

## Honda CB400F: Cafe Spirit in an All-Day Package

Cycle World, May 1977

One of our designers is a retired minicycle racer whose personal taste in road transportation leans toward the largest motors on the market. Circumstances one day dictated use of the test Honda CB400F. He returned from the ride all aglow.

"Wow," he exclaimed. "What a nice bike. It's so compact and businesslike and the engine turns 10,000 rpm and it's quick and you can rush through turns flipping the bike full over this way and full over that way. That thing is really neat."

Welcome to the Club. Hardly anything is more fun to ride than a pocket rocket, a compact and complicated motorcycle with features both sporting and designed to require extra attention and skill; a fine way to reward the skillful while making such a machine something of an acquired taste.

Honda's smallest Four began life as a mini-multi, a scaled down version of the 750 Four. The 350 Four had high bars, four mufflers, all the touring equipment. What it didn't have was power. The 350 Four was slower than the 350 Twin. A powerplant that basically was four model airplane engines on a common crankcase was not a strong selling point; the factory planned to drop the model but dealer support kept it alive.

The compact sporting theory still appealed, so the second version of the small Four had aspects of cafe racer, which was a big thing a few years back. The engine was bored to 408cc, the bars were low and narrow, the pegs were aft of the seat and the exhaust system was 4-into-1, one of the first such production systems. The CB400 Four was a keen scorcher, albeit it was also a less-than-comfortable perch for trips of more than a few miles. Comes now the 1977 model and the problems have been given attention. The CB400 engine is untouched. Likewise the suspension, which is a bit of a shame, as we'll see. Most important, the handlebars are higher and wider, the pegs are lower and further forward, the seat is fractionally lower than before and there are tiny changes too small to list but which add up to a better bike.

The engine is the main attraction, so we'll begin with that. The 400 is normal Honda, with single-overhead camshaft, mild camshaft timing, four 20-mm Keihin push-pull carbs and an exhaust system arranged to allow easy servicing and cornering clearance while making as little noise as possible. The engine has no temperament. None at all. On a 45 degree morning it will fire on the first kick – explanation to come – and will idle on the choke and pull smoothly within seconds. No stumble, no surge, no flat spots. The powerband is broad. Not high, but broad. The 400 works nicely from 1000 to 10,000 rpm. While there isn't much punch at less than 6000 rpm, still, the engine will run happily at any speed within this broad range. You can even roll the throttle full open at any speed above idle and the engine will pull. Not hard, but it's willing.

The best part about this is that while there isn't much torque, horsepower is a function of torque and rpm and there surely is a lot of rpm. At the top half of the rev range the little Four comes alive. Acceleration is better than brisk at all speeds, provided the rider has selected the proper gears. Correct, gears.

The 400F has six speeds, closely spaced in terms of ratio. The bike doesn't need this many selections, in the sense that because the power is smooth and the rev range so broad, the engine could provide adequate performance with five speeds spaced more widely. That wouldn't be as much fun. With 9000 rpm and six speeds to play with, the 400F rider has something to play with. There is a choice of two or perhaps as many as four gears for any road speed between say, 20 and 80 mph.

This is a sports roadster, a cafe racer in street clothes. A touring bike or utility bike which demanded constant shifting, constant attention to being in the correct gear for each of an infinite number of situations, would be an annoyance. Here, though, with a willing engine and plenty of power for those who know where it lives, matching engine speed to situation is satisfying entertainment.

The same goes for the actual shifting and drive train. The test bike had play in the drive line. So did a privately owned 1977 CB400F whose owner brought it around to see if his was right. Casual riding brings out lurch and slop.

So? Don't ride casually. The clutch is progressive, as Hondas usually are, and the shift lever is short. What the experienced 400F rider does is use only the first half of clutch lever travel while dancing on the throttle and shift lever. Done quickly and in sequence, the 400F accelerates in one easy motion with the shifts coming so quickly and cleanly there's no interruption in power flow. No, a sloppy rider can't do it and that's just as well. If it didn't take some practice and dedication, it wouldn't be sport.

Accompanying all this is sound. Good sound. In traffic and with the engine in the lower half of its working range, all you can hear is tires, chain and various gears. With throttles open there's a tasteful roar from the intake box. As revs rise, so does the exhaust note. To hear the 400F at 9000 rpm is to know why colorful journalists say racing machines wail. And it's all legal.

The engine does have two flaws, both of which are more Honda than small Four. The throttle return spring is heavier than one would expect. Surely four tiny carburetors can't need that much tension. And the charging system may not be up to the job of keeping the battery ready. The headlight is on all the time, and when the test bike was being used for errands around town, we came to know the kick starter well. This is no big thing. The engine is small and tame, so prodding it into life with one's foot can be accepted. But. When you pay for electric starting, you expect to get it.

(Might note here that research is beginning to show having the headlight on all the time is a safety factor. We therefore will not complain about Honda denying us the ability to decide whether to turn on the light. Rather, if Honda intends to have the headlight

permanently lit, Honda should also provide a charging system strong enough to keep the battery in good health.)

The 1977 CB400F suspension is exactly like that fitted to the first CB400. It is sporting in that the spring rates are on the high side at both ends and flawed in that the damping is not matched to the springs. In front there's not enough rebound damping. In back there's too much. Nor has the technology of BMW or motocross, lots of travel and soft springs, been adapted to Honda road bikes. The 400F is harsh on little bumps, cracks in the pavement, etc., while you can bottom either end easily if you catch a pothole or fallen object just wrong. As the rear shocks warm, they work better, but a serious rider would do best by fitting a good aftermarket fork kit and some better rear shocks and springs. Handling is another matter. The 400F is short. The steering angle is steep. And while the 400F is compact, at a curb weight of nearly 400 lb., it isn't light. The mass is thus concentrated. These three factors mean the 400F is nimble. It will turn, willingly and with sharpness. The Bridgestone tires worked well and the 400F is one of the better places to be on a winding road, especially with all those gears and revs to play with.

The concentrated weight aids stability as well. A compact mass resists changes in direction, so while the 400F is happy to be pitched into a corner and banked around turns, so will it happily remain in a straight line when desired.

The sporting nature is aided by the revised arrangements for the rider. The chassis for 1977 is as it was last year. But the handlebars are higher. This means the rider is more upright, that is, more of his weight is on the rear wheel and less on the front, for a more favorable distribution that doesn't show up on the specifications table.

Lowering the footpegs and moving them forward doesn't hurt this. Nor is there any loss in cornering clearance. The 400F will touch the warning knob on the bottom of each peg only under extreme conditions, to wit, the bike was banked into a turn when at the apex a hazard appeared, spot on the line the rider intended to use.. A touch more lock and a bit of body english tightened the line enough to avoid the obstacle, and just barely scraped the bottom of the peg. The pegs fold, so the worst result was a shower of sparks. That was the closest thing to a handling problem revealed during the test, which is to say no problem at all.

Honda may have neglected a few fashion highlights on this model. The 400F has a drum rear brake and single front disc. Doesn't hurt. Both can be controlled easily and the stopping distances are short. Again, a strong point for the compact roadster; hauling 100 lb. less weight means that much less braking effort.

One is hard put to comment on the bike's style as there really is no style. The test model was a bright yellow, which we liked. The various other items, like side panels, fenders, etc., were yellow or chrome. The 1977 CB400F looks mostly like the earlier CB400F.

Fuel capacity is unchanged at 3.7 gal. There must have been complaints about the size of the fuel reserve, for the new tank uses a taller pipe, which means more of the tank is placed on reserve.

Just how much is a matter of conflict. First, although the engine and gearing are as before, miles per gallon increased from 45 to 50, we guess because the rider who now does the mpg test loop has a lighter hand on the throttle than the former mpg rider. Even so, the test bike ran out of main fuel tankage at 125 miles, which should be 2.5 gal. gone. Then it would go 20 miles more, through traffic, and be topped off at 2.8 gal. The factory spec chart says reserve is 0.9 gal. Our bike displayed a reserve capacity of 1.2 gal. Either that or the tank isn't as large as the factory thinks. Either way, the 400F travels far on a gallon, which surely is the important thing here.

The new handlebars must be rated a vast improvement. The rider can sit straighter and the bar angle conforms to the human wrist, unlike last year's bars. There is naturally more wind resistance at speed, but only above 70 mph or so. Not an unfair price for not having to ride with chin on the tank at all speeds.

(You can't please everyone. One of the test riders noted after his first day on the 400F that the pegs were too far forward. If you're making a cafe racer, he commented, do it right. The majority vote, though, was for the newer arrangement.)

The 400F seat is reportedly a fraction lower than before. It could be. The higher bars and lower pegs do change rider posture. That may have more effect on seat comfort than is normally supposed. We were downright rude about the 400F seat last year, while this time it didn't seem any harder than the seat on any road Honda, all of which could stand improvement.

Minor changes have been made to the instrument faces, which we had to be told about before we noticed. Something which really should be changed is the position of the high/low beam switch. It's mounted so far inboard of the grip that not one person on the staff was able to reach it with his thumb while his palm was in its normal position. We are not keen about riding one handed. Seeing as how there is one less switch to allow for, the headlight on/off's, which we miss, there must be a way to place the dimmer switch where it's useful.

Comes as something of a surprise to note that the 400F is adaptable for two-up riding. Not universally. If the rider is of average height, and the passenger's size is in proportion, maybe a 5'10" man and 5'7" lady, neither of whom is overly fond of starchy foods, there is enough room on the seat for both and with the rear springs adjusted to full pressure, there still remains enough travel to carry the weight. And the engine will pull it. This is not to say the 400F is the place to spend your summer vacation. There isn't enough room for two all day, and the seat will work against solo rides all day. For a couple hours, though, when the weather's right and the cherry trees are in bloom, the 400F rider need not travel alone.

What Honda has done with the CB400F is capture a spirit. When cafe racing began, the idea was to have a nimble motorcycle with road-race components and legal equipment, for jaunts and fun and skill and all the other things which make us riders in the first place.

The good idea became a fad and too much of the wrong idea. The spirit became a matter of display, as the rearsets, clips-ons, fairings and other gimmicks replaced the true road machine.

What Honda is doing with the 400F is not much, witness the lack of changes to the controls, body panels and suspension. The model isn't leading the sales list, so it doesn't benefit from the sales campaign. It's still on the market because there are riders who prefer precision to power, nimble handling to bulky status, just as there are people who would rather ride well than ride easily.

Long may they ride.