# Exclusive: Honda's All-New V-Twin

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First Test

## HONDA CB1100F!

## Raising the Superbike Ante

## Making Old MXers Competitive Again



## ...standing Carbs: ... Jets, Troubleshooting, ...enance Tips

ROAD TEST & 24-HOUR TEST

# 1983 HONDA CB1100F

## The old guard sets the new superbike standard

PHOTOS ART FRIEDMAN

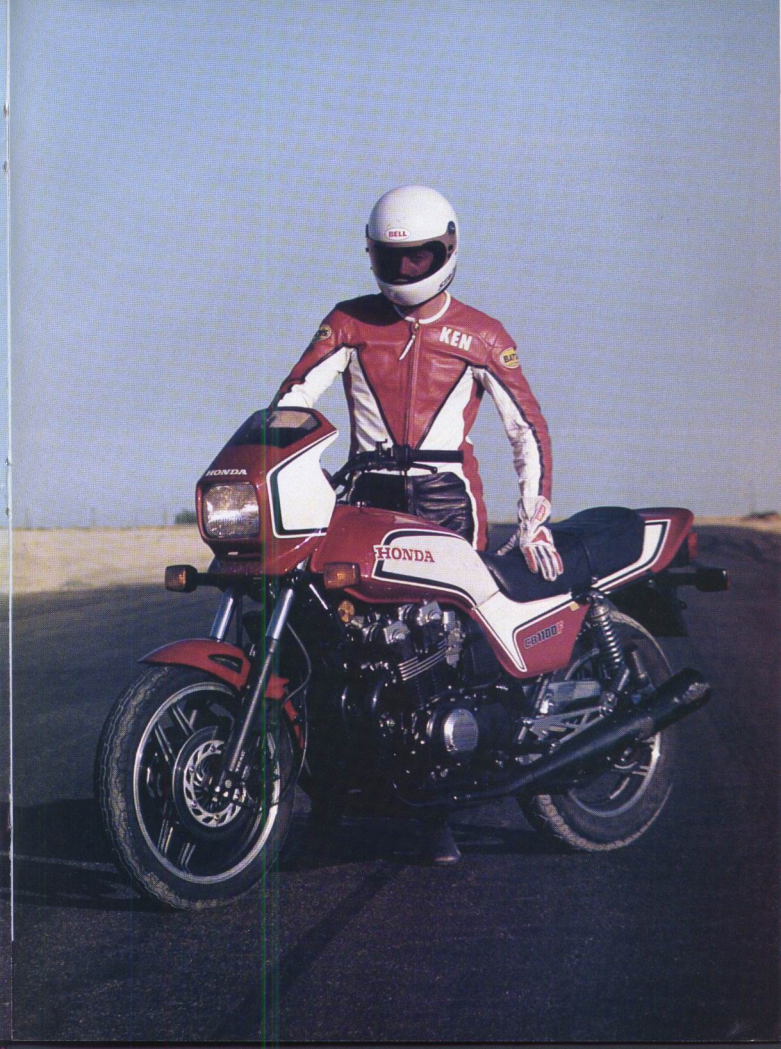
More than a decade ago, Honda invented the Modern Superbike Game. It's a game that all the other Japanese manufacturers have been playing feverishly ever since. Honda laid the ground rules with the original CB750, and the basic in-line-four engine layout pioneered in that bike has been the basis for the fastest street bikes to date.

The in-line-four configuration proved so popular that eventually all the Japanese powers joined the game with fours that were better and, in some cases, bigger than the Honda. Honda improved its 750 but didn't compete with the others by building a larger version. Honda started the game, then seemed to lose interest in playing.

Instead, the thinkers at Honda were devising a whole new superbike game, one that they hoped would be even more popular than the previous one. It was played with six cylinders, and although the CBX six was briefly the King of Quick, it started no trends and was soon eclipsed by faster fours. So much for that game.

Almost no one had yet grown tired of the in-line four; it was, and still is, an engine well suited to motorcycle use. But while the Battle of the Fast Fours raged on, Honda, the inventor, seemed content to spectate. It had its 750, but the other guys were playing hardball with 1000s and 1100s. After a time Yamaha faded out of the fray, and just the two upstarts, Suzuki and Kawasaki, kept on playing.

In 1981 Honda dealt itself in for a hand with the CB900F, but it wasn't in-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CB100F

tended to be a direct assault on the superbike powers. The other players were not frightened by the 900, but they knew Honda was capable of much more. If Honda wanted to, it could blow the in-line game wide open. In fact, the company was already building a bike that could challenge the GS1100E and GPz1100 for dominance: the CB1100R, not sold in the United States. Would Honda get riled enough to bring it in? Most observers thought not.

The in-line four—though still the mainstay of motorcycling—is now losing its near-monopoly in the marketplace. The four has become so utterly commonplace that sales are being lost to newer, more exotic designs. The market is ready for something new. Right about now you'd expect Honda to introduce a totally different engine design for a bike that competes with the current superbikes. Indeed, plenty of rumors indicate that an 1100cc V-4 is due any minute. The surprise is that it is apparently not aimed at the sporting market, but rumored instead to be a boulevard cruiser. Though it may be Honda's quickest motorcycle, and perhaps even the quickest street-legal motorcycle ever, it won't be going head-to-head with the sporting GS or GPz1100 for the superbike crown.

You wouldn't expect Honda to start playing by the rules this late in the game, but that's exactly what it is doing with the 1983 CB1100F. Here, finally, is a bike that is a direct challenge to the superbike powers. Honda is going after the superbike market—not with an unproven bag of tricks—but with an uncharacteristically conventional, tried-and true weapon. This basic engine has been in production four years, first as a 750, then as a 900 too. European 1100s have also been produced for a couple of years, so most of the pieces were on hand. Maybe Honda decided to prove that it could win the game it started.

The CB1100F fills a hole in the Honda lineup that has been vacant since the CBX fizzled back in 1978. It's a machine that many riders have been lusting after for years. Why it was so long in coming is a bit of a mystery. Maybe the 1100 was delayed to give the CBX some breathing room or to give the CB900F a chance to test the market for a big sporty bike. Maybe it's part of some grand scheme. Maybe not. Whatever the reason, it's about time. The wait seemed twice as long as it was, since the racy CB1100R has been available in Europe for the last two years. In the past, when asked about the possibility of the 1100R being imported here, the response from Honda was, "It's not reliable enough for America" or "It's not right for the U.S. market; cafe racers don't sell here." *Motorcyclist* tested the CB1100R just two months ago, and we'd have to agree, at least partly. We didn't have our borrowed test bike long enough to see what it took to break it, so we can't really comment on its reliability. As to whether the R is right for America, the answer is no. The 1100R is as narrowly focused a motorcycle as the Suzuki Katana. That means it would make a handful of riders deliriously happy, but wouldn't have the broad appeal of the GS1100E or GPz1100. Assuming Honda wanted back into the mainstream superbike game, the cafe R-model would have been a poor choice. What U.S. riders end up with is the CB1100F, a bike that has its roots in the American 750 and 900 and looks nearly identical to the smaller Fs.

PHOTO: KEN VREEKE

*Superbike ace Mike Spencer, from Honda's Product Research Dept., helped with the riding.*

Both the 750 and 900 have been competitive in their respective classes. They are also versatile all-around street bikes. The CB750F has been in production since 1978 and finished well in our June '82 750 touring comparison. The CB900F was introduced just two years ago and easily survived a 24-hour beating at Willow Springs Raceway as part of our April 1981 test.

The question is, can an engine that started life as a 750 be tweaked all the way up to the 1100 class and remain reliable—and competitive? We decided those questions could be answered with much the same test procedure we used on the CB900F. The 1100 we tested received the usual variety of street-riding tasks and dragstrip testing, plus it was raced around Willow Springs Raceway for 24 continuous hours, stopping only for fuel, rider changes, and whatever minor repairs were necessary. Hard racetrack running is about the most abusive type of riding to which you can subject a motorcycle, and a summertime test would be doubly tough, thanks to Wil-

PHOTO: DEXTER FORD

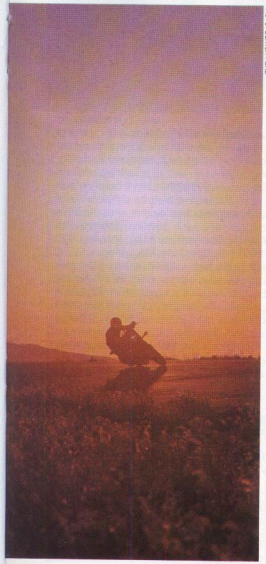


PHOTO: DEXTER FORD

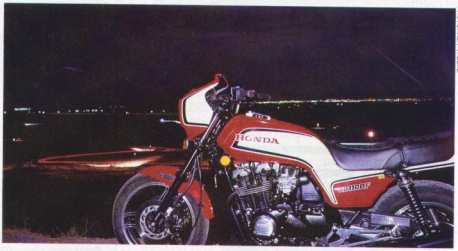



PHOTO: KEN KRERE

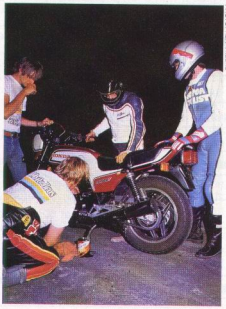


PHOTO: KEN KRERE

PHOTO: ART FRIEDMAN

*The CB1100F at Willow Springs (clockwise from left). At a late-night pit stop the Honda takes on oil and a new rider. Then the 1100 swoops through turn eight at dawn. The night before (top), the bike slashes down the hill and onto the long back straight as the sun fades. Later, the spare bike sits in the foreground while the test bike continues its ride around the 2.5-mile course. Finally, an hour from the finish, the 1100F banks through turn two maintaining its 75-mph average speed.*

# HONDA CB1100F

PHOTO: BILL JENNARO

| PRICE | 3600 3800 4000 4200 4400 | |
|---|---|---|
| 1983 Honda CB1100F | | $3698 |
| 1982 Kawasaki GPz1100 | | $4399 |
| 1982 Suzuki GS1100E | | $3999 |

| WET WEIGHT | 540 550 560 570 580 | |
|---|---|---|
| 1983 Honda CB1100F | | 582 lb |
| 1981 Kawasaki GPz1100 | | 561 lb |
| 1982 Suzuki GS1100E | | 565 lb |

| QUARTER-MILE TIME | 10.0 10.5 11.0 11.5 12.0 | |
|---|---|---|
| 1983 Honda CB1100F | | 11.38 sec., 118.1 mph |
| 1982 Kawasaki GPz1100 | | 11.53 sec., 116.3 mph |
| 1982 Suzuki GS1100E | | 11.33 sec., 117.5 mph |

| HIGH-SPEED PASS, TERMINAL SPEED | 74 76 78 80 82 | |
|---|---|---|
| 1983 Honda CB1100F | | 81.5 mph |
| 1982 Kawasaki GPz1100 | | 80.6 mph |
| 1982 Suzuki GS1100E | | 82.2 |

| AVERAGE FUEL CONSUMPTION | 20 25 30 35 40 | |
|---|---|---|
| 1983 Honda CB1100F | | 38.0 mpg |
| 1981 Kawasaki GPz1100 | | 36.9 mpg |
| 1982 Suzuki GS1100E | | 42.2 mpg |

| AVERAGE TOURING RANGE | 160 180 200 220 240 | |
|---|---|---|
| 1983 Honda CB1100F | | 201 miles |
| 1981 Kawasaki GPz1100 | | 207 miles |
| 1982 Suzuki GS1100E | | 245 miles |

Suggested retail price ..... $3698
Warranty ..... 12 months, unlimited miles
Number of U.S. dealers ..... Approx. 1800
Recommended maintenance intervals ..... 4000 miles

## ENGINE

Type ..... Air-cooled tranverse in-line four-stroke four
Valve arrangement ..... DOHC, 4 valves, adjusting shims on top of buckets
Displacement ..... 1062.0cc
Bore x stroke ..... 70 x 69mm
Compression ratio ..... 9.7:1
Carburetion ..... 4, Keihin 33mm constant-velocity, common accelerator pump
Ignition ..... Battery powered, transistorized, 2 magnetic triggers
Lubrication ..... Wet sump, 4.7 qt, oil cooler
Charging output ..... 260 watts AC
Battery ..... 12V, 14AH

## DRIVE TRAIN

Primary transmission ..... Link-plate chain and jackshaft, 2.041:1
Clutch ..... Wet, 15 plates
Final drive ..... No. 530 O-ring chain, 42/17

## CHASSIS

Front suspension ..... 39mm Showa, 5.9 in. travel; adjustments for rebound damping, air pressure, anti-dive resistance
Rear suspension ..... Dual Showa dampers, 4.3 in. wheel travel; adjustments for compression damping, rebound damping, spring preload
Front brake ..... 2, single-action calipers with dual-live pistons, 280mm discs
Rear brake ..... 1, single-action caliper with dual-live pistons, 296mm disc
Front tire ..... 100/90V18 Bridgestone Mag. Mopus L303
Rear tire ..... 130/90V17 Bridgestone Mag. Mopus G508
Rake/trail ..... 28.5°/4.7 in. (120mm)
Wheelbase ..... 59.8 in. (1520mm)
Seat height, unladen ..... 32 in. (812mm)
Fuel capacity ..... 5.3 gal (20L)
Wet weight ..... 582 lb (264kg)
Colors ..... Red and white
Instruments ..... Speedometer, tachometer, odometer, tripmeter; lights for left and right turn signals, high beam, neutral

## PERFORMANCE

Fuel consumption ..... 31 to 44 mpg, 38.0 mpg avg.
Average touring range ..... 201 miles
Best ¼-mile acceleration ..... 11.38 sec., 118.1 mph
200-yd top-gear acceleration from 50 mph ..... 81.5 mph terminal speed
RPM at 60 mph, top gear ..... 3969
Calculated speed in gears at (redline) ..... (9500) 1st, 57 mph; 2nd, 80 mph; 3rd, 103 mph; 4th, 124 mph; 5th, 144 mph
Speedometer error ..... 30 mph, actual 30.3; 60 mph, actual 58.1

*To keep the 1100F's identity a secret on the street, it was fitted with CB900F bodywork.*

PHOTOS: ART FRIEDMAN

low's 110-degree daytime temperatures. The track testing would give us some idea of just how reliable the Honda was and whether it would live up to the high standards set by the CB900F when it underwent the same punishment. We'd also discover just how well the machine handled when ridden near the ragged edge of control. And we might even have some fun in the process.

When we received our test bike, the CB1100F was still a secret, even though rumors of the model's existence had been circulating for some time. During our street-riding sessions, the standard red, white, and black bodywork on our bike was exchanged for a silver CB900F exterior to keep the bike from drawing attention. The tiny handlebar fairing was painted black. With these changes, the bike looked for all the world like a 900F with black pipes and funny instruments. The disguise worked beautifully—so well, in fact, that some staffers from another magazine who accidentally glimpsed the bike at the dragstrip didn't even look twice.

Besides the F-model family resemblance, the 1100 has a feel very similar to the 900F during normal street riding. The controls have the same crisp, accurate feel; throttle response is nearly instantaneous with the engine's clean carburetion and light flywheel inertia. The engine warms up quickly, so the bar-mounted choke lever can be thumbed to the off position soon after starting. Like the 900, the 1100 has a good deal of drive-line lash—something that only gets your attention during sudden on-off-on changes in throttle setting. The lash also contributes to somewhat noisy shifting action. Properly executed shifts are very quiet.

One major improvement over the 900F has been built into the shifting mechanism, though. The 900s we tested in '81 and '82 were among the worst-shifting bikes in recent memory. Missed gears were absurdly common, and once in gear, the bikes occasionally popped back into a false neutral when much power was applied. This last trait caused major problems at the dragstrip, where the bikes could only manage to stay in gear during about one out of three quarter-mile runs. This is not a new problem for this basic transmission; the 750s aren't particularly slick shifters either. But in the CB1100F the problem has *finally* been rectified. We expected the same gear-grinding, engine-shrieking missed shifts that plagued the 900 to be present in the 1100F, but we were pleasantly surprised. The CB1100F didn't miss even one upshift during our street and track testing; on just two occasions downshifting required an extra stab at the lever. The transmission is, at long last, first-rate.

The same thing can't be said of the clutch, however. Like the 900's, this clutch offers nice, progressive action during street riding, although the lever pull is just a bit on the firm side. It's a durable unit; no amount of dragstripping or racetracking we subjected it to caused slipping or dragging. The problem occurs when the clutch is engaged under heavy throttle from a standing start. The engagement isn't smooth; intense chatter sets in as the clutch takes the load. The chatter makes precise control of clutch engagement impossible, and the result is a lurchy start or wheelspin. But we rarely encountered the clutch chatter during street riding, and those few times we did were during two-thirds-crazy stoplight launches. All the rest of the time on the street the clutch action was fine. The chatter was a real problem only at the dragstrip, where fast starts are vital to good quarter-mile times. The CB1100 just couldn't get its power to the ground when leaving the line if a lot of power was suddenly dumped through the clutch. The engine makes a very competitive amount of power, but the clutch slows down the machine's elapsed times somewhat.

Even with the quirky clutch, the Honda turned in a creditable 11.38-second, 118.1-mph best run. A Suzuki GS1100E run on the same morning launched through with a best of 11.33 seconds at 117.5 mph. The Honda's problems were costing it as much as a tenth of a second, so it's safe to say it would be quicker than the Suzuki if it had a better-behaving clutch. As it stands, the terminal speeds show the machines make almost identical peak power.

As is the case with all the 1100-class superbikes, the Honda has such a surplus of power on the street that arguments based on a tenth of a second become largely academic. There is plenty of low-end power to launch you away from stoplights effortlessly. And it just gets better as redline nears. The power curve feels quite linear and very predictable. There is just a touch of peakiness to the power delivery, mainly because the upper rev range is so strong, not because of any weakness off the bottom. Compared to the CB900F, the 1100 feels much stronger all the way through. This, coupled with the much improved shifting action, makes the 1100 a more enjoyable engine under most conditions.

The only penalty that accompanies the boosted displacement is increased engine vibration. The 900F was remarkably smooth at all speeds; it is the smoothest in-line four we've tested. Even though it uses the same rubber engine-mount system, the 1100 shakes a bit more. A minor tingle comes through the pegs and handlebar at most speeds, but it is much more subdued than the buzzing dealt out by the other 1100-class fours. The vibes are not nearly pronounced enough to cut into the bike's long-haul comfort.

The comparatively smooth engine makes cross-country riding well within the 1100's capability. There is enough power to carry any reasonable combination of people and luggage at a hair-raising clip. And the solo rider can steam down deserted back roads at an indicated 146 mph almost indefinitely. That's right, we said *indicated*. The 85-mph

# EVOLUTION OF A MONSTER

## The little CB750F has gotten much bigger and faster along the way

By Honda standards, a very slow process of evolution has brought us the CB1100F. Its roots are in the 1979 CB750F, and there is no mistaking the family resemblance. Back when the 750 was still on the drawing board, the CB900F was planned for the European market, so provisions were made for boosting the displacement. At that time, the 1100F wasn't even a twinkle in an engineer's eye. Only later did Honda decide to squeeze even more displacement out of what started life as just a 750. The CB1100F's 1062cc displacement is as far as Honda is willing to go with this basic engine. There simply isn't room for bigger cylinders if the same bore centers are to be retained, and the air passages that run between the 750's cylinders are long gone in the 1100.

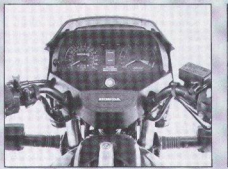
Don't go away thinking Honda boosted its 750 to 900, then to 1100, without adding any strength along the way. On the contrary, Honda has made substantial changes to ensure that all three sizes of this basic engine meet Honda's normal durability standards. With the jump to 900, the engine got an all-new, longer-stroke crankshaft, different connecting rods, and a completely revamped top end. The cylinder bores had grown from 62mm to 64.5mm. With the jump to 1100 they've expanded again, this time to 70mm. The 1100 has new cams, which keep the intake and exhaust valves open five degrees longer and increase maximum lift. The 900's intakes open 8.5mm; the exhausts open 8.0mm. The 1100F's intake and exhaust valves all open 9.0mm.

A number of other changes built into the 1100 distinguish it from the CB900F. The big bike has a different ignition advance curve; it has the same 38.5-degree maximum, but reaches it 400 rpm later, at 3500 rpm. The compression ratio has been boosted considerably. The 900 runs an 8.8:1 ratio; the 1100 uses a 9.7:1 ratio. The Keihin constant-velocity carbs are now one millimeter larger. To help dissipate the additional heat that comes as a by-product of the 1100's added power, the oil cooler is twice as large as the 900's.

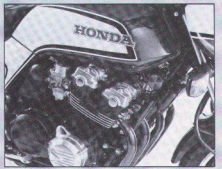
The engine's lower end incorporates a few other changes too. There is an anti-backlash gear between the clutch hub and its drive gear. The fifth gearset retains the same ratio, but the gears are wider to increase strength. Tolerances in the shift mechanism are now held more tightly. The 1100 also carries a slightly taller final-drive ratio.

As the basic engine design that powers the 750, 900, and 1100 has slowly evolved, the chassis layout has also had steady improvements. When stacked up next to the 900F, many changes in the 1100F become apparent. The wheel diameters at each end have dropped an inch. Now the 1100 has an 18-incher in the front and a half-inch-wider 17-incher in the back. A massive box-section steel swingarm pivots in needle bearings and is controlled by a pair of Showa gas-charged dampers. The CB1100F

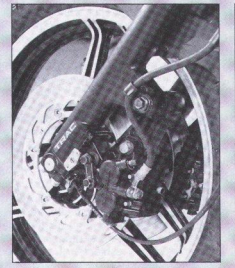
*The pistons have grown quite a bit in the bike's evolution from 750 to 1100. The 750 piston on the right is 62mm in diameter; the 900's is 64.5mm; the 1100's on the left is 70mm wide.*



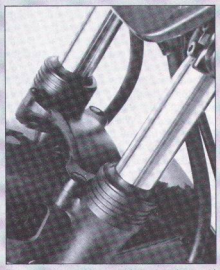
*Instrumentation is basic, but complete. The speedo sweeps to a whopping 150 mph.*




*The heart of the fastest Honda we've ever tested is nothing new, but it works very well.*



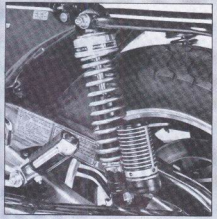
*TRAC uses slight caliper movement during braking to restrict fork compression.*



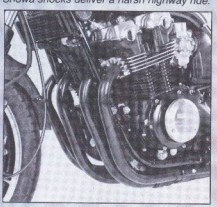
*This fork brace, along with burly tubes and triple-clamps, makes for a rigid front end.*

PHOTOS: BILL JENNARO


*The miniature fairing doesn't provide much wind protection, but it does smooth airflow.*



*Though excellent for the sporting rider, the Showa shocks deliver a harsh highway ride.*



*More power means more heat; 1100's oil cooler has twice the capacity of the 900's.*

comes with what amounts to an entirely new front end. The fork stanchions are still 39mm in diameter, but each leg now includes three-way-adjustable rebound damping and four-way-adjustable TRAC anti-dive resistance. The steering stem has been lengthened 21mm and has been moved rearward 10mm to place more of the Honda's 582-pound wet weight on the front wheel. The 1100 also has different steering geometry than its smaller brother. The 900F measures out with 27.5 degrees of rake and 110mm of trail. The CB1100F, on the other hand, has 28.5 degrees of rake and 120mm of trail. An aluminum brace is built into the 1100's fork, just above the fender. To prevent warpage problems, the brake discs are flat machinings which bolt to separate carriers.

To give the 1100 a little different look than its siblings, the bike is fitted with a very compact handlebar fairing. A quartz-halogen rectangular headlight peeks out of the fairing, and new instrumentation is tucked in behind. Just the basic instruments are included, with no flashy warning systems, bells, or whistles. A clever three-piece, adjustable handlebar fits into traditional bar clamps and allows you to alter the grip angle somewhat. There is now a handlebar-mounted choke control. The turn signals are not self-cancelling. The fuses are located under the dashboard/triple-clamp pad and require tools to gain access.

The 1100F incorporates many improvements over the 750 and 900. Probably the main drawback to the 1100 is that with its arrival comes the departure of the CB900F, which won't be available in 1983. *M*

speedometer regulations are no longer in effect, so the 1100F comes with a speedo that hits the peg at 150 mph. You'd have to be well beyond redline in fifth to hit the stop, though.

At more civic-minded cruising speeds, the Honda is a pleasant touring ride. The seat padding has a comfortable consistency but is a bit on the narrow side. All our testers felt at ease with the riding position, though a minority would have liked a slightly lower handlebar. The bar is a three-piece unit that allows the grip angle to be adjusted; we were happiest with the standard position. The main detraction to the 1100's highway comfort is a shortage of suspension compliance. Even with the Honda's many suspension adjustments set at full soft, both ends of the bike were sluggish in their responses to small lips and seams. Stiction doesn't seem to be the problem, since both wheels move when a small bump is encountered; they just don't move far enough or fast enough to soak up the jolt as well as some others do. The result is a slight but constant hobbyhorsing during interstate cruising. Responsibility for the firm ride probably lies with intentionally firm springing and damping rates selected to make the Honda handle better in the corners.

Wherever the Honda is ridden, and at whatever speeds, it always seems to have the same surefooted feel. The steering is light and responsive at all speeds. Parking-lot putting is easy even at a crawl. It outdoes the old 900F as the best-handling big bike available.

The racetrack would tell us if the handling—and for that matter, the entire bike—would stay intact at higher speeds.

Willow Springs Raceway is one of the few remaining race courses that's a reasonable distance from L.A.; every road-racer in the southern half of the state has spent a number of Sundays standing, waiting, and racing in the sun and wind at this 2.5-mile strip of twisting asphalt in the middle of the desert. No one seems to complain much about the track itself, just its location and the climate that goes with it. The last time we went to Willow for an around-the-clock test, the track rental was a stiff $1500. That got us exclusive use of the track and a piece of parking lot to call home. Now the place has changed hands and is the racing bargain of the decade. The price dropped to $750; for that much cash we got the use of the track and more hospitality than you'd find at the average Hilton. We had the run of the place: air-conditioned lounge, fully lighted garage, real plumbing, even a barbeque. The new owners have resurfaced the pits and fixed up the pit lane. What luxury!

Representatives from Honda were out in force, equipped with a spare motorcycle and extra wheels and tires. They had also enlisted the aid of the Honda Power Products Division, which supplied *nine* generators, 15 huge floodlights, and

SUPERBIKE SHOWDOWN

# KING FOR A DAY?

## The 1983 CB1100F takes on the 1982 kings of the road, the Suzuki GS1100E and Kawasaki GPz1100

Before any new machine can lay claim to the superbike crown, it's going to have to prove itself against the current leaders in the class, the Suzuki GS1100E and the Kawasaki GPz1100. Those have been the bikes to beat for the last two years and will continue as such until something better comes along—something like the Honda CB1100F. We gathered together all three machines so they could be run head to head under all sorts of conditions. The bikes we rode had comparably low mileage, although both the Suzuki and Kawasaki were 1982 models and will change in 1983. The Kawasaki was not a regular test bike supplied by Kawasaki, but instead was one we procured elsewhere. Kawasaki's fleet of GPz1100 test bikes had been annihilated by other magazines; there weren't enough straight pieces left to construct even one functional machine. Our GPz ran about as well as the Kawasaki bikes we had tested in the past. However, figures generated by this machine can't automatically be considered representative.

PHOTO: ART FRIEDMAN

The most obvious question here is, "Which is fastest?" A trip to the dragstrip showed that the GS1100E is still the quickest of the three, if only by a slight margin. Its best run on a warm morning was an 11.33-second, 117.5-mph pass. The Honda was hot on its heels with a best run of 11.38 seconds at 118.1 mph. The GPz1100 clicked off an 11.53-second run at 116.3 mph.

The Suzuki has an amazingly strong and controllable clutch; it helps get the bike off the line before the other two, then the motor does the rest. The Honda is handicapped by clutch chatter, which results in wheelies or wheelspin—both of which are time wasters. We took the Honda to the strip with two different sets of clutch plates, but the chatter persisted. It seems to be the nature of the beast. Once off the line, the Honda accelerated harder than the other bikes, judging by seat-of-the-pants feel and its high terminal speed. The Kawasaki was not far off the pace, but its lower terminal speed indicated that it wasn't pulling quite as hard as it should. Some top-speed comparisons we did later showed the Kawasaki to be a strong runner on top, though.

Our next test at the strip was our top-gear roll-on from an actual 50 mph to the speed traps 200 yards away. Again, the Suzuki, with its amazing low- and midrange power, was the victor. On three runs it averaged a speed of 82.2 mph as it passed through the lights. That puts it among the strongest production bikes we've tested. Just as in the quarter-mile testing, the Honda was tucked in right behind the Suzuki. Its average was 81.2 mph, so obviously the two bikes are very close. The Kawasaki finished just a heartbeat behind, averaging 80.6 mph.

To settle any arguments about the relative handling merits of these three machines, we brought the Suzuki and Kawasaki out to Willow Springs Raceway during our 24-hour endurance test of the Honda. All our testers picked the CB1100F as their favorite for ripping around the track. The CB has the lightest, most responsive steering. The Suzuki ranks second in this respect, followed by the heavy-handling Kawasaki.

The Honda's responsiveness in no way compromises the machine's stability. The bike holds its line more securely than the others and has the best tires of the group. The Kawasaki ranks second in stability; it wiggles and moves around in some corners, but it never gets out of hand. Its tires are also quite good. The GS1100E feels the least stable. The Suzuki chassis, particularly its front fork, has a floppy, willowy feel at high speed. This, combined with unremarkable tires, makes the GS feel a little spooky on the track; it weaves and wallows somewhat. The rider has to be smooth and confident to really make the bike behave, and his efforts are hindered by the bike's limited cornering clearance. The Kawasaki has more clearance, and the Honda has the most.

Willow Springs isn't the most demanding track in terms of braking, but there are a few opportunities to get on the binders heavily. Most of our riders thought the Honda was the most controllable stopper. Its twin-piston calipers provide the most accurate feel, although lockup requires more lever pressure than some of our testers like. The Kawasaki takes only a light squeeze to haul the bike down from speed, but the brake has a slightly vague feel that kept some riders from using it aggressively. The Suzuki's front brake was unanimously disliked. It isn't particularly powerful, and it is cursed with a mushy, indefinite feel. Both characteristics are much less obvious on the street. The Suzuki anti-dive system didn't seem to be very effective. The Honda's TRAC anti-dive system, though more obvious in its effect on fork compression during braking, was not well liked either. No one complained about fork dive on the GPz, with its normal anti-diveless fork. In fact, a majority of the riders felt most at ease with the way the Kawasaki responded to braking.

There were few complaints about any of the engines. The Suzuki and Honda ran the strongest. Some riders appreciated the Honda's 500-rpm-higher redline; everyone noticed it was the smoothest of the bunch up near full chat. The Kawasaki vibrated a little more, but not excessively. The Suzuki, with its rigidly mounted engine, was the worst buzzer at high rpm.

After we'd had our fill of scratchin' on the racetrack, we planned a day of comparison riding on the street that combined all types of riding. First came a long section of interstate cruising—with surprising results. There, the Kawasaki and Suzuki proved to be the most comfortable rides. The GS1100's front fork responded to road imperfections the most readily and delivered the smoothest ride. The GPz's front fork was nearly as plush. The Honda fork had a firmer feel, so more jouncing was transferred to the rider. The Kawasaki's rear shocks were the most compliant, followed closely by the Suzuki's dampers. The rear suspension of the Honda also ranked last in comfort. All three of these bikes ride well enough to be able tourers, but the Honda would definitely be more tiring on the long haul than the GS or GPz.

Seats play a major role in cruising comfort too. The Kawasaki's wide, flat saddle was our favorite. The Honda's seat makes a nice perch, too, though it is narrower and provides less support. The Suzuki's saddle lacks the cushy feel of the other two and isn't shaped ideally. At steady 60-ish cruis-

ing speeds, the Honda's rubber-mounted engine runs the smoothest. Some minor buzzing comes through the pegs and bars, but it's only enough to remind you that the engine is running. The Suzuki is nearly as smooth at cruising speeds, though it gets pretty buzzy in the upper end of the rev range. The Kawasaki sends a rumbling vibration to its rider at cruising speed.

During our road ride, we tried a series of roll-ons in top gear that confirmed our drag-strip roll-on results and discovered an interesting point: rider weight makes a big difference in roll-on performance, particularly on uphill roads. Two of the riders on hand that day weigh in at 150 pounds each; the third tips the scales at 180 pounds (with camera gear strapped on). No matter which bike the heavier rider was on, he always suffered a decisive loss in the head-to-head, top-gear roll-ons. The lighter riders always won. The moral of the story: go on a diet and beat your buddies in a roll-on race.

A long blast through a twisting mountain road reaffirmed what we had already learned at the racetrack. The Honda is far and away the easiest and most enjoyable of the three to ride. It has no bad habits and demands little from the rider. Since fast riding on twisting roads is slower and less intense than screaming around a track, the Suzuki came out ahead of the GPz. The Suzuki has a nimble feel, and you never get going fast enough to uncover much of its minor instability. The Kawasaki feels big and heavy and is slow to respond to the rider's commands.

Our destination on the ride was a very long, very deserted stretch of road out in the desert. We didn't go there to cruise across the valley at 55 miles per; this was a case of premeditated speeding. We did a number of two-bike runs, swapping riders. The results were always the same: the Honda and Kawasaki would end up side by side, shrieking along at a calculated 148 mph. The Honda rider got to have the most fun, though, since he could watch the speedometer needle peak out at an indicated 146 mph with the tach 300 rpm into the red zone. The GPz, right alongside, had buried its 85-mph speedometer and was running 900 rpm into the red zone. Even though our particular Kawasaki had seemed a little slow at the strip, it was an extremely hard runner on top.

Don't go away thinking that the Suzuki was a stone. It only tops out about one- or two-mph slower than the CB and GPz. You'd need a very long straight and very little sense to discover the difference; we just happened to fulfill both requirements.

As you can see, the CB1100F makes a very good account of itself when compared with the best superbikes available. In a class where handling is every bit as important as engine performance, the Honda is the clear winner. The CB gets upstaged slightly on long highway hauls, but that type of riding accounts for only a fraction of the type of use most superbikes get. In all other areas the 1100F meets or exceeds the standards set by the Kawasaki and Suzuki. Additionally, with its shockingly low $3698 price tag, the Honda will probably be the performance buy of the year. We'll have to wait and see what the other 1983 prices are like and what changes are made to the Suzuki and Kawasaki. It promises to be an interesting year in the superbike class. M

enough people to keep them running all night long. Our 24-hour test was turning into quite a production.

Our test bike arrived at Willow with a total of 303 street miles showing on the odometer. It was given a quick check over, its original 1100F bodywork was put back in place, and the sidestand was removed. We replaced the standard headlight bulb with an 80/100 watt Osram unit, and to speed refueling we removed the locking hasp that covers the gas cap. The rebound damping at each end was cranked up all the way; the rear suspension's preload was bumped up, as was the fork air pressure. The shock-absorber compression damping was left on the softer of two settings, and the TRAC anti-dive was set on maximum.

At 5:30 p.m. the CB1100F started around the track; if all went as planned, it wouldn't stop for good until the same time the next day. At first we swapped riders often in the hopes of giving everyone a chance to get used to the bike and the track before dark. With a total of seven riders, it was a losing battle. By sundown, favorable reports about the Honda were already coming in.

The CB's large helping of high-rpm power gets it out of the corners and down the straights very quickly. Almost all street bikes tend to feel a little wheezy once they're out on the track where there is room to run, but the Honda *feels* fast. The engine snaps up to redline with surprising speed in the lower four gears, but more running room is needed to tag the red in fifth—something the CB does easily on level ground.

Maybe even more remarkable than the engine's performance are the Honda's nearly ideal handling characteristics. Bending the bike over into a turn requires very little effort at the handlebar. It can be snapped over suddenly to the angle of bank you select and will stay there with no additional input from the rider. There is a very sturdy feel to the chassis—no detectable flex anywhere, even when you are deliberately brutal with it. The chassis strength adds stability to the CB's personality. The Honda is no wobbler. At worst it wiggled a bit through 130-mph turn eight when ridden under partial or trailing throttle. Braver riders who took the same turn under full throttle reported wiggle-free manners.

By early evening, things off the track were really getting rolling. Dexter was hard at work incinerating chicken over the barbeque, a minor video-game tournament was under way (we came prepared), and all nine generators and 10,000 watts of track lighting were going full tilt. With all the activity in progress,

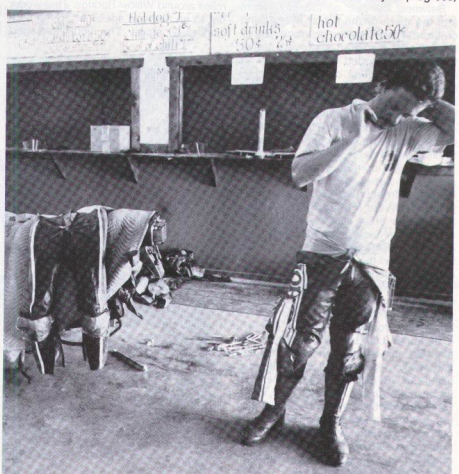



PHOTO: ART FRIEDMAN

*The spare bike's rear wheel is hard at work on the track; Mike Spencer tries to cool off.*

the most peaceful place to be was aboard the Honda.

Three of our riders were from Honda's Product Research Department. They caught the spirit of the 24-hour from the start and were working the 1100 at least as hard as any of the *Motorcyclist* staff. One of their number was particularly flamboyant; each of his exits from the pits were full-goose smoky burnouts. He punctuated his laps by dragging the centerstand occasionally. The resultant shower of sparks was a great crowd-pleaser—and centerstand sharpener. The pointed ends of the stand would later prove to be the Honda's downfall.

By midnight, it was obvious the CB1100 was lapping much more quickly than the 900 had, and, as a result, the tires were wearing away very briskly. The front tire was taking the worst of it, thanks to turns eight and nine. The wide Bridgestones provided excellent traction at the expense of long wear.

Just before 2:00 a.m. the Honda pulled into the pits for a new front tire. The Mag. Mopus had gone 655 racing miles at a 77.8-mph average speed. The front wheel replacement procedure is complicated greatly by the dual TRAC anti-dive system built into the front fork. It took 26 minutes to get the CB back on the track again.

Between the purr of the generators and the glare of the lights, every living creature within crawling distance had its furry little life disrupted, and every one of them hippity-hopped onto the track at one time or another during the night to see what was going on. The Honda's brakes seemed to work as well during Lapin Avoidance Maneuvers as they did during normal braking. The dual front discs take a firm two-fingered squeeze to bring the wheel to the point of lockup. The feel and control is top-notch. The single rear disc is every bit as controllable as the front brake. We were less impressed with the TRAC anti-dive system. Like all the other systems that restrict compression damping fluid to slow front-end dive, TRAC makes the fork action harsher when the brake is applied. This causes traction problems when braking over sharp bumps, particularly while the bike is leaned over in a turn. A properly set up conventional fork seems to be a better compromise.

By about 3:00 a.m., the activity in the pits had screeched to a halt. The only fully awake person at Willow was the guy riding the CB. But it wasn't as lonely out there as you might imagine. The floodlights around the track showed the way through the corners and marked the critical braking points. They served as landmarks and helped to break the hypnotic effect of the Honda's single headlight beam. The track lighting was so nice, it's a shame there weren't a few more bikes out there to make use of it.

After 800 miles of racing speeds, the rear tire was ready to call it quits. This time the 1100 spent 14 minutes in the pits, while a handful of sleep-clouded mechanics fumbled with wrenches and wheels.

The night passed with few incidents. Two riders misjudged tricky turn nine in the dark and ran off the inside at about 80 mph, but they kept the Honda on its wheels and moving. Unconfirmed bunny strikes were plentiful, but the bike and the rabbits came through intact.

By midmorning the Honda was due for another front tire. While changing wheels, we discovered that the front brake pads were completely worn out. A new set was scavenged from the spare bike, and the Honda was back on its way. At noon the rear tire was changed again.

Other than tires and brake pads, the CB required nothing but fuel and oil to keep lapping the track in the 110-degree heat. It used about a quart of oil every 450 miles and was given a shot of chain lube every other pit stop. As with other Honda four-strokes, oil consumption was greatest at high rpm. During normal street use, the CB used much less oil. The chain was adjusted twice.

A little after 4:00 p.m. the CB1100F screamed past the 1690-mile mark set by the CB900F back in 1981. At the end of the 24 hours the 1100 had gone 1801 miles around Willow Springs. That works out to an average speed of 75 mph, including all stops. The 900F averaged 70.4 mph and made two fewer tire-changing stops. The 1100 got around the track about two seconds a lap faster, with best lap times in the high 1:30s. The greater speed was harder on tires and brakes, but on the street there probably wouldn't be much difference between the bikes in tire wear.

The Honda was sprayed with champagne as it pulled into the pits at the finish. The recommended 600-mile service check was 1505 miles overdue, but the bike was still running fine. So much for worries about the 1100's durability.

We parked the bike on its centerstand to take a victory photo, but the sharpened centerstand foot sunk into the soft asphalt paving, and the Honda plopped over on its side, vanquished. (The only damage was a scratched fairing.)

The CB1100F, as it turns out, was worth the wait. Who cares now why it took so long to arrive? It's here, and it's the best superbike *Motorcyclist* has tested. The Honda plays the superbike game by the rules and—against the competition of 1982, at least—is the hands-down winner. It does everything a superbike should do, with a level of competency that outdoes the GS1100E and GPz1100 in most respects. Now all we have to do is sit back and watch the other manufacturers play out *their* 1983 superbike hands. One thing is certain: at $3698, no one is going to beat it with a lower price. *M*

# OFF THE RECORD

It seems to me that no matter what you want from a big sporting bike, the CB1100F delivers it better than any other big sporter. Want to strafe a few apexes? The CB1100F handles more lightly, offers more cornering clearance, and generally provides more inspiration for your confidence than any big bike except the almost-unobtainable Kawasaki KZ1000 Eddie Lawson Replica. Going touring? The big Honda provides a supple suspension and a pleasant seat. It also has a better riding position and passes along less vibration than the GS1100E or the GPz1100. Around town the newest and biggest F handles more lightly and is generally more agreeable than the GS or GPz.

It's not flawless. A big round headlight would light the road better (as it does on the GS), and there should be a louder horn. A few flash fanatics may even wish for some beam-me-up-Scotty instrumentation. Not me. I don't even care who's king of the quarter-mile. For my paycheck, the CB1100F is the best of the high-pressure sport bikes, at least until something more impressive comes along. The question is, will such a motorcycle be among some company's—perhaps even Honda's—1983 lineup?

*—Art Friedman*

I love the CB1100F. It's the best superbike I've ever ridden and currently the motorcycle I'd most like to own.

But no way am I going to put the official Best Bike In The World Forever stamp of approval on the Honda until I've seen the rest of the 1983 models. I'll let somebody else climb out on that flimsy limb; I'll be listening for the crack.

*—Jeff Karr*

Yes, indeed, Honda has finally gone and done the obvious: they finally decided to go *moto a moto* with Suzuki and Kawasaki in the pavement-ripper class—and turned out a very nice motorcycle, at that. If I were offered the choice between the three 1100s we tested, the CB1100F would be my pick—but by the barest of margins. I intensely dislike the Honda's 3500-rpm buzz, and the power delivery is not up to the level of the seamless rush GS1100Es are famous for. The Honda is not nearly as capable a long-distance cruiser as the GS, but its light steering and superb high-speed handling make up for its choppier ride. The CB1100F would have had me foaming at the wallet a couple of years ago—when Honda should have introduced it. Now, it's in a kind of "I wonder what the V-4s will be like" limbo. It's a bit ahead of the other makers' '82 rubber-smokers—and who knows how far behind their '83s. If Jeff wants to see the limb crack under *my* weight, he's going to have to do just that: wait.

*—Dexter Ford*