# HONDA'S HALF-LITER HURRICANES

# Street Test

onda the builder, Honda the trend-setter; as impressive as their numbers may be, far more enviable is their ability to ferret out a winning concept and light the way. Their CB750 Four at the turn of the decade has since inspired—sired—theme variations from each of the majors, the latest being Yamaha. So

popular, in fact, was that initial stand-up multi that only one year later, in 1971, even Honda was moved to copy it with a miniaturized 500cc version that, although a shade on the gutless side, was soon pumped to an eventually rewarding 550 followed by an even more diminutive, but steamy, 400. In the best Japanese tradition, Honda had established their family of fours, a multi clan that now embraces sporting F versions in each

class, plus an automatic 750.

This month Motorcyclist has elected to sample and compare the midrange 550s, pretending for the moment that the 750 is too tall and the 400 too small for our April enthusiast searching for a middle-of-the-ground mount with enough power to get the job done and yet small enough to be nimble. Priced \$268 less than the 750 and \$381 more than the 400, the \$1730 550K and F Sport versions



would appear identical except for exhaust configuration and minor trim. But as we warmed to the occasion, we gradually became aware that although priced the same, differences abound. Our challenge was not so much that of spotting those differences or qualifying them, but in appraising their net value. Was it difference for difference sake—purely superficial imagery—or practical delineation between cafe-ite and tourist?

#### WHAT'S THE DIFF?

On the surface, obvious and puzzling differences pop up. Headlight shell, saddle contour, taillight bracket, sidepanels, passenger grabrail and chainguard are unique between the two. And the K's choke lever is a remote control dash-mounted knob in contrast to the F's conventional under-tank lever. We were also surprised to notice that the carburetors varied in appearance, but Honda insisted that they were nevertheless both 22mm Keihins of the manuallycontrolled slide type. Equally perplexing was the observation that all of the handlebar switch wiring was routed outside the bars on the K model while the F retained the inside-thebar routing of the older models. And we all know how much simpler the exterior wiring is when changing bars or tilting the levers to suit personal preference. Score one for the K.

Prior to our regular mountain run and trip to Irwindale Raceway and Webco dyno, suspicions suggested that after all was said and done the biggest variable between K and F. other than cosmetics, would be the four individual pipes of the K vs. the four-into-one setup of the F. Other than appearance, the scale seemed to tilt in favor of the F. Don't you believe it. For while it is possible to fit saddlebags to the K, one's choice would be more limited due to lack of clearance, whereas the single low pipe of the F would permit fitting almost any brand and size. Logic also dictated that engine breathing might be improved in the F due to the greater volume of the single larger diameter muffler. Remember, although it is a four-banger, the two middle crank throws and the two outer throws are set 180° apart, with only two pistons rising at a time, and only one of these on the fire stroke. Thus only one exhaust impulse comes roaring down the pipe every half revolution of the crank. Consequently time allows each fire ball plenty of time to squeeze through the perforated chicane of muffler tubing without conflict with other impulses. And the larger volume of the single muffler allows more sound dissipation with less restriction. Lastly, chain adjustment of the muffler-crowded K

# KORF?



Better than ever, the CB550K four-stacker remained impeccably clean, sipped less'n a pint of oil in 1000 miles. Confronted with its brother F model, K did a number on it performance-wise but the 4-into-1 pipe is more practical.



Although test figures would seem to indicate F's single exhaust less efficient than K's quad setup, we think not, that 4-into-1 is equally efficient if not more, that power edge came from K's new lean-burn carbs F didn't share.

is more difficult due to inaccessability of the rear axle nut, whereas the F is a breeze. But try to tell that to those thousands of CB fans who groove on the good vibes and charisma of the four-stacker! All in their head? So's sex. What? In either case, Honda has finally learned to revolve their muffler weld seams to the bottom side, giving the illusion of drawn seamless tubing rather than rolled. Nice touch, and free.

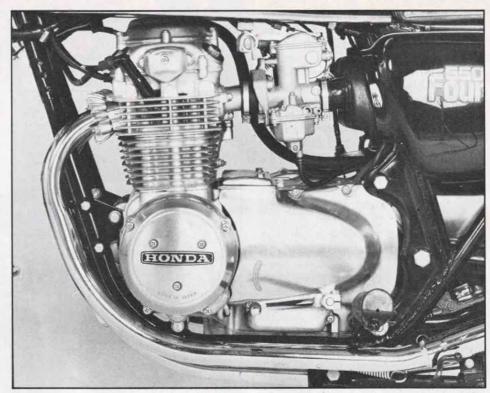
#### **FEATURES SHARED**

Both K and F are loaded with convenience and consideration, starting with the fool-proof double-edge key that automatically unlocks the forks when the key is inserted in the dashmount ignition and turned to the running position. The fork locking pin is now integral with ignition switch tumbler body and the forks may be locked easily and instantly in either the full left or full right turned posi-

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tion. Stab the key in the ignition, turn it on and roar away; no more fumbling down around the forks or under the headlight in the dark. That same key also triggers saddle and flush-mount gas cap cover. Unfortunately the thick plastic handle molded to the key head restricts it from being carried in many common key cases. Under that gas cap cover is a depressed tray with plastic drain hose that routes gas overflow from spillage or heat expansion down onto the ground instead of making a mess atop the tank. Sometimes it works, other times it still comes out over the tank. Instrumentation is complete, down to audible turn signal bleeper and both left and right visual signals. Road illumination is brilliant, as is instrument lighting. Both odometer and resettable tripmeter are notched to facilitate tenth-digit reading between numbers.

Both K and F are near state-of-theart all the way, with electric starter, hydraulic front disc, double-cable self-closing throttle and full-time lights on (boo). Although we can't vouch for the durability and depth of paint (past models have shown a lack of prime coat and susceptibility to easy scratching), the finish on both test bikes was absolutely dazzling in respect to brilliance and smoothness, as though they had just come from a custom paint shop. The K is rich chocolate and the F bright blue. Equally bright was the chrome, seeming to have improved in recent years. Steel rims are still wirespoked; we're going to have to wait until next season for Honda's trick three-piece pseudo-mag wheel. Nevertheless the package is extremely attractive and serviceable, especially regarding battery and air filter. The latter plucks right out the top after removal of a wing-nutted cover, and battery water level is quickly read from the right side after ripping away that pop-off side panel. Likewise, battery filling is easily attended after removing the aforementioned top cover. In-field gas tank removal doesn't even call for getting into the saddlehoused tool case; the rear of the tank is restrained by a large rubber gland that is easily pried off a locating tongue protruding from the tank. The nose of the tank is secured by two alignment cups, one on either inner panel of the tank, that slip forward onto large rubber biscuits affixed to the frame. Just flip the saddle,



The Brown Bomber, a real scat wagon that got an amazing (for this day and age) 67.68 mpg at steady 55 mph cruise! And the clutch, an occasional former point of contention, needed no adjustment after quarter-mile drags.

slip off the rear gland and slide the tank back and up, pulling off the single fuel line and fuel overflow tube to complete the removal—about a 20-second job.

Honda leads the way in other less conspicuous areas too. Their clutch rod adjustment routine, for example, is a fool-proof by-the-numbers drill that merely requires turning an adjuster screw until two alignment dots on lever and case come together. And once properly synchronized, idle speed adjustment of the four carbs is made by one stop screw controlling the single bellcrank that operates all four slides in unison. Spark plug access is not one of the Four's more admirable features; the 12mm sparklers are buried deeply within the head and are difficult to feel even with the special deep socket wrench provided in the tool kit. Clearance is tight, especially on the inside right plug where tach drive interference doesn't help. The dual-point ignition breakers, by contrast, are directly under the right side case cover which comes off with only two screws. Ditto for the replaceable oil filter cartridge; nothing in the way and only one bolt to loosen. Valve adjustment is also straightforward via an adjusting screw and lock nut under each rocker cover cap, no different than an old pushrod Triumph. Cam chain adjustment, though not fully automatic, is simply a matter of the usual slipper tensioner in the rear of the cylinder, less than a minute's work. And that's about the extent of the shade tree maintenance. While the engine is often referred to as exotic, Honda has made sure that everything the average owner might have occasion to massage has been simplified. Even the oil system is a snap since engine, primary drive and gearbox share the same lubricant, with a single oil level determined by means of a dipstick in the common filler opening-simpler than a car. Meaningful, too, is the three-circuit fuse setup with headlight, taillight and ignition each having its own fuse of 7A, 7A and 15A respectively, aiding trouble-shooting and increasing your chances of getting home should a light wire short out. If the taillight or headlight shorts, the engine still runs. Now let's hoist a leg and go for a spin.

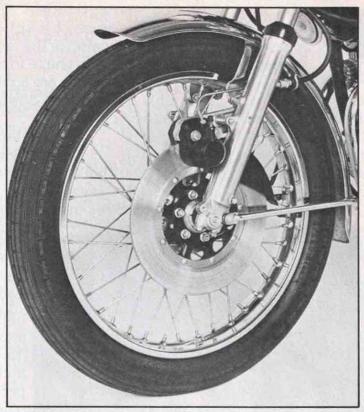
#### STEERING

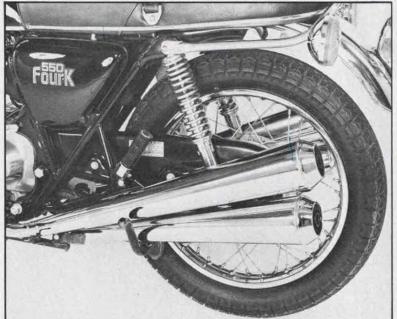
Not too long ago Honda was known for its innovation but not its handling. That's changed now. Both of these 550s are confidence-inspiring and precise, actually quick in the hills. They don't wobble and they don't dive into the ground when you break them into a corner. The double tube chassis feels extremely stable and the Bridgestone tires hang tough. While we could rub the pegs on the ground if we made a point of it, it was not necessary to do so to make haste, at least riding solo. Steering is neutral in all attitudes, being neither noticeably quick nor lazy

# HONDA CB.550K

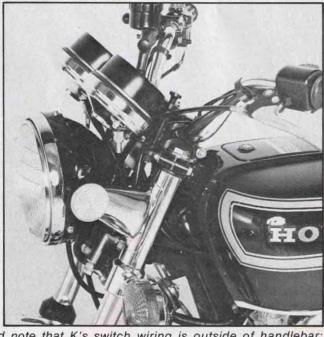


Aside from K's new carbs, most trick gismo is automatic fork lock, now incorporated in ignition switch, that unlocks itself when key is turned to ON position. What a time-saver. But the electrical switching situation on the left handlebar is a sorry affair that makes headlight dimming awkward. Note water shield on the front brake.





The four pipes that Honda tried to do away with once, but you wouldn't let 'em. Way down underneath that swing arm, a Zerk lurks for greasing K's pivot bearing.



And note that K's switch wiring is outside of handlebar; the F's inside. K setup makes repositioning or replacing much easier. Carb's remote choke is by speedo.

at a walk or at speed, a commendable compromise in rake and trail. Nor did we detect any hinge in the rear arm. The rider always felt at ease and in command. Naturally we got aggressive on a couple of occasions, and no one complained or was forced to break his line. Even our roundy-round racer agreed that both the K and the F held plenty of chassis in reserve for the weekend warrior. Neither model evidenced any advantage over the other in handling; both dealt with corners with the same degree of certainty-a bunch. Even on one occasion in the mountains upon encountering a surprise patch of ice around a shady bend, the F slipped its tires about a foot to the left, regained traction and continued without upset, making smooth transition from zero traction to full bite in stride. We winged them together over our Big Mountain about as hard as we dared this winter day and came up all smiles at the far side of the 35-mile run. Both exhibited superb braking and gear control during the 60 mph-plus chase. Neutral engagement at full operating temperature, even at a stop, was always sure and crisp. Each rider reported ticking the folding right footpeg only once.

#### COMFORT

Both K and F position the rider in a similar attitude, which is acceptable for all but six-footers and over, or long-legged riders who will probably find the pegs too close to the saddle for extended riding comfort. The pegs are not adjustable without using a torch. But although peg position is not ideal for longfellows, they're tolerable under touring circumstances if the rider is savvy enough to move around, and utilize the passenger pegs once in awhile. If anything, the

# HONDA'S HALF-LITER HURRICANES

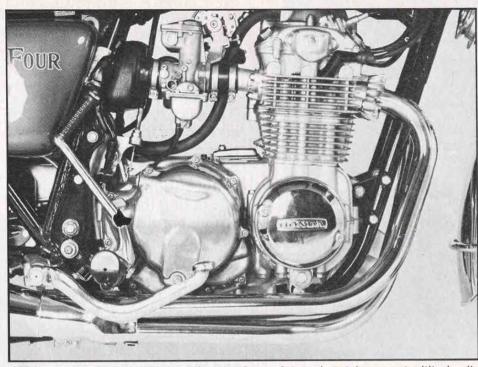
K may have the edge on saddle comfort, being a little wider.

Honda has increased suspension travel for '77, but it's still not exactly what you'd call long, about four inches front and three rear. They list it at 4.8 front and 3.5 rear but some of that disappears under the weight of the machine. Even so, the ride is a happy blend of soft but firm flotation, until you whack a steep driveway ramp at a playful speed and the forks bottom softly-but bottom. Normal riding won't give it away and the ride is plush, what one might expect from a heavier bike. Saddles are leathergrained vinyl, supple and so beautifully recreated as to almost be indistinguishable from the real bovine thing.

Several other aspects fall in the kingdom of total comfort, like silence. Honda is known for its subtlties, running changes that never get a mention from one new model announcement time to the next. There are a bunch in the '77s. Engine noise has been suppressed in several small ways, to the extent that both K and F are extremely devoid of clatter and whirr-just a bit of gear lash that trails off as the revs come up off idle. Cam chain and valves are barely audible, a far cry from the earlier fours. Exhaust note, too, has been reduced to a hushed level that defies criticism from the crankiest anti-biker. We've heard automotive accessory drive belts that would drown these Hondas at idle. The loudest thing about the Hondas is the horn, which is a screamer, and the turn signal beepers which would get a shot of foam plastic blown up their little grommets if they hung around here another day. You won't be forgetting your signals after a corner, but you might wind up in a rubber room.

Starting ease is a form of comfort. The K was a cranky starter until we learned the technique: choke on, throttle off when cold. They're both pushbutton jobs, but out of curiosity we tried the kickstarter and lit it off easily . . . with one hand. The pegs fold: the right one on the F has to to permit the starter to pass the more rearward and wider peg bracket necessary with the fat single exhaust pipe. It's cute; should you forget to raise the peg, the kickstarter automatically pops it up at a 45-degree angle as a reminder. For some reason, the F was a faster starter.

Then there's always an un-comfort.



Although the F model was carburetted too fat and got lumpy at altitude, it could obviously be dialed in to bump performance, if not economy. For we preferred the lighter, quieter, better-listening 4-into-1 exhaust configuration.

One was the awkward placement of the dimmer switch. To operate it one must stretch his thumb way across the horn button and grope for the hi-lo lever. Bad news when you're mountaineering at night. Since the horn is seldom used, but you're always on the dimmer switch, wouldn't priority dictate that these two be transposed? We think so.

Much, much worse-unforgivable really-is a major shortcoming that must be rectified. And Honda's not alone here. Technically, there's no way to repair a flat front tire without a giant rock or a log or some other Neanderthal tool to remove the wheel. Honda interestingly refers to this tool in the owner's manual vaguely as a "support block" but they don't say what it looks like or where to find it, especially on a dark night in the wilderness. Otherwise, remove the front wheel and the bike comes crashing down. Even back in the '20s, manufacturers were thoughtful enough to make the lower front fender brace double as a front fork prop when roadside wheel removal was necessary. Honda could do the same if they squared-off the back side of their bottom brace and put stops on the fork tips to lock it in place when swung down to support the front end. Can you imagine buying a car with no provision for changing a wheel? Why, all hell would break loose in Detroit.

#### PERFORMANCE, ECONOMY TOO

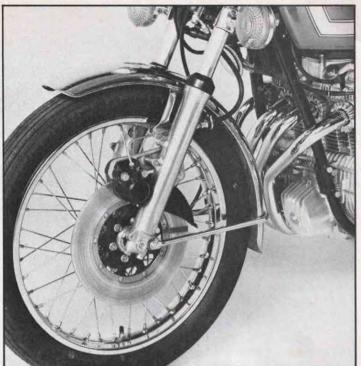
Proof that Honda's been slaving over a hot drawing board the last

year jumps right up in the nickelnursing department. Think back to 1971 when 33-35 miles per gallon out of a Honda 500 Four was par for the course. The little dude was new then and folks put up with it for novelty's sake. Hang onto your hat . . . our K model got 67.68 mpg at a steady 55 mph! Just double what the originals were able to manage. For some mysterious reason our F got a still respectable but far inferior 54.1 mpg running right along side the K at that speed. And those are corrected figures reduced from a 96%-accurate tripmeter. And the K had noticeably dragging front brake pads compared to the F's ideally free disc. Why the remarkable fuel economy from the K? Back to that hot drawing board; it has new lean-burn carbs with #90 main jets instead of the former 98s in anticipation of the more strict federal pollution regs for 1978. The F apparently didn't share the carb switch, thus the mileage discrepancy and slightly different outside appearance. Then why did the F have a flat spot between 5000 and 6000 rpm, and play second fiddle to the K on the top end where the K indicated 105 mph downhill and the F barely 100? And again at the drags where the K proved the stronger of the two? Two different engines, two different riders perhaps. Who knows? Do all K's outperform all F's? Could be. Ours did. Beyond that, we'll guess with you; it could take half a dozen samples of each to really sort them out. We had neither that number nor the time to

# HONDA CB550F

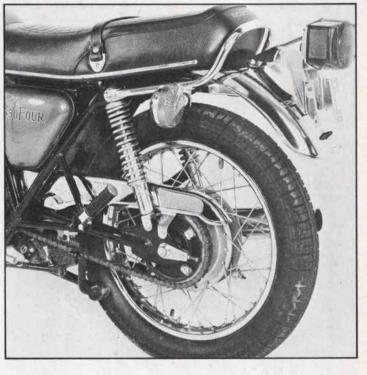


Best handlebar position was about 95° to fork leg. Engine can easily survive 9300 rpm redline, up around which it can handle some pretty tough larger displacement competitors. Let's not talk about spark plug accessibility, but rather the handy location of front-mount oil filter, and T-brace adding rigidity.





Fresh sheetmetal work on the tanks makes both CB550s outstanding in appearance, with plenty of working space for the cables to saw without harm. Headlight and instruments are neatly tucked in but taillight superstructure's gross. Naked left side of F model permits total freedom for bags. Yoshimura makes big-bore 590cc hot-kit.



do anything other than call 'em the way we saw 'em. But if your K runs as well as ours did, you could have a theoretical 284.256-mile touring range with that 4.2-gallon tank (including one-gallon reserve).

Performance on the highway is certainly ample sans fairing and bags—with corresponding revs at 55, 60, 65, 70, 75, 80, 85 and 100 mph being 4400, 4800, 5200, 5600, 6000, 6400, 6800 and 8000 rpm in high (fifth) gear. Notice that there is exactly a 400 rpm increase for every 5 mph. Mirrors are rock-steady below 4000 rpm but blurr slightly above that. Vibration, at most, is a light tin-

gle at higher rpm, completely tolerable, not tiring or irritable in the slightest. Running over our 5000-foot mountain pass, fourth gear and sometimes third was called upon to keep the engine on the boil; but we were hustling, as indicated by the subsequent mileage figures when topping up on the far side of the hill, of 24.66 and 34.4 miles per gallon for the F and K respectively. Again, these are corrected figures, with the K taking the upper hand. Normally, only an occasional dip into fourth gear would have been required were we in less of a hurry.

Over at Irwindale Raceway, the K

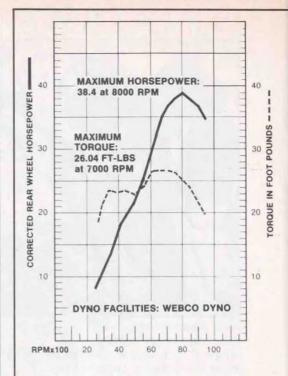
once again poked the F in the eye with a best e.t. of 13.95 and 94.43 mph quarter-mile compared to the F's best run of 14.03 seconds and 92.30 mph. Beyond exhibiting exceptional performance, both machines remained clean and in tune, with no signs of oil loss or undue chain stretch. In fact, both motors remained spotless throughout the test and the rear chains required a take-up of only three flats during the heavy thousand miles or so.

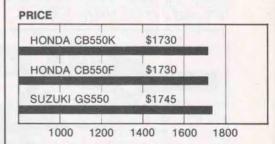
Well, all good things must come to an end, and our test of the K and F Honda 550 Fours had definitely been

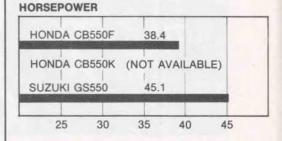
SO WHAT?

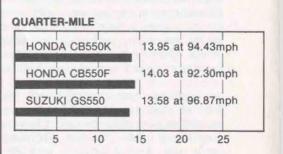
# HONDA CB550K AND F

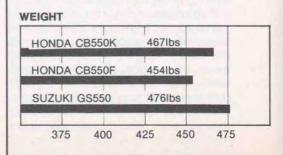
 Honda's classic four-banger set the pace for performance, durability, and ear appeal with its racy note. 180° crank and rods all ride on insert bearings, driving five-speed gearbox via central Hy-Vo chain, and single overhead camshaft through adjacent single-row roller chain. The fivemain bearing crank drives the generator off its left end, dual ignition circuit breakers off its right. Gearbox shafts are ball and needle bearing, the primary shaft accepting primary drive and starter motor input. The Hy-Vo driven gear on the primary shaft incorporates a cush hub. Oiling chores are guaranteed by two positive trochoid (meshing vane) pumps that are wear- and friction-free, assuring full pressure to all critical parts, with clean oil having passed both a sump screen and paper filter cartridge (in that order) before and after the big, main engine pump. A separate, tiny trochoid pump is incorporated in the right side needle bearing of the gearbox countershaft to ensure adequate oiling of these free-turning gears. Excess cam wear due to careless fast starts from cold is minimized by a standing oil bathtub beneath each cam lobe, guaranteeing instant oil film on the first turn. Aside from its many modern appointments, possibly the most important aspect of the engine over powerplants of old-a decade or two ago-is its single oil source that encourages the owner to maintain an adequate supply by means of only one dipstick and common viscosity oil instead of the former independent check and filling of engine, trans and primary systems that called for time consuming individual inspections and different viscosities of oil. Extraordinary engine life depends upon attention to oil and filter changes, at least every 2000 miles. Top end work can be accommodated with engine in frame. Normal owner maintenance is easy to understand and simple to do. A marvelous little motor that commonly wears out its first, sometimes second, and occasionally even its third owner.











# HONDA CB550K



# HONDA CB550F

**TEST BIKE: HONDA CB550F** 



Price, sugg. retail.....\$1730

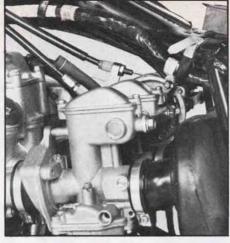
TEST BIKE: HONDA CB550K	
Price, sugg. retail\$1730	
ENGINE	
ENGINE	
TypeSOHC inline four	
Bore/stroke58.5 x 50.6 mm (2.303 x 1.992 in.)	
Piston displacement544 cc (33.19 cu. in.)	
Compression ratio	
Carburetion(4) Keihin 22mm	
Air filtrationDry paper	
IgnitionCoil and battery	
BHP @ rpmN.A.	
Torque @ rpmN.A.	
LubricationWet sump, trochoid pump	
Electrical powerAlternator	
Battery12V, 12 AH	
DRIVETRAIN	
Primary transmissionHy-vo chain (3.063)	
ClutchMulti-plate, wet	
Secondary transmissionSingle-row chain (2.176)	
Gear ratios, overall :11st 15.67; 2nd 10.89; 3rd 8.45;	
4th 6.90; 5th 5.99	
CHASSIS & SUSPENSION	
Suspension, frontTelescopic fork	
Suspension, rearSwing arm	
Tire, front	
Tire, rear	
Brake, frontDisc, 10.86 x 1.65 in. (276 x 42mm)	
Brake, rearDrum, 7.08 x 1.18 in. (180 x 30mm)	
Brake swept area73.9 sq. in.	
Rake/trail26°/4.1 in. (104 mm)	
Wheelbase	
Seat height	
Handlebar width30.0 in. (76.2 cm.)	
Ground clearance	
InstrumentsSpeedometer, trip reset; tachometer; oil,	
high beam, neutral, turn signal lights.	
StandsSide and center	
Tire retention device(s)None	
WEIGHTS & CARACITIES	
WEIGHTS & CAPACITIES Fuel capacity4.2 gal. (16 lit.)	
Oil capacity	
Weight, wet, unladen	
weight, wet, unladen407 ibs. (211.8 kg.)	
PERFORMANCE	
Standing start quarter-mile13.95 e.t., 94.43 mph	
Fuel consumption	
The state of the s	

ENGINE TypeSOHC inline four
Bore/stroke
DRIVETRAIN
Primary transmission
CHASSIS & SUSPENSION
Suspension, front
Brake, rear
Ground clearance
StandsSide and center Tire retention device(s)None
WEIGHTS & CAPACITIES Fuel capacity4.2 gal. (16 lit.)
Oil capacity
PERFORMANCE Standing start quarter-mile14.03 e.t., 92.30 mph Fuel consumption54.1 mpg @ 55 mph

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a good thing. Even though the personal touring mounts of four of Motorcyclist's five editors are of 750 to 1000cc capacity, all agreed that they really enjoyed their stint aboard the 550s and that the smaller machine was indeed a viable, pleasurable cruiser that bested their personal iron not only in initial purchase price but fuel economy as well. Only the largest oaf of our group mused that he could use a little more leg room. Both scooters virtually defy fault.

One important thing that surfaced in this 1000-mile, two-week experience was the subtlty of the Honda Motor Company. These 550s were noticeably a far cry from their ancestral Fours, even the previous year models. Quietly-who knows exactly when it happened-suspension travel had been increased, saddles made more comfortable, clutch smoothness improved, mileage vastly raised and engine noise reduced. Even though you think you know this model, you may not, really. It has evolved into a choice motorcycle in virtually every respect. Approximately \$350 more expensive than when it was first introduced as a 500, the CB550 series is double that motorcycle in most respects. The early mufflers that used to rust out in less than two years now have large drain holes in their bottom sides to relieve condensation, fuel mileage has been increased twofold, mechanical noise greatly reduced and driveline snatch practically eliminated. Handling is now excel-



Dual throttle cables lock into either side of single throttle reel, pull the slides both on and off for max safety. Carb air from filter routes into common plenum chamber to slow down and reduce noise. These are the new K carbs. Photo with all the hands shows air duct ahead of filter that, when in position, lays over battery top. Pipe in other hand is relief tube for gas tank top's overflow drain to ground. See how easy it is to read the battery water level.

lent. Weight is the same or less than a competitive 500 twin, fuel consumption even better. Honda has finally got on top of their Four.

As for comparison between K and F, between the particular two motorcycles we received and tested as received, the K proved most efficient in economy and power. This despite the fact that Honda tech men swear the two share the same chassis and engine. Interestingly, the majority of our troops felt that, given a choice between the 750, 550 or 400 Honda Fours, they would opt for the 550 be-





cause of its ideal blend of size, maneuverability, performance and economy. Further, if again confronted with a choice of a bargain new '76 holdover or a new '77 model, they would go for the updated '77. These are the things we came to determine, and having found them, reluctantly release our grip on the Honda CB550 K and F Fours that tested our ability to critique as much as we tested their ability to produce.

