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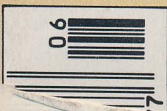
**Honda's New
500 Roadster**

**Multi-Million-Dollar
Daytona Spendathon**

JUNE 1982 • \$1.25

Kawasaki GPz750 **Purebred Sports Bike Supreme**

Giant Comparison
Enduro-Bike Winners & Losers



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This Month's Cover: See here. Zápüdb, we said to the AD, we want this GPz750 to pop off the cover. No problem, he replied, we'll put this jump-out square-lens on Robin Riggs' card-board camera, and it'll be dramatic. It was. So is the bike: best 750 sports bike in red or any other color. The test begins on page 30.

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The 200-Mile Techno-Battle By Kevin Cameron

It looked like the beginning of a long afternoon for everyone. Roberts was working like a fiend to find the holes in the performance of the big water-cooled Honda four-strokes, nipping under Baldwin and Spencer on

brakes into turn one to the roars of the crowd, then being out-accelerated out of turns two and five, then again darting past into the chicane only to be repassed on the exit. Lap after lap these three flashed past start-finish nose-to-tail or

side-by-side, their order changing on every tour.

And then, after nine terrific laps, Roberts was out, rolling slowly past the pits, his engine apparently tightened on a lethal dose of debris kicked up in drafting

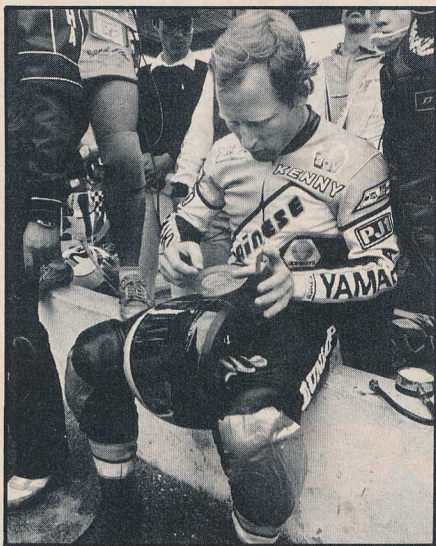
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on the dirty high lanes of the banking. Drama over?

No, the drama was just beginning.

Because the 500cc World Championship has in recent years attracted most factory attention, Daytona has tended to deteriorate into a giant club race. Design progress has made the factory Yamaha OW-31 on which Kenny won here in 1978 seem now an obsolete lumber wagon—an unforgiving chassis combined with a difficult powerband. It's no secret that he would prefer to ride a highly developed



modern 500 at the Speedway but, until this year, Yamaha policy has prevented that. This year, Yamaha has an all-new design, a refined two-stroke square-four 500. Wouldn't Daytona make a nice debut for this motorcycle?

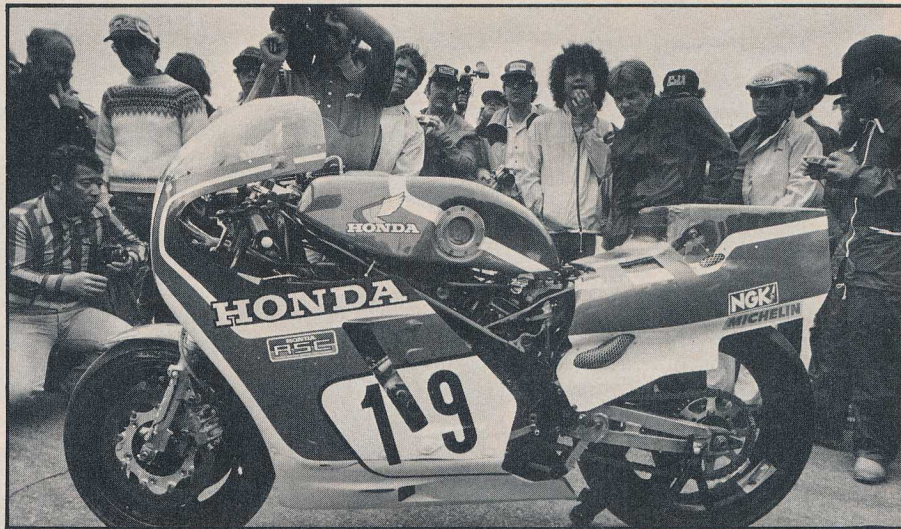
If Yamaha is doing it, what factory wants to be left out? Suzuki entered Randy Mamola on one of its latest Gamma II square-four 500s.

And, as luck would have it, Kawasaki chose this time to honor a clause in Eddie Lawson's contract that required them to provide him with KR500 GP racers for U.S. Formula One races.

Honda, in the midst of a radical re-entry into all phases of road racing, had just introduced the new water-cooled 1000cc V-4 FWS, a machine intended ultimately for endurance racing but just now ideal for F1. It would be ridden by Freddie Spencer and Mike Baldwin.

The Yoshimura team would have a clever new F1 chassis housing a racing version of the newly developed Katana motor, ridden by Wes Cooley.

Team Agostini had entered Graeme Crosby on machines provided by the Yamaha factory—a pair of classic OW-31s,



For this Daytona the factory arms arrived in force, led by Honda's only two—and priceless—FWS V-fours, and Yamaha's new OW-60 and finest pilot Kenny Roberts. Everyone spent a bundle, and Honda outspent everyone.



including KR's old machine, with the latest (1979) seven transfer-port cylinders.

To have great racing at Daytona, or indeed anywhere, you must have the best of riders on the best of machines. All these elements were in place as Monday of practice week began.

Professionalism and mature equipment made for smooth sailing for most of these teams. The single important exception was Yoshimura's camp. With the new 16-valve Katana engine giving a tantalizing 13 bhp more than their best 1981

eight-valve stuff, who can blame them for ignoring Suzuki's "suggestion" that they use the older, proven material? Seizure of the wristpins in the unbushed small-ends of the rods led to piston skirt breakages, and by Thursday, the day of qualifications, they were forced back on their obsolete 1981 technology.

Kenny Roberts' crew spent a quick hour on Monday changing fork spring rate, jacking the rear suspension, and re-jetting, but, most of the time, the new 500s were either out in practice or out of sight under tarps.



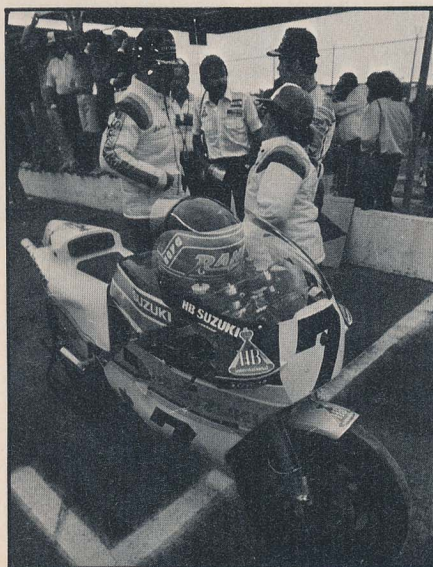
PHOTOGRAPHY: DAVE HAWKINS

Mamola's two machines rolled out to practice with very different sized rear sprockets, indicating that each machine was fitted with different gearbox internal ratios for test.

The Honda team, who by Tuesday afternoon of a year ago had blown up all their engines and were reduced to building new ones from parts, were happy, no, even ecstatic, about the new FWS. This bulky package seemed to have been especially designed just for Daytona. Attended by a ten-armed crew of Japanese technicians, it was doing everything well. Even the air-cooled engines of the Superbikes and of the F1 rides of Steve Wise and Roberto Pietri were running reliably; the year's development has uncovered and corrected many weaknesses. Great theater always attended the start-up of any of the Hondas. The special starting rollers are running, their little gas engine straining, and the racer is backed onto them. With great coughings and snortings, the cylinders are awakened to alternating snarls and rumbles. The new V-4, with its flat crank and odd firing intervals, gives a much deeper sound than the muted-trombone blare of the old in-line engines.

More drama comes from the constant

*Two hundred miles of racing
cut the Quick from the Lasting.
Crosby's "old" 750 factory
Yamaha hung on to win.
Mamola and his works RG
were gone in the first turn.*



press of photographers and TV cameramen, there to record every little move for Honda PR use. In the midst of all this big-time activity are the familiar faces—jovial Todd Schuster, chief fabricator and Keeper of the Lore, race chief Udo Gietl, who smiles mostly only when it's all over, and the riders themselves—Spencer, Baldwin, Wise, and Pietri. A steady stream of supplies and tools moves to the Honda garages from nearby transporters. Work is going on everywhere.

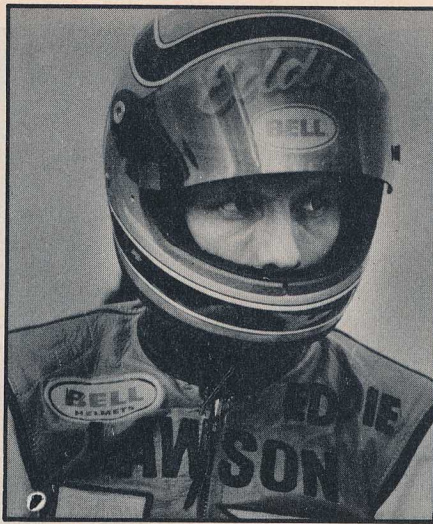
The FWS accelerates like nothing you have seen on a racetrack. Out of turn two, with its deep engine note sounding like a big-inch V-8, the FWS could make any private 750 or 500 appear to be running on two. Speed trap clockings taken on Monday and Tuesday showed it to be actually slower than the super-light Moriwaki aluminum-framed air-cooled racer of Pietri (who must now be considered a really good rider in his own right). The machines are bulky, and surely Honda engineers have concentrated more on obtaining a broad torque spread than on top-end power. A high-horsepower 750 needs all its six speeds to balance the heavy load of air and rolling resistance atop its bill-spike powerband, but the torque curve of the FWS is as broad as

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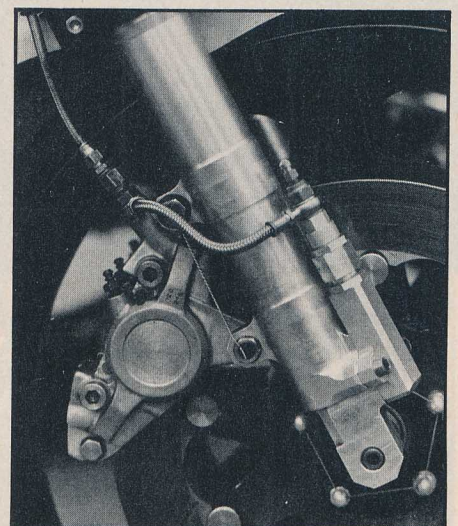
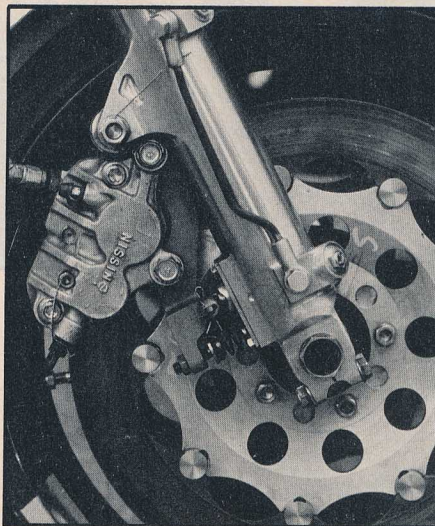
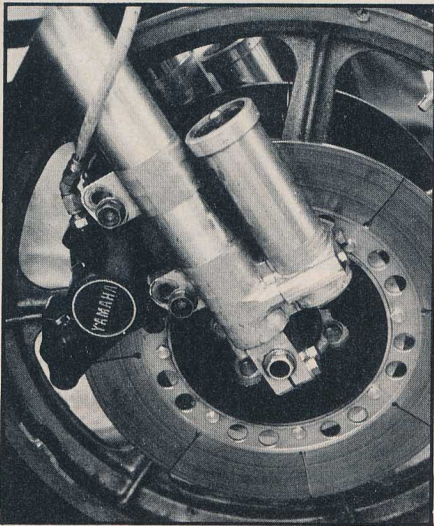
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an ox. Despite their considerable 365 pounds, these new water-cooled Hondas stayed down where their riders placed them in turns, responding without vice to throttle on the way out. Suspension seems to be a science Honda engineers have now mastered; the new machines could be ridden through the vicious bumps of turn five on the tank, something difficult or impossible with other racers.

Mike Baldwin noticed early in practice that Roberts was having trouble getting his machine to steer under acceleration out of turn two. When the power came on, Roberts' right elbow pulled back, turning in the front wheel to a pushing, plowing attitude that interfered greatly with getting his drive started early. He often prefers weight biased farther to the



Inside 200 miles any weakness in strategy, preparation or design can turn a rider like Eddie Lawson from a potential winner into a race-day walker. He led; then walked.



How it's done up front: OW-60 remote reservoir fork (left); the Honda FWS anti-dive fork with four-piston caliper (center); and the RG500 Gamma II anti-dive system (right).



PHOTOGRAPHY: JOHN OWENS

rear than do other riders and has had troubles blending this choice with the other characteristics he needs from his machines. For this reason, then, the Hondas were darting ahead of the new Yamaha 500 out of turn two and out of the chicane. Up through turn five a similar thing was happening, but, once they were away equally, the acceleration and top speed were, in Baldwin's opinion, interchangeable.

On Monday evening they posted a list of speeds through the timer located near start-finish, and a Yamaha 750, that of former AMA Rookie of the Year Nick Richichi, was at the top with 174.8; Roberts was just behind. The big Hondas were farther down in the high 160s. Crosby's potent OW-31 had not yet made its presence felt.

From the infield, only five men seemed to be trying really hard to go fast: Roberts, Baldwin, Spencer, Lawson and Mamola. These men were snapping quickly through the chicane, getting their machines unhesitatingly right over on the cool side of the tire (Daytona is a left-hand course, remember) in turn two, and

bearing down in turn three as though it were a real corner and not a scary punishment of some kind. It was these five who generally had the notable times through various timed segments; they were essentially equal everywhere but in turn three, where Roberts was a couple of tenths to the good. With such equal riders it would be a machine contest. The people with the good times through these segments were always those with high entry speeds. What a difference between a fast man flinging himself into the chicane and a normal racer riding through. The fast people enjoy the confidence that what they are about to do (pitch it in) is going to work exactly as they have planned; they don't teeter slowly over to the desired lean angle, creeping up on the traction like an April swimmer poking a terrified toe into the oh-so-cold water. They have to know they are right. Their

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moves must be statements, not questions. And, as Roberts has said, if you look up at the bales on your 175-mph course to the chicane, you may lose your essential train of thought in hypnotic fascination at just how dangerous this all is.

On Tuesday, Lawson lay in wait for Roberts to take the measure of his 500. Roberts' main concern was to drone through the infield, because a promising rider like Lawson will instantly under-

from the long green machine; but running around the bowl and down the back straight to the chicane, the two closed up again. Next, more of the same through the infield, but this time a hard application of Yamaha throttle pulled out a big gap on the bowl—a gap that remained to the chicane, where it was multiplied into an impossible distance. Lawson was grumpy. His bike was down on power from the Yamaha. He has a right, even a duty, to be grumpy; next year the parent company is taking him to Europe to race the GPs, and if his machine is down on

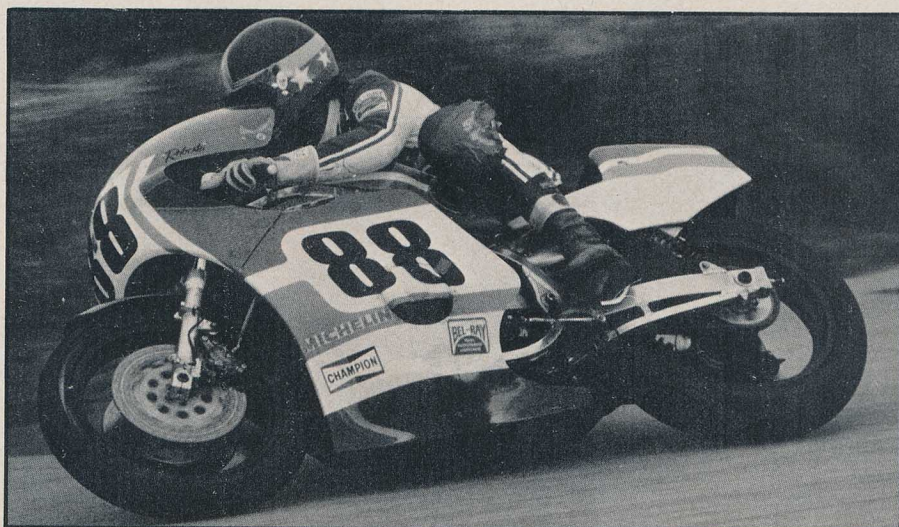
require as much caution as does any super-power tweak. Presumably, Crosby's bike ran very rich in practice and none too near the edge in the race. As one of his mechanics commented, "They say the winner is among the finishers. I believe that." Unlike the factory teams, who had all spent parts of January and February at the track, Crosby & Co. had to condense all their learning into Monday and Tuesday, just like any privateer.

Mamola and crew had made all their final choices by mid-Tuesday. GP teams work fast because they work all the time; they know their equipment and themselves well. The rider's only task is riding, thinking about riding, and conferring with his crew on preparation. He isn't trotting around the garage area desperately looking for a set of used crankcases.

And what about the privateers? Singleton's crew worked away steadily to the squeals of the promotional piglet. The resulting lap times were no better and no worse than those that have served him well in the last three years. Schlachter was mired in carburetion troubles, finally seizing before squaring away



Daytona is a tale told by tires. Roberts' OW-60 wore a gargantuan rear Dunlop. The Michelins that delayed Baldwin's FWS worked perfectly on Pietri's aluminum-framed inline Honda.



stand anything new and desirable shown him. KR saves the racing for Sunday; he serves no free lunch in the meantime. Consequently, here came KR with Lawson attached, up through two and three, then slowly around four, the second cold-side right-hander. Out across the notorious bumps of five they ran up onto the banking in close order. Once on the wall, Kenny gave his 500 a squirt and jerked ahead a sudden two or three lengths

power, this is the time to get it fixed up.

Crosby and his crew were being very conservative. He knows he is lucky to have Yamaha works 500s for the GPs—the races that make or break reputations. To hurt himself at Daytona, which counts toward no international championship, would be nonsense. OW-31s have had problems here—sticking throttles, chatter, seizures, broken crank gears. The trick cylinders, though nice,



on a running combination after most of practice was over.

"In March you come down here and you have to learn it all over again. Here's the brake, this over here is the shift . . ." he commented.

Aldana had nothing to worry about: his motorcycle was still under construction from cardboard boxes of parts in a nearby garage.

Nick Richichi had planned to concentrate entirely on getting practice by jetting to a known combination. His excellent plan ran into repeated unscheduled delays that robbed him, too, of practice time. The private Suzuki 500 owners Thad Wolff, Uri Bergbaum, and Jeff Heino were going well in general, but the major problem with these RGs in the United States is that no parts are imported here; they must be ordered from abroad. Perhaps U.S. Suzuki will see the light soon.

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Formula One *Continued from page 108*

In previous years, when everyone was a privateer, these misadventures evened out in large part; everyone was in the same boat. Get that model running by Thursday morning, by God, and I'll go out there and give it hell in qualifying.

This year, this funky racers approach wouldn't make it against professional opposition. Bringing your buddies to help you out with all these specialized jobs is tough on you and on your buddies. One mistake and you miss two practice sessions. Miss those and your learning curve is permanently two hours below that of everyone else.

Three of the factory teams were visibly tackling the problem of future talent. Do they look around at the most promising young privateers and give one or two the nod? They do not. They pick dirt-trackers. Here was ex-motocrosser Steve Wise, two-time winner of the TV Superbikers event, very systematically trying one idea after another in each corner, stacking away what he had learned like a careful librarian. He'll go far with Honda. Kawasaki's Wayne Rainey was picking his way through the obstacles on one of the new production Superbike Replica Racers. Jimmy Filice had a new Yamaha TZ500J tuned by Bud Aksland, and while never looking really comfortable, he was definitely building competence.

Amateur races run on Wednesday so

there's time to work quietly without interruption. At Honda, they had a tire problem. The tire that had persuaded them to use Michelins in the first place would, it was now discovered, go only 185 miles at steady 2:04s, based on the wear forecast. The Japanese factory had originally planned to have Dunlop develop a special tire for their special machine, while the U.S. racing department had made separate arrangements with Michelin to provide tires for the Superbikes. Riders naturally begin to worry when the tire men show the least sign of fallibility. It was no use going to ask Dunlop for forgiveness; they wouldn't be coddled into being buddies again after being snubbed by American Honda's adoption of Michelins on all bikes. Tire companies don't work that way. Tires aren't just commodities for sale like sheets and pillowcases. When you make an agreement with a tire company, you are becoming a party to their whole development process, about which they are very sensitive. That is why they frown so heavily on sudden switcheroos.

Baldwin was seen disappearing into the Goodyear garage with a set of bare wheels. After the next practice, he was still frowning. Accordingly, a slightly more durable Michelin was used in the Superbike race on Friday, going the distance with minimal wear. After a conference with the French home office,

Honda chose this "harder" tire for the F1 final, and it was mounted for all racing machines.

Kenny Roberts has been associated with Goodyear for many years, but after this last season, Yamaha indicated that he would have to keep his options open for 1982. He tested with Dunlop at Laguna in the fall and was on Dunlops at Daytona. He seemed to be happy with their monster rear (being close to eight inches in width, it is mounted on a rim five inches wide), remarking that in 10 years of racing he hadn't used a tire yet that didn't give up in five laps, but was eager to try one that didn't.

Mamola's Suzuki was similarly Dunlop-shod, the difference being that he is using the small 16-inch fronts, while Kenny prefers an 18-incher on a light motorcycle.

Goodyear had three basic choices open for F1. Conservative riders were going with the hardest as always in the past, knowing that though a bit glassy in the infield, it would certainly go the distance. Lawson may have slid right into KR's old role as chief tester; his Kawasaki was shod with Goodyears a bit different from the general issue. A top rider is essential to any race-tire program because rubber developed for the average man is useless under the harder service of a master.

(Continued on page 130)

Nothing fits a



Roberts' motorcycle, the Yamaha OW-60, is a complete redesign of the two-stroke square-four OW-54 that replaced the old in-line engines in Europe last year. The pressure of Suzuki's disc-valve square-four, with its fat torque curve, has forced Yamaha to follow suit in this way. The OW-54 had to be redesigned not to break, and with only six months' development time, this meant making all the parts extra-big. Therefore, it was a bit of a club, 30 or more pounds overweight, too tall and too immature. As Yamaha built the 54, the company began a new program for a downsized version, the OW-60. This would be the "real" motorcycle, a lightweight machine whose reliability would come from exhaustive testing rather than extra metal. The Daytona machine is itself only a step to higher development expected mid-season.

The most visible design trends are weight reduction and the location of that weight far enough forward to make the machine steer out of corners. The invisible trends are of course improved suspension and engine torque spread.

Suzuki has until now been the leader in forward weight location; Suzuki engineers have crammed two cylinder pairs right against the back of the radiator, their axes parallel with it. They have lowered the height of the engine's center of gravity (C.G.) by rotating the front crank's position around the jackshaft (which collects the power from each crank from centrally located gears) until it is directly in front of it, while the rear crank is more nearly above it. This puts the cylinder pairs on different levels.

Yamaha has raised the radiator up and put it *behind* the frame's front downtubes instead of conventionally, in front of them. Next, the engine, with its cylinders inclined forward at nearly 45 degrees, is moved downward *under* the radiator until the forward pair of cylinders is nearly in contact with the front tire at full bump. The visual effect of this layout is, the first time, quite amazing—the engine appears to have no cylinders on it at all. Because the beefy square-section aluminum tube frame is as wide as the distance from carburetor to carburetor, the engine appears extremely narrow, which it is not. The tall steering head is massively braced by six tubes, two of them running almost straight to the swing-arm pivot. This direct load path is made possible by the low engine position. Remember the long monoshock that used to reach all the way from the triangulated swing arm, up through the tank tunnel to the steering head? All gone. In its place is a very abbreviated spring/damper unit a foot long whose front end attaches to a frame crosstube above the gearbox. Its other end is attached to the "Link-Five" bellcrank which produces Yamaha's first rising-rate rear suspension, connected by hefty pushrod to the massive swing

arm whose triangulation is now on the underside of the main arm.

The reason engines haven't been lowered this much in the past has more to do with clutch-to-ignition width than with carburetor-to-carburetor width. This is because the first-mentioned components are located low down on the engine, while the carbs are high, above their respective crank centers by some two inches so they don't get close to the track in cornering. With the coming of super-wide tires, engine sprockets have been extended further and further to the left; why not just move the whole gearbox over to the left, pulling the bulky clutch with it? When this was done, right-side cornering clearance naturally increased. On the left, the ignition was the barrier, mounted on the end of the jackshaft. If this component could be made small enough, it too could be pulled inward. Such narrowing of the lower part of the engine allowed the whole unit to be lowered.

This appears to affect the necessary rearward weight transfer needed to weight the drive wheel under acceleration, but it's an illusion. The heaviest component on a light modern GP machine is the rider, and he will only fit conventionally rather high up. Therefore as the machine beneath him is made lighter, the center of gravity of the whole combination *rises* and the machine stands up more easily under power or braking. What Yamaha has done in building this light machine with a low engine position is to counteract this natural C.G. rise. Simply on braking considerations alone, every inch that the C.G. can be dropped at Daytona yields about six-tenths of a second per lap.

This OW-60 appears to have no fork offset (the distance from the steering pivot to the central plane of the tubes) at all; tubes and pivot are all in line at the top. Actually, the tubes slope more than the pivot's rake angle, reducing the amount of fork bind under braking and decreasing the polar moment of the front end around the pivot.

Except for the differences in cylinder orientation, the Suzuki looks very similar to the Yamaha, having also a square-section aluminum frame. Rear suspension uses a single vertical damper/spring unit compressed by a rocker arm above it, connected by pushrods to the swing arm below. Visually, the rising rate built into this appears to give a final rate some 20-30 percent higher than the initial rate—much less progression than is used, for example, in motocross. Although designers have tried all sorts of progression curves with knees, steps and elbows in them, smooth progression seems to give the best track results.

Suzuki's fork tubes are parallel with the pivot axis, and the small amount of offset used (perhaps 25mm) indicates that this machine has a lot of trail. This

has likely been provided in part to supply the stability lost in the adoption of the small 16-inch front wheel. Mamola indicated that front tire profile is the variable most often left out of discussions of front-end geometry. They can now make a 16 x 3.5-inch front steer with the same feel as an 18 x 3-inch by correct adjustment of the tire profile.

Suzuki has, like Yamaha, adopted the rider as a full participant in chassis design, a step Kawasaki has yet to make. Although such a thing seems intuitively sensible, remember that only recently have riders come to be regarded as knowledgeable professionals with real information to share, rather than as a species of daredevil or kamikaze pilot. Would you ask a hired maniac what fork angle to use on a million-dollar racer?

Both of Lawson's Kawasakis had the long 1981 chassis that saw European service until Silverstone, when a shorter model arrived. This length is Kawasaki's simple approach to the problems of how to keep the front end down under power and the back end down under braking. This is also why they alone are still using a jack-type anti-dive (one which uses brake torque reaction to directly push the front of the machine upward) rather than the hydraulic-cushion schemes used by all other makers. Also unlike the others, Kawasaki's chassis is a monocoque; the fuel tank and the chassis are one large sheet of aluminum weldment. One goal is stiffness without weight penalty. Most makers' fork crowns look strong only from the top. Turn them over and you see that they are open on the bottom, milled out into a pattern of "stiffening" ribs. This is like a cardboard carton with the lid missing—its only stiffness comes from the thickness of its walls, not from its shape. Kawasaki's crowns are complete box weldments, inherently stiff and light.

Only after giving European rider Kork Ballington a shortened version of this did Kawasaki begin to consider the benefits of a very short motorcycle—rapid maneuverability. Perhaps in persisting as long as they have with the long-chassis concept they have learned some things the others have overlooked, but so far it appears that the long chassis has just prevented the thing from becoming competitive. Eddie Lawson won't be as docile in accepting whatever the company gives him as Ballington has been. You can expect a lot from the Lawson/KR500 combination.

On Thursday the 20 fastest qualifiers become locked-in, which means that anyone setting a faster time on Friday cannot bump one of these 20 to a lower spot. Competition for these spots is lively, and the slower privateers would be pushed off the bottom of the list by potent factory entries. Roberts and Yamaha took the pole with a new lap record of 2:01.8. Second-fastest was Mike Bald-

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Formula One *Continued from page 130*

win on the Honda FWS, now returning to his full force as a rider. This makes him very dangerous indeed; in 1979 no one looked likelier as a future World Champion. His time was a 2:02.2. Spencer was third with a 2:02.4. And then? None other than Eddie Lawson, making a sensational transition from the 415-pound Superbike to the 290-pound GP 500 with a low three. Last on the front row was Crosby, unobtrusively getting around in about 2:04. Mamola apparently wasn't really connecting yet, being first in the second row with a higher four.

The French contingent who have done so well here in recent years, Christian Sarron and Marc Fontan, had troubles on Thursday and had to accept downfield positions on Friday.

Cooley, Singleton, Schlachter and Richichi were all in the first group but not necessarily satisfied with their times, depressed as they were in most cases by chronic lack of practice.

The TV weathermen had so confidently predicted a weekend of unending rain that everyone was happy Sunday morning to see no more than a 20-mph wind and big black clouds to the northwest. In the gusty practice, it was clear that a race held in these conditions would strongly favor any heavy motorcycle. Skeptics went to lunch, but the Speedway's owner, Mr. Bill France, doesn't like to be over-hasty about giving people back perfectly good money or rain-checks; they would wait until 3:30 and then make the decision. The rain petered out and trucks and vans took to the bowl, kicking up a spray that the wind could carry away. By four in the afternoon, the field was summoned to the grid.

You might have expected the four-strokes to disappear at first, borne ahead by their luxurious torque curves, but Roberts and Lawson were right there with the two Hondas in turn one, their clutches probably smoking from the effort. Matters sorted themselves out right away. There was going to be a race because no one was going to be able to get clear. The Hondas led out of every slow corner and Roberts had to tuck in quickly to avoid being dropped off. Back a few seconds, Lawson remained close enough to pounce on any mistake made by the leaders.

On lap one, Crosby and Mamola had crowded each other for line in turn one, Mamola on the inside (the strategically superior position) and Crosby on the outside. Schlachter, directly behind, saw neither man willing to yield, then a tangle, and Mamola falling. Schlachter took a fast excursion into the grass to avoid it all. The episode will, unfortunately, add more heat to the already adequate feud between Crosby and Mamola, a feud which began last year on the Suzuki team and ended when Randy emerged as

Suzuki's officially recognized Number One for 1982; Crosby was shut out, and he had to scramble almost everywhere for a ride before landing on Team Ago with official Yamahas for the GPs.

When Roberts' engine stopped on lap nine, the Hondas were running high threes with Lawson five seconds back. Running almost two seconds a lap slower than these three was Crosby, whose bike was, if not a droner, at least a bit slow. Baldwin and Spencer would now battle one another, a contest between one man who surely wants to reestablish the reputation he created for himself in 1979, and another one who must push himself constantly to the maximum to justify the public's expectations of him. No cruising. Lawson was too close to allow them any relaxation. Baldwin seemed to gain the advantage slowly, as though he would win by sheer knife's-edge smoothness.

He had done enough tire testing to know how it feels when a tire begins to fail. Sometimes it's blistering; the tread gets hot enough to vaporize certain elements of the compound, forming minute bubbles that bulge the tire and make it vibrate. Other times the tread actually separates; the chemical bond between the tread rubber and the molded-in fabric of the carcass break down over a wide area and great chunks of rubber are thrown off at high velocity, sometimes damaging other parts of the machine. There was big trouble, and Baldwin knew it. Straight to the pits he rode and stopped, pointing at the tire that had ruined his beautiful race. The squad of Japanese technicians changed the wheel as quickly as they could, fortunately having everything at hand. It took two minutes and the tire they put on was another of the same, but no matter—get back out there! Spencer was in on the next lap and, because it was expected now, his tire change was completed in 90 seconds. What had happened? Where had the wear predictions gone wrong? The only thing that had changed was the weather; hard rain cleans the track, exposing a more aggressive surface that works a tire harder.

Lawson now inherited the lead, running mid-fours some 13 seconds ahead of Crosby and still pulling away from him at two seconds a lap. Back farther, Cooley was now third on his eight-valve Suzuki F1, being rapidly caught by Schlachter. The Hondas, meanwhile, although they had taken on gas with their tires, both began serious racing again, running fours. Schlachter, about to pass Cooley, told himself to stay to one side, not to draft.

"That thing could blow up at any time. And it's not just the oil. Don't forget, there could be sharp pieces lying on the track."

On lap 13, it happened; the Yoshimura Suzuki sneezed mightily and eviscerated

itself. Smoke poured out and Cooley was looking down, his knees out to the sides. It's a fast game and it's easy to get left behind.

Lawson, informed no doubt of the Hondas' second attack, was wasting no time in congratulating himself on leading Daytona at his first try. When he gassed up on lap 17, he still had over a minute on Spencer, but he was running more slowly now with the sudden weight of the gas, and even more serious problems were beginning to develop. His times decayed, first into the sixes, then into the sevens. On lap 24 he was still 16 seconds ahead of Crosby, but only 44 seconds ahead of Spencer, who at this rate would catch him in the final laps—not a pleasant prospect for a man on an ailing motorcycle. Fourth gear was beginning to break up. The sun now came out for the first time, but its rays did nothing to heal the fourth gear. Lawson's promising race was over on lap 28, leaving the lead to the cruising Crosby. It was now more evident than ever that the two Honda riders still meant business, lapping in the high fours, still very much on the gas, their crews doing sums that added up to taking the lead on or about lap 46. There was no sense in taking more risks with the tires, though. Spencer was called for inspection on lap 29 and more durable rubber was fitted in under a minute, the Japanese crew being completely up to speed now.

Crosby, good racer that he is, knew that speed was now essential to his position. He still had a gas stop to go, which at the very minimum would add 15–30 seconds to that lap. No time to waste. He dived into the fives only to discover that such a pace, on his hard 200-mile standard-issued Goodyear rubber, was far from easy or safe. Schlachter, on the same tire, had tried to race with one of the Hondas for a lap and had reached the same conclusion—my 200-mile tire against his 100-mile tire is an unhealthy struggle. Cool it.

Crosby's attitude was, "If he catches me, he catches me, that's all." He continued in the high sixes while Spencer bit heartily into his lead.

Crosby fueled on lap 36, adding 23 seconds to his lap. This left Spencer only 34 seconds back, closing now especially fast because Crosby was having trouble forcing his gas-laden club back down into the good numbers. He lapped a nine, an eight, and finally a seven to regain his cruising pace.

Schlachter, evidently picking up less than a solid fill at his first gas stop, now ran out just before his second. He wagged the machine from side to side, washing the remaining fuel past the pick-up tubes. The engine caught again and ran. "I'm going to make it!" he thought. He didn't. Starving now on the intermittent flow, his engine tightened. He was out.

(Continued on page 136)

ARAI

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Formula One *Continued from page 132*

Behind him was the remarkable Roberto Pietri, looking very smooth and professional and surely unable to believe how well placed he now was. Just behind him had been Nick Richichi; he had forged his way forward with a weak engine only to encounter a brake lever that came to the bar every second pull. He overshot turn one to lose all he had gained. This now left Singleton fourth on a so-so motor to fend off the advance of Baldwin on the second Honda, but Dale's sevens were no match for fours.

On lap 44 Crosby was again making a real effort to hold his ground, but his 2:06.1 compared poorly with the 2:04.2 Spencer reeled off, now a bare 13 seconds back. Crosby may have been mentally desperate, but he wasn't going to let a little pressure force him into a mistake. They do pay more for a well-judged second place than for a gloriously fought DNF. Besides, that Honda probably won't make it. Something will happen. Anyway, the first GP is only two weeks away and that is the real business. Keep those sixes coming.

Then the Hondas faced their final problem. Brilliant devices that they are, they still require gasoline to run. The second tire change had left Spencer on lap 29 with a full tank and 23 laps to go. Even with exactly 6.2 gallons, this would require a bare minimum of 14.5 miles per gallon and a dry-tank finish—not something to bank on with confidence. In for a quick squirt. On lap 47 Spencer suddenly vacated his position on the track, now less than nine seconds behind the leader Crosby, to do one of his fast in-and-outs. If there was ever a time, this was it. The stop was a fast one.

For Baldwin it was not so good. So intent were the crew members on improving their performance that they outdid themselves. Baldwin's tank received the coupler, but little nourishment. The gas tower had next to nothing in it. On lap 51, just as he was passing Pietri for third and a place in the winners' circle, Baldwin's engine would cough again—out of gas. Fortunately he was able to coast in, get a quart or so more from the hose, and complete the race.

Crosby continued on his measured way, not slipping or sliding or looking in any way at risk. He was riding to the bank through light evening traffic. On the white-flag lap, Spencer had got back to within 13 seconds of the imperturbable leader. The next lap was the last, and there was to be no more drama save for the repeated cutting-out of Baldwin's Honda running out of gas *again*. The final order was Crosby, Spencer, Pietri, Baldwin, and finally Singleton.

The 200 miles had nearly ended in darkness. It had been a long day. It would be a long night—for celebration and consideration, the *whys* and *what-ifs*. ●