shifted into fifth I could see the first mile marker flash by me, a big yellow sign in the midst of the salt. Slowly the Honda began its salt wobble, like a 100-mph fish swimming upstream.

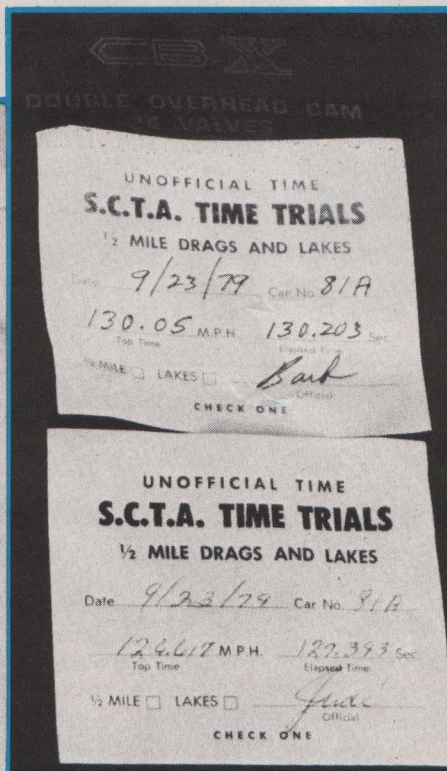
When I saw the two-mile marker I knew the timer's watch had me under surveillance. The watch would catch me again at the 2.25-mile mark, but Taylor and I wanted more than a top-speed flash, we wanted a real hardcore record. So I was going to continue my run all the way to the three-mile mark—one full mile as fast as the CBX could leg it.

As the tach crept past 9100 rpm, the three-mile marker zipped past. I had finished my baptism at Bonneville less than two minutes after Higbee waved me off. After concentrating so long on holding my tuck, I felt like I was turning a mere 100 mph. I slowed gradually to 7500 rpm in fifth gear. It felt like freeway speed so I sat up—at 105 mph. The wind hit me like Mean Joe Green headhunting a quarterback. Then the whine from the engine and the blast from the air mixed together in a sensuous rush I hadn't felt since the first time

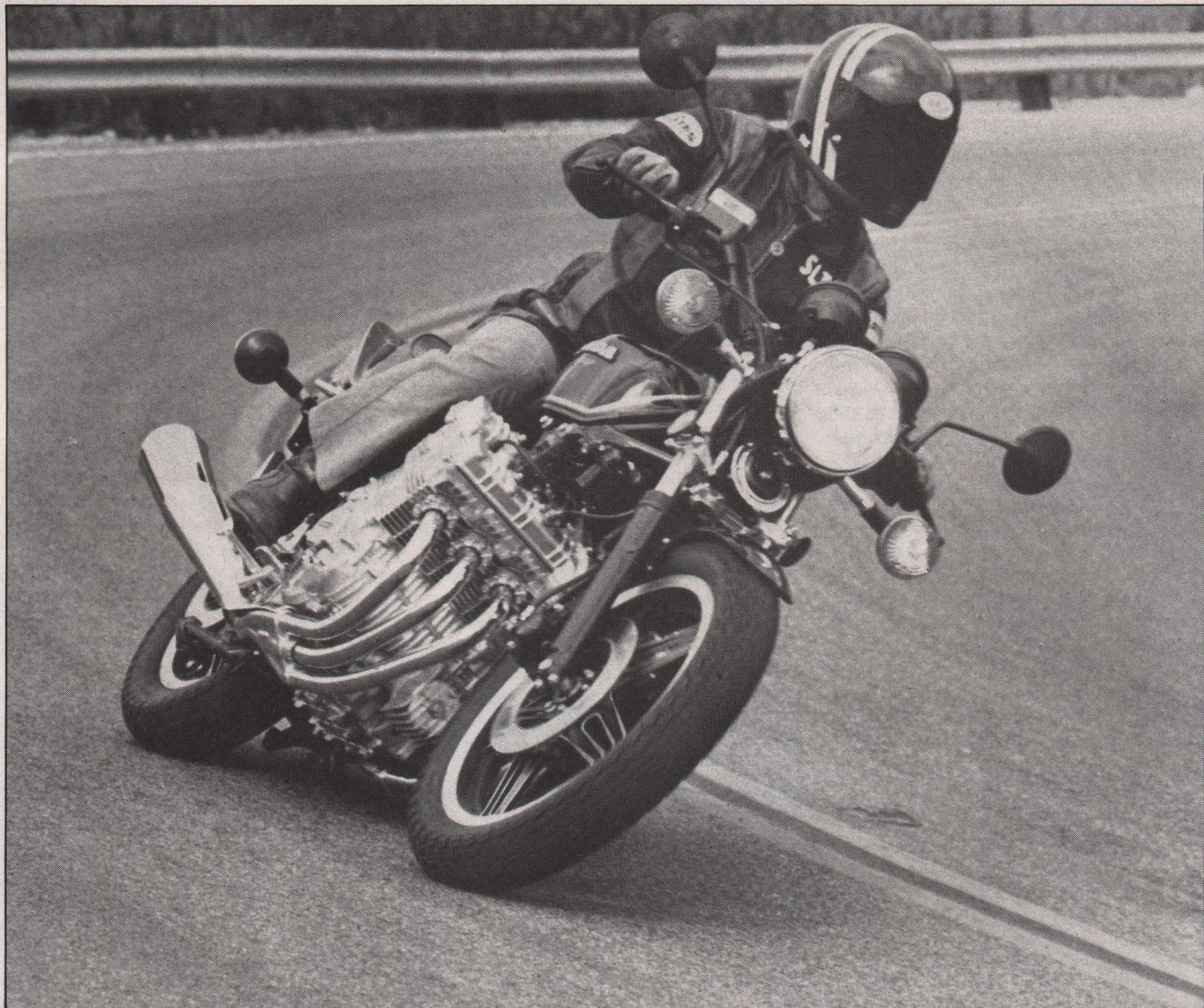
I rode a motorcycle. Sheer elation.

My speed for the measured mile was 125.768 mph. Taylor reckoned a wild motocrosser like himself could show me a thing or two and recorded a 127.393 mph (some 50 mph faster than the Utah State Patrol had clocked him the previous day on the way to Bonneville). Taylor came back to the pits as drunk on the sensation of sustained top speed as I had been. We talked together about the technique required to coax a maximum effort from the Six. Then I went out and set the Ride-It-Up/Ride-It-Back LSR at 130.203.

Friends say that Taylor and I don't act the same anymore. Well, we aren't the same. Those long minutes at top speed on the salt change the way you think about everything. I remember being staged on the start line and then suddenly a windstorm swept everyone off the salt until I was all alone, poised atop the CBX in the middle of the salt. I've raced all kinds of motorcycles on all kinds of tracks, but Bonneville was the most fun I've ever had on two wheels. Well, CG has set the Ride-It-Up/Ride-It-Back LSR for all you cowboys to shoot for next year. But Taylor and I will be back. Each of us wants to become one of those 170-odd people who belong to Bonneville's 200 MPH Club, an unofficial association of the fastest men on earth. From now on, top speed is all that matters. —Dain Gingerelli







PATRICK BEHAR

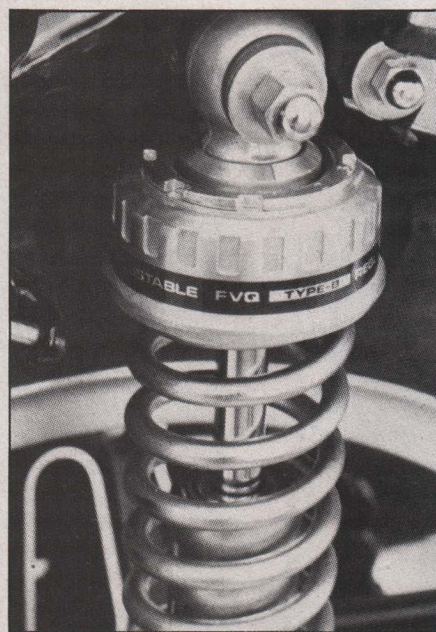
year won't be any more interested in cruise-control riding than last year's buyers. What they'll care about is how the bike works in the corners. And the CBX remains a splendid example of ingenious design to aid cornering, at least in how Mr. S. Irimajiri, Honda's project design engineer, solved the problem of width in the engine. By use of brilliant tricks such as mounting the massive alternator *behind* the crankshaft on a chain-driven jackshaft instead of on the ends of the crank, the 235-pound six-cylinder engine could be made unusually narrow for all its six-cylinder mass. There is so much cornering clearance that you almost have to run out of tire before any engine bits will come close to zinging the ground. And by that time, the little balls on the folding alloy footpegs will have been ground into incandescence anyway.

Last year's bike generated a higher fear-factor than it could high-speed lean angles, though, so few riders were able to take full

advantage of the shaved cases. This year's suspension modifications have changed all that, if only by degrees: Our test session at Willow Springs Raceway revealed a much better-handling motorcycle all around.

We rode the CBX at Willow in company with a new CB750F, the bike we found to be the best-handling superbike in the world (Oct., '79 issue). The differences between the two Hondas instantly made apparent the improvement in the CBX, but as instantly showed its weakness.

In general, the CBX doesn't have the hair-trigger responses of the CB750F. The F-model responds to the rider's every body movement and steering input, while the CBX is much slower in dropping into a cornering line or raising out of it. That much is the same as last year, and is as much due to geometry and the effects of the high cg as anything. What's different is that this year's CBX cuts precise, clean arcs through corners without hunting or wavering as its predecessor did.



**Adjustable FVQ shocks**

*Taking the sting out of abrupt bumps.*



Once you try to press the CBX as hard as you can the 750, though, the flaws emerge. This CBX is still a very heavy motorcycle (555 pounds dry) and any bump or disturbance upsets its equilibrium immediately. The bike will then wobble—usually a low-frequency, low-amplitude, non-threatening kind of wobble, to be sure, but you can still feel the front and rear tire begin to wander around like drunken dancing partners.

There's more, though, than the bald numbers would have you think. First, you should note that our test was done with early-lead models. Sometimes this leads to erroneous evaluations (as was the case with the very first CBX "tested" by the press) and almost always there needs to be qualifying information added to the story. Our case here falls in the latter category. Only days before this test was to be shipped to the printer, Honda, at our urging, found that it had timed not only our but also a previously tested CBX to the wrong specs. And that a running change to the line—replacing the scheduled single-stage ignition unit with the 1979 model's two-stage ignition box—picked up appreciable power. The result was a gain in power, a drop in ETs (reflected in the numbers above) and the very substantial chance that our CBX could have gone faster at Bonneville. But it remains a chance, because we were not able to ride again to the salt and make another run.

Second, all the fiddling with ignition brought out a single, stark fact about the CBX, and what it means: Five horsepower,

while a lot, didn't affect by one iota the bike's personality. It'll get you lower ETs and higher top speeds—fractionally—and if you five-hp your way up the scale long enough, you'll probably make your bike The Fastest. But that's not what's important about the CBX.

What's important about this bike is that way it makes you *feel*. The thrill that just riding it delivers. Honda designed the exhaust not only to meet EPA standards, but also to emulate the sound of an F-4 Phantom II jet fighter. And so the CBX sounds, feels and rides like nothing else on Earth. You will see, in the next year, perhaps two or three mass-produced motorcycles that are capable of beating the black or red CBXs you can buy at your Honda dealer in 1980. You can find a few that will easily outhandle it. But you'll never find even *one* that comes close to its hair-raising exhaust note, or the contradictory, pulse-pounding personality that goes with it.

So its reputation as Not The Fastest is deserved. The salt, the dragstrip and the racetrack proved that. But its other rep—the one that wooed the buyers last year—is also true. That reputation is of a motorcycle that delivers high adventure wherever it's ridden. That provides endless fascination for its rider not, in the end, so much for what it can or cannot do, but just for what it is. Evidently, a motorcycle like that is enough for Honda. And with its genuine improvements, it's likely to be enough for a lot of buyers next year too.

In any terms except those of the dragstrip, that's progress. ●

## Ride Review

- The CBX should not be my kind of motorcycle. The slow steering and that huge engine make it feel clumsy at slow speeds. And once you crank up the revs, the Six corners with the awkwardness of a hook-and-ladder fire truck answering a three-alarm summons, the front and back ends dueling for control.

But after I rap the throttle open and the six cylinders and 24 valves rocket to the redline, I admit I feel guilty. How can I complain about a motorcycle that brings back the sensations of GP racing of 12 years ago when the Honda 250 Six clobbered the world? My objections are chewed up and spat out the exhaust pipe by 99 of the most thrilling horsepower you can buy.

I just can't help but like this motorcycle. When I hear the bone-chilling shriek the Six broadcasts at redline, my emotions boil over.

—Dain Gingerelli

- I know all about the CBX breaking into the elevens in the quarter and cracking 130 mph at Bonneville. I've heard all the tales of spooky, go-fast magic attributed to the Big Six. I remain unimpressed. After all, how many CBX owners are ever going to wring out the bike to find the far limits of its performance? So more than some bench-racing chatter about "what'll she do," I'm interested in how the CBX performs in real life.

Surprisingly, not too badly. You'd think from all the sub-surface mumbo-jumbo that "everyone knows" about the CBX that it was snappishly unpredictable and on the ragged edge of super-tune. That you had to start it up from a distance in case something blew. Not so. In fact, the CBX burbles through real-speed life as if it were bred for it. The throttle just turns a little further.

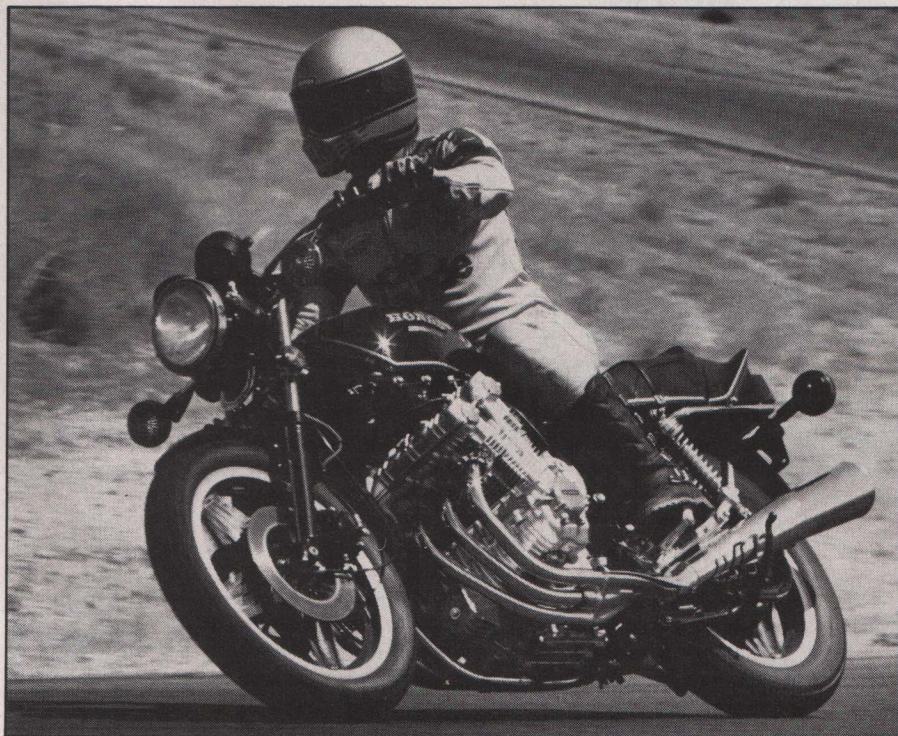
—Larry Works

- This year's CBX is undoubtedly a better motorcycle than last year's, but what has made it more acceptable as an everyday bike to me has simply been the passage of time. I've finally gotten used to the thing, and having gotten used to it, now find that I actually like it.

Somehow the CBX is a splendid political statement nowadays, a kind of technological up-yours to the massed legions of The System and the Anti-Motor League. As such, I can forgive its many sins—its still-wobbly handling, its weight, bulk and lack of styling balance. It's all outweighed by the sheer awesome accomplishment of the whole thing.

Which doesn't mean I'd actually buy one. I'm still not sure what it would take to convince me that I needed a CBX in my garage. Perhaps nothing from the bike; perhaps only another round of madness from The System will suffice.

—Steve Thompson





# Honda CBX

## SPECIFICATIONS:

**IMPORTER:** American Honda Motor Co.  
100 West Alondra Boulevard  
Gardena, California 90247

**CATEGORY:** street

**SUGGESTED RETAIL PRICE:** NA

### ENGINE

Type ..... four-stroke transverse vertical six  
Valve arrangement ..... double overhead camshafts,  
four valves per cylinder  
Bore and stroke ..... 64.5mm x 53.4mm  
Displacement ..... 1046.9cc  
Compression ratio ..... 9.3:1  
Carburetion ..... six 28mm Keihin constant velocity,  
one accelerator pump  
Air filter ..... washable oiled foam element  
Lubrication ..... wet sump  
Starting system ..... electric only  
Ignition ..... battery / triple electronic pickups / triple coils  
Charging system ..... 12 volt; alternator, voltage  
regulator, rectifier

### DRIVETRAIN

Primary drive ..... Hy-vo chain, jackshaft, straight-cut gears  
Primary drive ratio ..... 2.269:1  
Clutch ..... wet, multi-plate  
Final drive type ..... #530 chain (3/8-in. pitch, 3/8-in. width)  
Final drive ..... 18/42: 2.33:1  
Gear Internal Overall MPH per  
gear ratio gear ratio 1000 RPM  
I 2.44 12.91 6.0  
II 1.75 9.26 8.3  
III 1.39 7.36 10.4  
IV 1.20 6.35 12.1  
V 1.04 5.49 14.0

### SUSPENSION/WHEEL TRAVEL, IN.

Front ..... air/spring, 36mm stanchion tube  
diameter / 6.3 in. (160mm)  
Rear ..... 2-way adj. compression damping, 3-way adj.  
rebound damping, 5-way adj. spring preload / 3.9 in. (100mm)

### BRAKES

Front ..... dual single-action hydraulic caliper,  
dual 11.8-in. (300mm) discs  
Rear ..... single-action hydraulic caliper,  
12.9-in. (328mm) disc

### TIRES

Front ..... 3.50V19 Dunlop Gold Seal F11  
Rear ..... 4.25V19 Dunlop Gold Seal K127

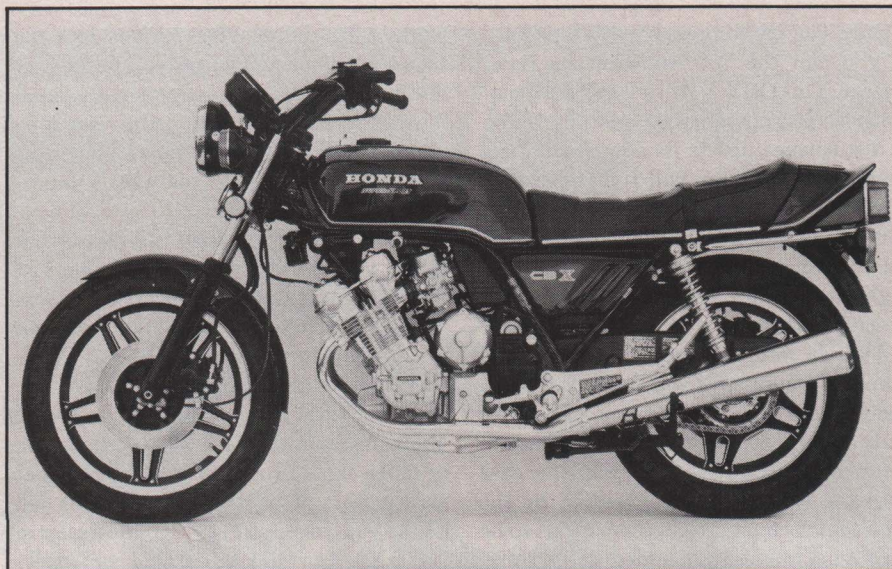
### DIMENSIONS AND CAPACITIES

Weight ..... 555 lbs. (252kg)  
Weight distribution ..... 46.8% front, 53.2% rear  
Gross vehicle weight rating ..... 1055 lbs. (479kg)  
Wheelbase ..... 58.9 to 60.2 in. (149.6 to 153.0cm)  
Seat height ..... 32.9 in. (836mm)  
Handlebar width ..... 30.4 in. (772mm)  
Footpeg height ..... 12.8 in. (325mm)  
Ground clearance ..... 6.0 in. (152mm), at sidestand bracket  
Steering head angle ..... 27.5 degrees from vertical  
Front wheel trail ..... 4.7 in. (120mm)  
Frame ..... tubular and pressed mild steel, no front downtubes  
Oil capacity ..... 5.8 qt. (5.5l)  
Fuel tank ..... steel, 6.1 gal. (23.1l), including  
1.5 gal. (5.7l) reserve  
Instrumentation ..... speedometer, odometer, tripmeter  
resettable to zero, tachometer, voltmeter

### PERFORMANCE

Fuel consumption ..... 18.5 to 36.0 mpg (7.9 to 15.3 km/l)  
Range, maximum ..... 113 to 220 miles (182 to 354km)  
Range, reserve only ..... 28 to 54 miles (45 to 87km)  
Speedometer error, 30 mph indicated ..... 30 mph actual  
Speedometer error, 60 mph indicated ..... 61 mph actual  
Best 1/4-mile acceleration ..... 11.86 sec.,  
114.5 mph (184.3 kph)  
Top speed (clocked at Bonneville) ..... 130.203 mph (209.5 kph)  
Stopping distance from 30 mph ..... 36 ft. (11.0m)  
Stopping distance from 60 mph ..... 145 ft. (44.2m)

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 CBX	11.86/114.5	130	555	145
Yamaha XS1100F	12.12/111.9	134	573	136
Suzuki GS1000EC	12.15/110.9	131	520	126
Kawasaki KZ1000 MkII	12.06/110.3	130	545	129
Dunstall-Suzuki GS1000 CS	11.32/117.0	154	488	124
Laverda 1200 Jota	12.54/105.0	121	518	145

## PERFORMANCE:

