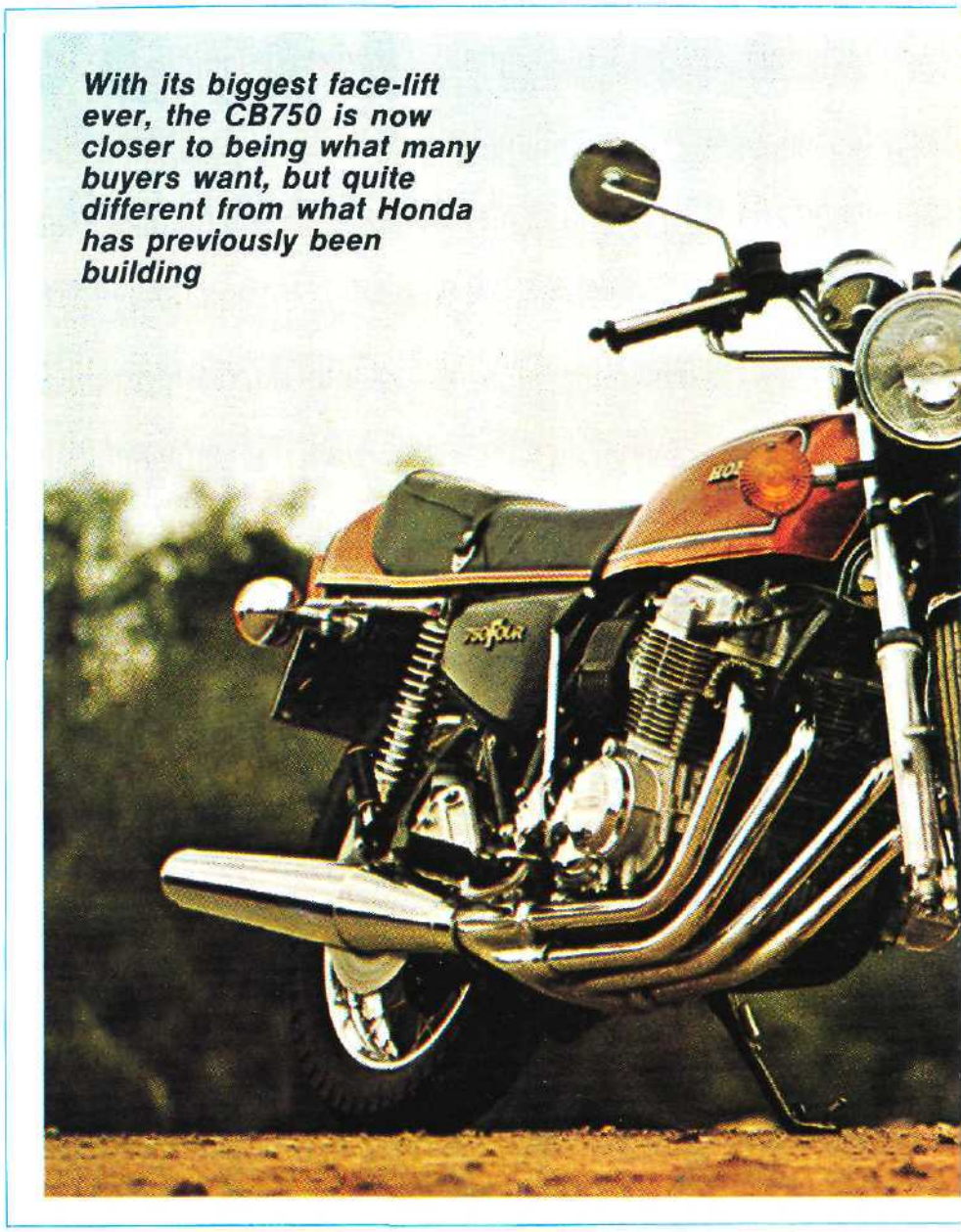
HONDA CB750F



In case you haven't noticed, the Honda CB750 has undergone a major personality change since it first appeared in late 1968. It has been gradually and subtly transformed from a superbike/tourer into a quieter, slower, more tractable, more reliable tourer. The ferocity of the first CB750s was sacrificed to make later models more reserved and nicer to ride. Honda seemed to feel that their buying public didn't care as much about eyeball-flattening acceleration as they did about increased convenience and comfort.

And Honda's feelings about what the buyer wanted were proven to be accurate in late 1974. In a period of severe economic depression, when almost everyone expected the sales of small, cheap, thrifty machines to pick up. the Honda CB750 sold better than any other motorcycle.

Honda reiterated their policy of providing the buyer with comfortable, reliable, tractable, less noisy, mildly-tuned motorcycles by introducing the GL-1000 Gold Wing. That machine wasn't nearly as fast as it *could* have been, but it was plush and easy to live with.

Knowing how Honda felt, we were surprised when we learned about the CB750F Super Sport. This model is engineered to be significantly faster than the most recent version of the '"standard" CB750, the K5 which we tested in December of 1974. On top of that, the Super Sport's styling is more radical than that of any previous Honda 750. In addition, significant changes which affect the bike's handling have been made, and it has a disc brake at the rear wheel.

But the real shocker came when we learned the Super Sport isn't being offered as just an alternative to the standard 750. but that it is actually intended to replace it. That seemed strange because the Super Sport, if in no other way but image, is entirely different from what we have come to expect from Honda.

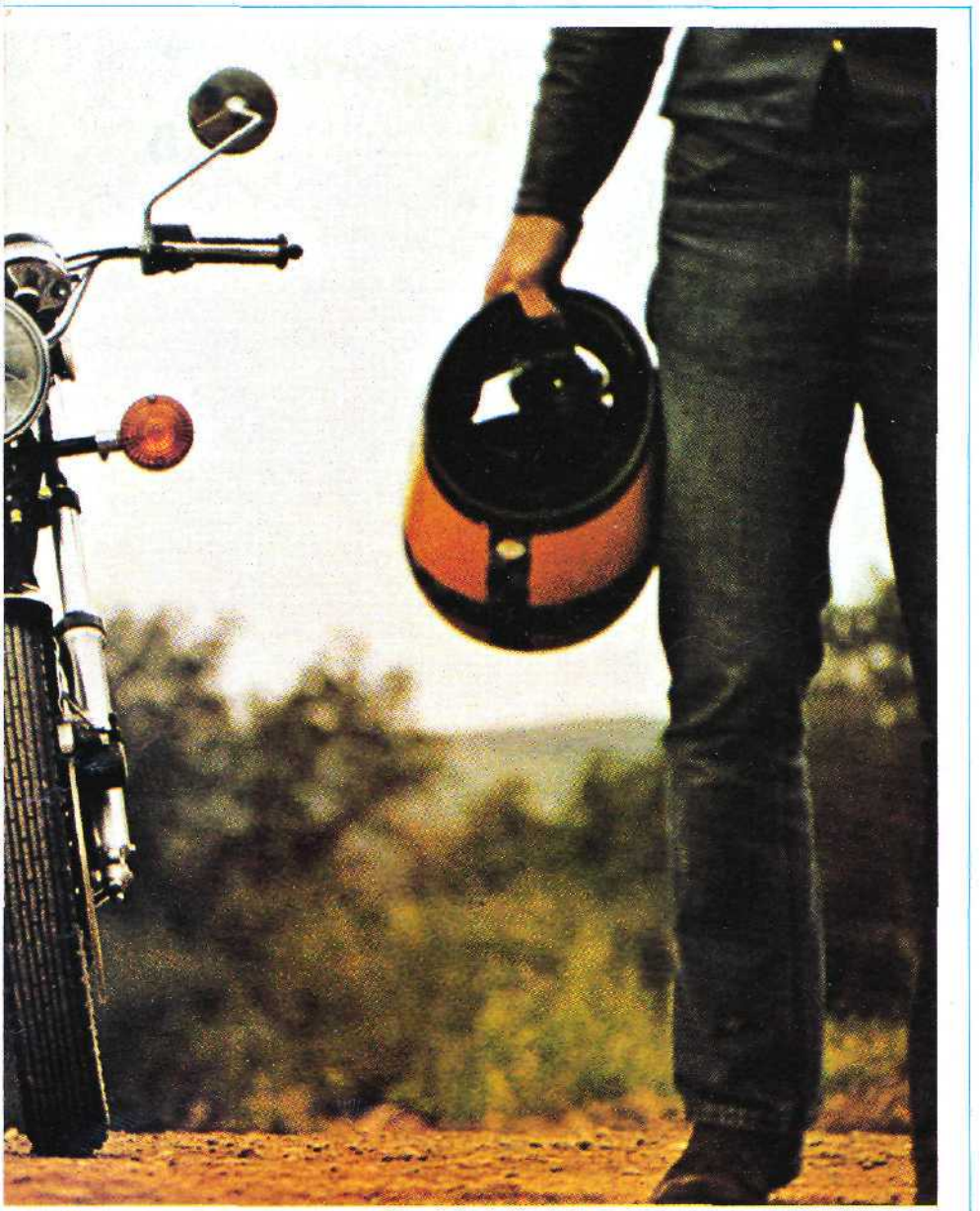
So our first look at the machine left us puzzled and intrigued. Could it really replace the K5? Is it a mild-mannered road machine, a potent performance package, or something in between? What kind of rider is it aimed at? These were the sort of questions that popped into our minds when we began testing the Honda 750 Super Sport.

THE BIKE: Basically the same Honda 750 familiar to so many American riders, the CB750F Super Sport incorporates changes ranging from the nearly inconsequential to those which affect the entire personality of the machine.

Some of the most obvious changes are external, and of these, the four-into-one exhaust system is the most prominent. The four header pipes sweep down and across the front of the engine to a collector under the right side of the crankcases. A large chrome muffler that looks, as one gawker commented, "like a cross between an expansion chamber and one of those big Harley pipes" is clamped onto the collector. The muffler is slightly upswept, and its rearward portion sticks out away from the motorcycle quite a bit. Honda claims the exhaust system adds power and makes the bike quieter than the four-pipe setup.

In the area of styling there are noticeable changes in the gas tank and seat. The steel tank is longer than the tanks found on previous CB750s and now holds 4.8 gallons, an increase of 0.3 gallons. The gas cap is recessed under a locking, hinged cover that folds down flush with the tank top. The thinking here is that a smooth surface on top of the tank is less likely to snag something vital on the rider's underside if he comes to a sudden stop-like against a truck. A chain attached to the gas cap insures that you won't forget it in a gas station, and there is a drain to get rid of any gas that spills over into the recessed area under the cover.

SUPER SPORT



PHOTOGRAPHY BY ART FRIEDMAN

The hinged, locking seat has a road-racing-styie rear section like the type used on Kawasaki street bikes. Under the seat back is a waterproof plastic box for carrying spares, papers, and other odds and ends. The plastic scat back is painted to match the tank and a thin, painted strip runs along the bottom of the seal.

Another styling change is in the headlight area. The headlight brackets mount to the triple clamps instead of the fork tubes, giving the fork a much cleaner look. The headlight has been given a thinner profile, and rubber gaiters are no longer used on the fork tubes.

A final major external change is the switch to a hydraulically-actuated disc brake at the rear. The disc is the same size as the one found at the front, 11.7 inches in diameter. The rear caliper mounts on the right side of the wheel and is a double-action type; the front caliper is of the single-action variety. A large polished alloy bracket behind the right footpeg provides a mounting point for the master cylinder and the brake pedal.

Quite a few changes have been made in the four-cylinder, four-stroke. 736cc engine. The bore and stroke remain the same at 61 and 63mm respectively, but the compression ratio has been upped two tenths of a point by using new pistons with slightly higher domes. The chain-driven, single overhead camshaft has been altered, primarily to make it more compatible with the new exhaust system. The intake and exhaust timing has been extended five degrees at both ends, and the valve lift has been very slightly increased. The cylinder head bears a new part number, but the changes in it are minor ones, like larger studs for the exhaust pipe header clamps. The four 28mm Keihin carburetors also have a new number, but they seem identical to those found on the K5—even down to the size of the main jets. The airbox has also been redesigned to be less restrictive.

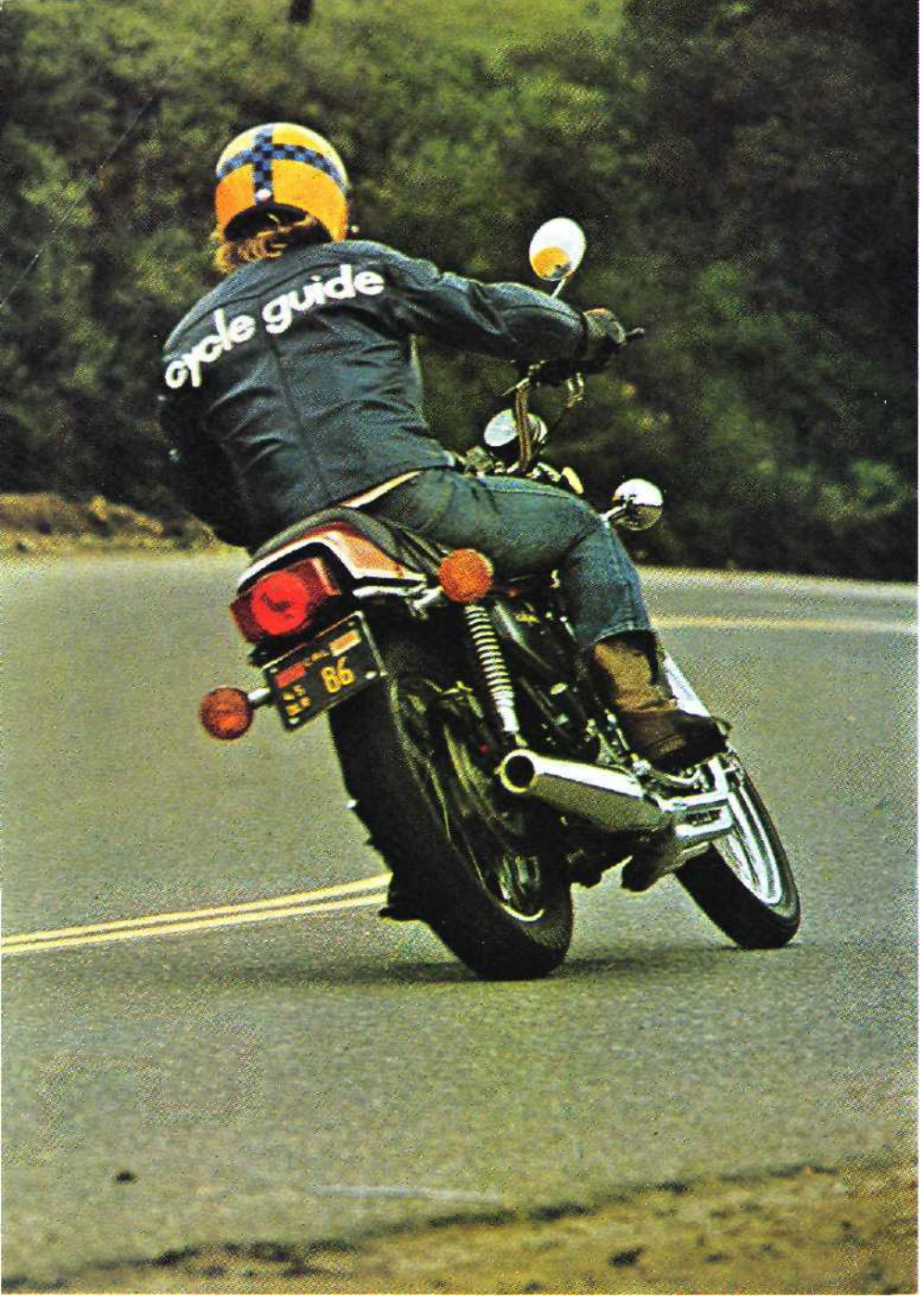
As in previous CB750s. the F model's crankshaft rides in five plain insert bearings. Power is still delivered to the clutch through two single-row chains that drive a jackshaft, but two teeth have been added to the jackshaft sprockets; they now have 50 teeth each for a ratio of 1.985:l. The wet clutch has been modified to allow more oil to get at the plates, which is an effort to reduce the friction plate distortion and glazing that make the clutch grabby and noisy. The seven friction plates have also been altered slightly and the clutch center has been changed.

The first three ratios of the five-speed transmission are the same, but the fourth gear ratio has gone from 1.097:1 on the K5 to 1.133:1 on the F, and the fifth gear ratio has been changed from 0.939:1 to 0.969:1.

The transmission sprocket has also shortened the overall gear ratio by giving away one tooth for a new total of 17 teeth. It drives the same 48-tooth rear wheel sprocket through a new RK brand chain designed by Honda R and D. The chain has thicker side plates and is made of acid-resistant metals. (Previous chains often broke if battery acid was spilled on them.) All those gearing changes mean that the Super Sport's first three gears are 23 percent lower than the K5's, and fourth and fifth are 27 percent lower.

the lubrication for the engine, clutch, and transmission is provided by a dry-sump system, fed from a 3.7-quart tank mounted on the right side of the bike. You now have to remove the right side panel to get at the dipstick to check the oil.

The battery-coil ignition system uses two sets of points; one set fires cylinders one and four while the other sparks two and three. The ignition point cam attaches to the right end of the crankshaft and the alternator is on the left end. There is now



a crankcase breather which catches droplets of oil escaping from the engine and returns them to the system. The owner's manual recommends periodic cleaning of the foam element found in this basic smog control device.

The Super Sport uses the same basic tubular steel, double-loop chassis as previous models. However, the steering head has been raked out from 27 to 28 degrees. There is a corresponding amount of additional trail, which has gone from 3.7 inches to 4.5.

The front suspension now has 5.0 inches of travel rather than 5.6 inches, but no one at Honda knew what internal changes the factory made. The rear shocks have been redesigned and now allow more travel and more damping. A longer stroke allows 3.8 inches of wheel travel, a half inch more than before. Compression damping has been increased from 25 kilograms per meter per second on the K5 to 30 kg/m/s on the F. Rebound damping has gone up from 100 to !20 kg/m/s.

The ignition lock has been moved up between the instruments, and it will also lock the fork when turned one notch past the normal "Off" position. This makes it easy to lock the fork because you only have to turn off the ignition to do so. It also means that you can't forget to unlock it before starting the engine. The electrical system helps you to avoid forgetting other things as well. The standard Honda electric starter interlock won't let you start the engine in gear unless the clutch is disengaged, and a beeper reminds you to turn off the turn signals. And the headlight, taillight, and running light filaments in the front turn signals come on automatically when the ignition is switched on.

There is a strange-looking box attached to the left downtube in front of the engine that contains the plug-in connectors previously found in the headlight. We wondered if you could hot-wire the bike here but found the ignition leads arc routed elsewhere. The horn is loud enough for in-town situations, but a louder one is needed for freeway use.

At 503 pounds with the gas tank dry. the whole package weighs two pounds more than the K5 and costs between $2152 (West Coast) and $2165 (East Coast).

ENGINE AND GEARBOX: When the engine is cold, you must lift the choke lever on the left side of the carb bank to its fully-closed position to start the bike. After letting it run a few seconds, you can lower the lever to a partial opening. In less than a minute, the bike is ready to pull away—although it takes at least five minutes to lose its cold-blooded feeling and respond to changes in throttle opening without behaving sluggishly.

With a lower overall gearing (higher numerically) in every gear, the CB750 Super Sport gels away from a stop with less intentional clutch slippage than was required on earlier model CB750s. It is also capable of coming off the line harder and faster than its predecessors.

The lower gearing not only allows the bike to accelerate faster, but also to run at a higher rpm at the same speed in the same gear. This is helpful because the low-rpm throttle response is worse on the Super Sport than it was on the K5. Despite the lower gearing, some of the snap is missing when you turn the throttle wide open below 4000 rpm. Also, one of the inherent carburet ion difficulties found on all past 750s is amplified on the Super Sport. The CB750 we tested in December stumbled and died when the throttle was snapped wide open below 3000 rpm. On the Super Sport, the range in which the engine can't handle full throttle has been extended up to between 3500 and 4000 rpm. This flaw was particularly annoying at the dragstrip. where we were trying to get away from a stop quickly. If we let the revs drop below 4000 rpm while the throttle was wide open, the engine would go from full charge to full stop. That almost threw the rider over the handlebars until he closed the throttle part way . . . at which time it would leap ahead again.

The lower gearing helps to keep the revs above the range where the throttle response lags. At 60 mph the Super Sport's engine is turning a little more than 4000 times per minute. The K5 model didn't hit 4000 rpm until about 72 mph. One by-product of the higher engine speed is easier high-speed passing. It is rarely necessary to downshift when you are nipping past a slower vehicle out *on* the highway. But if you do downshift, there is still more punch in the Super Sport's third or fourth gear than there is in the same gear on the old four-piper.

The power output *of* the 750 Four has

been raised from a maximum of 52.2 at 8500 rpm on the K5 to 53.9 horsepower at 8500 rpm on the Super Sport. The power increase combines with the lower overall gear ratios to make the Super Sport quite a bit quicker at the dragstrip. It ran through the standing-start quarter-mile in 13.10 seconds at 101.5 mph. The CB750 K5 we tested in December of 1974 logged quarter-mile figures *of* 13.65 seconds and 98.6 mph. The performance increase was obtained, however, in trade for a slight increase in gas consumption. The Honda CB750 K5 averaged 42.6 miles per gallon, but the Super Sport got only 38.3 mpg.

In other respects the Super Sport's engine is much like a standard 750s. It will idle just about forever once warmed up. You can run it down to 1000 rpm in fifth and accelerate cleanly if you open the throttle slowly and smoothly. There is very little flywheel effect, so if it's free of any load, the Four will accelerate or drop to idle almost instantly. This quick-revving characteristic made it difficult for some riders to shift smoothly because they had trouble synchronizing the engine speed with the transmission speed.

Unlike the Honda CB400F Super Sport, which had its pegs moved rearward slightly, the 750 Super Sport has its pegs mounted in the same position, with no external linkage added to the shift lever. And shifting requires the same deliberate foot movement as with previous CB750s. A light or too-short shift will occasionally bring a false neutral or allow the transmission to pop out of gear. The gear ratios are spaced fairly evenly, but there is a bigger gap between first and second than between any other consecutive pair of cogs. Selecting first from neutral will elicit a healthy clank from the gearbox, and there are quieter clunks when the other gears are engaged. There is some transmission whine, a small amount *of* intake noise, and a little primary chain noise. But \ou can hear them only because the exhaust is so quiet. The machine showed only 78.6 decibels on our sound level meter.

A few fast take-offs early in the test glazed the clutch friction plates. Consequently it would frequently groan and grab when engaged, especially if the engine was cold. Honda 750 clutches aren't very progressive anyway, and the grabbiness made it particularly difficult to use. Only the impressive low-end pulling power of the engine made everything tolerable when the clutch acted up while getting away from a stop in slow traffic. Clutch pull was light and we experienced no dragging or unwanted slipping. Even when it wasn't grabbing, the engagement span of the clutch was very short, requiring a rather careful release to make a smooth start.

HANDLING: The CB750F doesn't handle the way the numbers suggest it should. With more rake and trail, and an average wheelbase of a little more than

58 inches. you would expect it to be a slow and heavy-handling machine. But the additional rake and trail make the bike feel significantly more stable and precise while cornering at all speeds. And they don't make the steering feel heavy or clumsy, except at crawling speeds. For example, if you are trying to make a Li-turn in an alley with your feet on the pegs. the bike feels a bit more clumsy than the K5.

However, at higher speeds, the Super Sport's handling is much more stable, precise, and confidence-inspiring. The tendency for the bike to fall inward when the throttle is closed slightly in a turn is gone. And. despite the fact the bike has more rake, more trail, more wheelbase. and more weight than the CB750 we last tested, it feels *lighter when* you lean it into a corner or steer it into a turn. Much of the top-heavy sensation has disappeared. It is a whole lot easier to make the bike start turning, or change its direction or line while turning, or flick it from side to side while negotiating an S bend. It also takes and holds the line you have chosen better than the previous chassis did.

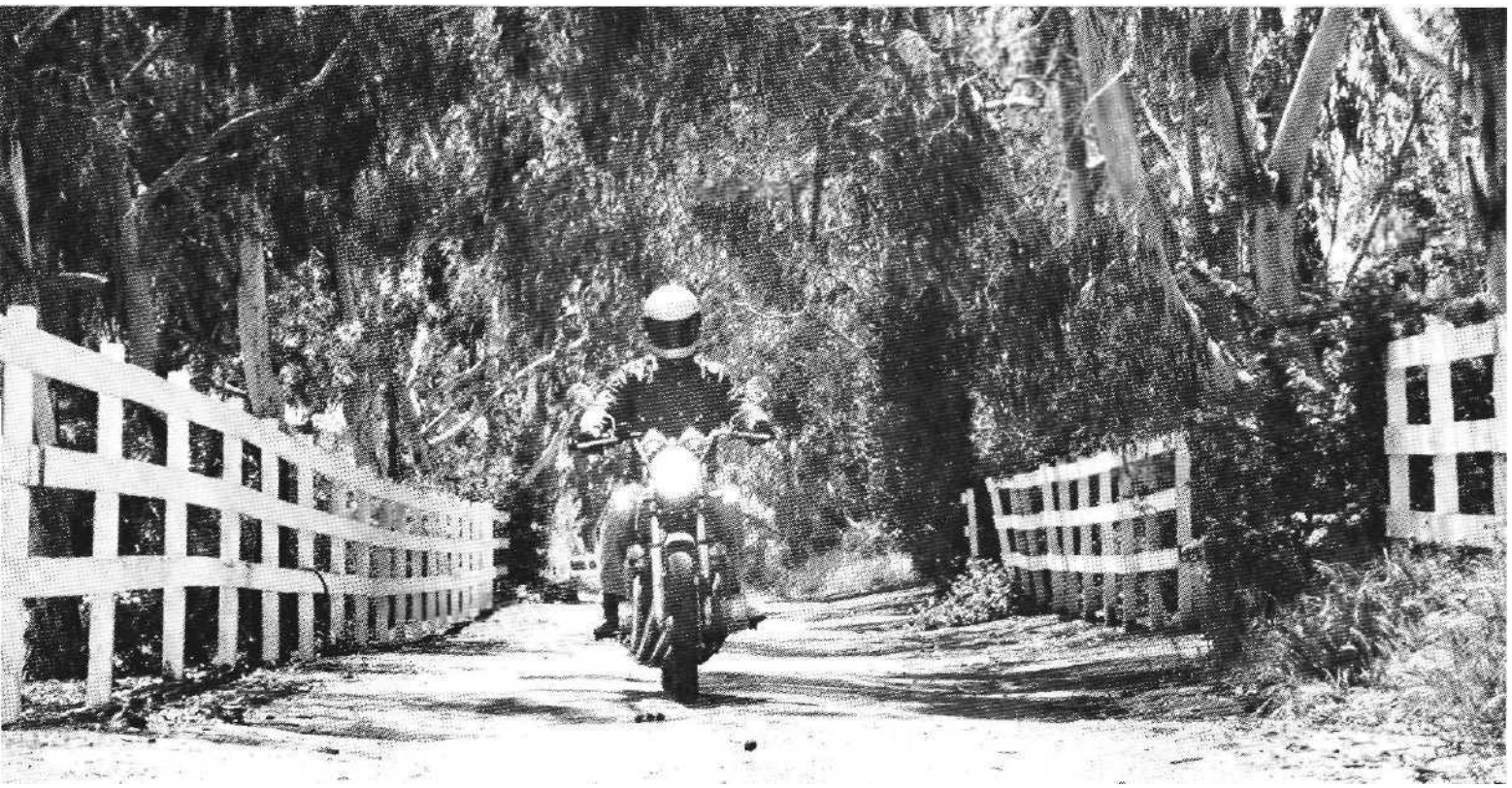
There is a good deal more cornering clearance on the left side of the bike than on the right. Unless you're very heavy or are earning a passenger and have the shocks backed off to minimum preload, the first things you'll ground on either side are the "warning balls" on the footpegs. It isn't too difficult to do on the right, since the peg is about half an inch lower than on the left. It's this way because the collector and muffler are out where they can be grounded during moderately hard cornering. Honda dropped the folding right footpeg down so it will drag before the exhaust system, which is solid and could lever a wheel off the road. The noise and movement of the dragging peg warn you that it is time to think about backing off. With softer spring settings, the first thing to drag after the peg will be the fat part of the muffler. With stiffer spring preloads, you'll get the exhaust collector. The peg is probably the only thing that will drag on the left.

Although he sacrificed some cornering clearance by doing so. our lightest staffer (160 pounds) preferred the rear suspension set on its softest spring preload setting and heavier staffers chose only slightly stiffer settings. These softer-than-usual suspension positions were preferred because the bike tracked so well over bumps. and also because the resulting rearward weight transfer provided the best handling while exiting medium-speed turns (25 to 50 mph) under power. This handling trait seemed to come partially from the weight transferred onto the driving wheel, and partially from the increased rake and trail obtained when the rear end squatted down under power.

The rear shocks worked very well when they were new and added considerably to the road-holding qualities of the big bike. Unfortunately, they didn't stay new for very long. We noticed the rear suspension fading slightly before we put 500 miles on the machine, and within a couple of hundred additional miles, it became even more apparent. The loss of damping hurt the bike's precision during cornering, particularly over bumpy surfaces when the bars would twitch slightly. The demise of the rear shocks hurt the handling noticeably, but the improved steering geometry kept it from becoming unstable or unsteady. It was only slightly less pleasant during hard, but sensible cornering.

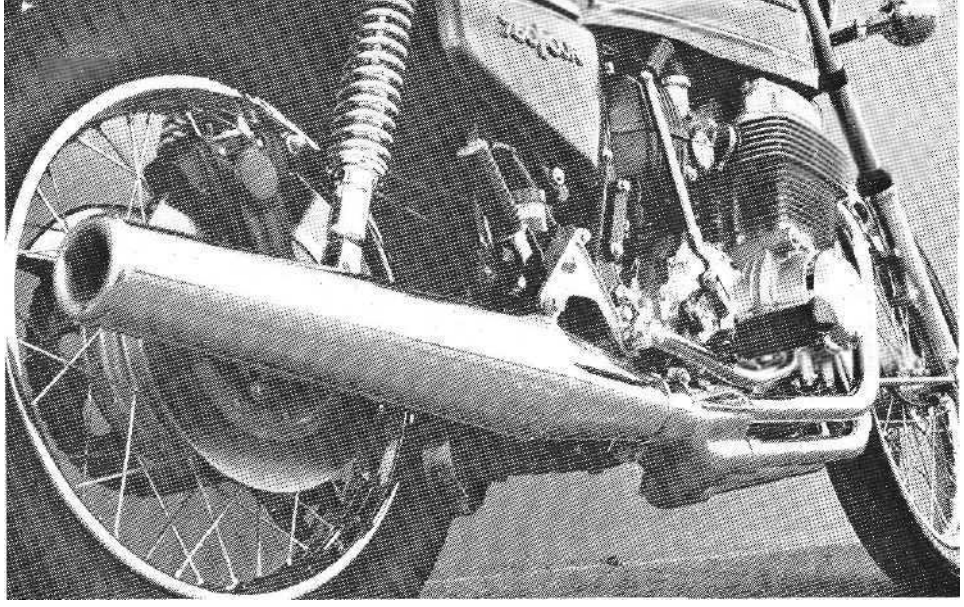
The front suspension felt a little stiffer than the rear but it tried to smooth out all bumps, no matter how large or small. Only large, sharp bumps jolted the front end hard enough to cause any concern from that quarter, and only during cornering. In all fairness, those same bumps would have undoubted!) affected any other machine we can think of.

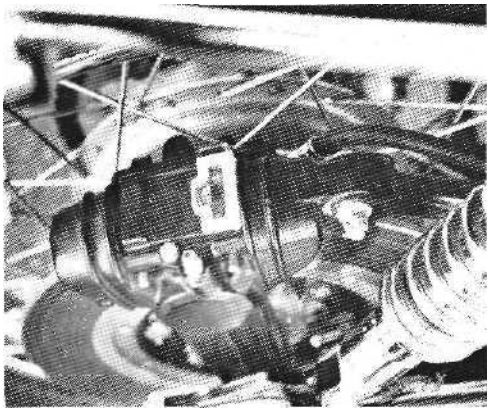
The tires worked very well on all kinds of road surfaces, wet or dry. The Dunlop K87 at the rear is the best Japanese-made road tire we've come across. It's unusual to find a street bike with two different brands of rubber, but the Bridgestone rib complements the Dunlop quite well.



The added stability plugged into the CB750F's steering geometry keeps the bike stable when buffeted by crosswinds or gusts from passing trucks. The bike will give off an occasional wiggle on rain-grooved road surfaces, but going down a straight road with both hands off the bars. it feels like it is on rails at any speed.

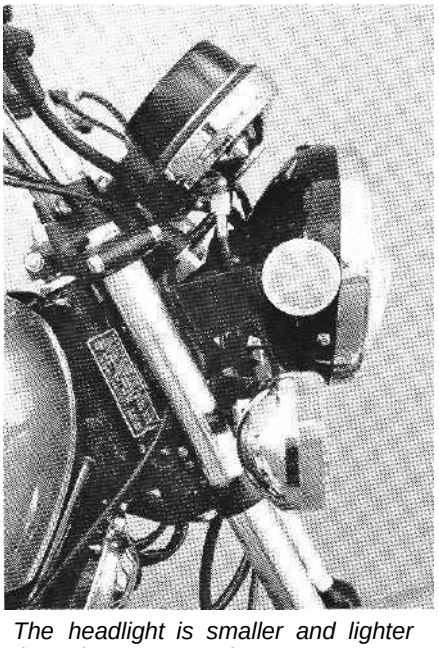
COMFORT AND RIDE: The only real comfort difference between the K5 and the Super Sport is a slight vibration increase in the latter. With the lower gearing and increased rpm. the vibration has picked up a little—mostly in the handlebars and very slightly in the footpegs. The vibration is most pronounced when the bike is accelerating. The biggest annoy-





The rear brake has an excellent feel and progression, although we experienced some rear wheel hop. The window at the top of the double-action caliper lets you monitor puck wear.

The new muffler looks different than most Honda mufflers and makes the CB750 quieter than ever before. Honda credits the 4-into-1 design for some of the Super Sport's added power.



The headlight is smaller and lighter than those on previous CB750s because much of the wiring has been rerouted.

ance created by the additional vibes is blurry mirror images, although riders who arc conscious of it may be bothered by the additional engine hum on long rides. Changing the countershaft sprocket and/or rear wheel sprocket will allow the tourer to drop the engine speed and vibration level back down to where it was on the CB750 K.5.

The handlebars have approximately the same shape as those on recent model CB750s. At 31.8 inches they arc fairly wide, and they're also moderately high. They offer a lot of leverage, which is nice in light turns or when maneuvering at slow speeds, but their height and width spread the rider out in the wind at high speed.

The seat is comfortable for the rider but less so for the passenger. The rider can go for quite a few hours before fanny fatigue sets in, but the passenger's portion is harder and will make his bottom sore in about an hour. The rear part of the seat must be higher than the front to clear the rear fender, yet contain enough foam padding to be acceptable for long distance touring. With this problem in mind. Honda made a small step in the seat just to the rear of the rider's section, then gave the passenger's saddle a slight upward slope. This way, the passenger has at least minimal padding beneath him. and he doesn't slide into the rider as much during stops.

The pegs arc rather far apart for both the rider and passenger-although the passenger pegs aren't spread as widely as on the four-pipe models. We never found the width annoying or tiring.

The front suspension is just a tad stiff for maximum comfort. You never feel jolted or bounced by most road irregularities, but on a long ride your wrists become just a little tired from the mild shaking they receive from small bumps. The rear suspension gave us an excellent ride for the entire test, even when the damping faded.

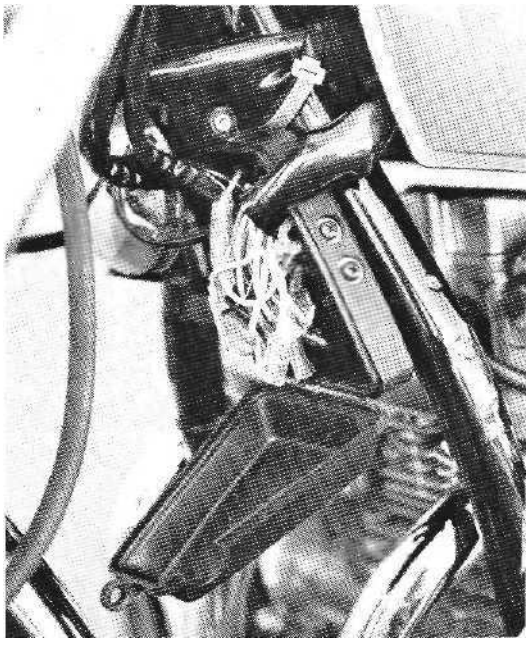
BRAKING: The front disc brake is the same unit used on previous CB750s. It requires a lot of pressure to lock the front wheel and is only moderately progressive.

The rear brake is very good. It's progressive and sensitive enough to allow you to lock the wheel but not so sensitive that you can do it accidentally, even when downshifting. There was a lot of chattering and some wheel hop when the rear brake was applied hard on bumpy surfaces. The same symptom appeared if the clutch was snapped home in a lower gear during hard stopping with the rear brake. On smooth surfaces, the rear brake was just fine.

Our best stops were in 141 feet 8 inches from 60 mph and exactly 34 feet from 30 mph. (The K5 slopped in 136 feet 3 inches and 36 feel 4 inches.) The stop from 60 mph was worse with the Super Sport because the rear wheel had a tendency to step out to the left and get the bike sideways. To keep the bike straight and on its wheels, we had to back off the brakes a little.

Neither brake faded at any lime during the test, at least when they were dry. Both brakes lost about 20 percent of their strength during their initial application when wet. although they returned to full strength almost immediately. They both squeaked when they got very hot and also made squealy noises for two or three days after the bike had been ridden in a rainstorm.

RELIABILITY DURING TEST: The clutch provided us with the biggest problem we had with the Super Sport. Early in the test, we made some fast starts with



Most of the plug-in connectors formerly found in the headlight shell are now housed in this plastic box on the left front downtube.

the revs up and the clutch slipping. This overheated the friction plates, causing the clutch to grab badly and groan loudly when it was engaged. The fix prescribed by Honda was new clutch friction plates. There are seven plates, and each one retails for between $2.61 and $3.50. Those prices, incidentally, are for K5 plates. The CB750F has new style plates, precisely designed to remove the problem we encountered. At the time, there was no price established for them.

The speedometer on our bike also went South right after we received the machine. The needle wiggled around a lot and it read about 20 mph too fast much of the time. Since Honda instruments are not rebuildable. you would either have to live with it or replace it. The price of a new one ranged from S43.90 to $46.31 at the shops we checked.

A thousand miles or so of moderate use left some deposits on the plugs, so we had to replace them before getting a strong run at the dragstrip.

The bike required one chain adjustment every 500 to 900 miles, depending on how it was ridden. The disc at the rear removes entirely the need for brake adjustment. The dry-sump lubrication system never required the addition of any oil. and the bike never needed any attention except chain lubrication.

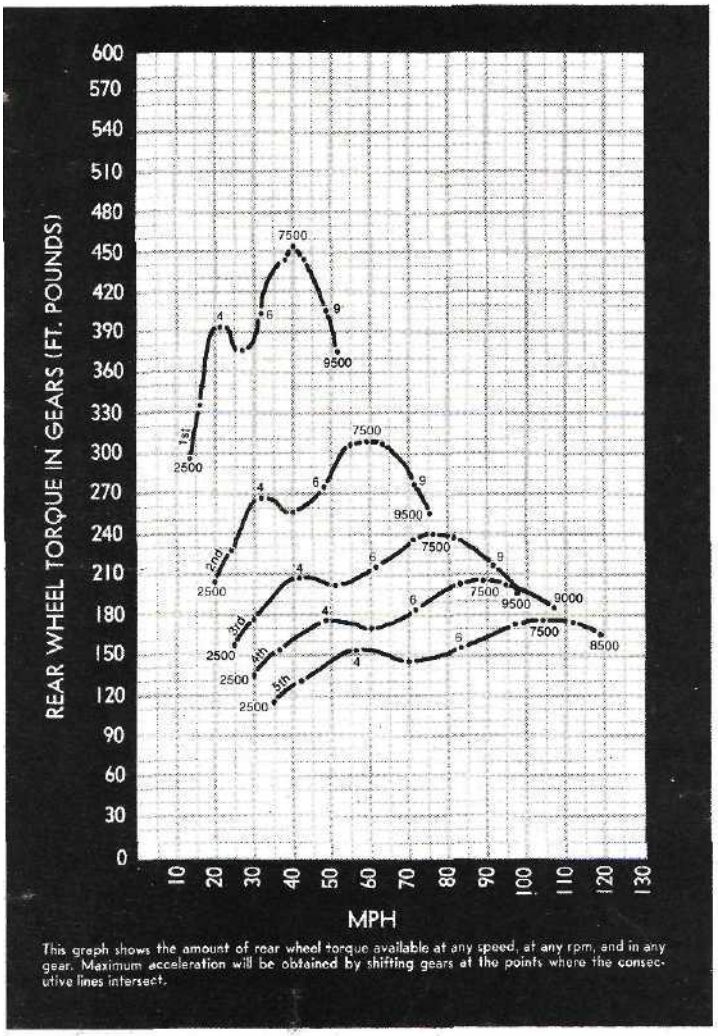
SUMMARY AND CONCLUSION: The changes Honda made to the CB750 in creating the CB750F Super Sport have given it a new appearance, more power and more punch, and a sound level that is tower than ever. Some fuel economy and a small amount of bottom end power have been lost, however. The suspension changes have transformed the CB750 from an adequate handling machine into a really good handling one. Only the short-lived rear shocks hurt the handling at all. The comfort level is still high, although the vibration has increased just a little. We had several problems with our bike, ranging from a grabby clutch to an erratic speedometer.

The CB750F is better than earlier CB750s for some riders and worse for others. Providing the clutch problem is cleared up. commuters and in-town riders will find the machine easier to ride in traffic than previous models because of the Super Sport's lower gearing. Performance-conscious riders will enjoy the added power and acceleration which have brought the machine back to the fringes of the superbike category, with the added benefit of improved handling. Honda-loving tourers may appreciate its ability to pass more quickly in high gear, or they may be put off by the added vibration and fuel consumption- both of which can be changed with the external gearing. Or they may want to wait and see if Honda has a shaft-driven, automatic-transmissioned 750 for them. Those who don't wait will find the CB750F Super Sport to be a bit more frivolous, but a lot more fun.

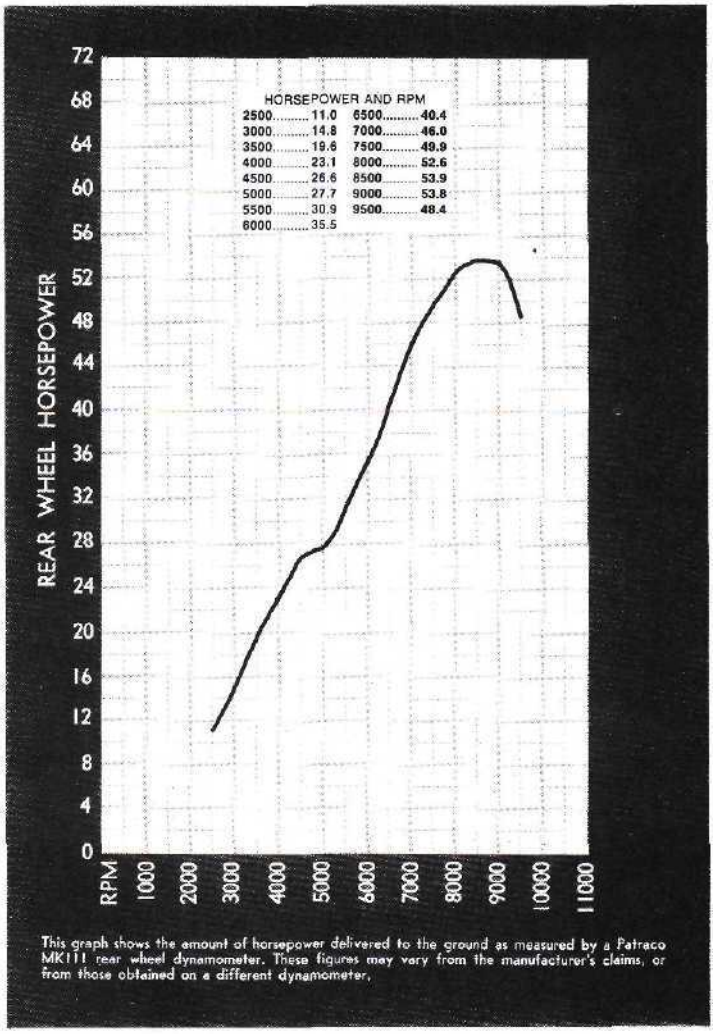
SPECIFICATIONS

Engine type	four-stroke
Cylinder arrangement	transverse parallel four
Valve arrangement	single overhead camshaft
Bore and stroke	61mm x 63mm
Displacement	736.4cc
Compression ratio	9.2:1
Ignition	battery/dual coils/dual points
Charging system	12-volt, AC generator, voltage regulator, selenium rectifier
Carburetion	four 28mm Keihin slide/needle
Air filter	disposable paper element
Lubrication	dry sump, 3.7-qt. (3.5-L) tank capacity
Primary drive	two single-row chains, 1.985:1 ratio
Clutch	wet, 7 drive plates, 7 driven plates
Starting system	electric and primary kick
Transmission	5-speed, left-foot shift
Overall drive ratios	(1) 14.01; (2) 9.57; (3) 7.47; (4) 6.35; (5) 5.44
Transmission sprocket	17-tooth
Rear wheel sprocket	48-tooth
Drive chain	⅝ in. pitch, ⅜ in. width (#530)
Front fork	5.0 in. (127mm) travel
Rear shocks	5-way adjustable, 3.8 in. (96.5mm) rear wheel travel
Front brake	single-action hydraulic caliper, 11.7-in. (298mm) disc
Rear brake	double-action hydraulic caliper, 11.7-in. (298mm) disc
Front tire	3.25H19 Bridgestone rib
Rear tire	4.00H18 Dunlop K87
Frame	tubular steel, double downtube
Steering head angle	28 degrees from vertical
Front wheel trail	4.5 in. (115mm)
Wheelbase	58.0 to 59.3 in. (147.3 to 150.6cm)
Length	87.3 in. (221.7cm)
Weight	503 lb. (228.2kg)
Weight distribution	44.7% front, 55.3% rear
Ground clearance	5.6 in. (142.2mm), at exhaust collector
Seat height	32.6 in. (828mm), unladen
Handlebar width	31.8 in. (807.7mm)
Handlebar grip height	43 in. (109.2cm)
Footpeg height	13 in. (330.2mm) left, 12.4 in. (315mm) right
Instrumentation	speedometer, tachometer, tripmeter resettable to zero
Speedometer error	N.A., see text
Gas tank	steel, 4.8 gal. (18.2L)
Gas consumption	38.3 mpg (16.3km/L)
Best ¼-mile acceleration	13.10 sec., 101.5 mph (163.3kph)
Stopping distance from 30 mph	34 ft. (10.4m)
Stopping distance from 60 mph	141 ft. 8 in. (43.2m)
Sound level per SAE XJ 331a	78.6 db(A)
Suggested retail price	$2165 East Coast, $2152 West Coast

HONDA CB750F SUPER SPORT



This graph shows the amount of rear wheel torque available at any speed, at any rpm, and in any gear. Maximum acceleration will be obtained by shifting gears at the points where the consecutive lines intersect.



This graph shows the amount of horsepower delivered to the ground as measured by a Petraco MKIII rear wheel dynamometer. These figures may vary from the manufacturer's claims, or from those obtained on a different dynamometer.