

BEYOND RACER ROAD: THE CALIFORNIA HOT ROD

A season of 'gator-pit, knock-head,
AMA Superbike Production racing.

By Cook Neilson

● IT WAS FOUR O'CLOCK IN THE MORNING, JANUARY 22. A radio program having to do with style and manners in ancient Persia had just concluded, and listeners began phoning in about gun control, a hot issue in Southern California.

"What a bunch of weirdos," Schilling said, sprinkling shims into the Ducati's transmission. "Who'd be up at four in the morning talking to a radio host about gun control?"

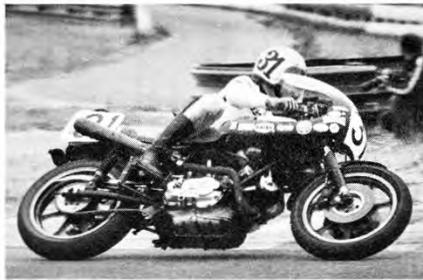
"Just a minute," I said. "It's four in the morning here too. *And we're listening.*"

That wasn't all we listened to during those pre-Daytona months. We beamed in on interviews with lower-echelon political figures, discussions with pet experts, symphonies, farm reports, lectures on criminal psychology, skin care, the Code of Hamurabi and the Non-Proliferation Agreement. We became expert on matters concerning body language, sensible shoe selection and the perversity of the major networks. We were apprised on a nightly basis of NBA scores and the Top Forty rock'n'stomp hits. We visited the Golden Graveyard every half-hour.

By January 22 Schilling and I were into our "three-shift" mode. We arrived at work at nine in the morning and devoted ourselves to magazine affairs until five in the afternoon: Shift One. At five we would fall to on the race bike, and flog it until midnight: Shift Two. After dinner at Sambo's we would return to the shop and work until six AM: Shift Three. Then to Sambo's for coffee and apple pie, home to bed, and back to work at nine to begin the cycle once again. Intermittantly one or the other of us wouldn't make it home at all, and staff-members became accustomed to finding either Phil or me asleep in the conference room at 9:30 or 10 in the morning, greasy, unshaven and punctured by fatigue.

All of this was on behalf of our Ducati Super Sport Production Racer, scheduled to be in Sid Damron's trailer and on its way to Daytona no later than February 24. With a month to go before the bike was due to be shipped, we were in trouble; three-shifting was the only way out.

It wasn't as if we had started late. The last race of the 1975 season had occurred in early October. By the first of November the bike was beginning to be formed for the '76 season. The chassis had been sand-blasted, Magnafluxed and repainted. The wiring was done, suspension was done, wheels and bearings seen to, the fairing was painted and the fuel tank was resealed. Only the engine was incomplete, and as of January 22 we were



waiting for cylinder heads to come back from Jerry Branch, overbored cylinders from ZDS Motors, pistons and rings from Venolia and Divine Intervention from God.

If the AMA hadn't changed its rules for Production Racing between the '75 and '76 seasons it all would have been easier. The '75 rules provided for a 750 class. There was none proposed for '76, all big-bore Production bikes being melded into a single class. After discussing the matter for ten minutes Schilling and I had decided to go for it. Since the Ducati had been competitive with 900cc machines when it was just a 750, we felt that in big-motor trim it should be able to run with 1000cc BMWs and Kawasakis. We were also tempted by a rules structure that appeared so amiable we could wander around in it with little fear of bumping into anything unpleasant.

"There is nothing illusory about California's capabilities. The Los Angeles motor culture is so advanced, its artisans so congenial and its technology so accessible, that a search for an answer becomes a search for the man who knows the answer."

The rules for AMA Superbike Production were as follows: 1000cc (plus .040"-over) maximum engine displacement; standard muffler shells; standard carburetor bodies; a working head- and taillight; 115 dB(A) noise limit, measured at half maximum engine speed; and a standard chassis, with reinforcing permitted. The bikes otherwise were to resemble standard, street-going vehicles with regard to tanks, seats, fenders, etc.

"What we have here," Schilling and I agreed upon looking over the 1976 Supplementary Regulations, "is four-stroke GP, with lights."

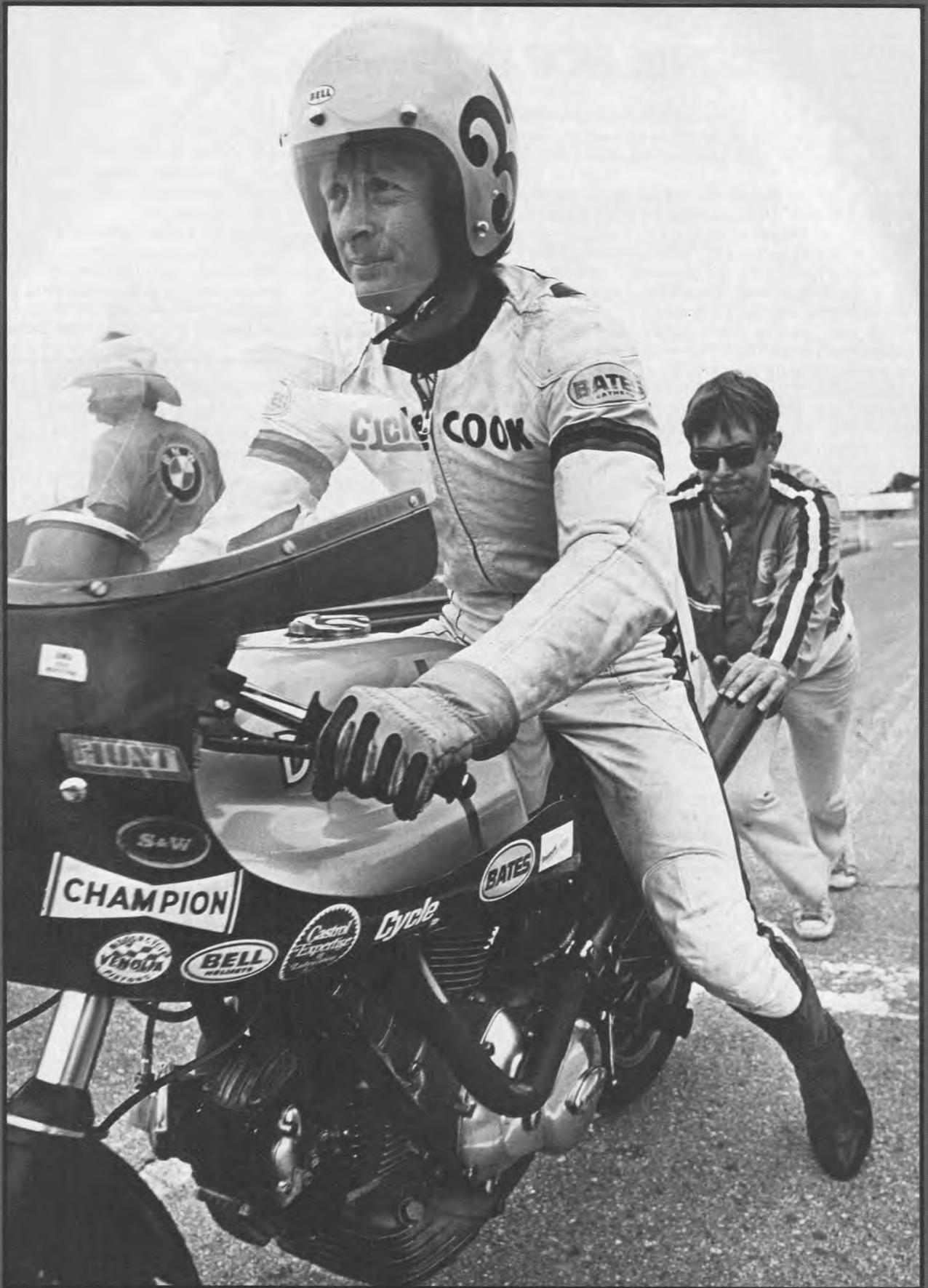
Such a conclusion was easy to reach, being familiar with AMA tech inspection, post-race tear-down procedures and the tacit agreement among Production participants to recognize the umbrella of guilt that shielded us all from the embarrassment of a protest. The BMW and Kawasaki people knew specifically which components in our Ducati were illegal, and we had an equivalent amount of dirt on them, and they on each other.

The AMA would see to it that engine displacement limits were not violated. Their fuel checks would detect any funny business with nitromethane or hydrazine. Their magnets would point the way towards titanium where it did not belong. The rest of the policing was left to the participants. Which was like asking politicians to count their own votes or the Friends of Willie Sutton to audit the Chase Manhattan.

The 1975 regulations were wide-ranging, specific and violated. The '76 rules were brief, alluring and vulnerable. Our first port of call was the cylinder head emporium of Jerry Branch. "Jerry," we asked, "we have to know how much displacement these heads can be persuaded to feed." Jerry ground, measured, flowed, calculated, increased valve sizes from 40 and 36mm to 42 and 38mm, welded up and recontoured the intake manifolds, polished, shaped and fussed. "I think about 900cc would be your maximum," he said.

We fled to our calculators and decided on an 87mm bore size, a 7mm increase over stock. Then we called Venolia about pistons and arranged for ZDS to bore out the crankcases and the cylinders to accept Ducati 450 liners. We had by then given up hope for assistance from the Ducati factory. We had requested certain special parts, through Berliner, in October of 1975. The parts list had included crankshafts, big bore cylinders and pistons, oil cooler apparatus, inlet manifolds with carburetors and exhaust pipes. We knew such parts existed. We had seen some of them with our own eyes. We thought we would be able to buy them because our 750 had been so successful in 1975. Wrong-o, wrong-o. By January of 1976 nothing had come. Panicking, Phil and I decided to try to do it ourselves, using traditional West Coast hot rod sources and methodology.

You've all read the following: "We don't care how the hell they do it in California." The statement has appeared in print, on bumper stickers, on T-shirts. The tone is clear: California has for so long provided



THE CALIFORNIA HOT ROD

the mother lode of goods, services, solutions, riders and ingenuity to the American motorcycle scene that people are sick and tired of it.

Yet there is nothing illusory about California's capabilities. The Los Angeles motor culture is so advanced, its artisans so congenial and its technology so accessible, that a search for an answer becomes a search for the man who knows the answer. People who can't help know people who can; people who can, do. Southern California was for us not simply a place where there are answers; it *became* The Answer. "If we were in Nebraska," Phil said one night, fondling a re-contoured, Magnafluxed, re-chromed and shot-peened rocker arm, "we'd be dead." In recognition of what we were trying to do and how we were trying to do it, we began referring to the Ducati as the California Hot Rod.

We had no new crankshafts. But we did have one fresh one, hiding in the cases of my street Super Sport, and ZDS had a new rod assembly. They installed the rod assembly in the crank we had used during the '75 season, and my street SS yielded up its fresh crank. This switch-around established a pattern we were to follow all season, ultimately resulting in one race engine containing parts from three different Super Sports (one of Phil's and two of mine) and one Ducati GT (Matt Owens').

January 23 was a Friday, and everything happened at once. The Venolia pistons, with cast iron rings, arrived in the

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morning. They were brought to ZDS to be fitted to the cylinders. The timing gears and transmission parts were ready to come back from Bob Gorsuch, the Magnafluxer. Branch had finished with the heads. By Friday afternoon we had what we needed to build our first 883cc engine; by Monday morning, January 25, we had a runner, and were on our way to Irwindale Drag Strip for the news.

It turned out to be bad. As a 750 the Ducati had produced quarter-mile times

of 12.06—113.56 mph. The 883 engine, belching oil-smoke from mufflers gutted and coned by Pierre DesRoches, ran 11.78—114.50. We knew that the bike had to produce terminal quarter-mile times in the 120-mph neighborhood to have a chance against the big BMWs and Kawasakis.

We called Branch. "Jerry," I said, "the engine isn't making any power."

"Bring the heads down here as fast as you can," Jerry said. I had them there by Monday afternoon. By Tuesday they were ready. We bolted them on and went back to Irwindale Wednesday. The bike ran 11.52—118 still troubled by oil control problems. Even so, we were encouraged. There was to be a CMC race at Willow Springs the following Sunday, February 1.

The Willow outing confirmed what we suspected: the oil-control problems weren't going to go away. Although the bike won the Super Café class it did it rattling with detonation on borrowed NGK 7 spark plugs, not exactly your max-perf racing igniters.

Monday was tear-down. The pistons and cylinders were a mess. I took the two pistons down to Venolia and asked if they could make two more, identical to the first but with more compression (we started with 8.5:1) and machined to accept Yamaha XT500 rings. Sure, they said. Hurrying home, I called Yamaha for four sets of rings and inquired after ring groove dimensions, which were supplied by Ken Smith and relayed to Venolia.

By February 12 the pistons were done, the rings had arrived, and after our machinist did his thing on the interiors of the pistons and the Toyota wrist pins to remove weight, we assembled the Stage 2 engine and went back to Irwindale the following day, a Friday. The rings sealed perfectly, the bike ran 119mph in the quarter and we decided to partake of an AFM race at Ontario that Sunday, February 11. It was to be the final shake-down before Daytona.

The 917cc BMW, the one that had run the year before with Reg Pridmore in the saddle, was also at Ontario that Sunday. Their plan was to rattle some of the winter's rust off riders Pridmore and Steve McLaughlin, and to continue to acquaint McLaughlin, a newly-signed team-member, with the BMW's idiosyncracies.

The Ducati's engine absolutely killed the BM. We ran in Open Production against Steve; Reg planned to ride the bike in Super Street. McLaughlin and I had an invigorating little dice for the first half of the race, during which it became

clear that the Ducati could smoke the BMW out of every corner and up every straightaway. Steve ultimately ran off the track, the BMW ingesting some dirt and putting itself out of commission for the rest of the day.

For the first time Schilling and I permitted ourselves to feel genuinely encouraged. Even jetted rich the engine made good power, and its astonishing torque permitted me to accelerate off corners in the gear of my choice. After Steve had

"In exchange for the honor of having Ken Roberts ride a bike which Phil and I had developed, assembled and massaged, we took the chance of discovering warts on its character we never suspected were there."

retired, and with a decent lead over the rest of the field, I ran the bike all the way from Ontario's Turn 2 to Turn 18 in fourth gear, just to see if the bike would do it. With good power from 1800 to 8800 rpm, it was a cinch. "This thing ain't a motorcycle," I told Phil, "it's a locomotive."

The following Monday night teardown showed all to be in order—except the transmission. Some gear teeth looked suspicious, so I took them back to Gorsuch for a quick Magnflux. Bob was hardly thrilled by what he saw.

"The problem here," Gorsuch said, "is that the material isn't too good. It's okay for a street motor, but not for a race bike. What they do is use soft material to make it easy to machine, and then they case-harden it for some durability. The case-hardening is popping off here, and here, and here, and the teeth on these gears—this one and this one—are looking edgy."

It was to be a problem that would plague us all season. Luckily, Gorsuch's place was practically next door to ZDS. That day I began a drill that would be repeated throughout the season: have the gearbox Magnfluxed, take the suspect components over to ZDS, replace them with new ones, bring the new pieces back to Gorsuch, wait while he Magnfluxed them, and then return to our shop and deposit the new components in Schilling's anxious paws.

After the AFM Ontario race we had two weeks before the Duck was to be shipped to Daytona, and it was during this period that the project threatened to crush us

under its own looming momentum. "Daytona comes but once a year," we intoned to each other and to the *Cycle* staff. "Daytona's 3000 miles away," we would reiterate solemnly. "We've got so much work in it already, why not a little more?"

The project had begun the previous October. Since then we had attended to thousands of details; lost hundreds of hours of sleep; imposed on all of our friends; stolen time from the magazine; borrowed parts it seemed from every Ducati in Southern California; and in general had made a perfectly enormous commitment to an undertaking which began as a project and turned into a crusade.

After the Ontario shake-down we searched frantically for the hidden flaw that might ruin everything we had already accomplished. We had to build a spare engine. We had to bolt together a spare fork. Find an alternative oil cooler, just in case. Locate all the bits and ends which would be necessary if the AMA decided to be snifflish about the rules. Spare fuel tank. Spare wheels. Spare chassis. Two spare fairings. Bearings and fasteners. Gearing, final and primary. Spare ignition components, and complete gasket sets. Fenders. Axles. Swing-arm pivots. Our warmest sanctuary was simply this: in the event of failure and embarrassment, no one could accuse us of being lazy.

In addition to fears of our own potential unpreparedness we had other things to worry about. The Southern California grapevine was humming daily with Daytona rumors. The Yoshimura Kawasaki Z-1s had made over 117 bhp on Pops' dyno. The Dale-Starr Kawasakis were making 95 on the Webco dyno. The BMWs, under construction in New Jersey, were going to have Monoshock rear sus-

"Counting the 1381A we had arrived with and the new D1750 we installed Saturday evening, the Duck had worn three new tires in a single day, which strikes me as being a fine display of big-time decadence."

pensions. Berliner was going to sponsor a very special 850cc Moto Guzzi, to be ridden by Mike Baldwin, whom we knew to be a lion. Kurt Liebmann had a Ducati SS with some factory parts in it. Keith Harte from Canada had a Super Sport

with *nothing but* factory parts in it. We had a California Hot Rod: Harley-Davidson inlet valves, BMW exhausts, Toyota wrist pins, Yamaha rings, Venolia pistons, K-Mart ignition coils, boxes and boxes of spare parts and Magnaflux stamps all over the place.

Certainly we were worried about the 1000cc Kawasakis. The rules changes seemed to favor the big fours more than any other model. But we were *really* concerned about the BMWs. We knew that Udo Gietl was building them and that Pridmore, Gary Fisher and McLaughlin were scheduled to be the riders. We knew that they would have 40mm worth of carburetor on each head, we knew that they would be at the 1000cc displacement limit, we knew that Venolia was doing the pistons and Sig Erson the cams, and we knew that Gietl had made some chassis changes to accommodate formal racing slicks. So we kept putting spare parts in boxes and making check-lists and festooning the exterior of the Ducatis in safety wire, bracing ourselves for the shock that would come when we first laid eyes on the Butler & Smith Racing Team.

That came Saturday night, February 28, in the parking lot of the Indigo Inn in Daytona Beach. Miles Rossteucher unlocked the BMW truck's huge rear door and Udo said, "There they are. Monoshockers." We climbed in, Phil and I, and poked around in the darkness. Only later, after extensive conversations with Gietl and Kenny Augustine (who had done the cylinder head work and assisted in the construction) did we know what lurked in the back of the truck. The engines had 12.2-1 compression; yards of valve lift; Michelin slicks; the rear accommodated by an offset wheel; two spark plugs per head; titanium engine mount bolts; special upper triple-clamps; 46mm inlet valves made from valves originally installed in Chrysler hemis; fancy pushrods; fancier connecting rods; and 93 bhp, measured at the clutch. Gietl's right arm was bandaged. He had taken one of the bikes out on the street, and it had come over backwards on him.

Yet we were insulated from despair by the certain knowledge that we had done all we could for our Ducatis. And after all, we had all those spare parts and sleepless nights as amulets against disaster.

There is no earthly reason why our 883cc Ducati recorded the fastest trap speed of all the bikes in the Production class. I am not being coy about this—I simply don't know. We had anticipated that the Z-1s would be recording speeds

in the 155-mph range; Wes Cooley's Yoshimura Kawasaki, the fastest Z-1 on the track, went 144.9. Gary Fisher had the fastest of the three BMWs, which logged in at 144.6. The Ducati went 145.2, chugging around the high banking at 8200 rpm. Phil and I were surprised and delighted.

Certainly speed traps do not reflect either lap times or winning potential. But the Daytona numbers showed that we had built a decent motorcycle, and we rejoiced in that. We also rejoiced when Daytona was done in the fact that none of the spare parts we had brought were needed, and that total maintenance (be-

"We've disciplined ourselves to segregate more accurately the *real* from the *hoped-for*. Nothing divides the two more emphatically than racing, yet we have discovered racing to be a haven for the mythic masquerade."

yond changing tires) consisted of fiddling with jets, changing the rear sprocket once, resealing the oil cooler and rebuilding a shifter mechanism that was acting up.

The Ducati didn't win the Production race at Daytona. Steve McLaughlin's BMW did, ahead of Pridmore at the finish line by half a wheel. The Duck was third, two seconds back. Its fastest lap was identical to the fast laps recorded by the BMWs. At one point four of us were running dead abreast down the back straightaway, the Ducati taching 8600, or 149.9 mph.

I suppose that considering its speed, its handling and its extraordinary rideability, the Ducati should have done better. But this ignores the differences between me and the BMW riders. Fisher, Pridmore and McLaughlin are better in traffic than I am, they know how to use the brakes properly, and they all have a professional talent for maintaining concentration that by Daytona I had not developed, and wouldn't begin to until the final Superbike production race of the season.

The months between Daytona and Riverside were more notable for what Phil and I learned than they were for any great racing success. The Ducati, because of its AMA orientation, was no longer legal for local AFM and CMC Production

(Continued on page 111)

squeak and we were away, far in arrears. Drat, I cursed to myself, I've blown the start. Nothing could be done save set the jaw a little firmer, clench the teeth with increased resolve and vow to go in deeper and come out harder. The bikes in front—and there were 30 of them, at minimum—would feel the hot breath of my dragoon before the day was done.

After two laps we have maneuvered up amongst the opposition, the red racer diving and darting, rocking and rolling, me holding on for dear life as the ItalJet overpowered bike after bike, subsisting on a will of its own, feeding on the dying carcasses of now a Honda 125 Enduro, now a Yamaha 80, now a Suzuki 50. I was looking for Nolan with blood in my eye. Despite the fact that his typical lap time was 12 seconds faster than my own I felt sure the ItalJet was, in the heat of competition, capable of performing beyond any reasonable expectation. And there Nolan was, right in front of me! So soon? Something was amiss! Nolan, doubtless feeling the pressure of my ItalJet, which was a mere 40 seconds behind, had gone all reckless and crashed! The day, if I could control my frenzied, tempestuous mount for a few laps longer, was mine. Slacking the pace from 2:44s back to 2:45s to give that extra margin of safety, the laps unwound. I saw the white flag and, in barely more time than it takes to read and memorize Cycle World, the checkers. With the crowd beside himself

with excitement I partook of a victory lap, garlands of roses soaring out of the grandstands and landing in the path of a now-satiated ItalJet. Back in the pits, bedlam held sway. Water flowed like water. The trophy girl was attacked in the time-honored Ascot manner. The band struck up the Battle Hymn of the Republic, and the Mormon Tabernacle Choir, flown here especially by the ItalJet Director, swung into a stirring rendition of "Russets and Flourishes."

....Time Passes....

The track is empty now, Ken Roberts, Giacomo Agostini, Barry Sheene and Steve Baker the last to proffer their congratulations as they climbed into Sheene's borrowed Rolls Royce and ticked quietly through the security gate. Probably off to raise some hell, I thought to myself. I had been invited along, of course, but my leg was acting up. Besides, my mind was still on the ItalJet. We had gotten on well together, working with a harmony that comes from both brilliant design and—I admit—hard-won experience. As I stuffed my leathers and helmet into my helmet-and-leathers bag I glanced into the now-dark bay where, only hours before, the full force of the ItalJet racing team had been housed, shreds of packing material the only evidence that they had been there at all. Racing is peculiar business, I thought silently. Then I started my truck and headed for the sunset, and home. ●

RACER ROAD. *Continued from page 39* events, so it was variously entered in Four-Stroke GP, Super Café and Superstreet. It won all of its locals except one. Pridmore brought his BMW to a Riverside race preparatory to the Loudon National, and thrashed the Ducati fair and square when we tried to milk another race out of our Daytona rear slick. My fastest lap that day was 1:37.4. Pridmore had lots of 1:35s, and one 1:34. We were desolated. We couldn't believe that the time differential was due completely to a worn-out rear tire. We suspected that the improvements Helmut Kern had made to Reg's BMW had created a performance gap we could not hope to overcome.

The improvements reflected suspicions we had had about the BMWs at Daytona. Since we had shared their garage during Speed Week we were privy to certain information not widely circulated. We knew, for example, that at least one of the team BMs was not responsive to jetting changes. Plugs which looked gray and dangerous looked the same even after main jet size had been bumped from 170 to 190. We had passed this along to Gordon Jennings, our Technical Editor.

"Are their carburetors bolted directly to the heads?" Gordon had inquired. "Yes," we said. "With aluminum manifolds."

"That'll do it," Jennings said.

We also noticed that the bikes continued to be hard to start, were throughout the week difficult to time, and

demanded tiny spark plug gaps—like .014-inch on the bottom plugs and .018-inch on the tops. Spark plug gaps less than .020-inch suggested to us that their ignition coils were weak, and when one of the team helpers was dispatched to search Daytona for K-Mart coils, it appeared that their diagnosis matched ours. The BMWs were fast at Daytona. They were also unhappy.

When Helmut showed up for the pre-Loudon Riverside event, we could see the improvements he had made. Carburetors were mounted on flexible rubber hoses. There were four automotive Bosch racing coils under the fuel tank. The bike started easily and with an old R27 advancer mechanism, idled peacefully. We also discovered that the crankshaft in Rego's bike had been rebalanced since Daytona, to reduce the kind of vibration that had been confusing the carburetors. After Reg disappeared up the track and left me for dead, Phil and I suspected that all those astonishing BMW technical specifications (compression, cam timing and lift, ignition, valve sizes, cranking pressure, etc.) had finally come out of the closet. We feared the Ducati would never again be competitive with the Butler & Smith bikes. We were wrong, as the October Riverside National would demonstrate.

Still, after getting thrashed so thoroughly by Pridmore at that May AFM race, we felt trapped. We couldn't do anything with camshafts. No cam grinder in the



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United States will touch a desmo with a ten-foot pole, and while we knew the factory had cams with more lift and duration, we couldn't get them. We couldn't fit a larger inlet valve, because the valves nearly touched on overlap with the valve sizes we already had. We asked Venolia for pistons with more compression right after the May AFM race, but they told us they had run out of the proper-sized forgings and couldn't get more. It made no sense to increase carburetor bore size, because Branch had already determined that inlet valve size was responsible for the restriction, and the 40mm Dell'Ortos were plenty big enough. All we could do for Laguna was take weight off the motorcycle, and this we did with a vengeance.

We asked Elliott Morris for a pair of his magnesium wheels; when they arrived we decided to run them tubeless. And Pierre DesRoches, a young California artisan who was helping to prepare a Z-1 for Keith Code, began surreptitiously to duplicate some of the Ducati's components in exotic metal. Front wheel spacers changed from steel to aluminum, as did rear wheel adjusters. The rear caliper mounting plate was transformed overnight from aluminum to magnesium, and the Lockheed aluminum rear caliper was replaced by a magnesium Fontana item that Harry Hunt was importing. These, and a host of other small changes which propriety and guilt forbid me from discussing, slowly stripped weight from the Ducati. A stock Super Sport with a half-tank of fuel weighs 465 pounds; our race bike, after a trimming session that lasted from early June to late July, weighed 398 pounds, likewise with a half-tank of gas.

While we were doing all this to get ready for the Laguna Seca National, the all-conquering BMW team headed for Loudon—where they all got conquered by Mike Baldwin on Reno Leoni's Moto Guzzi 850 Le Mans. We were not surprised. Loudon is Baldwin's home track. Beyond that Baldwin is an especially talented young rider, and after dispatching the BMWs in the preliminary heat he simply motored around them in the Main, leaving Pridmore and Fisher to quarrel over second while McLaughlin headed for the pits with a multitude of mechanical problems. The BMWs suffered ground clearance problems and brake fade problems on the banked Loudon track, and by the time the Butler & Smith people got to Laguna Seca they were good and damned mad.

We didn't need that. Laguna has been a difficult track for me and the Ducati since the first AMA National ever held there. I crashed in practice in 1973, finished fifth in 1974 when a condenser went bad, and crashed in practice in 1975. While we were pleased to win the Heat in '76, the Ducati's transmission began acting up on the first lap of the Main, refusing to stay in fourth gear while I was pursuing Gary Fisher and Keith Code. Every time I looked up it seemed as if another BM was

going past. With Fisher in the lead, Pridmore closing on him, McLaughlin on the ground in Turn Nine and Keith's Z-1 drawing farther and farther away from me, I parked on Lap 14.

"It won't stay in fourth," I said to Phil. He reflexively began fiddling with the shift-lever as I removed my helmet and listened to Pridmore's BMW thundering up the front straight, now in the lead and 17 seconds in front of Code. Fisher had dropped out with a fractured oil cooler. "Damn BMWs," Phil and I muttered to each other. "Damn Laguna."

What little joy we got from that place came not during the race weekend, but 10 days before, during a practice session/press conference arranged by Tripp-Cox, the promoters. Steve Baker was on hand, as were Pridmore and Kern, Code and DesRoches, Nixon and Kanemoto, and Ken Roberts. Roberts was in street clothes. "How 'bout lettin' me ride that Dew-Katty?" Ken had inquired, half-seriously. "Step right this way," we answered, whole-seriously. Roberts dived inside my leathers and borrowed Baker's helmet, and The Best Road Racer in the World moved the Ducati smartly onto the track. His business associate and friend Jim Odom had the clocks working. His lap times went from 1:26 to 1:24 to 1:22 to 1:20, and then he pulled in.

Schilling and I were anxious as old maids. What was he going to say? Whatever it was, we were prepared to accept it. A lousy old street clunker? Just so, Mr. Roberts. Slower than a moped? Suspected it ourselves, Mr. Roberts. Handles funny? Easy to believe, Mr. Roberts. You give a painting to Wyeth, a nag to Shoemaker or a photograph to Steichen and your option to dispute unattractive findings withers before their proven expertise. If the Ducati, subjected to molecular examination by a man we consider to be the most gifted motorcyclist in history, turned rank, sullen and slow, then rank, sullen and slow is what it must have been all along, and we never noticed. So in exchange for the honor of having Roberts ride a bike which Phil and I had developed, assembled and massaged, we took the chance of discovering warts on its character which we never suspected were there.

"Hey, it's really nice!" Roberts said after he took off his helmet. Information flowed out of him as he got down to specifics. "The back brake doesn't work at all. The front end's too stiff, and it has too much geometry. The back end's too stiff too, and you're using too much tire back there.

"But the motor's really nice. I didn't have any idea these Production bikes made that much power. Hey, it's fast. Betcha I could run 1:14s on this track with it."

Roberts' approval of at least the Ducati's engine was all we had as we drove down from Laguna ten days later with a four-speed Duck in the van and a big fat DNF on the record-book.

"Doctor T's picture!" Schilling hollered as we drove south past San Luis Obispo. "We forgot Dr. T's picture!" Dr. T is Dr. Taglioni, Ducati's main man, designer of the V-twin engine and responsible for two decades of Ducati engines and racing projects. Phil has a picture of him, standing track-side somewhere in Europe with dark glasses and a stop-watch. The picture goes with us to every National. We had forgotten to bring it to Laguna. Schilling didn't think it mattered that all the fourth gear engaging dogs had rounded off because I had indulged in a little shifting without the clutch. Nor did he recognize any connection between a season of gearbox problems and this most untimely failure. We had forgotten Dr. T's picture, and that explained everything.

Although two months intervened between Laguna and the final Riverside National, we kept the Ducati in the shop and away from race tracks. In the first place we wanted to preserve what life remained in some of the Super Sport's difficult-to-replace components—like its crankshaft. In the second we had no transmission at all, the post-Laguna Magnaflux session having consigned all the gears and shafts to the scrap pile.

And then, lovingly packaged, there arrived from Italy a factory close-ratio racing transmission which Schilling had ordered back in May and which had cost him \$750. The parts were inspected, exclaimed over, checked with a file for hardness and taken post-haste to Bob Gorsuch for Magnafluxing, hard-chroming and Ever-Lubing. We were on our way. Except that when the gears returned, nothing fit. Not because of the hard-chroming (which Gorsuch removed from certain gear interiors and shafts); these-a were-a racing-a transmission parts-a, designed to be hand-fit. Schilling set to work in a haze of Dremel-dust and 40 hours later, pieces spun, meshed, engaged and slid as God and Dr. T intended.

That left us with only the piston problem to solve. In desperation I called ForgedTrue, who promised to deliver. Four days before the Riverside race they did.

There had been scheduled two pre-weekend practice sessions: one was sponsored by Boge/Mulholland on an invitational basis, and local racer Harry Klinzmann's father sponsored the other. We missed 'em both. The BMW team didn't, and neither did the Kawasaki folks. We consoled ourselves by remembering the importance of hoarding component life, and by assuming that I knew my way around the Riverside track. But we knew that both the remembrance and the assumption were on the thin side.

Still, we were pumped after the race weekend's first official practice session. Using one of John Smith's new D1750 Goodyear rear slicks, the Ducati was clocked at 1:34.4. The bike was handling well, the engine was running crisply, and we finished second to Pridmore in Satur-

day's preliminary heat, assuring ourselves a front-row grid position for the 16-lap Production Final.

Goodyear had been smoked by Dunlop at Laguna Seca, part of the problem arising from a strike that had lasted all summer in Akron. Dunlop had been able to continue tire development; Goodyear had not. By Riverside, most of the fast TZ-750 Yamahas ran on either Dunlops or Michelins, leaving John Smith with a garage full of new Goodies and precious few customers. Just before departing the track Saturday, I remembered something that Fritz Huebner told me two years ago when he was still working for Kel Caruthers: "Tires are just like pre-mix; you use them once and throw them away." Nothing sticks like a fresh slick. Smitty had a pile of D1750s that nobody seemed to want. The D1750 on my Duck had 15 laps of wear. A fresh one might be just the trick for Sunday's Final. "Sure thing," Smitty said, throwing a crispy Goodie in the back of our van. Counting the 1381A we had arrived with and the new D1750 we installed Saturday evening, the Duck had worn three new rear tires in a single day, which strikes me as being a fine display of big-time decadence.

If you read last month's issue you already know that the Duck finished second in the Final, behind Pridmore and ahead of McLaughlin, Fisher, Wes Cooley and Mike Parriott. You may have noted in the story a reference to oil coming out of the Ducati's breather.

Two points here: the first is that my problem had little to do with Rego's Superbike victory. He beat me at Daytona, he beat everybody at Laguna, and he goes better at Riverside than any other track. I had one lap in the 1:33-second area, and 12 laps at 1:34. Pridmore had at least three 1:33s. Second, the engine as it turned out had every reason in the world to squirt some oil out of the breather. What was ultimately surprising is that it did not squirt connecting rods, pistons, gear parts and camshafts from the same orifice. On or about lap 12 of the 16-lapper, one the rear piston's wrist-pin retainers had fractured. A chunk of retainer material had pierced the bottom two rings in at least two places each, then cocked the piston in the bore, taking out the small-end bushing and the big-end roller bearing assemblies of both rods. There were trenches in the rear cylinder liner that measured .060-inch deep, and the slurry which resulted from all this mashing-around contaminated the Duck's oil supply and ruined the rest of the engine's bearings, cam drive gears and transmission. Schilling's \$750 gearbox was a write-off (note here how I clearly establish those mangled transmission parts as *Schilling's* transmission parts). Counting labor, we figure Riverside cost us both about \$300 per lap, a lost sum which second-place prize money did little to restore.

"Ah," as they say, "but that's racing." And so it is. The way the Ducati had leapt away from Turn Nine on the last lap and pounced on McLaughlin's BMW for second was worth millions to me. Besides, as Phil's former mentor Bob Oakes was fond of saying, "You put that thing on the starting line, Andy, it ain't worth nothin'." How true, how true. Nothin' is what it was worth after Riverside, and Phil and I both have a long and expensive winter ahead of us.

Long and expensive winters seem to be integral factors in the racing equation. Information secured merely uncovers questions unanswered; sources unearthed lead to sources untapped; money spent discloses ever more burdensome financial imperatives.

Yet it's been worth it. The Ducati's Daytona trap speeds had both of us giggling for months in the sheerest delight. Its third-place finish there and its second at Riverside in no way added up to a win, yet we were proud of both. The Ducati's solitary 1:33-second lap at Riverside and its 2:17.6 at Daytona reflected my own development as a rider, and Phil's as a tuner. The bike finished every race it started but one, and over the past three seasons has finished every race except two. We've learned much from racing: to ferret out the best advice we can find and follow it unquestioningly, however unpalatable it may be. This we learned from Bob Gorsuch, our Magnafluxer, whose inspections of Ducati gears constituted more unpalatable good advice than we felt we could bear, but whose efforts had much to do with the Duck's ability to drag its maimed internals around Riverside for the final four laps when its engine should have exploded instead. We have had another season to explore first-hand the character and resolve Dr. Taglioni built into the Ducati Super Sport five years ago, and we found ourselves regularly astonished at the degree to which the passage of time has reaffirmed the man's genius and his very clear distinction between what's right and what's expedient.

We've both learned much about racing's inherently bitchy character, and understand more clearly why it is the way it is: folks get on a track and try to beat each other at a dangerous game, it's gonna be bitchy. We've disciplined ourselves to segregate more accurately the *real* from the *hoped-for*. Nothing divides the two more emphatically than racing, yet we have discovered racing to be a haven for the mythic masquerade. We have learned that *if-onlies* don't count; worse than that they impinge insidiously on the perception of useful truths.

We have come to accept the special tyranny of the stop watch.

And we have both learned that racing provides its own final reality: the posted list of finishers, first through last. The point is to move up the list. This is the only point. ●