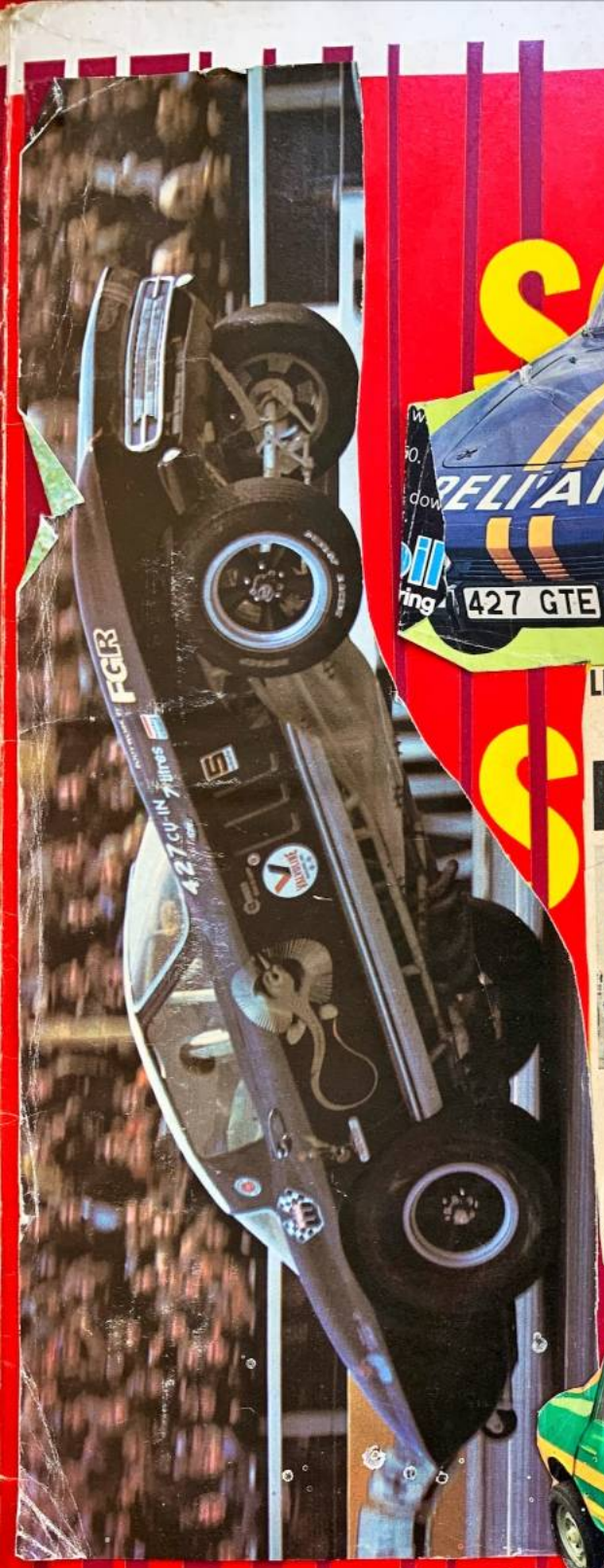


LETS GO **DRAG RACING**

SANTA POD RACEWAY

PODINGTON AIRFIELD, near WOLLASTON, five miles SOUTH OF WELLINGBOROUGH, NORTHA

SUNDAY 6th OCTOBER 12 NOON —

AUTUMN MATCH

DAVID vs

(MOTOVATION)

ADMISSION 10/- INCLU

PARK & PROGRAMME: PI

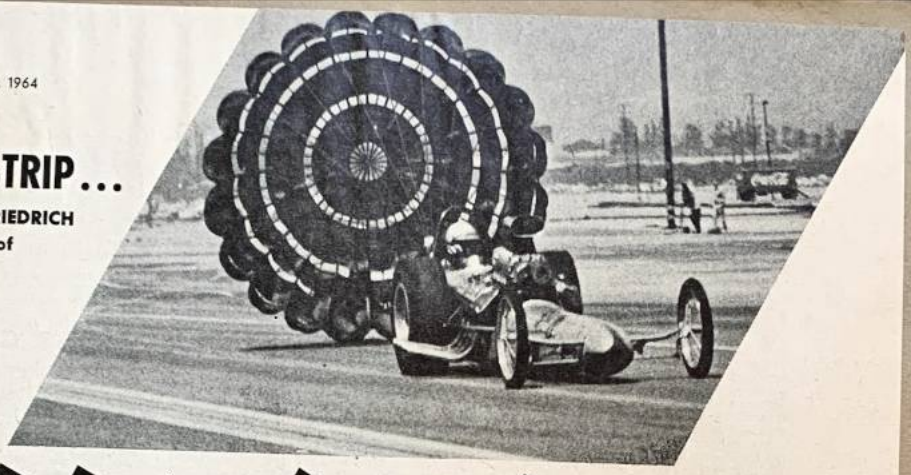
Taff's Pride in all its glory— the V8 Pilot has lowered roof

Functional draggin' driver's compartment is in matt white and black. Instruments are few

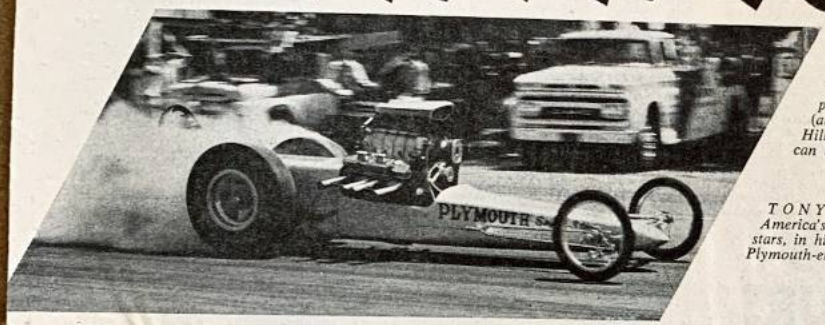
A flathead V8 Ford mill no less sits forward of the 1/8 in. fire-wall. Rad is from a Minor 1000!

ON THE STRIP...

Expert ALLEN FRIEDRICH explains a form of motoring sport popular in America—a sport which could catch on over here, too:



DRAGRACING



BRAKING 'CHUTE is popped at the end of a run (above). The air scoop of the Hillborn fuel injection system can be seen above the engine.

TONY NANCY, one of America's most famous drag racing stars, in his 900 b.h.p. supercharged Plymouth-engined A.A. dragster (left).

TAKE a few yards of steel tubing, two lightweight front wheels, two mammoth rears shod with 11 in. wide slicks, a dynamite-packed V8 power plant, and throw in some miscellaneous items to hang them all together. Add a few thousand man-hours and a pile of technical know-how that isn't listed in any text-book and what you'll have is an A.A. National Class dragster all set to crank the standing quarter-mile in something under 9 secs.

The Class A.A., by the way, relates to the power group in which it will joust with its peers on the strip, a formula applied to all cars competing on drag strips operating under the jurisdiction of the National Hot Rod Association. This would be the equivalent of 2.00 to 2.99 lb. per cubic inch for a supercharged car, a factor determined by dividing the total weight of the car by the total cubic-inch displacement of its engine.

Over 125 N.H.R.A.-sanctioned drag strips are now operating regularly throughout America and Canada, including one each in Alaska and Hawaii, plus another in Puerto Rico.

In the Washington area alone 11 strips run meetings almost every weekend and this is regarded as a fairly remote area. In California and the south-west, where the sport was born, they've mushroomed so fast in recent years it is practically impossible to be out of earshot of one at weekends.

Essentially a tournament style of contest, drag racing presents a hard, stimulating challenge, a one-shot business in which there is seldom time to regain a lost tenth of a second, and during the last 10 years it has extended to embrace virtually every type of wheeled locomotion known to man, and any number can play.

Seventy-one different classes take in everything from stock and super stock saloons to altered coupés and modified street roadsters, these last being unashamed hot rods strictly from Weirdsville and bearing little resemblance to any known form of highway transportation.

Inevitably the scene-stealers are the projectiles in the National Dragster Class, the "Big Wienies" which, though basically similar to one another in general appearance, are sharply divided, according to the power pack they're loaded with and whether running on gasoline or nitro fuel; but they're all way up at the sharp end of the performance peak.

It is true that most of the top-rank drivers nowadays are sponsored by some commercial enterprise or other, but there are still plenty of lone wolves doing it the hard way, and they are constantly snapping at the heels of the top tigers and keeping on the pressure. But no matter how they get to the line the pure dragsters are fantastic machines and building them has become an exact science.

For instance, there is no advantage in the dramatic "wheelstands" dragsters are often photographed doing, blasting off from the line with their front wheels clawing the air well clear of the ground. Obviously there is no steering control in effect at such times, and if it happens while in full song the driver must lift off to get back in charge, or risk plunging into the crowd. To combat this danger the current trend is towards a longer chassis which reduces the tendency of the front end to lift under the thrust, the theory being that a longer wheelbase increases the rotating inertia of the rear axle and keeps down the front.

In any case, all cars must carry a certain percentage of their weight on the front wheels, *e.g.* those of 124-130 in. wheelbase must bear 22 per cent of their total weight at the front, and only a small amount of ballast is permitted. Many drivers get aerodynamic assistance by installing a small aerofoil between the front wheels or sometimes even over the driver's head.

The "rails" of the dragster chassis are constructed of a light framework of chrome-moly steel tubing which is fairly brittle when welded, so the chassis has to be put in a jig while the welding is being done to ensure that all welds will stand up to the compulsory Magnaflux test. Great panic has been known to occur in the past when the overloading of a car's frame structure has caused it to collapse in spectacular [illegible]

(Continued

bombing down the strip at something like 150 m.p.h.

Suspension is minimal; usually the rear axle is bolted directly to the frame, the front axle being braced by tubular torsion bars. Front wheels are unbraked but the massive narrow-tracked rears carry heavy-duty disc-brake calipers, and a cross-form braking parachute is packed immediately behind the driver's seat ready to blossom the instant the finish line is crossed.

Craftsmanship finish is almost beyond belief; what isn't chromed is buffed until it is hard to tell the difference. All parts are balanced, drilled and polished to a fantastic degree, the entire standard of preparation being equal to that of a Grand Prix car.

A famous British statesman once declared: "There will always be glittering prizes for those with sharp swords," and this is certainly true of drag racing. Top drivers such as Don Nicholson, Ronnie Sox and Al Eckstrand can command $300 to $500 per appearance in addition to manufacturers' awards, retaining fees, and the sizeable chunks of prize money offered at national meetings.

At the recent Championship races held at the famous Riverside Raceway in California the Top Fuel Eliminator drew $2,000 in cash, plus a new Ford Mustang; Top Stock Eliminator picked up $675 prize money and a new Plymouth Barracuda, and there was also a vast treasure chest of thousands of dollars in cash awards, and dozens of prizes and trophies for the various class winners.

The American drag-racing season culminates in a mammoth joust at Indianapolis Raceway Park in September when the National Championship finals are held, after which many of the leading drivers will take off for England to compete in the International Drag Festival. Drag racing is the new frontier of total performance motor sport, and if there is a more dramatic spectacle, they're certainly keeping it quiet.

THAMES ESTUARY A.C.

DEBDEN SPRINT

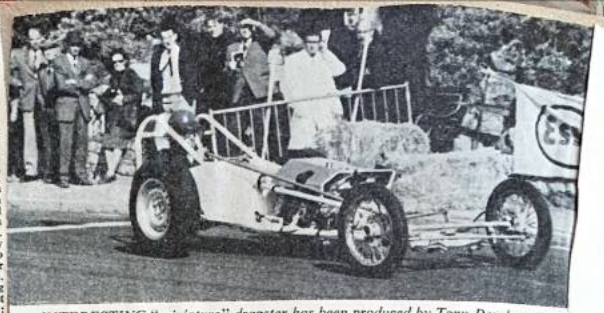
ATTENDED by a fanfare of whirring cameras, national press reporters and a wildly enthusiastic crowd, the Thames Estuary A.C. Sprint at Debden, instead of the expected club meeting, turned out to be a Britain versus United States battle for the unofficial Dragster Championship of the World. So many statements have been made in the national press about these fantastic machines and their custodians that this title would seem as good as any.

Mickey Thompson, in achieving something over 170 m.p.h. in 8.8 secs., won the day for the Stars and Stripes, but Sydney Allard, severely handicapped by an engine that had "blown up" on the previous day, and which had been hastily patched up, still managed a time that suggested he could have taken far more interest in the title with a healthier motor. Dante Duce, although second, was always trailing to Thompson, while Tony Densham's 1,500 c.c. unit had nowhere near enough horses to cope with the bigger boys.

And amid the high pressure showmanship, the noise, the smoke and the distribution of "Moon" stickers, the irrepressible George Brown, with the smallest engine on view and just half the number of wheels achieved a time only 1.5 secs. slower than the Thompson juggernaut. And even then he muffed a gearchange on his best run!

RESULTS

B.T.D.: M. Eyre (Cooper-Buick), 20.42 s. **Saloons up to 1,300 c.c.:** C. Pickering (Morris-Mini), 35.25 s. **1,301-1,600 c.c.:** W. R. Thompson (Cortina G.T.), 30.25 s. **Over 1,600 c.c.:** R. Knatchbull (Jaguar), 26.97 s. **Modified Coopers and S types:** T. W. Dunster (Austin-Cooper), 31.80 s. **Modified Saloons and Sports Cars up to 900 c.c.:** D. Clarke (Austin Mini), 32.18 s. **901-1,300 c.c.:** R. Bunting (Speedwell G.T.), 25.99 s. **1,301-1,600 c.c.:** L. Fryer (Lotus Elan), 26.35 s. **1,601-2,600 c.c.:** D. Duncan (A.C. Ace-Bristol), 24.53 s. **Over 2,600 c.c.:** C. Gray (Austin-Healey), 24.09 s. **Sports Racing up to 1,300 c.c.:** M. Mears (Terrier), 22.83 s. **Over 1,300 c.c.:** R. C. Neville (Lotus-Ford 7), 23.79 s. **1172 Formula:** D. Parker (Nimbus), 28.42 s. **Racing Cars up to 1,500 c.c.:** P. Ellis (Elva), 24.05 s. **Best Lady:** Mrs. E. Price (Lotus), 26.90 s. **Dragsters:** 1, M. Thompson, 8.84 s.; 2, D. Duce, 9.99 s.; 3, S. Allard, 12.85 s.; 4, A. Densham, 14.43 s.



INTERESTING "miniature" dragster has been produced by Tony Densham and is powered by a Ford engine of 1½ litres. It is a credit to its constructor.

DRAG WISE

By ALLEN FRIEDRICH

THE brash, colourful sport of drag racing, motor sport's modern equivalent to the Western show-down, has reduced the quarter-mile trip down the asphalt ribbon to an exact science and firmly established itself as both a top-rating spectator sport and a multi-million-dollar business, two of the surest guarantees for the success of any enterprise, while the rapid fame and fabulous rewards awaiting successful drivers constitute one of today's fastest methods of becoming rich.

Stimulated by advertising sponsorship and motor manufacturers' support, strip promoters are now opening up bigger and better strips and offering fatter purses than ever before.

The newly opened Blue Grass Raceway in Kentucky will run meetings every Sunday with some of the most modern facilities in the country for both competitors and spectators. The Shreveport Strip even has a Drag Racing Country Club, while drivers at the fabulous Detroit Dragway August World Championship meeting jousted for $10,500 in cash and awards.

A lot of valuable data, particularly in the sphere of transmission and carburation, has been gained through experience in drag racing, and it's also been the breeding ground for some outstanding personalities. Dave MacDonald, tragically killed in the 1964 Indianapolis "500", was a former drag racing champion. So was Art Arfons, soon to launch his assault on the world land speed record in his jet-powered "streamliner". Mickey Thompson, one of the only three members of the "400 m.p.h. Club", who visited Britain last year to give drag demonstrations at a number of venues, is known as the Dean of Drag Racing, and though he is seldom seen behind the wheel nowadays, Thompson-built cars appear regularly in the hands of promising young drivers.

"M.T." himself runs his own drag-strip in California, donating large portions of the profit from it to charity. His main interest is his big new motor engineering concern in Long Beach where he builds and tunes dragsters and racing cars, also turns out special alloy racing wheels and pistons, and is currently working on a prototype midget helicopter. He is among those who have maintained their allegiance to "power by Ford" though many of today's top tigers are propelled by the superb fuel-injected Chrysler engines or the "total performance" drag racing engines produced by Dodge and Plymouth.

A well-known car using the hemi-head Plymouth V8 unit is the Harris Highlander which recently set a-pounding the pulses of its sponsors, Harris Auto Sales of Providence, when it made Top Stock Eliminator in the S/SA "saloon car" class at the Island Dragway, New Jersey.

Incidentally, any resemblance between production saloon cars and the so-called stock or stock-altered models seen on the drag strips is purely an illusion. They embody all sorts of cunning "cheater pieces"—lightweight alloy or glassfibre wings, bonnets, and bumpers; interiors are gutted, wheels and suspension are specially designed, and their special compression and transmission ratios render them virtually undrivable on the road.

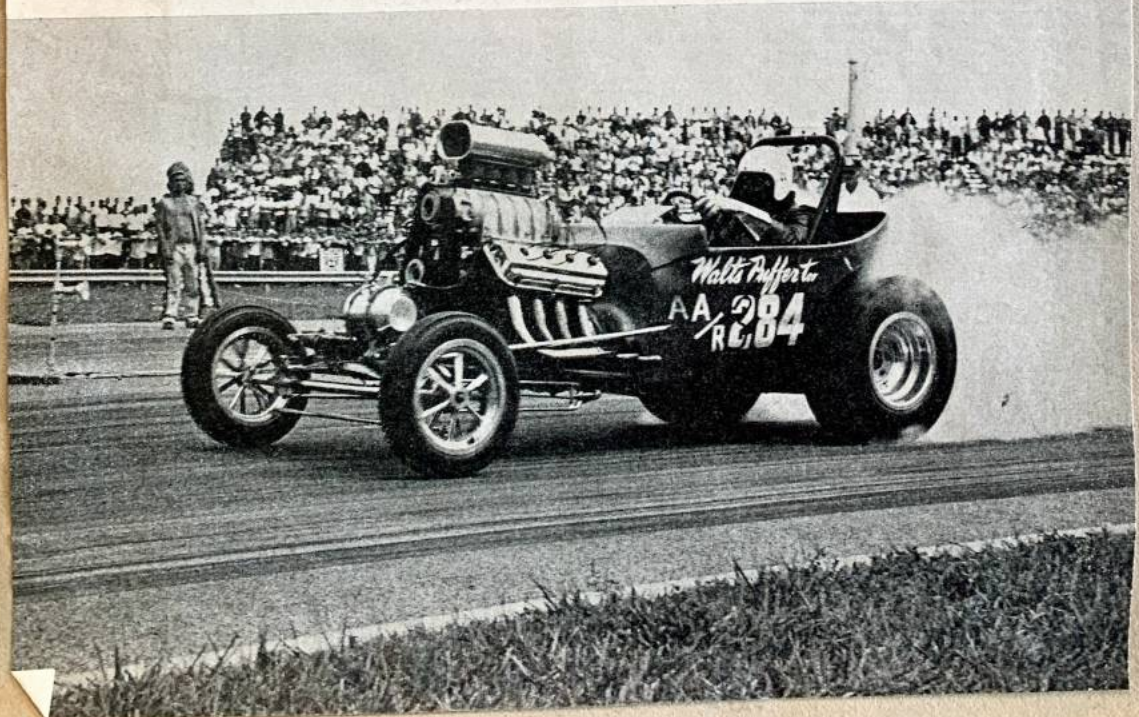
It's hardly surprising that such a highly individual activity has produced some pretty far-out creations such as the transverse-rear-engined monster that had a brief but memorable career on the West Coast. A number of twin-engined slingshot dragsters are still around, either with their pair of beefy V8s set side by side in the frame, or in tandem like the twin-Chevy Peters and Frank "Freight Train", Top Eliminator in the 1963 Winternationals.

Once on the move this type of machine is hard to get away from, but no matter how much brute power is packed aboard, the amount that can be utilized as a driving force is obviously regulated by the coefficients of transmission and adhesion; the trick is to get the balance exactly right.

For example, George Montgomery, blasting hard for a new national class record recently at Evansville, uncorked enough power to wrench his front wheels five feet off the ground in a hair-raising "wheelie", the resultant plunge back to earth wrecking his front axle.

The winning way is to tune the engine to its absolute pitch, bearing in mind

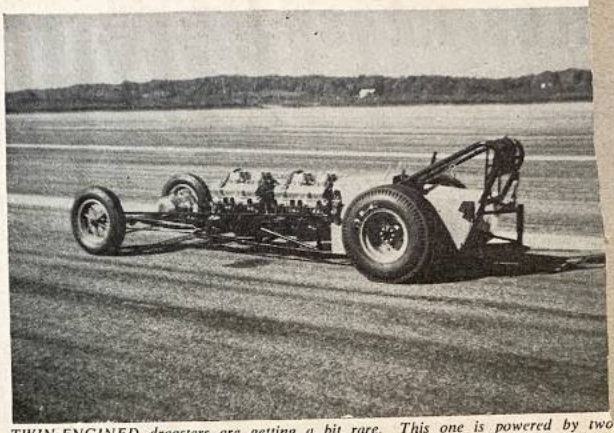
A REAL WILD "modified roadster" blasts off the line. Regulations specify an outside shut-off valve on the fuel tank mounted between the front wheels.



such matters as the probable humidity and type of strip surface at the next scheduled meeting, then co-ordinate all other factors to a "go" condition, no simple matter when remembering that one-fifth of a second lost on the start line can mean the difference between a thousand-dollar purse and a wrecked transmission!

Probably the strangest creatures loose in the wild drag world are the ones competing in the numerous "Altered or modified coupés/sedans" classes, many of them qualifying as saloons by virtue of a stark body shell, usually from a Fiat 500, Volkswagen, or Ford Anglia, clamped onto a bellowing V8 power package with giant rear wheels. John Lutz set up a new class record recently at the Sioux City World Points meeting when he turned in 10.83 secs. (131.96 m.p.h.) in a Chev-engined Ford Anglia. There are probably more Anglia bodies on the American drag strips than on the American roads.

Since the fateful day in July when "Big Daddy" Don Garlits of Tampa, Florida, cracked the coveted 200 m.p.h. drag race barrier in his AA/FP Wynns Jammer with a stunning quarter-mile time of 7.85 secs. it's become clear that some serious thinking has got to be done about the question of brakes. The dragster's unique construction makes front wheel braking impracticable. Heavy duty disc calipers are fitted to the rear wheels, operated by a hand-lever which sometimes also incorporates an engine shut-off control, and deceleration is further assisted by one or two drag chutes, but with the speeds now being attained these are operating perilously close to their limits.



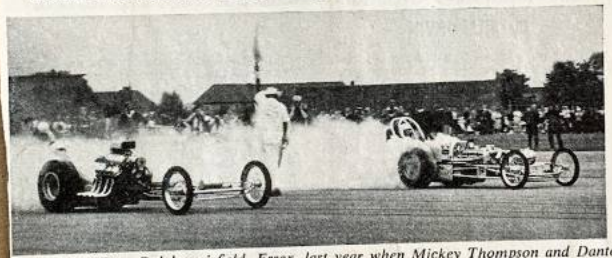
TWIN-ENGINED dragsters are getting a bit rare. This one is powered by two Hillborn-injected Plymouth 426 cu. in. V8 engines, equivalent of 15,000 c.c.

A few strips are now using a device called the Dragnet briefly this consists of a length of chain-link fencing stretched across the course with quarter-inch cable woven through the top and bottom, the ends attached to an arrester mechanism incorporating inertia reels and 200 feet of nylon tape. It snatches the decelerating car to a halt in a similar manner to that used for checking the landing of carrier-borne aircraft, a pretty tense experience according to the drivers.

Neither this arrangement nor the expensive alternative of lengthening the strips is likely to be tolerated for long. The only logical answer is an improved braking system, a matter that has engaged the attention of U.S. auto design engineers for some time. Any signs of a technical breakthrough in this field will be eagerly acclaimed by both drag race drivers and auto manufacturers, and the benefit of it will soon pass to the private motorist. This is one of the answers to the question often asked about the drag racing madness: "What's it all for?".

The Dragsters are Coming!

British International Drag Racing Festival Starts this Weekend



THE SCENE at Debden airfield, Essex, last year when Mickey Thompson and Dante Duce gave drag-racing demonstration runs.

A NEW chapter in the history of British motoring sport commences on 19th September when the British International Drag Racing Festival introduces to this country the dynamic and spectacular American-style sport of drag racing.

When the news broke in America of the Festival, master-minded by Sydney Allard, the National Hot Rod Association's office in Los Angeles was flooded with enquiries from American drivers.

Dozens of them expressed themselves eager to enter, but after prolonged negotiations with the newly formed British Drag Racing Association, who are running the Festival under the sponsorship of *The People* newspaper, a team of 10 drivers, plus a smaller team of motor-cyclists, was chosen, and the well-known Las Vegas drag racer and publicist Dante Duce, who visited Britain with Mickey Thompson last year to give drag-racing demonstrations, was appointed official N.H.R.A. co-ordinator.

Duce flew to London in July to attend a Press conference at the Kensington Palace Hotel, where motoring journalists were briefed on the aims of the Festival, and he was afterwards shown some of the venues to be used during the six meetings comprising the Festival series, and later discussed final arrangements with B.D.R.A. officials before flying back to the United States.

The selected drivers are a cross-section of star drivers from the various drag-racing classes, and most of them will leave for England shortly after competing in the mammoth climax to the U.S. drag-racing season, the 1,250-car entry Winternationals meeting held at the Indianapolis Raceway Park.

The impressive array of Stateside talent will include "Big Daddy" Don Garlits of Tampa, Florida, a speed shop owner and ace driver who recently sent a shockwave of excitement through the land when he became the first man to shatter the 200 m.p.h. barrier on a drag strip in his mighty supercharged Dodge-engined "Wynns Jammer". Another colourful character, Tony Nancy, custom upholsterer of race cars and boats, will be bringing over his Plymouth-powered "Wedge", holder of the Columbus strip class record of 180 m.p.h.

Dave Strickler, "Mr. Super Stock" himself, National Stock Class champion, began his career at 15 years of age when he entered a beat-up station wagon in a local race—and won. Since then he has become one of America's best-known and highest-paid professional drag-racing drivers, first with Chevvys and lately with Dodges, regularly appearing at three or four meetings a week at strips all over the country.

Equally popular with the crowd is Ronnie Sox from Carolina, also Britain-bound with a fantastically fast Mercury Comet which recently turned a time of 10.98 secs. over the standing quarter-mile.

Also appearing will be Tommy Ivo, TV and film actor, whose 190 m.p.h. slingshot is reputed to travel to meetings in the most luxurious transporter ever built, and Al Eckstrand, a young Californian lawyer who is a tiger unleashed when aboard his 426 cu. in. Plymouth stocker bearing the famous "Lawman" insignia on its flank, plus George Montgomery in the "World's Wildest Willys".

Dante Duce will drive his beefy 5.4-litre Chevrolet-engined "Moonbeam" "sports car", while of particular interest to many European fans will be the Porsche-engined dragster built and driven by Los Angeles Volkswagen dealer Doug. Church. A Porsche engine is rare in a dragster, and this one, bored out to 1,900 c.c., has turned some fabulous times recently on California strips.

A super kart, capable of covering the 440 yards in under 10 secs. from a standing start, is "Tiny Terror", John B. Daly's specially constructed twin-jet-engined device which stands but 2 ft. 4 ins. high.

Among the motor-cyclists jousting for top honours will be British record holder George Brown on his "Super Nero", and Alf Hogan on his J.A.P.-engined "Leprechaun" pitting their power and skill against Clem Johnson's famed "Barn Job", claimed to be the world's fastest drag-racing bike with many recorded times of 150 m.p.h., and Dick Rios with his dual-Triumph-engined monster.

Though inexperienced in the new drag-racing medium, British enthusiasts, well versed in its closest European equivalent, the sprint, will be fielding some pretty formidable opposition including two Allard Dragons, current holders of the British standing quarter-mile record, a four-wheel-drive "sports car", and several well-known racing and sprint cars: Chris Summers's Lotus-Chevrolet, Doc Merfield's Cobra-engined Cortina, Tony Marsh's Marsh-Climax and a straight-eight Buick-engined dragster built by Peter Herridge and AUTOSPORT's well-known correspondent Brian Sparrow.

No matter what the results, enthusiasts attending any of the Festival programme meetings will find the sight of these total-performance projectiles lunging off the line in a thunderous blur a unique and stimulating experience.

ALLEN FRIEDRICH.

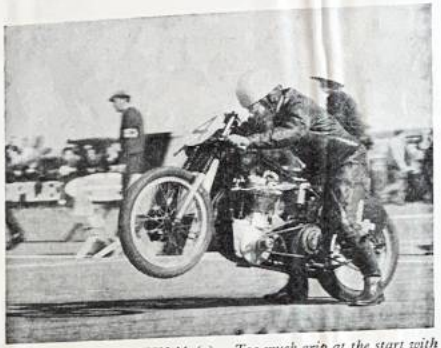
CONTINENTAL NOTES

BACK in the spring I warned the Editor that the November Continental Notes would not have much about the Continent in them, for " come Formula Two or high water " I was going to attend the 1st British Drag Festival. The newly-formed British Drag Racing Association had announced their intention of bringing to this country some of the top American Drag Racing Teams, and we were promised the sounds and sights of cars covering the standing-start ¼-mile in close on 8 sec., with terminal speeds of over 190 m.p.h., and this I had to see. I was more than prepared to go as a spectator, but shortly before the Festival began I received an invitation to take part with my sprint motorcycle and then, even closer to the event, I had the opportunity of taking part in the car classes as well. Gerry Belton, who is Secretary of the Drag Association, was much too busy on the organising side to contemplate driving his own Allard Dragon, so he kindly offered me the loan of the car, this being a standard production Cortina-engined dragster built by the Allard Company, and the subject of a personal bet in which I became involved back in the summer, as regular readers will remember.

The week before the Festival began saw the flap really beginning, with R.A.C. and A.C.U. " red-tape " having to be satisfied and arrangements made to collect the Dragon, fortunately self-contained on its own trailer. Friends rallied round and the Editor used his influence, with the result that Vauxhall Motors loaned a Victor estate car with a towing hitch, the trailer-king Don Parker produced a 50-mm. ball attachment, the Editorial Morris 1100 was used to get up to London from Hampshire, and by late on the evening before the first meeting I had the Vauxhall Victor and the Dragon and trailer outside my home. More friends came over at a moment's notice to assist with painting numbers on the " racer," cleaning it, fixing the battery on, assembling the blower drive, and generally having a look round the car, as well as helping to load my racing motorcycle and all the paraphernalia that one takes to a race meeting, into my Morris Traveller. For the first time in many years of sprinting I had a meeting taking place on my own doorstep, so that instead of the usual 100-150 miles' journey to a sprint venue, I had a mere five miles to cover to get to Blackbushe aerodrome where " the world and his wife " had arrived to get their first taste of drag racing. Of the organisation the less said the better, and being a competitor on two wheels as well as four wheels I had double the complaints and frustrations. But as the whole object of the meeting was to see Don Garlits and Tommy Ivo demonstrate their big dragster machines, and we were merely meant to " fill-in " between the American runs, one just had to suffer. The demonstration runs were everything that one could hope for and the advance publicity was more than justified, with times approaching 8 sec. for the standing-start ¼-mile and terminal speeds of 191 m.p.h.

Garlits and Ivo were running open class machines, using supercharged 6-litre V8 engines burning nitro-methane fuel, and the noise and smoke as they shot down the course was well worth waiting a long time to see. Their dual run, which was the finale of the meeting, was terrific, and ended the day on a splendid note. My own efforts ended on a much lower note, for the Dragon stretched its flywheel bolts and I crossed the line on my fourth run, in company with Allan Allard in his Dragon, making a " clonking " noise which caused me to switch off hastily and wait for the tow car to come and fetch me. The following day my friends who had offered to act as mechanics for me, took the Dragon apart while I competed at the Chelveston meeting on my motorcycle, and before we ran the Dragon again we gave the engine a good check-over.

By the end of the Festival I had had some good solo runs with the Dragon, and some even better match races, the best being against Jack Terry on his 500-c.c. nitro-burning J.A.P. Special. In this race we were very evenly matched, his time being 12.07 sec. with a terminal of 114 m.p.h. and mine being 12.19 sec. with a terminal speed of 115 m.p.h. On my 500-c.c. B.S.A. motorcycle, running on Esso Golden petrol, my best match-race was with Dave Lecoq on his methanol-burning 7R A.J.S. Special, in which we crossed the line almost side-by-side, his time being 13.43 sec., with a terminal speed of 97 m.p.h., and mine being 13.47 sec. with a terminal of 92 m.p.h. These two runs were to me the real essence of drag racing, where paired machines were very evenly matched, and if this form of sport is to flourish the B.D.R.A. will have to pay much more attention to the pairings.



FUN AT THE FESTIVAL (1).—Too much grip at the start with a motorcycle will make it " climb round the back sprocket " and D. S. J. is seen at Blackbushe with his 500-c.c. B.S.A. sprint bike getting a bit frisky.

Both the runs I have mentioned were most satisfying for the contestants, and presumably were interesting for the spectators, but both were " arranged " by the riders themselves, while the officials of the meetings were flapping about and perpetrating unnecessarily long delays. Officially my motorcycle match races should all have been against Jack Terry on his J.A.P. machine, the results of which were a foregone conclusion, from practice times.

With the six-meeting Festival over and done with, I returned all the borrowed machinery and reflected on the fact that thanks to the Committee of the British Drag Racing Association we had had a lot of fun, and many thousands of people had been able to see some of the stars of American drag racing in action. Don Garlits made the best performance overall, with a time of 8.09 sec. for the ¼-mile and a best terminal speed of 197 m.p.h. Nobody will deny that drag racing, American style, is a lot of fun, and in these days of cut-throat rat-races in circuit racing some uninhibited

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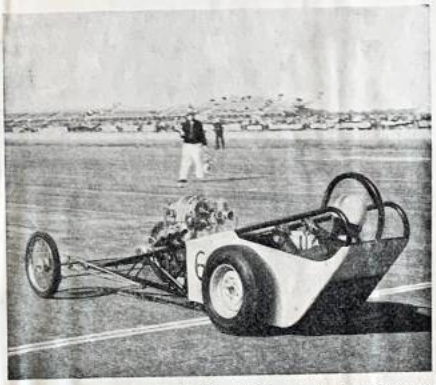
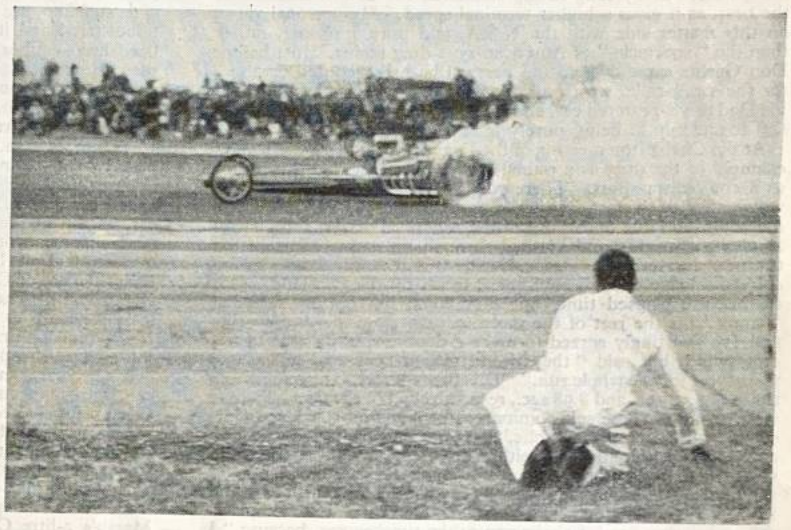


FUN AT THE FESTIVAL (2).—With a " baby dragster " there are few problems and the start is just a case of " left foot up, right foot down." With a big dragster and 900 b.h.p. it would be a different story. The standard Allard Dragon and D. S. J. leave the line during the Festival.

CONTINENTAL NOTES—continued from page 933

wholesome fun makes a great change, while a full-throttle blast down a runway on two wheels or four is always satisfying. Although my motorcycle was slower in time and speed than the little Allard dragster, I actually found the 2-wheeler much more satisfying, for whereas in a car you merely sit back and press the accelerator pedal as far as it will go, on a motorcycle there is always that little bit more to be gained. After the twistgrip is up against the stop you can help by really flattening yourself along the tank, pulling your elbows in, pressing your knees inwards, tucking your toes in, and even holding your breath; it all seems to help and you become so much a part of the high-revving engine that is under your chest that you tend to grit your teeth and try as hard as possible to reduce frontal area and wind drag, in your efforts to screw another r.p.m. or two out of the engine. To get the same exhilaration and satisfaction from a car you would have to be somewhere near the 10-sec. mark for the ¼-mile, while runs in the 8 sec., as we all witnessed during the Festival, must feel fantastic and take quite a bit of practice with slower machines first of all.—D. S. J.

ON THE STANDING-START ¼-MILE AND THE DRAG FESTIVAL



QUARTER-MILE DRAG.—The sound and fury of a top-class dragster leaving the line is typified in this picture of Garlits at Blackbushe and tends to make onlookers crouch in anticipation, or stand on tip-toe with excitement.

DUE to the efforts of the Committee of the British Drag Racing Association, headed by Sydney Allard, a great number of people were able to watch the s.s. ¼-mile being covered in the shortest time ever recorded in this country. I refer, of course, to the runs made by Don Garlits with his Dodge-powered dragster during the highly successful British Drag Festival.

The business of covering a quarter-mile in the shortest possible time, from a standing start, is nothing new to this country, for sprint meetings have been taking place for years, and while the car events have been supported in the main by hill-climb exponents, in the motorcycle world, thanks to the encouragement of the National Sprint Association, the development of special machines for the sole purpose of accelerating has gone ahead with leaps and bounds. The result of this is, that in the motorcycle world, our bikes and riders can match anything that the Americans can produce. In the car world it is a different story, for there has been no concentration on pure acceleration, a sprint event being anything from a s.s. ¼-mile to three laps of Brands Hatch. In consequence our "special" builders have used cars that were very versatile and could be driven up hills and round corners, as well as in a straight line. The R.A.C. did not give any encouragement in this matter either, for the "use and construction" rules were always the same whether you built a car for a straight ¼-mile or to go up Shelsley Walsh, so naturally everyone built hill-climb specials that could also be used in sprints.

Our sprint events always had but one objective, to cover the ¼-mile in the shortest possible time, so that competitors invariably ran one at a time, against the clock. To add interest, providing there was space available, competitors would sometimes run in pairs, as at Brighton, but time was still the important factor and merely winning your pair did not mean you would do well in your class. Many years ago, on some of the Northern beaches, there used to be sprints on the sand, often as long as one mile, and with a dozen or more competitors going off together; but over the years the name "sprint" has come to mean individually-timed runs against the stop-watch, and while courses still vary from ¼-mile to 1 kilometre in length, they have all had the accent on elapsed time, the number of seconds for the s.s. ¼-mile being a convenient yardstick of performance.

The Americans took sprint racing and developed it in many ways, the resultant drag racing varying from sprinting in one vital factor, namely that speed in m.p.h. was more important than time in seconds. The American drag courses have timing clocks to measure the time, and thus the speed, over a distance of 132 feet spread equally on each side of the finishing line. The speed recorded through these "traps" is their yardstick of performance, rather than the elapsed time for the ¼-mile, though this was recorded as well. As far as the results of the meeting were concerned the entry was run through in pairs, on a knock-out basis, the finalist being the overall winner or "top eliminator." The British way of running meetings, as far as motorcycles are concerned, has been to concentrate on individual runs, the lowest elapsed time being awarded F.T.D. prize, and, if there was time in hand, a knock-out competition at the end of the day as a sort of bonus event for those interested.

Both types of meeting have much to commend them and both have their followers, the National Sprint Association being more interested in individual timed runs, and the British Drag Racing Association following in the footsteps, or wheeltracks, of the Americans. As the names of the two associations imply, the two forms of sport can be viewed as sprinting or drag racing, and undoubtedly sprints are for the purist engine tuner or designer, drags are for the competitive-minded, and while sprints are essentially a competitor sport, of limited appeal to spectators, drags can be stage-managed into a sport with great spectator appeal. One thing that drag racing has brought about is the development of more sensitive timing apparatus, for whereas a good 1/100th second stop-watch, with light beam actuation, will suffice for the 10- or 12-second interval of a ¼-mile, it would not be accurate enough over the 132 feet of the speed traps. In consequence electronic-crystal time recorders have been developed that the National Physical Laboratory have certified as accurate to a milli-second. If you are going to put on a drag meeting to appeal to the masses of the public, who are not particularly interested in cars, motorcycles or engines, but merely want a spectacle at which to pass time, then they are not going to make any effort to form an appreciation of time and distance, which is why the terminal speeds of drag racing are given so much prominence, for miles-per-hour is something that anyone can understand. As the drag figures are "flash readings" of maximum, and nothing complicated like average speeds they appeal to the masses.

An example of the possible falsity of putting too much stress on terminal speeds was clearly shown during the Festival when Hagon (1,000-c.c. J.A.P. unsupercharged) and Brown (1,000-c.c. Vincent supercharged) had a match race on their motorcycles. Hagon clocked 10.85 sec. and Brown 10.88 sec., but the terminal speeds read Hagon 123 m.p.h. and Brown 132 m.p.h. On e.t. Hagon was the winner, but on terminal speed Brown was the winner. Now if you are going to appeal to the lay public with speed rather than time you are bound to give the impression that Brown won, even though he arrived at the end of the ¼-mile 0.03 sec. after Hagon! If the "race" is to be over the ¼-mile then it should be on time alone, otherwise we might as well save our timing apparatus and merely aim for the finishing "traps." To the initiated the terminal speeds in this particular match race were most enlightening, providing they were co-related to time, for they indicated that these two men had different ways of achieving the same e.t., Hagon having the advantage over the first half of the course and Brown over the second half. A technical study of these two motorcycles shows this to be so, for Hagon builds for ultra-light weight with just sufficient power, and Brown has more than enough power and can carry the weight imposition of supercharger, 4-speed gearbox, streamlining and rigidity. If the race had been over a ¼-mile or a kilometre the Vincent would have won easily, but we are discussing the ¼-mile. Technically, the Hagon machine is superior for the job of covering

the ¼-mile, but by drag racing standards the Brown machine is the best, as it gives a higher terminal speed. My personal views on this matter side with the N.S.A. and pure sprinting, rather than the "spectacle" of American-type drag racing. Just before Don Garlits came over to the Festival he had recorded 7.72 sec. for the s.s. ¼-mile, with a terminal speed of 201.34 m.p.h., with his Dodge V8-powered car, and to me the 7.72 sec. is phenomenal, the 201.34 m.p.h. being purely incidental.

At the Chelveston meeting of the Drag Festival there was a good example of the drag as a public spectacle, rather than the sprint as a competitor-sport. There was a strong cross-wind blowing which affected the fast dragsters very badly and caused some hectic moments, and due to this one of the American drivers lost control at over 140 m.p.h. and crashed through the light beams in the centre of the terminal "traps." The B.D.R.A. timekeepers were able to salvage enough equipment to set up the two lanes again to measure elapsed time, but they could not operate terminal "traps" for the rest of the meeting. To close the day, Garlits and Ivo sportingly agreed to make a double run, in spite of the cross-wind, but said "they would play it cool, and not smoke their tyres for the whole run." This they did, with the remarkable times of 8.74 sec. and 8.98 sec., respectively, but the commentator, who is one of those self-opinionated people who consider themselves "the voice of the public," gave out the results as 187 m.p.h. and 184 m.p.h., and gave neither driver any credit for breaking 9 sec. in a strong cross-wind, even though Tommy Ivo went over the line in a full-lock slide that he only got under control by using his braking parachute. The commentator quoted these speeds out of his own head, unbeknown to the timekeepers, because "I have to keep faith with the public, old boy." If that is the attitude that drag racing engenders, then I would rather stick to sprinting.

Now do not get the impression that I am against drag racing, for I think it is a lot of fun and the out-and-out dragster is a machine that really appeals to me, but what I am against is messing about with a sport merely to appease the appetite of a "business man" or "showman" in order to give the public what he thinks they want, when they would probably be quite happy with the unvarnished truth. It is too much like television and film scriptwriters who unashamedly re-write history in order to fit it into their idea of what the public wants. These sort of people get very hot under the collar if you suggest that "they must be the public," or how else would they know their tastes!

To return to drag racing, and in particular the Drag Festival, the mere fact that ten first-class American car drivers and two good motorcycle riders were able to come to England and put on a show, with a wide variety of machines, was something of an achievement by the newly formed British band of enthusiasts who did all the spade work, and a landmark in the history of British motoring sport. The American car entry consisted of a good cross-section of the classes of vehicle built for drag racing. Dave Strickler and Ron Sox drove factory experimental cars that outwardly looked like 1964 standard saloons, but both were using lots of non-optional extras in the engine/gearbox department and the front suspensions were jacked up and held there by chains in order to give a tail-down attitude and as much weight-transfer to the rear wheels as possible. These two saloons, a 7-litre unblown Dodge for Strickler and a 7-litre Comet/Mercury by Ford for Sox, were almost to saloon-car-racing standards as regards fittings, and had starter motors and reverse gears, so that they were quite tractable and manageable vehicles, but the engines exhausted out of great big open pipes behind each front wheel, and they not only made an impressive noise but they went quickly as well, the gear-changes of these two "specialists" giving the impression of automatic transmissions, whereas they had orthodox floor levers operating 4-speed gearboxes. Throughout the Festival they were very evenly matched, Strickler making 11.54 sec. (126 m.p.h.) and Sox making 11.72 sec. (126 m.p.h.) as their best runs of the series. At the final Blackbushe meeting Strickler broke his gearbox on one run and in 40 minutes he had whipped it out and whipped in a new one.

Then there were the two competitors who outwardly appeared to be comedians, but in reality were very clever and brave. They had cars built to the "modified coupé" category, in which you take a basic production body/chassis unit and, providing the main components are kept in the original positions, you have a free hand. The two that ran in the Festival were Ken Pittman and George Montgomery, and they both started out with 1933 Willys coupés, the former using a supercharged 7½-litre Chrysler V8 engine and the latter a supercharged 6-litre Chevrolet V8 engine, both being power units often seen in pure dragsters. Light alloy wheels, wide "slick" tyres on the back, fibreglass body panels and suchlike are used, while the driving compartments are upholstered and immaculate. These old-fashioned looking, high, fixed-head coupés look like a joke until they are started up, and then things start happening. Balanced on spindly half-elliptic springs they prance away from the line with a shattering noise and furious wheelspin, and clock times in the mid-10-sec. bracket. Pittman's best was 10.52 sec. (144 m.p.h.) and Montgomery's 10.37 sec. (139 m.p.h.), which is fast travelling on chromium-plated "cart-springs" with a frontal area like a London bus.

Two singleton entries were Dante Duce with a "modified sports car," and Doug Church with a "baby-dragster." Duce's car, known as Moonbeam, was an all-enveloping 2-seater with a supercharged 6-litre Chevrolet V8 engine and automatic transmission, laid out like an old-fashioned sports car such as a Testa Rossa Ferrari or C-type Jaguar; it put in a best time of 11.15 sec. (140 m.p.h.). The car of Doug Church was more understandable to European eyes both as regards construction and performance. It was built on dragster principles but with the driver in front of the engine, the power unit being a 1600 Porsche engine, with oversize barrels and pistons to bring the capacity to nearly 2-litres, and it drove through a Porsche gearbox and final drive, the swing axles being locked by bracing struts. Porsche rear hubs and wheels were used, the rims being widened to take fatter tyres. A spindly tubular chassis frame ran forwards to a rudimentary front axle and motorcycle size front wheels. This little car was most beautifully engineered and had a lot of direct opposition from British competitors, in particular the Allard Dragon, Tony Marsh's 2-litre Climax hill-climb car, the 4-w-d Ferguson P99 with 2½-litre Climax engine, and Tony Densham's Worden Dragster. Church and Allan Allard had a very consistent needle-match throughout the series of six meetings, with the others joining in at some of the meetings. Peter Westbury with the Ferguson P99 made best time of all, with 11.01 sec. (127 m.p.h.), followed by Allard in the supercharged Cortina-engined Dragon with 11.26 sec. (129 m.p.h.), Densham in his supercharged Cortina-engined Worden with 11.32 sec. (121 m.p.h.), then Church with 11.36 sec. (118 m.p.h.) and Marsh in his little hill-climb car with 11.79 sec. (119 m.p.h.).

The real cream of the American entry was naturally the unlimited class dragsters and these were in two categories, those running on pump petrol and those on special fuel. Bob Keith and Duce had cars running on petrol, both built on conventional dragster lines, while Tony Nancy had a brand new conception of dragster that was in a class of its own. The present-day accepted layout is to have a V8 engine with a G.M.C. rotor-type supercharger bolted in the vee of the block, with a fuel-injection unit mounted on top. The blower is driven by an internal-toothed belt from the front of the crankshaft, and the power unit is bolted direct to the final drive, there only being a clutch between the two. The narrowed rear axle is bolted to the chassis frame and the engine is mounted in a nose-down position to keep the weight as low as possible; the driver sits behind and below the rear axle with his legs over it, the differential housing being between his knees. The tubular chassis forms a cage around the cockpit and the side rails then run forward to a simple tubular front axle carrying tiny motorcycle wheels. The rear wheels carry huge wide tyres and there are disc brakes on the back axle only, usually operated by a hand lever, while the accelerator pedal is a large plate-affair with a strap to keep the driver's foot in place. Steering is very high-geared by simple linkages and control is by means of an aircraft-type "spectacle" wheel, often having the ends bent backwards to save space. At first these machines were naked and unashamed, but since speeds have been over 180 m.p.h. sleek bodywork has been the order of the day, the tail forming a housing for the braking parachute. This type of dragster was labelled the "slingshot," for obvious reasons, and has become universal among the winners, with variations as regards engines, fuels, dimensions, gear ratios and so on. With these fast dragsters each builder has his own ideas and experiments with various things, such as aero-foils on the nose to keep the front down at high speed, exaggerated king-pin angles on the front axle to provide instant correction in case a slide develops at high speed, as well as chassis length and strength to give the right amount of flexibility for riding over bumps.

Of the conventional dragsters running on petrol, the car of Bob Keith was remarkably consistent and reliable, always running under 10 sec. It was a well-finished car using a supercharged 6-litre Chevrolet V8 engine, and it did more runs throughout the Festival than any of the fast cars. His best run was 9.06 sec. (171 m.p.h.) and on his final run of the whole Festival the rear axle broke. His partner in the petrol dragster class should have

PACKED WITH POWER.—The 7½-litre Chrysler V8 engine, with G.M.C. supercharger, can be seen protruding from the engine room of Ken Pittman's drag coupé built around a 1933 Willys coupé. In spite of a "built-in headwind" it turned 10.52 sec. and went through the traps at 144 m.p.h.

been Duce, driving a car he borrowed from Tony Nancy, a conventional slingshot using a supercharged 8-litre Plymouth V8 engine, but unfortunately it got out of hand in the cross-wind at Chelveston and Duce crashed into the timing gear, smashing the car beyond repair.

Nancy himself was running a brand new petrol class dragster, powered by a supercharged 8-litre Plymouth V8 engine, but this machine was built along new lines. The engine was still in front of the rear axle and bolted directly to it, but instead of the driver being in the "slingshot" position, he was in front of the engine, like in a modern Grand Prix car. There were a number of reasons which led up to this new layout, firstly the problem of visibility, for when sitting low behind the rear axle the view up-front is very limited, and when under way, with smoke pouring from the rear tyres, it is even less. Added to this is the risk of fuel spray and oil if anything goes wrong, the matter of having a flywheel and clutch doing 7,500 r.p.m. between your feet, and the crown-wheel and pinion between your knees. There have been instances of rear axles seizing, which tears the whole thing from the frame and rotates it smartly round, so that the nosepiece of the axle comes up through the seat. Taken all round, the "slingshot" driving position is not the most healthy of places to be, even if nothing goes wrong. All these problems caused some serious thinking, and by putting the driver in front there was an added bonus, in that the rear wheels could be brought closer together. It is reckoned that the 3-wheeler layout is the ideal for stability, and the shorter the half-shafts the better they can cope with the whirling mass of a large "slick" tyre at 200 m.p.h.

Another line of thought on the new Nancy car was to use a sprung engine/axle unit, but the first time out the car went end-over-end at 180 m.p.h. and destroyed itself. Such is the safety factor built into the tubular structure round the cockpit of dragsters, and the use of a proper seat harness, that Nancy stepped out unscathed, and his team set to work and built a second car, this time fixing the engine/axle unit solidly to the chassis in accepted fashion. It was this brand new car that ran for the first time in the British Festival, and with its all-enveloping body it was named "The Wedge." On the first few runs it appeared to be very unstable as speed went up, and it took the team quite a while to find the trouble. Due to engine bothers it kept losing all the water from the cylinder blocks, either through burst hose connections, faulty filler caps and so on, and each time this happened the water sprayed onto the spinning rear tyres, with obvious results. As the whole of the rear of a dragster is enveloped in tyre smoke as it accelerates, nobody could see the water, and with the driver up front he was oblivious of the trouble, apart from the frightening slides that developed. When switched off at the end of the run everything seemed to be in order, apart from trouble where the water had escaped, but there was nothing to indicate that the tyres had been "water lubricated." It was not until all the engine faults had been remedied and it held its water that the car went dead straight, as planned. Then it recorded 8.98 sec. (176 m.p.h.) running on pump petrol, which must prove something or the other.

Finally there were the two "slingshot rail fuelers," as American slang would describe them. These were the conventional dragsters of Champion Don Garlits and Tommy Ivo, the former using a supercharged 6-litre Dodge V8 engine and the latter a supercharged 6-litre Chrysler V8 engine, both extremely highly tuned, blowing at around 20 lb./sq. in. and burning a nitro-methane-based fuel, using as much as 80% nitro. These open class cars do not run very often, or for very long, but there is no arguing their performance when they do go, nor the skill of their drivers. The principle of these big dragsters is that they are geared to reach a maximum of 7,500 r.p.m. at 195 m.p.h., so that the wheels must be spun when starting off or else the engine will stall. With 900 b.h.p. available it is a simple matter to provoke wheelspin, even on a gear ratio of the order of 3.4 to 1. Equally, it is simple to provoke too much spin and just stand still while the tyres melt! Garlits and Ivo are real masters at the art of handling these powerful cars, as are many more Americans, such as Hampshire, Kalitta, Thompson and Prudhomme, and it is a joy to watch them dissipate the wheelspin from a maximum to a desired minimum by the time they reach the end of the ¼-mile, with the engine r.p.m. almost constant for the whole run. By skilful throttle control and judgement they use the huge Goodyear "slicks" to act as a torque-converter, or infinitely-variable gearbox, so that the engine is at its working maximum the whole time. Garlits' best performance was 8.09 sec. (195 m.p.h.) and Ivo 8.21 sec. (194 m.p.h.), which are the best standing-start ¼-mile runs we in Britain are likely to see until another Drag Festival is organised.

In the motorcycle category only two Americans came over, Bill Wood with his unblown V-twin Harley Davidson, running on methanol, and Don Hyland with his "special" driven by two 650-c.c. Triumph vertical twin engines, they being coupled together by chains and running together as twin twins. Using pump petrol, Hyland was very fast and serious competition for the British motorcycles, but we had the advantage of numbers, with Brown, Higgins and Ashwell on supercharged 1,000-c.c. Vincent vee-twins and Hagon and Woods on V-twin 1,000-c.c. J.A.P.-engined machines, as well as a lot of fast 650-c.c. machines. George Brown, the undisputed champion of motorcycle sprinters, was the best overall with 10.30 sec. (146 m.p.h.).

In the car category Britain could produce nothing to challenge the top Americans and the fastest British car was first of all Allan Allard with his Dragon, in 11.42 sec. (125 m.p.h.), and then Westbury with the 4-w-d Ferguson, but Allard got down to 11.26 and Westbury replied with 11.01 sec. However, at the final meeting Allan Allard drove his father's blown Dodge V8-powered dragster, that is now a bit "dated" and outclassed, and in a "do-or-die" attempt recorded 10.28 sec., the best ever by a British driver. Although the British entry could not put up much of a show compared with the Americans there were some interesting lessons to be learned, such as the 11.01 sec. of the 4-w-d Ferguson, the 11.76 sec. of Wilson's 2½-litre 4-cylinder B.R.M. Grand Prix car, the 12.62 sec. of the twinny-Mini Deep Sanderson single-seater, the 12.79 sec. of Ropner's production A.C. Cobra, the 13.07 sec. of a Lister-Jaguar, and the 14.17 sec. of an Iso-Rivolta A3 Grifo.

The obvious question at the end of the Festival was "Where do we go from here?". The whole project of putting on the six drag meetings was a gamble that only paid off by reason of the glorious sunny weather that accompanied the three weekends, and the thousands of spectators who paid rather high prices to witness the meetings. To bring 12 teams of drivers and mechanics, with all their cars and equipment, the 6,000 miles from California, keep them here for nearly a month, pay for their return and also pay them for their performances, for most of them are professionals, cost about £31,000. Add to this the £2,000 for the timing equipment, R.A.C. timekeepers, insurance, transport and running costs, and replacements for the timing gear, the £1,000 in prize money, and a similar amount for expenses for British competitors, the cost of contracting-out the building of stands, provision of crowd barriers, race circuit services, rental for the aerodromes, and the total outlay becomes pretty staggering. It all had to be recovered from admission charges, car park fees, programmes and advertising, and it was not until lunch-time at the last meeting that the B.D.R.C. felt certain that they had broken even. As the whole Festival had been organised as a non-profit-making attempt to establish American-type Drag Racing in England, such small profit that did accrue was given

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DRAG FESTIVAL—continued from page 932

to the American teams as a bonus, for some of them had experienced expensive damage to machinery and they had all contributed to the success of the whole venture in no small way.

Whether American-style drag racing is going to spread in this country the next few months will show, but already plans are forming to hold a three-day Festival next summer, with as many as 20 top Americans taking part. Whether British enthusiasts for the sport will have any competitive machinery by then is not known, but the B.D.R.C. will give every encouragement to its members. Meanwhile the National Sprint Association continues with the fostering of motorcycle sprints, and at its final Club Meeting at Duxford aerodrome over 500 individual timed runs were recorded and George Brown set up a new course record with a time of 10.32 sec. for the standing-start ¼-mile, riding Super Nero, his blown 998-c.c. Vincent.—D. S. J.

THE TIME BURNERS

In only 20 years, drag racing has come of age as a spectator sport. Now it is giving new attention to the participant, his financial problems and his safety.

By Eric Nielssen

THE winners received only a trophy, which they gave away, and later sat down to slice up a free watermelon. That was big-time drag racing in 1954, at the California Championships. Top time was 141.73 mph, "sizzling" in those days. Low elapsed time—10.86 sec—went to the top eliminator, Joaquin Arnett, in the dragster he built with the raffish "Bean Bandit" crew from San Diego, famous for the way they razzed and "psyched" the other car's driver at the start.

Only five years before, the first legal drag races were held on the air strip at Goleta, California. The sport got its name from the street racing challenges that sparked the first unofficial acceleration contests:

"My Chevy can beat your Ford from here to that underpass."

"Well, drag it out here and let's go."

Dragging it out has skyrocketed in popularity. During the 12 months ending last spring, 455,011 participants signed in at 2,616 drag meetings sanctioned by the National Hot Rod Association. Over 4,750,000 spectators came to cheer on their favourites. And in the major NHRA meets this year the racers have sliced up as much as $250,000 (£100,000) in purses and contingency awards. Some watermelon!

Drag racers are getting quicker as well as richer. In mid-1969 the official low elapsed time record belonged to Jerry Ruth of Seattle, Washington, at 6.68 sec for the quarter-mile distance. Top official speed was set at 229.59 mph by John Mulligan of Garden Grove, California, measured as always over a 132ft distance evenly straddling the finishing light of the 1,320ft racing distance.

Will they go even faster? Don Garlits of Seffner, Florida, an incredibly durable and sharp competitor in his Dodge-powered "Swamp Rats", thinks so: "With tyre developments and new strip surfaces, I don't think the 6.50 and 240 will give the fuel rails any problem at all in 1969."

To many, drag racing looks absurdly, even stupidly, simple. It's not. The technology is subtle and advanced. Tyres are made to match different strip surfaces, and to expand at high speed to increase the effective gearing. Different injectors and blower drive ratios adjust the power curve to suit the strip and the competition. Changing clutch spring tension alters the controlled amount of slip that helps keep the tyres geared to the ground.

Far from simple, each drag match is a seven-second microcosm of all the skill and strategy that goes into a much longer circuit race. Pre-race tension is sky-high. Will it light up? Is there time to check the mixture? Should we wipe the treads again? The start is a blend of cool judgment and stark hysteria, with every hundreth of a second counting.

Each match has a mid-phase. In it the

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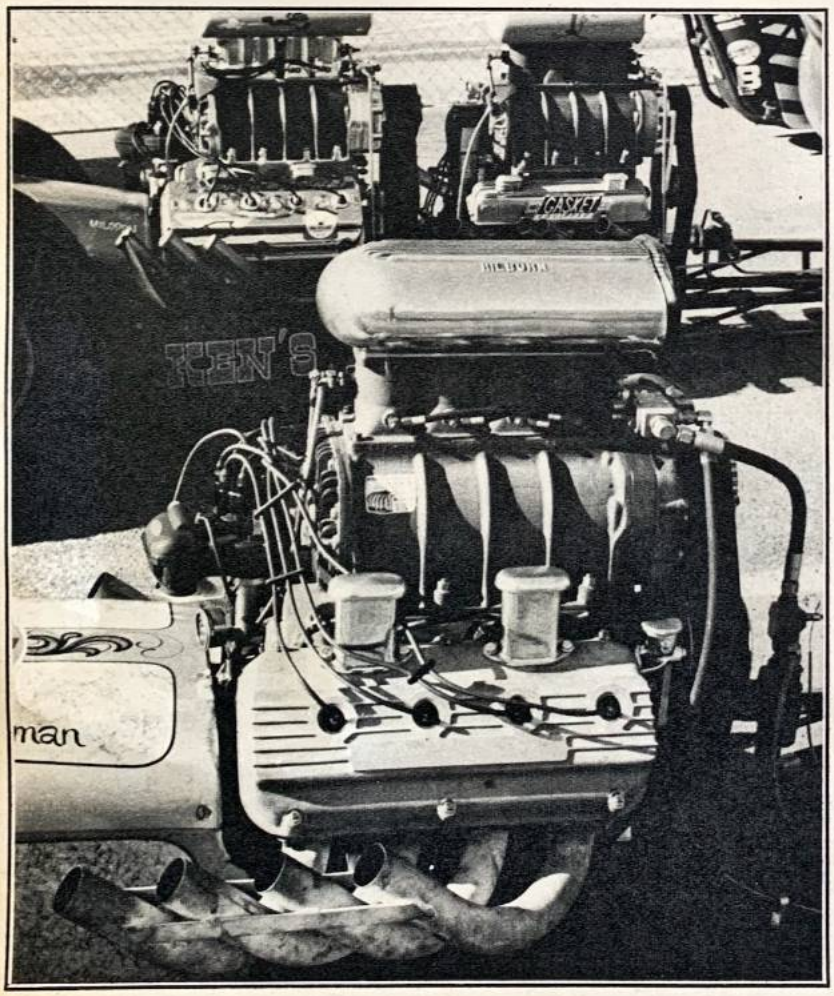

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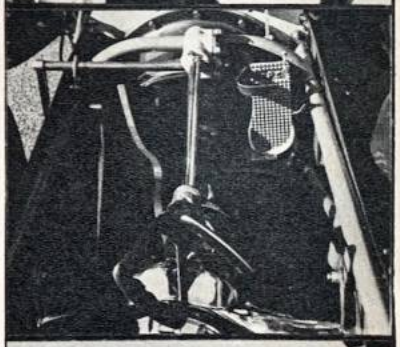

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driver fights to hold his car straight and to correct, if he can, any errors committed at the start. At this point he also sizes up the opposition's progress, which decides his strategy for the final phase, the sprint to the "eyes". This he does while sitting between two plumes of smoke and flame, sighting past a quivering blower housing, the kind that's been known to burst and envelop his aluminized face shield and suit in a wave of flaming nitromethane.

Such a sophisticated automotive sport needs factory backing, and drag racing gets it. For Plymouth, for example, Buddy Martin manages and Ronnie Sox drives a team of Road Runner and Barracuda Super Stock competitors in 11 major meets a year. Between meetings they conduct 100 "performance clinics" a year, visiting Chrysler-Plymouth dealerships and bringing the good word to the troops on how to set up MoPar products to run right. This year Ford began a similar clinic programme to help owner-racers of their stock models.

Chevy, who aren't officially in racing but who make and sell some very good engines have won the NHRA Manufacturers Cup two years in a row and lead in points this year for this top stock drag racing award. Half-way through 1969 Chevy had 12,000 points against 9,800 for Ford, 6,100 for Oldsmobile, 3,700 for American Motors, 3,300 for Plymouth, 1,500 for Pontiac, 1,200 for Mercury, 300 for Dodge, 200 for Buick and (surprise) no fewer than 100 for Opel.

Much of the well-informed drag racing crowd is most interested in the stock model competitions, elaborately handicapped by horsepower, weight and current record-holding performance in a series of classes. They're also "turned on" by the "Altereds", heavily modified roadsters and sports cars.

Its many classes gear drag racing more to the participant than the spectator. Sanctioning groups like NHRA and AHRA create more "eliminator" tournament groups each season to heighten the interest in which the car and driver will "eliminate" all others in its category in a series of match races. At the end of the rainbow, though, the pot of gold still isn't large by US auto racing standards at about $8,000 (£3,000).

Don Garlits has a thought on a better way to distribute both wealth and spectacle: "It might do drag racing a lot of good if it was divided into two separate classes. I'd like to see a professional class for the fuel burners and hot funny cars and another semi-professional group, for the other drag racing classes."

Drag racing today is a lusty giant, just coming of age. NHRA holds a "World Finals" each year, without real competition from abroad. It may not be long before it is invaded by racers from Britain, Australia, New Zealand, Sweden and Germany—for drag racing *is* conquering the world.

1 *Typical blown Chrysler in the foreground, and a rare Chrysler-Chevy twin in the background*

2 *Don Garlits, king of the drag racers, checks the slicks on his car*

3 *A brace holds the clutch out and a massive scatter shield protects the driver in case of explosion*

4 *Smoking tyres and a cloud of acrid nitromethane smoke as a dragster sets off*

5 *Don "The Snake" Prudhomme's "rail" has a wheelbase of 220 in., which helps keep the nose down*

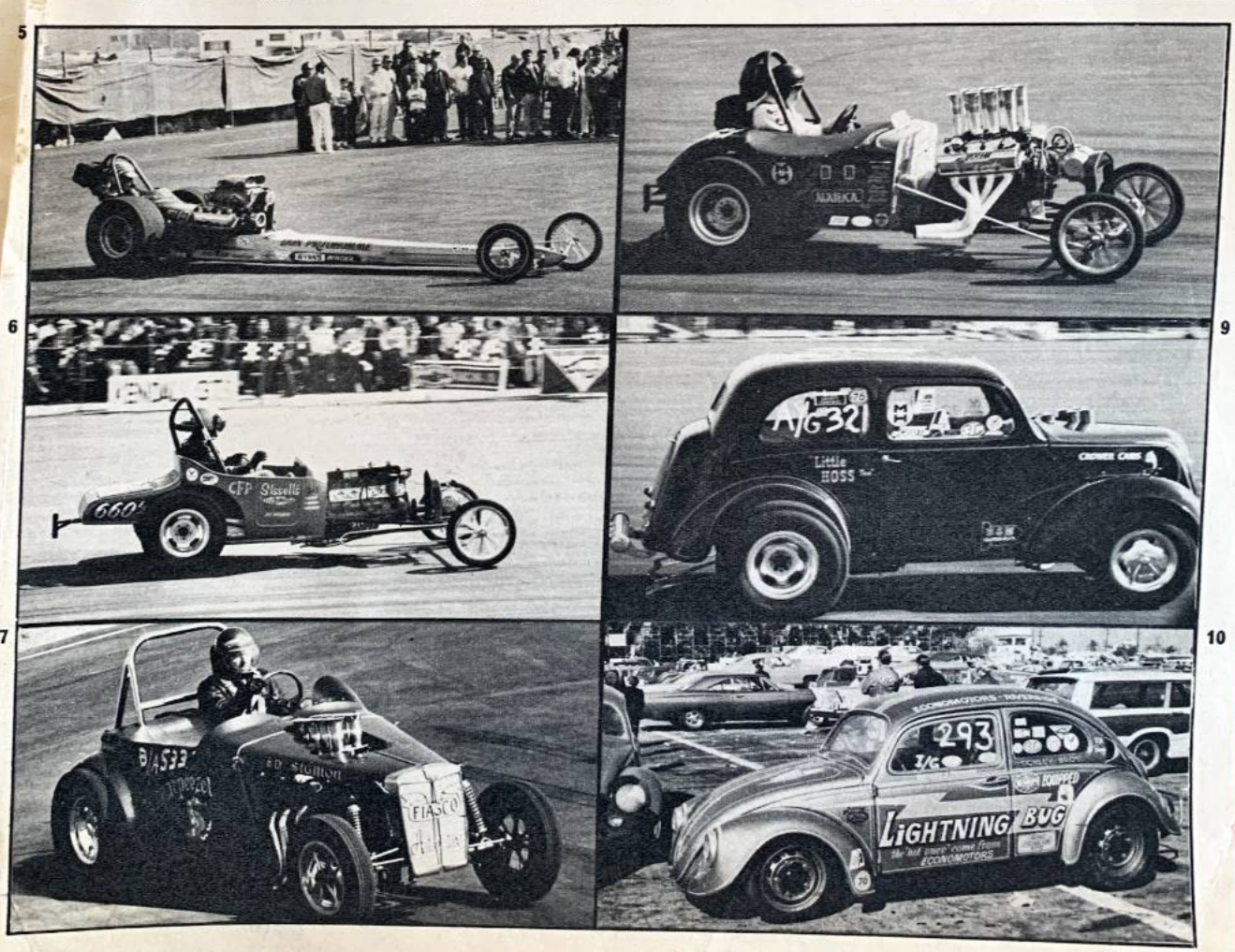
6 *Kay Sissell in his Chevy Six-powered 1923 Ford, which has a top speed of 130 mph*

7 *A fuel-injected Chevrolet vee-8 in an MG TD chassis produces Ed Sigmon's* Fiasco

8 *Bob Lunsford's car started life as a 1932 Austin Bantam. The power unit is a fuel-injected Dodge*

9 *It takes Johnny Loper just 9.6 sec. to cover the quarter-mile in* Little Hoss Two, *which started life as a Ford Anglia*

10 *Hot VW Beetles can cover the quarter-mile in around 12 sec*



DRAG FESTIVAL STARTS

Blackbushe scene of the first American onslaught

By BRIAN SPARROW

THE Surrey Centre of the B.A.R.C., in association with the Basingstoke M.C.C., organized the first in the series of six festival events sponsored by *The People* at Blackbushe Airport, near Camberley, last Saturday.

The selected motor-cycle entries were each allowed two timed runs at the beginning of the meeting, which started on time at 11 a.m. before a fantastic crowd which increased even more after the lunch break. George Brown made a fine first run time of 11.28 secs., which was to remain unbeaten by the other motor-cyclists throughout the meeting, even though the machine was unable to run in the afternoon elimination or knock-out events which went to a 1300 Triumph Devil, bravely ridden by American visitor Don Hyland.

The cars were given timed runs before lunch and were run off in classes, as normal with a sprint.

John Bloomfield in his pretty Diva took 14.68 secs. for the quarter-mile course to be well ahead of Ian Grant in his interesting Fiat 600 powered by a Cortina G.T. motor!

The beautiful Iso Grifo of Ronnie Barker made a run in 14.39 secs. to be ahead of Maverley Watts's well-known 3.8 Jaguar in the largest saloon and G.T. class.

Gibson's well-preserved C-type Jaguar vanquished the Shelby Cobra of Godlee in their sports class and the twin-Mini-engined Deep Sanderson driven by Tony Kinch was really cracking along in 12.99 secs. with a terminal speed of 106 m.p.h. These terminal speeds were determined as the average speed through a 44-yard speed trap located equally either side of the finish line.

Soanes in the ex-Mike Eyre Cooper-Buick won his class from the Steyr-Allard driven and beautifully rebuilt by Dave Hooper.

Allan Allard in a Dragon dragster won the up to 3,000 c.c. class for British dragsters with a fine time of 11.66 secs. (122 m.p.h. over the line).

Allan Herridge in the marvellous-sounding Dragster Developments Buick Straight 8 won the larger class for British dragsters after Allan Allard had a "moment" when crossing the line in the big Allard dragster. The Hills's Jaguar machine on its first outing proved to be well built, but its supercharger appeared to be too small for the job.

After the lunch break the cars were paired off in estimated matched pairs in their respective classes and run off on the knock-out principle, "byes" being awarded (as in tennis) when necessary.

Several interesting results emerged from these races, such as when the Fiat-Ford of Grant beat the Mini-Cooper S of George Hampton and the Chapman-Mercury saw off Gibson's C-type. But by far and away the most exciting run-off was the match race between Dave Strickler in his factory experimental Dodge with 7-litre Galaxie engine and Ronnie Sox in his all-aluminium-bodied identical capacity Mercury Comet. The times for these "saloons" were 11.78 and 12.11 secs. respectively, after a neck-and-neck battle.

In the final elimination car runs in classes, Ken Wilson fractionally beat Dave Beckett, the two Lister-Jaguars making a fine race of it. The two Dragons present also had a fine race, but in the end Allan Allard beat Denis Jenkinson in Gerry Belton's machine. Tony Kinch was against the R7B E.R.A. of Dudley Gahagan and won his race in a time of 12.77 secs.—an improvement on his morning's run.

Allan Herridge beat the Hills Jaguar, the larger, Chrysler-powered Allard slingshot being a non-starter: the morning run's "moment," it transpired, was caused by a broken differential casing—what a pity!

The spectators were then given what they had really come for: the American dragsters.

Tony Nancy in the Wedge ran in 9.41 secs., with a terminal speed of 146 m.p.h., having to lift-off twice when the "car" was not going in the right direction. The Wedge was the largest-engined U.S. machine running, with a capacity of 8,025 c.c.! Bob Keith, in a Chevvy-powered dragster using pump petrol as Nancy does, managed a run in 9.45 secs. at 161 m.p.h., with a machine that was not running at all well. George Montgomery in the World's Wildest Willys, a coupé powered by an engine almost identical to that in Keith's dragster, managed 10.65 secs. for the 440-yard course; the crowd just loved that one!

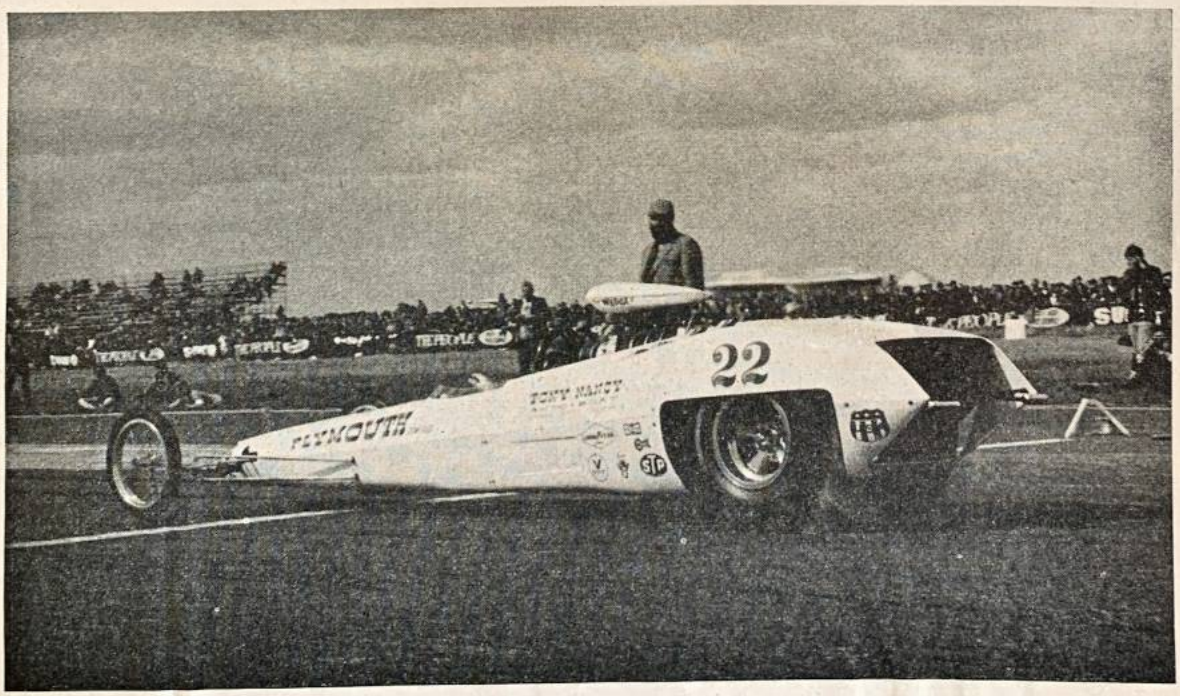
Finally, Tommy Ivo and Don Garlits were wheeled to the line for their race, having had warm-up runs during the earlier programme in the 8-sec. bracket. The flag was raised and after the smoke haze it was seen that Garlits was just ahead of two; the times were Ivo in 8.58 secs. at 184 m.p.h., and winner Garlits, 8.28 secs. with a terminal speed of 191 m.p.h.

What an end to a meeting!

RESULTS

American Dragsters: Don Garlits (AA/FD Fuel Dragster), 8.28 s. **British Cars—Class Winners:** J. R. Bloomfield (Diva-Ford), 14.68 s.; R. Barker (Iso Grifo), 14.39 s.; T. B. Gibson (Jaguar C), 13.52 s.; R. A. Kinch (Deep Sanderson-B.M.C.), 12.99 s.; R. Soanes (Cooper-Buick), 12.94 s.; A. Allard (Dragon), 11.66 s.; A. Herridge (Buick-8), 13.59 s. **1st Eliminating Heat—Winners:** I. A. Grant (Fiat-Ford), 17.19 s.; J. Gavin (Deep Sanderson 301), 17.33 s.; R. W. Biss (Jaguar), 15.63 s.; K. Wilson (Lister-Jaguar), 13.26 s.; D. Gahagan (E.R.A. R7B), 14.86 s.; R. A. Kinch (Deep Sanderson-B.M.C.), 14.20 s.; J. P. Chapman (Chapman-Mercury), 13.81 s.; A. Allard (Dragon), 11.93 s.; D. Strickler (Dodge), 11.78 s.; R. Soanes (Cooper-Buick), 12.91 s.; A. Herridge (Buick-8), 13.41 s.; D. R. Hooper (Steyr-Allard), 15.92 s. **2nd Eliminating Heat—Winners:** R. Barker (Iso Grifo), 14.17 s.; J. Gavin (Deep Sanderson 301), 17.40 s.; K. Wilson (Lister-Jaguar), 13.33 s.; D. Gahagan (E.R.A. R7B), 14.98 s.; R. A. Kinch (Deep Sanderson-B.M.C.), 13.30 s.; R. Soanes (Cooper-Buick), 12.96 s.; D. Beckett (Lister-Jaguar), 13.66 s.; A. Allard (Dragon), 11.42 s.; D. Duce (Stock Sports Car), 16.13 s.; K. Wilson (B.R.M.), 12.29 s. **3rd Eliminating Heat—Winners:** K. Wilson (Lister-Jaguar), 13.37 s.; J. Bloomfield (Diva-Ford), 14.28 s.; A. Allard (Dragon), 12.53 s.; R. A. Kinch (Deep Sanderson-B.M.C.), 14.92 s.

TONY NANCY in his rear-engined, Plymouth-powered dragster—the Wedge. Nancy had to "lift-off" twice during his run, but still managed to cross the finishing-line at a terminal velocity of 146 m.p.h.



GARLITS AT CHELVESTON

American driver does 8.74 secs. standing quarter-mile

By BRIAN SPARROW

THE Drag Festival circus moved off from Blackbushe on Saturday evening to journey to R.A.F. Chelveston, near Wellingborough, where the Thames Estuary A.C., in association with the R.A.F.M.S.A. and the Stevenage M.C.C., organized the second Drag Festival event.

The Sunday programme was similar to that of the previous day, as reported elsewhere in this edition, but unlike the Blackbushe event Press facilities were negligible, it being left to the hard working Press Officer alone to make out some sort of results sheet for Press purposes.

The Diva which won its class at Blackbushe was in Doug Mockford's hands this time when it won the smallest saloon and G.T. class in 15.18 secs., this time being an indication that times would be slower for most on the Sunday, due to a stiffer breeze and a too smooth surface on the main runway.

Peter Westbury, in his Lotus-B.R.M., took the up to 2,500 c.c. sports class in 12.48 secs.—a fine time indeed. The Shelby Cobra marque was avenged this time, Ropner's example beating Dave Beckett's Lister, even though the Lister was faster than at Blackbushe, its time being 13.83 secs. to the Cobra's 13 secs. dead.

With Tony Rolt in attendance Peter Westbury did a quarter-mile time of 11.11 secs., a time that was improved on later in the day. Ken Wilson's 2½-litre B.R.M. was in second spot in 12.54 secs. with Tony Kinch in the Deep Sanderson twin-engined single-seater third in 12.93 secs. A time of 15.36 secs. was recorded by Price in his Lotus to cover the course, and this was enough to win the up to 3-litre racing car class.

The British dragster classes suffered from non-starters, it being left to Allan Allard in the sole Dragon present to uphold the name with a run of 11.8 secs., to be bettered during the elimination runs in the afternoon. Possibly this is one point in favour of drag races when one has to watch the starter rather than start in one's own time when normally sprinting. Lyon Moss in his neatly built four-cylinder o.h.c. Riley dragster with Shorrock blower and "jampot" S.U. was second, being quicker this time than John Harrison in his sick-sounding Austin Atlantic-powered D-D dragster. Allan Herridge was the sole survivor in the larger British Dragster class, the Allard machine proving irrepairable in time.

Don Hyland in The Parasite, powered by a pair of 650 c.c. Triumph twins, made best bike time of the day in 11.19 secs.—faster, in fact, than George Brown was at Blackbushe. Actually, George was 0.01 sec. slower than his Saturday time at Blackbushe, his time being 11.29 on Sunday at 136 m.p.h. terminal speed.

After lunch the car eliminators were run off, the Diva yet again proving supreme in its class.

The racing cars were amalgamated this time and in the very first round Peter Meldrum in his Lotus F.J., powered by an Allard Dragon motor, was beaten by Gibson's single-seater Frazer-Nash, the Lotus-Allard being off-colour at the crucial time—but that's drag racing.

Ken Wilson beat the Deep Sanderson after Tony Kinch had to coast over the line with a broken gear linkage to the rear engine. For the second round Ken Wilson came up against the Ferguson, but we were denied what promised to be a fine dice as an immediately incurable fault was diagnosed as Westbury came up to the line and Wilson was awarded a bye after being kept on the line far too long. To make amends for his wait Wilson proved the winner against the interesting, but rather outclassed, Frazer-Nash.

Amalgamation was again necessary to pair off the British dragsters. Lyon Moss in the blown Riley beating the A90 machine of John Harrison, and Allan Allard taking Allan Herridge in the Buick machine. Allard handsomely beat Moss in the final run-off with a splendid time of 11.26 at 129 m.p.h.

The crowds were then given what they had really come for, in embarrassing numbers too, the American machinery.

Tony Nancy again had trouble aiming his Wedge between the marker boards. George Montgomery did 10.94 secs., being the third driver to have a terminal velocity of 129 m.p.h. and sharing this particular speed with Allard and Westbury. Stickler and Sox ran another crowd-pleasing match race, the winner being Sox in 12.04 secs.

The Chevvy-powered dragster of Bob Keith again did not come up to expectations with a time of 9.54 being the best he could produce, but still a performance that warrants admiration on such a "slippery" surface as at Chelveston.

Doug Church ran his beautifully constructed Porsche dragster, having a VW gearbox, 12-inch wheels with miniature slicks and front wheels about the same size as those on a Moulton bicycle. A time of 11.67 secs. put him behind the Dragon at Chelveston, but the 1,900 c.c. Porsche motor has pushed this little machine through the lights at less than 11 secs. back home.

Tony Nancy's second car was brought out, having been unaccountably posted as a non-starter at Blackbushe. Duce, who made B.T.D. at Brighton this year, was down to drive the machine. However, Duce's ill luck, apparent throughout the day, was to continue, as, after a smartish take-off from the line with the front wheels pattering on the tarmac, it was all too apparent that Duce was in trouble as the machine veered from his left-hand lane to the fortunately unoccupied right-hand lane and timing lights. Instead of lifting off at all the machine smashed into the centre marker boards and timing lights fairly and squarely, torpedoing twice in the process at an estimated 140 m.p.h.; the 'chute came out just in time to slow the machine slightly at impact.

Fortunately, these American machines are extremely well-designed and constructed and Duce stepped out, shaken but unscathed, to the relief of all. While the machine spiraled, the blower atop the V8 Plymouth was ripped off and when the car hit the centre marker the front axle and chassis ahead of the engine was demolished.

After a slight delay for the course to be cleared of debris and sensation seekers, and for new lights to be set up for the timing equipment, Don Garlits and Tommy Ivo ran a match race together, Garlits again being the winner in 8.74 secs. to Ivo's 8.98. No terminal speeds were possible due to the lights in the speed trap being demolished, but the cars must have crossed the line at about 180 m.p.h.!

The next stop is Woodvale tomorrow (Saturday) and then to R.A.F. Church Fenton, near Leeds, where again the events should prove exciting but safe.

EXPERIMENTAL 7-litre Galaxie-engined Mercury Comet (above) covered the standing quarter-mile in the remarkable time of 11.78 secs.—better than most of the British racing cars! Sox had an exciting match-race with Dave Stickler's 7-litre Dodge. BOB KEITH works on his Chevrolet-powered dragster, which did 9.54 secs. despite not coming up to expectations.

195 m.p.h. in 8.09 secs.

Don Garlits sets his third B.T.D. of Drag Festival

By BRIAN SPARROW

PHASE three of the Drag Festival moved to the north of England last weekend and on Saturday at R.A.F. Woodvale, near Southport, the Lancashire A.C. staged the event on behalf of the British Drag Racing Association. Having benefited by the interval of a week in which to determine what snags were to be avoided as a result of the first weekend's experiences, the organization was far smoother and Press facilities first class.

The bill of fare was as before, with the motor-cycles starting the proceedings with their two timed runs apiece. This time it was Alfie Hagon, the speedway and grass track ace, who made best motor-cycle time of the day with a time of 10.71 secs. on his special 1000 c.c. J.A.P. running on a nitro mix fuel. The motor in this machine came from the well-known Irish hill-climb and sprint car, the Leprechaun, but for the present runs in unblown form.

Interesting sports car quarter-mile times during the morning runs were those of Peter Westbury in the Lotus-B.R.M. at 11.93 secs., Bill Scragg in his newly acquired ex-John Sundley Lotus-Climax 19 in 13 secs. dead, and Ken Wilson's Lister-Jaguar time of 12.85 secs.

Don Garlits in the Wynnes Jammer made a morning run at 8.54 secs. to Tommy Ivo's 8.64 secs. The Dos Palmos Chevvy of Bob Keith made 9.8 secs. in his "warm-up" run.

Very close performances by Sox in the Mercury Comet—powered by a Galaxie 427 cu. in. motor—and Dave Strickler in the Dodge promised well for a match race in the afternoon, but for some reason the crowd at Woodvale were not to be treated to this close battle, as at the first two meetings, though the boys were at it again the next day at Church Lawton.

After being bedevilled by Customs difficulties and officialdom at Southampton, which can do no good at all to Anglo-American relations, K. S. Pittman at last managed to get on the line, only to break a half-shaft on his Chrysler-powered Willys which, due to having no locked differential unit, provided excitement for the crowd, but dismay for those that knew "K.S.'s" previous frustration to add to the agony.

The rains had threatened during the morning and, sure enough, lunch break was a very wet affair as the skies opened wide.

It was left to the sea breeze and British Eliminator class competitors to dry up the strip before the American team cars ventured forth with their treadless slick rear tyres. The class eliminations were well paired, which made for greater interest. Tony Kinch, in his Fortina G.T., saw off the M.G.A of Meakin in a very close battle. Ken Wilson beat Peter Westbury in the large racing class when Peter passed a Ferguson gear to allow the 2½-litre B.R.M. to get just ahead at the line. However, really was Peter's day as His Worship the Mayor of Southport, presented him with the Southport Cup and £25 for best British car time of the day accomplished during an earlier elimination run-off at 11.01 secs.

Alfie Hagon and George Brown had a neck-and-neck struggle on the now dried track as George had a spot of ill-fortune during the morning runs, which was alleviated in part by Alfie's win over Alfie after a tyre smoking swoop along the quarter in a hardly straight line!

It was again the turn of the American Drag Racing team to show us what can be done by 2000 b.h.p. in half-a-ton of "car". Due to there being a bump across the strip at the 1000-yard mark—and that it was apparent that the bump was less severe on the right-hand line—it was sensibly decided to run the big cars separately in this lane even though the hazard was quite considerable at over 180 m.p.h. Wally Parks, the President of the National Hot Rod Association of America, was there to keep an eye on things, asked his boys to take it easy after a good take off from the start line.

Tony Nancy really had his Wedge 2 sorted out in a magnificently controlled run of 8.09 secs. at 171 m.p.h., the car being brand new off the boat from the States and ready for it in time for the Festival. It must be stated that the 8-litre Plymouth engine is run on straight 100 octane petrol which Tony bought outside the venue at the local garage. Another interesting point about this immaculate projectile is that it has a form of limited rear suspension movements unlike the more orthodox "slingshot" designs of his compatriots. Having the engine in the central position with the driver ahead of it also enables Tony to get the rear wheels even closer together, only the width of the differential unit and the twin disc brakes governing the distance apart.

George Montgomery in his flawless World's Wildest Willys gas supercharged coupé with 6,025 c.c. Chevrolet motor did two runs: one in 10.57 secs. at 139 m.p.h., the other in 10.56 secs. at 137 m.p.h., which was faster than Dante Duce in Moonbeam sports car whose 440-yard time was 11.81 secs. at a much quicker 142 m.p.h. through the first time speed traps.

The beautiful 1,900 c.c. Porsche-powered dragster of Californian Porsche and VW agent Doug Church made three fine runs in the mid-11s, his best speed being 118 m.p.h., which compares extremely well with that of the Allard Dragon of 11.11 secs. at 127 m.p.h., the Cortina G.T. engine of the Dragon conceding 400 c.c. to the Porsche but having the advantage of methanol fuel and a Shorrock blower over the atmospheric pump fuel flat-four motor.

Tommy Ivo made the penultimate run of the day with a time of 8.40 secs. at 177 m.p.h.—and this was supposed to be taken easily over the bump!

However Don Garlits trod even deeper on the loud pedal and made a run such as has never been seen before in this country, and the writer hopes never again as his heart stopped along with many others—the experienced American drag team included! The time? 8.09 secs. at 195 m.p.h. Garlits himself admitting he was rather "close to God" at the end of it all when he was rather shaken and in a solemn mood.

This was surely brinksmanship at its limit, as the car was quite out of control according to the driver. What a man and what an end to a fine day's sport run by pleasant people—but, please, no more heart-stoppers!

Possibly it should be mentioned that Tommy Ivo and George Montgomery have "set up" their motors for durability so that they can enjoy their stay in England by seeing as much of the country as possible, not having been here before. Garlits's motor, on the other hand, is the same one that pushed the Wynnes Jammer to over 200 m.p.h. after 440 yards and Don thinks it's "getting tired" and, in fact, a northern enthusiast's workshop has been well used strengthening the main bearing location frame which was "tired".

A 1.9-LITRE Porsche engine mounted astern of the driver powers Doug Church's dragster (above). WAITING for the start is Bob Keith with the Dos Palmos Chevrolet (below).