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DUESENBERG
MOTORS



Built to Outclass, Outrun and Outlast Any Car on the Road

PRELIMINARY CATALOGUE



OF THE

Duesenberg Automobile & Motors Co., Inc.

INDIANAPOLIS

U. S. A.

Foreword

IN presenting the "Duesenberg Straight-8" to the public, the Company pledges itself to furnish only a car "BUILT TO OUTCLASS, OUTFRAN AND OUTLAST ANY CAR ON THE ROAD."

The "Duesenberg Straight-8" is the culmination of over twenty years' effort of its creator, Fred S. Duesenberg, to whom, more than to any other, belongs the honor of producing a motor car that for speed, endurance and infinite attention to detail has proved its superiority throughout the world.

Experimental models have been punished without mercy, covering distance equal to at least ten years of average driving, and not until they had emerged from these tests successfully, were they deemed fit to offer to the buying public.

Features that impress the owner are numerous. Among them are:

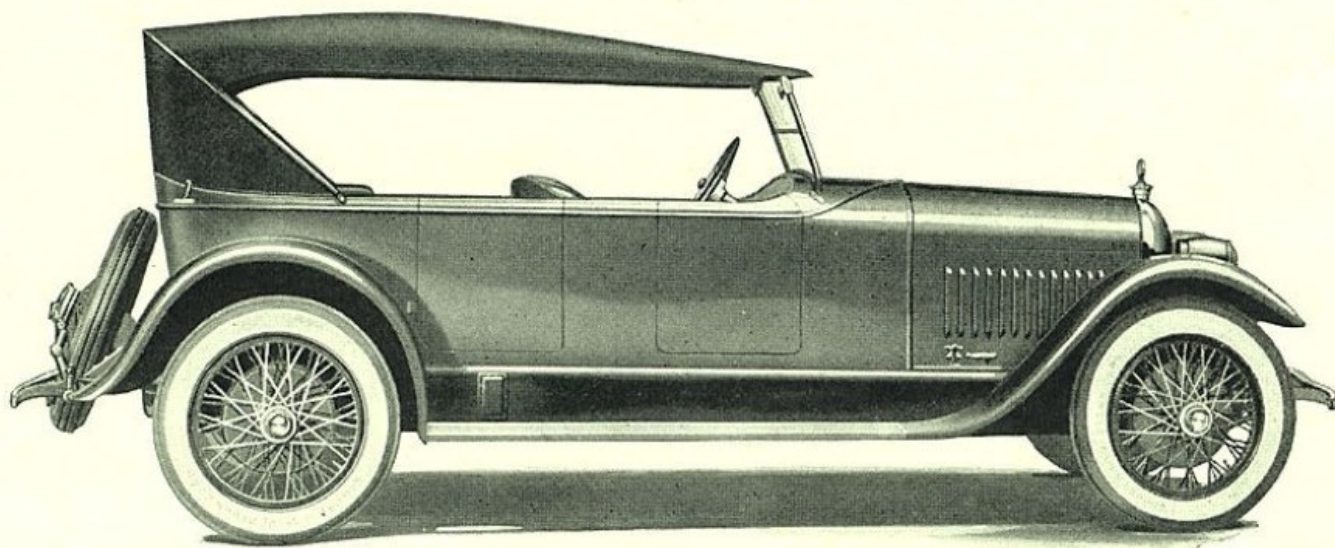
The extraordinary flexibility of the "Duesenberg Straight-8" engine, operation from three to ninety miles per hour on high gear with velvety quiet smoothness.

Its wonderful four-wheel hydraulic brakes, the most astonishingly successful accomplishment in automotive engineering since the inception of the industry, by which the car can be stopped in practically its own length when driven at thirty miles per hour. This as a "SAFETY FIRST" device is of incalculable benefit. At higher speeds its action is phenomenal.

The "Duesenberg Straight-8" combines in itself all the best features found in other motor carriages, lightness, power, smoothness, easy riding, accessibility, conveniences, and endurance beyond limit.

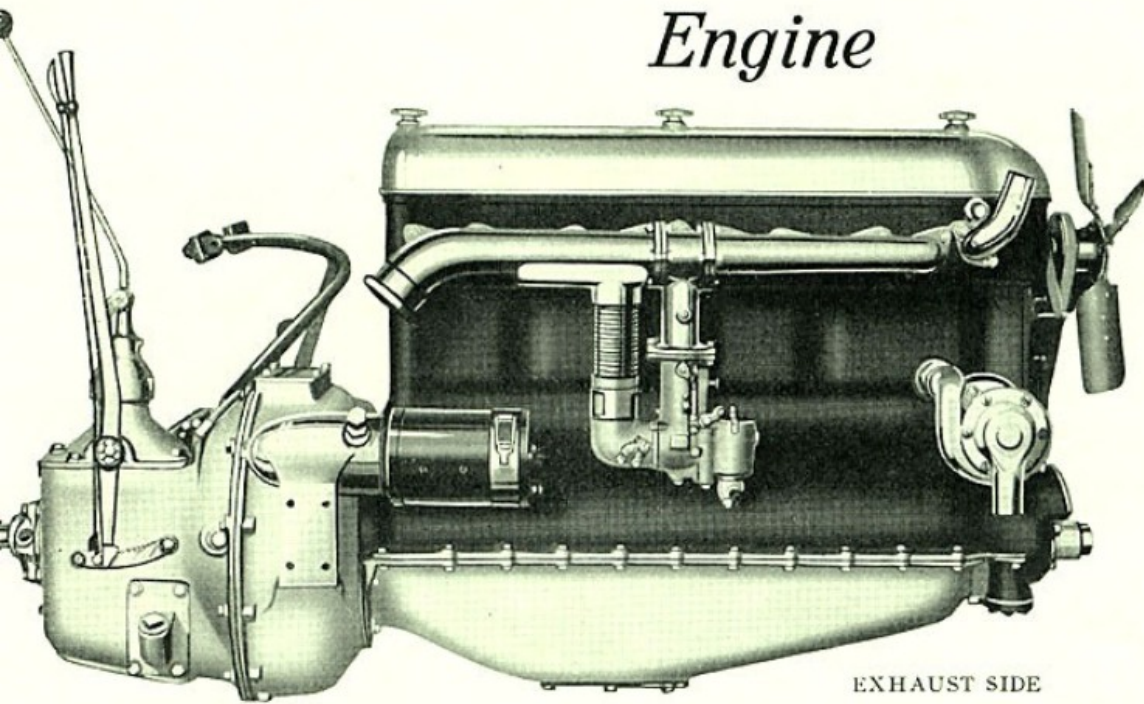
As becomes a motor carriage of such sterling qualities, the coach work employed is the best that artistic taste, coupled with beauty of design, and luxurious appointments can supply. Extraordinary attention to detail, to materials and workmanship, to care of inspection, increase the cost, but insure to the owner that sense of comfort and security which only comes from painstaking methods.

Every part of the "Duesenberg Straight-8" is especially designed for the purpose intended. Molybdenum and Chrome nickel steels and aluminum alloys are used, each after exhaustive tests to determine their adaptability for the particular work required of them, resulting in an extremely light car.



TOURING CAR

Engine



EXHAUST SIDE

THE heart of every motor carriage is its power plant, and its principal unit is its engine. Without a perfectly reliable engine the successful and satisfactory operation of a car is impossible.

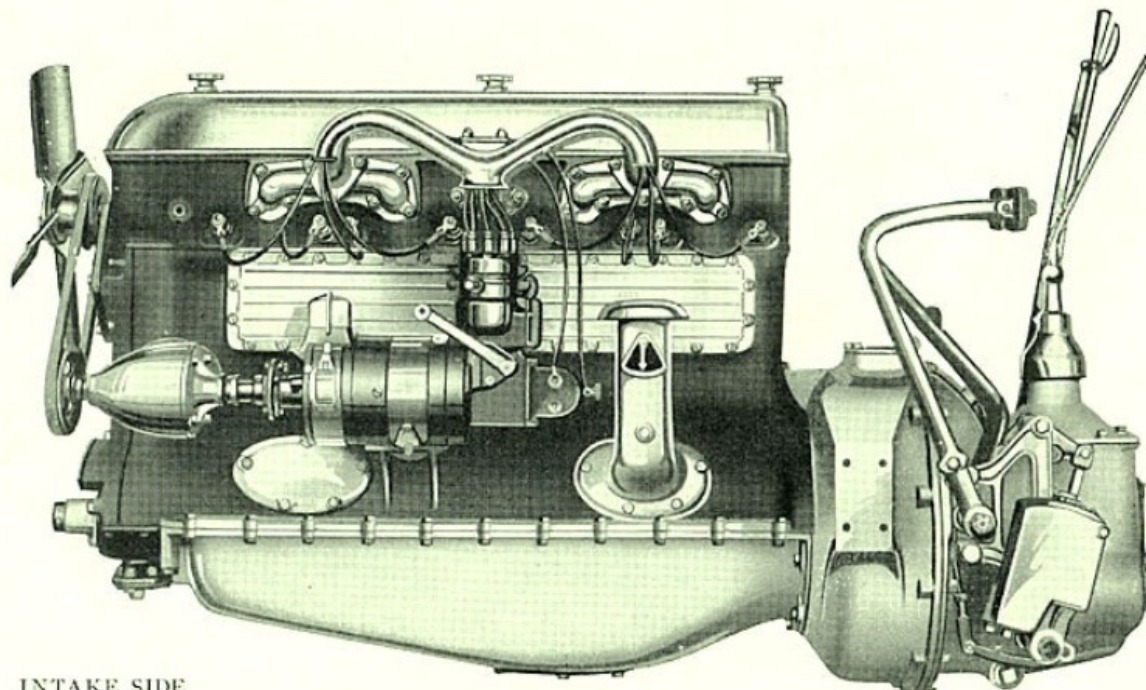
The "Duesenberg Straight-8" engine is the last word

in engine construction. It is quiet in operation, economical in the consumption of gasoline and oil, and built with a minute care for detail and perfect co-relation of assembly found in few automobile engines.

There is nothing "good enough" about the Duesenberg engine. Unless it is as good as the very finest materials obtainable can produce, and as good as the very highest grade of mechanical skill can build, it is not "good enough." Either it is as perfect as the best possible design, finest materials, adequate machinery and unexcelled mechanical skill can make it, or it is not satisfactory to the Duesenberg Company, and in their opinion is unsuited to offer to the public.

That this crowning achievement in automobile engine building is reached in the "Duesenberg Straight-8" is evidenced by its perfect performance on street, road and track. No engine in the industry has an equal record for power, speed and endurance.

We, therefore, offer it to the public with supreme confidence in its consistent performance and dependability.

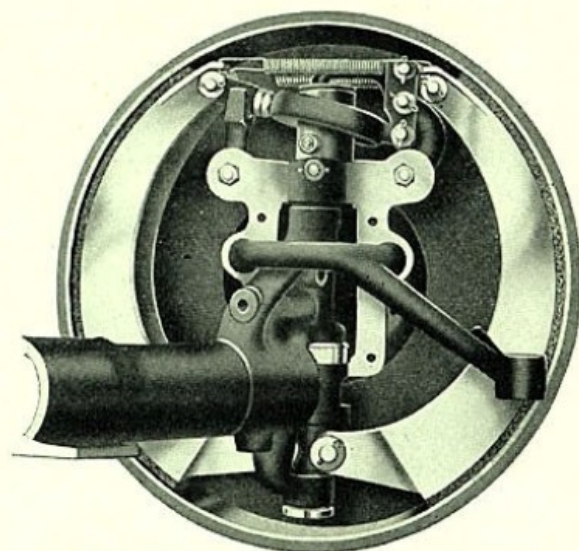


INTAKE SIDE

Hydraulic Four-Wheel Brakes

THE "Duesenberg Straight-8" is the only motor carriage manufactured in America equipped with four-wheel hydraulic brakes. The fluid used in the system is non-freezing. The brakes are operated in the conventional way, by the foot pedal, which applies the brake in each of the four wheel drums simultaneously. There is a separate emergency brake operated on the propeller shaft.

As a "Safety First" appliance they have no equal, as is evidenced by the table of comparative distances for stoppage at various speeds given below:

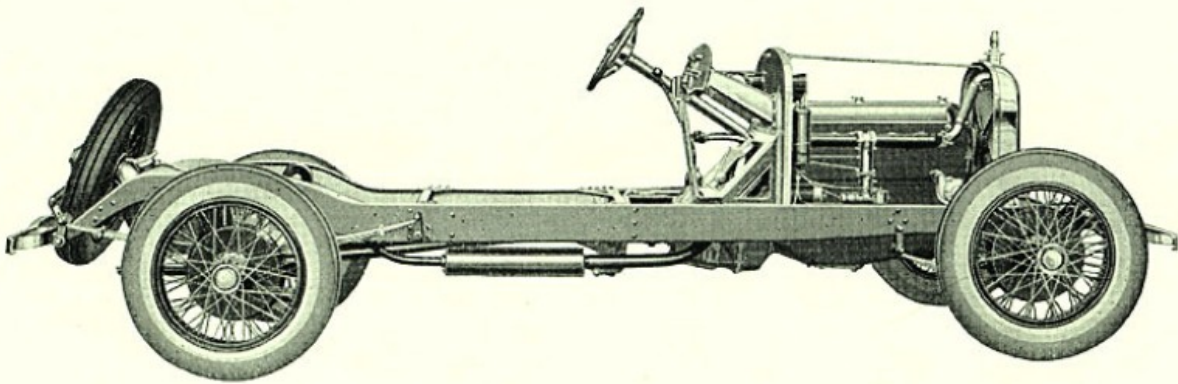


<i>Two-Wheel Brakes, Manual</i>	<i>Four-Wheel Brakes, Hydraulic</i>	<i>Difference</i>
10 M. P. H. 9.2 Feet	3 Feet	6.2 Feet
20 M. P. H. 37 Feet	8.5 Feet	28.5 Feet
30 M. P. H. 83.3 Feet	19.5 Feet	63.8 Feet
40 M. P. H. 148 Feet	36 Feet	112 Feet
50 M. P. H. 231 Feet	73 Feet	158 Feet

A racing car at 95 miles per hour was stopped in 218 feet.

Pascal's law that hydraulic pressure is equal and undiminished in all directions is here employed. For this reason there is no occasion to adjust these four wheel brakes for equalization. Pressure applied to each brake is equal at all times. This being true it is impossible to skid the car sideways by applying the brakes, since traction is equal on all of them. The application of the brakes can be made at a pressure of from 5 to 500 pounds, insuring smooth stopping when the pressure used is small as well as almost immediate stoppage when danger threatens.

The sense of security enjoyed in a car equipped with these four wheel hydraulic brakes is inconceivable. No other mechanism of a motor carriage is so essential as a perfectly operating braking system.

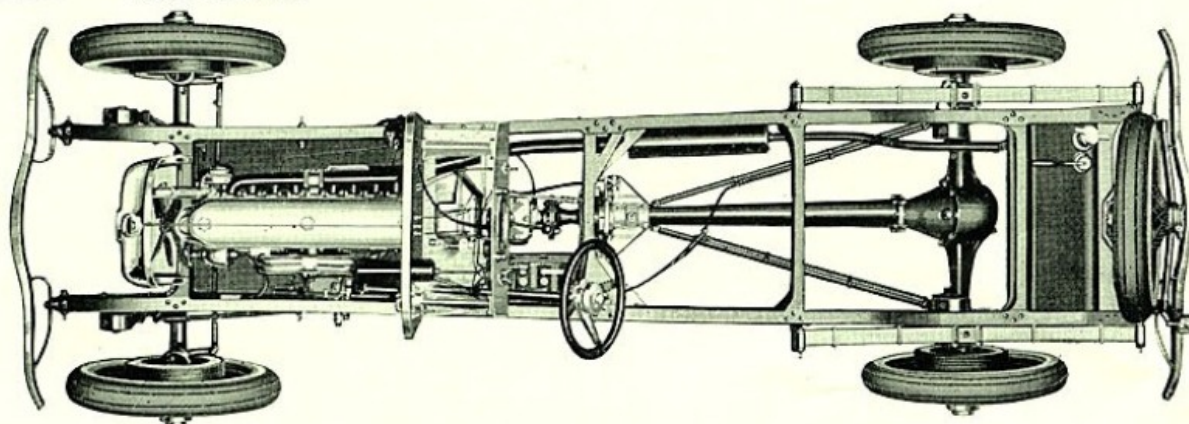


SIDE VIEW CHASSIS

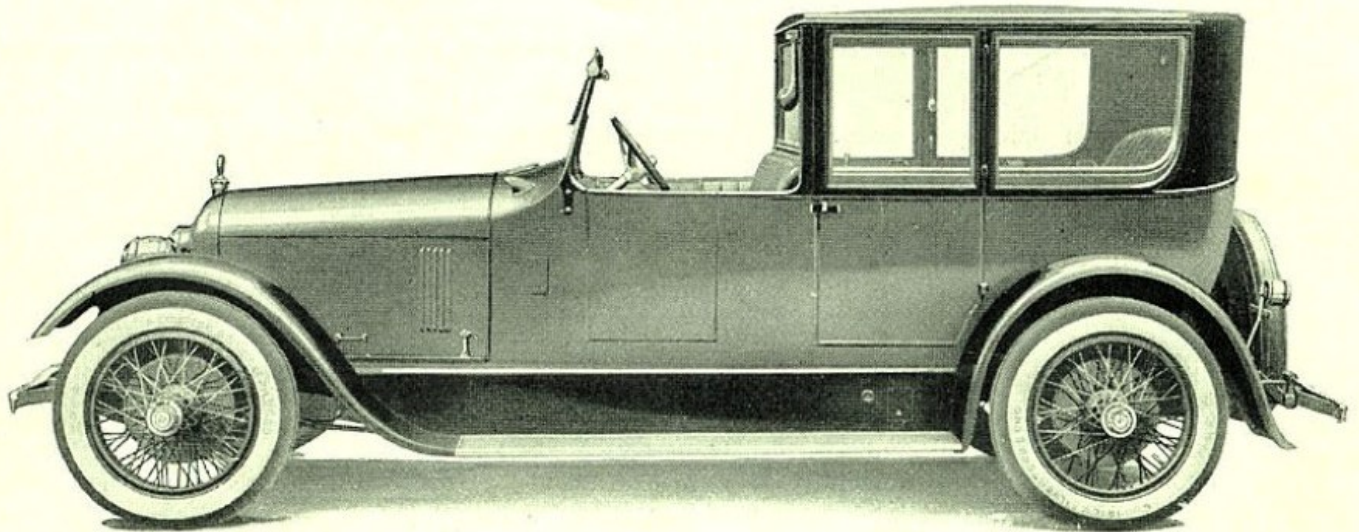
Specifications for Duesenberg Straight-Eight Automobile

Engine	Eight Cylinders in a row. Bore $2\frac{7}{8}$ inches. Stroke 5 inches. Displacement 260 cubic inches. Developing from 90 to 100 horse power.
Cylinder Block	Gray iron. The upper half of the crank case and cylinder block are cast enbloc.
Cylinder Head	Removable, with overhead cam shaft, rocker-arms, valves and springs enclosed by a detachable cover. The vertical drive shaft and gears are so arranged that the timing of the valves cannot be changed when the head is removed.
Cam Shaft	One piece hollow drilled for pressure oil feed to the five bearings. It is driven by a vertical drive shaft and spiral bevel gears.
Rocker-Arms	Forged alloy steel. Locked adjustment for the valve clearance at the end of the rocker-arm. Bearings are oiled under pressure through a hollow drilled rocker-shaft.
Valves	Two per cylinder, each actuated by a rocker-arm and two springs, one inside the other. Spring secured by taper keys.
Combustion Chamber	Is bored out in a spherical shape and polished to prevent collection of carbon.
Vertical Drive Shaft	In two pieces so arranged that the head can be removed and replaced without the possibility of changing the valve timing.
Oil Pump	Driven direct from the crankshaft. A special DUESENBERG feature consisting entirely of a system of gears capable of delivering a pressure of 250 pounds per square inch.
Water Pump	An impeller of the centrifugal type.
Crankshaft	One piece having three main bearings. Front $2\frac{3}{8} \times 2\frac{1}{4}$ ". Center $2\frac{3}{8} \times 2\frac{1}{2}$ ". Rear $2\frac{3}{8} \times 3$ ". The connecting rod bearings are $2 \times 1\frac{7}{8}$ ". The crankshaft is drilled and oil forced to all bearings under pressure.
Connecting Rods	Length $9\frac{3}{4}$ inches. Machined all over. Hollow tubular type. Piston pin held in place by a lock screw. Lower end is arranged with fins which provide lightness, strength and a large cooling area.
Pistons	Flat top three $\frac{1}{8}$ -inch rings are used. Diameter $2\frac{7}{8}$ inches. Length $3\frac{1}{8}$ inches.
Oil Pan	Aluminum, removable while engine is in frame. Lower half is used as a reservoir for oil. Oil is drawn through a strainer from the sump in the bottom of the oil pan by the oil pump and forced to all bearings under pressure.
Breather	The breather is covered by a hinged cap which also acts as a convenient oil filler pipe and has the oil gauge mounted on the front of it.
Flywheel	Steel forging machined all over with gear teeth cut in periphery for the starting motor.
Carburetor	$1\frac{1}{2}$ inch mounted on right side of engine. Gas passes from the intake manifold through the head of the engine to the left hand side, where it is distributed to the cylinders through an aluminum ramshorn intake. A part of the exhaust manifold is cast integral with the intake manifold, and through this the exhaust passes, creating a hot spot.
Electrical Equipment	Delco is used throughout. The distributor is mounted on the generator. This locates the distributor centrally making possible a very neat distribution of wires to the spark plugs.
Spark Plugs	Metric threads, one per cylinder, set in the head at an angle to prevent fouling; amply cooled and very accessible.
Engine Mounting	Three point suspension. The rear of the engine is suspended by side arms on a bell housing bolted directly to the frame. The front is supported by a patented trunnion, which makes an extremely strong, light and flexible mounting.
Accessibility	Adjustment on the Engine, Carburetor, Electrical Equipment and Spark Plugs are extremely easy to make because of the simplicity of Engine construction.

Clutch	Single dry plate of a special DUESENBERG design with an adjustable pedal .
Transmission	Three speeds forward and one reverse with ground gears of a special DUESENBERG design. Gear ratio reverse 4.016 to 1. First speed 3.167 to 1. Second speed 1.654 to 1. High direct drive 4.6 to 1.
Universal Joints	The drive to the rear axle is through a double flexible joint and a tubular drive shaft, which is enclosed in a torque tube.
Drive Gears	Spiral bevel. Ratio of 4.6 to 1.
Rear Axle	One piece reinforced Molybdenum steel of a new design, extremely light and strong. Ball bearings are used throughout.
Differential	Consists of a forged steel case enclosing a spider arm, four bevel gears and two side gears splined for the axle shaft.
Axle Shaft	Molybdenum steel hollow. Shaft and hub are one piece.
Rear Axle Mounting	The front end of the torque tube is hinged to the center cross member by a yoke. Both ends of the springs suspend the frame by shackles. Two radius rods run from the axle to the front end of the torque tube, to provide strength.
Front Axle	Tubular. Axle ends and steering knuckles are of Molybdenum steel, of a new design, from 25 to 40% lighter than majority of axles now in use and from 25 to 40% stronger.
Wheel Base	134 inches.
Springs	Semi-elliptic. Front 2¼" wide x 40" long. Rear 2½" wide x 59" long.
Frame	Chrome Nickel Steel 6⅞ inches in depth of section by 2⅛" cross section. It is strongly braced by five rigid cross members.
Hydraulic Brakes	16 inch forged drums are fitted to all four wheels. The drums are ground to give a perfect braking surface. Circumferential fins are machined on the outer edge to provide strength, lightness and radiating surface. The four brakes are operated by hydraulic pressure. A master cylinder and a piston is attached to the foot pedal. As the pedal is depressed the piston is forced into the cylinder, displacing the liquid into the lines or pipes leading to the four brakes. A small cylinder having a piston in it is located in each brake, and as the liquid is forced into the cylinder the piston rises, operates a toggle arm and expands the two brake shoes into the drum.
Hand Brake	Operates manually a contracting brake on a drum at the forward end of the propeller shaft.
Wheels	Rudge Whitworth wire wheels are used.
Spare Wheels	One spare wheel is carried on a 3 point mounting on the rear of the car and locked in place by a patented DUESENBERG device.
Tires	33x5 inch cord tires are used all around.
Weight	The weight of the car is 3300 pounds.
Clearance	Clearance, lowest point 10 inches.
Bumper	The bumpers are a part of the car and of a special design.
Shock Absorbers	Watson Stabilators.
Chassis Lubrication	Alemite.
Gas Tank	Capacity 20 gallons. Located at the rear.
Vacuum System	A special Stewart vacuum tank is located on the cast-aluminum dash.
Body	Aluminum. Steel fenders, Running boards.
Instrument Board	Instruments are grouped and enclosed under plate glass, making them dust proof. They are illuminated by indirect lighting.
Dimming	A specially designed dimming arrangement is located in a convenient position on the steering wheel.
Head Lights	
Dash	Cast Aluminum.
Instrument Board	Cast Aluminum.



TOP VIEW CHASSIS



Prices

2 Passenger Roadster	\$6,500
4 Passenger Touring Car	6,500
5 Passenger Touring Car	6,500
7 Passenger Touring Car	6,750
4 Passenger 4 Door Coupe.....	7,800
5 Passenger Sedan-Limousine	7,800
7 Passenger Sedan-Limousine	7,800
5 Passenger Town-Brougham	8,800

F. O. B. Indianapolis, Ind.