

Kas Kastner and his Super Triumph: The car they couldn't keep from winning

BY GORDON H. JENNINGS

Triumph Motor Company's racing program suffered a blow in 1965, when the Sports Car Club of America declined to "homologate" the newly-introduced TR-4A. Too late, said the word from Westport, Conn.; you must wait until next year. We have already classified all the production-type sporty cars for this year and it is not our problem if you guys cannot get your new models over here nice and early like all the other honest, God-and-SCCA-fearing importers. So said the stern men of Westport.

This caused some consternation. Triumph is one of racing's more determined supporters, and the SCCA's refusal to accept a new model meant that they would, in effect, be restricted to last year's cars. Anyone who wanted to go racing with a Triumph would have to purchase a used automobile. Of course, Triumph's sales to the racing fraternity are not of such quantity that the loss caused any suicides or maiming among the salesmen.

Over in the racing department, however, it was a horse of a vastly different hue. Good ol' R. W. "Kas" Kastner, who is not the most kindly and understanding of men under any circumstances, promptly fell victim to a conniption-fit. Racing development is his responsibility and his passion, and how in the ever-lovin' blue-eyed world was he going to develop a racing car that wasn't allowed to race? The gentlemen of the SCCA sniffed politely and gave him his answer: he could race his precious TR-4A in D-modified (the sound of laughter echoing up and down sleeves).

Kastner must have bitten his cigar in half at this point, but by the time the red veil had cleared from before his eyes he had come to a decision. He would have a go at the D-modified class, but with a D-production automobile. Necessity would be converted into a positive benefit, for

if his gussied-up production car could make an impression in the modified class, it would surely be competitive in the 1966 production sports car races.

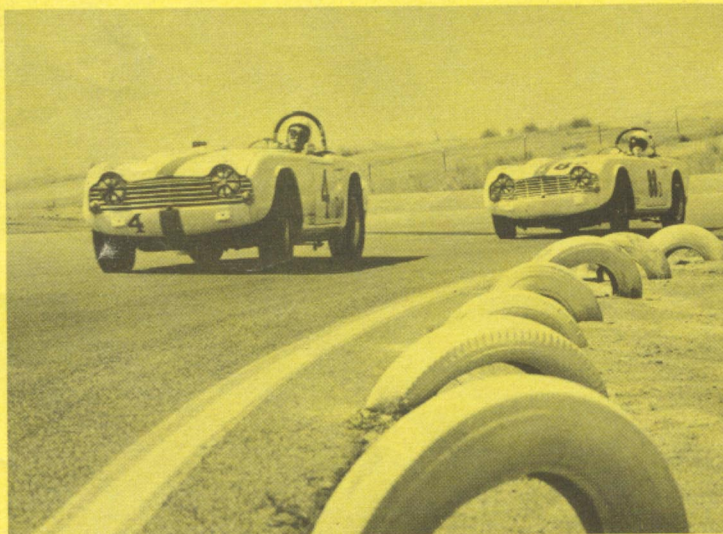
In point of fact, it was only the matter of handling that was cause for concern. Kastner had already worked wonders with the rest of the automobile. He had been particularly successful in getting power from the sturdy, if somewhat long-of-tooth Triumph four-banger, which in its latest form develops slightly more than 150 bhp. Very respectable for 130 cubic inches; almost too respectable.

And, as a matter of fact, that is what the lads back at the Triumph factory's competition department thought. They thought doubtful thoughts because that is more than they were getting with Weber carburetors, and Kastner said he did the deed with lowly SUs. You might like to know that things were settled when Kas shipped one of his engines to the factory for evaluation—and it pumped out 152 bhp. It was red-faces time in Coventry, Blighty.

Anyway, the handling of the independent-sus-

pension (the only one that brings much interest these days) TR-4A would have to be sorted out. Suspension settings that are correct for Mr. Clyde Tourist will not do at the race course. Much the same sort of effort had already been made on the live-axle TR-4, with good results, but the chassis with independent rear suspension obviously presented a more complex problem.

Even though Kastner was working toward a "production" racing sports car, he had high hopes of embarrassing competitors, so the TR-4A selected for the experiment was fitted with super-light fenders, hood and trunk lid made of fiberglass by Triumph for their rally cars. Also, an engine was built-up to suit a pair of 45mm Weber carbu-



**The SCCA wouldn't approve
the new independent suspension
Triumph TR-4A for its 1965
production car racing program,
so what did ol' Kas Kastner do?
He made the car a
National Champion in
modified competition,
that's what he did!**

retors. Thus outfitted, the car weighed 1700 lbs. and was propelled by 160 bhp (at 6000 rpm), which was 150 lbs. lighter and perhaps 10 horsepower better than the projected production-racing version. Not bad for a rush job.

And away we go. Terrible Charlie Gates continued with the driving chores, perpetuating the nearly-unbeatable team of Kastner and Gates, and the Triumph TR-4A "Super Stock" was carted to all of the west's SCCA Championship races. Undoubtedly, many of those running D-modified cars came to hate the SCCA's home office in the months that followed. Gates and

pounds over the stock disc wheel and seven pounds as compared to the wire wheel. However, it is not for the saving in weight alone that the special wheels are used. They are also much stronger than the stock wheels, and provide the wider rims needed to give the racing tires adequate support. Kastner uses wheels with 5-inch rims (a catalogued option for the Triumph) and fits them with 9.50 x 15 Goodyear "Speedway" tires. These have a 7-inch tread width and give better cornering power than the 8.80 x 15 Firestone tires (with a 6-inch tread) that have been employed in the past.

These special tires and wheels, which get a much greater than standard grip on the road surface, have not been an unmixed blessing. Their improved cornering power subjects the entire chassis to much higher loads, and some of the suspension bits have not been equal to the job. The rear wheels' stub-axles, for example, have sheared on a couple of occasions, and so have the bolts that secure the front suspension's lower members to the frame. These have been bolstered accordingly.

Triumph was first to offer disc brakes on a sports car, and even though these are fitted only at the front wheels (drum brakes are employed at the rear) the brake system does a magnificent job. Standard brakes have proven entirely adequate to the stresses of racing; the only change being to install competition pads in the front brake calipers.

Many detail features have gone into Kastner's Triumph Super Stock, most of them resulting from some exasperating failure in the past. A good case in point is provided by the dual fuel pumps. These Bendix pumps do not often malfunction, but it happened once and that is once too often. So Kastner has mounted a pair of them back at the fuel tank, controlled from the two-position windshield-wiper switch. If one pump fails, the driver has

the Super Stocker humbled the mighty again and again, accumulating enough points in the process to capture the D-modified National Championship. More red faces.

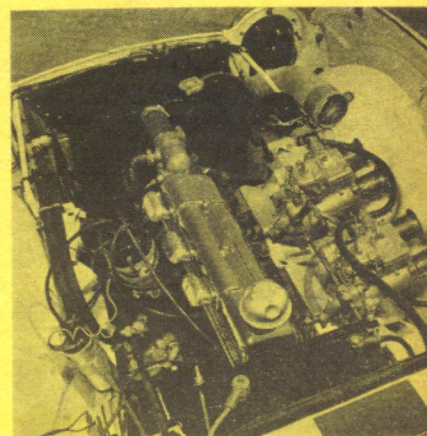
This championship effort was not without its ups and downs. The first efforts applied to the suspension did not bring optimum results, and the sorting-out process was to continue throughout the season. Ultimately, Kastner settled on spring rates about 10 per cent higher at the front, and 40 per cent higher at the rear. An anti-roll bar, with a diameter of $\frac{3}{8}$ of an inch was installed between the rear wheels to add roll stiffness. None is used, or required, for the front suspension.

Caster and camber settings have also been jiggered about, and in final form the front wheels have $\frac{3}{4}$ degree of positive camber, 2.5 degrees of caster and zero toe-in. Camber and caster are very important, as there is a tendency toward understeer that must be corrected. The effects of the camber should be obvious; increasing the caster provides an automatic increase in effective camber as the front wheels are turned. Because the rear suspension is fundamentally a swing-axle system, camber varies with wheel movement. The static setting is at zero, but chassis roll during cornering provides an automatic positive camber via the well-known "jacking" effect.

Alloy wheels provide a weight saving of about three



PHOTOGRAPHY: RALPH POOLE



ALPHABETICALLY: Join our successful authors: publicity advertising promotion, beautiful books. All subjects invited. Send for free appraisal and detailed booklet. Carlton Press, Dept. ZDB, 84 Fifth Avenue, New York 10011.

MAGAZINES

"TRIUMPH REVIEW"—British monthly—subscription \$3.50. English Imports, 3844/CD3 Thomas, Minneapolis, Minnesota 55410.

BUSINESS OPPORTUNITIES

INVESTIGATE ACCIDENTS—Earn \$/50. to \$1,400. monthly. Men urgently needed. Car furnished. Business expenses paid. No selling. No college education necessary. Pick own job location. Investigate full time. Or earn \$6.44 hour spare time. Write for Free Literature. No Obligation. Universal, CZ-2 6801 Hillcrest, Dallas, Texas 75205.

SELL CB EQUIPMENT—Dealerships available to aggressive people who can sell Citizens Band Radio full or part time. Knox Electronic, Dept. 174, Galesburg, Illinois 61401.

PHOTOGRAPHS and transparencies wanted, to \$500.00 each. Valuable information free—Write Intraphto-CD, Box 74607, Hollywood 90004.

I Made \$40,000.00 Year by Mailorder! Helped others make money! Start with \$10.00—Free Proof. Torrey, Box 3566-N, Oklahoma City, Oklahoma 73106.

\$500.00 PER SALE! \$2495. one-minute Car Wash. Fits existing wash bays. Service Wash, Box 5908, Chicago.

ARNOLD PALMER OFFERS YOU unequalled opportunity to profit from tremendous popularity of golf and power of Palmer. Highly profitable exclusive Palmer Golf Franchises available. Complete national program. Hefty profits—minimum investment. Write for details. Arnold Palmer Enterprises, Dept. CD, Pleasantville, New Jersey, Tel. 609-646-3500.

FREE BOOK "990 Successful, Little-Known Businesses." Work home! Plymouth-945T, Brooklyn, New York 11218.

EARN extra money selling advertising book matches. Sample kit furnished. Matchcorp, Dept. MO-26, Chicago, Ill. 60632.

HUNDREDS of Foreign Jobs. Unskilled, skilled, technical. Send \$1.00. Write Foreign Jobs Company, Box 9057, San Diego, California, 92109.

WANTED

PRE-WAR automobile sales catalogs, manuals, dealers books, MoToR Annual Show issues, ATJ magazines, Boyce auto nameplate motometers, radiator mascots, defunct auto stock certificates. Top prices paid. Sheldon J. Lewis, 154-62 71st Ave., Flushing, N.Y. 11367.

LOTUS 7 or Super 7. Considering racing. Details and bottom dollar price quote appreciated. Pseudo Moss, 2044 Redmont Road, Huntsville, Alabama.

INVENTIONS WANTED

INVENTORS! Don't sell your invention, patented or unpatented, until you receive our offer. Eagle Development Company, Dept. C, 79 Wall Street, New York 5, New York.

INVENTORS! Sell your invention for cash or royalties! Our client manufacturers eagerly seek new items. Patented. Unpatented. Financial assistance if needed. 25 years proven performance. For free information, write Dept. 26, Gilbert Adams, Invention Broker, 80 Wall St., New York 5, N.Y.

PATENT Searches including maximum speed, full airmail report and closest patent copies, \$6.00. Quality searches expertly administered. Complete secrecy guaranteed. Free Invention Protection forms and "Patent Information." Write Dept. 11, Washington Patent Office Search Bureau, 711 14th Street, N.W., Washington 5, D.C.

IMMEDIATE cash, for Patent Applications, free Patent Searches. Write for details, Universal Patents, 184-U, Marion, Ohio.

TR-4 (Continued from page 49)

only to pull the switch out another notch and the stand-by pump goes into action. And there are other things, like a cold-air pipe aimed at the carburetors, and a special instrument cluster which features an oversize tachometer complete with "telltale" (suspicious, these Competition Managers) and such things as water and oil temperature gauges all right under the driver's nose.

In all, the Triumph Super Stock looked too interesting to merely study from afar, so we invited ourselves out to a testing session. Fortunately, both the Super Stock and its immediate predecessor were on hand, offering an unequalled opportunity to compare this year's D-production Triumph with what others in the class must face in 1966.

There isn't much comparison. The old, live-axle car is fast—almost as fast with its SU carburetors as the new one is with Webers—but the TR-4A goes around corners so much better that it enjoys quite a substantial margin of superiority. Where the live-axle car (another of Kastner's creations and one that has won numerous races) slithers around corners in a mad, rubber-scuffing slide, the TR-4A whistles around very cleanly. No lean, no slide, and neither over- nor under-steer.

Because there were two racing cars on the course at the same time, it was inevitable that a race should eventually develop. This, too, was very revealing. After our intrepid test driver became familiar with the TR-4A, he had little difficulty in beating back the moderately determined efforts of a seasoned race campaigner in the older car. It is an impressive thing when a car is so good that a rank novice can hold off a driver who knows what he is doing and is doing it vigorously. Good luck to all of you chaps in the

SCCA's D-production class when the TR-4A reaches the starting line in 1966.

Kastner tells us that the top speed of his TR-4A is not too exciting: with the 4.3-to-one final drive gears plus overdrive, about 130 mph. But the acceleration up to 100 mph is something fierce for a 2.5-liter car. From the starting line to 100 mph, the Triumph Super Stock will run neck-to-neck with a good 283 Corvette. Normally, red-line is at 7000 rpm, but Charlie Gates will use 7500 rpm if pressed, and while everything gets a bit limp under this sort of treatment, the engine will not usually cough its innards out on the track. One curious fact has emerged during the year of pre-production racing testing: tire wear is about 35 per cent lower than for the old live-axle car.

As matters now stand, Kastner's Triumph Super Stock is well and truly ready for the 1966 season. All of the problems have been worked out, and the car should dominate its class even more than other Triumphs have in the past. Not this particular car, necessarily, for while the team of Kastner and Gates has been so overwhelming, Kastner is more than willing to tell anyone racing Triumphs just how it was done, and how they can build a replica of his Super Stock. Then all they must do is drive faster than ol' Charlie Gates, which is more easily said than done. The car will give them all the help anyone should expect. It is just about the least tricky racing car in the whole wide world and will do everything but give the student racing-driver a birching to keep him from harm. Who would have thought that the Triumph sports-roadster, a car for which the term "axle-hop" might have been coined, would ever come to this . . .

c/d

INVENTORS. Outright cash sale or royalties for your inventions. Patented. Unpatented. Active demand from our client manufacturers. Financial assistance available. Write Dept. 42, United States Invention Brokerage, 78 Wall Street, New York 5, N.Y.

REAL ESTATE

FLORIDA WATER WONDERLAND—Home, cottage, Mobilsites. Established area. \$590. full price, \$9.00 a month. Swimming, fishing, boating. Write: Lake Weir, Box KA38, Silver Springs, Florida AD 6-1070 (F-1).

FREE!—ALL NEW SPRING CATALOG. Giant 180 pages! Thousands of properties described, pictured—Land, Farms, Homes, Businesses—Waterfront, Recreation, Retirement. Selected best buys from the World's Largest. 490 offices, 35 states Coast to Coast. Mailed FREE! STROUT REALTY, 60-ZD East 42nd St., New York, N.Y. 10017.

STAMPS

FREE—Mint British Colonials from Antarctic Territory, Borneo, Brunei, St. Christopher, Nevis, Caymans, Trengganu, Pitcairns. Free with approvals. VIKING, Great Neck 50, N.Y.

MISCELLANEOUS

WANTED Quicksilver, Platinum, Silver, Gold, Ores Analyzed. Free circular. Mercury Terminal, Norwood, Massachusetts.

LEARN While Asleep. Remarkable. Scientific, 92% Effective. Details Free. ASR Foundation, Box 7021, Dept. e.g., Lexington, Kentucky.

PAPERBACKS, Lafayette Hill, Pa. 19444. Catalog 10¢. Paperback books, records, tapes, stationery.