



# AMERICAN CARS at Le Mans

By Curt Parker and Bob Dearborn

THE 13TH AND 14TH of June this year I was present at the great French endurance race—the world famous 24 hour automotive struggle which is held two or three miles outside of the town of Mans, just south of Paris.

As an automotive enthusiast, I was greatly impressed with the race, which starts at 4:00 p.m. on Saturday afternoon and continues throughout the night until 4:00 p.m. Sunday. Nearly every leading automotive manufacturer from Continental Europe had entered a team of very fast cars. Each of them had spared no effort or preparation in order to take home the winning cups and thousands of dollars in prize money.

As an American I was even more impressed. For included in the starting line-up were three teams of cars using mostly American parts. Two crews were British manned.

These American teams were to be pitted against the finest and fastest sports cars in the world. The speeds would be high during the 24 hours, and the punishment of equipment and strain on drivers would be monstrous. To merely finish the 24 hours of running would be a signal honor, while the thought of an American built car actually winning this race was a thrill almost beyond belief.

As can be seen by the accompanying chart, American cars have competed for many years at Le Mans—but none have ever won. For one thing, American manufacturers have failed until the past two or three years to recognize the tremendous prestige which results from Le Mans competition. Consequently, American equipment running at Le Mans has been privately sponsored—until the last few seasons.

Of the three teams of cars using American parts, one was entered by an American manufacturer and driven by American drivers. Another was entered by an American manufac-

turer but was built, serviced, and driven by a British crew. The third, used almost all American parts, but was an official British entry and was driven by Englishmen.

This last car was the JR Allard, an improved version of the Cadillac-Allard sports car which has made such an excellent showing in racing here in the United States the past few years.

The JR model has been considerably changed from last year's model (the J2-X), and has a wheelbase 4 inches shorter, wheel tread 5 inches narrower, and has been very much lightened so that the total weight is now only 2200 pounds.

The JR uses a stock Cadillac engine, but modified through the use of a kit supplied by Detroit Racing Equipment—a company well known to speed enthusiasts all over America. The kit consists of two 4-throat Rochester carburetors; Detroit Racing intake manifold; and modified tappet and push rod assembly incorporating the use of solid lifters.

The JR used a standard Cadillac three-speed manual shift transmission, but the rear axle assembly was a specially made up unit using Ford parts (as has always been Allard's practice), and a quick-change rear end, built in England. Four rear end ratios were available, 3.29, 3.5, 3.78, and 4.1.

The conventional rear axle was done away with, and like last year's J2-X, the JR used a De Dion "dead" axle to maintain the wheels parallel, while short stub axles (machined from Ford axles) carried the power to the wheels from the differential, which was bolted to the frame with 12 inch Alfin brake drums mounted alongside. It is interesting that the British brakes used on the Allard were the same diameter, but a quarter-inch narrower than stock American Cadillac.

The JR's weight distribution was 57 percent front and 43 percent rear, but the driver and two 25 gallon tanks full of

gasoline made the weight distribution equal front and rear.

The chassis itself was a development very similar to the smaller Allard Palm Beach model which carries a small English Ford engine, but was slightly wider, while the aluminum body was extremely light—weighing 130 pounds in all.

Two Nash-Healeys were entered, one of them having done very well in last year's race—finishing third behind the famous German Mercedes sports cars.

The cars, which had British built chassis and bodies, were officially entered in the 24 hour grind by the Nash Motor Car Company of U.S.A. The engines were stock "Le Mans Dual Jet Fire" power plants as used in the Nash production car. The only exceptions were a hotter cam, 8:1 compression ratio, and a ram-jet airscoop which gave greater efficiency—particularly at high speeds. Last year one of the Nash-Healeys had a special head with cross-over type pushrods, however, it did not finish the race, whereas the normal Nash engine did. The Nash Company announced that both entrants this year would carry the more nearly stock Nash engine. Nash officials, incidentally, were very much in evidence at Le Mans observing this year's race.

The bodies of the Nash-Healeys were specially streamlined, light aluminum creations, and the cars ran knock-off wire wheels with large finned brake drums.

Probably the greatest American hope at the Le Mans race this year was the Cunningham team—three Chrysler powered cars built by Briggs Cunningham and his crew at the Cunningham Car Company at West Palm Beach, Florida. Two of the three cars (a roadster and a coupe) had run last year, one of them placing fourth just behind the Nash-Healey. The third car was an entirely new development and a subject of great controversy—the CR-5.

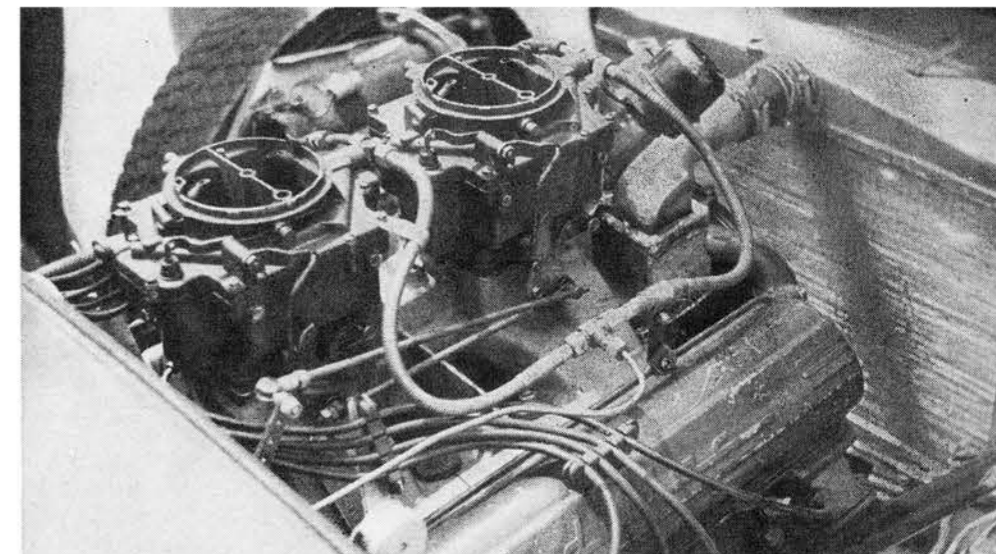
Phil Walters, who would drive the car with John Fitch, a well known American sports car driver, had designed the new Cunningham with a solid front axle, which according to some authorities, put racing back twenty years. Other experts, realizing that the Le Mans course was as smooth as a billiard table for its 8 mile length, decided that Walters might be right when he claimed that independent suspensions were necessary only on a rough surface. It is significant that the front tire wear of the CR-5 solid axle Cunningham was almost nil. The two tires which started the race looked like new at the finish, while in comparison, the independent suspensions of the two CR-4s required three tire changes.

At any rate, the solid front axle (sprung by torsion bars) cut the weight of the CR-5 Cunningham considerably—a problem which had plagued these cars the year before. This year the CR-5 weighed in at about 2500 pounds.

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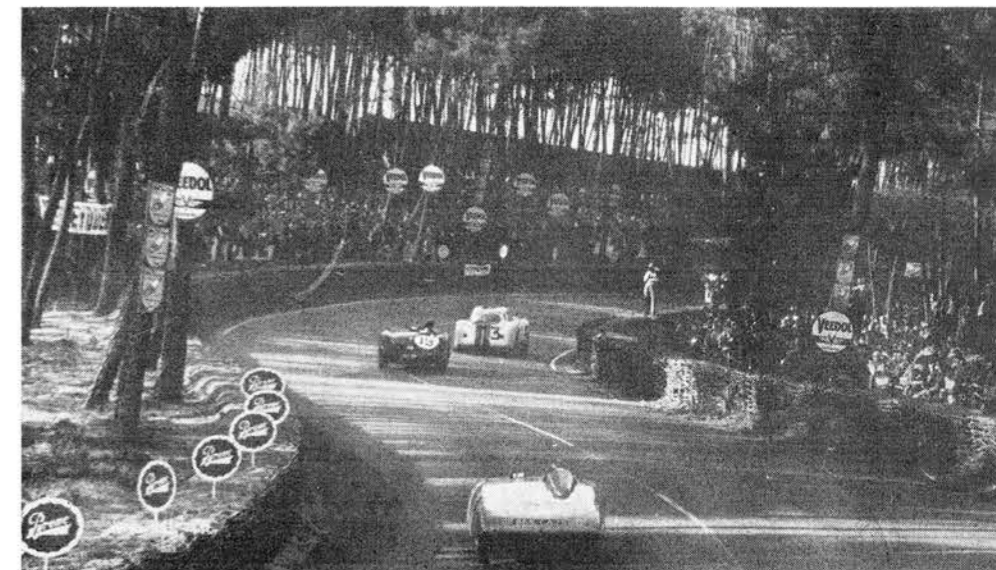


CUNNINGHAM rented this garage for prerace practice and for the duration of the race. Car nearest door is for practice only. Italian Ferrari came in for body work



CADILLAC engine installation in the new Allard JR equipped with two four throat Rochester carburetors on manifold supplied by the Detroit Racing Equipment Co.

CUNNINGHAM CR-4 leads Jaguar and Panhard through S bend one mile from start



## AMERICAN CARS AT LE MANS

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The Chrysler engines ran special cams and four Zenith carburetors, stronger valve springs and larger valves. The gear box was a four speed Italian Siata unit and the rear axle was the solid type.

In the week preceding the race, time was taken up with a very rigid inspection and practice periods were set aside—strangely enough in the evenings from about 7:00 p.m. until one in the morning.

During inspection it was found that the rear fenders of several cars did not comply with Le Mans rules. As a result, small fins had to be welded on to bring the fenders out over the rear wheels.

The speeds were high in practice, and gave hint as to how fast the race would be run. The lap record which had been set last year by Alberto Ascari, driving a 4.1 litre Ferrari coupe, was 107 mph, but already in practice the Italian Alfa-Romeos and Ferraris had broken the 1952 record by several miles per hour.

The CR-5 Cunningham which had just been finished in time for the race, had succeeded in lapping very fast. According to the word around the Cunningham pits, the Alfa-Romeo was the big worry. In the Mille Miglia, Italy's big race, held shortly before Le Mans, the new Alfa had proved to have greater performance than the Ferraris, which until then had been Europe's fastest cars. But the entire Cunningham team felt it could hold its own. Even though the Ferraris and Alfes might break lap records, they were not noted for being in at the finish.

Finally Saturday came and the time for the race drew near. At precisely 4:00 p.m. M. Charles Faroux, the organizer of the big event, lowered his checkered flag and the famous Le Mans 24 Hour Race had begun. This year Phil Walters was the first to get away. He was followed closely by Sydney Allard in the Cadillac-Allard, and after these two came a tremendous rush of the remaining 58 cars—from the biggest Chryslers and Cadillacs, down to the tiny, little French entrants—the DBs, Renaults, and others of only six and seven hundred cubic centimeters (around 100 cubic inches) displacement.

As all sixty of the cars got away on the first lap, the eyes of hundreds of thousands who filled the huge grandstands and lined the course strained in the other direction, waiting to see who would be the first around the first 8.3 mile lap. From the practice times, nearly everyone had his money on the fleet Italian cars. But no! A dot of green appeared far away on the straight leading up past the pits. As it grew closer the crowds along the way were able to distinguish the Cadillac-Allard—traveling at a tremendous rate of speed in first place. It was Sydney Allard driving and he was closely followed by a Ferrari, a Jaguar "C" type,

a super-charged V-6 Lancia, another Jaguar, and Phil Walters in the Cunningham. It looked like the Americans were going to make a good showing for themselves.

However, that was only the first lap. There were about 23 hours and 55 minutes of racing ahead. It was going to be the cruelest Le Mans in history. The lap speeds were higher than anyone had anticipated. In 1952 the Mercedes had won at 96 mph and already the dozen cars in the lead were averaging 10 miles an hour more than that on every lap.

Before many laps had gone by, the cars began to drop out of the race—the high speed toll was beginning to tell. The Allard which had led on the first lap broke a part of its De Dion rear axle, and this in turn severed a brake line. It began dropping back, and on the fourth lap was out for good. Even though the Americans present (there seemed to be thousands) realized that the Cadillac engine was running smoothly when the car went out, it was still a blow. For the Cad-Allard—the first car to retire—was using American parts in the engine and chassis.

At the end of the first of the 24 hours of running, the American cars were lapping consistently and well. The Walters-Fitch Cunningham was in 8th place, Cunningham-Spear were in 17th, and Moran and Benett, driving the Cunningham coupe were 24th. The remaining Allard driven by Duntov and Merrick was running 19th, and the two Nash-Healeys were in 27th and 58th places. Though these placements did not look startling, it is almost axiomatic that most of those who are leading in the early hours at Le Mans will not finish the race.

By the second hour things looked better for the white and blue American cars (each country is given a color to run under: Italy, red; England, green; Germany, silver; etc.). Where the Cunninghams had been 8th, 17th, and 24th, they were now 6th, 13th, and 18th. One of the Nash-Healeys had moved up to 24th place, but the other was soon to go out with burnt bearings—at about the third hour.

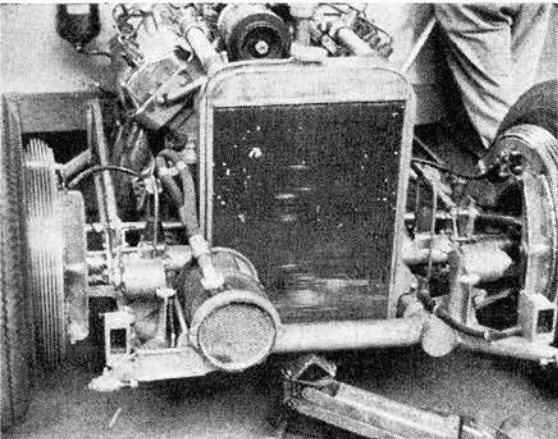
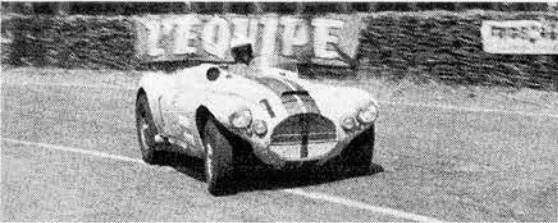
Apparently the remaining Allard was having brake trouble. Even though the Cadillac engine sounded potent, it dropped back from 19th place on the first lap, until by the third hour it was running 49th. In the 9th hour (about 11:00 p.m.) the car finally stopped altogether with an undisclosed ailment, but probably brakes.

However, that was the last of the American car trouble. From then on until 4:00 p.m. Sunday afternoon, the Nash-Healey and the three Cunninghams ran reliably and smoothly while many of the leaders were dropping from the race.

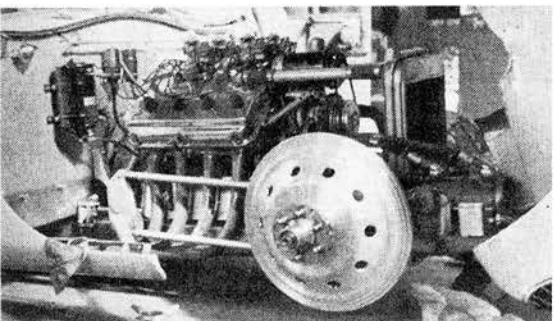
The remaining Nash-Healey, for example, did not seem to be setting the world on fire, but a careful check showed it to be running 27th in the first hour, and by midnight it had moved up ten places, to 17th. By dawn it had moved up another



**INDEPENDENT** suspension on CR-4 (below) wore out three sets of tires while CR-5 (above) with solid front axle used only one set of front tires during the 24 hours. Note camber change in the CR-4. Wheels of CR-5, in same turn, don't lean

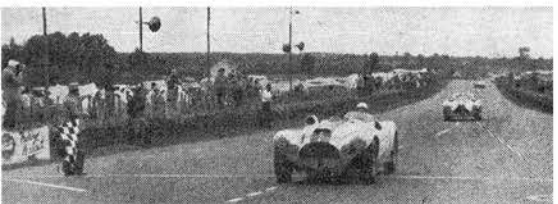


**SEVENTEEN** inch aluminum brakes were used on the new Cunningham CR-5



**UPPER:** CR-5 showing the 17" brakes, streamlined exhaust headers, oil cooler

**LOWER:** The two CR-4s finish the race in hard-earned seventh and tenth places



three places to 14th, and at the finish of the race it was running 11th.

The thing that baffled everyone at this year's race, was the Jaguar brakes. Jaguar had developed, in conjunction with the British Girling Company, a spot brake which normal brakes could simply not cope with. The spot brake on the "C" type Jaguars enabled them to run right up into a corner before applying the brakes, while the fast Italian and American cars were forced to slow down a quarter of a mile back up the road. Even though several of the cars were faster this year than the Jaguars, and seemed to have greater acceleration, they were completely out-run through the turns by the fantastic Jaguar brakes.

Some of the cars, notably the Italians, tried to keep pace with the Jaguars, or even pass them. The World Champion Grand Prix driver Ascari who with Villoresi was driving a 4½-litre (270 cu. in.) Ferrari coupe, made a concentrated effort and succeeded in passing the leading Jaguar once or twice, but in the end the Ferrari clutch gave out. The new British brakes were just too much for the clutches and gear boxes of other cars.

Wiser heads drove their own race. The Cunningham CR-5, for instance, had set for itself a 104 mph average, which was a good 7 mph faster than last year's winning time. By sticking to this average, and not being enticed into a fruitless race against the Jaguar brakes, the CR-5 drivers, Fitch and Walters, managed to grab for themselves a very worthwhile finishing position. The car started in 8th position (first hour) and by midnight was 3rd, which it held until the end of the race. According to a statement given out by Briggs Cunningham after the race, the Chrysler engines were winding to 5000 rpm consistently without a sign of trouble. The Cunningham team knew that the engines would wind to 6000 rpm, but it was reasoned that the race goes to the finishers, not those who make a grand flash in the early hours only to finish the race in the pits with burned-out engines.

On the back straight which is called Mulsanne, the Cunningham CR-5 was seen to have far greater acceleration than the Jaguars—it simply walked away from the British cars. And in top speed the Cunningham was far superior. However, at the end of the straight the Cunningham had to start slowing many yards back from the turn—in spite of the fact that it had huge 17 inch aluminum brakes. And as the Cunningham began to slow for the turn, the Jaguars steamed right on by—right up into the corners—before applying the brakes.

As it was, the CR-5 established the highest timed top speed (over 154 mph), and at times, according to Walters, the tachometer was registering enough rpm to calculate a top speed of 170 mph. The Ferraris were turning about 165 on the

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YEAR	CAR MAKE	ENGINE SIZE	DRIVERS	FINISH POSITION	COMMENTS
1925	Chrysler	—	Stoffel-Desaux	6th	Four-wheel hydraulic brakes
1926	Willys Knight Overland	3872cc	Gros-Leduc	—	Sleeve valve engine—out on 7th lap.
	Overland	2779cc	Aladare-Hermequet	—	Crashed and burned in practice.
	Overland	2779cc	Duprey-Dumont	7th	
1928	Stutz	4750cc	Brisson-Bloch	2nd	Led until transmission lost top gear.
	Chrysler	4074cc	Stoffel-Rossignol	3rd	Friction shocks and reserve oil tank.
	Chrysler	4074cc	Ghica-Ghica	4th	Friction shocks and reserve oil tank.
	Chrysler	4074cc	Chiron-deVere	—	Retired—reason unknown.
	Chrysler	4074cc	Zehender-Ledure	—	Retired—reason unknown.
1929	DuPont	5277cc	Moran-Miranda	—	Retired with broken drive shaft. Car was designed by present Cunningham designer—Briggs Weaver.
	Stutz DV32	5277cc	Chiron-Brisson	5th	Twin OHC with four valves per cylinder.
	Stutz DV32	5277cc	Bouriat-Philippe	Unknown	Twin OHC with four valves per cylinder.
	Stutz DV32	5277cc	Eyeston-Watney	Unknown	Twin OHC with four valves per cylinder.
	Chrysler	4074cc	Stoffel-Benoist	6th	Similar to 1929 cars with new ribbon type radiator.
	Chrysler	4074cc	deVere-Mongin	7th	Similar to 1929 cars with new ribbon type radiator.
1930	Stutz DV32	5277cc	Rothschild-Bourlier	—	Crashed and broke rear axle.
	Stutz DV32	5277cc	Brisson-Rigal	—	Caught fire.
1931	Chrysler Imperial	6316cc	deCaustier-Lussau	—	Retired on 17th lap with radiator trouble.
	Chrysler 29-80	3940cc	Sommer-Delemer	—	Retired on 13th lap with radiator trouble.
	Stutz DV32	5277cc	Brisson-Cattaneo	—	Retired on 18th lap with broken oil pump.
1932	Chrysler 29-80	3940cc	Sommer-Treenter	—	Equipped with four carburetors—failed to start.
	Stutz DV32	5277cc	Brisson-Cattaneo	—	Crashed avoiding another car.
1933	Duesenberg	6882cc	Prince Nicholas-Cattaneo	—	Disqualified for an infringement of the rules.
1934	Duesenberg	6882cc	Prince Nicholas-Cattaneo	—	Failed to start.
1935	Duesenberg	6882cc	Prince Nicholas-Cattaneo	—	Retired after 12 hours—reason unknown.
1950	Cadillac "61"	5420cc	Collier-Collier	10th	Sedan with five dual carburetors.
	Cadillac	5420cc	Cunningham-Walters	11th	Aerodynamic, knife-edged roadster.
	Nash-Healey	—	Rolt-Hamilton	4th	British entry.
1951	Cunningham CR-4	5426cc	Walter-Fitch	18th	Chrysler engine. Was 2nd for 6 hours.
	Cunningham CR-4	5426cc	Cunningham-Huntoon	—	Retired on 76th lap with clutch trouble.
	Cunningham CR-4	5426cc	Rand-Wacker	—	Crashed on 98th lap.
	Crosley	726cc	Schrafft-Stiles	—	Retired on 40th lap with engine trouble.
	Nash-Healey	—	Rolt-Hamilton	6th	Special aerodynamic type coupe body.
1952	Cunningham CR-4	5426cc	Cunningham-Spear	4th	
	Cunningham CR-4	5426cc	Fitch-Rice	—	Brake lining cracked. Valve train failure due to over revving engines when back-shifting for deceleration.
	Cunningham Coupe	5426cc	Walters-Carter	—	Brake lining cracked. Valve train failure due to over revving engines when back-shifting for deceleration.
	Nash-Healey	4143cc	Cabantous-Veyron	—	Retired with engine trouble.
	Nash-Healey	4143cc	Johnson-Wisdom	3rd	British entry.
1953	Cunningham CR-4	5454cc	Cunningham-Spear	7th	Roadster from the '52 race.
	Cunningham CR-5	5454cc	Walters-Fitch	3rd	Roadster—solid front axle.
	Cunningham Coupe	5454cc	Moran-Benett	10th	Coupe from '52 race.
	Nash-Healey	4143cc	Johnson-Hadley	11th	Nash Co. entry with British drivers.
	Nash-Healey	4143cc	Veyron-Cabantous	—	Nash Co. entry with French drivers. Retired with burned bearings.

## MEXICAN ROAD RACE

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Each lap winner will receive an additional payment of \$110 for every lap in which he finishes first.

The first finishing Mexican in either class will receive \$570 in prize money.

Total prize money for the race will be 876,000 pesos or approximately \$100,000.

This year the rules have been changed or rather new classes have been opened so that the smaller displacement cars will be allowed the privilege of competing. To a certain extent this will allow the average enthusiasts a chance to enter the race and try for some of the prize money. Win or lose, insofar as monetary gain is concerned, will not be the primary factor with Mr. Average Motorist. Just to finish the race will be a great accomplishment.

The factories and wealthier teams are hard at work right now making preparations for the five days of toughest competition to be found anywhere in the automotive world. Thousands of details must be worked out to perfection and drivers must begin training months in advance for the longest grind of the year.

This year the speeds will no doubt be much higher in the sports classes and I think the world is due for a great surprise in the results of the American cars.

## LE MANS

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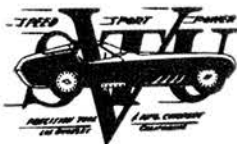
3 mile long back stretch, while the Jaguars were traveling about 155. Possibly the Jaguars could have traveled faster—but 155 mph was enough to keep them in first and second place at the finish.

Meanwhile, the other two Cunninghams, the roadster and the coupe which had been running 17th and 24th at the end of the first hour, had moved up to 11th and 17th by midnight. And at the finish they were touring steadily around in 7th and 10th positions.

After having watched the Cunninghams run so reliably and smoothly, I know we don't have to take a back seat for the best cars in the world. Nothing—but absolutely nothing—went wrong with any of the Cunninghams (which after all, were the only cars actually prepared by Americans and driven by them).

According to official reports from the Cunningham team, the cars will be back at Le Mans again next year—and they intend to win. It was rumored that Phil Walters, the Superintendent of the Cunningham plant, made a trip to England immediately after the race to inquire about the spot brakes used by the Jaguars.

Perhaps, with spot brakes and less weight, the American Cunninghams will bring that long-coveted victory home in the 1954 running of the Le Mans Race.



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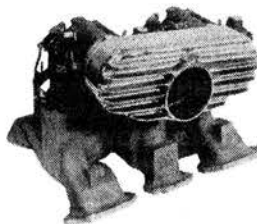
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