

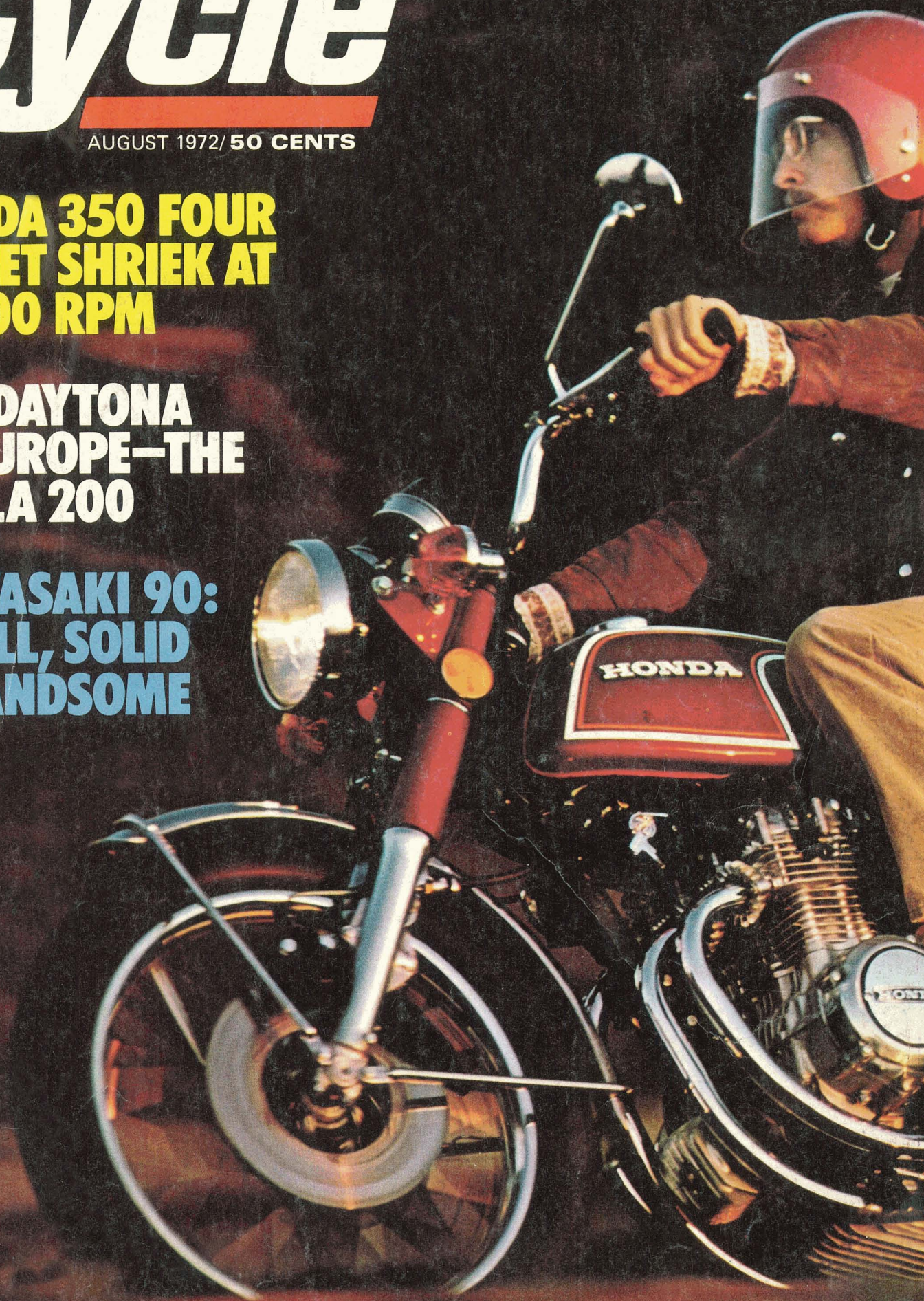
# *Cycle*

AUGUST 1972/50 CENTS

**HONDA 350 FOUR  
VELVET SHRIEK AT  
10,500 RPM**

**THE DAYTONA  
OF EUROPE—THE  
IMOLA 200**

**KAWASAKI 90:  
SMALL, SOLID  
& HANDSOME**



CYCLE ROAD TEST:

# HONDA



## CB-350 FOUR

PHOTOGRAPHY: BILL DELANEY

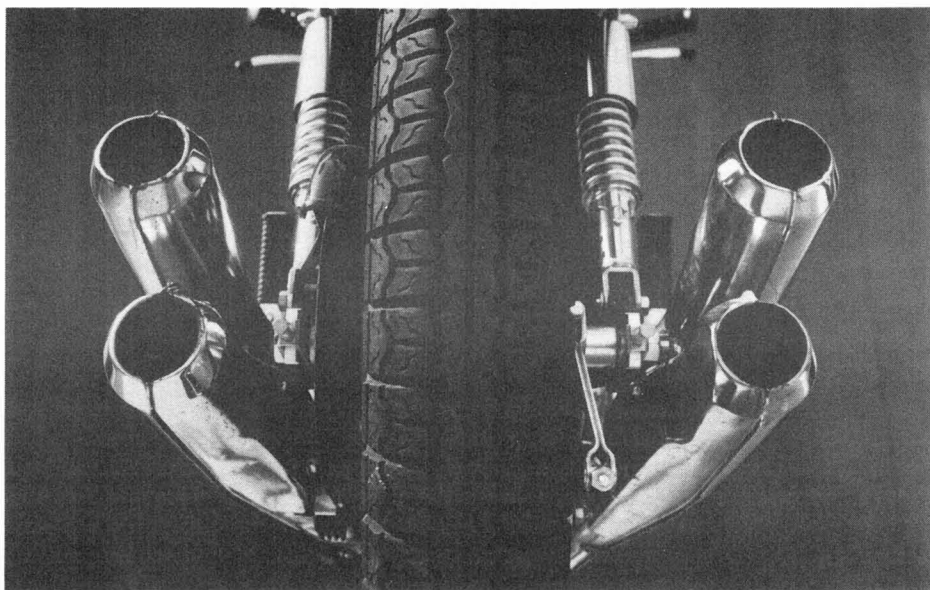
● We are again reminded that some motorcycles have an appeal transcending mere numbers: Honda's new 350cc Four is easily the heaviest, most expensive thing in its displacement class, and a list of others capable of doing the standing-start quarter quicker than the Honda would be a lot longer than a tally of those that won't. But there is some indefinable something about this newest Honda that gets people turned-on and lusting after its shiny little carcass.

By all that's considered right and proper in most circles, Honda shouldn't have even contemplated building a four-cylinder 350. Their 350cc twin, the

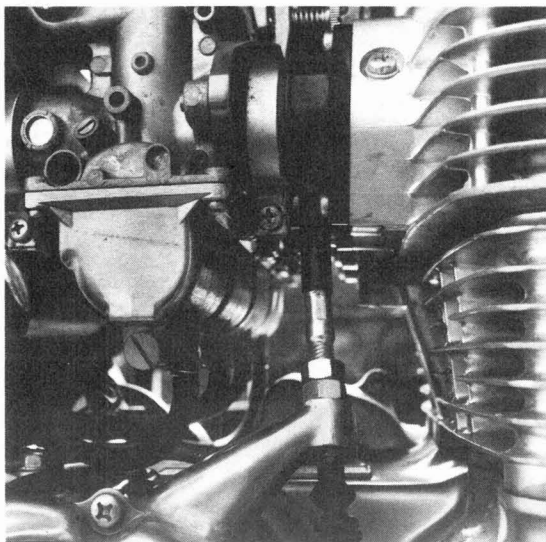
CB-350 K4, may be relied upon to capture the lion's share of the touring-lightweight market in 1972/73, just as other CB-350s have done in years past, and about all they can hope to do with the 350 Four is lure buyers away from their own twin, or perhaps confuse the guy who wanted something smaller than the 750 Four and had been making eyes at the 500.

So why did they do it? It sounds crazy to lend such motives to a company that is if anything even more stuffy than General Motors, but we think that Honda delivered into the world a mass-produced, four-cylinder, 350cc motorcycle just to prove that it can be done. Whatever Honda's marketing and advertising people may say, we are inclined to think that the 350 Four simply is a mind-dazzling form of one-upmanship, that Honda's engineers are saying to their counterparts in other manufacturers' engineering departments, with a collective, coprophagous grin, "You think your stuff is getting to be pretty tricky? How do you like *them* apples!"

We also think that everyone, not just engineers, gets the message—and that this explains the Honda 350 Four's appeal for everyone who sees it. People see the bike as being like one of those digital-readout wristwatches: it's just a fantastically intricate toy, and you



*What comes out of these four mufflers is a soft, inoffensive sound; the Four hums rather than howls.*



*Sophistication abounds: four Keihins lined up in a row; full instrumentation includes idiot lights.*



want it badly even though you can't take it seriously—and despite knowing that you can buy as much performance, or more, for less money without leaving your local Honda dealer's showroom.

Of course, there is one attribute you get with the 350 Four that isn't available in anything else, at any price, and that is smoothness. Other motorcycles are smooth, to be sure, but they *all* come across like cement-mixers by comparison. Not that the little Honda Four is absolutely vibration-free: there's a subdued buzz in the left footpeg any time you have the revs up and a lot of throttle applied, and this spreads to the tank and handlebars, briefly, right at 6000 rpm. But you could transfer the worst vibrations the Honda is capable of producing to almost any other motorcycle, and it would submerge and be lost in the general shake, rattle and roar.

As you have already learned, we have our theories about the reason for the Honda 350

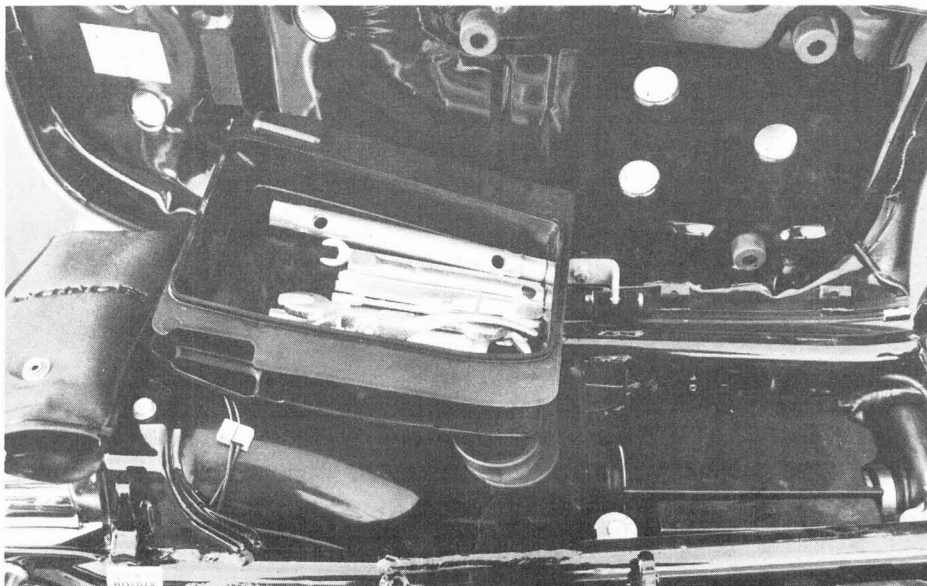
Four's existence; there is no accounting for their choice of bore/stroke dimensions: 47mm x 50mm. The ratio is 1.06:1, which is not unlike the Honda 750 Four (61mm x 63mm; 1.03:1) but completely different from Honda's 500cc Four, which has a 56mm bore and a stroke of 50.6mm (bore/stroke ratio 0.9:1). One cannot but wonder why Honda would elect to use such a narrow bore in an engine that clearly was fated to be relatively heavy (the engine, with carburetors, weighs 136 pounds according to Honda) and would have to make a lot of power to compensate for its weight. That power could only come from plenty of revs, with good breathing characteristics to match, yet Honda opted for a small cylinder bore—which must restrict valve size in some degree. With the engine as it is, stroke is only .6mm (.024-inch) shorter than in the 350 twin, and the tachometer is redlined 500 rpm lower. On the other hand, the 350 Four is redlined 700 rpm higher than the 500 Four, which also

has a 50.6mm stroke, and there may be a hint there as to the relative merits of the four-cylinder engines' plain rod bearings and the roller bearings in the twin.

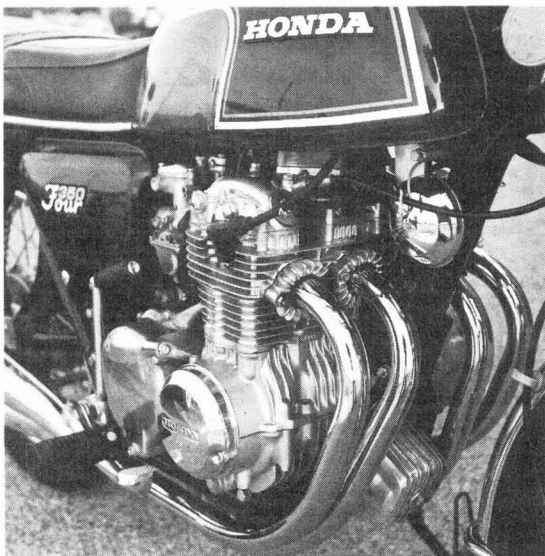
The serial number stamped on the Honda loaned us for this test was CB350FE 1000023, which told us that it was the 23rd 350 Honda Four to roll off the assembly line. There will be a lot more, but as this is written only two of the genuine production articles are in America, and the usually-cooperative folks at Honda asked us to refrain from our usual practice of dismantling new engines for inspection. In consequence, we don't know the exact shape and arrangement of the Honda 350 Four's innards. Still, from all outward appearances it must be very much the scaled-down version of Honda's 500 Four, with cylinders, carburetors and exhaust pipes in quadruplicate. Presumably, the 350 would have the same Morse chain linking the crankshaft and clutch, but in an engine so small it is likely that fewer guide-plates and rollers are required to control the camshaft drive chain. There is no external tensioner adjustment for the cam-chain, and that may be a mistake: our test bike had a subdued clatter at idle that by sound and location strongly suggested a loose timing chain. It is also true that this same bike had passed through other hands before it came to us, and it is more than barely possible that someone may have fiended the chain in question in a fit of over-exuberance.

It also is possible that a lot of motorcycles have clattering timing chains, and that we haven't heard them because of the din from all the other noise sources. Honda's 350 Four sets a new standard of quiet for motorcycles, and if there's *anything* making a fuss inside the engine or transmission you're going to hear it. They have even been at pains to silence intake noise, with a double set of air boxes in front of the carburetors terminating in a rubber inlet pipe tucked away under the seat. We haven't a clue as to what sort of baffling might be hidden inside those four megaphone-looking pipes; they are interconnected in pairs, as on all previous Fours, and exhaust through tubes only  $\frac{5}{8}$ -inch in diameter—which is about right, considering the unit cylinder displacement of slightly less than 87cc and that a single exhaust pulse escape through two mufflers.

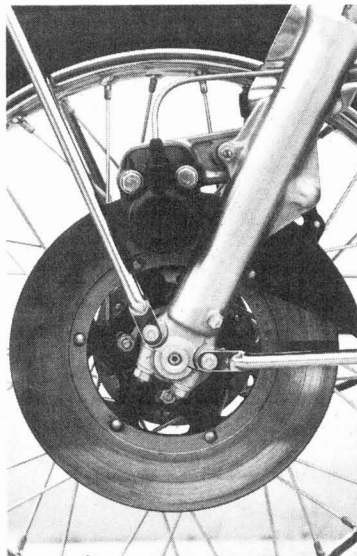
A thought occurred concerning the Honda 350 Four's muffling *vis a vis* some people's unfortunate (for all of us) habit of sticking straight pipes on their Hawg, or Trumpf, or whatever: Motorcyclists must surely be the only people in the world who, if we may draw a somewhat facile but still valid parallel, prefer the sound of someone beating on a tin tub to the softer notes of a cello; prefer sheer volume to tone. The Hon-



The nice little touches are all over the bike: complete tool kit plus a tool tray for roadside work.



The Four has less performance but more style than the CB-350 twin; disc brake has protective shield.



da 350 Four hums rather than howls, but the notes and tones are true and sweet—and bad cess to them who would drive a spike down through the baffles. It is not necessary that a bike should announce its arrival to the whole world.

As a matter of fact, the soft, inoffensive sound of the Honda's exhaust is a positive advantage when you're out for a bit of sporting action on the back roads. We have favorite trails up through the hills, paved but little-traveled and twisting, that lead past the scheduled homes of people who obviously are rich and probably cranky. Go whipping along those roads on your big boomer, and somebody's going to call the police before you get your tires warm; bikes like the Honda do not disturb those dowagers' repose—which is politic, moral and practical.

Nobody in his right mind would want to be barred from the back roads if he had a Honda 350 Four. For handling, it is to the

500 Four what the 500 was to the 750—that is to say, a great leap forward in lightness and precision. Indeed, the only flaw in this latest Four's handling is that it does everything so well that one is constantly graunching the center stand, or at least the extension on same which one uses to shove the stand down into place. This only happens on left-hand turns, of course, but were it not for that bit of iron hanging out, the 350 Four would really be a whizzer. The pipes are up high and out of the way, and the pegs are set in close, so you can genuinely get it on in these right-handers; just watch yourself when you turn left (or remove the center-stand, which is easily done).

We don't think the side-stand will scrape the pavement, while cornering, until you have the Honda cranked over farther than is prudent on ordinary touring-type tires. The stand folds in under the footpeg, out of the way—but you can still get the thing de-

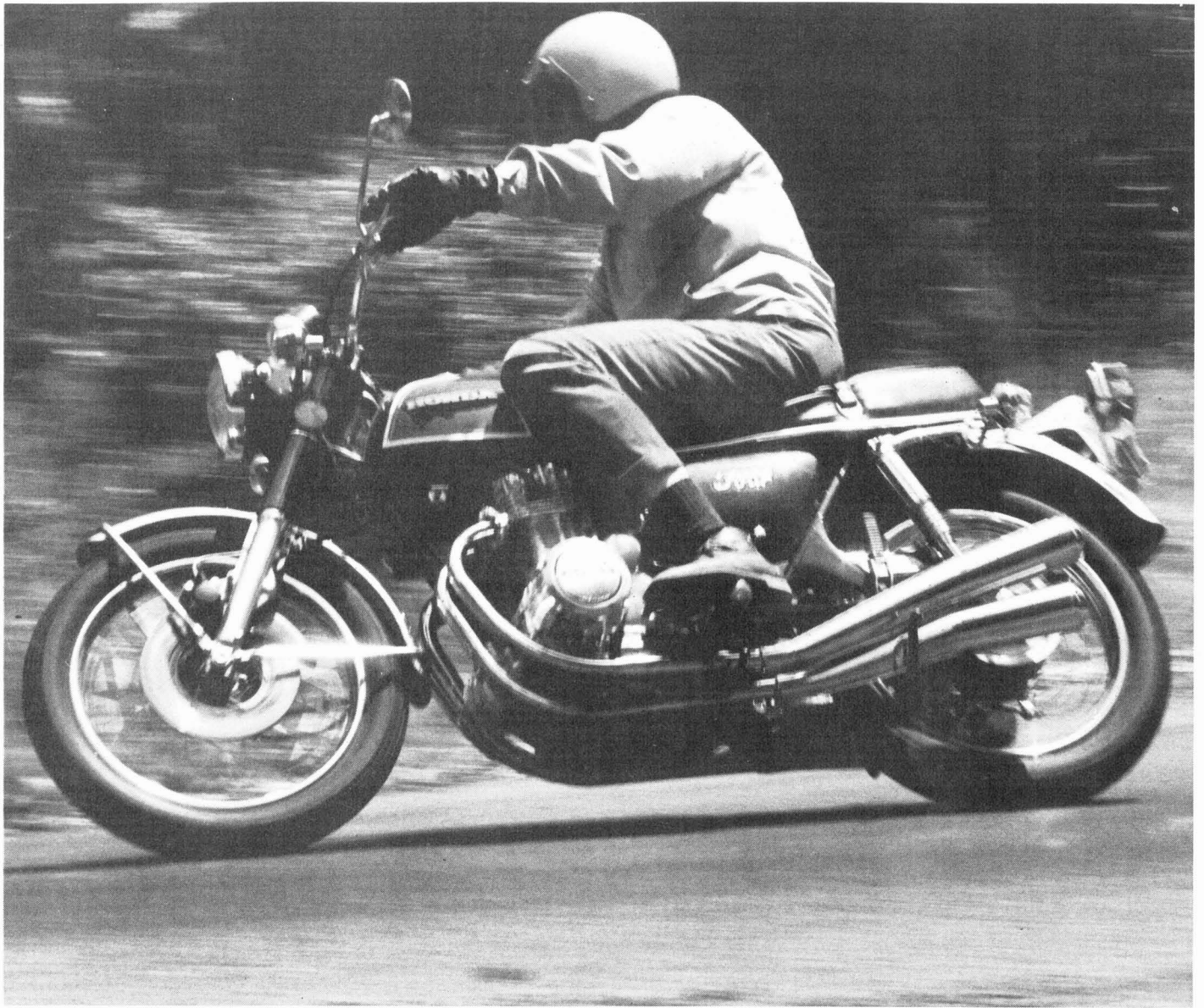
ployed easily, because of a welded-on loop that extends forward of the peg. Just leap off the bike, give the loop a shove with your foot, and the stand whips down into place. Anyone who has ever rummaged around under a footpeg with his toe, like an elephant nuzzling under a rock for a peanut, trying to get the stand extended will appreciate this very small but important touch.

Now that we think of it, a lot of the Honda 350 Four's charm—the part you discover after you've ridden it a while, is that it abounds in small, but nice touches. The electric starter is one of those, especially to people who have been with motorcycles a long time and know the sweaty joys of trying to get an engine re-lit in the middle of an intersection with ten-miles of cars stacked behind and a brace of horns on every car giving expression to the drivers' displeasure at the delay. Another nice touch, one shared by all of Honda's Fours, is the "push-pull" throttle arrangement (with a control cable to push the throttles closed as well as pull them open). This provides a precision, a delicacy of control, seldom found with the more tradition cable-and-return-spring setup. There is a return-spring in the Honda's throttle-actuating mechanism, but it's there "just in case" and many people who own 750 Fours disconnect the thing because it is stiff enough on the 750 to cause arm-fade; the one on the 350 is a lot better: It doesn't challenge you to an arm-wrestle every time you want to open the throttle.

Another very nice touch is the locking seat latch. A couple of sturdy metal tabs are provided under the seat edge, and these serve as helmet-holders: just slip the D-rings on the helmet strap over one of these tabs, drop the seat back down and lock it. The only way anyone will then be able to walk off with your helmet is to cut the strap and leave the D-rings behind. Of course, there are a few people swine-ish enough to do that, but at least you'll have the satisfaction of knowing that the helmet won't be much good to them.

One thing is certain: they may get your helmet (*sans* chin strap) but they won't get your tools. The Honda has a very nice selection of tools, and these are packed inside a padded pouch—which keeps them from rattling. The pouch goes inside a plastic tray, which has its own snap-on lid, and this tray can be lifted out and the tools dumped into it if you are compelled to perform some minor roadside repairs. That means you don't have to scatter the tools in the dirt, which keeps them from picking up a coating of grit and transferring it into the mechanism you are trying to adjust or repair.

In the manner of all Hondas, the 350 Four has a seat that's firm to the point of hardness—but comfortable for all that. It



gets some help from the footpegs, which are high enough to hold one's legs up at a comfortable level, and from the shape of the tank—a neat, close fit between one's knees. The handlebars are somewhat narrower and lower than is usual . . . and they also are more comfortable, holding your arms in close and leaning you into the wind just enough so that you don't have to keep a death-grip on the bars even at 70-80 mph. The only thing wrong with the layout is that the footpegs are located about 3-inches too far forward.

Servicing the 350 Four has been made mostly painless. Clutch adjustments are a snap, because all the pertinent pieces are exposed, outside the housing. Changing the oil is a simple matter of removing the drain plug in the bottom of the separate, bolt-on sump and the oil-filter cartridge is in that casing jutting out from between the exhaust pipes, behind the front wheel—held by a single bolt. You won't even need a wrench to

remove the aircleaner's filter element: just unlock and lift the seat, remove the tool tray and you'll find the element under a slip-fit plastic cover on the aircleaner box next to the battery. This also is the route you take to add water to the battery; you can check the electrolyte level by removing the right-side cover plate. The left-side plate, also removable by hand in about 5-seconds, conceals the wiring terminals, rectifier, starter solenoid, etc. Everything is just wonderfully handy—except for the fuel-filler, which has one of those flip-up caps with a latch-release you press down with your thumb to disengage. The problem is that the job takes two hands: one to mash down the cap, which takes the strain off the latch, and the other to hit the release button. And adjusting the valve/rocker clearances requires that you remove the fuel tank: otherwise, you'd never be able to reach the adjusters for the intake side of cylinders two and three.

Time was, when one of the things Honda

owners did was to custom-paint the bikes, because there was plenty of room for improvement over the standard dullish-black or scrofulous silver. But those days are gone forever. You might want to repaint your own 350 Four to give it that individual touch; probably what you do will not otherwise be an improvement over the faintly metal-flake burgundy on our test bike, which also had a pair of white and yellow stripes to accent the tank contours. Neither is there much you can do to improve the bike's appearance elsewhere, because it is beautifully finished in every detail. Those people at Honda certainly must run through a lot of buffing-wheels in the course of a year's production.

Still, while the Honda 350 Four is a feast to the eyes, it is riding the thing that makes the pulse quicken and the brave-juices begin to flow. Except for the previously-mentioned awkward footpeg position, you quickly begin to feel as-one with this motorcycle—a

feeling strengthened by the super-responsive handling. Only when really forcing its forward progress do you have to begin hauling and shoving at the handlebars; at normal, or even quicker than normal speeds the 350 Four seems to read your mind, and you find yourself wondering if you really did anything physical to get into, through, and out of that last turn. So you zip along, elevated by an adrenaline-high, revs soaring and falling as you work the throttle, fan the clutch and snick-snick-snick with the gear lever while trees and walls blur past and the horizon tilts and bobbles ahead.

And the brakes. Oh, *Lordy* the brakes! You find that a big squeeze at the right handlebar lever has an effect like running into a pool of taffy. The rear brake will fade with repeated, hard applications, but the front disc seems to get better as it gets hot. The disc squeals like a goosed bat as you work your way through the disc-temperature zone between cold and hot, but it never stops

working, or grabs, or does anything except pull the bike down from speed fit to bend the fork tubes.

That's out on the road. Around town, you slip along in silence, creating no fuss and collecting no fuzz. Stop for a traffic light and lean back to stretch; the engine doesn't have to be nursed into idling—it just drops to a slightly busy but subdued burbling, and picks up again at a touch of the throttle. And it blows service-station attendants' *minds* when the engine is warm but silent and you hit the starter button. The 350 Four doesn't start at a touch of the button; it simply *is running* at that touch. You couldn't get a more satisfying response by pulling a rabbit out of your helmet.

Nor can you find anything more satisfying to have for a sporting Sunday-morning's ride than the Honda 350 Four. It's too heavy, sure. And the price will probably be about \$1100, which is a lot of money to be paying for a twenty-one inch that really isn't all

that terribly fast, even compared to the CB-350 twin. The other members of the new generation of 350s aren't so super-fast either. Performance-wise, the old Kawasaki A-7 twin will blow the fins right off the new 350 Kawasaki triple, and the old Suzuki T-350 twin (315cc) will smoke off the new Suzuki GT-380-J Sebring. So where's the progress? Well, it has been in the civilization of the 350 motorcycles. The new 350-380 machines are just more refined, more sophisticated and more enjoyable bikes than the earlier twin-cylinder efforts from Honda, Suzuki and Kawasaki. Someone seems to have discovered that velvet wears better than bur-lap—or chain mail.

But if you're the sort who cares about Gucci shoes and digital-readout wristwatches, the sort who likes finely-crafted, intricate things just for their own sake and for the pure, sensual pleasure of using them, then you just may not be able to resist the 350 Honda Four. ●



#### HONDA CB-350 FOUR

Price, suggested retail	POE \$ N.A.
Tire, front	3.00 in. x 18 in. Bridgestone
rear	3.50 in. x 18 in. Bridgestone
Brake, front	10.25 in. x 1.5 (x2) in.
rear	6.3 in. x 1.2 in.
Brake swept area	67.8 sq. in.
Specific brake loading	8.03 lb/sq. in., at test weight
Engine type	In-line four-cylinder SOHC
Bore and stroke	1.85 in. x 1.97 in., 47mm x 50mm
Piston displacement	21.2 cu. in., 347cc
Compression ratio	9.3:1
Carburetion	4; 20 mm; Keihin
Air filtration	Paper element
Ignition	Battery and coil, breaker points
Bhp @ rpm	N.A.
Mph/1000 rpm, top gear	9.83
Fuel capacity	3.2 gal.
Oil capacity	3.2 pints
Lighting	12v, 156 watts
Battery	12v, 12 ah
Gear ratios, overall	(1) 20.93 (2) 14.18 (3) 10.83 (4) 8.75 (5) 7.39
Wheelbase	53.2 in.
Seat height	31¼ in., with rider
Ground clearance	6.1 in., with rider
Curb weight	394 lbs., with ½-tank of gas
Test weight	544 lbs., with rider
Instruments	Speedometer, tachometer, warning lights
0-60 mph	8.4 seconds
Standing start ¼ mile	15.61 seconds; 81.96 mph
Top speed	.98 mph

