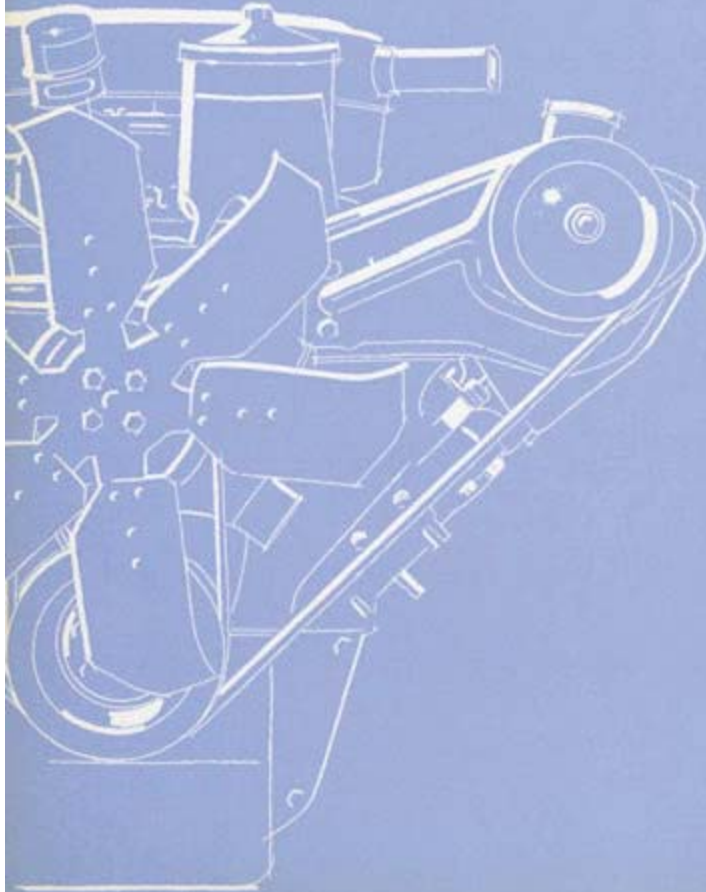


ENGINE FEATURES





The objective in the designing and building of Cadillac engines has been, since the car's inception, that of producing the finest, best balanced power plants in the luxury car field.

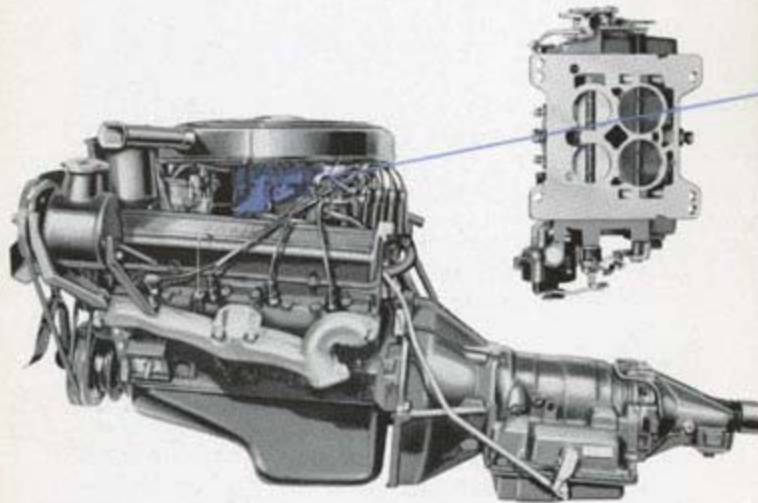
This means engines with adequate power to move a big car through traffic with effortless ease and flexibility, to carry it swiftly up mountain grades without a trace of hesitation and to perform hour upon hour at turnpike speeds with no audible sign of its presence.

Of equal importance, however, is the objective of delivering this satisfying surge of power with the utmost dependability, durability and economy.

The dedicated research by Cadillac engineers for ever better ways of achieving these objectives was never more apparent than in the 1959 Cadillac. Here are larger engines capable of even higher performance with power to spare for every engine-driven accessory. Here are features to squeeze more energy from every drop of fuel consumed. And here are new advancements which bring increased efficiency and economy during warm-up, and new smoothness and dependability of performance even where sustained idling is required.

Your prospects will be interested, too, that their Cadillac engine delivers more power per pound of engine weight than that of any other competitive American motor car.

CHOICE OF TWO

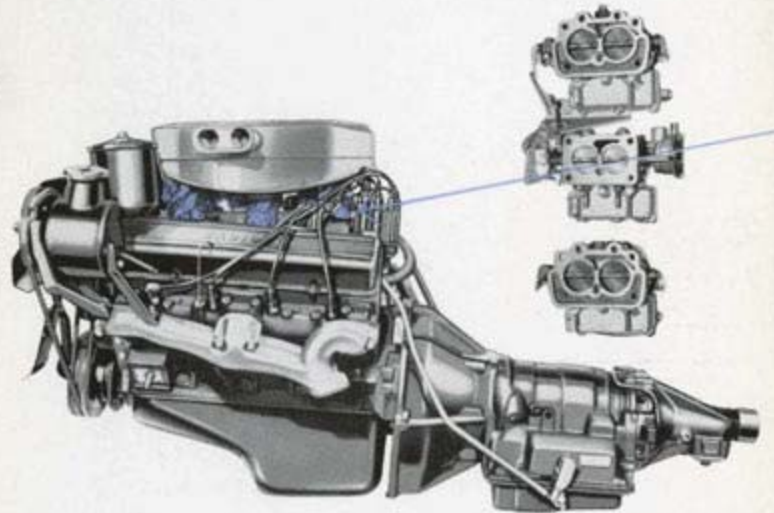


325-HORSEPOWER CADILLAC ENGINE

Each of the two Cadillac engines, shown here, provides all of the advanced engineering features explained on the following pages with the basic difference in carburetion.

The 325-horsepower Cadillac engine, shown above, is equipped with a single, four-barrel carburetor which works as two sets of dual-barrel carburetors. The forward unit, with smaller barrels, acts as the basic or primary carburetor which feeds the engine economically during idling and at normal cruising speeds. The aft unit with larger dual barrels is the booster or secondary carburetor. When the accelerator is depressed further to the floor as for rapid acceleration or climbing steep hills, the larger secondary dual barrels open to permit a greater volume of air to be drawn into the intake manifold and thus into each cylinder for increased power and/or acceleration.

GREAT ENGINES



345-HORSEPOWER CADILLAC "Q" ENGINE

The 345-horsepower Cadillac engine, above, is provided as standard equipment on the Eldorado Biarritz, Seville and Brougham, and optional at extra cost on all other models. It provides all of the dependability, durability, smoothness and quietness expected of Cadillac engine performance but with additional benefits for the owner through use of a three, dual-barrel carburetor.

The central dual-barrel unit, used for all normal operation including starting, idling and cruising speeds, assures maximum efficiency and dependability because of the relative simplicity of single carburetor adjustment.

However, when the driver depresses the accelerator pedal beyond 75% of its travel, both secondary dual-barrel carburetors open simultaneously releasing a vast increase in power for maximum safety in passing another car, for fast emergency acceleration or for traveling up very steep grades.

NEW POWER AND



LARGER DISPLACEMENT

The 1959 Cadillac engines have been designed with a longer stroke so that on each intake stroke of the pistons the engine is breathing more deeply, drawing into the cylinders a greater volume of air-fuel vapors to be converted into power. Coupled with this longer stroke is a new longer crank arm which further increases the power and torque of the new Cadillac engines.



HIGHER COMPRESSION

On the upward stroke the increased travel of the pistons compresses the air-fuel vapors even more tightly into the combustion chambers before ignition takes place. The result of this new 10.5-to-1 compression ratio is that the 1959 Cadillac engine obtains even greater energy from each drop of fuel consumed.



NEW TAPERED EXHAUST VALVES

Another factor contributing to the breathing efficiency of the Cadillac engine is the new, more tapered design of the exhaust valves. Since this permits exhaust gases to flow more swiftly out of the cylinders there is less restriction and dilution of incoming air-fuel vapors.

PERFORMANCE

NEW FREE-FLOW INTAKE MANIFOLD

Further increasing the breathing efficiency of the Cadillac engine is a newly designed intake manifold with larger passages. They provide minimum restriction to the passage of air-fuel vapors to the individual cylinders, thus improving the breathing or volumetric efficiency of the 1959 Cadillac engines.



NEW PISTONS, RODS AND CRANKSHAFT

The Cadillac engine has the further advantage of using lighter weight pistons and connecting rods in 1959. Thus, less fuel energy is expended simply to overcome the inertia of heavy rods and pistons leaving more power to drive the car and power accessories. The new crankshaft has longer crank arms thus increasing the torque as well as the stroke of the 1959 engines.



GREATER DEPENDABILITY



IMPROVED WARM-UP PERFORMANCE

The Cadillac automatic choke control is a temperature sensitive metal coil designed to open and close the choke valve within the carburetor. It keeps the choke valve closed when the engine is cold, thus restricting the flow of air through the carburetor and providing the richer fuel mixture required for quick, sure starting.

As the engine warms up, however, heated air is drawn through a tube from the engine to the choke control causing it to relax its coils and, in so doing, permit the choke valve to open. This lets more air pass through the carburetor thus providing the leaner mixtures required for best operating performance and economy after initial starts.

To achieve this desirable performance and economy more quickly, Cadillac, for 1959, has developed a new, nickel alloy tube similar to the heat resistant metal used in jet engine turbine blades. This permits installing the tube directly into and through the exhaust section of the intake manifold where it is subjected to the intensely hot exhaust gases from the moment the engine is started.

Outside air, entering the tube at "A", heats up faster and, rising to the choke control "B", causes it to open the choke valve more quickly thus bringing the engine to its smoothest, most powerful and most economical operation at the earliest possible moment.

What's more, since the new tube retains engine heat for longer periods of time after the engine is turned off, it prevents unnecessary choking of the engine during subsequent starts.

AND ECONOMY

SMOOTHER, STEADIER IDLING

The smooth, steady idling performance provided by Cadillac has been further improved for 1959 by the addition of a heat-sensitive air control valve. As engine heat increases during any period of sustained idling, the valve begins to open permitting additional air flow through the carburetor. This maintains the correct ratio of air to fuel by compensating for any excess fuel vapors forced into the carburetor by boiling fuel in the float chamber. The result is consistently smooth, stable idling even under the most severe conditions.



NEW FUEL SYSTEM PROTECTION

For even greater dependability, Cadillac engines for 1959 have a new, more efficient fuel pump to assure an even more positive flow of fuel from the fuel tank to the carburetor and minimize any possible likelihood of vapor lock in the fuel lines. Double protection against dirt particles or water entering the fuel system is provided by a new fuel filter located in the fuel tank itself. Its finely woven, 2-ply, saran plastic filtering element is self-cleansed by the sloshing action of the gasoline. Any remaining impurities are removed by the sediment bowl filter in the engine compartment.

INCREASED COOLING CAPACITY

Always one of the most efficiently cooled engines in any motor car, Cadillac, while lowering the radiator for improved hood silhouette, has widened it for an actual increase in cooling area. Coupled with this larger cooling area is a new fan, smaller in circumference but having wider blades with increased pitch thus further adding to cooling efficiency. Since air conditioned cars put greater demands on the engine cooling system, they are further provided with a 7-blade fan surrounded by a shroud which directs the air directly over the engine.

EFFICIENT BATTERY COOLING



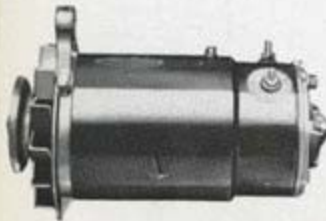
Cadillac's 12-volt, 11-plate battery provides dependable operation of the starting motor and all electrical accessories. Battery is thoroughly sealed and has a plastic coated battery cover for protection against corrosion. Location, well forward on the left side of the engine compartment, provides easy accessibility for inspection or service and improved cooling for longer battery life.

HIGH-TORQUE STARTING MOTOR



Cadillac's high-torque starting motor assures fast, dependable engine starting. Gear-tooth angle is designed for extra strength, quiet operation and minimum battery drain. Protection against wet weather is provided by enclosing the solenoid plunger lever entirely within the starter housing.

HIGH-CAPACITY GENERATOR



Cadillac's high-capacity generator has an output higher than the electrical load normally required by the car even at low speeds. This protects against excessive battery drain when slow driving is necessitated by heavy traffic or slippery road conditions. A 45-ampere, air-cooled generator is provided on air conditioned cars.

FULL-PRESSURE ENGINE LUBRICATION

A key factor in the long life and trouble-free performance provided by the Cadillac engine is the efficiency of its lubrication system. Oil is pumped under pressure to the overhead valve assembly, crankshaft bearings, camshaft, connecting rods and rocker arm shafts. A jet of oil is directed to the cylinder walls and piston pins. An oil filter, provided at no extra cost, minimizes wear by filtering minute abrasive particles from the oil.

FULLY WATERPROOF IGNITION

The Cadillac ignition system is fully waterproofed. For example, neoprene rubber, impervious to oil, is used for ignition wire covering and spark plug boots. Distributor ends of ignition wiring are shielded by vinyl caps while the distributor itself is designed to shed water effectively. A sealed generator regulator further contributes to maximum dependability of engine operation in any weather.

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On the following pages you will find, first, the General Specifications, then the Detailed Specifications for the 1959 Cadillac cars.

Many of these specifications cover items which you will be asked about only occasionally, or which do not warrant fuller coverage in the text of the Data Book. Other specifications, such as those dealing with Cadillac Hydra-Matic gear ratios and shift points, serve to supplement the information in the text.

While it is both unnecessary and impractical to attempt to absorb all of the specifications listed in this section of your Data Book, you will find here valuable information not easily located elsewhere.