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56. Just a man in a phone booth, right? You fool. That is Donald Nicholson. And just as soon as he gets his dime back, he will re-emerge as the scourge of the match racers, Dyno Don, a.k.a. "The King of the Hill." For one week in June, Competition Editor Jon Asher went back to drag racing's roots with the Dyno man, visiting tracks which defy imagination. After trying to keep up with this 50-year-old youngster, Asher now understands why Dyno buys Roloids by the case.



73. Nicholson may have his antacids, but Bob Glidden has his coffee machine. Yes, we present another CAR CRAFT exclusive: This is in fact the very fountain of caffeine which has propelled Bob Glidden to a fistful of world championships and the premier position in Pro Stock. But Glidden has learned that man does not live by coffee grounds alone, as these candid conversations explain.



87. This is the mad Dr. Ellefson, who is here to amaze and delight you with his lucid explanations of ignition basics. With a little help and guidance from staffer Bruce Caldwell, the good doctor will lead you through the world of LEDs, MDS, and the ever-popular Kettering ignition. A veteran of innumerable electro-shock treatments, he is considered one of the foremost experts in his field.



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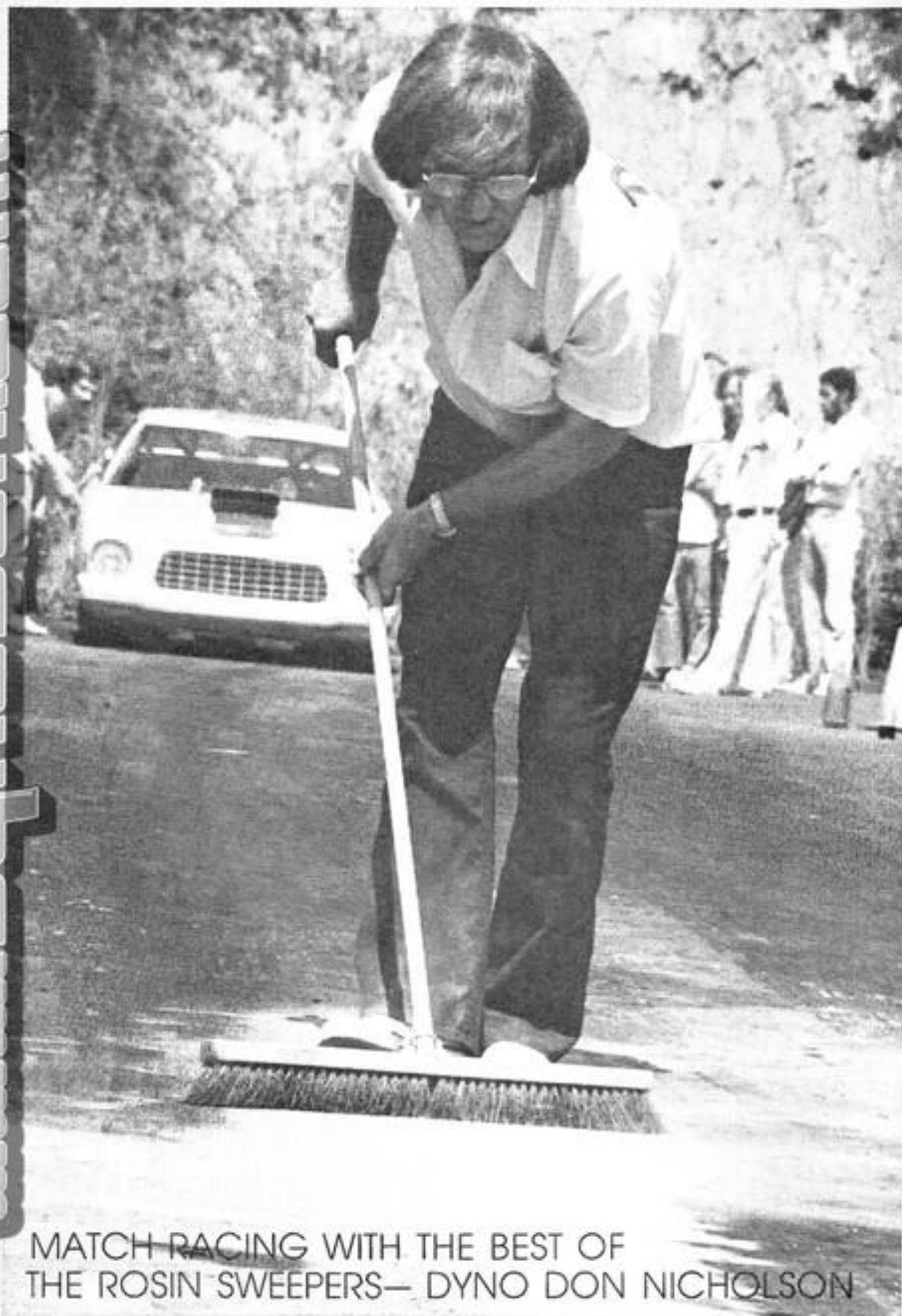
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MATCH RACING WITH THE BEST OF THE ROSIN SWEEPERS— DYNODON NICHOLSON

It's hard to believe that Donald Nicholson, more popularly known to thousands of fans as Dyno Don, will be fifty next year. This alert, constantly-on-the-go drag racer, this man who will run a three-round match race in South Carolina on a Friday night, drive 600 miles to do it all over again Saturday night, and then strip the car down to prepare it for a major national event four days later, will soon be a half-century old. He never quits, never slows down. The only sign of the pressures that must constantly beset him are the ever-present packages of Roloids

that bulge from his shirt pockets, roll crazily across the dash of the truck as it changes lanes, and fill the top drawer of the tool box.

"It's not an ulcer, just a little over-acid condition."

Sure, Dyno, we believe you. Still, maybe he's right. Mechanic/helper Levin Camp relishes telling the story of the hard-fought touch football game played in Detroit between Dyno and a much younger group of racer types. When all of them lay gasping for breath, Nicholson was still fresh and eager to play. He seemed disappointed when they begged off.

By Jon Asher

Nicholson was the first of the big time "Run What Ya Brung" match racers, making his first trip to the Southeast from his California home in 1961. The name of the track was Easystreet Dragstrip, which was located in the megalopolis of Dunn, North Carolina. Nicholson's 409 Chevy was guaranteed a whopping \$200 to appear. When the dust had settled, Dyno was the big winner, pocketing a huge purse for the day, \$600. It was the start of a 16-year career that has seen Nicholson racing at more tracks in more out-of-the-way places than anyone, with the possible exception of Don Garlits.

During the years of Ford's domination in Pro Stock, the big winners were Wayne Gapp and Bob Glidden. Nicholson was usually expected to be a threat, but failed to emerge with decisive victories after '73. It wasn't that he didn't try. Unlike most of the other doorslammer racers, Nicholson consistently used his best equipment match racing, and often appeared at the major events with wounded pieces.

For the likes of Dyno, Jenkins and a very few others, match racing has always been a lucrative profession. Within the last three years, the marketplace has opened up sufficiently to provide a decent living for a dozen well-known Pro Stock racers. Dyno and the others spend the months from April through November whipping the "newcomers." It's not that the Gliddens, Gapps and Booths don't run hard, it's more often a case of them (1) not being familiar with the subtleties of match racing (like a 500-cubic-inch engine, a 2000-lb race car, or a combination of the two), or (2) being somewhat hesitant about attempting mid-eight-second passes at almost 160 mph on a track that's as wide as the average suburban driveway, and only slightly longer. Nicholson and the other heavies, weaned at such facilities, put the hammer down, close their eyes, and hope for the best.

Even in a losing effort, Nicholson's popularity level remains Richter points ahead of his opponents. He's eager to banter with the most inebriated fan, exchange information with the track's unofficial bookie, answer the youngest boy's questions, and pass out color photos to the huge crowd that invariably gathers around his transporter after each

KING of the HILL

round of racing. He wins over track officials by asking their advice on which lane to choose if he wins the coin toss, but always uses his own judgement in the end. A small thing, but asking the track people's advice is just one more move destined to give him an advantage at the box office—and every edge counts in a business where there's always someone ready to run at a cheaper price.

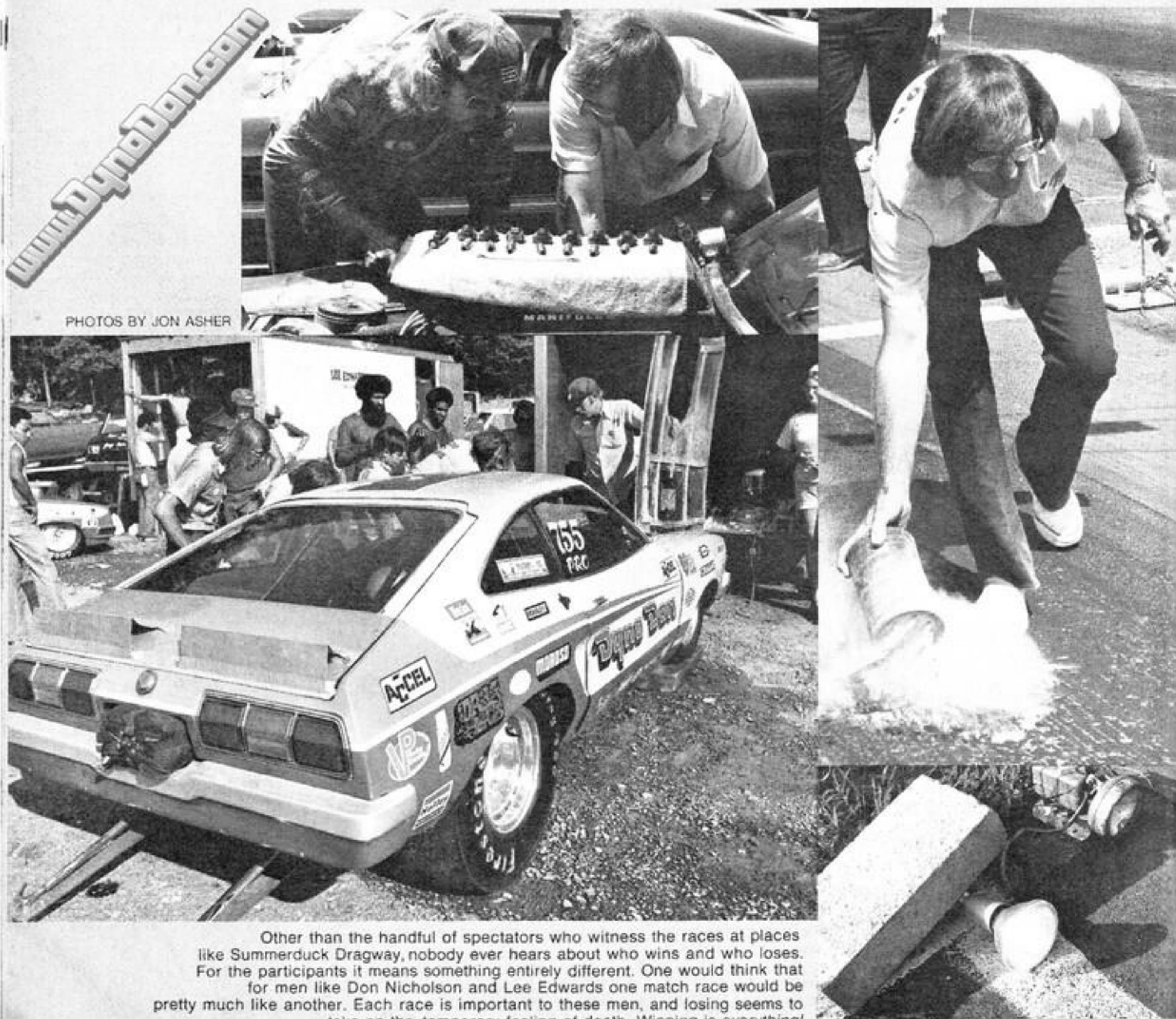
Few tracks epitomize "Run What Ya Brung" match racing better than Summerduck Dragstrip near Culpeper, Virginia. Almost lost among the rolling hill country southwest of Washington, D.C., Summerduck appears to have seen better days. Lo-

cals insist the track is as unchanging as the sunrise and sunset, having remained more or less untouched for possibly 20 years. It fits the description every effete drag racing snob subconsciously gives all southern, small time operations: It's short, narrow, bumpy, dirty, dusty and remote. Yet its paying customers are more enthusiastic than most major event crowds, despite the fact that their knowledge of racing on the national level is extremely limited.

Nicholson provided the track management with the ideal confrontation when he took Lee Edwards' track record away from Chevrolet some months ago, and the rematch prom-

ised to be exciting. Underlying the public display of emotions between the two men were Nicholson's bitter feelings about an incident that had taken place at an IHRA event during the winter months. Nobody at the track knew about it, but it undoubtedly spurred Nicholson on to a greater effort.

From the larger Washington suburbs it's a three-hour ride along two-lane, look-alike roads to Summerduck. All the while Dyno Don prepares himself for what he loves best, match racing where the only limitations are carburetors and gasoline. Still the youngster at heart, Dyno Don admits feeling excited about performing the routine he's been doing almost automatically for 16 years. He knows going in that Edwards will go all out to retake his record, but Dyno will be ready for him.



PHOTOS BY JON ASHER

Other than the handful of spectators who witness the races at places like Summerduck Dragway, nobody ever hears about who wins and who loses. For the participants it means something entirely different. One would think that for men like Don Nicholson and Lee Edwards one match race would be pretty much like another. Each race is important to these men, and losing seems to take on the temporary feeling of death. Winning is *everything!*

Following Nicholson are his wife in the couple's Winnebago, and Ken Gilkerson and his wife, with whom the Nicholson's have been staying for the past week. While others are spending their money at motels, Nicholson has been cultivating a string of "rest stops" all over the East Coast. However, lest you think of Dyno as taking advantage of people, rest assured that they're just as eager to have him as he is to be there.

Despite the fact that at least a dozen race-cars-in-tow have passed going in the opposite direction, Nicholson knows he's headed in the right direction.

The only indication that the drag-strip is near is an ancient, shotgun pellet-holed Pepsi-Cola sign propped against a rock alongside the roadway. The actual entrance road to the track is a dusty, gravel path that

wends its way through the trees to a small clearing, where a T-shirted man sitting on a folding chair serves as gate guard, ticket seller and emergency crew if an errant race car should get as far off the end of the track as his location. Beside the ticket taker a youngster lounges on a dusty Kawasaki.

"I'll be pullin' fer ya, Dah-no," he drawls, pointing to his "Dyno Don Fan Club" decal proudly displayed on his bike. Somehow I don't feel as if I'm emotionally prepared for what is to come.

As we creep across a tiny wooden bridge, Nicholson points to some well-worn hay bales.

"That's the end of the track, and if you can't stop, you can head for the bridge. The trouble is, if there's a car on the bridge you've only got two choices: goin' into the creekbed, or

takin' your chances with the trees."

He laughs, cackling like the harbinger of doom. It seems funny to him, since he's never had to make that choice. Judging from the ripped trees, splintered wood on the bridge, and rusty bumpers poking from the creekbed, countless others have.

It takes 15 minutes to traverse the quarter-mile from the gates to the pit area reserved for Nicholson beside Edwards' transporter. All the while Nicholson responds to the shouts from the fans high above him in the trees atop the embankment that surrounds much of the track. Literally carved out of the dirt, the spectators in the "upper balcony" have uncomfortable seating, but one hell of a good view.

Once the truck is parked, the fans seem to hang back, awaiting the unloading of the yellow and red Mus-

(continued on page 108)



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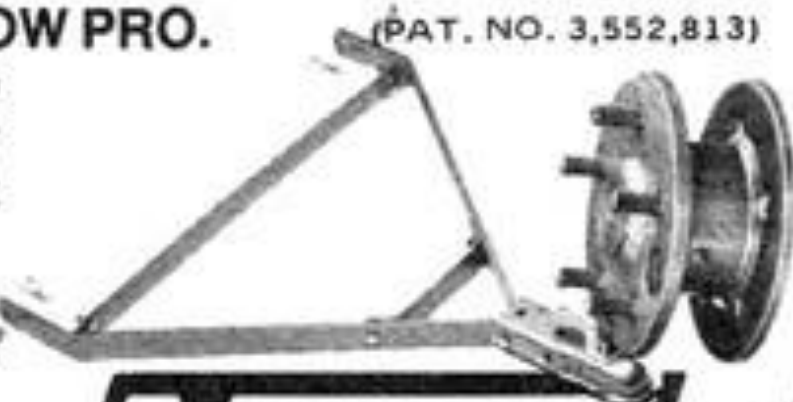
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DYNO DON

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tang. When the ramps are down and the car makes its appearance, the area becomes a mob scene as the youngest and the oldest besiege Nicholson for photos, autographs and small talk. After a terse greeting to Edwards, Nicholson begins preparing his car, pouring water lovingly into his aluminum match race motor while Gilkerson adds the expensive racing gasoline to the tank. The car is warmed up just like a Funny Car, with the rear wheels spinning high up in the air, and the youngsters standing as close as they dare, with grimy fingers jammed into their ears, and eyes as wide as silver dollars. Nicholson shuts the motor down, and speaks a few quiet words to a ten-year-old as he climbs through the spaghetti-like tubing of the rollcage. For the remainder of the day the boy stays within touching distance of his hero.

When the first round is finally called, and Dyno knows he will be in the right lane, a grim look of determination crosses his face. While the left lane is bumpy off the starting line, the right lane features a Grand Canyon-like hole, making bite impossible to find. As Dyno and Edwards stroll out to perform the ancient rosin sweeping ritual, the announcer, ensconced in a concrete block tower, screams so loudly and hysterically into his microphone about the coming race that nobody can possibly understand him. The spectators, well within spitting distance of the track, exchange encouragement with their chosen favorites, most of which is acknowledged by a wave or smile.

While Nicholson has the rosin procedure down to a showy science, Edwards attacks his lane as if it were a dirty street corner, a subtle difference probably noticed by less than three people at the track.

With the track prepared, both men climb into their missiles and prepare for the launch. Edwards has the power, as his Vega is stuffed with a 500-cubic-inch aluminum rat motor for this most important of match races. Nicholson's diminutive aluminum motor almost sounds like a stocker compared to the throaty roar of Edwards' Chevrolet, but sound does not a winner make.

Edwards' series of burnouts are straight-as-an-arrow, wheels-up charges, while Dyno Don's efforts produce instant left turns, a definite problem at a driveway-narrow track like Summerduck. Quickly Nicholson motions Levin and Gilkerson to adjust the wheelie bars in the hopes it will help, but as the car pulls to the

line, I can see the determination on Nicholson's face giving way to concern.

As the Tree flashes green, Edwards' Vega leaps for the finish line, while Nicholson's machine leaps for the opposite lane. As Dyno shuts down, Edwards' car passes through the lights and out of sight over the hill into the miniscule shut-off area. The crowd is screaming, and the announcer proclaims Edwards the new track record holder with a 5.43. Within ten minutes he will announce Lee's time three different ways, but no matter: He has won at least the first round.

Between the first and second rounds, Nicholson quietly prepares his car as a constant stream of well-wishers parade past Edwards' transporter, now jammed with all of his local fans as the balding driver stands in the hot sun, adjusting the valves on his monster motor.

About an hour later the cars pull to the line again, with the lanes reversed, and Nicholson now appearing to have the edge. Still, if he wins this one, we know he'll be in the "bad" (definitely a relative term at this track) lane for the third and final round. Again the rosin routine, and again the burnouts. This time Dyno's car goes straight, but astonishingly, so does Edwards' Vega. Could it be that he's found the elusive groove?

They stage with the rpm sky high, and then leave together at the green, with Nicholson's car hooking well, and Edwards' Vega digging for the opposite lane. This time the Ford is the clear victor, tying Edwards' newly-won track record with an identical 5.43, as the Chevy trails with a 5.46. As I head back across the guardrail into the pits I know only that Nicholson has won. It takes a committee of three to explain the rantings of the announcer, who by now is approaching apoplexy due to the excitement of the match race. Most of the spectators seem to be in the same emotional state, and in several areas funds are being exchanged as winners and losers congregate to contemplate their final wagers.

Preparations for the third round complete, and most of the track's regular racing program also at an end, we approach the starting line in time to witness a Chevy II depositing oil and parts all over the lane in which Don must defend the honor of Ford in a few moments. By now just one race remains other than the final go with Edwards, and the low-key crowd is content to sit quietly while the track manager sends a pickup truck to a nearby sawmill for sawdust to soak up the oil.

(continued on page 110)

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(continued from page 109)

Fifteen minutes pass before the truck arrives, and then Nicholson and even the Edwards crew pitch in to help clean up the mess. Nicholson then gets out his largest can of rosin and begins to sweep in a lane-wide path for the Bracket #1 final, a move cheered on by the few hundred remaining racers and spectators. Edwards is forced to follow suit, and soon a pair of Camaro drivers are doing burnouts and backing up like the professionals.

Their race over, Nicholson attacks his lane with the rosin can once again, this time leaving alone the right side track laid down by the Camaro, and putting down fresh material for his left tire. He theorizes that by improving the left-side bite he may be able to negate his car's desire to turn in that direction.


This time there are no less than six burnouts from each car, and on each one Nicholson's car seems to go straighter and straighter. Edwards is in trouble, but he doesn't know it yet.

Sensing an upset of sorts, the hillside spectators around me are climbing to their feet as the cars stage. At the green they blast from the line together, mere inches separating the two cars. Nicholson pulls second gear first, jumps to a commanding lead, and suddenly it's over, as all that can be seen from the starting line is a pair of parachutes rapidly disappearing over the top of the hill.

The announcer calls it: a new track record for Nicholson at 5.27, with Edwards a heartbeat behind at 5.35. There is scattered cheering, but mostly a rush to their cars as the spectators try to jam their way out the one exit road as quickly as possible.

By the time Nicholson turns his car around and drives back up the track to the transporter, only a handful of fans remain. Grinning from ear to ear he climbs out of the race car.

"Hot damn!" he grins, slapping his hands together like a kid who's just won the first round of C/SA at his local track.

Lee's reaction is quite different. Quickly he sweeps out his now-empty transporter, pulls the car inside, and slams the door down. It's hard to fathom two professional racers caring as much as they obviously do, but their reactions are anything but an act. They *really* care. That's a heck of a thing to find out after you've been going around thinking the racers didn't care whether they won or lost their match races. Just what is the world coming to, anyway? 

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By Jon Asher

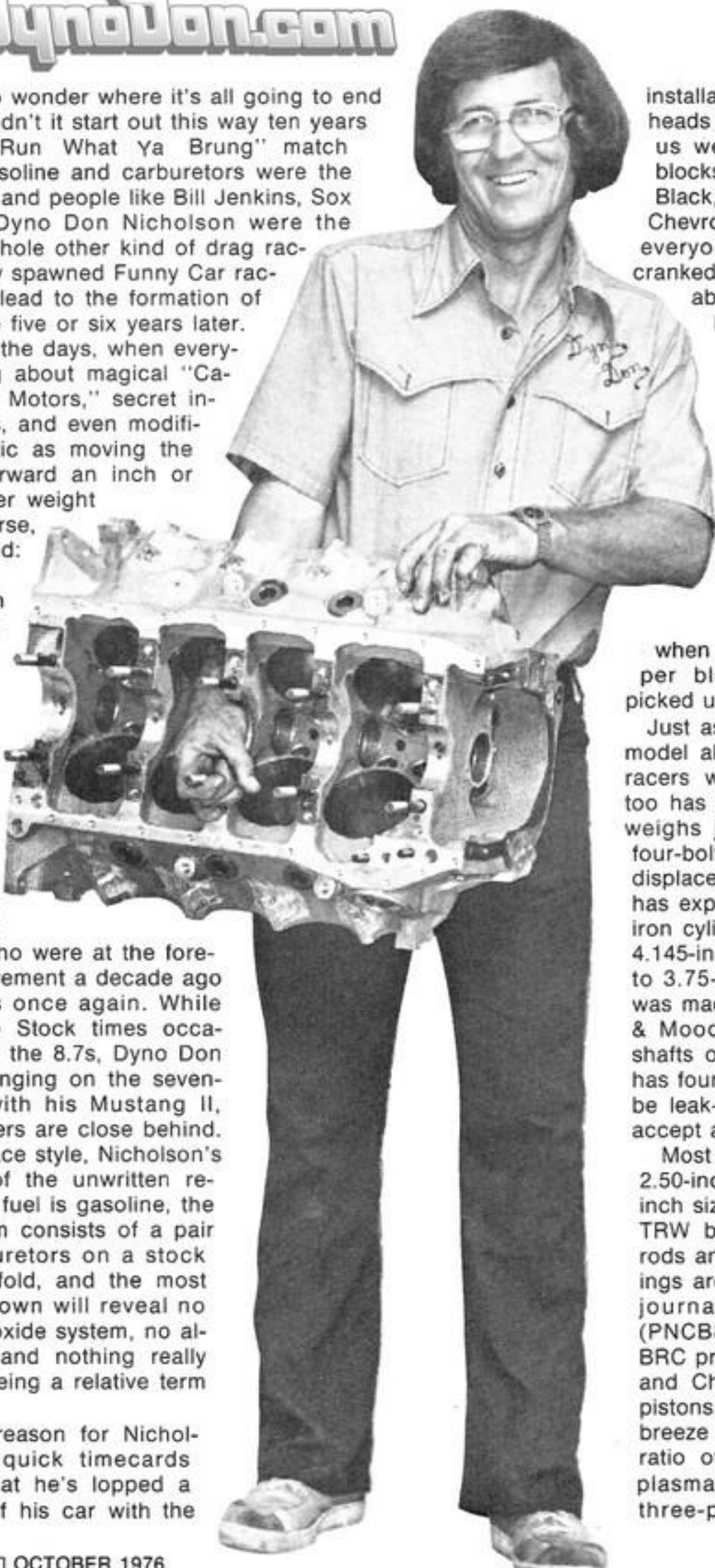
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You've got to wonder where it's all going to end this time. Didn't it start out this way ten years ago? Those "Run What Ya Brung" match races where gasoline and carburetors were the only limitations, and people like Bill Jenkins, Sox & Martin and Dyno Don Nicholson were the heroes was a whole other kind of drag racing. It eventually spawned Funny Car racing, and finally lead to the formation of Pro Stock some five or six years later. Ah, those were the days, when everyone was talking about magical "Carolina Mountain Motors," secret induction systems, and even modifications as exotic as moving the front wheels forward an inch or two to get better weight transfer. Of course, it all had to end:

The demise probably began with Chrysler's introduction of their altered-wheelbase cars, but that's of no concern now.

What is astounding is that the whole scene seems to be starting all over again—and the guys who were at the forefront of the movement a decade ago are the leaders once again. While NHRA-legal Pro Stock times occasionally dip into the 8.7s, Dyno Don Nicholson is banging on the seven-second door with his Mustang II, and several others are close behind. In true match race style, Nicholson's car meets all of the unwritten requirements; the fuel is gasoline, the induction system consists of a pair of Holley carburetors on a stock appearing manifold, and the most complete teardown will reveal no hidden nitrous oxide system, no alcohol injector, and nothing really exotic—exotic being a relative term in this instance.

The primary reason for Nicholson's rash of quick timecards seems to be that he's lopped a lot of weight off his car with the



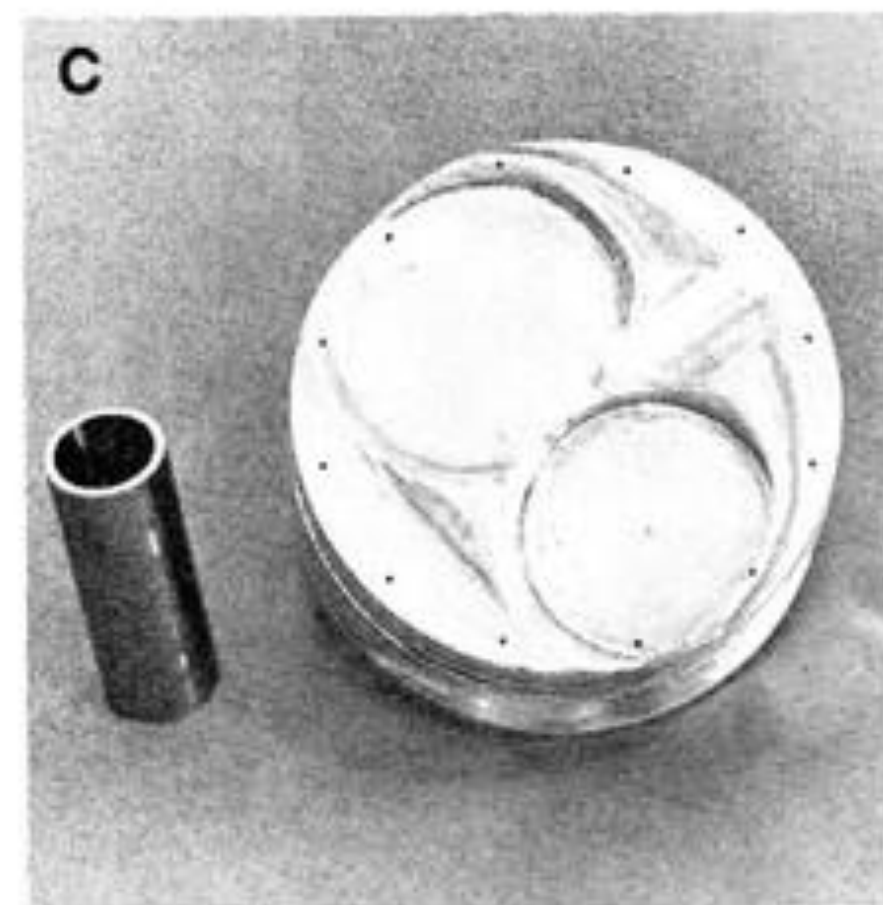
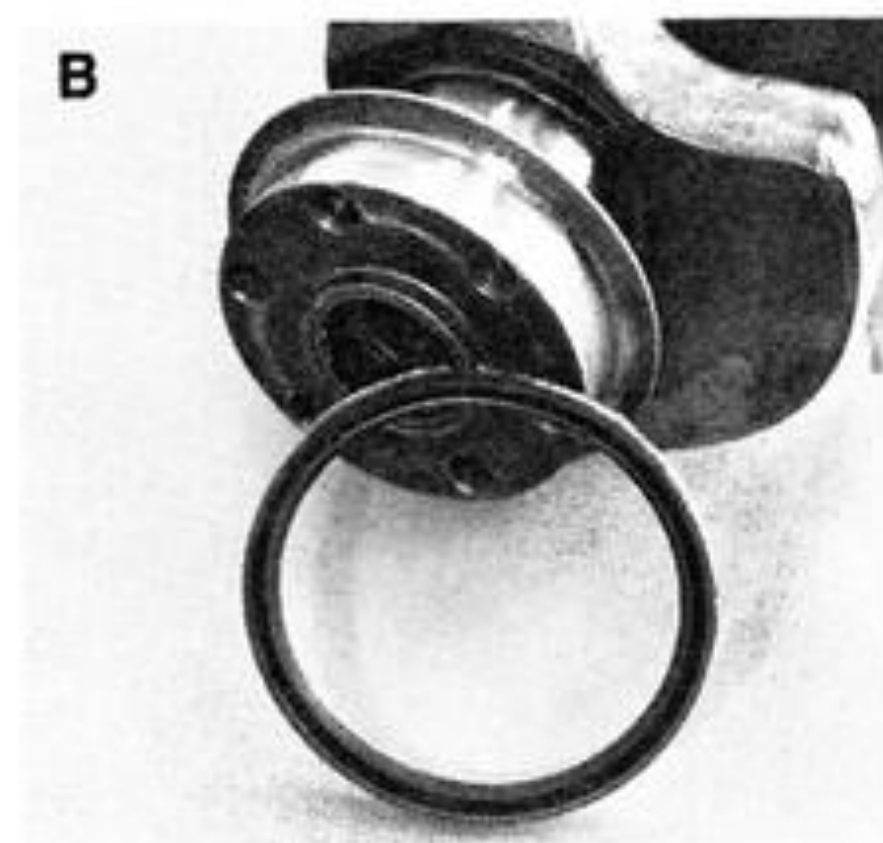
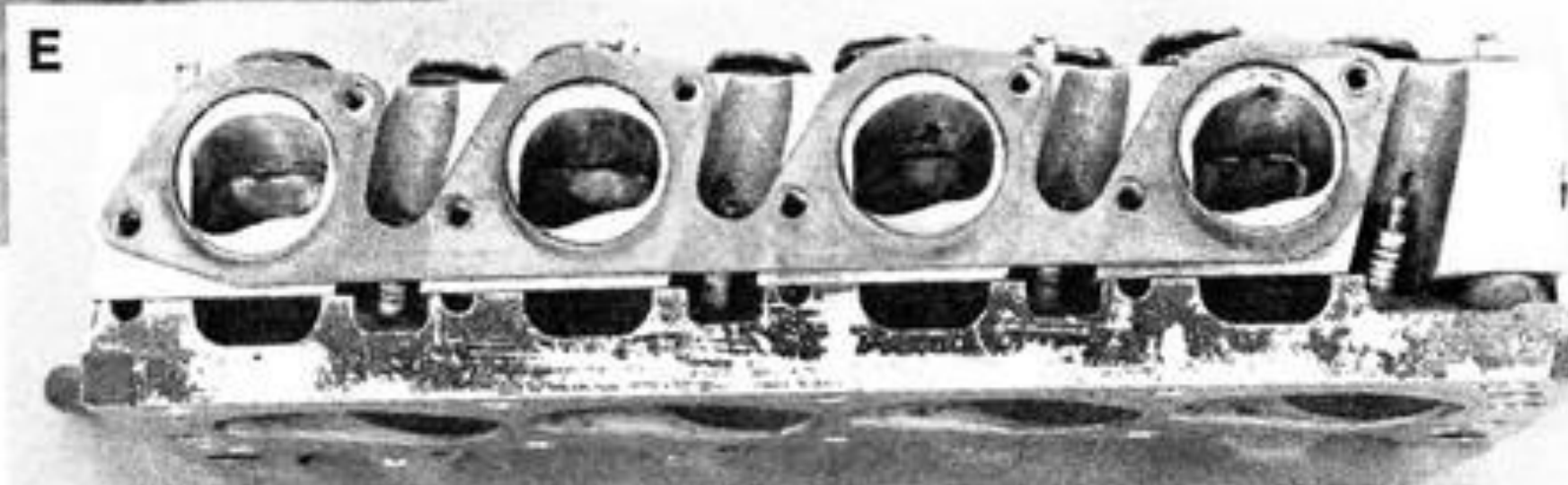
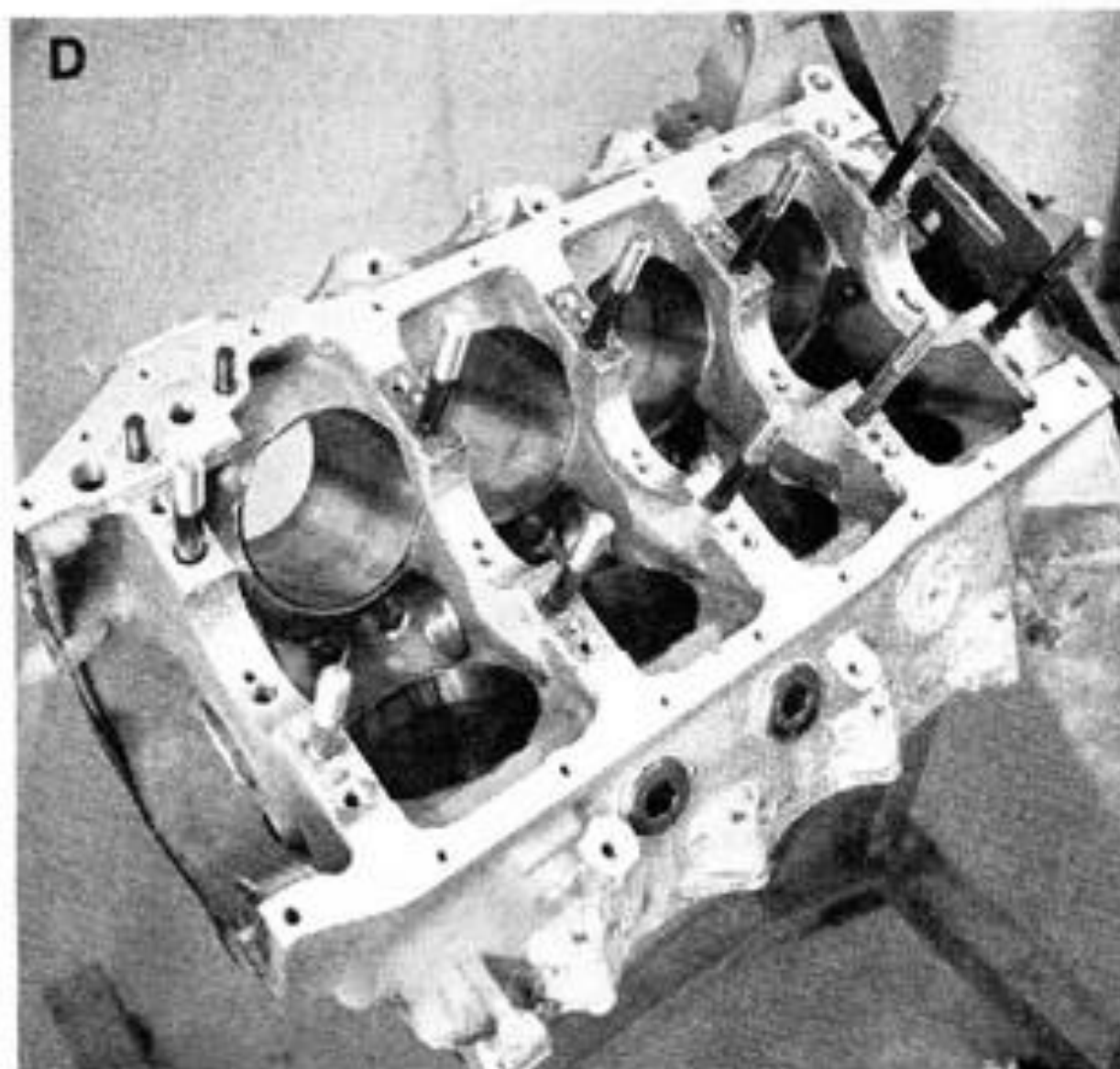
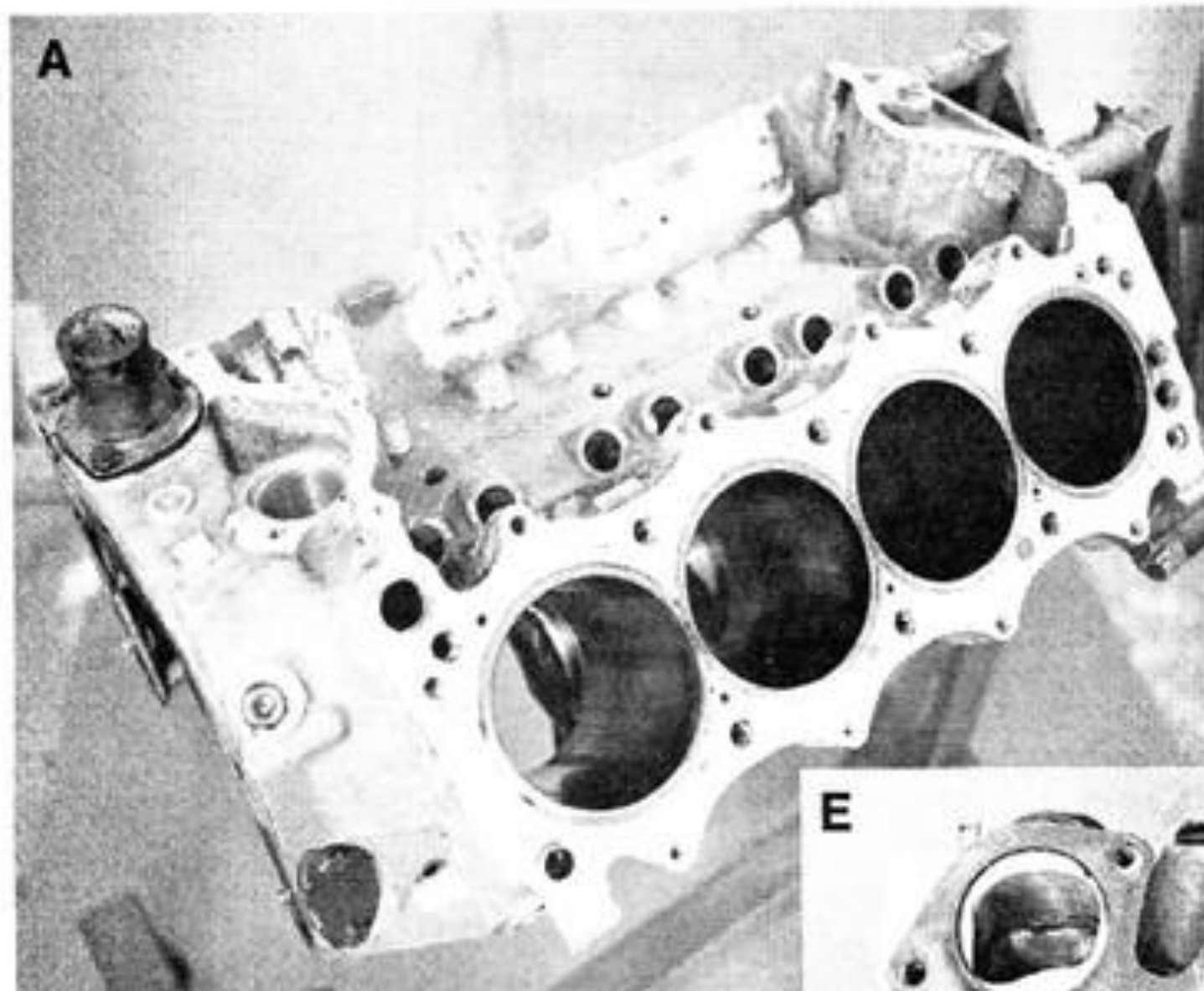
installation of a nine-year-old set of aluminum heads on an aluminum block. While most of us were thinking that the only aluminum blocks around were those manufactured by Black, Milodon, Donovan and an occasional Chevrolet, here came Nicholson to shake up everyone. Thus far the combination has cranked out a best of 8.06/165, putting him about a half-second and eight miles per hour ahead of his closest rivals.

The heart of Nicholson's project is an aluminum 351 Cleveland block, manufactured in 1967 by Ford for the Trans Am program. When the Dearborn brigade backed away from Trans Am racing, the limited number of blocks and heads began to filter down through the ranks to firms like Holman & Moody, who immediately offered them for sale at inflated prices. They were good bait, but nobody was biting until recently, when the price dropped from \$3000 to \$750 per block. Nicholson acted quickly, and picked up three of this endangered species.

Just as the biggest initial advantage the late-model aluminum Hemi blocks gave to the fuel racers was a tremendous weight savings, so too has Dyno gained from having a block that weighs just 80 pounds (93 pounds with the four-bolt steel main bearing caps). The original displacement was 351 cubic inches, but Dyno has expanded that to 406ci by boring the cast iron cylinder sleeves from an even 4 inches to 4.145-inch, and increasing the stroke from 3.50 to 3.75-inch. The 1/4-inch stroked crankshaft was machined from a forged steel 302 Holman & Moody billet by Johnny's Custom Crankshafts of Romulus, Michigan. Since Nicholson has found the rear main seal on many Fords to be leak-prone, he had the crank cut down to accept a one piece Foyt Coyote Ford seal.

Most of the aluminum blocks have smaller 2.50-inch main bearings instead of the 2.75-inch size common in the cast iron models, yet TRW bearings are readily available for both rods and mains (PNMS3010-P). The rod bearings are the same as those used on a 2-inch journal, 283-cubic-inch Chevy engine (PNCB824P). The rods are 6.060-inch-long BRC products fitted with 65-gram floating pins and Chevrolet spiral locks. Two-ring Venolia pistons, light enough to blow away in a stiff breeze (396.5 grams), provide a compression ratio of 12.5:1. The top ring is a .043-inch plasma-sprayed Speed Pro, with a 3/16-inch, three-piece low-tension oil ring below it.

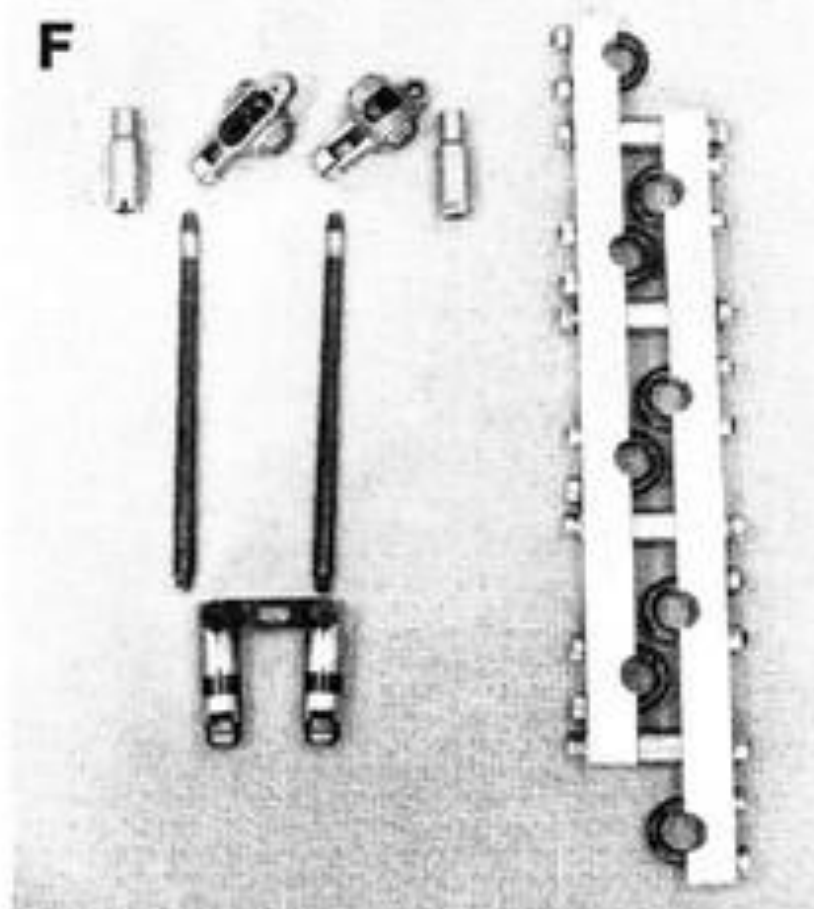
MATCH RACER



The aluminum cylinder heads, light enough to carry under one's arm like a lunch pail, have received what has become the "standard" Pro Stock exhaust port work by Mullen, which includes cutting the heads and installing an aluminum block to raise the ports about an inch. Mullen also reshaped the intake ports, and coated the 54cc combustion chambers with VHT to retain the combustion heat.

Nicholson is currently using a roller tappet Crower camshaft that provides a maximum of .760-inch lift at the valve. The cam has 330 degrees of duration on the intake valves, and 338 degrees on the exhausts. The lifters and stainless steel needle bearing rocker arms are also from Crower, as are the new tapered pushrods and rocker arm girdle. The springs (PN68655 and 68555 for the inner and outer units) provide about 180-lbs pressure on the valve seat, and about 625-lbs pressure when opened.

Dyno has found that Ford's titanium intake valves (PNDO ZX-6507-A) last longer than just about anything else on the market, but the problem is finding a set. They're becoming as difficult to locate as an autographed Fabian picture. The intakes measure 2.190-inch in diameter and are swirl polished, while the Manley exhaust valves measure 1.750-inch. Both intake and exhaust valves have .060-inch-wide seats, and of course



(D) Main bearing area is small, but four-bolt caps provide sufficient strength. (E) Aluminum heads have received the "standard" Pro Stock treatment of machine work, the installation of a piece of bar stock, and the raising of the exhaust ports. (F) Crower roller cam uses new tapered pushrods, steel needle bearing rockers, chrome moly rollers and stiff girdle.

(A) Cast iron cylinder sleeves are not as easily swapped as they are in the other aftermarket aluminum blocks. (B) One piece Foyt Coyote Ford rear main seal necessitates turned down crankshaft. (C) Forged Venolia pistons have gas ports and weigh less than 400 grams. Pins tip scales at just 65 grams.

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351 MATCHRACER

(continued from page 66)

the valve guides have been bronze-walled to reduce wear. Nicholson has tried just about every type of head gasket available, and prefers the McCord composition unit (PN6850M) for its excellent sealing qualities, and the fact that they're both inexpensive and easy to find.

Dyno has been relying on complete Gapp & Roush lubrication systems in all of his engines for some time, and uses a G&R pickup, pump and deep pan. Just about everything else used on this meanest of carbureted match race engines is Pro "Stock." The ignition system is an Accel BEI unit with Accel's wires and spark plugs, and the exhaust tubing was bent and welded by the folks at Hooker. The fumes emanating from those chromed pipes are the residue of burned Volatile Products racing gasoline. Behind the engine is a standard single disc Hays clutch and flywheel combination, and then, of course, the inevitable Lenco transmission.

The induction system is well thought out, and certainly elements of it are far from new. The twin Holley 6464 carburetors (1050 cfm) are the same ones that carried Dyno to a couple of national event wins in the early Seventies. The manifold is a stock appearing Edelbrock UR-19 model that has had .250-inch machined off the bottom of the plenum, and a like amount cut off the carburetor flange so that the complete system would fit beneath a 5-inch hood scoop per NHRA rules at the start of this season. Now that the scoop height limit has been raised a couple of inches, Nicholson may go back to a stock-height manifold, although he's invested considerable time in modifying the interior of the one he's now using. The interior runners, which Nicholson refused to allow to be photographed, include some very trick baffles designed to alter the stock fuel/air flow characteristics to specific intake ports. Dyno states flatly that without the modifications his car would be several tenths slower. While few real secrets remain in drag racing, intake manifold modifications as performed by the leading racers remain at the top of the list.

The limitations of Nicholson's aluminum engine combination have yet to be reached, and certainly the addition of a hidden nitrous system could easily propel the car into the 7s, but that's a move Dyno won't make. After all, wouldn't someone want to try some injectors and just a little alcohol to try and keep up the pace? 3



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DESPERADOS



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Dyno Don Nicholson's string of Ford products have been shooting it out with Mopar fanatic Ronnie Sox for more than a decade, yet neither has ever held a commanding edge in "Run Watch'ya Brung" racing, where it really counts. Paul Blevins was a huge success in the sportsman ranks, and has shown flashes of brilliance in Pro Stock, but the big wins have consistently eluded him. Bobby Lee Marriott pulls the Lenco levers on this Shelby-front-end-fitted early Mustang Pro Stocker; virtually a brand new machine with ancient skin. Tired of being an also-ran, Andy White installed a Reher-Morrison small-block in his Monza, and driver Shelby Jester started to fly.



PHOTO BY BOB McCLURG



PHOTO BY CAROL JOHNSON

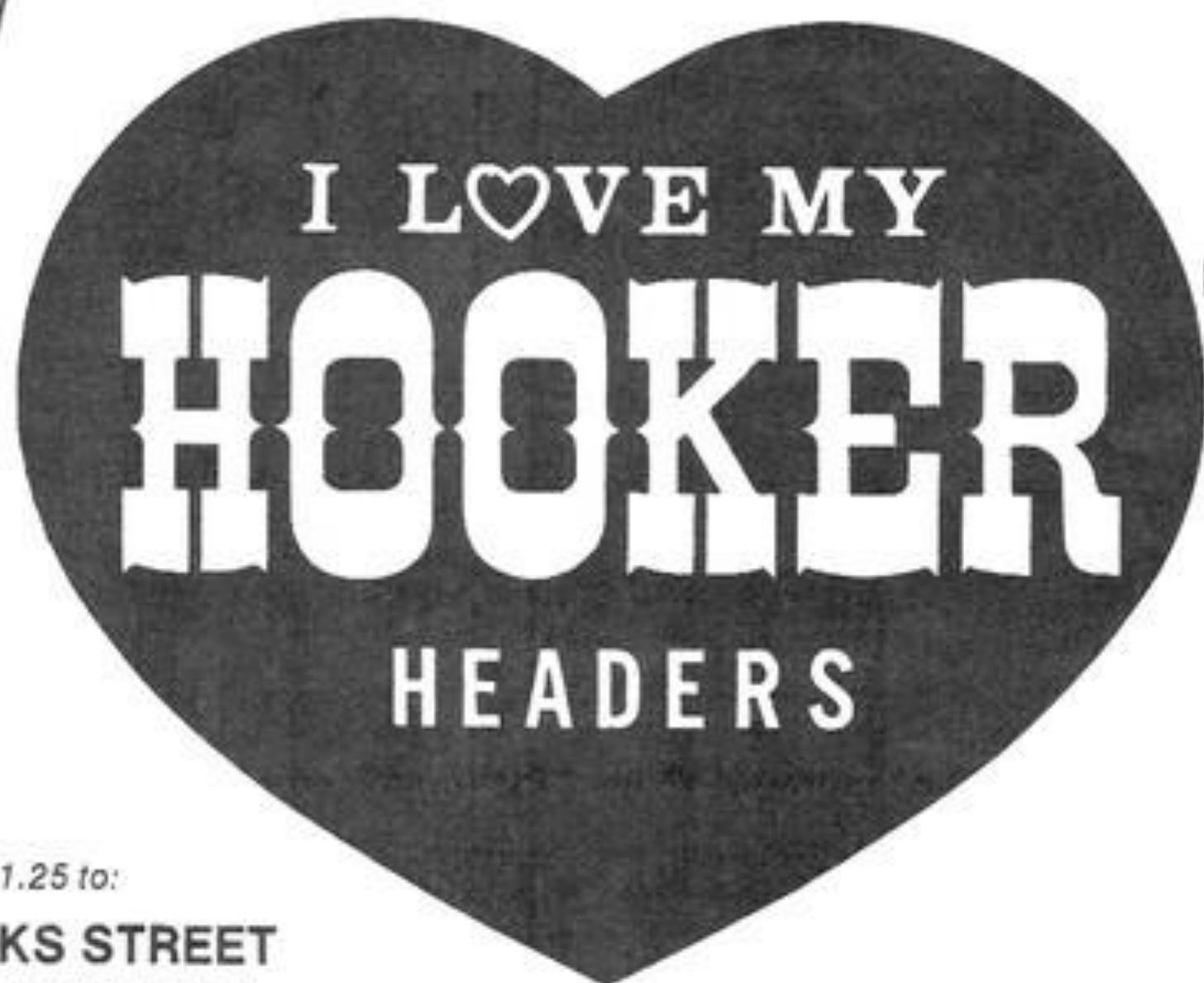


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