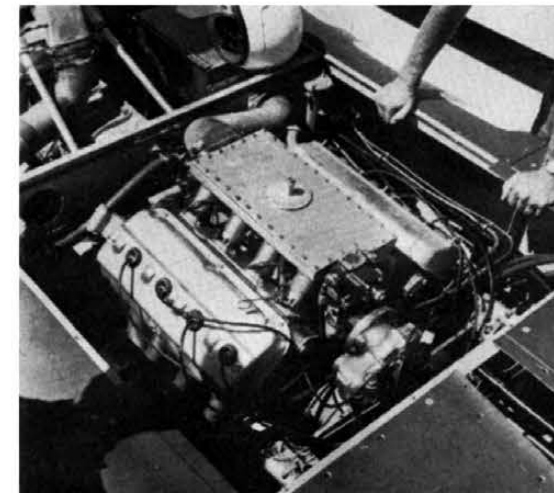
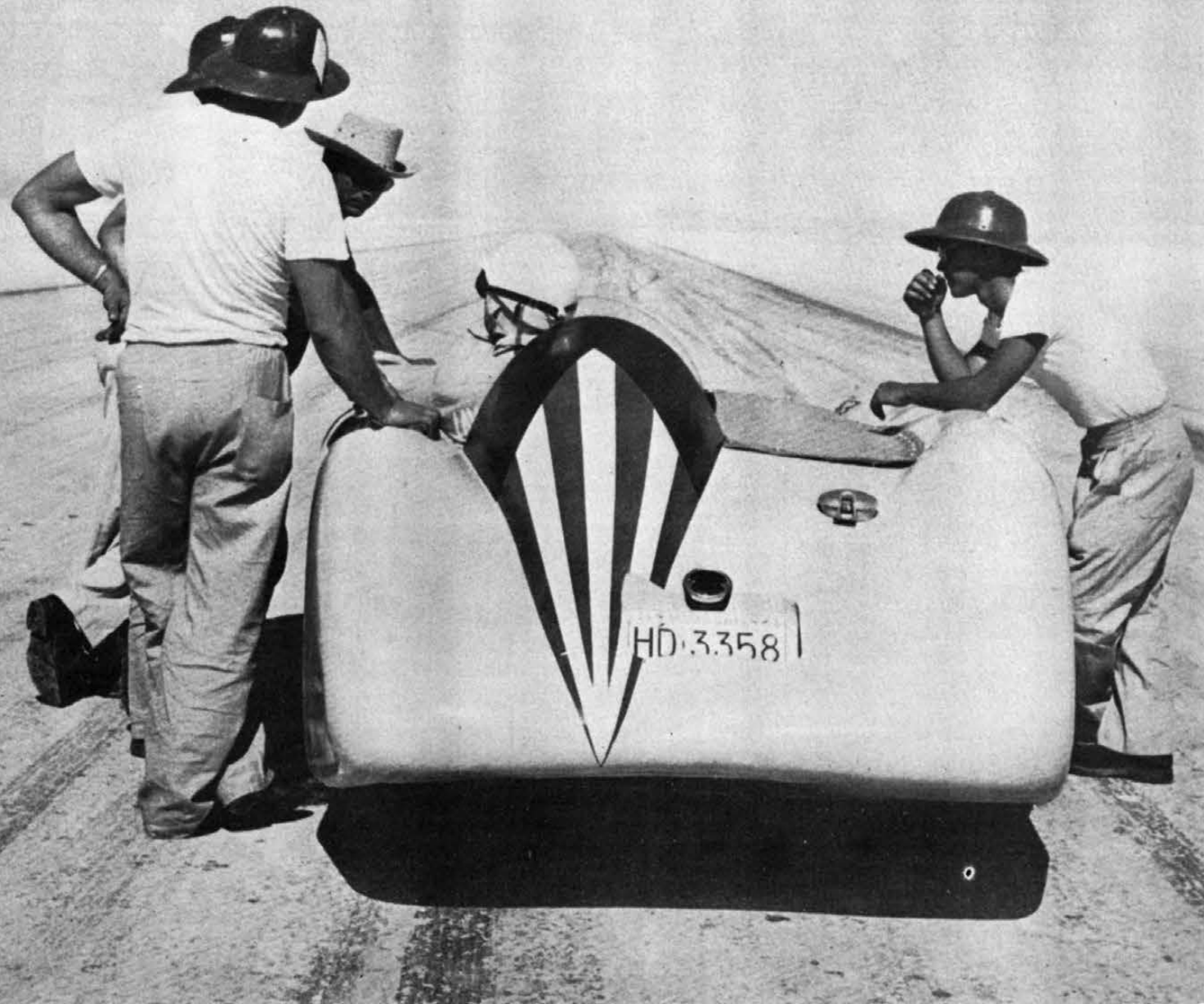
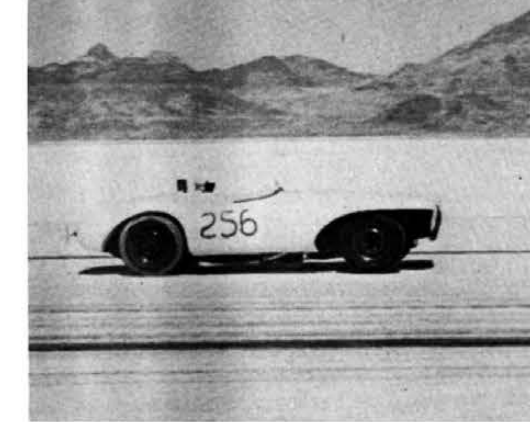


# SPORTS CARS ON THE SALT

## Sports car and hot rod records fall at the '56 Bonneville Nationals

By GRIFF BORGESON

The Bangert-Chrysler had the fastest open sports car time this year: 153.84. More streamlined body wasn't delivered in time and car had to run as seen.



The Herda car's Chrysler engine drives one of the biggest blowers seen. Question is: how much power is left over after engine whirls blower?



The Herda-Cramer streamliner gets final check before run. Bolts in blower drive sheared several times. Overheating caused car to fail.

**E**VERY year in late August the gas-station-and-motel town of Wendover, Utah, takes a deep breath, swells, and nearly bursts at the seams. The few restaurants and motels suddenly are crowded with young men in white T-shirts, white pants or Levis, and big hats — the uniform of the nearby Bonneville Salt. And to the garages, gas stations and motel parking areas—anywhere there's room—come the roadsters, belly tanks, streamliners and well-warmed production cars entered in what is the greatest straightaway speed classic in the world—the Bonneville National Speed Trials. This year another element was important to Wendover's potent mechanical mixture: the sports car.

Sports cars have been entered in the last three of the eight annual Nationals but this year there were more than ever before; they made up 14 percent of the entries. And this is

just the beginning. Jim Khougas, president of the able, dedicated, simon-pure-amateur Southern California Timing Association, which conducts the Nationals, says, "Sports cars are bound to be increasingly important to us in the future. When World War II ended we got high-performance cars by building them ourselves out of available production parts. But the components for these American specials—the hot rods—are beginning to run out and there's nothing in latter-day Detroit production to take their place. Also, the speeds are getting too high, in many classes, the stresses too great for the old solid-axle rail jobs; fond of them as we are. An obvious remedy . . . is the modern sports car."

This feeling generated much of the friendly atmosphere that sports car owners found when they arrived on the salt. One of them, William Scace, president of a Chicago power-

DECEMBER '56



The Barnes-Larsen car. Engine was built by Ray Brown, and turned 350 bhp on gas. Car's body was constructed by Robert Sorrell. The car weighs 1600 lbs. and carries an Allard de Dion rear.

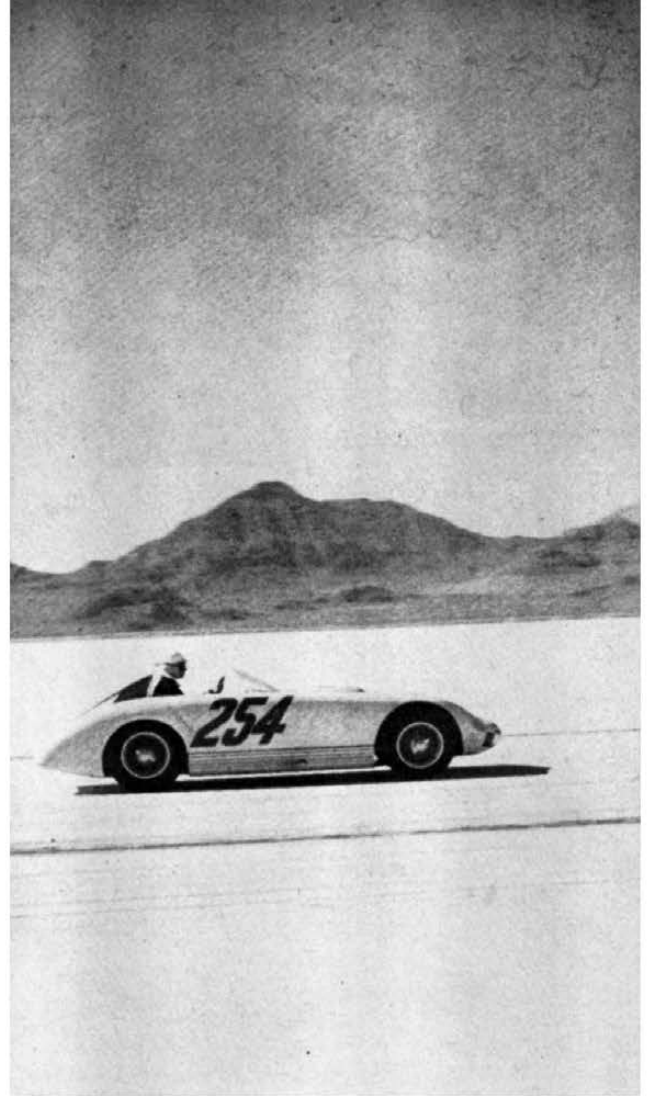


Tommy Thompson's "Golden Rod" returns year after year. Its mill is about the tamest on the salt, but with the aid of body aerodynamics, it turned a mean 189.77 mph.

tool manufacturing firm, summed up their reaction neatly. "There's no strain between the hot-rodders and sports car fans up here. We respect them as *real* engineers—serious, inventive, practical and daring. They teach us a lot and they listen to us, too. Running on the salt with people as expert as they are—who talk your own language—is a rare experience."

Many sports car drivers and crews went to the salt for the sheer kicks of going fast under ideal timing and safety conditions. Typical of them was Oscar Breault, a retired gentleman from Chicago with a healthy Cad-Allard. On any surface but that of the ever-gentle salt, Breault would have run the tires off his car because he ran constantly, every day of the trials. He finally turned a very respectable 152.28, and when the gate to the salt was locked on the last day, he left a very satisfied sportsman.

Others, though, came with the firm intent of setting records in one of the four sports car classes so far set up by the SCTA (there undoubtedly will be more as sports car entries grow). One such determined contender was Albert Schmidt, an M.D. from Cincinnati. Dr. Schmidt entered his perfectly tuned 300SL in the closed-body, over-1500 cc class and for a long time proceeded to clobber all the competition around in scientific, methodical fashion. Except for some friendly brain-picking when he first arrived, Schmidt was seldom seen. He appeared briefly on the salt twice a day, in the cool of the morning and in the late afternoon, bothering to run only when his engine could breathe the densest possible fuel-air mixture. With competition cam and steel body, the middle-



Based on an Allard chassis, Lavell's car alternated two De Soto Adventurer engines—one with 341 and one with 357 cu. ins., and torque converter transmissions. Car walked through traps.



Bill Scace's Porsche Carrera, with top erect, took the under 1500 cc closed sports car record at a two way average of 122.019. Masking tape was used to reduce turbulence in bumper region.



aged medic set a blistering two-way mark of just over 152 mph, thus giving a useful answer to the question, "How fast can an over-the-counter 300SL go?" Schmidt ran with even the stock mufflers in place.

Other production sports cars went well too. One of Scace's entries was a bright red 300SL which duelled from day to day with an orange Corvette driven by George Hanson and Ray Brock. Scace had to push hard to top the Corvette's 145.86 mph with 146.10. Jaguar was ably represented by William Woods, an electronics engineer from Glendale, who drove his XK120M with c-type engine—big carbs and all. The black coupe carried a neat and sensible modification. The right headlight was removed, and from the opening thus made available, two husky lengths of flexpipe carried cool external air to the car's induction system. Woods turned 131.38 in his about-town machine, a speed which failed to satisfy him but impressed everyone else.

Among the sports specials that ran in the over-1500 class,



*Sports cars and hot rods waiting their time to take off down the salt. The Corvette in front was entered by George F. Hanson of Whittier.*



*The San Chez-Cagle-LeMion '53 Stude with Chrysler plant. Before piston seized, the car turned 185.18 one way on 95 percent nitro and 5 percent benzole. Note driver's position is in middle of car.*

Fred Lavell's entry was outstanding for appearance and promise. Lavell, owner of a chain of women's apparel stores in the Midwest, is no tyro with machinery. His car had an Allard chassis, an effective-looking streamlined body, two DeSoto "Adventurer" engines with all the factory go-goodies, two torque converter transmissions, and an assortment of tires, wheels and gears. Early in the meet Lavell made a trial run through the traps with his "small" 341 cubic inch practice engine and clocked an easy 150.75. Everything appeared sanitary, so he switched to the 357 inch engine. Unfortunately, the big sprint power plant wound to about 3600 rpm and that was all. Lavell and his mechanics did their best but the engine's potential remained hidden. It ran hydraulic tappets, incidentally.

If the big DeSoto had gone properly it might have put Lavell in the same race with the car that set a new record in the closed sports car class: Denny Larsen's red-white-and-blue, gull-winged Chrysler coupe. Two years ago, when it was new, this car clocked a scorching 183 mph one way, coasting through the trap with a broken drive shaft. This year, driver Romaine Dauphin held the top speed to just under 176 during qualifying. The chassis sustained the strain and the next day he ran it at an easy 164.312 for the two-way record. Another Chrysler-powered mount turned the best speed in the open-body, over-1500 class. John Teverbaugh of Concord, California, hit 153.84 and should have topped 160 if the more streamlined body he had ordered had been delivered on time.



*Oscar Breault came all the way from Chicago to try his J4 Cad-Allard on the salt. Getting in more runs than anyone, his best was 152.28.*

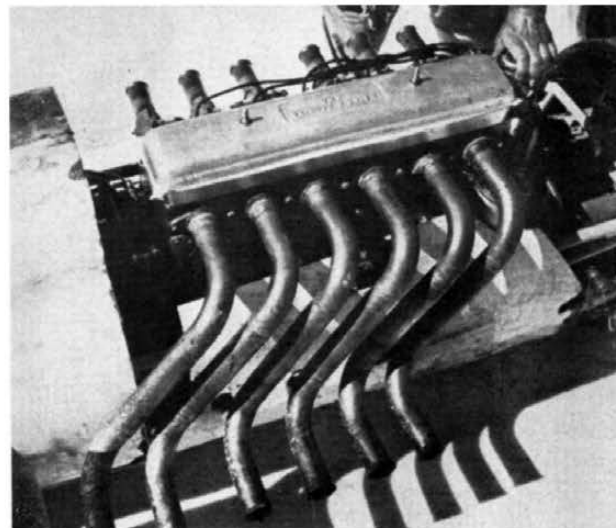
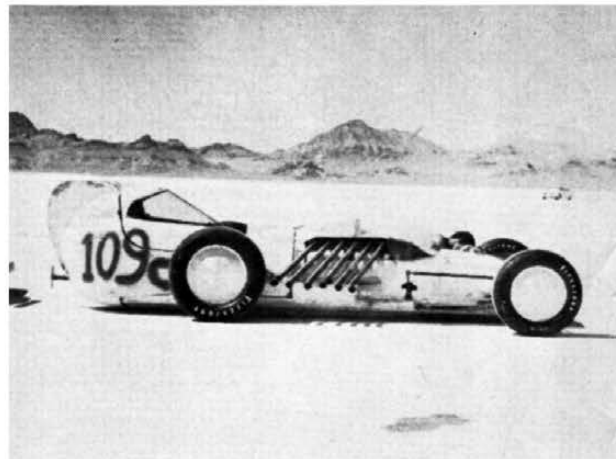


*Chuck Porter built odd looking nose for '27 T roadster belonging to T. Ruddy and M. Weinstein. Theory of front is that needle nose or wedge leaves too much room for turbulence between body and wheels. Theory worked—200.009.*

In the under-1500 class, Bill Scace's Porsche Carrera convertible showed the other cars the route. At first this car would do no better than 113 but Scace and his crew kept sharpening its tune. "We learned a lot about Porsches," Scace said. "For example, Dr. Porsche said a long time ago that the body would equalize at 60 mph—that the air pressure on the front end would create a 50-50 weight distribution. He was right. But he didn't mention that at 100 mph your front end gets heavy and the rear wheels begin to slip. Going north, with the wind behind us, we were getting 18.2 mph per 1000 revs but coming back we got only 17.7." This kind of salt-bred knowledge helped Scace eventually clock 123.39 one way and 122.09 for a two-way record average.

In the tiny-displacement category, C. G. Fink (entered in the SCTA's "lakester" class for streamlined bodies with exposed wheels) drove his immaculate 500 cc Triumph-engine Cooper through the traps at 94.83 mph and set a two-way record of 92.344. This was very good, but a performance that really shattered machinery-wise men on the salt was the incredible 198 mph achieved by Johnny Allen of Fort Worth, Texas in a streamlined motorcycle powered by an *unblown*

*Built by Brocchini, Semas and Shannon of Sacramento, this plastic bodied saltster blew its engine early. The boys borrowed a GMC and turned 182.87. No record, but they had a ball.*



*The big "Jimmie" Engine ran with injectors. Curves in exhaust pipes are to achieve proper length for scavenge tuning. Despite all the goodies, 12-port head car broke no records.*

500 cc Triumph engine! A few days later he did even more.

This was an outstanding year for most classes of machinery, but not for the big streamliners. Bill Kenz and Roy Leslie of Denver, perennially the fastest on the salt and holders of the absolute SCTA record at 255.411 mph, came loaded for bear this time. Their car held three Edelbrock-equipped flat-head Ford engines driving to all four wheels. Leslie drove the car on a qualifying run at a clocked 261.81 mph, but when he made his record attempt a driveshaft snapped. Time and facilities didn't permit its replacement.

An equally promising machine was the supercharged, Chrysler-engined streamliner of Robert Herda and John Cramer of Redwood City, California. Herda is chief engineer for Hiller Helicopters; his machine has been under construction and development for six years and is a sort of ultimate in design and workmanship. But it was plagued with bugs that were invisible on the drawing board and crucially apparent on the salt. After several dry runs the Herda-Cramer "Attempt 1" loafed through the traps at 149.62. But this jewel had been brought to Bonneville to learn what could be discovered nowhere else. "We'll be back next year," Herda

Building a record-breaking streamliner is the highest challenge in this straightaway sport. Results usually take a lot of time and many builders are in no hurry. Tommy Thompson, for example, an engineering draftsman from Golden, Colorado, has been developing his Golden Rod since early in '52. In it he runs one of the mildest looking Olds engines you've ever seen, sleeved to 265 cubic inches and sporting two little twin-throat carbs. In '53 he turned 142.40 with this combination. In '54 he got up to 158.57 and in '55 to 165.40. This year, Thompson pulled out a couple of stops and resorted to a hot cam and a mere 10 percent nitro-methane. He clocked 189.87, a cozy speed. Next year, in his methodical way, he'll probably earn his membership in that exclusive group—Grant Piston Rings' 200 MPH Club.

Aside from these machines, most of the other contenders are best referred to in the pages of other publications . . . but not all of them. For example, the fact that a stock-bodied Stude turned 185.18 mph and set a two-way record of 163.715 is not likely to put any enthusiast to sleep. This was the entry of San Chez-Cagle-LeMmon and it was powered by an all-out 354 cube Chrysler engine running on 95 percent

*(Continued on page 52)*



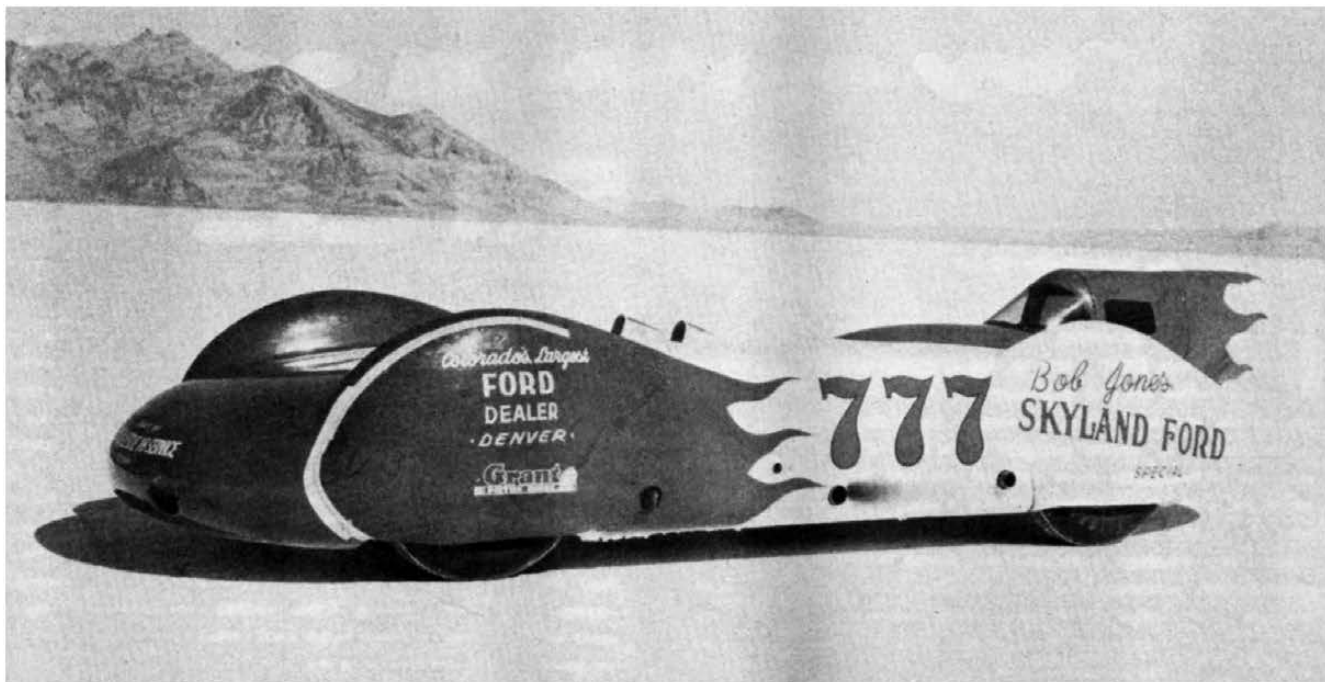
*Oscar Breault gets last minute instructions before pushing his J4 Cad-Allard through traps.*



*This Porsche Carrera coupe, entered by Ralph Duke Stewart, turned a best time of 115.53. Again masking tape helped to cut turbulence in window and door spaces.*

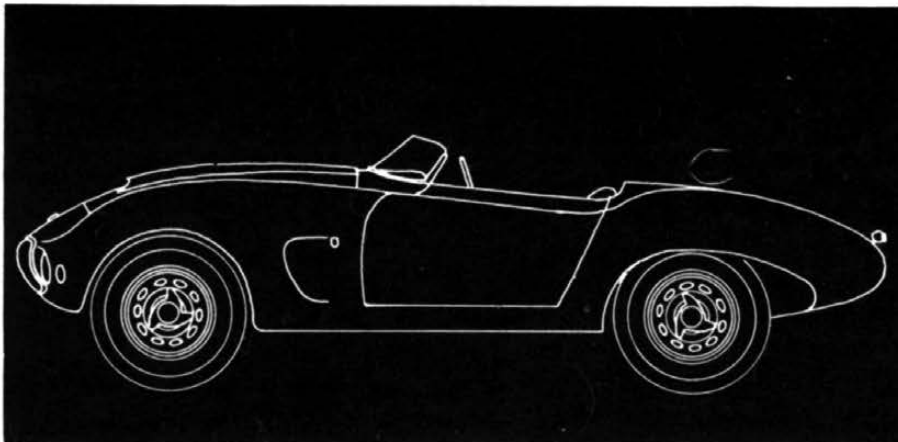


*Dr. Albert Schmidt gets briefing from starter, Bob Higbee. The 300 SL was excellently tuned, and ground out best speed of 146.10 mph. Car had steel body but had competition cam.*



*The Kenz-Leslie streamliner ran three flat-head engines and four wheel drive. Car did 261, top speed for Nationals, but on first record run broke a drive shaft. Roy Leslie, still trying to better 200, ran on one engine—could not get out 160's.*





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## Bonneville

(Continued from page 15)

nitromethane and five percent benzole. As team member (and F3 booster) George Rowell put it, "The engine didn't last very long but it went awful fast." Actually, the damage was a seized rod and the rebuild cost will be in the low two figures. Belmont San Chez also entered a stock production Stude Golden Hawk which whistled through the traps at better than 133 on gasoline.

There were many memorable performances by hot rods at Bonneville this year but one that will be remembered for years to come was the fabulous run made by Ernie Immerso of Phoenix, Arizona on the last morning of the meet. His mount was a traditional belly tank with wheels and axles dragging in the wind. With a Chrysler engine burning *only methanol* (no nitro!) he achieved a speed of over 219 one way and a record 213.190. And he began building the car only two months before the Bonneville Nationals!

These speed trials are a unique test bed for ideas. What can be accomplished with nitrated fuels has been explored on the salt to a profound degree. This year, for the first time, there were gasoline classes; opening up a neglected area of research that already has been highly productive and useful. The hemispherical combustion chamber head was in evidence this year as never before. The Ardun head for Ford engines, a voice in the wilderness for years, was exploited in a big way. Continuous-flow fuel injection for fuel or gasoline was utilized by all the first machines, and the excellent Hilborn product was the basis for many privately-made variations. Superchargers played a very important role in speeds realized and attempted; supercharger know-how is spreading. And new aerodynamic ideas paid off, just as engine-tuning ideas did.

We of Sports Cars Illustrated, of course, are most intrigued by the growing importance of sports cars in American motor sport events, including the Bonneville Nationals. Sports cars played a more important role on the salt this year than ever before, and this is only a beginning. They will be much more important in the future. Only at Bonneville can you learn the terminal velocity of your Jag, 4.9 Ferrari, Buick-Kurtis or home-built special. But fast or slow, all sports cars are welcomed by the SCTA. Next year you might try to take in the Nationals, either as a contestant or observer. Sports Cars Illustrated will publish the '57 regulations and details as soon as they are available.

Griff Borgeson

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