RACE AGAIN PROVES U.S. SUPERIORITY IN AUTO ENGINEERING

Great Credit Due Indianapolis Experts Who Built Winning Cars.

BY A. S. BLAKELY.

For the second consecutive time America proved its superiority in automotive engineering skill over European experts, as demonstrated in yesterday's victory of Tommy Milton in his Indianapolis-made Frontenac car over a picked field of Europe's best racing creations. This superiority is more marked when it is considered that in the nine classics already run over the 500-mile test, America has won four, an enviable record,

Indianapolis engineers come in for all of the credit, as every American car which has won a race has been built in the Hoosier capital.

The combination of stamina and speed is required to last out the grueding test. Cars of great speed have failed when stamina was absent, as was demonstrated again whon Ralph De-Palma forced the life out of his Ballot in the 111th lap after 275 miles of record-breaking performance. He led the old record of last year by two miles an hour with American cars, at his heels. But American engineering had, built cars which withstood this dizzy pace and were able to continue to the finish.

Faulty Parts Stop Majority.

A survey of the chart showing the causes of elimination of cars reveals that of the fourteen cars which failed to meet the test eleven failed because of faulty parts. Broken rods, burned bearings and faulty knuckles halted them at various stages of their flight.

A glance at the list of winners gives added proof, as only one of the nine cars to finish bore the name of a foreign maker. Haibe's Sunbeam slipped into fifth place.

When the starting bomb exploded and the racers got under way DePalma stepped on the throttle of his 176 cubic inch Ballot and proceeded to set the pace with an average of 80.83 for the first ten miles. Unable to shake off the field he increased the pace to 01.16 for the first twenty-five miles, and still finding himself closely pressed, let out additional speed and averaged better than macrythree miles an hour for the next 200 miles.

This speed, made with a motor small in comparison to the 300 cubic inch speeders of former years, surpassed the old records and set a new mark for motors of the 183 inch class. But the American cars were not to be denied. They hung near the leader and for 135 miles the first five cars were in the same lap.

Winner Shows Skill.

The winner, Milton, drove a heady race behind a wonderful car. At the end of the first twenty-five miles he was not in the first ten. . Picking up speed; he moved up to seventh place at the end of fifty miles and had gained fifth place lat the end of seventy-five miles. Hel held this position for the next seventyfive miles and then advanced to third and was second at the end of 175 miles, pushing DoPalma closely. A stop at the pits dropped him to fourth until the 325th mile post had been passed. He resumed his place as runner up to De-Palma in the 250th mile and when a broken rod in No. 5 cylinder sent the leader to the garage he took the undisputed lead in the 300th mile and held it until he hurtled past the checkered

Mile after mile he drove at a clip better than ninety, easing up to eighty-nine during the last 100 miles. His close pressing of the flying DePaima had no ill effects on his Indianapolis-made motor. It ran as smoothly and functioned as perfectly in the last lap as it did in the first, as far as the ear and eye could detect from the press stand.

Engineering has advanced with rapid strides in the automobile field. In the early days of the local Spaedway, monster motors of 600-inch displacement roared around the brick oyal. Then Speedway officials decreed a smaller motor, one of 300-inch displacement. This motor proved its ability and the record of 89.84 miles an hour, made by

Depaims in a 300-cubic inch Mercedes in 1915, still stands.

Not content with the 300-inch motor, Spredway officials reduced the displacement to 183 cubic mehes. Speculation was rife as to rebuils.

Hoosier Scores Victory.

With only a year to plan, American engineers not busy and Louis Chevrolet of Indianapolis, designed and built the Monroe which won the 1920 race and set the record of \$3.50 miles an hour for the 500 miles. The improvement that has been made in the second year of this typu is seen in the result of yesterday's race.

"Louis Chevrolet and Fred Duesenberg, Indianapolis' engineers, gave the foreign designers a hearty, though disheartning reception. Three Frontenacs and four Duesenbergs took all but fifth and seventh places. The Frontenacs finished first, third and ninth, with the Duesenbergs in second, fourth, eighth and eighth places.

Roscoe Sarles in No. 6 Duesenberg was one of the leaders from the start. He took his place fourth from DePalma at the start and worked into second position at the finish.

It was a race in which the small carcame into its own. For miles the old records were broken and when the raca was ended a new mark for the 183 class motor had been established, 89.62. Had Milton been pressed there is no doubt that Del'alma's mark of 89.84, made by a 300-cubic inch motor, would have been shattered.

It was America's day of triumph in motordom. It was a day of triumph for Indianapolis and above all it was an engineering triumph for Louis Chevrolet and Fred Duesenberg, for they had seen the creation of their own hands win a majority of the glory in the world's greatest motor car test.