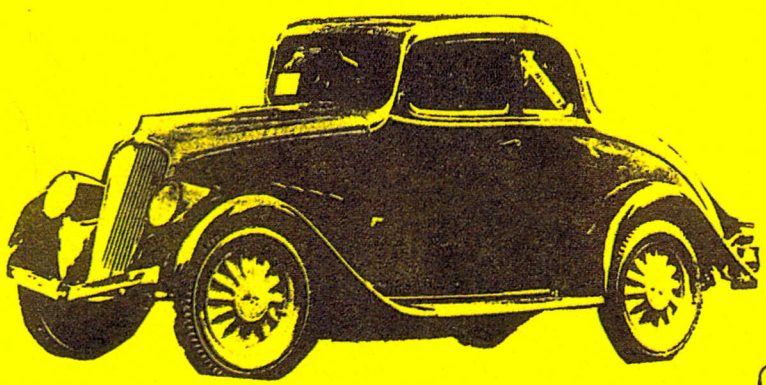
WILLYS 77

AMERICA'S DEPRESSION YEARS

MODEL T

AND

ANCESTOR OF THE JEEP



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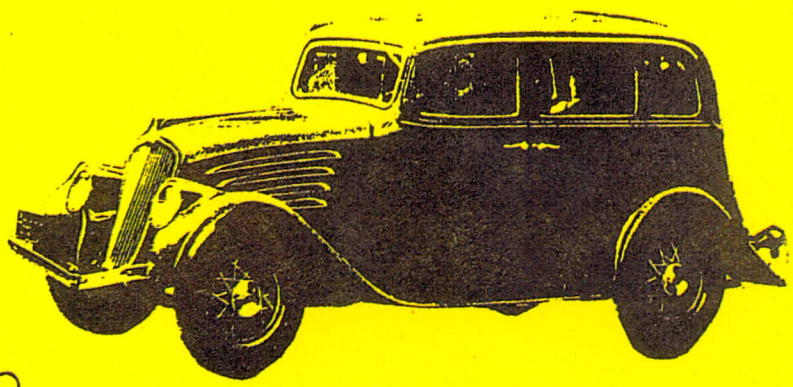

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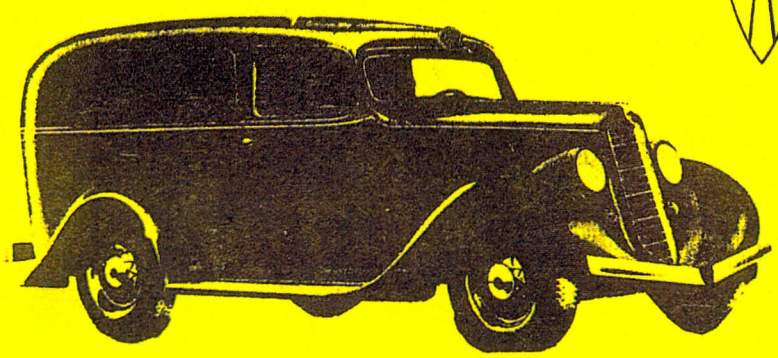

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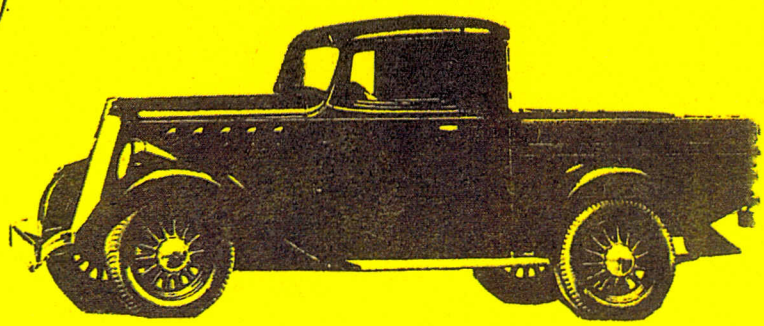

1936

HERMAN SASS

WILLYS 77

AMERICA'S DEPRESSION YEARS

MODEL T

AND

ANCESTOR OF THE JEEP

HERMAN SASS Ph.D.
EDITOR

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INDEX

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Willys-Overland

1903 First Overland car, a runabout, produced by Overland Motor Car Co., at Indianapolis, where company used shed 80 x 300 feet as factory.

1907 Overland Motor Car Co. saved from receivership when John N. Willys, a dealer at Elmira, N. Y., supplied cash to meet payrolls as nation faced money panic. December.

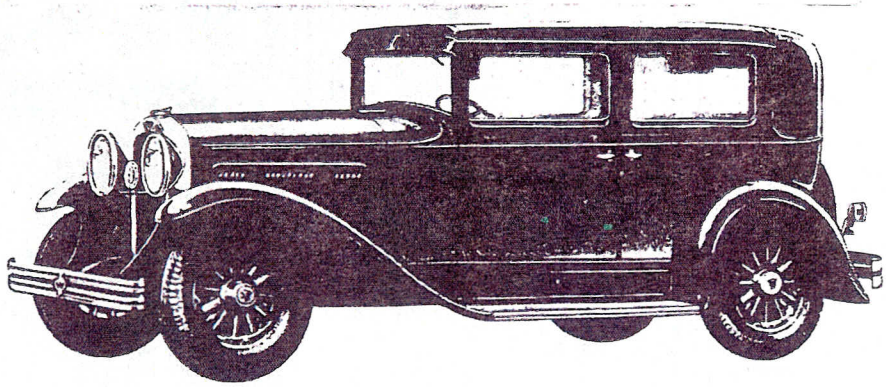
1908 Company reorganized by John N. Willys, who became president, treasurer, sales manager and purchasing agent. Company built 465 cars and had a net worth of $58,000 at end of year.

1909 Company built and sold 4,000 cars. Total business over $5,000,000 with net profit of $1,000,000. Company had $600,000 cash in bank at end of year. Pope-Toledo plant at Toledo, O., purchased for $285,000 and new assembly building 600 feet long, 90 feet wide and three stories high, constructed.

Total Car Sales, 2,635,549; Total Business, $1,993,996,607

Year	Total Sales	MILESTONES
1913	33,458	Charles Y. Knight, an American, invented a new type of motor, known as a sleeve-valve motor. Patents acquired by Willys-Overland and plant at Toledo expanded for production of Willys-Knight cars.
1914	65,985	
1915	91,904	
1916	150,111	Willys-Overland experienced first big business boom just preceding and during the war, followed by a post-war depression and the falling off of business.
1917	220,988	
1918	88,733	
1919	80,853	
1920	105,025	
1921	48,016	
1922	93,410	Willys-Overland made great strides, setting pace for the industry, as peak months saw daily production of 1,100 cars. Over 196,000 cars produced at Toledo plant. Plant expanded to 103 buildings.
1923	196,038	
1924	162,998	
1925	214,469	Willys-Overland payroll of $27,400,000 represented 41 per cent of payroll of City of Toledo.
1926	179,103	Whippet, America's first light car of standard dimensions, introduced after four-year period of model reconstruction.
1927	176,233	Willys-Overland reached its peak production with 314,437 cars; factory employment reached 23,000.
1928	314,437	John N. Willys retired as active head of company he had built and was named chairman of the board of directors, after which he was appointed United States Ambassador to Poland by President Herbert Hoover. L. A. Miller named president of Willys-Overland.
1929	257,407	
1930	80,555	
1931	61,782	John N. Willys relieved of duties as Ambassador to Poland by President Hoover so he could return as active head of Willys-Overland. Willys 77, a narrow-tread car, offering economy, introduced. Basic Knight patents expired and company ceased manufacture of Willys-Knight models.
1932	26,774	L. A. Miller and John N. Willys named receivers by United States district court, Feb. 15.
1933	32,935	Production stopped, Feb. 17.
		United States district court granted authority for manufacture of passenger cars and trucks, financed by receiver certificates, Mar. 3.
		L. A. Miller resigned as receiver and David R. Wilson appointed as his successor, under whose direction approximately 70,000 Willys cars were built and sold during receivership, which ended on Feb. 25, 1936, when the court named Wilson trustee of the company under Section 77-B of the Federal Bankruptcy Act. Dec. 30.
1934	7,916	
1935	20,428	Empire Securities, Inc., formed, with Ward M. Canaday as president to take up bondholder and creditor claims of Willys-Overland Co. to end costly litigation and to pave way for reorganization of the company. Aug. 15.
		John N. Willys, under whose leadership Willys-Overland had been built up from a small plant in an Indianapolis shed, to one of the largest in the entire industry, died in New York, Aug. 26.
1936	23,990	Plan for reorganization of Willys-Overland Co. as Willys-Overland Motors, Inc., filed with United States district court by Empire Securities, Inc. July 25.
		Reorganization plan approved by United States district court. Aug. 28.
		Willys-Overland Motors, Inc., began business with Ward M. Canaday, chairman of the board of directors and David R. Wilson, president of the new company. Announcement made that an entirely new line of passenger cars would be introduced at the November automobile show.
		New Willys car, introduced at New York Automobile Show, and termed the "Surprise Car of the Year." Nov. 11.
		Production of 1937 Willys cars began at Toledo plant. Nov. 30.
		Production started at Los Angeles assembly plant. Dec. 15.

THE WHIPPET FOUR — 1931



The last Whippet Four, offered only in Sedan, 2 and 4-passenger coupe styles.

THE WILLYS 77

by James Handy
PHOTOS BY AUTHOR

In simple terms, the Willys Model 77 was probably the perfect, affordable, automobile transportation for a country deep in the Depression, as well as the apex in the career of, arguably, the most colorful figure in American automotive industry history. John North Willys' forever-optimistic exuberance and zest for life transmitted to all surrounding him, and possibly did more to account for his amassed wealth than the timeliness of his capital investments. He died an untimely death in 1935, at age 61.

Willys' business career began at age 27 when he bought a sporting goods store in Elmira, New York, for a mere $500. Soon he was grossing $500,000 per year selling Pierce bicycles and Motorettes. These were soon replaced with Rambler automobiles from Kenosha, Wisconsin, and American Underslungs from Indianapolis.

By 1905, Willys was selling more cars than the two factories could produce. In 1906, he sold all 47 cars Overland (formerly American Underslung) produced, and ordered 500 for 1907 with a $10,000 cash deposit. No cars and no news came from Indianapolis for over two months, so Willys went to the factory. He found one worker, parts for three new cars, and nothing else. After investing another $7500, he bought what was left, built 465 cars in 1907, and ended the year with $58,000 in assets. By the end of 1909, Willys had built and sold 4,907 Overland cars, earning a profit of more than $1 million on slightly over $5 million in sales. In October of 1909, the Willys Overland Corporation was formed with $2 million in working capital. At the end of the 1910 model year, Willys had sold more than 16,000 cars, and bought the old Pope automobile factory in Toledo, Ohio. By 1916, Willys was a definite force in the ever-growing American automobile industry, selling 142,779 cars that year — finishing second only to Henry Ford.

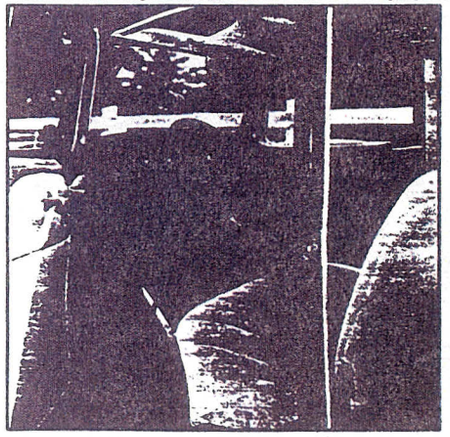
The more cars Willys sold, the more factories supporting his automobile assembly plants he managed to buy — lock, stock and barrel. In 1913, he bought the Edwards-Knight Motors factory in New York, which was making sleeve-valve engines for him. He bought out the Duesenberg brothers in 1919, and also purchased other small support suppliers as fast as he could raise the cash, but with the oncoming war, this proved to be his downfall. Automobile sales plummeted in 1918, and Willys found himself overextended. After the Duesenberg purchase, he formed a new holding company called the Willys Corporation.

The postwar depression forced Willys to hire Walter P. Chrysler, at a salary of $1 million, to convince Chase National Bank of New York to loan him working capital. Chrysler and Willys did not work well together. No new models were introduced in 1919, and cars were being built on a "to-order" basis. Willys traveled across country trying to shore up his dealers' confidence that the factory was being rebuilt. In 1920, he began selling off his holdings in the Willys Corporation. Willys had a six-cylinder car on the drawing boards, but it died. After Willys lost $20 million, Chrysler left and bought the old Chalmers plant in Detroit, taking the Willys six-cylinder car plans with him. The Chrysler Corporation was born.

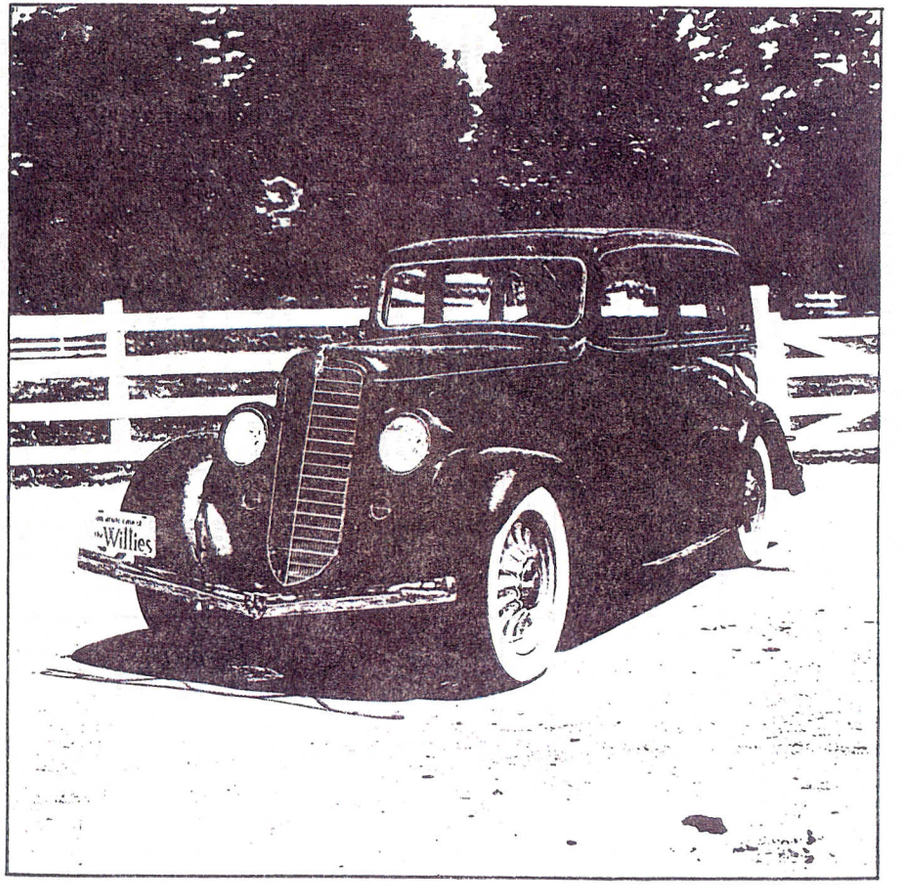
In 1921, the Willys Corporation went into receivership in Toledo and was purchased by a group of Willys' friends. They appointed him president, and went on to build 48,000 cars that year. In the 1923 model year, they recorded a $13 million profit and had paid off all of their creditors. In 1925, the corporation showed a $24 million profit, built and sold 215,000 cars, and was solidly back in the automobile business. Willys then bought the Stearns Motors plant in Cleveland, thus becoming the sole producer of sleeve-valved cars in America.

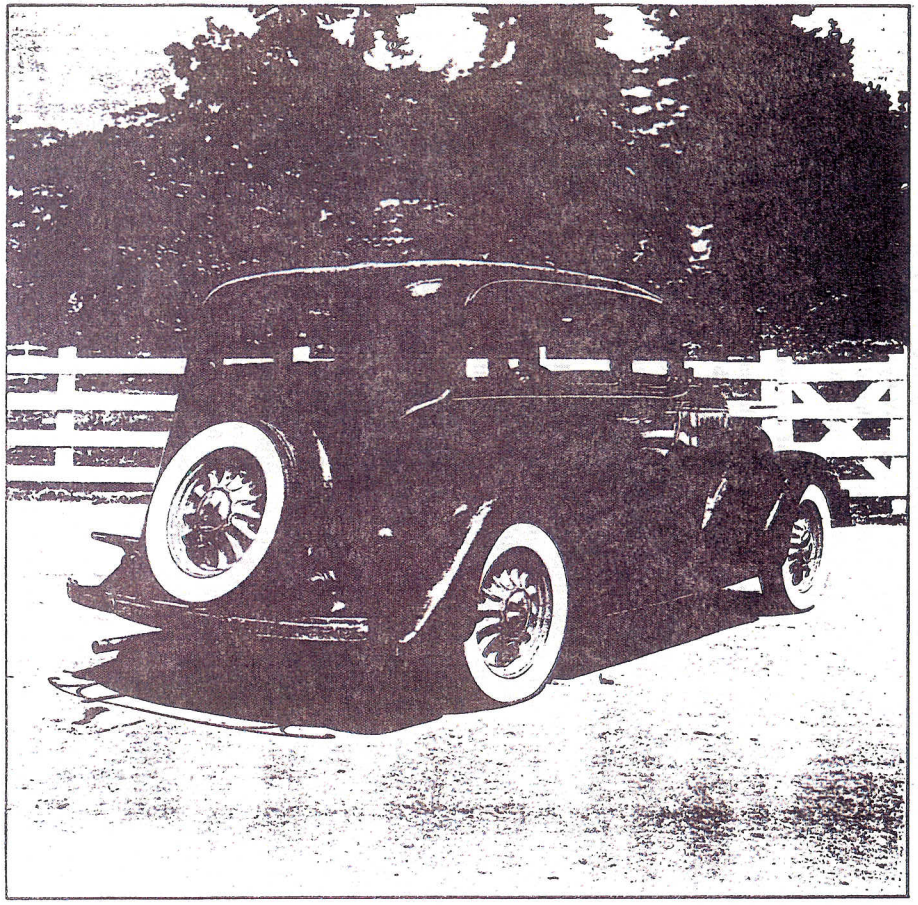
By 1927, all Knight-engined cars were six-cylinder models, and the only four-cylinder car being produced by Willys was the Overland, soon to be renamed the Whippet. It was the smallest car produced in America at the ume. In January, 1928, Willys slashed the price of the Whippet by $200 to

The Willys 77 was designed and priced for depression market conditions. It became the darling of the sporty car set and soon found its way into American road racing events. The dashboard features a 100mph speedometer, ammeter and fuel and oil pressure gauges.



The car pictured on these pages is owned by Gordon Apker of Kent, Washington. It is a fine example of a car that is essentially a fancy Whippet.





From this angle, it looks like a London taxi. It was actually a perfect, affordable automobile for a country that was deep in a Depression.

$545 — just $5 less than Henry's new Model A. At mid-year, the Whippet Six was introduced at $615. The factory in Cleveland had been producing the Stearns-Knight since 1911, and Willys figured that the more expensive Stearns-Knight would add class to the top of the Willys line.

The six-cylinder Whippet was billed as the "world's lowest priced six," and the press continued to remark on the high-priced features in the car: seven bearing crank, full pressure lubrication to all bearings, adjustable timing chain, etc. The little Whippet Six officially established a new 24-hour endurance record at the Indianapolis Speedway for cars under $1000, averaging 56.52 mph for the duration. The high-powered little car could do nothing but raise the fortunes of the Willys Corp., and in 1928, the company moved into third place in sales behind Chevrolet and Ford.

In the summer of 1929, John North Willys sold his holdings in the corporation for $21 million, turned the corporation over to his friends that had helped bail him out of receivership in 1921, and retired. In early 1930, he was appointed the first US ambassador to Poland. His doctors said that his health was failing, but Willys said, "to hell with it," and went to work for his country. He resigned his ambassadorship in May of 1932, because President Hoover needed him back home.

The Depression was worse than he had imagined. Forty-five thousand Toledans were out of jobs. He rolled up his shirt sleeves and went back to work, passing down to his factory workers and car dealers a renewed enthusiasm that the country was on the road to recovery. Only one new Willys model had been introduced since he left almost three years earlier — a Willys Six with a top speed of 72mph. Willys made good cars, but that didn't seem to matter during the Depression; cars were the last thing people who had no jobs, nor food on their table, thought of. Willys sold 26,444 cars in 1932. Enter the concept for the Willys 77.

For the six months prior to the return of John North Willys, work had been directed toward a new model, specifically designed and priced for depression market conditions. Willys liked what he saw and was sure it would sell. It was to be priced between $395 and $475. The Willys 77 was born — essentially a fancy Whippet. The engine was made smaller and stronger and produced 48hp. Willys advertised that the car could be bought for $5 a week and would travel 25 to 30 miles on a gallon of gasoline. Even more impressive was the top speed of the car: 71.5mph. It quickly became the darling of the sporty car set, and found its way into many American road racing events.

Willys-Overland placed all its hopes for survival on the Model 77 when it was introduced in 1933, and all other product lines were dropped. Between 1929 and 1932, the company had lost $35 million. John North Willys dumped $2 million of his own money into the company, and thought he had secured another million from a Detroit bank in February of 1933. The day after he negotiated the Detroit loan, all banks in Detroit closed their doors. On February 15, 1933, Willys went into receivership.

Willys adjourned to his Palm Beach home to recover from the flu, or so he told his friends. But he was, in fact, more seriously ill.

The Willys-Overland Corporation struggled on, producing small lots of cars under court supervision, shipping many of them overseas to an expanding European market. In January of 1935, Willys was again elected president of Willys-Overland by the preferred stockholders, and in May suffered a heart attack while attending the Kentucky Derby. He continued working from his hospital bed until he died on August 26, 1935. His company survived him, and was transformed through various mergers and acquisitions into today's Jeep Corporation, a subsidiary of American Motors.

The pristine example of a Willys 77 pictured here is a 1936 model, one with a 100-inch wheelbase and Bendix mechanical brakes. The L-head, four-cylinder engine has a 134.2cid with a 5. 7 to 1 compression ratio, and it produces 48hp at 3200rpm. The rear axle ratio is 4.3 to 1. The car weighs only 2,131 pounds and rides on stamped artillery wheels with 500x17 tires. Suggested retail price for this model in 1936 was $425 fob Toledo. The advertising brochure claimed 35mpg + and a top speed of over 70mph. The car you see on these pages was restored at the Zenith, Washington shop of Gordon Apker, mostly through the efforts of Willie Raynor and Gordon Raley. It remains a reminder of not only the economic struggle of a nation, but of the man and his company as well. ÷

* * *

The author wishes to thank Beverly Rae Kimes and *Automobile Quarterly*, as well as the personnel at the Gordon Apker restoration shop in Zenith, Washington, for their assistance in the preparation of this story.

SERIAL NUMBER AND PRODUCTION INFORMATION

There has been considerable confusion about the correct datings for some of the W-O models and makes. Since W-O did not choose to make public production and/or serial number figures, the information had to be gathered from sources such as an insurance rating guide, used car guides, parts manuals, and repair manuals. Information gathered by Ralph Meeks from former W-O employees comes the closest to being official factory figures that we have seen. The information in this, and future, articles will be considered official by WOKR.

MAKE	YEAR	MODEL	SERIAL NUMBERS	BEGINNING DATE	ENDING DATE	PRODUCTION
Willys	1933	77	1001 – 13820	December 1932	August 1933	12820
Willys	1934	77	13821 – 27055	September 1933	December 1934	13234
Willys	1935	77	27056 – 37700	January 1935	August 1935	10700
Willys	1936	77	37701 – 68526	September 1935	September 1936	30825

WOKR STARTER AP-M-JU 1970

OVERLAND TO MAKE INTERNATIONAL TRUCK

Small Unit in ½-Ton Size Has Been Developed—Approval Is Imminent—Will Be Distributed Through Regular International Sales Outlets.

Under a working agreement, long pending but not disclosed until this week, the Willys-Overland Co. has assisted in developing and will build for the International Harvester Co. a half-ton six-cylinder truck which will be marketed by the big farm implement and vehicle manufacturer under its own name and through its own outlets. Acceptance tests of the model truck have reached the final stages, a favorable decision is expected shortly, and production should start as soon as the necessary tooling and establishment of production routine can be effected. Official announcements of the plan were made by President L. A. Miller of Willys-Overland, who has been working on the project since last January, and Vice-president George A. Ranney, of the Harvester Co.

This novel move is significant in several ways. It gives Harvester, already a powerful factor in the truck field, a new hold on the market, and will make it an even more important competitor in that sector of the field than in the past. It gives the Overland company a backlog of factory orders which will take up a substantial portion of the capacity of its huge plant at Toledo, besides providing orders for 20 or more of its suppliers in that city, from Electric Auto-Lite down through the list. Finally, it bespeaks a solid assurance of employment which will be increasing progressively for some little time.

International Harvester, largest factor in the farm implement field, and manufacturer of tractors and trucks as well, has 181 branch houses, truck and service stations in the United States and Canada, and 130 distributing centers in foreign countries, it also supplies more than 15,000 independent dealers in the countries in which its products are offered. Its position in the commerical vehicle field has long been maintained and is unassailable, but in view of changing conditions the Company has recognized the need for a light truck to round out its line. This was especially needful in view of the growing demand for lighter, lower-priced units, rather than heavier vehicles, and also in view of the heavy and consistent sales volume in that division maintained by Ford and Chevrolet.

Its alternatives were to create a design and establish its own manufacturing facilities, or else to avail itself of capacity already existing in the automobile industry, a good deal of which is only partly engaged at the present time. The latter was considered the more favorable, from the economic standpoint, and consequently an investigation of available plants and manufacturing organizations was started. This revealed the advantages in the Overland position, while President Miller of that Company proved himself a good salesman in establishing the arrangements on a footing of mutual advantage.

What further details may ultimately be included in the agreement between the two concerns, naturally cannot be determined until the plan has carried further into actual consummation. It is definitely known, however, that newspaper stories which indicated that the Harvester branches would market Overland cars were wrong, nothing of the kind is at present contemplated. It would be equally wide of the mark to assume that a merger of the two concerns is in prospect.

An official statement from the International Harvester Co. on September 19 follows:

"International Harvester Co. now is making final tests of a half-ton six-cylinder motor truck to be manufactured to its specifications by the Willys-Overland Co. of Toledo to be marketed by the Harvester company through its sales organization and under its name.

"For several months George A. Ranney, vice-president of the Harvester Company and our engineers and those of Willys-Overland have been working on the development of a light truck to complete our motor truck line.

"Final road and block tests of experimental units jointly developed by the engineers of the two companies now are being made.

"It is believed that a favorable decision will be promptly reached and that these new trucks will be put on the market as soon as new tooling can be provided."

In commenting upon this statement, Mr. Miller said that since January he has conducted negotiations with the Harvester company and its co-operation in all of the details has been most gratifying.

Willys-Overland has unfilled orders for 3,000 cars and present schedule of 4,300 workers on a three-day week may be increased to four, according to news dispatches. Another increase in employment is likely in about two weeks when production of the new light truck for International Harvester Co. starts. Willys-Overland has entered the taxi-cab production field and is completing an order for 50 cabs for the Knight Cab Co.

AUTOMOBILE TOPICS P 361, 372 September 24, 1932

Willys to Build I.H.C. Trucks

A contract for manufacture by Willys-Overland of a half-ton, six-cylinder truck in considerable quantity for the International Harvester Co. of America, announced recently through L. A. Miller, president of Willys-Overland, is believed to be the forerunner of a most important working arrangement in the automotive industry.

"It is contemplated that the line of trucks will include several different body types," Mr. Miller said. "Production will go forward very soon and as rapidly as tooling of the plant can be effected."

It is understood the Harvester Company expected to announce through its dealers the complete specifications and details of the new vehicle about Oct. 1.

George A. Ranney, vice-president of Harvester, from Chicago, issued following statement:

"International Harvester Co. is now making final tests here of a half-ton, six-cylinder truck, to be manufactured to its specifications by the Willys-Overland Co. of Toledo, to be marketed by the Harvester Company through its sales organization and under its name."

The International Harvester Co. in its 200 branches last year, employed more than 35,000 persons.

The company sold 20,000 large trucks last year, and has found active demand for a lighter truck.

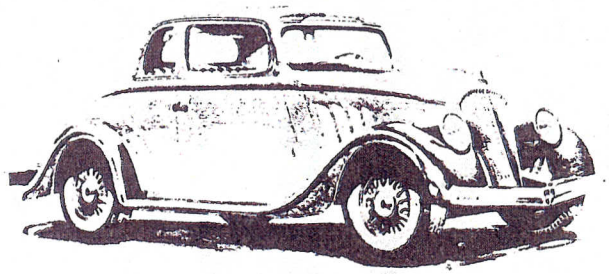
AUTOMOBILE TRADE JOURNAL OCTOBER, 1932 P 37

Willys-Overland has developed a special engine for International Harvester half-ton trucks. The engine and chassis for the trucks will be made in Overland plants while International will provide the bodies. The Harvester company feels that an automobile manufacturer can do a better job in designing and producing a light commercial vehicle.

MOTOR for P 98 11/32

THE WILLYS 77

Dream Car of the Depression



by Bernard R. DeRemer

It was 1933...the nation staggered and struggled under the terrible Depression...FDR was inaugurated proclaiming, "The only thing we have to fear is fear itself,"...the bank holiday closed all financial institutions from March 6th through the 9th...CCC camps sprang up across the country providing jobs for some of the millions of unemployed youths...and to dispell the gloom, people danced to "Smoke Gets in Your Eyes" or laughed at Disney's *Three Little Pigs* in the movies.

"When the bank closed we lost our money and we lost our house and had to sell the car," became a familiar litany during the '30s. The automobile industry, which had soared to such dizzying heights in the roaring '20s, was reeling under the impact of a ruined economy. Surprisingly, however, while new car production slumped 75% from 1929 to 1932, motor vehicle registration slipped only 10% — the family car could no longer be considered a luxury; it had become a necessity.

Against this stark background the "Dream Car of the Depression" — the 1933 Willys 77 — appeared. Its four-cylinder L-head engine boasted 32.4 miles per gallon at 20mph at a time when freeways were nonexistant and economy was vital. The 77 deserves to be remembered as the first true American-made compact car (though the term would not come into use until much later).

Willys was the brainchild of John North Willys, who started a bicycle sales firm at the age of eighteen. Upon gaining control of the Overland Automobile Co. in 1908, Willys organized Willys-Overland in Indianapolis. He later bought Pope-Toledo of Toledo, Ohio, and moved the Willys-Overland (W-O) plant there also.

Over forty manufacturers producing dozens of makes were competing for the consumer's favor in 1926 when Willys introduced the Whippet. A few years later, the Whippet captured fifth place in sales (behind Chevy, Ford, and Buick/Essex jockeying for third).

The Whippet paved the way for Willys' highly innovative 77, which made its debut at the New York Auto Show in December 1932. Observers at the show called the styling "audacious" and "radical streamlining." The Willys 77 was offered in either standard or custom design; the lowest priced model, a 2-passenger coupe, could be bought for $430.

Other 77 specifications:

- All steel body;
- Double drop X-type chassis frame;
- "Floating power" flexible mount (a concept Plymouth pioneered in 1931);
- 100" wheelbase;
- 48bhp at 3200rpm;
- Top speed of 70mph;
- Bendix mechanical brakes.

In January of 1932, Willys proudly announced to 700 distributors and dealers gathered at the Commodore Hotel in New York City that retail sales and factory orders (for all W-O cars) were so far ahead of the previous year that he "was confident the company's 1933 business would be more than three times that in 1932." This statement was not considered overly optimistic at the time. The 77's "distinctively perky styling" and outstanding economy appealed to belt-tightening Americans and the car appeared to offer great promise. Advertisements proclaimed that "America's lowest price motor car" would "Save Money Every Mile."

Unfortunately, Willys officials reckoned without the reality of the grim financial troubles of the Depression. The sales slump of 1931-32 had greatly depleted working capital. In January 1933 W-O produced 5400 passenger cars and trucks, mostly the new 77 model and ½-ton trucks for International, but creditors were beating down every door in the Toledo plant and 8000 factory workers hadn't been paid for weeks. Finally, on February 15, 1933, Willys-Overland was forced into receivership in order to permit a reorganization of the capital structure of the company, continue production, and maintain employment as much as possible. John N. Willys, chairman of the board, and L.A. Miller, president, were appointed receivers. The next month, obligations rose to $3 million.

But Willys-Overland did not lay down and die. Workers were placated when 20% of their back pay was received, and more paid out in increments until May 20, 1933 when all employees were paid in full. The court approved construction of the first 1600 cars and gradually increased these numbers until 5300 units were authorized in August. Such limitations greatly handicapped sales — certainly if more cars had been built, more would have been bought — but as it was sales rose slowly:

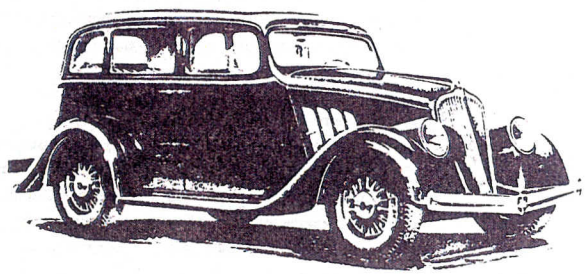
1933	15,667
1934	6,576
1935	10,439
1936	12,423

John North Willys. Although he died in August 1935, his vision and resourcefulness were responsible for pulling Willys through the Great Depression intact.

In the midst of the struggle, honors came to Willys. In 1934 a 77 won the Briarcliff Trophy road race against several other makes, and another 77 came in fourth. Times improved and a panel delivery was added to the line in April 1935. But the enormous pressures of keeping a company afloat took their awful toll on John Willys. In June of 1935 he suffered a heart attack and died in August — six months before receivership ended for Willys-Overland in February 1936. The company, but not the man, survived the Depression.

The Willys nameplate was actually produced from 1929-41 and 1951-55, but the familiar four-cylinder 77 lives in history as the engine design powering the ubiquitous Jeep of World War I fame. And of course this pioneer helped pave the way for a multitude of later compacts, one of the greatest revolutions in the industry.

The 1933 Willys 77 four-door sedan (base price $440) was capable of delivering up to 32mpg (albeit at a traffic-impeding 20mph). The engine was a 48bhp four-cylinder L-head which would take the car up to 70mph.



When Willys Stole the Show

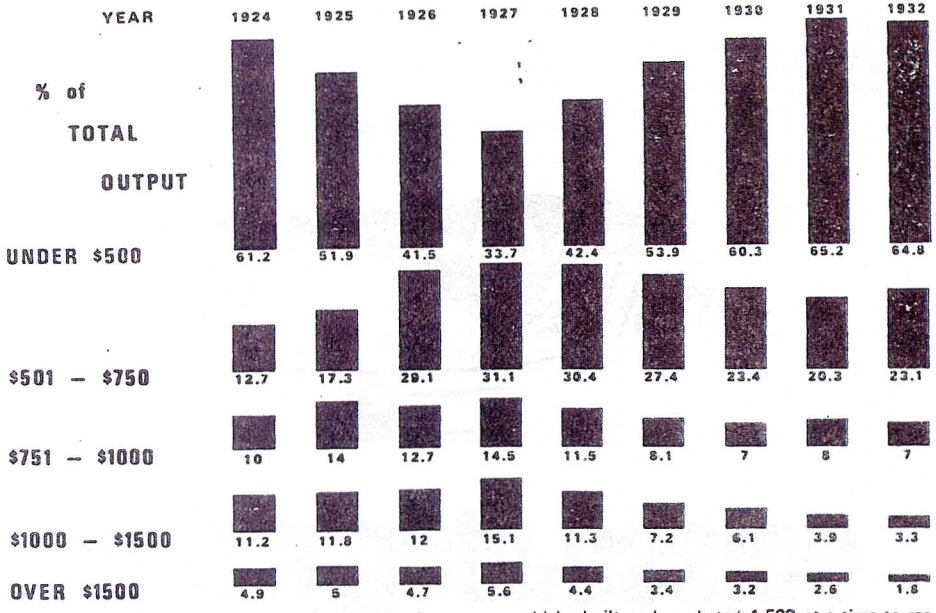
by

Tom Horace

The 1933 Willys was probably the most radical departure from company tradition since Willys introduced the Knight sleeve valve engine back in 1915. Over the years there had always been changes and improvements in styling and mechanical aspects. There had also been introduction of completely new models such as the Whippet in 1926. But 1933 was a revolutionary year because of financial conditions and John North Willys felt a revolutionary car was needed to save a faltering company.

Common stock holders consecutively passed preferred stock dividends three times and according to the charter of the original company this signaled the preferred stock holders to take control of the company. Mr. Willys, at this time, owned about 5 million dollars worth of preferred stock, and with this turn of events, was persuaded to resign as ambassador to Poland and return as head of Willys Overland, Inc.

According to a study made by James Dalton for Motor Magazine, automobile sales went down about 2 per cent in 1932 as compared with 1931 sales. However, 64.8 per cent of all cars sold were in the under $500.00 price range. So Willys decided to construct a car for this price bracket (the 77) and garner a considerable share of sales in the low-priced field. He also made plans to market a 6 cylinder car (the 99) in the under $600.00 price range because statistics showed that 23.1 per cent of the remaining prospective buyers purchased cars in this price range.



The Willys 99 was never put into production because the bank from which Willys had borrowed money to re-tool for 77 and 99 production failed before plans for the 99 were complete. So in order for Willys-Overland to survive, the 77 had to carry the burden. Unfortunately, a receivership had to be called because of the bank failure and the large debts the company incurred re-tooling and advertising for 1933. However, the courts ruled that the Model 77 could be built and marketed 1,500 at a time to see if the company could stay afloat financially. These events were a great blow to Mr. Willys. So plans for the 77 were completed and the car was put into production.

When the 77 was officially introduced to the public at the national automobile shows across the country, it created quite a stir for a low-priced car.

WOKR

Motor magazine even had the 77 headline its feature article on all of the 1933 cars in its annual show number edition of the magazine. (see cover) The Willys, with a heavy English styling accent, was about the most streamlined car in 1933. Why John N. Willys decided on such a heavy English flavor for the car is unknown to the author, but perhaps he had an eye on the European as well as the American sales market.

The Willys 77 was the style leader for 1933 according to Motor magazine. It had all of the new trends in styling; skirted fenders, sloping radiator, grill and hood; new all steel wheels; floating power (under license from Chrysler) and an X frame that was very popular with all automakers in 1933. The 77 did not feature the no-draft ventilating system that General Motors cars stressed, nor did it have an automatic choke or dash mounted starter button, but it was the only car to have a spare tire that was recessed into the rear panel to complete the total streamlining effect. As Motor Magazine stated "The rear views of cars have really been cleaned up. The boast has been made before, but this year, for the first time, the claim was really true. Beautiful, graceful rear panels, with all gingerbread removed are the rule." In 1934 Willys would add an optional spare tire cover to further the streamlining effort.

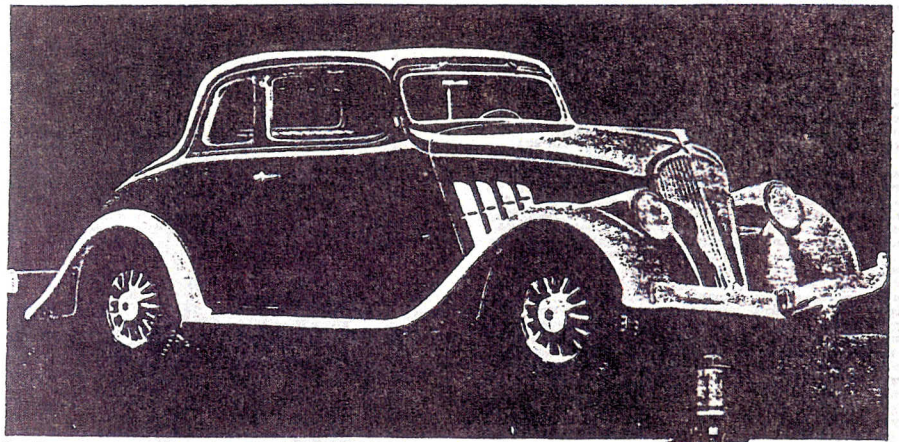
But the most distinguishing feature of the Willys 77 styling was the headlights that were neatly blended into the one piece fender unit which included hood sill and splash pan as well as the headlights. Willys was one of the first manufacturers to develop the complete one piece fender unit. Only one other car in 1933 offered headlamps in the fender and that was the Pierce Arrow, which sold for $2,785.00.

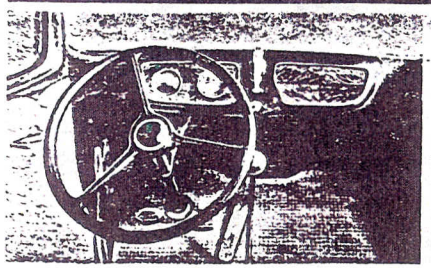
It was not until 1937 that other manufacturers began to follow this Willys and Pierce Arrow styling trend. And, besides Ford, it was not until about 1940 that Chevrolet and Plymouth accepted the idea for low-priced cars. So with these credits in styling, the Willys 77 became the low-priced sensation. To compliment the styling, the 77 was a well engineered car, mechanically designed to give very economical and dependable performance. As Motor Magazine stated "Willys . . . an economical four cylinder car with the most unusual appearance of any car at the shows. Price under $500.00, wheelbase 100 inches, weight 2100 pounds, top speed is 70 mph and it rides well at this speed. Bore and stroke, 3-1/8 by 4-3/8; piston displacement 134.2 cubic inches; 48 hp at 3200 RPM."

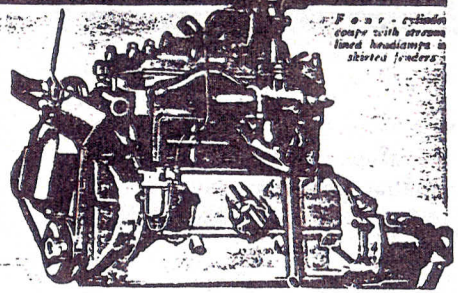
The 77 was offered in four models; a four passenger four door sedan, a two passenger coupe with a two place rumble seat optional, a roadster with the same seating capacity, and a panel truck.

By February 18, 1933, when Willys-Overland offically went into receivership, the company reported that 77 shipments for January, 1933, were 87% above Willys-Overland shipments for the same period of 1932. It appeared that the 77 could save the company if sales remained high. However, Willys-Overland was $3,000,000 in debt at this point. But the fact that the receivers, and later on the Ohio courts, permitted only 1500 to 5000 Willys 77's to be built and sold at a time undoubtedly had a bad effect on sales. If the public's confidence in the 77 had not been undermined by these court procedures involving Willys-Overland, 77 sales probably would have been at least 30% higher. But who could blame a consumer for not buying the car when he heard and read reports that the company was close to extinction.

In spite of this bad publicity, the styling and engineering of the car was so good that 12,820 were built and sold. The company was able to pay the employees their full wages by May of 1933. Even some of the creditors were paid and plans were drawn up for the 1934 version of the 77. Thus, the 1933 Willys 77 not only stole the show, it also set the styling pace, in certain respects, for the later 1930's and saved the Willys-Overland Company during the early thirties when the company faced its most serious crisis. It also sired the 77 line of which, over the next four years, 67,579 units would be produced.







Four-cylinder coupe with streamlined headlamps in skirted fenders

The instrument board on the four. Left—Four-cylinder all-steel body

The four-cylinder engine has an air cleaner and silencer, and downdraft carburetion. The fan belt also drives the generator

Willys Low-Priced Four and Six

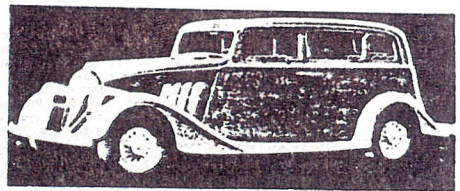
Floating Power—25 M. P. G.—70 M. P. H. A *Similar Six Has Speed of* 80 M. P. H.

THE Willys-Overland Corp. presents a style leader, priced under $500, with a 3⅛ by 4¾ inch, L-head four-cylinder engine having a piston displacement of 134.2 and developing 48 h.p. at 3200 r.p.m. There is a six along similar lines. The four-cylinder four-door sedan, ready for the road, weighs 2100 pounds. The wheelbase is 100 inches, tires are 17 by 5 and the tread is 51 inches—because this low-priced car was definitely designed for four passengers and not for five. Principally because of a well-worked-out frame design, the car is exceptionally low. This fact, plus the tread, plus unusually fine streamlining gives a top speed of 70 m.p.h. and the representative of MoTor who drove the car can testify that it is steady at full speed and rides well at all speeds. Floating power mountings make the engine smooth; and complete insulation covering all panels of the car including the steel floor insures maximum quiet. Its good riding quality is based on adequate springing, hydraulic shock absorbers and axles which are amply strong but without excess weight. Keeping abreast with traffic through towns and cross country, the fuel consumption is stated to be 25 m.p.g.

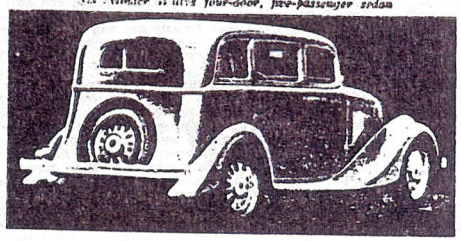
Engine features include a combination A.C. intake silencer and cleaner, downdraft Tillotson carburetor, camshaft-operated fuel pump with filter, fuel line outside frame, fully automatic spark advance, exhaust valves with high-speed steel inserted seats for freedom from valve grinding, crankcase ventilation, pressure lubrication to main, rod and camshaft bearings, with oil passages drilled in crankcase, a Float-O device which enables the gear pump to draw oil from the top surface, a heavy three-bearing crankshaft with thin, steel-backed, babbitt-lined interchangeable bearings, a four-bearing camshaft with 1¼-inch silent chain drive, cast iron pistons with four rings including one for oil control, floating wrist pins with bronze-bushed rods, centrifugally cast rod bearings. A fan shaft which also drives the pump is carried on a ball bearing. The compression ratio is 5.13. Exhaust and tail pipes are fabric mounted.

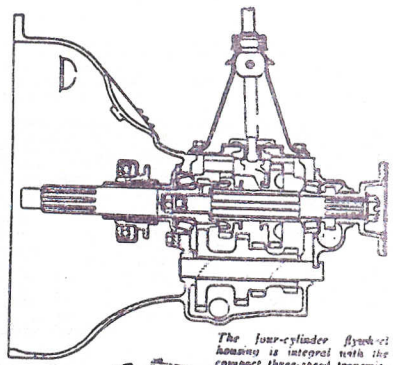
THE engine has floating power mountings under Chrysler license. One mounting is high at the front and the other beneath the rear of the transmission. The motion of the engine is steadied principally by a rubber mounting at the right but also by a 45-degree mounting at the side of the transmission. A special clutch linkage prevents the motion of the engine from being transmitted to the pedal. Clutch and brake pedals are ingeniously mounted on the brake cross shaft. The clutch is a single plate with spring-cushioned hub and the transmission is a conventional spur-geared three-speed with taper roller bearings on main shaft, ball-thrust throwout bearing and bronze bushed countershaft cluster. The gearshaft lever housing is die-cast.

The drive shaft is fitted with needle bearing universals. The semi-floating rear axle is a new design, light, sturdy, compact and simple. The central housing is a single malleable iron casting to which are welded steel tubes running to the wheels. The complete carrier assembly is inserted from the front. The pinion is straddle mounted on double taper roller bearings forward and a single Hyatt roller rear. Differential and wheel bearings are taper roller. Brakes are two-shoe Bendix 9 by 1¾. The gear ratio is 4.3.



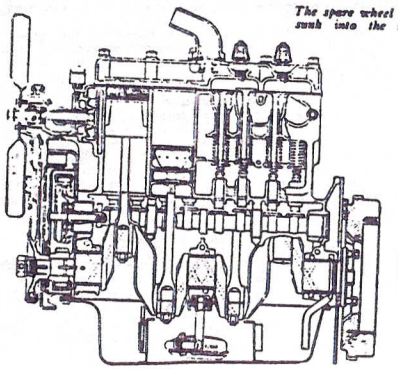
Six-cylinder Willys four-door, five-passenger sedan

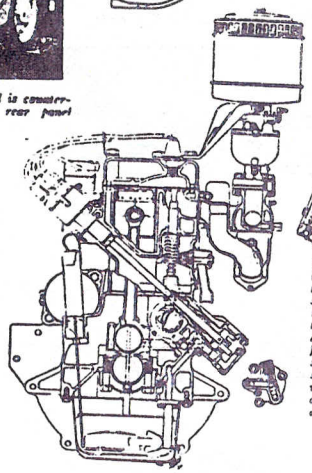


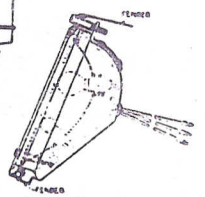


The four-cylinder flywheel housing is integral with the compact three-speed transmission. The mainshaft has tapered roller bearings

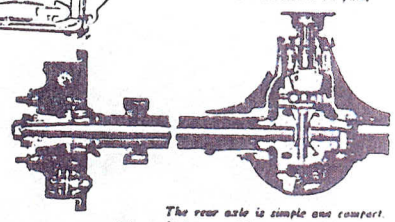
The spare wheel is countersunk into the rear panel



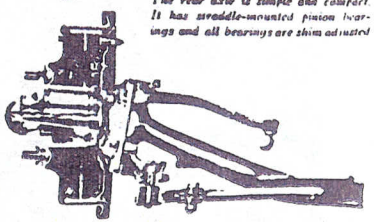




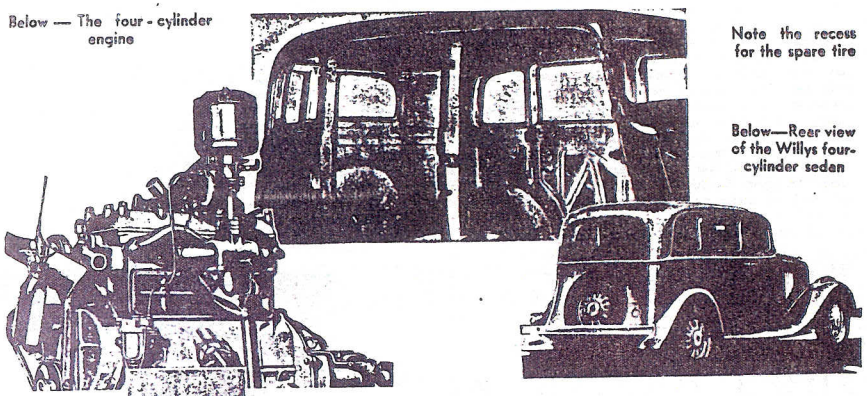
The headlamps in the fenders may be pointed by adjusting the three equally spaced screws (two shown). Usually it is only necessary to adjust the top screw. Left—The two engine sections show various features including high-speed steel inserts for exhaust valve seats, the Float-O device which permits the pump to draw oil from the top surface, crankcase ventilating system and accessible oil pump



The rear axle is simple and compact. It has straddle-mounted pinion bearings and all bearings are shim adjusted



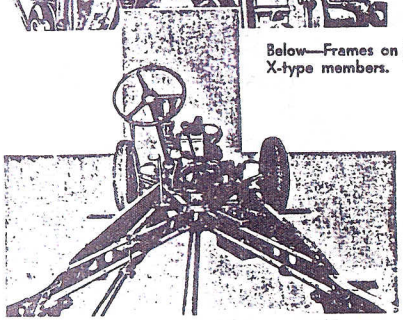
Forging the steering knuckle and its arm or arms from a single piece of steel is a unique front axle feature which increases safety. Drag link and tie-rod are straight, the latter being rubber bushed. Rounded ends on the I-beam axle give improved stiffness against braking torque



Below — The four-cylinder engine

Note the recess for the spare tire

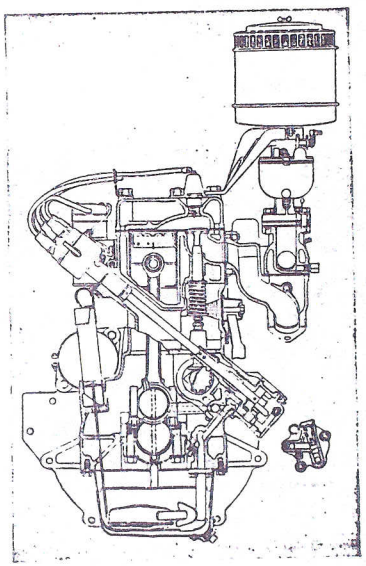
Below—Rear view of the Willys four-cylinder sedan



Below—Frames on both models have X-type members. The four is shown

Willys

New fours and sixes carry a streamlining to unprecedented lengths. Floating Power engine mountings used. Wheelbase on four 100½ in., on six 113 in.



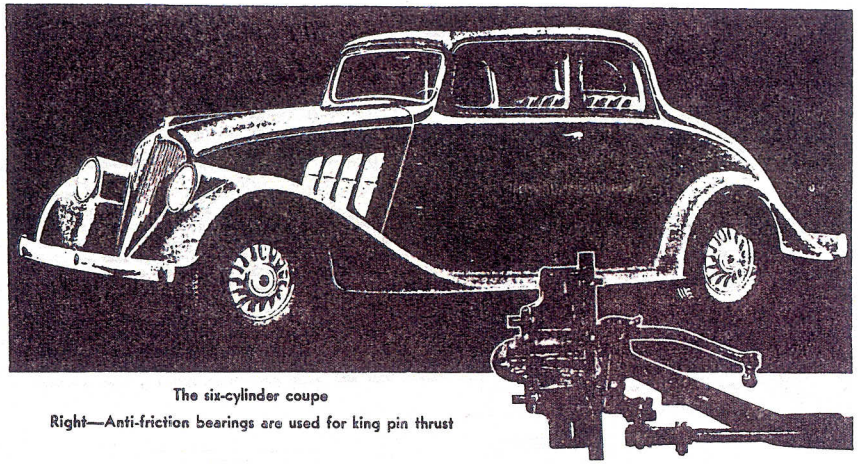
Valve inserts and four-ring pistons are featured in the four-cylinder engine

STREAMLINING of bodies reaches new lengths in the two lines of cars offered by Willys-Overland, Inc., for 1933, a "four-passenger, four-cylinder" model, the 77, on a 100½-in. wheelbase with 51-in. tread, front and rear; and a "six-passenger, six-cylinder" chassis, the 99, on a 113-in. wheelbase and 58-in. tread. Floating-power engine mountings under Chrysler patents are used on both the 3⅛ x 4⅝ in. four and 3 5/16 x 4⅝ in. six.

In appearance both cars have the same general fundamentals of design. The 77 is expected to have list prices well below anything the industry had to offer in 1932 (excepting the American Austin). A coupe, a convertible roadster and a sedan are offered in both standard and "custom" lines on each chassis. In addition, there is a cab delivery with pick-up body, and a panel delivery on the four-cylinder chassis.

In the brighter colors, especially, are the new lines striking. Hoods curve downward toward the front, reducing head-resistance by directing the flow of air over the top of the body. A keel reminiscent of those high-speed cars, which battled for speed records at Daytona a year or so ago, carries the center line of the hood forward to prevent a "stubby" appearance.

The use of a two-passenger rear seat in the four and, what virtually amounts to a three-passenger front seat in the six, is in line with body streamling requirements. Low over-all height to reduce head-resistance is perhaps next in importance in that direction. Contributing to



The six-cylinder coupe

Right—Anti-friction bearings are used for king pin thrust

Bodies Audacious

this end are an unusual roof construction at the rear and the ability, in the four, of reducing the clearance between the axle housing and the body, without an occasional "striking through."

Wheels and tires are almost cowled with relatively short and skirted fenders. At the rear, the spare tire is recessed into the body panel. Headlamps are built into and streamlined in the fenders in a manner not expected in a low-priced car.

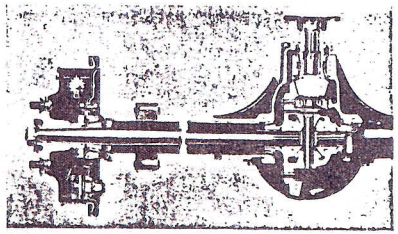
The swinging type windshields, operated through a central toggle control, are sloped and have rounded header panels. Side panels and doors are also curved considerably, with the maximum body width at about the belt line.

Wheels are of an unusual disk type, with a waved surface resembling spokes. Furnished by Kelsey Hayes, they are designed particularly for light weight.

The new cars have a false radiator front well ahead of the actual radiator and in line with the straight-across front edge of the fenders. Between the radiator front and the radiator, at the bottom is a mud-splasher acting as an air scoop for additional cooling capacity. The design, especially with the wide hood design (for wind-resistance reduction) opens up considerable latitude in radiator construction, permitting the use of a simple rectangular core with no dead cells.

Body sills and cross sills are of steel, contributing to low over-all height. Of steel also is the unit rear seat pan and rear floor pan. The former has a rubber diaphragm insert over the center of the axle housing. Turning next to the roof, we find the sloping rear body panel curved forward and extended to a point level with the front of the rear quarter windows in the sedan. Ahead of this, there is the normal type of French roof construction, set down into the body. The additional headroom space over the rear seat gained with this construction is effective in permitting a reducton in over-all height at the rear of the car, both for streamlining and appearance.

In spite of the short wheelbase for the four, there is a surprising amount of legroom. Seats are adjustable fore and aft and up and down, although the regulation is not of the quick adjustable type. It is claimed that the use of individual front seats in the four-door sedan permitted an increase of one inch in both front and rear compartment legroom.



Details of model 77 (four-cylinder) rear axle)

The interesting headlamps with their sloping lenses are spring mounted in the fender with three screws, which also serve as a simple adjustment method for headlight beams and focusing.

Both new cars have exceptionally good performance and economy, due in part to the low weight, but even more to the streamlining. A top speed of 71.5 m.p.h., average, has been clocked on these cars, according to Willys-Overland engineers. Fuel consumption tests on the four are claimed to have shown 32.4 miles per gal. at 20 m.p.h., 27 miles per gal at 40 m.p.h., and 20¼ miles per gal. at 60.

On the considerably larger six, a maximum speed of 80 m.p.h. is claimed. It has an engine of larger capacity than the Willys six of last year, developing 81 hp. as against the former 67. Fuel consumption figures on this car, similarly, are surprisingly good, early tests are said to indicate.

While the Whippet engine of a few years ago might be said to have been the prototype of the new Willys four, the latter engine differs from it in virtually every detail and dimension, with the exception of bore and stroke, the new engine developing 48 hp. at 3200 r.p.m. Smoothness is

imparted to powerplant operation, particularly by the adoption of floating-power mountings under Chrysler patents. Torque reaction is taken care of by a rubber torque resister located between the rear of the motor block and the right X-member leg at its juncture with the side rail.

The specifications [redacted] show the general design characteristics of the engine. It should be noted that maximum power speed is 3200 r.p.m. as against 2800 on the Whippet. The engine has been designed with durability in mind. Features are large diameter crankshaft, bronze bushing for the front camshaft bearing, exhaust valve seat inserts of high-speed tool steel to reduce valve pounding and permit longer intervals between valve grinding, combination AC air cleaner and intake silencer, AC fuel pump with strainer, four ring pistons, replaceable interchangeable connecting rod liners, thin wall interchangeable steel backed main bearings, vibration damper on the crankshaft, pressure lubrication to all bearings except piston pins, etc.

Generator drive is by fan belt, and camshaft drive is through steel crankshaft, and semi-steel camshaft gears. Spark advance is full automatic.

Single-plate Rockford-Borg & Beck clutches incorporate helical damping springs in the hub for vibration insulation. Clutch throwout is by a pantograph arrangement from the brake cross-shaft, which supports the pedals on this car. The throwout linkage incorporates a cable instead of a rod for the actual throwout mechanism. There is a very compact spur gear transmission with a Timken taper roller bearing mounted mainshaft.

Universal joints are of Universal Products manufacture and of conventional design. Rear axles incorporate a straddle-mounted pinion with shim adjustment. The forward bearing is a Hyatt roller, riding directly on the integral pilot shaft. Differential side bearings are also shim adjusted, and are Timken rollers.

Front axles are of I-beam section, a reversion from last year's tubular axle in Willys-Overland cars. King pin thrust bearing is a Timken roller. The steering gear of the Saginaw Products roller bearing worm type is mounted on top of the upper frame flange, height of the column being adjustable. The two shoe Bendix brakes are 9 in. diameter.

Frames have kick-ups over both front and rear axles for low body height. The X-member is located in such a manner that it terminates at, and serves to reinforce, the frame at the rear spring hangers for the front springs and the front hangers for the rear springs. At the front there is a K member whose legs are extended back to form a box section with the side rail, to the point where they are overlapped by the ends of the X-member forward legs. This forms a triple thickness section approximately at the cowl location, reducing localized deflection at this important point to a minimum.

These are two cross-members at the rear of the frame; these being jointed by a stamping which forms the rear wheel and tire carrier, extended up between the back of the rear seat and rear body panel

Springs are conventional with Tryon shackles. Four hyraulic shock absorbers are standard equipment.

Engines in the Willys 99 follow more closely the general design of the previous Willys six than does the four follow the Whippet. There is, however, little interchangeability between the two engines. Bore and stroke of 3 5/16 by 4⅞ compare with 3¼ by 4¼ last year, for a displacement of 213 cu. in in the new engine.

Details of design, differing from previous practice, include floating-power mounting for greater vibration and noise insulation, interchangeable connecting rod liners in the big ends, four ring pistons, full floating piston pins, thin-wall interchangeable main bearings of the steel-backed type, exhaust valve seat inserts as on the four, dash-operated manifold heat control, a new water pump and a new downdraft carburetor.

The throwout mechanism for the clutch is similar to that on the four, except that there is a separate shaft for the pedal mounting on the frame. Transmissions are helical gear constant mesh for countershaft drive and second speed, include a synchronizing mechanism for shifting, and a double-stepped tooth design permitting lighter spring pressures for the synchronizer lock without danger of clashing. Free wheeling is optional and of roller-cam design.

Universal joints are similar to those on the four, but of greater capacity. There is a new rear axle as compared with the Willys six of last year, but of more conventional design than on the four. Here also pinion bearings are shim adjusted in the carrier, and there are larger shafts, differential gears and bearings than in the 1932 six.

Front axles, as on the four, are of I-beam section this year. Brakes are similar to 1932 design. Frames in general design follow those in the four. A difference is that the spare tire and wheel carrier is mounted on the rear cross-member and braced with a tie-bar to the forward member of the two at the rear, rather than forming this of an unnecessarily heavy stamping. The carrier runs up between the body rear panel and seat back as on the four.

Rear springs on the six are carried in Amplex Mfg. Co. rubber bushings, with Tryon shackles continued for front springs.

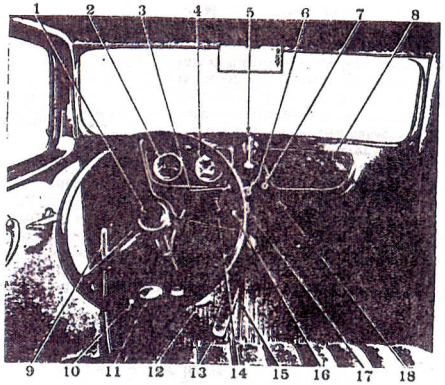
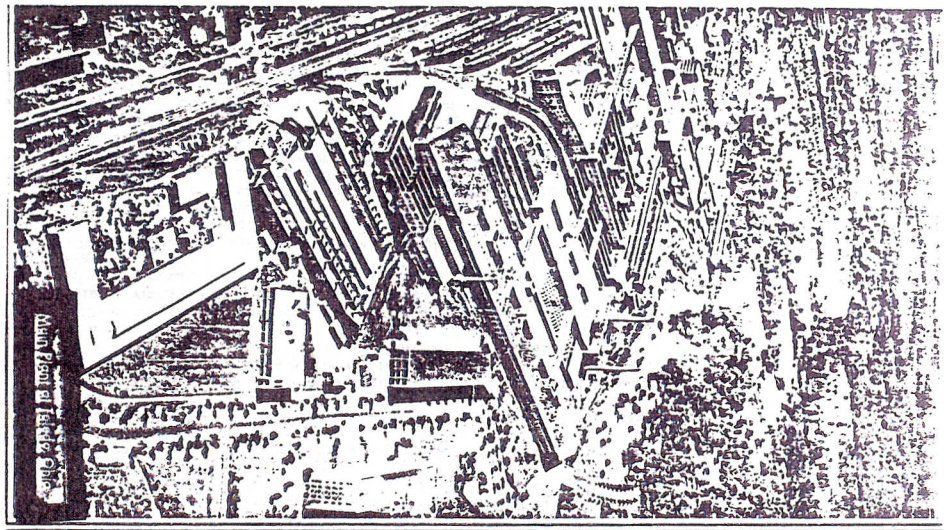
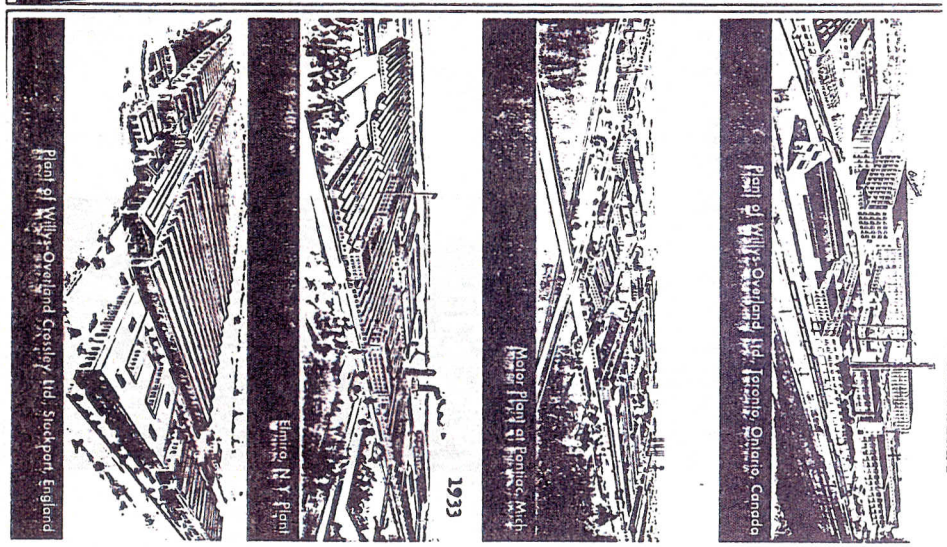


FIG. 1—CONTROLS

1—Horn Button
2—Gasoline and Oil Gauge
3—Choke Control Button
4—Speedometer
5—Windshield Regulator
6—Ignition Switch
7—Throttle Control Button
8—Glove Compartment
9—Brake Hand Lever
10—Headlight Auxiliary Control Switch
11—Clutch Pedal
12—Brake Pedal
13—Accelerator Pedal
14—Light Switch
15—Gearshift Lever
16—Starter Button
17—Cowl Ventilator Control
18—Instrument and Dome Lamp Switch

1933





1933

WOR

Willys-Overland Aims at Year's Lowest Prices: With Streamlined Four

by Athel F. Denham

Low overall height, curved down hoods, wheels nearly cowled by skirted fenders contribute to the striking streamlines of the new four and six-cylinder lines

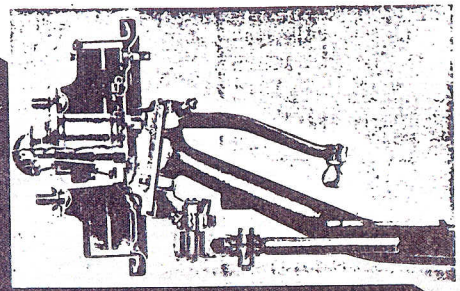
STREAMLINING of bodies reaches new levels in the two lines of cars offered by Willys-Overland, Inc., for 1933, a "four-passenger, four-cylinder" model, the 77 on a 100½ in. wheelbase with 51-in. tread, front and rear; and a "six-passenger, six-cylinder" chassis, the 99 on a 113-in. wheel base, and 58-in. tread.

Both cars are similar in general design. The 77 is expected to have list prices well below that of any 1932 car.* Three body models, a coupe, a convertible roadster, and a sedan, are offered in both standard and "custom" lines, on both chassis. In addition, a cab delivery with pickup body, and a panel delivery body are offered on the four-cylinder chassis.

The new body lines are particularly striking when the finish is in one of the brighter colors. Hoods curve down toward the front, reducing head-resistance by directing the flow of air over the top of the body. A keel extending along the center of the hood, forward, prevents a "stubby" appearance, especially from the driver's seat.

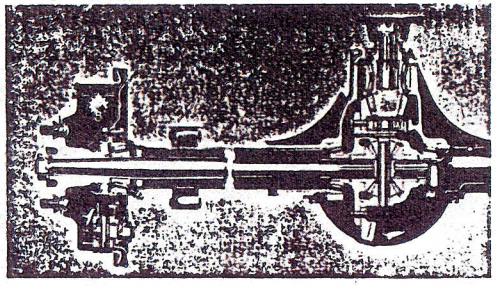
The use of a two-passenger rear seat in the four, and a three-passenger front seat in the six, is in line with body streamlining requirements. A low overall height, which reduces head-resistance, is made possible by an unusual roof construction at the rear and the ability, in the four, to reduce the clearance between the axle housing and the body without an occasional "striking through."

* Except the American Austin.



Willys 77 front axles have I-beam center section, and integrally forged steering knuckles and arms with good road clearance

Willys 77 four-passenger, four-door, four-cylinder sedan, especially striking in colors. Note the fenders, front and side, headlamps, and absence of a radiator shell



Section through the new Willys 77 rear axle

Parts that ordinarily project from the body are in this design worked into the body, as in aircraft design. Wheels and tires are almost cowled by relatively short and skirted fenders. At the rear the spare tire is recessed into the body panel, which slopes backward from the top down. Headlamps are built into and streamlined in the fenders.

Windshields, of course, are sloped and have rounded header panels. Side panels and doors also have pronounced curves, the body being of maximum width near the belt line. The slope of the side windows, incidentally, should help to reduce glare. The effectiveness of the streamlining is said to be reflected by the lack of a blast of air into the body when the windows are down.

Wheels are of an unusual disk type, with a waved surface giving the appearance of spokes. Furnished by Kelsey Hayes, they are designed particularly for light weight.

There are no separate front and rear body splash aprons, and the running board, which is formed integral with a very low side splasher, not only is blended into the front fender but actually forms a part of it.

The new cars have a false radiator front well ahead of the actual radiator, and in line with the front edges of the fenders. Between the radiator front and the radiator, at the bottom, is a mud-splasher acting as an air scoop for additional cooling capacity. With the wide hood used to minimize wind resistance, considerable latitude is permitted with respect to the form of the radiator, and a simple rectangular core with a minimum of dead cells is employed.

Front door pillars and door edges are sloped, as are the four louver doors in the rear portion of the hood.

Bodies are virtually all-steel and are manufactured by Willys-Overland in its Elyria, Ohio, plant, with some body stampings purchased outside. In the cowl, separate braces are largely eliminated by the use of a box-type of construction, whereby inner and outer cowl stampings are welded together into one unit. Only a short section of the cowl is exposed, in which a cowl ventilator is located.

Body sills and cross sills are of steel, which makes for reduced overall height. Of steel also is the unit rear seat pan and rear floor pan. The former has a rubber diaphragm insert over the center of the axle housing. The sloping rear body panel is curved forward and extended to a point level with the front of the rear quarter windows in the sedan. Ahead of this there is the normal type of French roof construction, set down into the body. The additional headroom space over the rear seat gained in this way permits a reduction in over-all height at the rear of the car.

The steel panel roof section is insulated against drumming. Windshields are of the swinging type, operated by a central toggle control. Doors, it will be noticed, are hung on the sloping front pillar. With this design the doors, of course, drop when being opened, but the movement is slight, due to the location of the hinges. Draft protection is provided by a shallow curved body sill.

While the spare tire is recessed into the rear body panel, it is not carried by this panel. The slope of the body toward the rear leaves space between the body panel and rear seat back for braces extending up from the frame, to carry the tire and wheel. Studs for attachment project through the body panel.

A very simple group of instruments, consisting of a speedometer, an oil-pressure gage and a gasoline-level gage, is carried on the dash of the four, on the left-hand side. This is balanced by a glove compartment on the right-hand side.

The six carries three instrument groups, including, in addition to those on the four, an ammeter and an engine-temperature indicator. This car also has a Startix automatic starting device. On the four the starter button is located on the dash immediately above the accelerator pedal, so that the operator can depress

New Willys prices:

Series 77

2-Passenger coupe	$395.
Rumble coupe	425.
Custom rumble coupe	445.
4-Door sedan	445.
Custom sedan	475.

Willys 99 6-cylinder price range $595 to $695.

the accelerator with his heel while starting the car, eliminating the necessity of shifting the foot back and forth.

The interesting headlamps, with their sloping lenses, are spring-mounted in the fender by means of three screws, which also serve as a simple adjustment method for headlight beams, and for focusing. The spring mounting, it is claimed, results in a surprising increase in filament life. Another set of three screws serve to remove the lens for access to the lamp. A rubber ring protects the lamp against dust from the road. Hoods have a single central control handle.

On the standard models, sheet metal is finished in black, with black interior moldings and cloth trim. Deluxe models have the sheet metal finished to match the bodies, grained moldings, and mohair upholstery and trim. In the deluxe models, rear curtains are mounted at the bottom, on account of the slope of the rear panel, and are pulled up or let down by a remote control located in the headlining over the left front door.

The four-cylinder panel delivery has a single rear door, making possible the mounting of the spare tire and wheel in the door panel.

Performance and Economy

Both of the new cars have good performance and economy, due in part to the low weight, but even more to the streamlining. The shipping weight of the four-door, four-cylinder, four-passenger sedan is around 2090 lb. The engine develops its maximum power at a much higher speed than the Whippet engine a few years ago, the peak, it is said, being 48 hp. at 3200 r.p.m. A top speed of 71.5 m.p.h. is said to have been clocked.

Fuel consumption tests on the four are claimed to have shown 32.4 miles per gallon at 20 m.p.h., 27 at 40 m.p.h., and 20¼ at 60 m.p.h.

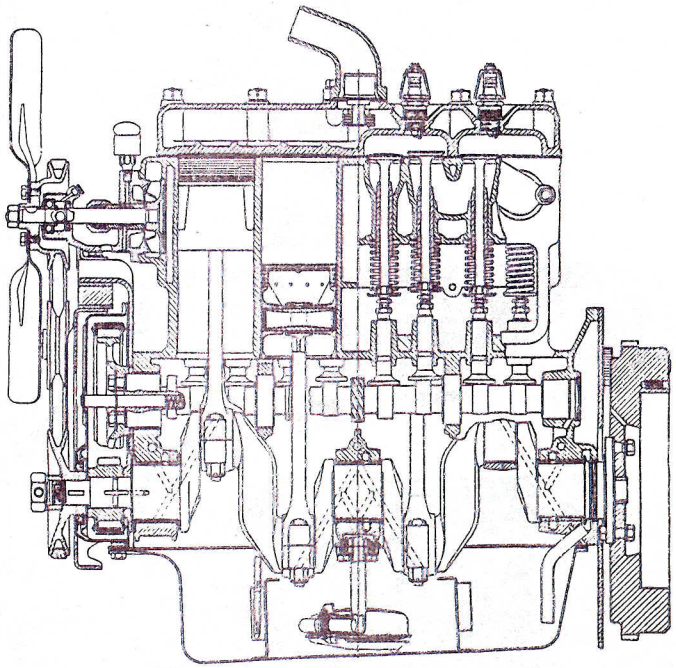
On the considerably larger six, with a shipping weight for the sedan of 2788 lb., and a road weight of 2885 lb., a maximum speed of 80 m.p.h. is claimed. It has an engine of larger capacity than the Willys six of last year, developing 81 hp. as against the former 67.

While the Whippet engine of a few years ago may be said to have been the prototype of the new Willys four, which has the same bore and stroke, the latter engine differs from it in virtually every detail. It has a "floating power" mounting under Chrysler patents. Torque reaction is taken care of by a rubber torque resistor located between the rear of the engine block and the right leg of the X-member at its junction with the side rail.

Numerous improvements in the details of the engine have been made. There is now a bronze bushing in the camshaft front bearing. Exhaust-valve seat inserts of high-speed tool steel reduce the effects of valve pounding. A combination air-cleaner and intake silencer of AC make is supported from the block by a special bracket. An AC fuel pump with strainer. Other new features include four-ring pistons; replaceable interchangeable connecting rod liners; thin-walled interchangeable, steel-backed main bearings; a vibration damper on the crankshaft, and pressure lubrication to all bearings except the piston pins.

Generator drive is by fan belt, and camshaft drive is through steel crankshaft and semi-steel camshaft gears. The distributor is mounted on an accessories cross-shaft, driven from the camshaft. Fuel lines are located outside the frame for protection against vapor lock, with flexible couplings in view of the use of flexible engine mounting. Exhaust pipes for the same reason are rubber-mounted. There is a manifold heater valve adjustable for seasonal changes. Spark advance is fully automatic.

The single-plate Rockford-Borg & Beck clutch incorporates helical springs in the hub. Clutch throwout is by a pantograph arrangement from the brake cross shaft which supports the pedals on this car. The throwout linkage incorporates a cable instead of a rigid link.

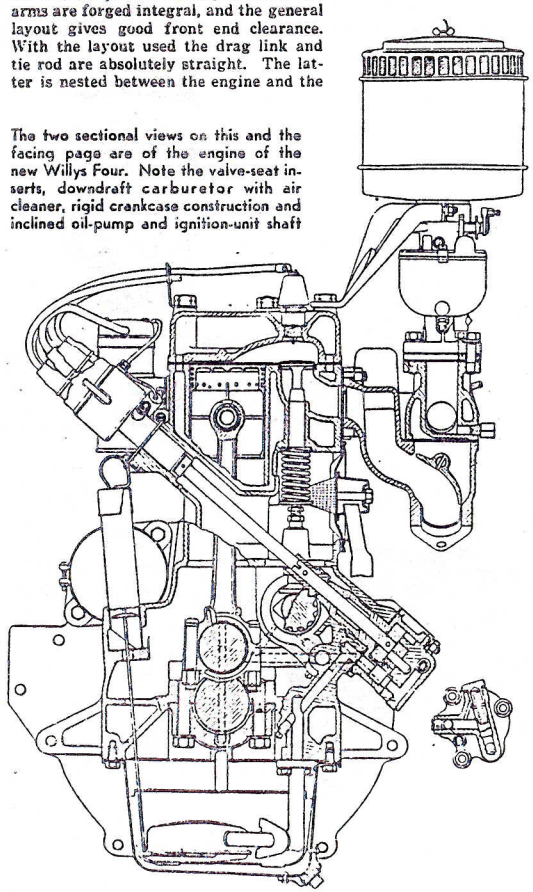


The very compact spur-gear transmission has Timken roller bearings on the main shaft. The unit is produced by Willys-Overland in its Elmira plant, which has been reopened.

Universal joints are of Universal Products manufacture. Rear axles incorporate a straddle-mounted pinion, shim-adjusted at the factory. Axle housings, gears and bearings are marked to permit ready selection of the shim thickness required. The forward bearing is a Hyatt roller, riding directly on the integral pilot shaft.

Differential side bearings are also shim-adjusted, and are Timken rollers. The axle housing is of simple, rigid, and economical design. It comprises a malleable center housing into which the axle tubes are driven and welded in place. Front axles are of I-beam section, a reversion from last year's tubular axle in Willys Overland cars. There are Timken roller bearings on the knuckle pins. Steering knuckles and arms are forged integral, and the general layout gives good front end clearance. With the layout used the drag link and tie rod are absolutely straight. The latter is nested between the engine and the axle, and has bonded rubber (Columbia Auto Parts) connectors. The steering gear, of the Saginaw Products roller-bearing worm type, is mounted on top of the frame side rail.

The two sectional views on this and the facing page are of the engine of the new Willys Four. Note the valve-seat inserts, downdraft carburetor with air cleaner, rigid crankcase construction and inclined oil-pump and ignition-unit shaft



It will be noted that the two-shoe Bendix brakes are of the new "low velocity" type, the drum diameter being only 9 in. and comparatively wide linings are used.

Frames have kick-ups over both front and rear axles. The X-member is located in such a manner that it terminates at and serves to reinforce the frame at the rear spring hangers for the front springs and the front hangers for the rear springs. At the front there is a K member whose legs are extended back to form a box-section with the side rail, that is overlapped by the ends of the X-member forward leg. This forms a triple-thickness section approximately at the cowl, where the bending moment is near its maximum. Steering gear and engine torque reactor brackets are also located at this point, one on each side.

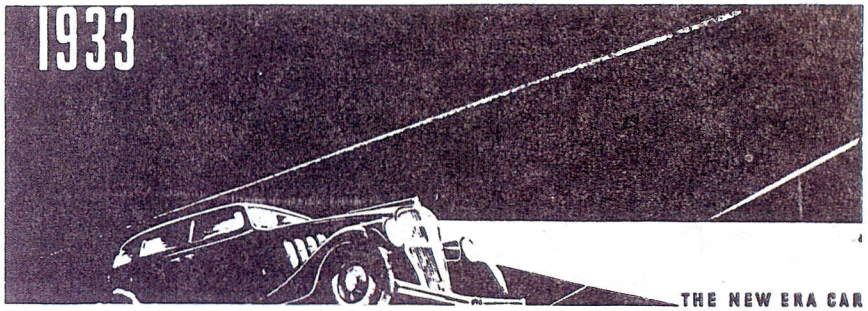
The spring suspension is conventional, and Tryon shackles are used. Four hydraulic shock absorbers are standard equipment. The fuel tank is concealed by the rear body panel, through which the filler spout projects. There are two cross-members at the rear of the frame, these being jointed by the stamped spare-wheel carrier.

Detail chassis weights are rather interesting. The front axle assembly complete with steering connections, etc., weighs only 48 lb.; a complete rear axle, 91 lb., and the frame, 117 lb.

Engines in the Willys 99 follow the general design of the previous Willys six more closely than four follows the Whippet. There is, however, little interchangeability between the two engines. Bore and stroke are 3 5/16 by 4⅞ in. as compared with 3¼ by 4¼ in. last year, the displacement of the new engine being 213 cu. in.. Maximum engine torque is now 150 lb.-ft. The standard axle ratio is 4.1 to one, while a ratio of 4.4 to one is optional for hilly country.

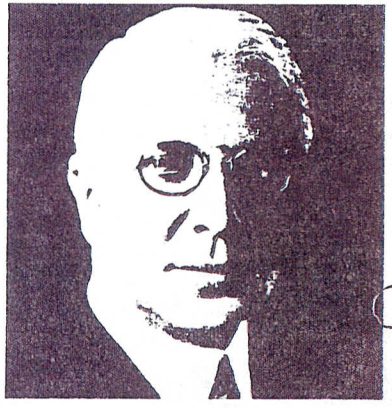
Details of design, differing from previous practice include "floating power" mounting, interchangeable connecting-rod liners in big ends, four-ring pistons, floating piston pins, thin-walled, interchangeable main bearings of the steel-backed type, exhaust-valve-seat inserts as on the four, heat control from dash, a new water pump, a new downdraft carburetor, and transmissions with integral bell housings.

The throwout mechanism for the clutch is similar to that on the four, except that there is a separate shaft for the pedal mounting on the frame. Transmissions have constant-mesh helical gears for countershaft drive and second speed, synchronizing mechanism for shifting, and a double stepped tooth design permitting lighter spring pressures for the synchronizer lock without danger of clashing. Freewheeling is optional, the unit supplied being of roller-cam design.



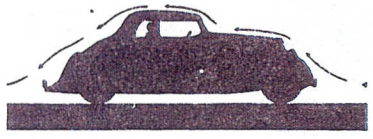
THE NEW ERA CAR

WILLYS 77

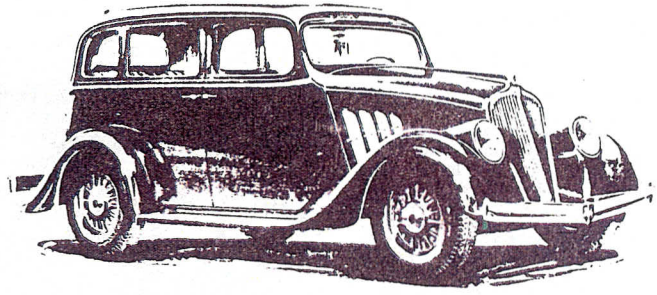


This car is new from bumper to bumper!

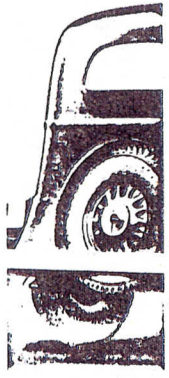
John N. Willys



● The design of the new Willys 77 is full streamline from front to rear—low, graceful, sweeping lines and smoothly rounded contours. The new fashion is further evidenced in the shrouded fenders, sloping hood and the headlamps in the front fenders. The chassis and under-mechanism are completely concealed. Streamline design greatly reduces wind resistance by eliminating air pockets which retard speed. Frontal air pressure is split instead of pushed; side winds are deflected over the body. The spare wheel, at rear, is recessed, completing the streamline motive.



NEW WILLYS 77 CUSTOM SEDAN



EXTERNAL BEAUTY MATCHED BY INTERIOR LUXURY AND ROOMINESS

● At the left is shown the rear of the new Willys 77 Custom Sedan. Note how the smooth streamlined contour runs from the rear upper corners clear down and past the extreme end of the frame. Further to reduce wind resistance, as well as to preserve beauty of outline, the spare wheel is fitted into a recess in the back of the body. At the right, the upper illustration is the interior of the new Willys 77 Sedan. There is plenty of head room, leg room and elbow room for four adult passengers. Both front and rear seats are wide and deeply cushioned, with backs tilted at the correct angle for maximum comfort. The lower view shows how the dials on instrument panel are clearly visible from the driver's seat. Instruments include speedometer, fuel and oil gauges. In the right side of the panel is a lined compartment for small packages.

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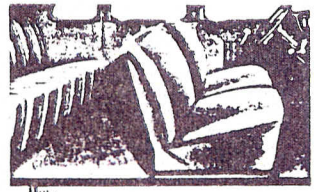
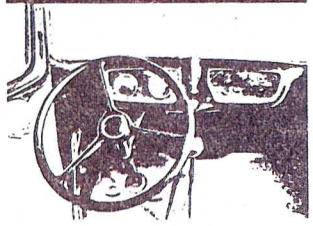
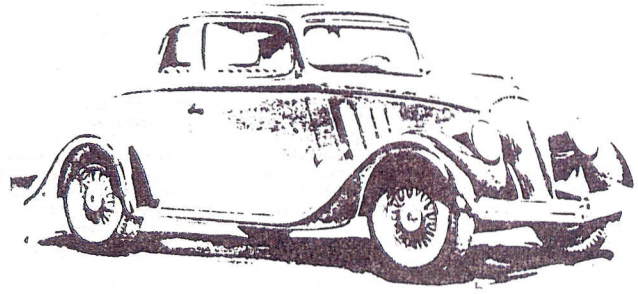
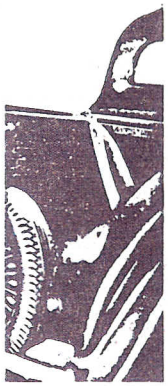




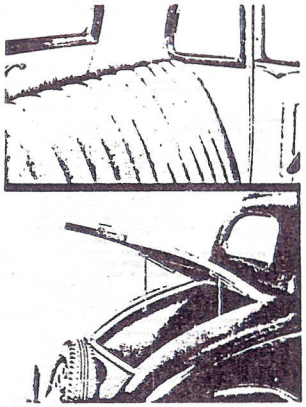


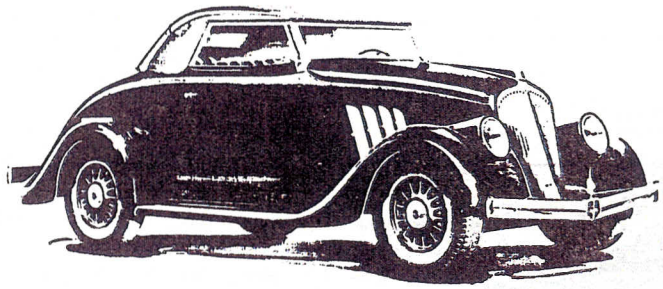
NEW WILLYS 77 CUSTOM COUPE



COMFORT AND CONVENIENCE TO A DEGREE UNUSUAL IN A LOW-PRICED CAR

● In its arrangement and appointments, the new Willys 77 introduces to the low-priced field an advanced idea of comfort and convenience. The upper illustration at the right shows the interior of the new Willys 77 Coupe. It is a spacious, comfortable compartment, with a wide, deeply upholstered seat. The upholstery fabric is of fine quality, pleasing in texture and color. The lower illustration at the right shows the roomy luggage compartment under the rear deck of the new Willys 77 two-passenger Coupe. The four-passenger model has a large rumble seat in the rear, which is pictured at the left. Even in this body type, you will notice how the spare wheel is skillfully fitted into a recess in the back of the body, to lessen wind resistance and to preserve symmetry. The Coupe is one of the smartest models in the new Willys line.





NEW WILLYS 77 CONVERTIBLE ROADSTER

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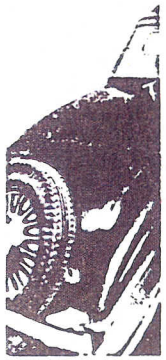
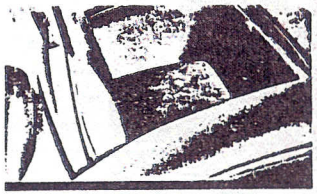
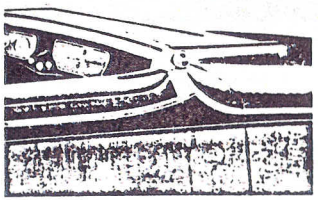
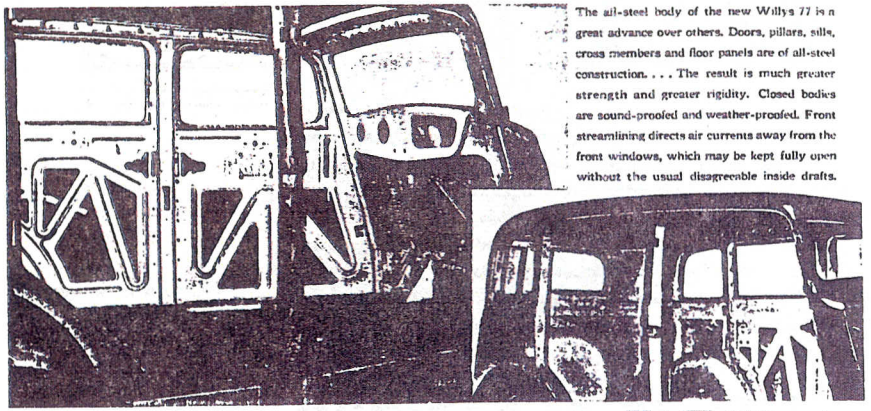


LOW FIRST COST COMBINED WITH EXTREMELY LOW UPKEEP

● The motoring public has never before been offered a standard car which costs so little to buy, to operate and to maintain as the new Willys 77. It is a car priced to meet lowered purchasing power—and in accordance with the general lowering of other commodity prices. Scientific design and rugged construction insure long life and dependability, with repair and upkeep costs reduced to a new minimum. The car will travel between 25 and 30 miles on a gallon of fuel. It is amazingly versatile in performance. Top speed is more than 70 miles an hour. It has lively acceleration and remarkable power on hills. It has a turning radius of 17 feet. At left: rear view of the new Willys 77 Convertible Roadster. Upper right: roomy rumble seat for two passengers. Lower right, front seat, showing how the new windshield lies flat, pointing forward.



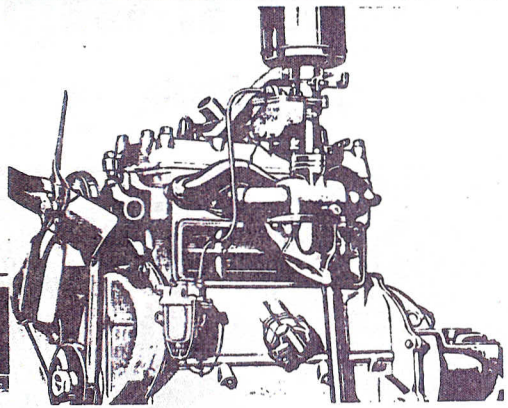


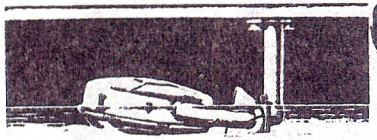


The all-steel body of the new Willys 77 is a great advance over others. Doors, pillars, sills, cross members and floor panels are of all-steel construction. . . . The result is much greater strength and greater rigidity. Closed bodies are sound-proofed and weather-proofed. Front streamlining directs air currents away from the front windows, which may be kept fully open without the usual disagreeable inside drafts.

PATENTED FLOATING POWER

The new Willys 77 is the very lowest-priced car with Patented Floating Power—the greatest step forward toward eliminating motor vibration. The engine is mounted on trunnions of rubber, front and rear. To the right of the engine is the torque arm—a bracket provided with a third rubber mounting, by which the torque or side movement is thoroughly absorbed. Below is illustrated the Float-O oil system—a notable advance, as it only allows the cleanest oil to go to the moving parts.





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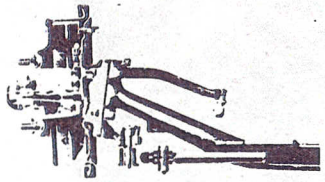
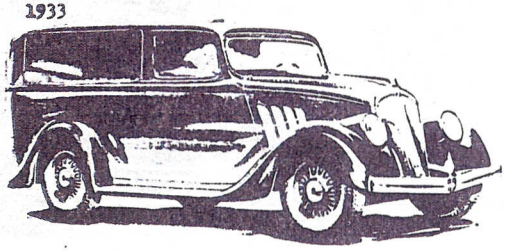
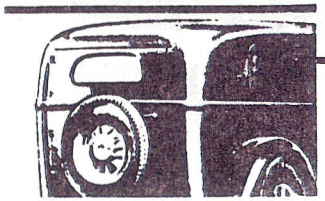






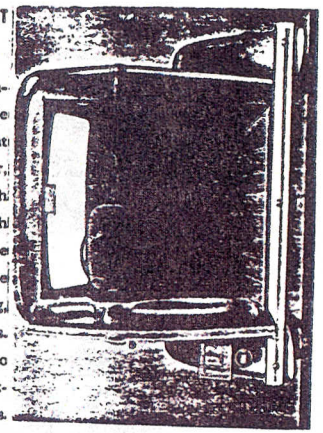
ABOVE: The front axle is notable for unusual torsional strength.

AT LEFT: Showing how Panel Delivery door holds a spare tire.

The new Willys 77 Panel Delivery, with its modern streamline design, well reflects the prestige of the business in whose service it is used. The body is one of large capacity, and the wide rear door facilitates loading and unloading. Many important engineering advantages insure long life, dependability and economical operation.

TRIM, SMART APPEARANCE COMBINED WITH PERFORMANCE THAT MEANS BETTER SERVICE AT LOWER COST

Quick delivery of orders creates satisfied customers—a necessity if clientele is to be increased. The Willys 77 commercial units fill a long needed want . . . speedy, low cost delivery of orders, increasing the merchant's turnover and actually saving money over cost of using heavier vehicles in similar service. The Willys Model 77 permits the field of sale to be broadened. New customers at more distant points can be catered to . . . To the travelling salesman the Willys 77 panel delivery offers greater capacity for samples, and personal luggage . . . Body dimensions are generous, as follows: . . . Inside length, from the back of the front seat (forward position) to the inside rear door, 60⅜ inches at the belt . . . Inside width at the belt, 43¾ inches . . . Inside width at floor, 40¼ inches . . . The width of the rear door opening is 35¼ inches at the belt; the height of the rear door opening, from the floor to the header, is 36 inches. Commercial car owners are certain to be pleased with the low operating expenses of the Willys 77 delivery units.



Generous load space of Panel Delivery.

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CONDENSED SPECIFICATIONS OF MODEL 77

POWER PLANT—Engine, four-cylinder, L-head type. Cylinder bore 3⅛ inches. Stroke 4½ inches. Piston displacement 134.2 cubic inches. N.A.C.C. horsepower rating 15.63; actual horsepower, 48 at 3200 r.p.m. Compression ratio 5.13 to 1.

ENGINE MOUNTING—Patented "Floating Power" with clutch pedal, brake pedal and hand brake lever mounted independent of power plant.

ENGINE LUBRICATION—Full pressure to crankshaft bearings, connecting rod bearings, camshaft bearings and timing chain. Direct spray to other engine parts. Float-O floating type oil intake. Capacity 4 quarts.

COOLING SYSTEM—Cellular type radiator. V-type radiator grille. Concealed filler pipe. Pump circulation. Centrifugal type pump in unit with fan. Four-blade fan.

CLUTCH AND TRANSMISSION—Single plate dry disc clutch. Three speeds forward, one reverse.

FRONT AXLE—Reverse Elliott type, heat-treated I-beam section. Timken roller thrust bearings and bronze bushings on steering knuckles.

REAR AXLE—Semi-floating, unit center type. Rear axle ratio 4.3 to 1. Differential on Timken taper roller bearings. Axle shafts removable with Timken taper roller bearings. Spiral bevel ring gear and pinion, nickel alloy steel.

STEERING GEAR—Worm and sector, semi-irreversible type, ratio 12 to 1. Turning radius, 17 feet.

IGNITION AND LIGHTING—Battery, USL 6-8 volt, 11 plate, 96 amperes. Starting motor, Auto-Lite; Generator, Auto-Lite; Head lamps, tilt-beam parabolic type. Parking light bulbs. Combination tail and stop light. Dash light, indirect. Fully automatic spark advance.

BRAKES—Four-wheel. Bendix duo-servo internal expanding, two-shoe type, self-energizing. Total braking area 134 square inches.

CHASSIS—Frame, double drop X-member type. Overall length, bumper to bumper, 156 inches.

WHEELS—Disc type. Spare wheel mounted at rear.

FUEL SYSTEM—Gasoline tank at rear. Mechanical fuel pump and filter. Gasoline gauge in instrument panel.

CONTROLS—Horn control at center of steering wheel. Throttle and choke controls, ignition lock on instrument panel. Head lamp beam controlled by foot switch.

EQUIPMENT—Hydraulic shock eliminators front and rear. Non-glare windshield. Remote door controls. Safety type steering wheel. Sound and weatherproofed bodies. Gasoline filter. Automatic windshield cleaner rear view mirror, dome light (Sedan). Foot pedals and treadle type accelerator rubber covered. Cowl ventilator. Hood ventilating doors. Rear window adjustable in Coupe. Concealed door check straps. Rear window curtain. Bumpers and safety glass at extra cost. Key for ignition and door locks. Tools.

For a period of ninety (90) days from date of purchase or until the car has been driven 4000 miles (whichever occurs first), if any part should have to be replaced because of defect or faulty workmanship, the replacement is effected by any authorized Willys-Overland dealer in the United States, without charge to the owner either for parts or for labor. The policy also provides for inspections and adjustments during the warranty period which will be furnished by the dealer selling the car, at no cost to owner except for lubricants. We want owners satisfied.

NOTE. We reserve the right to change prices, colors, and other specifications without notice.

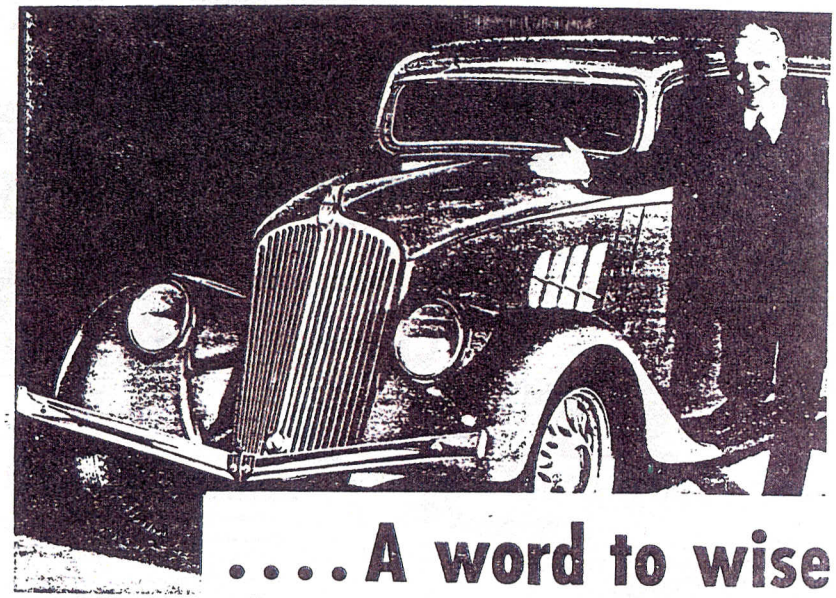
WILLYS-OVERLAND, INC. · TOLEDO, OHIO

Willys Export Corporation, Toledo, Ohio
Willys-Overland, Limited, Toronto, Canada
Willys-Overland Crossley, Limited, Stockport, England
Willys-Overland Crossley, G. m. b. H., Berlin, Germany

Printed by The Caxton Co., Toledo, Ohio, U. S. A.

1933

The New Era Car! NEW FROM BUMPER TO BUMPER.....



....A word to wise dealers is sufficient

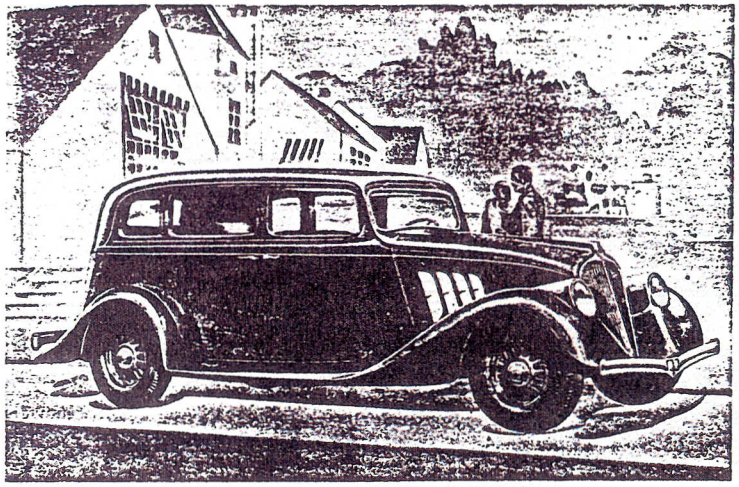
● You want maximum profit. The only way to get it is by selling a car that appeals to the maximum number of people. The new Willys 77 carries a strong appeal to a tremendous proportion of 1933's potential car buyers. Lowest first cost—lowest operating cost—lowest monthly payments! There's an appeal that is certain to strike home! America's first car of full streamline design—Patented Floating Power at world's lowest price—25 to 30 miles per gallon—70 miles per hour—500 pounds less weight. America's most modern car offers great opportunity for you. Write for details of the Willys-Overland franchise. Swing aboard the bandwagon now! Willys-Overland, Inc., Toledo, Ohio . . . . Willys-Overland, Ltd., Toronto, Canada

Pure streamlining removes air pockets—increasing speed by 5 miles an hour.

JANUARY 1933

WILLYS 77

1933



New
WILLYS
99

FULL STREAMLINE DESIGN
PATENTED FLOATING POWER
... NEW LOW PRICES ...

1933

NEW WILLYS SIX 99 CUSTOM SEDAN

WILLYS' PHANTOM

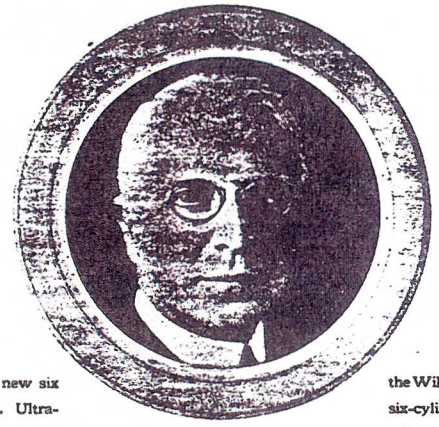
by Tom Horace

When John North Willys resigned his post as Ambassador to Poland on Decoration Day, 1932, he returned to the U. S. A. and the Willys-Overland Company at the "rock bottom" point of the depression. In 1930 he had sold all of his common stock for $18,000,000 and kept $5,000,000 in preferred stock. It was this preferred stock and a stipulation in the company's charter that put him back in control of the company that bore his name.

He also realized that the era of the luxury car was temporarily over and made immediate plans to produce a smaller sized economy car. The car was the Willys 77. In mechanical respects the 77 was a Whippet 96. The engine was rebuilt to last longer, the tread was narrowed and wheelbase shortened. Four models of the 77 were to be offered: a 4-door sedan seating four people; a coupe seating two or four people depending on whether or not a rumble seat was ordered; a roadster with the same passenger arrangement; and a panel truck. It is highly doubtful if any of the roadsters were ever built. The model 77 was capable of an honest 70 miles per hour and 30 miles per gallon. With this type of economic performance and dependability in bad financial times, it seems as though Willys-Overland was on the right track to market thousands of the 77's at a unit price of $395.00 each.

Apparently, Willys felt so confident that the 77 would succeed that he floated a large loan from a Detroit bank to make a full-sized traveling companion for the 77. This second car was called the Willys 99. It was available with either sleeve or poppet valve six-cylinder engine, but only two models were offered: a six-passenger 4-door sedan and a three or five passenger coupe, depending on the rumble seat again. The 99 looked exactly like the 77 except that the 99 was 19-15/16 inches longer and about 13" wider than the 77. Even the choice of paint colors were the same. The 99 offered more instrumentation on the dash-board, a bench style front seat for 3 passengers, a roll-down rear quarter window, and 32 more horsepower from the 6 cylinder engine. This may have been the first time in automotive history that a manufacturer offered two mechanically different cars that were styled exactly alike except for their sizes. The 99 prices started at $595.00.

WOKR



● "The new Willys 99 is our answer to the demand of the New Era for a low-priced Six with high-priced qualities. Motorists feel—and rightly—that in buying transportation, their money today should go further than ever before. The new Willys 99 is a completely new six—new from bumper to bumper. Ultra-modern style combines with good old-fashioned thrift and economy. It is a big car, fast and powerful. It brings you such advanced features as Patented Floating Power, Free Wheeling, Startix, Syncro-Mesh and silent second speed. We feel confident you will agree that the Willys 99 introduces to the low-priced six-cylinder field a new idea in fashionable, safe, luxurious transportation."

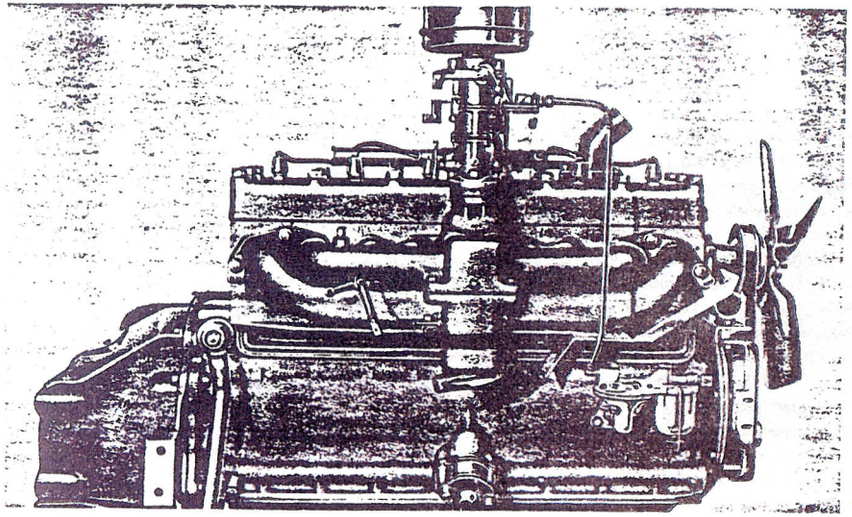
John N. Willys

On March 4, 1933, Franklin D. Roosevelt was inaugurated as President and on March 9, the new President declared a banking holiday so Federal inspectors could check all bank records. Only financially secure institutions were allowed to re-open and apparently the bank Willys had borrowed from was not allowed to do so. Thus, a financial crisis hit Willys-Overland again and the 99 became the "Phantom". Apparently, only one model 99 was made (as an experiment or mock-up), and I don't know if it's still in existance. If it is, It's terribly valuable so check the sheds!

Mr. Willys, spent considerable amounts of money on advertising to sell the 77's and 99's to the public, and the following pages show how the 16-page sales catalogue looked for "the phantom 99". Two pictures of the car appear in the April-May-June 1969 issue of the "Knight-Overland Starter" magazine in conjunction with an article written by Jim Kepperley. The only noticeable difference between the pictures and the sales catalogue's are the wheels. The magazine shows the car with spoked wheels (later to be used on the 1934 model 77's) and the sales catalogue shows Disc-type wheels with radial indentations. Of course, the hubcaps and hood support emblem have 99 stamped on the metal.

Thus, the 77's and that lone 99 were J. N. Willys last contribution to the automotive world. As Jim Kepperley states in his article "The shock and frustration of the event (the bank's failure and the company's large accumulated bills and the ensuing receivership that resulted) adversely affected Willys' health to the extent that he did not take an active part in the eventual reorganization. He passed away of natural causes in 1935."

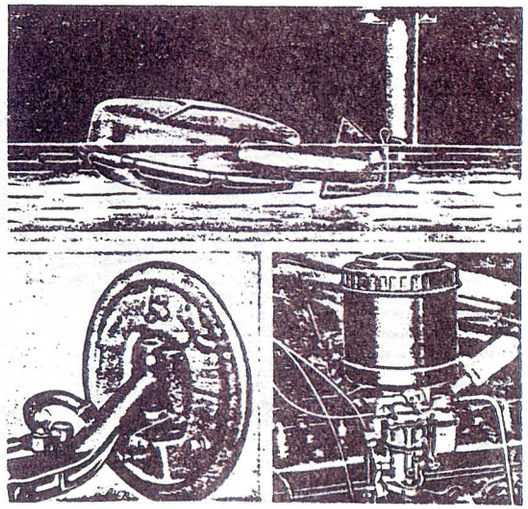
Even though Mr. Willys would be gone from the scene, his foresight in naming the Willys 77 "the New Era Car" and the Willys 99 as "the Six for the New Era" shows that no longer would the name Willys be connected with any high priced luxury cars. From here on, adjectives like economical, dependable, rugged, thrifty, durable, and utility would describe Willys cars to persuade prospective buyers.

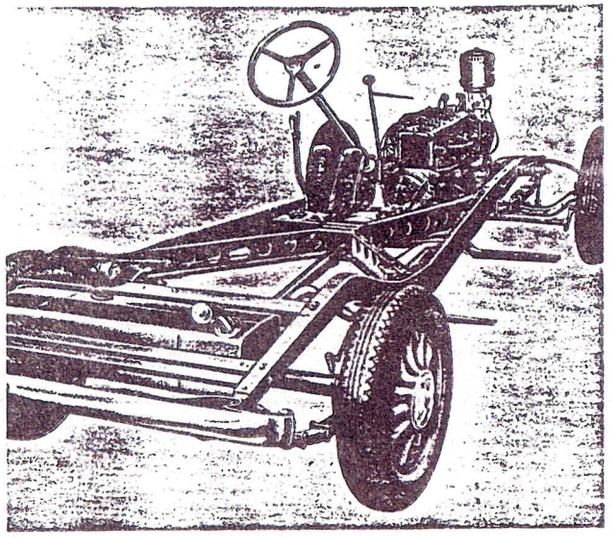


1933 MOTOR OF THE NEW WILLYS 99

ENGINEERING ADVANTAGES USUALLY FOUND ONLY IN HIGHER-PRICED CARS

● On the opposite page is illustrated the powerful, rugged six-cylinder motor of the new Willys 99, having a speed of 80 miles per hour. Patented "Floating Power" engine mountings—the greatest step toward eliminating vibration—are an important advantage of this low-priced Six and give an unusual smoothness at all speeds. The upper illustration at the right shows the Float-O oil system, a notable advance which always draws the cleanest oil from the top of the pan. At lower left—4-wheel brakes of the positive mechanical type for extra safety. Lower right—down draft carburetor and unusually large cleaner permitting free entry of air for combustion.



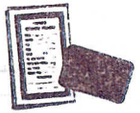


1933

NEW "X" TYPE FRAME IN THE WILLYS 99 FOR EXTRA STRENGTH AND RIGIDITY

● The new double drop frame of the new Willys 99 represents the latest development in design and practice. Side rails are supported by two rear cross members, the forward one being reinforced to make it a box section in the center. Ahead of these cross members an "X" member starts at the rear spring front hanger and terminates approximately at the rear of the front hanger. A frame of this construction is declared by leading engineers to be stronger in torsion than any other type.

CONDENSED SPECIFICATIONS OF MODEL 99



The Willys-Overland Owner Service Policy assures you of maximum motoring pleasure and satisfaction.

For a period of ninety (90) days from date of purchase or until the car has been driven 4000 miles (whichever occurs first), if any part should have to be replaced because of defect or faulty workmanship, the replacement is effected by any authorized Willys-Overland dealer in the United States, without charge to the owner either for parts or for labor. The policy also provides for inspection and adjustments during the warranty period which will be furnished by the dealer selling the car, at no cost to owner except for lubricants.

POWER PLANT — Engine, six-cylinder, L-head type. Bore 3½ inches. Stroke 4⅝ inches. Piston displacement 213.3 cubic inches. N.A.C.C. horsepower rating 26.33. Actual horsepower 80 at 3400 r.p.m. Compression ratio, 5.0 to 1 (20%). Steel insert rings for exhaust valve seats. Replaceable main and connecting rod bearings. Non-slap type timing chain. Oil troughs provide quiet tappet operation. Pistons, grey iron, light weight. Floating type wrist pins.

ENGINE MOUNTING—Patented "Floating Power" with clutch and brake pedals and hand brake lever mounted independent of power plant.

ENGINE LUBRICATION—Full pressure to crankshaft, connecting rod and camshaft bearings and timing chain. Oil pressure gauge in instrument panel. Float-O oil intake. Crankcase ventilator. Capacity of oil reservoir, 7 quarts.

COOLING SYSTEM—Cellular type radiator. V-type grille. Pump circulation, thermostatic control. Four-blade fan. Heat indicator in instrument panel.

CLUTCH AND TRANSMISSION—Single plate dry disc clutch. Free Wheeling, Synchro-Mesh and Silent Second Speed standard equipment.

FRONT AXLE—Reverse Elliott type; I-beam section heat-treated; Timken roller thrust bearings and bronze bushings on steering knuckles. Timken roller bearings in wheels (adjustable).

REAR AXLE—Semi-floating, banjo type. Two trunnion and ball type universal joints. Rear axle gear ratio, 4.09 to 1. Adjustable Timken bearings throughout. Axle shafts chrome molybdenum steel.

STEERING GEAR—Worm and sector, semi-irreversible type, ratio 13 to 1. Turning radius, 20 feet.

IGNITION AND LIGHTING—Battery, USL 13-plate, 102-amperes. Starting motor, Auto-Lite; Startix, Generator, Auto-Lite. Head Lamps, tilt-beam, parabolic type with parking light bulbs. Tilt-beam controlled by foot switch. Wired for Radio.

BRAKES — Four-wheel Bendix duo-servo internal expanding, two-shoe type. Total braking area, 155½ square inches.

CHASSIS — Frame, double drop, X-member type. Double channel side rails at front end. Overall length, bumper to bumper, 174⅛ inches. Hydraulic 2-way shock eliminators, front and rear.

WHEELS—Disc type with radial indentations. Spare wheel at rear.

FUEL SYSTEM—13-gallon gasoline tank. Mechanical fuel pump and filter. Gasoline gauge. Downdraft type carburetor with silencer-type air cleaner.

CONTROLS — Horn at center of steering wheel. Spark, throttle, choke, free wheeling and heat controls on instrument panel. Startix automatic starter.

EQUIPMENT—Hydraulic 2-way shock eliminators front and rear. Dome light in Sedan. Foot pedals and treadle type accelerator, rubber-covered. Non-glare safety glass windshield. Sound and weather proofed bodies. Two automatic windshield cleaners. Rear view mirror and clock combination. Safety glass in windows at extra cost. Single key for ignition and door locks. Front seat adjustable. Cowl ventilator. Inside sun visors (2). Tools.

NOTE: We reserve the right to change prices, colors, and other specifications without notice.

WILLYS-OVERLAND, INC. · TOLEDO, OHIO

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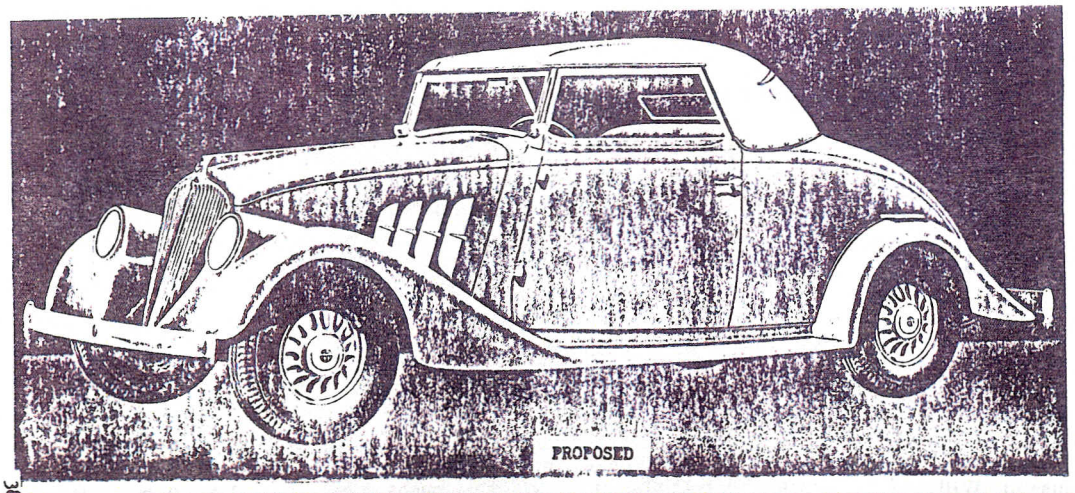
PRINTED BY THE CARLON COMPANY, TOLEDO, OHIO, U. S. A.



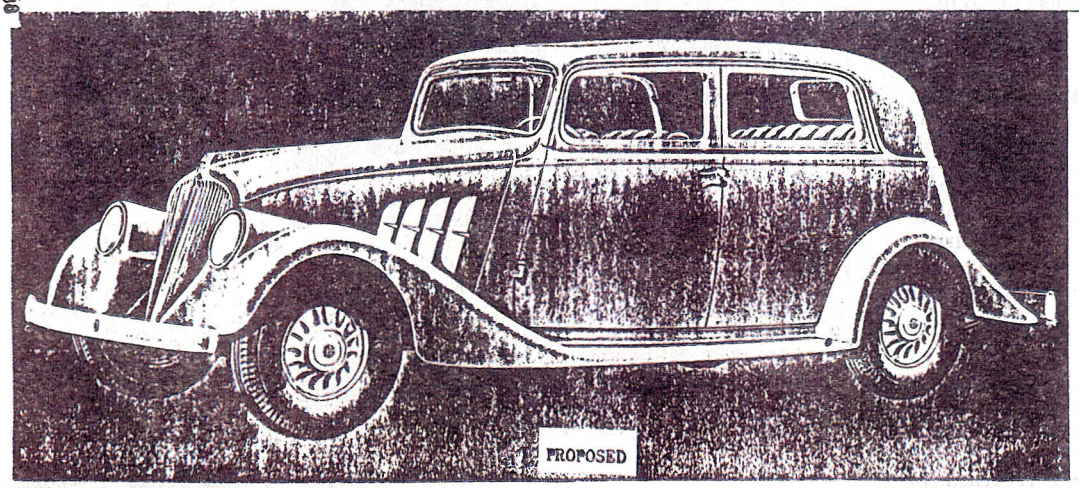
1933

■ Put this new Willys 99 Convertible Roadster in your show window, and watch the crowds gather. You ought to do a big business with this striking sports model especially during the spring season. With the top down, this convertible car is a flashy Sports Roadster; with the top up, it is fully enclosed.

Equipped with a large rumble seat for two extra passengers.

WILLYS 99 CONVERTIBLE ROADSTER

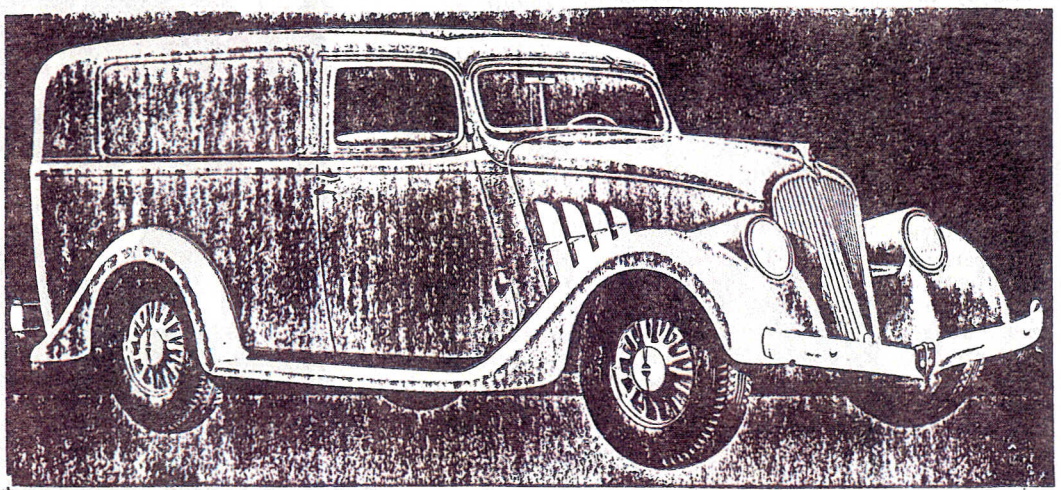
30



1933

■ The five-passenger Coach has always been one of America's most popular body types, and this new Willys 99 Coach is destined to carry that popularity to still greater heights. It is an ideal family car. Extra wide doors permit easy entrance and exit. You can build real sales volume with this model.

NEW 1933 WILLYS 99 COACH

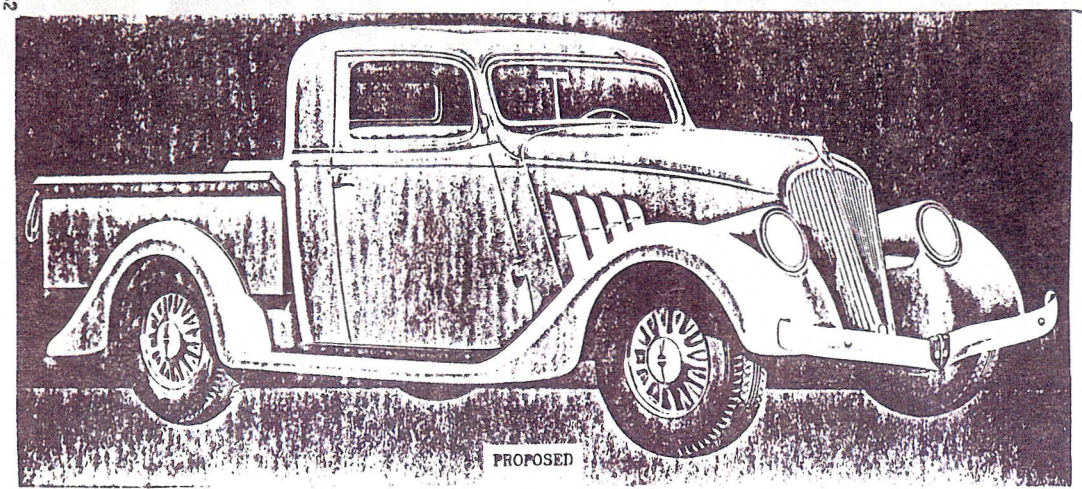


1933

■ The new Willys 77 line also offers dealers the splendid profit opportunities of the light commercial field. Here is illustrated the new Willys 77 Panel Delivery, a unit which combines modern streamline design, generous loading space, and several exclusive features. Important engineering advantages make it ideal for rapid, safe, economical delivery.

NEW WILLYS 77 PANEL DELIVERY

32



1933

■ The new Willys 77 Closed Cab Pickup Body. The cab is roomy and conveniently arranged, affording maximum comfort and protection. The Pickup body achieves ideally balanced load space, and is just the right height from the ground for easy loading and unloading.

WILLYS 77 CLOSED CAB PICKUP

Overland Resumes Truck Production

No Court O. K. on Balance of I. H. C. Order—Workers Organize on Wage Claims

TOLEDO—Five thousand Willys-Overland employes meeting tonight took steps to form an executive committee, secure legal aid, and prosecute their claims for two weeks' back wages amounting to about $300,000.

Lee W. Murlin, assistant United States attorney, representing Federal Judge Hahn, said that truck orders on hand would enable the plant to operate probably until May and urged that the plant be permitted to continue operations in best interests of creditors.

Several workers said they wanted pay before any more work is done and others urged picketing as a means of enforcing payment, but it is believed the workers as organized will cooperate in an orderly plan.

About 1000 workmen returned to the plant on Monday to complete the 568 I.H.C. trucks authorized by the court. They were met by some pickets bearing signs "We want our wages" and "Don't go to work until we get our wages." At meetings here earlier some Detroit Communists offered to provide leadership and advice to the Willys-Overland workers and were believed to be back of the movement to make trouble.

On Monday, also, Receivers Willys and Miller failed to obtain permission from the court to manufacture 4400 trucks for I.H.C. in addition to the 568 already authorized. Judge Hahn said he would not authorize the manufacture and sale of the trucks until he had proof that "the income will equal the outgo." He also set the requirements that wage scales would not be reduced below those prevailing at the time the receivership became effective and that assurance must be given that labor claims incurred in the venture will be paid. Employes have 30 days from Feb. 15 to file their claims. No mention was made of the receiver's plans in regard to passenger cars.

Automotive Industries

March 4, 1933

290

Willys Workers Get 20% More of Back Pay

I.H.C. Truck Production Dominates but Export Orders for Model 77 Show Increases

TOLEDO—An additional 20 per cent of back wages has been paid to employees of the Willys-Overland by order of Judge George P. Hahn in federal court and the receivers authorized to extend truck manufacture to June 1.

This gives the workers now 40 per cent on their payroll claims. Lucas county authorities have waived their prior claim to taxes in order to let the workmen be paid first.

Walter F. Brown, former postmaster general, who has been named counsel for the receivers, and who also has been elected president of the Cleveland Automatic Machine Co., succeeding the late A. L. Garford, a personal friend, has returned to Toledo and declared he would devote much time to the efforts to reorganize the Willys-Overland Co.

Most of the operations of the plant are confined to the output of half-ton trucks for International Harvester Co., but export orders for the new Willys 77 are gaining daily.

Automotive Industries

504 *April 22, 1933*

Willys-Overland is to Make 2000 More Trucks

TOLEDO—Authority to make 2000 trucks for the International Harvester Co. was granted receivers for the Willys-Overland Co. by Federal Judge Geo. P. Hahn. The receivers were also permitted to advance approximately $20,000 to the Willys-Morrow Co. and Wilson Foundry and Machine Co. for truck parts. This order will enable the plant to operate schedule until September 1.

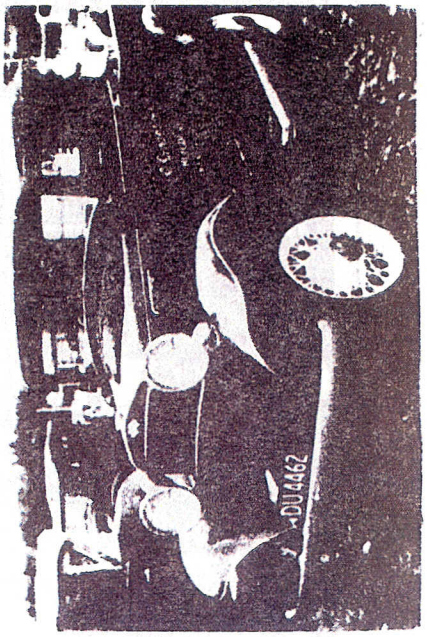
Automotive Industries

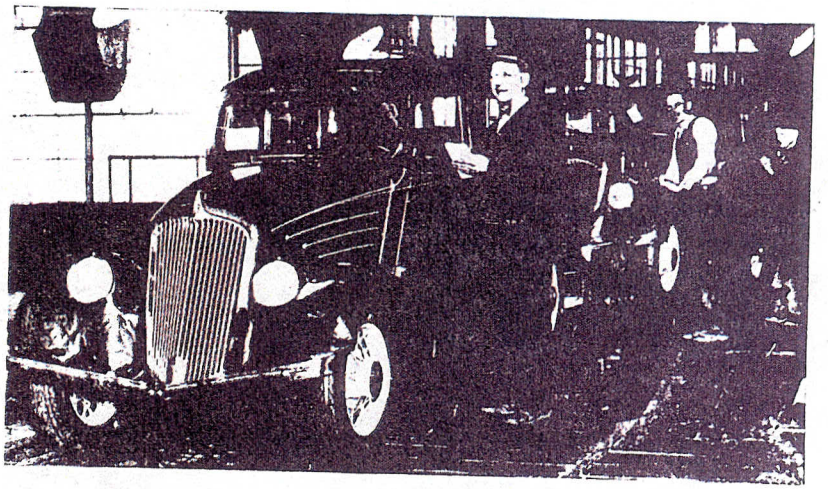
June 10, 1933

718

This is a Willys built 1933 Model D-1 International pickup owned by Bill Richardson of Invercargill, New Zealand. The photograph was forwarded by Andy Wilkie. Andy compared the pickup with a 1931 Willys 97 sedan. He found all the running gear and panels to be identical except for the hood, radiator and hub caps.

WOKR STARTER 4TH • QUART. 1987 P 21





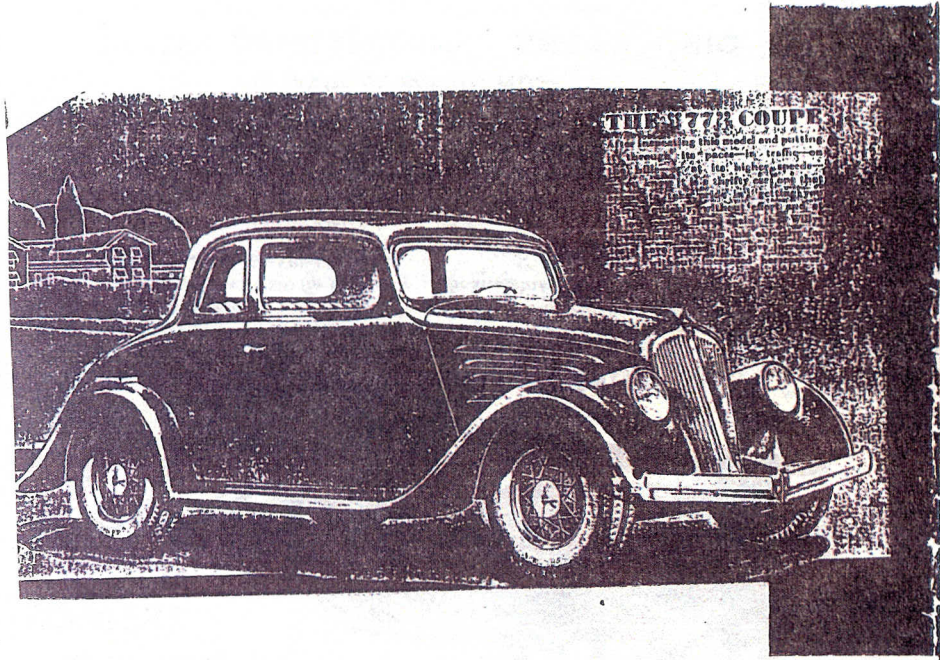
First New Willys 77 Off Production Line

Domestic and foreign dealers' demands for cars have plants in Toledo running at top-speed. Officials explain that advanced streamlining has been carried to its most practical advantages in the new model and the car is so designed from front to rear as to split air pressure instead of pushing it

Automotive Industries

April 21, 1934

500



SPECIFICATIONS

POWER PLANT—Engine, four-cylinder, L-head type. Cylinder bore 3¼ inches. Stroke 4½ inches. Piston displacement 134.2 cubic inches. N.A.C.C. horsepower rating 15.63; actual horsepower, 48 at 3200 r.p.m. Compression ratio 5.13 to 1.

ENGINE MOUNTING—Patented "Floating Power" with clutch pedal, brake pedal and hand brake lever mounted independent of power plant.

ENGINE LUBRICATION—Full pressure to crankshaft bearings, connecting rod bearings, camshaft bearings and timing chain. Direct spray to other engine parts. Float-O floating type oil intake. Capacity 4 quarts.

COOLING SYSTEM—Cellular type radiator. V-type radiator grille. Concealed filler pipe. Pump circulation. Centrifugal type pump in unit with fan. Four-blade fan.

CLUTCH AND TRANSMISSION—Single plate dry disc clutch. Three speeds forward and one reverse.

FRONT AXLE—Reverse Elliott type, heat-treated I-beam section. Timken roller thrust bearings and bronze bushings on steering knuckles.

REAR AXLE—Semi-floating, unit center type. Rear axle ratio 4.3 to 1. Differential on Timken taper roller bearings. Axle shafts removable with Timken taper roller bearings. Spiral bevel ring gear and pinion, nickel alloy steel.

STEERING GEAR—Worm and sector, semi-irreversible type, ratio 12 to 1. Turning radius, 17 feet.

IGNITION AND LIGHTING—Battery, USL, 6-8 volt, 13 plate, 96 amperes. Starting motor, Auto-Lite; Generator, Auto-Lite; Head lamps, tilt-beam parabolic type. Parking light bulbs. Combination tail and stop light. Dash light, indirect. Fully automatic spark advance.

BRAKES—Four-wheel, Bendix duo-servo internal expanding, two-shoe type, self-energizing. Total braking area 134 square inches.

CHASSIS—Frame, double-drop X-member type. Overall length, bumper to bumper, 156 inches.

WHEELS—Wire. Spare wheel mounted at rear.

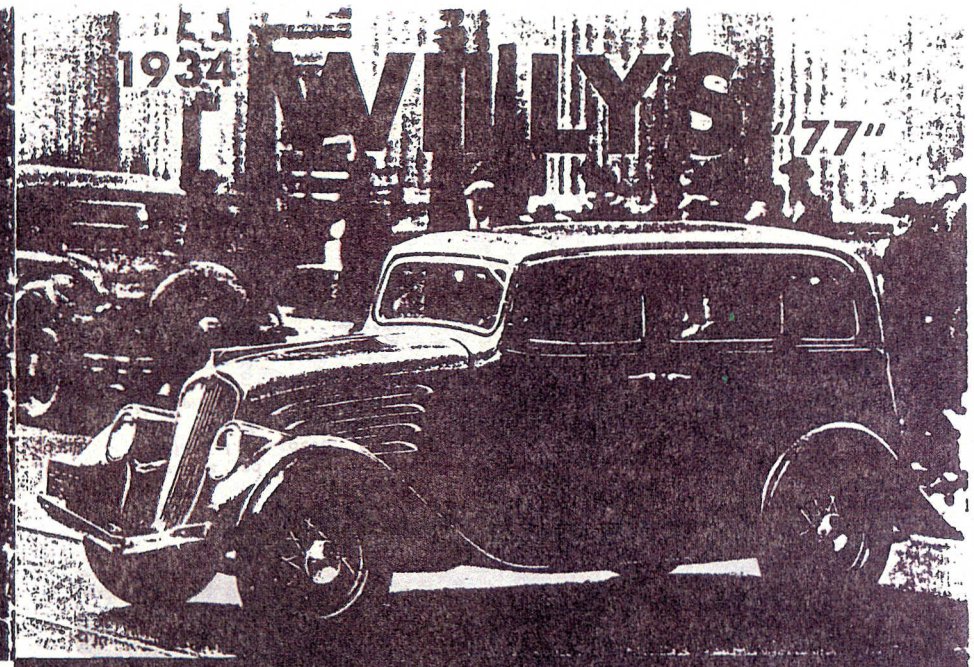
FUEL SYSTEM—Gasoline tank at rear. Mechanical fuel pump and filter. Gasoline gauge in instrument panel.

CONTROLS—Horn control at center of steering wheel. Throttle and choke controls, ignition lock on instrument panel. Head lamp beam controlled by foot switch.

EQUIPMENT—Hydraulic shock eliminators front and rear. Non-glare windshield. Remote door controls. Safety type steering wheel. Sound and weatherproofed bodies. Gasoline filter. Automatic windshield cleaner, rear view mirror, dome light (Sedan). Foot pedals and treadle type accelerator rubber covered. Cowl ventilator. Rear window [illegible] stable in Coupe. Concealed door check straps. Bumpers and [illegible] extra cost. One key for [illegible] and [illegible]. See [illegible]

NOTE: We reserve the right to change prices, colors, [illegible] specifications without notice.

WILLYS-OVERLAND, [illegible] TOLEDO, OHIO



The only FULLY STREAMLINED Economy Car

25 to 30 MILES PER GALLON

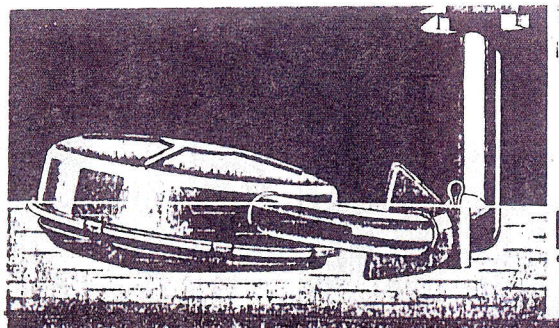
70 MILES PER HOUR

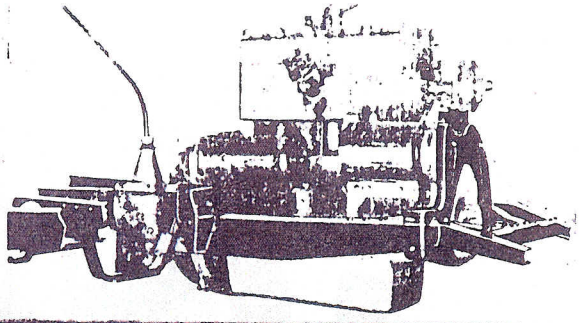
World's Lowest Priced Car
with Patented "Floating Power"

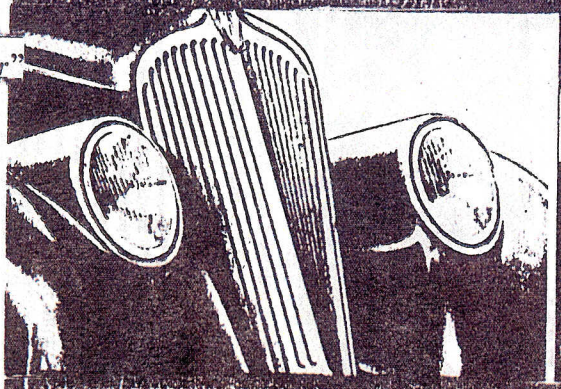
Small Investment
Low Depreciation
Low Monthly Payments
25-30 Miles Per Gallon
70 Miles Per Hour
Small Oil Consumption
Low Taxes
Low Insurance
Low License Plate Cost
Low Repairs
Low Tire Replacement
Easy to Drive and Park
17-Foot Turning Radius
Fine Acceleration
Excellent Hill Climbing
Oversized Four-Wheel Brakes

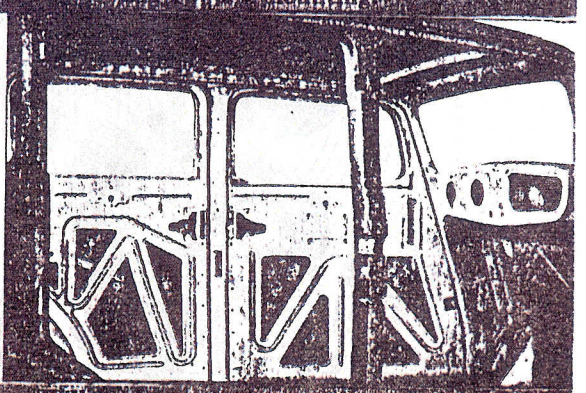
Advanced Streamlining
All-Steel Bodies
Plenty of Head and Leg Room
Correctly Angled Seats
Deep Upholstery
Soft 46-Inch Springs
Four Hydraulic Shock Absorbers
Glare-Proof Side Windows
Instruments in Front of Driver
Highly Efficient Engine
Sturdy Double-Drop "X" Frame
Down-Draft Carburetor
Float-O Oil Strainer
Steel Seats for Exhaust Valves
Four Ringed Light Weight Pistons
Windshield Opening Forward

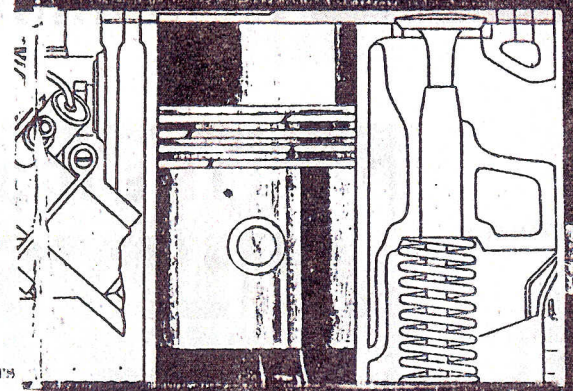
1934

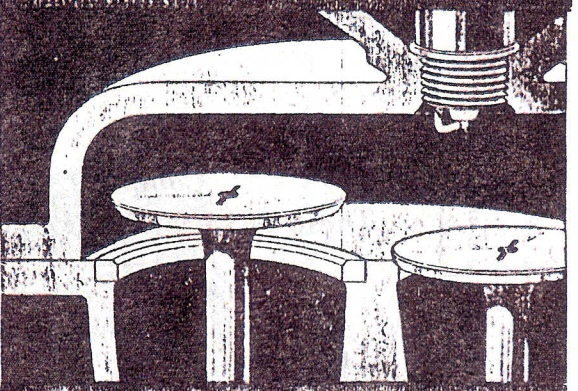


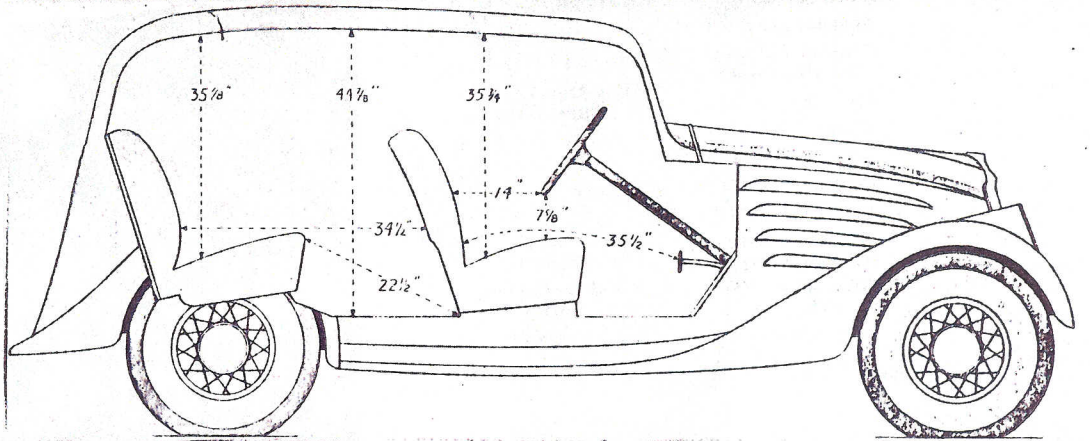




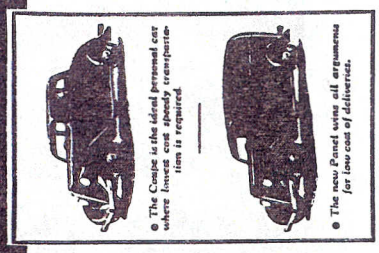








You will find a surprising amount of head and leg room in both the Sedan and the Coupe. Full sized adults are accommodated with ease. Long trips may be taken in comfort. Front seats and steering column are adjustable. Willys bodies are all-steel construction just the same as are modern bridges, office buildings and railroad trains.



• The Coupe is the ideal personal car where lowest cost speedy transportation is required

• The new Panel wins all arguments for low cost of deliveries.

UP TO 30 MILES PER GALLON . . . 70 MILES PER HOUR
COMFORT . . . STEEL BODIES . . . GENUINE FLOATING POWER

•

ATTENTION DEALERS

Here is your chance to be independent of competition—to sell a car that is practically a monopoly—to supply a car that eliminates the high cost of motoring. Study the facts and you will realize why the 1935 Willys 77 has tremendous sales possibilities.

Most people are thrifty and want comfortable, safe, speedy, economical transportation—the kind that the Willys 77 alone gives—the car whose savings are available for other much needed purposes.

The Willys 77 for 1935 has up-to-date attractive appearance and has been improved in mechanical detail—available with 4-door sedan, coupe and panel delivery bodies, it caters to 95% of the demand—it is the ideal economy car for fast country running or for city use. Write or wire

WILLYS-OVERLAND • TOLEDO, OHIO

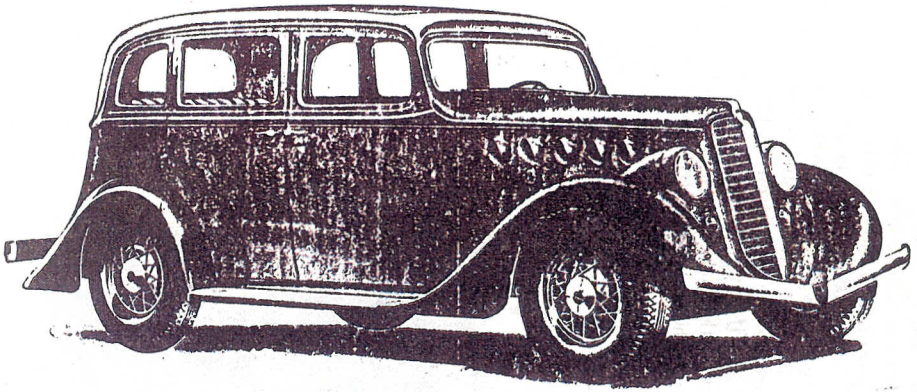
THE 1935 WILLYS 77

Compare
These 1935 Willys 77 Features

Up to 30 Miles per Gallon

Small Investment	Plenty of Head and Leg Room
Low Depreciation	Oversized Four-Wheel Brakes
Low Taxes	Instruments in Front of Driver
Low Insurance	Correctly Angled Seats
Low Repairs	Highly Efficient Engine
Low Tire Replacement	Down-Draft Carburetor
Low Oil Consumption	Float-O Oil Strainer
70 Miles per Hour	Alloy Metal Seats for Exhaust Valves
Genuine Patented Floating Power	Four Ringed Light Weight Pistons
Fine Acceleration	Sturdy Double-Drop "KX" Frame
Excellent Hill Climbing	Four Hydraulic Shock Absorbers
Easy to Drive and Park	Windshield Opening Forward
Fine Road Visibility	
17-Ft. Turning Radius	
All-Steel Bodies (Sedan, Coupe)	
Glare-Proof Side Windows	

WILLYS-OVERLAND, TOLEDO, OHIO, U.S.A.

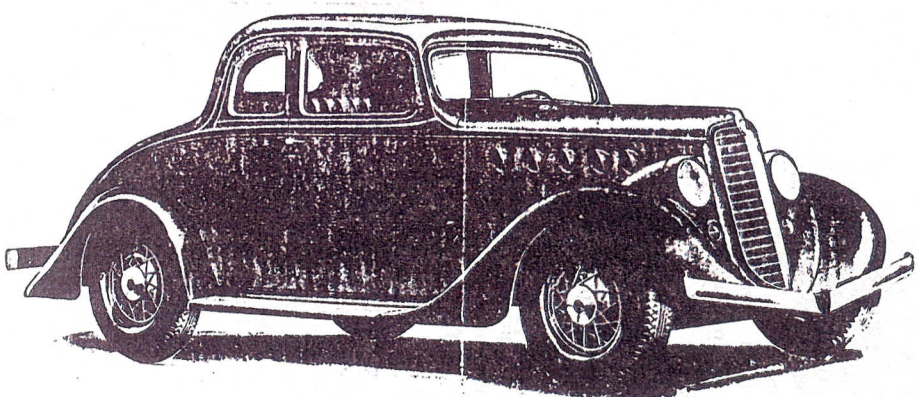


1935

The Sedan

The four-door Sedan is an ideal family car. It has an all-steel body with plenty of head and leg room. The seats are correctly pitched for real comfort on the longer trips. The upholstery has been carefully chosen for its long wearing qualities. *Here is the car that helps buy many other things the family needs.*

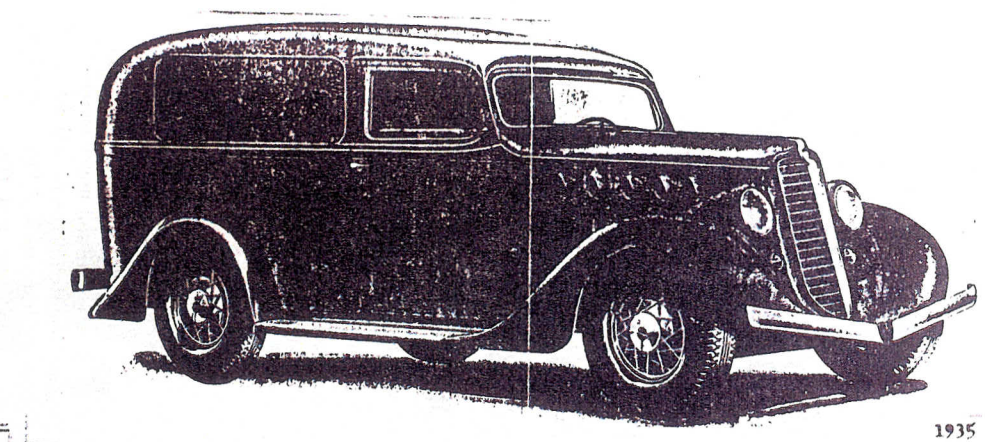
● It is a time proven certainty that the vast majority of people require a motor car as a *necessity* to their daily life. It saves a great amount of valuable time, thereby increasing their output or leisure... it protects against bad weather, preventing sickness... it affords much recreational pleasure and increases knowledge by interesting trips to unseen places. In these days of thrift, when reduced earnings must be thinly spread to buy all the necessities, a far keener price study of cars is made by shrewd buyers... not only of the purchase price itself, but of the subsequent maintenance; *as obviously the real cost of a car is the total amount spent upon it throughout its ownership.* It is to such buyers that the fine qualities of the 1935 Willys 77 will have a distinct appeal, not only because of its great strength of construction, its new and stylish appearance, but for its surprising comfort over long trips; its perfect adaptability to everyday use. Driving one of the new models will give a better understanding of how clever engineering and time proven best quality materials can reproduce, or even improve upon, more costly car performance. You will be impressed with its fine all-around action . . . its easy handling in fast, crowded traffic . . . its road stability at the higher speeds . . . its power when going up hills . . . its ability to take curves safely, and finally, its parking without effort. Many thousands of past buyers have benefited financially because of the ability of their Model Willys 77 to save for them their hard earned money each and every mile of operation.



1935

The Coupe

The Coupe solves the problem of speedy low cost commuting between home and work. It is for the professionals' day and night use . . . or for the business man making long trips who requires ample space for luggage or samples. Two Willys 77's overcome the not unusual family transportation problem *where only one car is now available.*

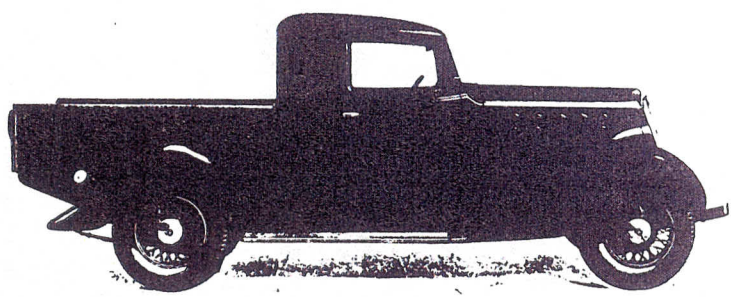


1935

The Panel Delivery

This Model creates extra profits from lower cost deliveries. Alert merchants can expand their business by catering to more distant trade. Two Panel Deliveries can replace one ¾-ton truck—offering not only *greater loading space, but twice the delivering range and 100% increase in delivering speed.*

As all cars, even the most costly, are essentially vehicles of transportation *from one place to another*, why spend more than a Willys 77 costs? It can take you to your destination comfortably, safely and with ample speed; each mile registering a saving that will help buy the many other good things of life.

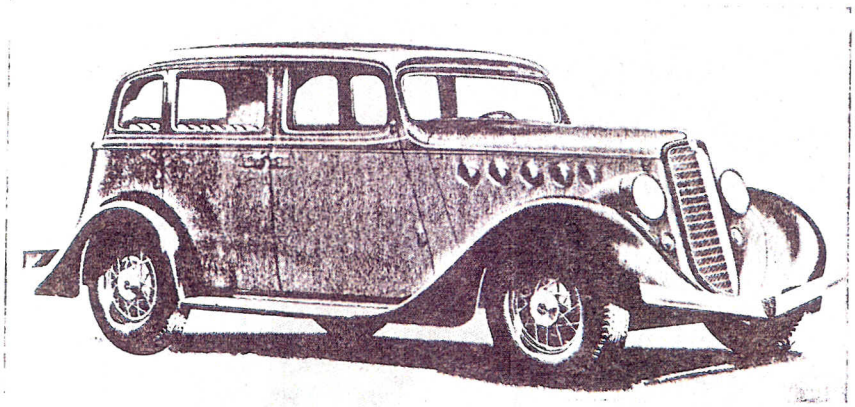


WILLYS MODEL 77
CAB PICK-UP
Floor length 87 inches
Floor width 60½ inches
Heighth of Side 13¹¹₁₆ inches

1935

WILLYS Displays Improved Lines on 1935 Bodies

Front is Higher with Sloping Radiator and Streamline Curves—Other Improvements



New Willys sedan reflects graceful streamlining.

A REFINEMENT of design marks the Willys 77 line for 1935, featuring a higher radiator line with slanted grille, and lower fender lines, imparting a striking new smartness to the exterior appearance. Engineering features which have proven their worth have been continued and many improvements have been added to maintain the Willys standards of low cost with both speedy and comfortable transportation.

Three new models are introduced for the new year, including sedan, coupe and a panel delivery truck. Aside from the greatly improved exteriors, features of the line worthy of special mention are: All-steel insulated bodies; steel running boards; floating power engine mounting; hardened valve inserts and silchrome valves; improved forced-feed lubrication; hydraulic shock eliminators; double drop X-type frame; completely concealed fuel tank; down-draft carburetor; and air cleaner and silencer.

The lines of the new Willys bodies conform to the currently popular streamline designs. Most interesting treatment has been concentrated forward of the windshield, where the pronounced curve of previous years has been eliminated in a higher, slanted radiator grille. Headlamps of the new 77 provide a striking note of streamlined individuality to the front assembly. Heretofore carried as an integral part of the fender proper, they have been moved closer to the radiator while retaining their ultra modern built-in effect. This is accomplished by a fender arrangement which bridges the space between the fender and radiator grille to form a solid apron in which the lamps are built in. New style louvres add another touch of distinctiveness.

The 77's mileage economy performance of up-to-30 miles per gallon with a motor capable of speeds up to 70 miles per hour, is accomplished with a four cylinder engine, having a bore of 3⅛ inches and a stroke of 4¾ inches. It develops 48 horsepower at 3200 r.p.m. The block is of iron and steel nickel alloy.

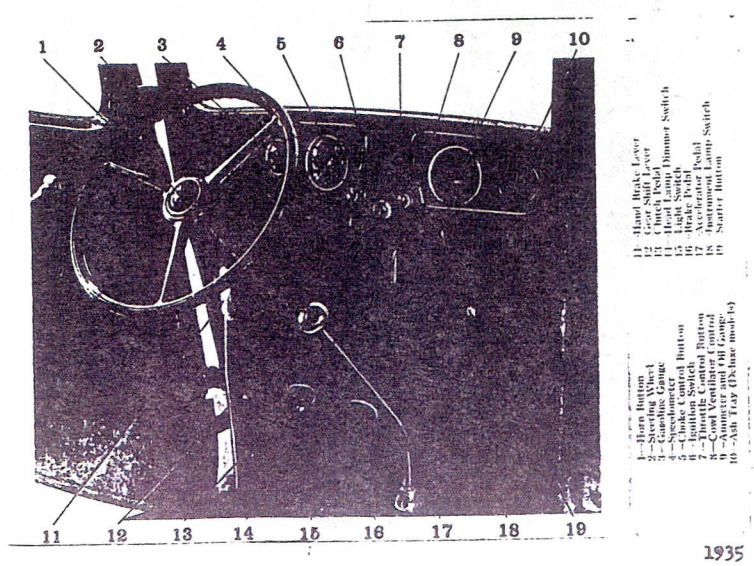
Main bearings are of the hard metal, babbitt lined, interchangeable type. Valve tappet guides are bored integrally in the case, assuring perfect alignment between the valve stem, valve stem guide and tappet, and reducing tappet wear and noise to a minimum. Pistons are of cast iron, with three compression rings and an oil return ring. The pistons are full floating on the wrist pin, the latter being free to rotate in a bronze bushing.

The Float-O system in the oil pan provides for oil always being taken from the top of the level, which safeguards against starved oil lines in cold weather. Lubrication of main bearings, big ends of the connecting rods and the cam shaft bearings is all under pressure.

The cable and conduit type of over-sized brakes are 9 inches in diameter by 1¾ inches wide. Movement of the clutch pedal is transmitted to the clutch proper by a cable connected pantagraph so that the engine may move as much as it will. There are no unpleasant kick-backs on the foot pedals.

The all-steel body construction which has provided an extremely rigid and safe body, with squeaks and rattles reduced to a minimum, is further enhanced by the fact that cowl, doors, rear and upper panels and floor stampings are all completely insulated against noise, draughts and heat. Window glasses in both front and rear doors are invisible when lowered.

Steering mechanism is mounted atop the frame instead of in the side plate. The upper part of the body cowl has a ventilator consisting of two dash stampings, one comprising the outer cowl stampings (dash, windshield pillars and front part of the roof), with the second comprising the inner part of the door pillars, the reinforcements and the instrument board.



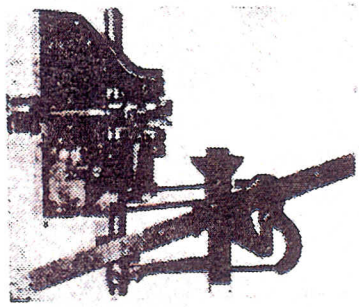
1935

Willys Three-Model Line

"America's Smartest Economy Car" Well Prepared to Go After Low-Price Business—Sedan, Coupe and Panel Delivery Truck Constitute the Line

WITH three new models—sedan, coupe and panel delivery truck—Willys-Overland, Inc., now is presenting the 1935 Willys 77 as America's smartest economy car.

New body lines to conform to the currently popular designs have been incorporated in the new Willys. Heretofore carried as an integral part of the fender proper, the headlamps have been moved closer to the radiator, while retaining their ultra modern built-in effect. New style louvers add another touch of distinctiveness. The new body treatment for the most part has been concentrated forward of the windshield, through raising of the



THE WILLYS CLUTCH, LIKE ALL THE COMPONENT PARTS OF THE CHASSIS, IS EASY TO ADJUST OR REMOVE

radiator lines, thereby eliminating the pronounced curve of previous years.

The 77's recognized mileage economy performance of up-to-30 miles per gallon, with a motor capable of speeds up to 70 miles per hour, is accomplished with a four-cylinder engine, having a bore of 3⅛ inches and a stroke of 4½ inches. It develops 48 horsepower at 3200 r.p.m. The block is of iron and steel nickel alloy.

Mounted with genuine Floating Power, the motor has the advantage of three-point suspension, one rubber mounting at the front immediately below the water-pump, a second rubber trunnion below and to the left of the transmission case and a third at the right of the engine. This latter is a torque arm which receives and cushions the rotative tendency of the engine, permitting movement around the natural axis.

Pistons are of cast iron, with three compression rings and an oil return ring. The pistons are full floating on the wrist pin, the latter being free to rotate in a bronze bushing carried in the upper end of the connecting rod.

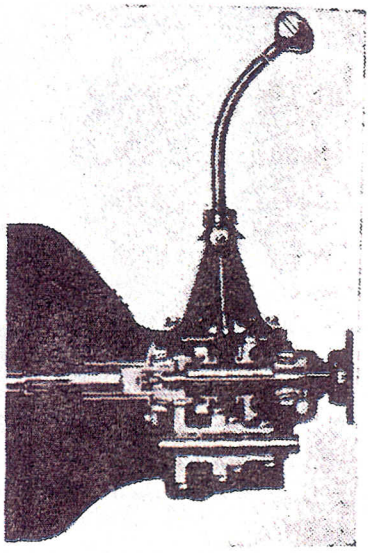
The oil pump is mounted on the left side of the cylinder block and is driven by the lower end of the oil pump and distributor drive shaft, which is geared to the camshaft. The latter has four bearings, the pump driving gear being mounted between the two inner bearings. Front bearing of the camshaft is bushed to take the pull of the two-point chain.

Float-O Oil System

The Float-O system in the oil pan provides for oil always being taken from the top of the level, which safeguards against starved oil lines in cold weather. Lubrication of main bearings, big ends of the connecting rods and the camshaft bearings is all under pressure.

Among other outstanding features, the 1935 Willys 77 has adjustable front seats, bodies insulated against sound and weather, completely concealed fuel tank, down-draft carburetor, large air cleaner and silencer, forced feed lubrication, double drop "X"-type frame, hydraulic shock eliminators, steel running boards, steel centered safety steering wheel, non-glare windshield, hood ventilating louvers, cable and conduit type four-wheel brakes, recess in rear body panel for spare tire, glove compartment at right of instrument panel and wire wheels.

The Willys 77's structural ruggedness, exemplified by its all-steel body and running boards, is further augmented by a frame that represents the latest development in designing. Side rails are supported by two cross-members at the rear, the forward one of which is reinforced to make it a box section in the center. Resting on it and upon the rear cross-member is the stamping which forms the concealed tire carrier. Forward of these cross members an "X" member starts at the rear spring front hanger and terminates approximately at the rear of the front hanger. These "X" members are tied together in the center with plates to form a box section through which the propeller shaft passes. Laying over the forward end of this "X" member is the forward reinforcement or gusset which, starting at the center of the front cross member and going over to the side rail to form a gusset on which the engine is mounted at the front, runs back along the side rail. This

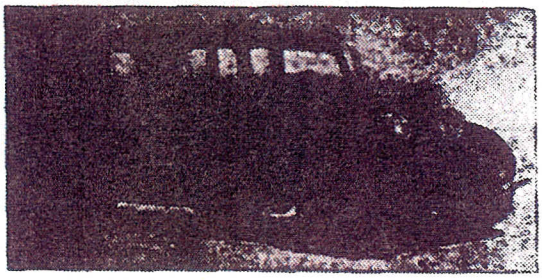


THE TRANSMISSION IS OF THE CONVENTIONAL SPUR GEAR TYPE, AND IS LUBRICATED EVERY 3,000 MILES

laps over the "X" member, providing a box section of the frame throughout that part subjected to the steering mechanism and torque reaction of the engine.

The cable and conduit type of oversized brakes are 9 inches in diameter by 1¼ inches wide. Immediate braking power is obtained with the slightest of foot pressure. The emergency brake lever passes up through the floor boards at the left of the clutch pedal, entirely free of interference with the driver's feet.

In the rear axle assembly, the pinion is mounted between the two bearings. This straddle mounting supports the pinion both at front and rear at a point close to the teeth where the load is taken. The forward is a large tapered roller bearing and the rear is a roller bearing; both are caged. This construction permits the use of a one-



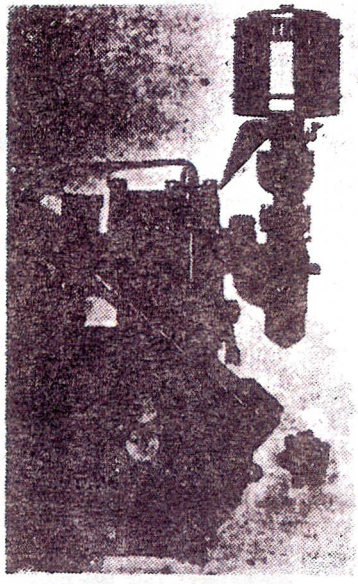
NEW WILLYS 77 SEDAN, WITH AN ALL-STEEL BODY AND AN OVER-ALL LENGTH OF 155 INCHES, IS MORE POPULAR THAN EVER

1935

piece malleable casting in lieu of the ordinary banjo and third member casting, eliminating joints. It contains the differential which is conventional except that the ring gear sideway movement to take care of proper adjustment between the ring gear and the pinion is made by insertion of shims rather than employment of threaded adjustments.

The single-plate clutch and transmission are of conventional design. The former is eight inches in diameter and has a spring dampener. The transmission has roller bearings for the main shaft and both it and the engine are remote from the frame, the only connections being the rubber members of the Floating Power construction plus those flexible members through which the engine is controlled.

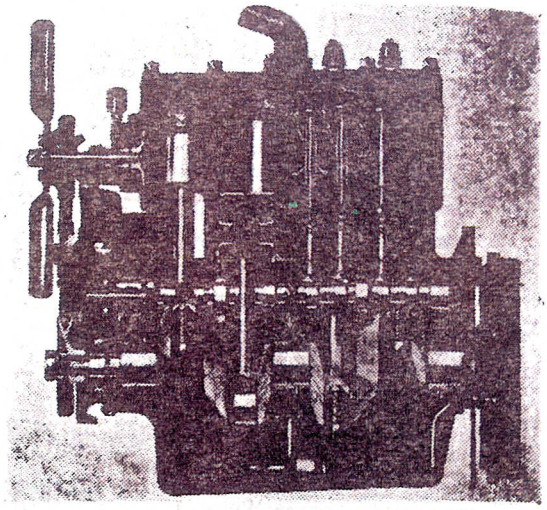
Movement of the clutch pedal is transmitted to the clutch proper by a



SECTIONAL FORE-AND-AFT VIEW OF THE WILLYS MOTOR. CRANK CASE HAS A CAPACITY OF FOUR QUARTS OF OIL

cable connected pantagraph so that the engine may move as much as it will. There are no unpleasant kick-backs on the pedals, the cable flexibility permitting the relative movement between those two parts.

The upper part of the body cowl has a ventilator consisting of two dash stampings, one comprising the outer cowl stampings (dash, windshield pillars and front part of the roof), with the second comprising the inner part of the door pillars, the reinforcements and the instrument board. These parts, welded, form an unusually rigid box section pillar construction, the windshield opening being blanked out of the solid stamping, eliminating any danger of cracks occurring in the windshield pillars and insuring an accurate opening in which the windshield can fit, thus avoiding leaks through shield and frame.



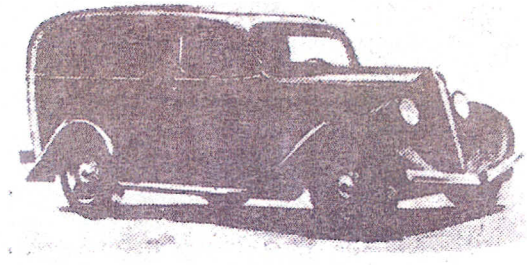
SECTIONAL VIEW SHOWING LEFT SIDE OF WILLYS MOTOR. IT HAS A BORE OF 3⅛ INCHES AND A STROKE OF 4¼ INCHES. PISTON DISPLACEMENT, 134.2 CUBIC INCHES

Speedometer, gasoline and oil gauges and the choke and throttle operating panels are carried on the instrument board at the driver's left. Light switches are mounted under the bottom edge of the instrument board, with a headlamp dimming switch located to the left of the clutch pedal. A built-in compartment for gloves or small parcels is at the right of the dash, and a tool compartment is provided in the back of the rear seat cushion. Front seats in the sedan model are individual type, adjustable forward or backward. Other features include automatic windshield cleaner, rear-view mirror, dome light (in DeLuxe sedan), rubber-covered pedals, treadle type accelerator, concealed door check straps, spare wheel, tire and bumpers.

Plenty of Storage Space

Available this year is a specially constructed folding trunk with full streamlined styling fitted compactly so that it appears to be an integral part of the body. It has more than 8½ square feet of loading space, making it ideal for the bulky luggage of tourists, salesmen, merchant deliveries, plumbers and tradesmen, for farmers who haul milk cans, crates, sacks of feed and other bulky items, and for hunting and fishing trips.

Passenger body models in the Willys 77 include the four-door sedan and two-passenger coupe in either standard or custom design, and the company offers further economy transportation with its panel delivery truck, a swift and unusually roomy job which appeals alike to business firms and to traveling salesmen who need greater capacity for samples and personal luggage.



HERE IS THE 1935 MODEL OF THE WILLYS 77 COMMERCIAL WAGON. FAST, LIGHT AND EASY TO PARK AND NEGOTIATE TRAFFIC. MANY OF THEM ARE TO BE SEEN ON STREETS OF COAST CITIES

1935

The "Almost" Hupp-Willys

During the Depression, when merger rumors ran rampant, a marriage of Willys-Overland and Hupmobile might have benefited both.

by Jeff Godshall

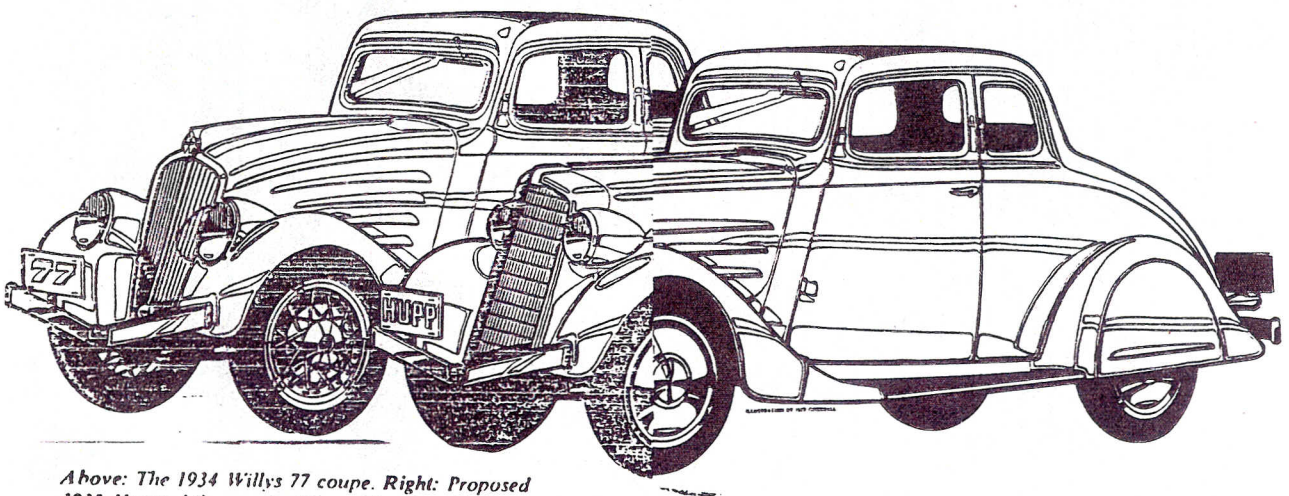
A FEW MONTHS AGO at a local swap meet I bought about 80 original old-car photographs for my files, most of which were Hupmobile along with a few Willys. Included was a picture of a rendering of what appeared to be a Willys 77 with a modified front end. Looking more closely I could see the car had Hupmobile hubcaps and other Hupp styling details. Then it hit me—this was a picture of the stillborn Hupp-Willys which Hupp intended to sell in 1935.

Nineteen-thirty-five was a bitter year. Most independent automotive companies were in terrible shape financially, and there were wild speculations and rumors concerning the merger of almost every make in all sorts of odd combinations. Both Hupp and Willys-Overland found themselves in trouble, Willys being the worse. Production had dropped from 315,000 cars in 1928 to 26,710 in 1932. After a $6,637,000 loss in 1932, Willys-Overland collapsed and entered receivership in Feb. 1933. At the time Willys had just introduced its Depression special, the Model 77. This new Willys was a desperate effort on the part of John North Willys to save the Toledo empire he'd built up over the past quarter century. The small Willys 77 was quite a comedown from the big Knight-engined cars of the past, its little 4-cylinder, 134.2-cid powerplant putting out just 48 bhp.

In appearance the 77 seemed a strange bird. It was styled by Amos Northup, the same designer who did the Wills Ste. Claire, Hupp Centurys, the 1929 Willys-Overland line, the Reo Royale, and the Graham Blue Streak. The 77 was certainly no beauty, with its starfish stamped steel wheels, plunging hood, and look-up-in-the-sky headlamps. But it was an honest attempt to cut wind resistance in the days just before the Airflow. Northup subsequently redeemed himself with his pert Willys for 1937.

Although later a favorite of hot rodders due to its light weight, the slope-nosed 77 didn't exactly set the world on fire. Only 29,918 were produced in 1933 and 7916 in 1934. At the time, Willys-Overland was also making 1/2-ton trucks under contract for International-Harvester. Things were in such bad shape that the the receiver could only build cars in batches, each additional batch being authorized by court order. The company realized

About the author: Jeff Godshall designs new cars for Chrysler Corp. and writes about auto history for a number of publications. He's been a long-time contributor to SIA.



Above: The 1934 Willys 77 coupe. Right: Proposed 1935 Hupmobile coupe with new hood, grille, headlamps, front fenders, wheelcovers, and fender skirts. The cars had common bodies from the cowl rearward.

1935 Hupp-Willys

continued

that the 77's styling was a problem and planned to spend $437,000 to modify the car's front end and make the design more conservative, but the court said no. When the first 1934 Willys 77 came off the line in Apr. 1934, the only differences were the modified hood louvers replacing the previous year's hood doors and the fitting of wire wheels.

Enter Archie Andrews, the flamboyant director of the Hupp Motor Car Corp. Beginning in Sept. 1933, Andrews had successfully waged a fight for control of Hupmobile, resulting in his being elected chairman of the board on Oct. 19, 1934. Andrews had plenty of ideas on how to save Hupmobile (see SIA #10), and he saw sales possibilities in the 100-inch-wheelbase 77 as a companion car to Hupp's conventional 117-inch 417-W and the bigger Loewy-designed Hupp Aerodynamics that the company was currently peddling.

Andrews approached Willys' receiver David R. Wilson, who had just been authorized by the court on Oct. 6 to begin a run of 15,000 cars and trucks. Andrews took an option on part of the contemplated production, adding that changes would be made in the design of the radiator and tire carrier to give a Hupp look to the 77.

The proposed Hupp-Willys was to be extensively modernized ahead of the cowl. All front-end sheetmetal was to be changed. Instead of being half-submerged in the fenders, the headlights were to be mounted in bullet shells and attached to the grille above the fenders. The 77's diving hood was to be replaced with a longer, straighter design ending in a V-shaped, sloping grille. Below the straight belt molding were three torpedo-shaped louvers similar to those used on the Hupp 417-W. This hood louver design was to be repeated on the optional rear fender skirts. The V-shaped, 2-piece front bumper remained unchanged.

Familiar Hupp styling details included a V-shaped raised panel on the hood (similar to Hupp's 1933 cars), grille texture as used on the 1935 Hupp Aerodynamics, and wheel discs and hubcaps as used on Hupp's 1932-34 cycle-fender cars (see SIA #37).

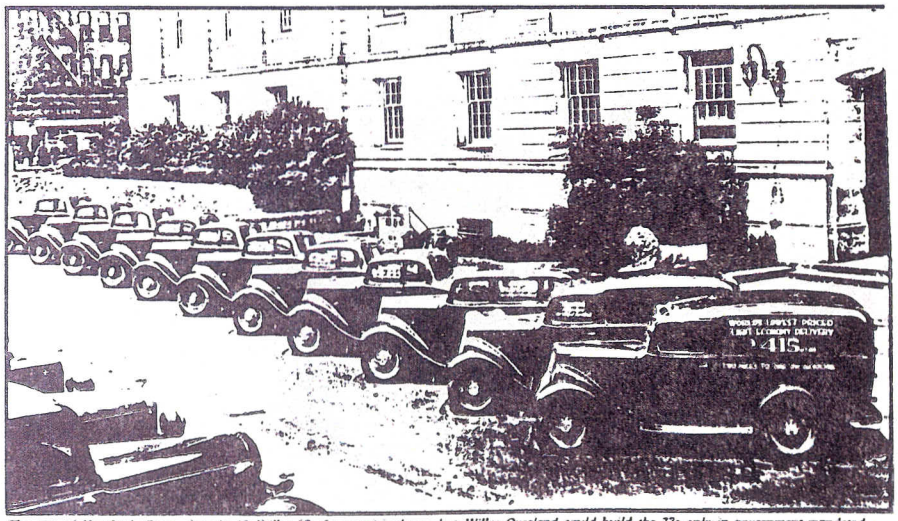
Bodies aft of the cowl were to be identical with the Willys, except for a slight modification to the spare-tire carrier at the rear. Although I've found only a sedan rendering, presumably the Hupp-Willys would also have been offered as a coupe and possibly as a pickup and panel delivery, since the 77 also came in those models. The comparison illustration shows the coupe with a companion 1934 Willys.

Since the 1934 77 was priced at $450 for the sedan, it's probable that the Hupp version would have retailed around $500-$550, comfortably below Hupp's W series, priced at $695 in 1935.

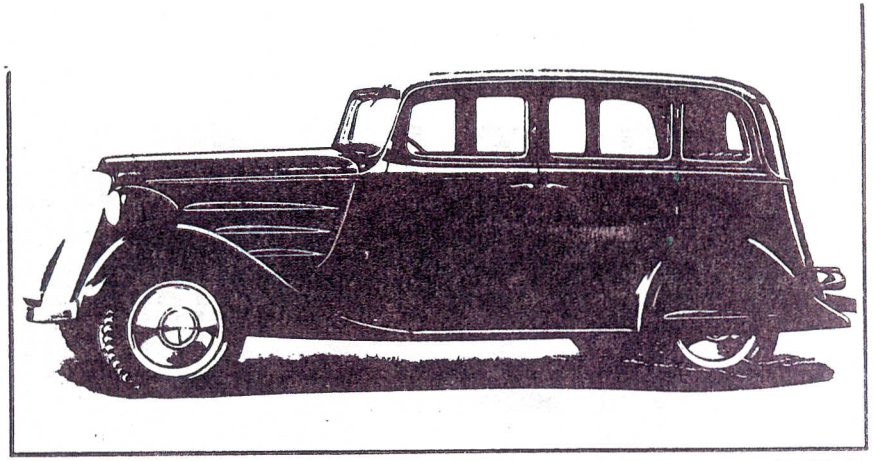
No mention was made of changes under the hood, which would have created an interesting situation. The Willys 77 engine was mounted in trunnions of rubber, front and rear, with a third rubber mounting on the right side of the engine (the torque arm) by which side torque was absorbed. This represented the patented Floating Power system introduced first on the 1932 PA Plymouth. Most people think of Floating Power as exclusive to Chrysler. But because of the long-standing personal friendship between Walter P. Chrysler and John North Willys (Chrysler had helped save W-O during 1920-22), Walter Chrysler generously permitted his hard-pressed former associate to use the invention on the compact 77. Had the Hupp-Willys car been produced, it, too, presumably would have had Floating Power, but whether Walter Chrysler would have permitted *that* remains a question.

By the end of Oct. 1934, however, the deal was off. Seems a group of four individuals identified as "prominent in the automotive field and specializing in clean-up sales of large stocks of cars" had also taken an option on part of the upcoming 77 output and they, too, wanted the new front end. One of these men was Roy Evans, who distributed Willys cars in 17 states. Evans bought control of American Austin in Aug. 1935 and marketed his own small car under the American Bantam banner. Under pressure, Wilson agreed. Andrews was willing to go through with the deal, but in a letter he asked the Hupp distributors if they were still interested. When informed that they wouldn't have exclusive distribution rights to the cars with the revamped front ends, the Hupp distributors said no. And that was that.

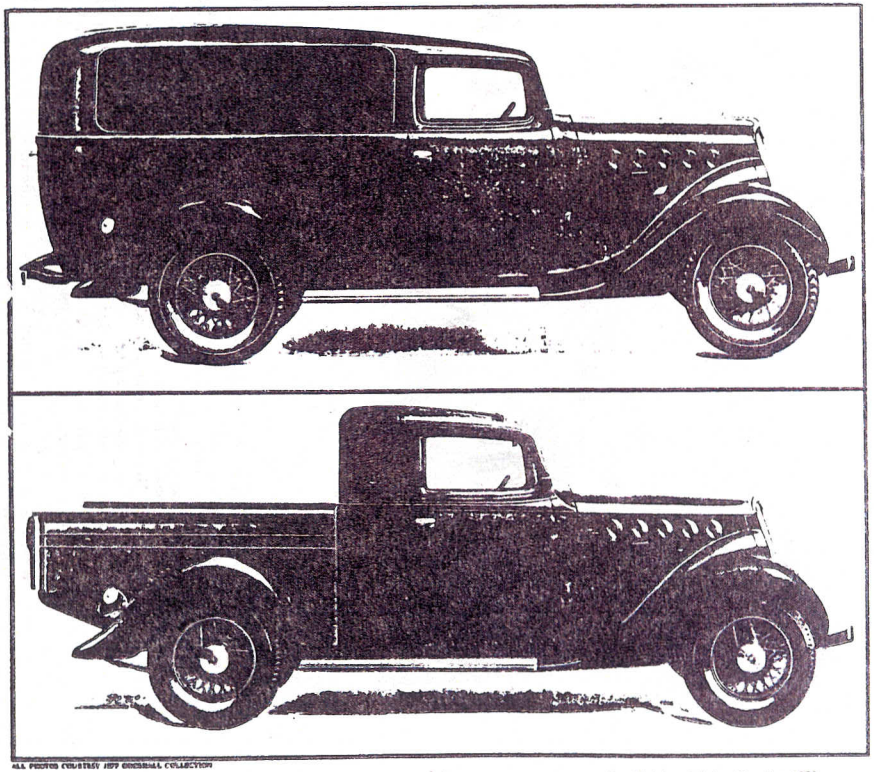
The 1935 Willys 77 was restyled along the lines of the proposed Hupp-Willys, except that the strange headlights were retained. All that apparently remains of the stillborn hybrid is the rendering I recently uncovered. Hupmobile dealers had their chance to sell 77's in 1935, but when all things were considered, the whole project gave them the willies. □



The city of Hartford, Conn., bought 10 Willys 77s for municipal use, but Willys-Overland could build the 77s only in government-mandated batches of several thousand at a time, and consequently they lost sales. Mechanically, the Hupp and Willys compacts were to be identical.



Above: If Hupmobile hadn't had such great problems of its own, it might have done well to build its personalized version of the Willys 77. Inexpensive cars were the only ones selling during the Depression, and Hupp, with its medium-priced models, suffered more than most. Below: The Willys 77 of 1933-36, with styling by Amos Northup, offered a variety of utilitarian body types, including a small pickup and a panel delivery. In the Hupp version, the "up-looking" headlamps and round louvers would have been changed, and the wire wheels would have gotten covers.



ALL PHOTOS COURTESY HUPP ORIGINAL COLLECTION

Willys' Colorful Career in Automotive Industry Ends With Death from Stroke

by P. M. Heldt

John North Willys, whose rise to fame and fortune during the early years of the automobile was one of the most glamorous chapters in the whole history of the industry, died at New York City on August 26, following an illness of several months culminating in a stroke suffered two weeks ago.

Starting without capital and with no more education than the common schools of the country provide, he succeeded in building up an industrial organization that for many years ranked among the largest and most prosperous in the industry. While he met with reverses at various stages of his career, he always regained control of his principal interest, and at the time of his death he was still president of the Willys Overland Co., his first and greatest creation, although that company had been in receivership for more than two years.

Funeral services were held Wednesday at Mr. Willys' Riverdale, N. Y., home. The Rev. Dr. Roelif H. Brooks, Rector of St. Thomas Protestant Episcopal Church, read the simple Anglican service.

Honorary pallbearers were J. L. Replogle, A. J. Brosseau, Carl Shippe, Dr. Herman Baruch, Ward Canaday, David R. Wilson, H. C. Tillotson, H. J. Leonard, L. A. Miller and C. O. Miniger.

Mr. Willys was born in Canandaigua, N. Y., October 25, 1873, and therefore was in his 62d year at the time of his death.

After the turn of the century, when the bicycle boom had run its course, he became interested in automobiles, and obtained the local agencies for the Pierce motorette, the first model of what is now the Pierce-Arrow Motor Corp., and the Rambler, the predecessor of the Nash. In 1906 he organized the American Motor Car Sales Co. and took on the agency for the Overland, which was being made on a small scale in Indianapolis at the time. The car was of attractive appearance and low in price, hence it sold well, but it was next to impossible to get deliveries from the factory; so Willys made a trip to Indianapolis, and what he achieved there in the course of this visit forms one of the most interesting incidents of early automobile history.

It was during the depression of 1907, which had slowed up business in general and had forced a number of concerns in the new industry to the wall. When Willys arrived at the factory he found that the employees had gone on strike because they had not received any pay for weeks. It is related that he induced the hotel manager to cash his check for $350, a sum sufficient to satisfy the workmen and get things started again. Next, arranging for the necessary financial backing "down East," he took over and reorganized the Overland Company, settling claims against it at 50 cents on the dollar, of which 40 cents was in notes. He moved to Indianapolis and took over the management of the concern. In nine months he built 465 cars and raised the net worth of the company to $58,000.

One of the concerns that went under in the slump of 1907 was the American Motor Car Co., a subsidiary of the American Bicycle Company (the bicycle trust), which had manufactured a number of automobile lines. Its leading model was the Pope-Toledo, which was being manufactured in a mammoth former bicycle plant in Toledo. When the company failed, the Toledo plant was put up for sale, but because of its enormous size and the depressed condition of business, no offer was received for a long time. Finally John Willys bought the plant and moved the Overland company to Toledo. The price paid is reported to have been $285,000.

The Overland business grew rapidly and the plant, originally much too big for the operations of the concern, had to be enlarged at frequent intervals. In 1914 a production of 48,000 cars was reached. In 1912 Willys acquired the business of the Gramm Motor Truck Company of Lima, Ohio, one of the largest producers of trucks at the time. Two years later he obtained a license under the Knight sleeve-valve engine patents and began to produce Willys-Knight cars. During the war the various plants controlled by Willys produced trucks and munitions for the Government. Willys was appointed chairman of the War Camp Community Recreation Fund, which set itself the task of raising and distributing $4,000,000 to provide soldiers with the means for healthful recreation.

During the war and the boom period following its conclusion, Willys greatly expanded the field of his activities. He secured control of the Fisk Rubber Company of Chicopee Falls, Mass., whose tires he used to equip his cars. He also gained control of the Curtiss Aeroplane & Motor Corporation, which had built an enormous plant at Buffalo to produce training and other planes for the Government. He also was in control of the Moline Plow Company, Moline, Ill., which turned out a two-wheeled farm tractor in large numbers.

After the war, Mr. Willys organized the Willys Corporation, to manufacture a car in a higher price class than the Overlands and the Willys-Knights. In this enterprise he was associated with a group of engineers who previously had been connected with the Studebaker Corporation and with Walter P. Chrysler. A large plant was erected at Elizabeth, N. J., for the manufacture of a six-cylinder car, but just about the time production was to begin, during the depression of 1920, the corporation was placed in receivership, with debts exceeding ten million dollars. The plant was sold at auction and was later used by Durant for the manufacture of his Star car.

John North Willys

Failure of the Willys Corporation came near costing Mr. Willys his control of the Willys Overland Company. This was due to the fact that the Willys Corporation held a large block (about one-third of the total) of Willys Overland common shares, and the court which had ordered the receivership was petitioned to order the sale of this stock, so that claims of creditors and preferred stockholders of the Willys Corporation might be satisfied. Sale of this stock to unfriendly interests would have meant loss of control by Willys. In the emergency a group of Toledo capitalists got together, under the leadership of Thomas H. Tracey, and raised a fund of about three million dollars to guarantee satisfaction of the claims of creditors and preferred stockholders, thereby preventing the sale of the Overland stock.

Mr. Willys continued in active control of the Overland company until 1929, when he sold out his holding of common stock of the company to the Toledo interests which had helped him to retain control of its affairs during the dark days of the early Twenties, for a consideration of something like $21,000,000. However, he held onto his large holding of preferred stock, which was fortified by a provision in the charter of the company that control should go to it if dividends on it had been defaulted for four successive terms.

Mr. Willys then accepted the post of Ambassador to Poland from President Hoover and started upon a short diplomatic career, taking up his residence in Warsaw. However, shortly after he had given up active management of the Overland company, the depression broke over the country, and the Overland company was among those hardest hit by it. From 1932 on the company was in the red every year, the deficit in 1932 exceeding $6,000,000. Interest payments on the preferred stock had to be defaulted, and as a result control of the company's affairs reverted to Mr. Willys, of

Death Ends Willys' Colorful Career

Continued

which he was chairman of the board at first. The company was placed in receivership in February, 1933. In January last the preferred stockholders, with whom the voting power rested, made him president once more. He also acted as co-receiver with L. A. Miller, who had been president of the company during Mr. Willys' period of inactivity.

Mr. Willys' greatest success was with cars in the medium-low priced field. Most of his earlier models had considerable eye appeal, and as their prices were always relatively low they sold readily. Once or twice he attempted to challenge the largest producers, but with rather indifferent success. His first bid for the patronage of the distinctly low-priced market was the Overland Four, brought out immediately after the war. This was a small four-cylinder car with an engine of 143 cu. in. displacement, a wheelbase of 100 in., and quarter-elliptic springs all around. It remained the Willys largest-production model for a considerable number of years. In 1925 the Willys Overland Company produced a total of more than 200,000 cars, and netted profits of very nearly $20,000,000.

In 1926 Mr. Willys introduced the Whippet, a car said to have been developed in England but modified to adapt the design to American production methods. The banner year of the company in the Whippet period was 1928, when more than 300,000 cars were produced and more than $9,000,000 net profits earned. There was only a relatively small profit in 1929, on a volume of over 240,000 units, but that was the last profitable year of the company. Between 1914 and 1934, the company built more than 2,500,000 vehicles.

Mr. Willys was married twice. His first wife was Isabel Van Wie of Canandaigua, N.Y., who divorced him in 1934. He then married the former Mrs. Florence Dolan. Besides his widow he is survived by a daughter of his first marriage, Mrs. Jose de Landa of New York.

Willys Death Will Not Alter Reorganizing Plans

Death of John North Willys, president and co-receiver for the Willys-Overland Co., may have some effect upon the proposed reorganization of the company now nearing a climax. However, close associates of Mr. Willys believe that his work will be carried on.

It is felt in Toledo that the plan of Mr. Willys may be largely carried out by his successors due in part to their actual interest in the receivership estate and the opportunity presented to carry out his last business objective.

There will be no halt in the reorganization plans now under development, at least. This much has been revealed by those close to the receivership and creditors' group.

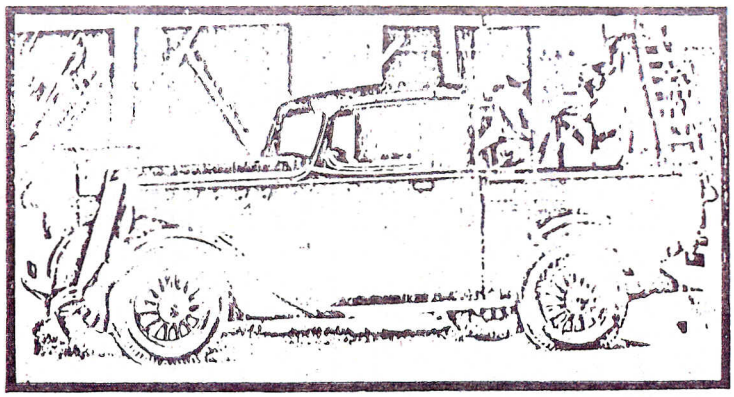
"You Are Working for Me" Willys Told NACC Board

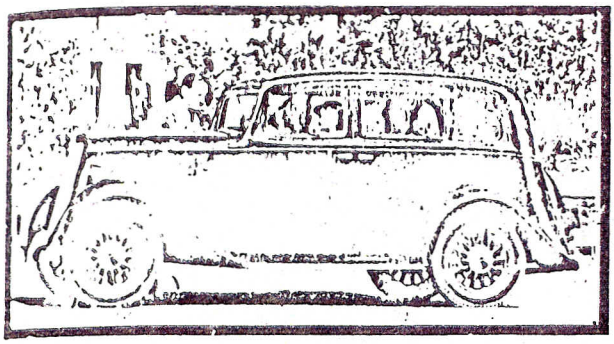
Home from Warsaw on a visit during the time he was Ambassador to Poland, Mr. Willys spent the morning of his first day in this country in the downtown financial district of New York. In the afternoon, he went uptown to attend a meeting of the board of the NACC, of which he was still a member.

Entering the meeting at which, it is said, were such automotive giants as Alfred P. Sloan, Jr., Walter Chrysler, C. W. Nash, and others, he announced that he had been down on Wall Street during the morning making some investments, including the purchase of a variety of motor stocks.

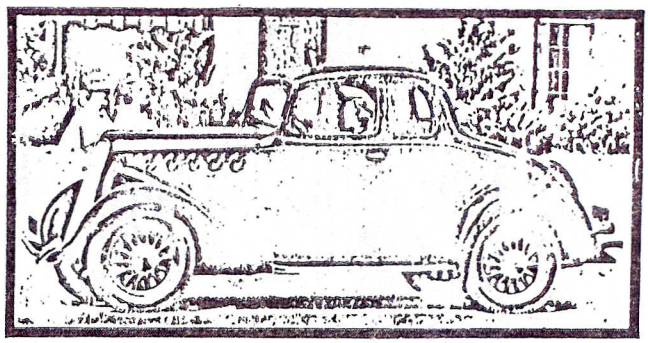
"Now," he continued according to the story, "all you fellows are working for me and I expect you to be on the job every morning at 8 o'clock."

ECONOMY STRESSED by WILLYS





Sedan—one of six models in 1936 line



1936 coupe and, above, the cab pick-up

THE 1936 Willys line is presented in six models characterized principally by thrifty and dependable performance, recognized as today's slogan of the careful buyer. In considering the engine, for instance, it is particularly interesting to observe that the power plant is supported by four large rubber pads, a patented mounting that practically eliminates vibration, despite the machine's capacity for speeds up to 70 miles an hour. There are a vacuum controlled igniter, higher compression and an adjustable main jet in the carburetor, all designed to provide better gasoline mileage and to give even greater emphasis to a phrase made famous by Willys performance—"Now up to 35 miles per gallon."

A first impression of the Willys models reveals a real sleekness, the back sloping down to the bottom of the fenders; a metal cover completely shielding the wheel and tire; twin tail lights with integral stop lights mounted in the body without brackets; and steel artillery type wheels.

The instrument board has four openings, two on each side, with two pockets in the cowl trim, one covered and the other open. The rear seat is set back to give an additional four inches of foot space, but leaving enough room for two medium-sized suitcases to be deposited back of the pull-forward rear seat.

The front seat is one single adjustable seat instead of two bucket-type seats, and the back moves forward to permit easy access to rear-seat occupants leaving or entering the car. The front seat also is movable up or down to suit the driver's height while the steering wheel is adjustable.

Along with elimination of vibration through use of the patented engine mounting rubber pads, body noises are greatly reduced by a soft top deck. Among other chassis features are an improved brake hook-up; fixed-type windshield to prevent leakage; silent "U" type shackles at rear of springs; wider cowl ventilator. The body is insulated throughout against dust, wind and water.

The de luxe sedan has the additional advantages of mohair upholstery, two sun visors, dual windshield wipers, de luxe rear-view mirror, dome light, rear curtains, chrome beading around windshield, lacquered fenders in same color as the body, tire lock, lift straps and ash tray. It also is wired for radio.

With its overall length of 164 inches encased by an all-steel body, the Willys is designed with a special regard to safety. Body construction is all steel throughout, including doors and inner panels, pillars, sills, cross members and floor panels.

The Willys recognized mileage economy performance is accomplished with a four cylinder engine, having a bore of 3⅛ inches and a stroke of 4¾ inches. It develops 48 horsepower at 3200 rpm. The block is of iron and steel nickel alloy.

Exhaust valves seat themselves on steel ring inserts of specially hard material, eliminating valve adjustments during the normal life of the car for the average driver. This, with the use of Silchrome valves, does away with the expense of valve grinding and fitting, and tappet adjustment.

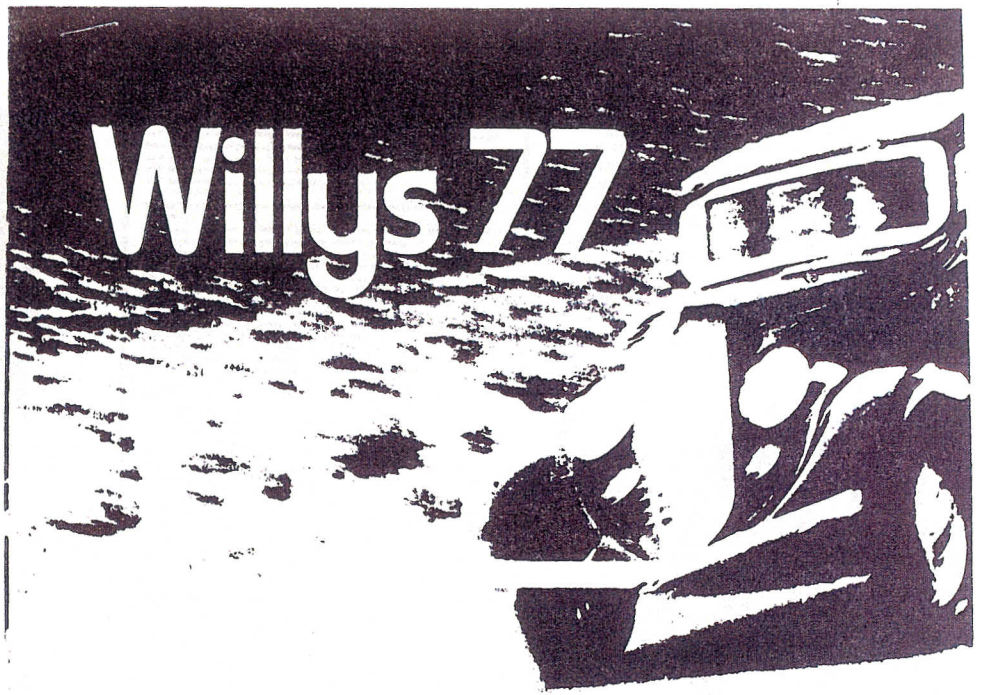
Among other outstanding features, the Willys has down-draft carburetor, improved intake manifold, large air cleaner and silencer, forced feed lubrication, double drop "X"-type frame, hydraulic shock eliminators, steel running boards, steel centered safety steering wheel, non-glare windshield and mechanically controlled brakes. The brakes are 9 inches in diameter by 1¼ inches wide.

The single-plate clutch and transmission are of conventional design. The former is eight inches in diameter and has a spring dampener. The transmission has roller bearings for the main shaft and both it and the engine are remote from the frame, the only connections being the rubber mountings plus those flexible members through which the engine is controlled. Movement of the clutch pedal is transmitted to the clutch proper by a cable so that the engine may move as much as it will. There are no unpleasant kick-backs on the foot pedals because of the cable flexibility.

The all-steel body construction which has provided an extremely rigid and safe body, with squeaks and rattles reduced to a minimum, is further enhanced by the fact that cowl, doors, rear and upper panels and floor stampings are all completely insulated against noises, draughts and heat.

A specially constructed folding trunk is available with full streamlined styling fitted so compactly that it appears to be an integral part of the body.

Passenger body models in the Willys line include the four-door sedan and two passenger coupe in either standard or de luxe design. Five body colors are available. Willys-Overland offers further economical transportation with two commercial units—panel delivery and cab pick-up models.



IF GOODLY NUMBERS of Willys 77s have given their souls and bodies to the cause of hot rodding—and countless have—it's all the more marvelous to find and drive one still so perfectly preserved.

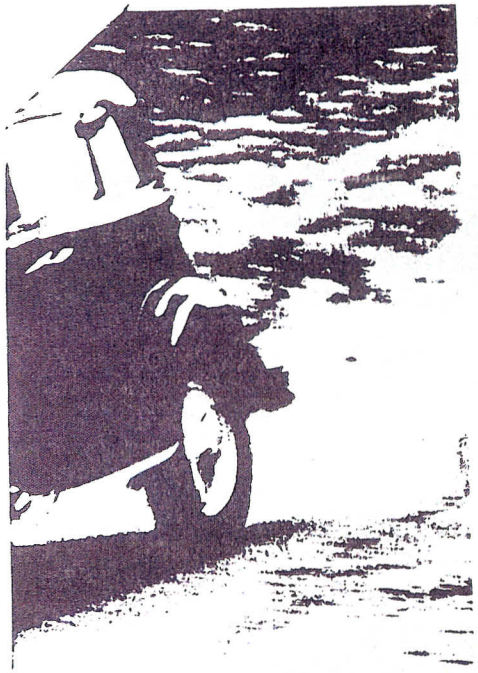
Very much with us is this 1936 4-door sedan from Harrah's Automobile Collection in Reno. HAC bought it in 1967, completely restored, from an Ohio enthusiast. Our driveReport marks the first time since then that the car's engine has been fired up.

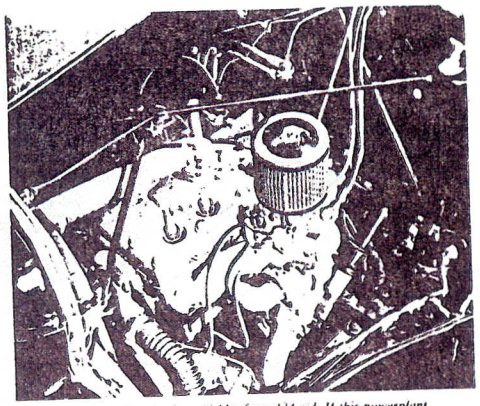
As testimony to its dependability and willingness, the 77 needed only gas, water, and a battery to run, then replacement of a dried-out fuel pump diaphragm to stay that way. Done, we headed out into the scrubby hills east of Reno.

What impressed us first about driving the 77 was its smooth and easy clutch. We later learned that the clutch pedal is linked to its actuating arm via Bowden cable. This helped keep engine vibrations from tickling our toes. In fact, the 48-bhp Willys 4 is mounted totally in rubber—a patent licensed from Chrysler—so the pistons pulse with great silence and smoothness.

Acceleration proved rather on the unbrisk side by today's standards. Yet in the 77's boomtime of 1934-35, Willys established quite a reputation for speed and stamina. In 1934, a 21-year-old Yale junior with the unlikely name of Langdon Quimby drove a Willys 77 homebuilt roadster to victory in the Briarcliff Trophy road race. Quoting MoToR Magazine: "Driving a stripped Willys 77 over hilly and winding roads of dirt, macadam and concrete, his average speed over the 100 miles was approximately 47 mph." Another Willys took fourth. You might not be too impressed with these triumphs until you hear that the race was made more interesting by the entry of no fewer than five Bugattis, two MGs, a Lancia, and several Fords—all of which the Willys bested.

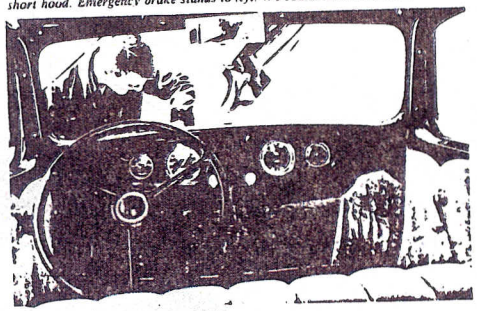
In 1935, Langdon Quimby again won Briarcliff. Then, less than a month later, Quimby romped to first in the Cape Grand Prix of Massachusetts. He was followed hotly across the line by his friend Barron Collier in another Willys 77. This time a Lancia claimed third, followed by two Bugattis, a Bentley, assorted MGs, Fords, Austins, etc. Later in 1935, a stock Willys 77 sedan set sail on Muroc dry lake in California and aver-





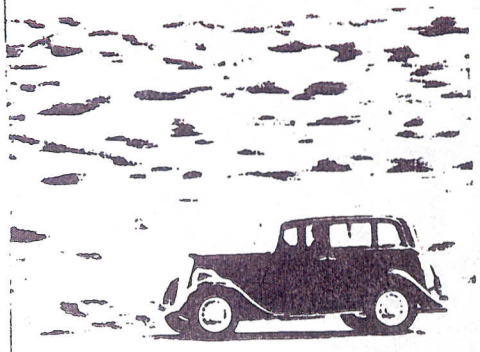
(Above) *Willys engine develops 48 bhp from 134 cid. If this powerplant looks familiar, it's because it graced World War II Jeeps through 1947.*

(Below) *Simplicity keynotes dashboard, with plenty of visibility over short hood. Emergency brake stands to left. We could have used visors.*

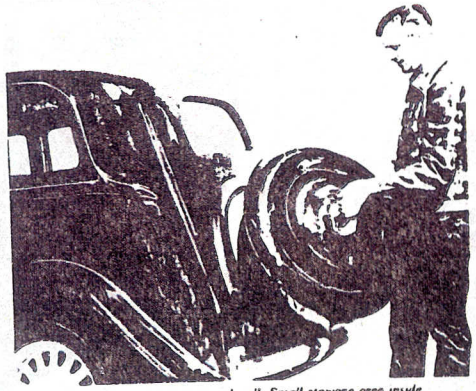


driveReport

The editor wishes to thank Harrah's Automobile Collection, Reno, Nevada, for making its Willys 77 available for this driveReport.



Harrah's beautifully restored Willys moves along. In 1935, a stock 77 averaged 65.5 mph at Muroc dry lake during 24-hour dependability run.



Covered spare rests neatly in recessed well. Small stowage area inside car becomes accessible by folding down back seat, holds jack, tire tools.

aged 65.5 mph for a 24-hour dependability run. So while performance might be mild by today's standards, it surely wasn't in the mid-1930s.

We found steering light, quick, responsive, and precise. The 77 rides as expected: choppily. This might have been due partly to partially filled snubbers, though, because in former days, the light Willys chassis and suspension were used regularly for sports specials. ROAD & TRACK reports a Willys 77-based roadster being constructed as late as 1955.

With the 77's relatively low gearing—4.3:1—the engine seems to be working pretty hard at 60 mph, yet the car will cruise at that speed all day long. The mechanical brakes, if well adjusted, are adequate to the speed.

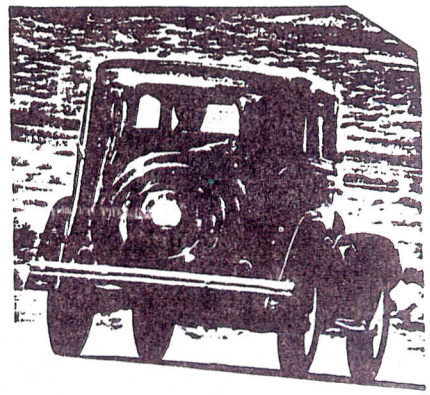
Top speed of the stock Willys 77 sedan was given by the factory as 71.5 mph. Factory fuel-mileage figures are these: At a steady 20 mph, 32.4 mpg. At 40 mph, 27.0 mpg. At 60, 20.3 mpg.

WILLYS-OVERLAND faced gruesome financial troubles in 1933, the year the first 77 was born. In fact, the 77's entire life—1933-36—spanned the same years as receivership.

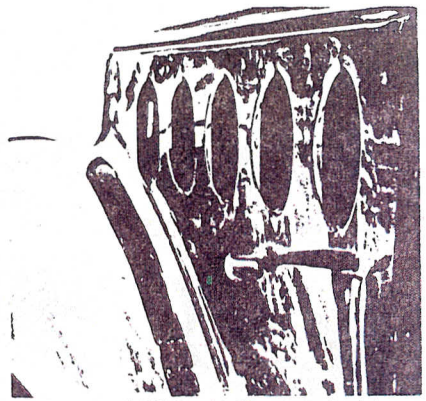
The Willys 77's ancestry goes back to the Whippet, a car introduced by Willys-Overland (W-O) in 1926. The 1926-29 Whippet and the 1933-36 Willys 77 used virtually identical engines, the 77's being considerably updated and strengthened.

Whippets had sold extremely well from the start. In 1928 and 1929, Whippet ranked fourth in U.S. new-car sales, a truly amazing feat. Fourth put W-O just behind Ford, Chevy, and Buick/Essex jockeying for third. So the company had great hopes for the 77 equal-

Dec. 1932—Willys 77 introduced at N.Y. Auto Show as sedan and coupe. Styling called "and knows" ... ical streamlining."
Jan. 3, 1933—John North Willys, president of Willys-Overland, predicts that the 1933 Willys 77 will triple or quadruple 1932 W-O sales.
Feb. 18, 1933—W-O goes into receivership. John Willys and E. A. Miller named receivers. W-O behind in payments $1.5 million. 8000 workers stay on job. Willys 77 shipments for Jan. '33 87 ... over W-O shipments for Jan. '32.
Feb. 25, 1933—W. Obligations rise to $3 million.
Mar. 19, 1933—Receivers joined by former U.S. postmaster general, W. F. Brown. W-O now owes 8000 workers $240,000 in back pay. Votes to pay 20%. W-O building International-Harvester trucks under contract.
Apr. 8, 1933—Another 20% back pay voted.
Apr. 22, 1933—Another 20% back pay for workers.
Apr. 29, 1933—Receivers authorize building 1600 Model 77s. Company now employs 10,000 in Toledo.
May 29, 1933—Workers paid in full.
Jun. 3, 1933—Courts approve another 1500 Willys 77s to be built.
Jul. 1933—Courts okay another 5000.
Aug. 1933—Courts okay another 5000.
Sep. 1933—Courts okay plans to bring out 1934 Willys 77.
1934 Willys 77 prices: sedan $525, coupe $395, panel $425.
Nov. 12, 1934—Lampson Quombs in Willys 77 Special wins Briarcliff Trophy road race against Bugatti, Lancia, Ford, MG, others. Another 77 is 4th.
1935 Willys 77 prices lowered: sedan $415, panel $415, coupe $395.
Jan. 1936—Stock Willys 77 sedan averages 65.5 mph for 24 hours at Muroc Lake, Calif.
Apr. 1935—Pickup added to line. Payroll now 10,614 at Toledo plant.
May 4, 1935—John Willys suffers heart attack but still holds creditors at bay. Court approves 10,000 more 77s. John Willys now fighting from bed.
May 1935—Lampson Quombs in Willys 77 Special again wins Briarcliff Trophy road race.
Jun. 1935—Lampson Quombs in same car takes first at Cape Cizend Pris. Bernstable, Mass. Another 77 is 2nd.
Aug. 1935—Courts approve 10,000 more 77s.
Aug. 26, 1935—John North Willys dies.
1936 Willys 77 prices: std sedan $425, dlx. sedan $445, touring sedan with trunk, $480, coupe $365, pickup $395, panel delivery $415.
Feb. 1936—Receivership ends. David R. Wilson elected president of Willys-Overland.



Taller than wide, Willys' center of gravity is still low enough to make cornering stable. Distinctive, perky styling began in 1933, ran thru '36.

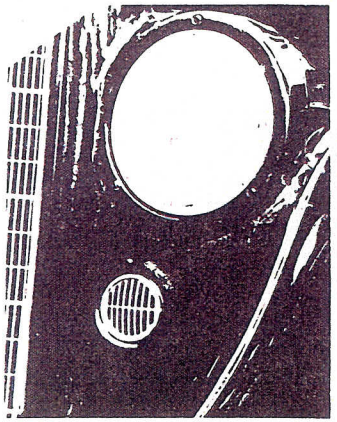


Round louvers mark 1935-36 models. This entire panel, including part of fender, comes off with 3 screws, makes engine access quick and easy.

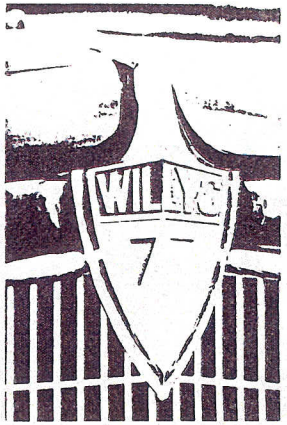
ling the Whippet's earlier success, especially since both cars were so much alike.

Unfortunately, under the squeeze of receivership, W-O never could build enough 77s to sell in volume. John North Willys (JNW), who took over Overland in 1908 and steered it to unbelievable success, had conceived the Whippet. In between the period of the Whippet and the 77, he had been abroad as Pres. Hoover's ambassador to Poland. When he got back, the 77 was just going into production and the Depression had backed the company into dire over-extension.

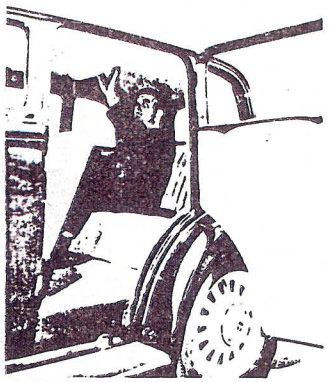
JNW returned in time to catch W-O as it was going down for the third time. Creditors were beating down



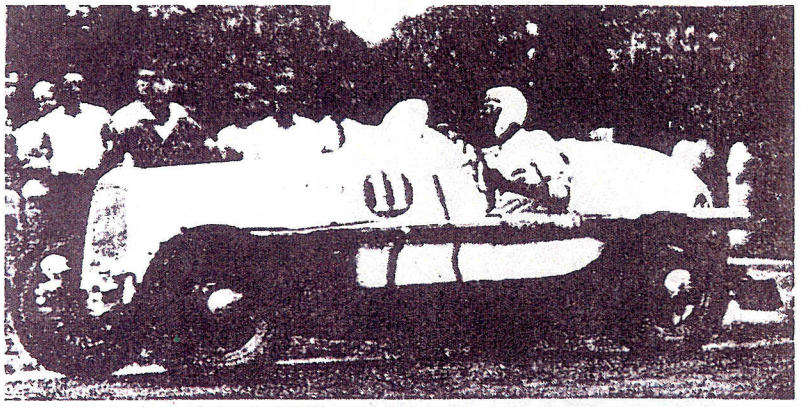
Bulb headlamp seems to point up but doesn't. Horn grille uses same pattern as radiator.



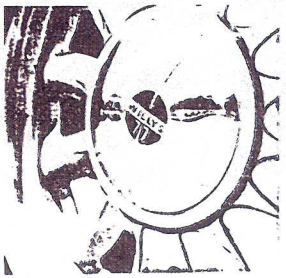
On earlier models hood sloped toward front. Filler for radiator stands hidden under hood.

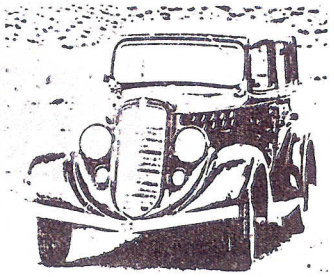


Kickup in rear roof gives extra 2 inches of headroom, one of many clever touches in 77.



Dale's Langdon Quimby kept his Willys 77 special winning against such formidable rivals as Bugatti, Ford, Lancia, and Bentley. He captured Briarcliff road race trophy twice, 1934-1935, then went on to win the Massachusetts Cape Grand Prix.





Willys 77 driveReport *continued*

every door in the Toledo plant. Some 8000 factory workers hadn't been paid for weeks. JNW and his co-receivers had to beg permission from the Ohio courts to produce *any* 77s, and then it was only 5000 to 10,000 at a time. When an allotted number had been built, W-O had to re-apply for permission to produce more. That handicap, more than anything else, was responsible for the relatively poor sales of the 77. If more cars could have been built, more could surely have been sold. Sales for the years 1933-36 respectively were 15,667; 6576; 10,439; and 12,423.

The 77's size and price appealed to belt-tightening Americans, but it appealed just as much to Britishers. The old Whippet engine had been largely a British design to begin with, Willys-Overland-Crossley Ltd. being the British assemblers overseas. Then the 77's size and styling came along in 1933 very much in the John Bull tradition, so Toledo seriously considered also building it in Stockport, England. Whether 77s actually were assembled there remains doubtful, but they did sell well in Great Britain.

JNW had been under tremendous pressures throughout 1933 and 1934. Legal and financial worries alone were enough to wear down any man, not to speak of production, salaries, distribution, advertising, and unionization. On May 4, 1935, John North Willys suffered a massive heart attack. He had kept the company alive by sheer will and personality through the depth of the Depression. Now he had to run W-O from bed. He did. He controlled company destiny until his death on August 26, 1935, just half a year short of seeing Willys-Overland pull out of receivership and stand on its own feet again.

Had it not been for the Willys 77, W-O would have gone under without a ripple in early 1933. Only the 77's basic appeal and sound engineering made the courts allow the company to stay in business. Lucky for us they did.

As it turned out, the 77 had an important mission in helping win World War II. The same engine design that powered the old Whippet and later the Willys 77 also powered the first Willys Jeep—the 1940 prototype and later production models through 1947. So if the Willys 77 engine seems a little familiar to some of you ex-G.I.s, that's the reason. □

Specifications

1936 Willys 77 Deluxe 4-dr. sedan

Price when new	$495 f.o.b. Toledo (1936).
Current valuation	Xlnt. $2100; gd. $1200.*
Engine	
Type	4-cyl., in-line, L-head, cast enbloc, water-cooled, 3 mains, cast-iron head.
Bore & stroke, ins	3.125 x 4.375.
Displacement, cu.-ins	134.2 (2200cc).
Max. bhp @ rpm	48 @ 3200.
Compression ratio	5.7:1.
Induction system	Tillotson D-1E 1-bbl. downdraft carb.
Exhaust system	Cast-iron manifold, single exhaust.
Electrical system	Auto-Lite 6-v. battery/coil.
Clutch	
Type	Single dry plate, Borg & Beck.
Diameter	8.0 in.
Actuation	Mechanical, foot pedal.
Transmission	
Type	3-spd. manual, floorshift, roller-bearing mainshaft.
Ratios: 1st	2.92:1.
2nd	1.63:1.
3rd	1.00:1.
Reverse	3.60:1.
Differential	
Type	Hypoid, semi-floating axles
Std. ratio	4.3:1.
Steering	
Type	Lavine worm & block.
Ratio	12:1.
Turns lock to lock	3.0.
Turn circle, ft	35.0.
Brakes	
Type	Bendix mechanical.
Drum diameter, front & rear	9.0 in.
Total swept area	134.3125 sq. in.
Body & chassis	
Frame construction	Channel-section steel, rivetted & welded, central X-member, double dropped.
Body construction	Steel, bolted to frame, fabric roof insert.
Suspension	
Front	I-beam solid axle, longitudinal semi-elliptic leaf springs, lever hydraulic shocks.
Rear	Solid axle, same as above.
Tires & wheels	
Tire size & type	5.00 x 17 tube type.
Wheels	Pressed steel bolt-ons, drop-center rim.
Weights & measures	
Wheelbase, in	100.0.
Front & rear track, in	51.0.
Overall height, in	66.5.
Overall width, in	62.0.
Overall length, in	164.0.
Ground clearance, in	8.75.
Curb weight, lb	2131.
Crankcase capacity, qt	4.0.
Cooling system, qt	9.0.
Gas tank, gal	8.0.
Performance & fuel mileage	
Acceleration	N.a.
Top speed	71.5 mph.
Fuel consumption @ mph:	
At 20 mph	32.4 mpg.
At 40 mph	27.0 mpg.
At 60 mph	20.3 mpg.

*Courtesy Antique Automobile Appraisal

1936

Half the gas

Most trucks within city or town limits are driven under 35 miles per hour average speed and while the Willys commercial models are built to stand up under long, fast runs, they are outstandingly economical on the short hauls, where low average speed and idling engines are the rule.

twice the market

Compared with heavier trucks in similar service, Willys can, with its savings, over a period of time actually pay for itself.

In fact, two of these units offer greater loading space, twice the delivering range and 100% increased delivering speed at no greater cost than the wages of an additional driver. Willys thus makes it possible for you to widen your market and expand your business.

CONDENSED SPECIFICATIONS

POWER PLANT — L-Engine, four-cylinder, 3⅛ x 4½. Cylinder bore 3⅛. Disp. 134.2 cu. in.; rating 15.63 HP; actual, 48 HP at 3200 r.p.m. Patented rubber mounting.

LUBRICATION—Full pressure to all bearings and timing chain. Direct spray to other engine parts. Float-O floating type oil intake. Cap. 4 quarts.

COOLING SYSTEM — Cellular type radiator. V-type radiator grille. Concealed filler pipe. Pump circulation. Centrifugal pump in unit with four-blade fan.

CLUTCH AND TRANSMISSION—Single plate dry disc clutch. Three speeds forward, one reverse.

FRONT AXLE—Reverse Elliott type. Heat-treated I-beam section. Timken roller thrust bearings and bronze bushings on steering knuckles.

REAR AXLE — Semi-floating. Rear axle ratio 4.3 to 1. Differential and pinion shaft on Timken taper roller bearings. Hyatt straddle bearing back of pinion. Spiral bevel ring gear and pinion, nickel alloy steel.

STEERING GEAR—Worm and block. Semi-irreversible type. Turning radius, 17 feet.

IGNITION AND LIGHTING — Battery, USL 6-8 volt, 13 plate. Starting motor and generator. Auto-Lite headlamps, tilt-beam type. Parking light bulbs. Two combination tail and stop lights. Dash lights indirect. Automatic and vacuum spark advance.

BRAKES — Bendix duo-servo, two-shoe type, self-energizing. Braking area 134 sq. in.

CHASSIS — Frame, X-member type. Overall length, bumper to bumper, 164 inches.

WHEELS — Steel, artillery type. Spare wheel mounted at rear.

FUEL SYSTEM—Gasoline tank at rear. Fuel pump and filter. Gasoline gauge in instrument panel.

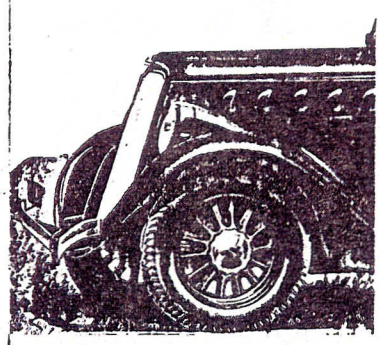
CONTROLS — Horn control at center of steering wheel. Throttle and choke controls, ignition lock on instrument panel. Headlamp beam controlled by foot switch.

EQUIPMENT—Hydraulic shock eliminators. Non-glare windshield. Remote door controls. Safety type steering wheel. Automatic windshield cleaner, rear view mirror. Cowl ventilator. Tires 17 x 5.00. (Commercial units 17 x 5.25.) Safety glass at extra cost.

NOTE—We reserve the right to change prices, color, and other specifications without notice.

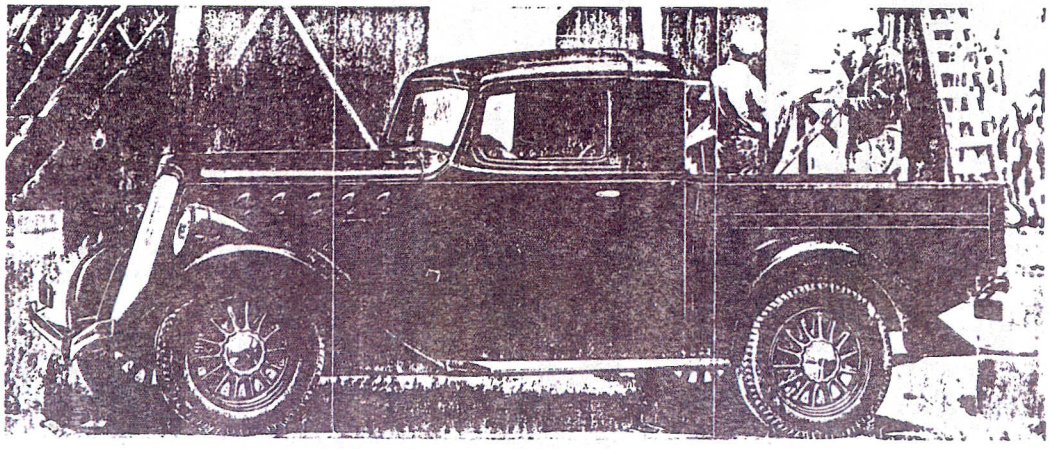
WILLYS-OVERLAND MOTORS, INC.
Toledo, Ohio

Willys



Commercial cars

1936



THE WILLYS PICK-UP

The new Willys commercial units are cleverly and modernly designed, and will reflect prestige to the business they serve. No other trucks on the market have caused more favorable comment. Everyone concedes that their smartly designed lines with the owner's name and business address painted on the bodies are a smart running advertisement. New patronage at distant points can be obtained with an increase in turnover and profit because of low delivery costs. The fine all-around performance of the Willys commercial units is impressive. The snappy pick-up, the ease of handling in crowded traffic, owing to the Willys' fine maneuverability, the road stability at higher speeds, the power on hills, the ability to take curves safely and the ease of parking all contribute to the practicability of these units.

Low first cost

Low upkeep cost

1936

Of great importance is the chassis. Including all the latest major improvements, its rugged simplicity is the key to its long economical service. There are no expensive gadgets or unproven innovations, only time-tried essentials determined by research of Willys engineers and by actual use. That stamina is inbuilt is evidenced by the chassis being the most reliable of more than two million five hundred thousand units manufactured by Willys-Overland, by a recent 24-hour continuous run when an average of 75.07 miles per hour was obtained, and by the large number of owners who have expressed their enthusiastic satisfaction in its outstanding performance.

Willys

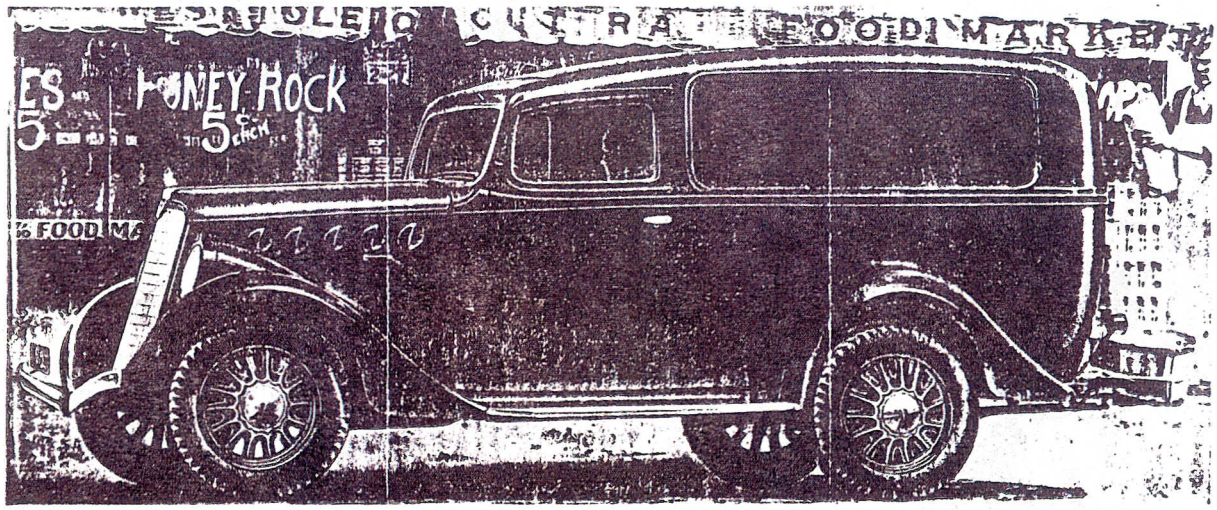
for

Economical

Delivery

These cleverly designed and sturdily built units will cost you less to buy, less for down payments, and less for maintenance. In your service you will enjoy the satisfaction which comes from making a sensible purchase and throughout the long ownership their low maintenance will prove a profit—you will save money every mile they run.

THE WILLYS PANEL DELIVERY

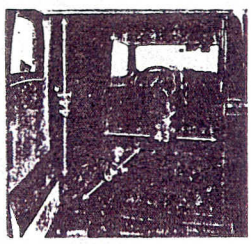


1936

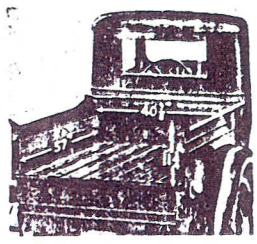
UP TO 35 MILES PER GALLON

The Willys can economically replace heavier vehicles used in similar service. To the traveling salesman Willys offers cheaper transportation, greater capacity for samples and personal baggage, a large number of calls each day with a distinct saving of gasoline and oil. The Willys offers greater mileage than any other truck on the market—UP TO 35 MILES PER GALLON. That means your gasoline cost will be cut nearly in half. In 35,000 miles of delivery service this item alone saves you many hundreds of gallons of gasoline (also many quarts of oil)—no small item to add to the profits of any business. You also save proportionately in other items of operating expenses. Take, for instance, tires. Willys tires are not only cheaper to replace but should last longer—25,000 miles is a conservative estimate. Maintenance, insurance, depreciation, taxes—in every phase, your delivery service costs less through the ownership of Willys.

As it is only good business to start working for profits when they are indicated, would it not be sensible to make prompt calculations of your present trucking costs—comparing them with the Willys savings? It may be that you could even afford to take some loss on your present equipment in order to more quickly get your light trucking on its proper basis — to start realizing these profits.



Measure the loading compartment of the panel delivery and the cab pick-up. You will find plenty of space for most kinds of light deliveries. To the traveling salesman, the panel delivery offers capacity for a wide variety of samples. There is no economy in constantly using a truck that is oversized and overpowered.



Both the panel and the pick-up fill a long-needed want for the reduced cost of delivering loads lighter than frequently carried in trucks of ½-ton, 1-ton and even 1½-ton capacity. Measure the loading space in these units and if suitable BUY A WILLYS AND SAVE THE DIFFERENCE.

1936

Amos Northup,

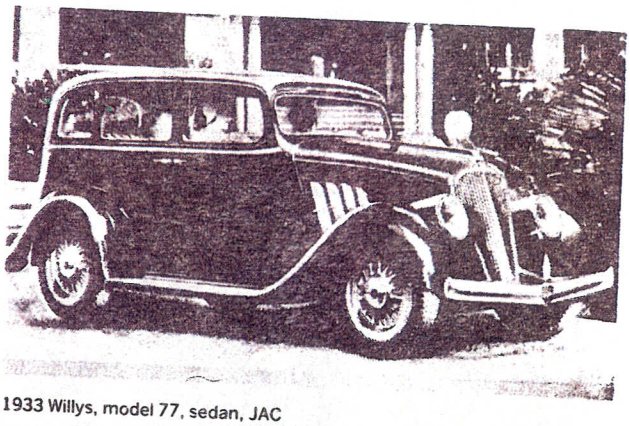
Automotive Industries

September 27, 1930 P 443

Styling of the new car was the work of the multi-talented Amos Northup, chief designer for Murray. Northup has never received the recognition he deserves, for in addition to the 1928 Hupps, he was also responsible for the Wills Sainte Claire, the 1929 Willys-Knight Great Six (with its plaidside roadster), the stunning 1931 Reo Royale and, with an assist from Ray Dietrich, the trend-setting 1932 Graham Blue Streak and also the 1933 Willys 77. According to an automotive journal of the day, he was credited with bringing bright color combinations into vogue and making the windshield integral with the body; he was the first to introduce metal roof quarters and close-coupled four-passenger coupés, first to place in production the close-coupled four-passenger blind quarter sedan and the continuous reveal above the belt moulding.

AUTOMOBILE QUARTERLY
Vol 16 No. 1

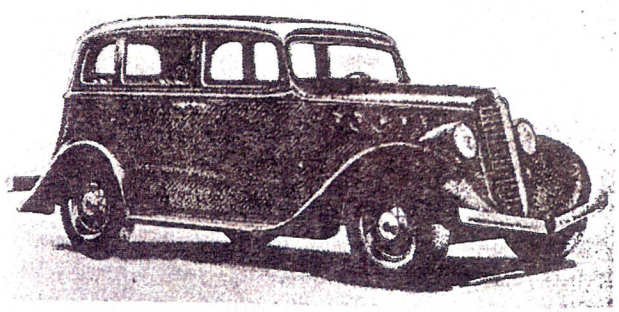
Kimes--Encyc. American Cars. 1815-1945, P 1170



1933 Willys, model 77, sedan, JAC

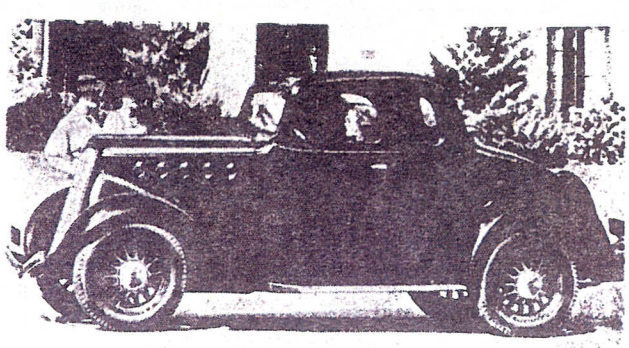
1933 WILLYS Willys 77 — 4-cyl., 48 hp, 100" wb	FP	5	4	3	2	1
Cpe.	335	1000	1900	2900	4400	7500
Cus. Cpe.	355	1000	2000	3000	4600	8000
Cpe.-4P	375	1000	2100	3100	4800	8500
Cus. Cpe.-4P	395	1100	2200	3200	4900	9000
Sed.	375	1000	1800	2800	4200	7000
Cus. Sed.	395	1000	1900	2900	4400	7500

1934 WILLYS Willys 77 — 4-cyl., 48 hp, 100" wb						
Cpe.	430	1000	2000	3000	4600	8000
Cus. Cpe.	415	1000	2100	3100	4800	8500
Cpe.-4P	425	1050	2150	3200	4900	8700
Cus. Cpe.-4P	445	1100	2200	3200	4900	9000
Sed.	450	1000	1800	2800	4200	7000
Cus. Sed.	475	1000	1900	2900	4400	7500
Pan. Dly.	450	1100	2200	3200	4900	9000



1935 Willys, model 77, sedan, JAC

1935 WILLYS Willys 77 — 4-cyl., 48 hp, 100" wb						
Cpe.	475	1000	2050	3100	4700	8300
Sed.	495	950	1400	2500	3700	6000



1936 Willys, coupe, JAC

1936 WILLYS Willys 77 — 4-cyl., 48 hp, 100" wb						
Cpe.	480	1000	2000	3000	4600	8000
Sed.	500	950	1400	2500	3700	6000
DeL Sed.	540	950	1400	2500	3700	6000

WILLYS — SERIES 77 — FOUR-CYLINDER: — New from Willys for 1933 was a stylish new "77" light-duty series rated for ½-ton. These trucks had a highly streamlined appearance with a hood that sloped down in the front to meet a new teardrop-shaped veed radiator grille. Four slanted vent doors decorated the rear of the hood sides, near the cowl. Front fenders had skirted valances and faired-in headlights. There was a veed, single-bar front two-piece bumper. Rear fenders were also streamlined and flared outward at the rear. There was a fin-like hood ornament, one-piece windshield and new steel artillery wheels. These were rather small-looking trucks, perched on a short 100 in. w.b. The sole factory model was a panel delivery. The side-opening rear door (it opened towards the street) had a small window and rear-mounted spare tire carrier.

I.D. DATA: Serial number located on plate on dash; also on left side of frame member ahead of front spring rear hanger; also on right side of frame at rear end; also under driver's seat cushion. Engine numbers located on either front or rear on upper corner of cylinder block on right side.
Same serial numbers as 1932.

Model	Body Type	Price	Weight	Prod. Total
Willys Model 77				
77	Panel Dely.	415	—	—

ENGINE: Inline. L-head. Four-cylinder. Cast iron block. Bore & stroke: 3⅛ in. x 4¾ in. Displacement: 134.2 cu. in. Compression ratio: 5.13:1. Brake horsepower: 48 at 3200 R.P.M. Net horsepower: 15.63 (N.A.C.C.) Three main bearings. Solid valve lifters. Carburetor: Tillotson model one-barrel.

CHASSIS (Willys 77): Wheelbase: 100 in. Tires: 17 x 5.00 in.

TECHNICAL: Selective sliding gear transmission. Speeds: 3F/1R. Floor-mounted gearshift lever. Four-wheel mechanical brakes. Steel artillery wheels.

OPTIONS: See 1930.

HISTORICAL: Introduced: Jan. 1933. Calendar year registrations: 233 (all trucks).
Willys "77" introduced and available in panel delivery form.
Most C-113 models titled in 1933 were built in the 1932 calendar year. Willys trucks built in 1933 are very rare. In 1932, the company was on the verge of receivership and dropped all of its current model lines in place of a new 1933 product called the "Willys 77." In February, 1933, the firm officially entered bank receivership.

Pricing

	5	4	3	2	1
1933					
Willys "77"					
Panel	870	1750	2900	4100	5800

WILLYS — SERIES 77 — FOUR-CYLINDER: — The Willys "77" was again marketed in 1934. Yearly changes included new wire spoke wheels and redesigned hood louvers. There were four slightly curved, horizontal louvers on the rear sides of the hood. Each was shorter than the one above it. A panel delivery represented the factory's model lineup.

I.D. DATA: Serial number located on left frame ahead of front spring rear hanger; also on tag attached to left front door sill; also on plate on front right-hand side of front frame cross member at center. Starting: 13,821. Ending: 27,005. Engine numbers located on right side, front upper corner of cylinder block.

Model	Body Type	Price	Weight	Prod. Total
Willys Model 77 — (4-cyl.)				
77	Panel Dely. (½-ton)	415	2130	—

ENGINE (Model 77): Inline. L-head. Four-cylinder. Cast iron block. Bore & stroke: 3⅛ in. x 4¾ in. Displacement: 134.2 cu. in. Compression ratio: 5.13:1. Brake horsepower: 48 at 3200 R.P.M. Net horsepower: 15.63 (N.A.C.C.) Three main bearings. Solid valve lifters. Carburetor: Tillotson model one-barrel.

CHASSIS (Willys 77): Wheelbase: 100 in. Tires: 17 x 5.00 in.

TECHNICAL: Selective sliding gear transmission. Speeds: 3F/1R. Floor-mounted gearshift lever. Four-wheel mechanical brakes. Wire spoke wheels.

HISTORICAL: Calendar year registrations: 25 (all trucks).
Most trucks of the 1934 design were built late in calendar year 1933. These are still quite rare. Total registrations of trucks in the two calendar years came to just 258 vehicles.

Pricing

	5	4	3	2	1
1934					
Willys Model 77					
Panel	870	1750	2900	4100	5800

Krause--Std. Catalog Lt. Trucks--p 664,665

WILLYS — SERIES 77 — FOUR-CYLINDER: — For 1935, the Willys "77" truck had a higher, more-conventional veed grille and straighter (non-sloping) hood line. The grille looked somewhat Buick-like. Decorating the sides of the hood were five slanted, oblong "bubbles" for air venting. They looked LaSalle-like. Someone at Willys seemed to appreciate GM design. Parking lights were placed alongside the radiator, under the faired-in headlights. The bumper was again a two-piece affair, veed towards the center. Wire wheels continued. The fenders were done in black; the rest of the truck in body color. A new cab pickup model came out this season.

I.D. DATA: Serial number located on left frame ahead of front spring rear hanger; also on tag attached to left front door sill; also on plate on front right-hand side of front frame cross member at center. Starting: (pickup): 27,001 & up. Starting: (panel): 27,001 & up. Engine numbers located on right side, front upper corner of cylinder block.

Model	Body Type	Price	Weight	Prod. Total
Willys Model 77 — (4-cyl.)				
77	Cab Pickup (½-ton)	475	2040	—
77	Panel Dely. (½-ton)	495	2195	—

ENGINE (Model 77): Inline. L-head. Four-cylinder. Cast iron block. Bore & stroke: 3⅛ in. x 4¾ in. Displacement: 134.2 cu. in. Compression ratio: 5.23:1. Brake horsepower: 48 at 3200 R.P.M. Net horsepower: 15.63 (N.A.C.C.) Three main bearings. Solid valve lifters. Carburetor: Tillotson model one-barrel.

CHASSIS (Willys 77): Wheelbase: 100 in. Tires: 17 x 5.00 in.

TECHNICAL: Selective sliding gear transmission. Speeds: 3F/1R. Floor-mounted gearshift lever. Overall ratio: 4.3:1. Four-wheel mechanical brakes. Wire spoke wheels.

HISTORICAL: Introduced: Jan. 1, 1935. Calendar year registrations: 2,280 (all trucks).
In January, 1935, John North Willys was again elected as company president, but five months later he suffered a heart attack. He died in August. By December, reorganization of his firm was completed.

Pricing

	5	4	3	2	1
1935					
Willys Model 77					
Pickup	830	1650	2750	3850	5500
Panel	890	1770	2950	4150	5900

WILLYS — SERIES 77 — FOUR-CYLINDER: — Changes to the 1936 Willys "77" trucks were minor. There was a curvier bumper and artillery style steel spoke wheels made their reappearance. Handles were seen on the sides of the hood underneath the rearmost pair of "bubble" vents. Weights and prices of both models fell a little.
The depression was probably responsible for some reduction in standard equipment that allowed lower prices and resulted in less bulk.

I.D. DATA: Serial number located on left frame ahead of front spring rear hanger; also on tag attached to left front door sill; also on plate on front right-hand side of front frame cross member at center. Starting: (pickup): 37,426 & up. Starting: (delivery): 35,939 & up. Engine numbers located on right side, front upper corner of cylinder block.

665

Model	Body Type	Price	Weight	Prod. Total
Willys Model 77 — (4-cyl.)				
77	Cab Pickup (½-ton)	395	2000	—
77	Panel Dely. (½-ton)	415	2130	—

ENGINE (Model 77): Inline. L-head. Four-cylinder. Cast iron block. Bore & stroke: 3⅛ in. x 4¾ in. Displacement: 134.2 cu. in. Compression ratio: 5.7:1. Brake horsepower: 48 at 3200 R.P.M. Net horsepower: 15.63 (N.A.C.C.) Three main bearings. Solid valve lifters. Carburetor: Tillotson model one-barrel.

CHASSIS (Willys 77): Wheelbase: 100 in. Tires: 17 x 5.00 in.

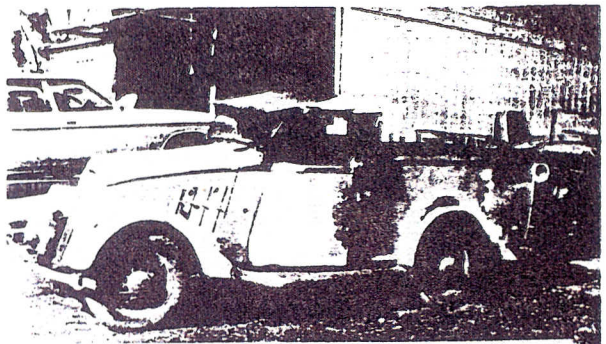
TECHNICAL: Selective sliding gear transmission. Speeds: 3F/1R. Floor-mounted gearshift lever. Overall ratio: 4.3:1. Four-wheel mechanical brakes. Steel artillery spoke wheels.

HISTORICAL: Introduced: Sept. 10, 1935. Calendar year registrations: 2,441 (all trucks). Calendar year production: Willys produced 23,831 vehicles of all types (cars and trucks) in calendar 1936.
Willys-Overland's receivership status ended in February, 1936.

Pricing

	5	4	3	2	1
1936					
Willys Model 77					
Pickup	830	1650	2750	3850	5500
Panel	890	1770	2950	4150	5900

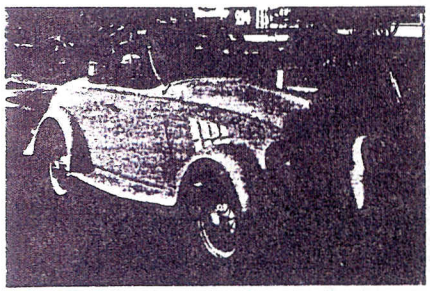
WILLYS DOWN UNDER



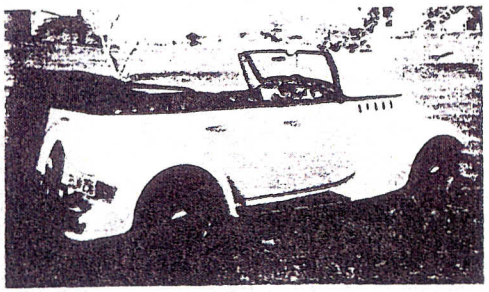
Pick-ups without seperate beds are known as "Ute's", short for Utility. Not much is known about this '33 roadster Ute except that it was factory built.

You may not recognize the bodies on this issues four cover cars, that's because they were only ever released in Australia. Thanks to Peter Eames, member #203, from Preston, Australia, we get to take a look at the Willys body styles unique to the land of the Kangaroo. The front sheetmetal was the same as American Willys, chassis' were the same but had right hand steering Bodies were made by Australian body building companies, either "T J Richards" or "Holden". No American bodied Willys were available in Australia. Most Australians consider the American bodies more desirable.

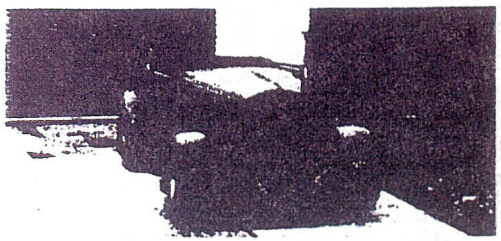
WILLYS CLUB CA.



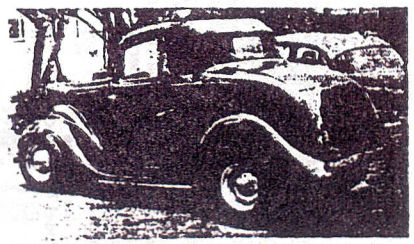
'33 Roadster manufactured by "T J Richards", this desirable car has since been imported into the States.



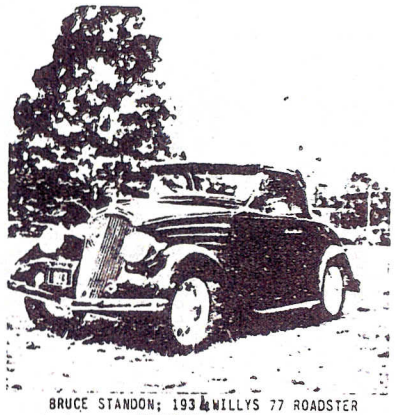
'35 Tourer is a classic looking car, note right hand drive.



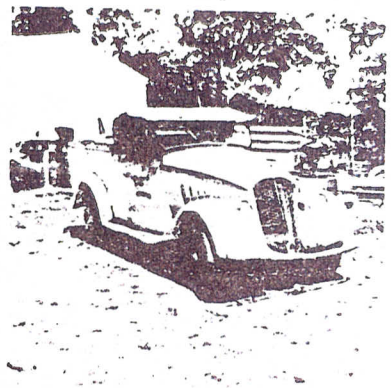
'35 Roadster is another Australian Willys that has found its way to the USA, owner is John Kostelnik, member #131 of Berea OH.



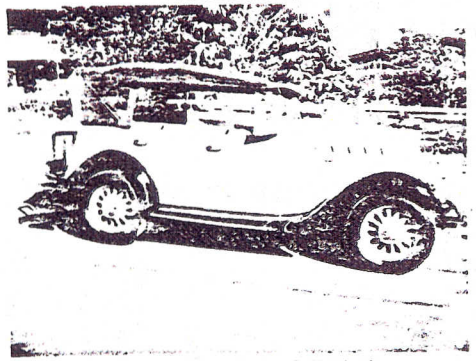
'35 Sport coupe, (very rare), had half fabric top. Body had alot of wood making it difficult to restore if wood is rotted.



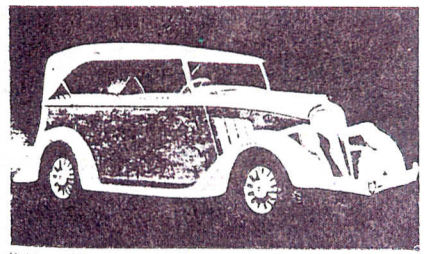
BRUCE STANDON; 1933 WILLYS 77 ROADSTER



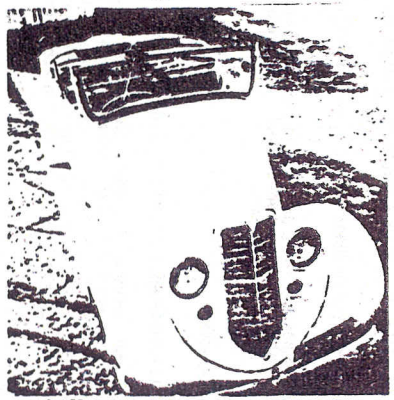
GREG WHITE; 1933 WILLYS 77 UTILITY



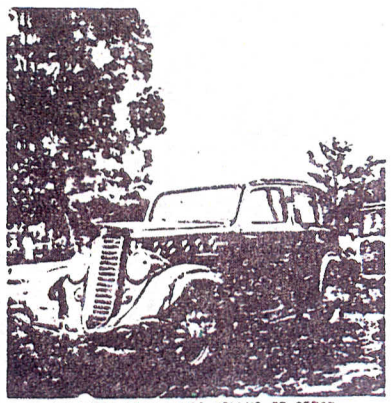
GORDON LAING; 1935 WILLYS 77 TOURER



Holden bodies for the 1933 Willys 77 included this Tourer. 579 were built on the 100" wheelbase from 1933 to 1937. For 1938 Willys used two door Tourers, produced by Floods of Melbourne.



OWNER ANON.; 1935 WILLYS 77 ROADSTER



COLIN TULLOCH; 1936 WILLYS 77 SEDAN

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