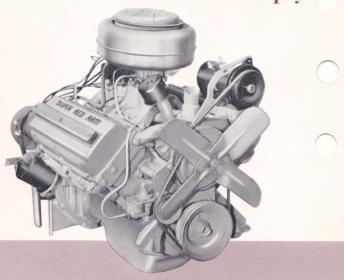
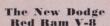


### The 1955 Dodge offers to help yo



#### The Dodge Super Red Ram V-8

This famous performance and economy record breaker boasts added horsepower.



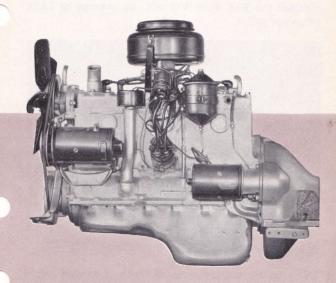
This new, lighter, simplified V-8 retains most of the major characteristics of its older brother.

### THREE GREAT ENGINES

### **actisfy more prospects**

Ask any ten motorists what they'd like to have in horsepower and performance—and you'll probably get ten shades of opinion.

This year, Dodge goes a long way toward helping you meet the performance desires of *all* your prospects... with a sparkling line-up of three great Dodge engines, plus a *specially powered* Super Red Ram V-8.



### The Dodge "Get-Away" Six

This time-proved engine is one of the most famous performers among automobile sixes ever built.

# DODGE ENGINE SHATTERS RECORDS FOR ECONOMY AND PERFORMANCE

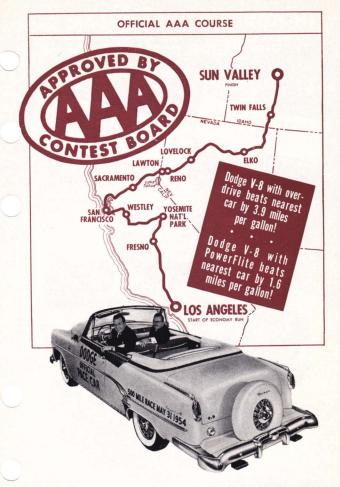
The Dodge Super Red Ram V-8 Engine holds more official AAA records than all other engines combined, proving its superior performance time and again.

In 1954, for the second year in a row, it won the 1,335-mile Mobilgas Economy Run over all other V-8's in its class. In this sensational contest, official AAA results credited the Red Ram V-8 with an average of 25.39 miles per gallon.



The grueling test included all types of driving conditions, all kinds of weather. The route from Los Angeles to Sun Valley, Idaho, soars from sea level to altitudes up to 7,135 feet above sea level. And the trip included almost 200 miles of stop-and-go city driving.

The Dodge Red Ram V-8 with Overdrive beat its nearest competitor by 3.9 miles per gallon. The Red Ram V-8 with PowerFlite won over its nearest competitor by 1.6 miles per gallon.



Other outstanding AAA records fell before a Dodge Red Ram V-8 in 1954. In all, this great engine set 196 new official AAA stock car records at Bonneville Salt Flats, Utah. These records covered the entire performance field, including speed, acceleration, and endurance. The Dodge Red Ram V-8 really earned the honor of pacing the 1954 Indianapolis 500-mile race.

# THE DODGE SUPER RED RAM V-8 blends top performance with top economy BALANCED HIGH COMPRESSION: MORE POWER! 183 h.p. 7.6 to 1

The Dodge Super Red Ram V-8's added power was achieved by increasing piston displacement to 270 cu. in. In addition, a specially powered Super Red Ram, with 193 horsepower, is available at extra cost. It features a 4-barrel carburetor and dual exhaust system.

## THE HEMISPHERICAL combustion chamber, heart of Super Red Ram efficiency

A combustion chamber should have as *little* surface as possible. The less surface there is, the less heat will escape and the less power will be wasted. Obviously, a SPHERE has the *least possible surface* for the volume it contains.



Furthermore, a combustion

chamber should have a smooth, regular shape with no pockets where power-wasting carbon can collect. Again, a spherical shape is the answer. It has no corners or irregularities.

So, a spherical shape is unexcelled for a combustion chamber design ... and only Dodge in its class has a V-8 engine with hemispherical combustion chambers! Engines with hemispherical combustion chambers are used in airplanes, in many of the costliest foreign cars, and in most specially built racing cars. Alone in the industry, Chrysler Corporation engineers have been able to obtain volume production of this design in a car of moderate price.

#### **Hemispherical Design Has Many Benefits**

Spark plugs are centrally located for better ignition of the fuel. Valves are placed on opposite sides of the dome for better flow of gases. One benefit leads to another. There is a whole "chain reaction" of advantages that make the Dodge Super Red Ram engine a leader in every major respect.

The Dodge Super Red Ram V-8 leads in every one of the three major yardsticks for rating the efficiency of an engine: 1. It BREATHES in and out easily. 2. It BURNS fuel efficiently. 3. It WORKS with a minimum of friction.

#### It BREATHES better



Every engine cylinder has an intake valve, through which the fuel-air mixture is drawn into the combustion chamber . . . and an exhaust valve, through which burned gases are exhaled. With the Dodge Super Red Ram V-8 hemispherical combustion chamber, intake and exhaust valves can be placed on opposite sides

of the chamber. This location gives Dodge an important breathing advantage over competitive engines whose valves are side by side and very close together. With more spacing between valves, they can be bigger and can be cooled better.

Dodge has unusually large valves, even larger than last year. This helps to draw in the fuel-air mixture faster and more easily.

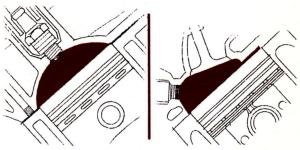
Better cooling of Super Red Ram valves is possible because each valve is entirely surrounded by a water passage. Competitive valves are only partially surrounded by water because valve spacing does not allow room for a complete passage.

The special design of both Red Ram valve stems and guides minimizes any possibility of valve sticking and assures the positive seating of the valves. The amount of *lift* or opening of the valves is important, too. The valves act as "doors" for the engine. And Dodge valves open extra wide for free and easy breathing.

The Super Red Ram V-8 breathes out exhaust gases better because it has eight large exhaust ports—one for each cylinder; and two separate pipes to carry the gases from the exhaust manifolds. Both pipes join in a single large pipe before reaching the muffler. With this arrangement, there is no chance of an exhaust "traffic jam." Some competitive V-8 engines have only six exhaust ports... while others pass exhaust gases from one manifold into the other and then out, creating back-pressure.

#### Fuel BURNS better

Fuel burns more quickly and evenly in the Dodge Super Red Ram V-8, because the spark plug is located in approximately the center of the combustion chamber. The combustion flame travels the same short distance to all parts of the chamber.



Dodge V-8 Chamber

Ordinary Chamber

In practically all other engines, the flame travels an unequal distance. This increases the danger that fuel mixture in a distant part of the chamber will get hot enough to *detonate* by itself... before the regular combustion wave reaches it. Such a secondary explosion can cause engine "knock."

Dodge Super Red Ram hemispherical combustion chambers have no corners or pockets. What's more, their surfaces are completely machined for smoothness. All competitive engines have a rougher cast surface in the chamber or on the piston head. This Dodge advantage guards against carbon deposits which cause annoying "ping" and loss of power.

Premium performance on regular grade fuel is enjoyed by the Dodge owner because the Super Red Ram V-8 burns fuel so efficiently.

#### WORKS with minimum friction

The Dodge Super Red Ram V-8 uses a *short stroke* design. Pistons travel a shorter distance per engine revolution. As a result, there is less friction between pistons and cylinder walls—less power lost.

### Outstanding Dodge MECHANI-CAL features provide long engine life, low maintenance cost

Dodge aluminum-alloy pistons conserve power because their light weight is easier to move up and down.

Part of the piston skirt is cut away to reduce weight and the area of friction. This cutaway design also allows the use of a shorter connecting rod for lighter weight and more compact engine design.

Dodge Super Red Ram pistons are coated with highly refined tin to reduce friction and protect cylin-

der walls during break-in. Three rings per piston assure a good compression seal and excellent oil control.

Connecting rods are strong but light in weight, because they're made of special drop-forged steel that's shaped like an I-beam. The saving in weight reduces the load on the crankshaft.

**Rigid, drop-forged crankshaft,** with five large main bearings, is dynamically balanced to minimize vibration at all speeds.

Hydraulic tappets help maintain full compression and top engine efficiency by permitting valves to



seat properly and by compensating automatically for any expansion or contraction in the valve linkage. For economical maintenance, they need no adjustment and can be replaced without disturbing the Super Red Ram cylinder head.

Exhaust valve seat inserts preserve high compression because their super-hard alloy iron protects the area around exhaust ports from burning by hot exhaust gases. To make the team perfect, intake valves are made of tough silicon-chromium alloy steel and exhaust valves are made of a specially compounded, heat-resistant alloy, to resist burning, pitting, and corrosion. That means prolonged "new-car performance" without valve grinding.

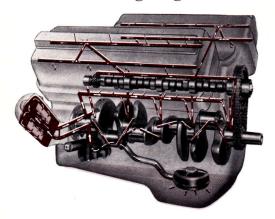
High-lift camshaft is short and rigid, opens and closes each valve at precisely the right instant. The work load is distributed evenly over the entire shaft by wide, steel-backed micro-babbitt bearings. For smooth action and trouble-free service, a heavy-duty, silent-chain-type drive turns the camshaft. It is wider and sturdier than chains used by many other cars.

Polished surfaces add to Dodge economy, help the Super Red Ram V-8 engine run more efficiently and quietly. Using a special finishing process, Dodge polishes surfaces to a mirror-like finish, before the parts are assembled, to reduce friction and wear. Ordinary finishing processes leave rough projections that are worn smooth during actual operation. Polished parts in the Dodge engine include: crankshaft journals, camshaft journals, valve stems, bodies of valve tappets, and piston pins.

Oilite bearings lubricate automatically, are ideal for hidden locations, such as in the distributor and on the clutch shaft, because they carry their own oil supply. When pressure or friction is applied, the oil comes to the surface to provide needed lubrication.

Floating Power type engine mountings absorb side-to-side vibrations, help absorb noise and vibration. These thick "sandwiches" of rubber are located high at the front of the engine and low at the rear, providing through-the-middle support. Thus, approximately half the engine's weight is below the line of support and acts as "ballast."

### Dodge LUBRICATION system assures long engine life



**Positive-pressure lubrication** sends oil under pump pressure to all crankshaft, camshaft, and lower connecting rod bearings. In addition, a pressurized mist of oil is delivered to cylinder walls and piston pins.

Rotary-type oil pump delivers high volume of oil to the engine oiling system, to assure good lubrication at all driving speeds.

Floating oil intake picks up cleanest oil from just below the surface. It keeps foam and sediment from entering the Dodge oil lines and is hinged to rise and fall with the oil level.

**Shunt-type oil filter** passes oil through the filter directly to the main oil distributing gallery, instead of back to the crankcase as with other type filters. It is *directly* filtered oil—with carbon and grit removed.

Filtered crankcase ventilation helps keep oil pure. Fresh air enters past the air cleaner in the filler cap and circulates through the crankcase—removing gases, condensed moisture, and corrosive acid vapors through a large outlet tube.

### Dodge AIR-FUEL system feeds the engine a balanced diet

Oil-bath air cleaner stops dust before it can enter the carburetor. It traps dust particles in an oil reservoir and in an oil-wetted mesh.

Dual-throated carburetor "meters" the right amount of air-fuel mixture to the cylinders. The Dodge downdraft type of carburetor has two throats, each of which feeds four cylinders.



Integral automatic choke produces easy starts by maintaining the proper fuel-to-air mixture regardless of changes in engine temperatures. Choke valve opening and closing are regulated automatically by a sensitive bimetallic spring which responds to engine temperature changes.

Balanced intake manifold assures controlled airfuel distribution. Manifold branches to all cylinders are practically equal in length. Successively firing cylinders receive air-fuel mixture from opposite throats of the dual carburetor to eliminate intake interference between cylinders.

Automatic manifold heat control gives full engine efficiency even during warm-up. Until normal running temperature is reached, the fuel mixture is preheated by hot gases from the exhaust manifold. A thermostatically controlled valve diverts these gases to a heat chamber around the intake manifold. The valve remains open when preheating is not needed.

Oilite fuel filter (located in the fuel tank) protects

fuel supply at the source, screens out both dirt and water, reduces possibility of frozen fuel lines. Swishing of gasoline keeps the filter clean without servicing.



## Dodge ELECTRICAL system contributes to dashing performance

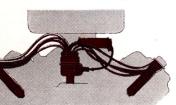
Double-breaker distributor provides a hotter spark by giving the ignition coil more time to build up high voltage between firing cycles. This is particularly important at high speeds.



One breaker point, or "switch," leads the other in opening or closing the circuit. This provides a longer pause for the ignition coil to build up a high voltage, which determines the intensity of the spark. The ordinary single-breaker distributor, used in most other eights, does not provide as hot a spark—consequently, efficiency is lower at high speeds.

Dual-automatic spark control gives exact ignition timing by using both a mechanical control and a vacuum spark advance in the distributor. This high-precision timing is impossible with mechanical or vacuum spark control alone.

Waterproof ignition system guarantees all-weather dependability. Spark plugs are set deep into the head . . . coil and distributor are placed high up at the rear of the engine . . . for protection from water



splash. Spark plug insulators are plastic coated and surrounded by tubular metal shields. Spark plugs and cables are covered by full-length metal channels on top of valve covers.



Resistor-type spark plugs need less frequent resetting because a resistor that slows burning away of electrodes is built into the spark plug. Thus, the initial gap setting of the electrodes can be the most efficient one—there's no need to allow for wear. (Fig. 1, deep-set spark plug; Fig. 2, plaster coated insulator.

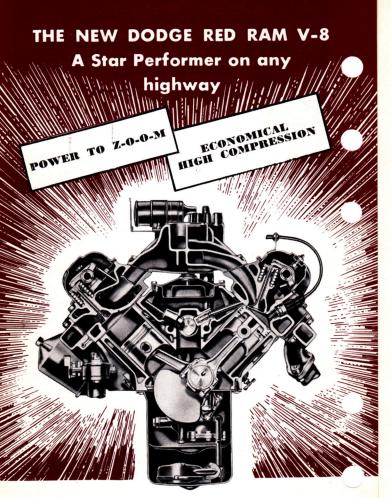
High-capacity generator (45 amperes) and big battery (105 amp.-hrs.) provide ample reserve capacity for all electrical accessories. The generator is automatically controlled by a three-unit regulator. This speeds up battery charging during high current demands, slows it down during normal operation. A built-in cooling fan prevents generator from overheating under heaviest loads.

**Powerful heavy-duty starter** has "follow through" drive to keep engine turning over until it is running.

THE DODGE BY-PASS COOLING SYSTEM gives better engine performance and longer life. During engine warm-up, the choketype thermostat causes water to recirculate through the engine with-



out entering the radiator. This assures uniform warm-up and eliminates hot spots in the block or heads. A pressure-vent radiator cap eliminates unnecessary pressure on radiator core and hoses by keeping cooling system at atmospheric pressure during normal driving. Cap seals for high temperature cooling under extreme conditions. Spring-loaded safety valve prevents development of injurious high pressure.



The new Dodge Red Ram Engine is sure to make performance and economy history in comparison with all other V-8's among its competition. This newcomer to the Dodge power line has a piston displacement of 270 cubic inches. Its flashing performance will be appreciated by prospects who want plenty of zip in an engine of the medium horsepower range.

# NEW RED RAM V-8 COMBUSTION CHAMBER provides outstanding efficiency for

### **★ FLEET PERFORMANCE ★ LEADING ECONOMY**

The Dodge Red Ram engine is different from any competitive V-8. Although it has many refinements not found in competitive engines, the major difference is the new Red Ram V-8 combustion chamber. The shape of the chamber, the valve placement it allows, the location of the spark plug... all add up to many benefits for the Dodge owner and sales features for you.



#### MINIMUM CARBON ACCUMULATION

The dome-like shape of the combustion chamber results in minimum carbon accumulation and better heat dissipation.

So, there is little danger of white-hot carbon causing pre-ignition or "knock." There is little need for expensive carbon removal, as is the case with competitive engines after a few thousand miles.

### SMALL CHAMBER AREA MEANS MORE EFFICIENCY

The Red Ram V-8 chamber has a low surface area for its volume, an important factor in efficiency. The less surface there is, the less heat escapes, and the less power is wasted.

### **RED RAM V-8 ENGINE** has outstanding breathing

Engine breathing means the entrance of the fuel mixture and the expulsion of the exhaust gases. The better the breathing characteristics, the more efficient the engine is. The Dodge Red Ram V-8 has outstanding breathing for several reasons:



The engine has unusually large, high-lifting valves. The fuel mixture can get in faster—and exhaust gases can get out faster—without "crowding."

Valves are located approximately across from each other because of the shape of the combustion chamber. Exhaust gases can get out more easily by following the line of least resistance. Valves are slightly offset from the center line, making possible the use of a simple, easily maintained, single rockershaft valve operating mechanism.

**Intake valves** are made of tough silicon-chromium alloy steel, and exhaust valves are made of specially compounded heat-resistant alloy steel, to provide outstanding resistance to pitting, corrosion, warping, and distortion. The head of the intake valve has a new tulip shape which reduces weight, thereby improving high-speed valve action.

The cylinder head is made of hard high-nickel alloy iron. This durable material provides integral valve seats and valve guides with desirable wear-resistant qualities. Valves are free turning—which equalizes wear, resists warping, and helps the engine maintain its "new" performance over many thousands of miles. Valves and seats are cooled by large water passages which carry away the heat.

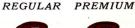
### Fuel burns with high efficiency



Comparison illustration of new V-8 and Competition.

The Red Ram V-8 combustion chamber promotes very efficient burning of the fuel mixture. The spark plug is centrally located in relation to the valves. Thus, flame travel to all parts of the chamber is more nearly the same distance than in competitive engines. More unequal distances are a major source of preignition or engine "knock" in competitive engines.

Because of the outstanding characteristics of the Red Ram V-8 combustion chamber, the Dodge owner can get premium efficiency with regular grade fuel.



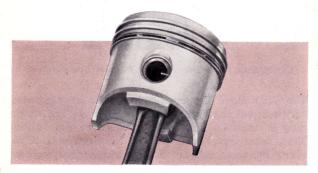


#### Friction is at a minimum

It takes power to overcome friction and this lost power costs the owner money. But the new Dodge Red Ram engine runs with a minimum of friction because Dodge pistons have a very short *stroke*, only 3.25", and thus travel a shorter distance per engine revolution. This means there is less friction between pistons and cylinder walls, less engine wear.

### New Red Ram V-8 MECHANICAL features give a host of benefits

Lightweight pistons mean extra economy—The work of moving Dodge pistons up and down is easier because they are made of lightweight aluminum alloy. Part of the piston skirt is cut away to reduce weight and friction and permit the use of a shorter connecting rod for lighter weight and more compact engine design.



Dodge Red Ram pistons are coated with highly refined tin to reduce friction and protect the cylinder walls during the break-in period. Three rings per piston assure a good compression seal and excellent oil control.

Extra-strong connecting rods increase efficiency— They are made of special drop-forged steel shaped like an I-beam to provide extra strength with minimum weight. The saving in weight reduces the load on the crankshaft.

Rigid, drop-forged crankshaft reduces engine vibration—It has five large main bearings, is dynamically balanced to minimize vibration at all speeds.

Quiet, dependable hydraulic tappets permit valves to seat properly and to compensate automatically for any expansion or contraction in the valve linkage—thus help maintain full compression and top engine efficiency. They need no adjustment.

**Short, rigid, high-lift camshaft** opens and closes each valve at precisely the right instant. The load is distributed evenly over the entire shaft by wide, steel-backed micro-babbitt bearings.

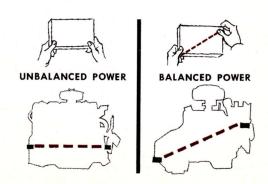
Along-lasting, heavy-duty, silent-chain-type drive turns the camshaft. A wider and sturdier chain than used by many other cars, it assures smooth action and long, trouble-free service.



Polished surfaces cut friction—The Dodge Red Ram V-8 engine lasts longer, runs more efficiently and quietly, because many of its working parts are polished to a supersmooth finish by a special process.

Oilite bearings lubricate automatically—Made of a special alloy that absorbs oil, they are ideal for hidden locations, such as in the distributor and clutch shaft, because they carry their own oil supply.

Floating Power type engine mountings absorb sideto-side vibrations—These thick "sandwiches" of rubber are located high at the front of the engine and low at the rear, provide through-the-middle support. Thus, approximately half of the engine's weight is below the line of support and acts as "ballast."



### Dodge Red Ram LUBRICATION system leads on every count

Positive-pressure lubrication protects the engine by sending oil under pump pressure to all crankshaft, camshaft, and lower connecting rod bearings. In addition, a pressurized mist of oil is delivered to cylinder walls and piston pins.



Rotary-type oil pump assures good lubrication because it delivers a high volume of oil to the engine at all driving speeds. Gear-type pumps cannot match this performance.

Floating oil intake picks up the cleanest oil from just below the surface. Keeps foam and sediment from entering the oil lines.

Shunt-type oil filter operates on a new principle, passing oil through the filter directly to the main oil distributing gallery, instead of back to the crankcase as with other type filters. Thus, the oil which lubricates the bearings is directly filtered oil—with carbon and grit removed.



Cross section of oil filter

Filtered crankcase ventilation protects engine from internal trouble. Fresh air enters past the air cleaner in the filler cap and circulates through the crankcase—removing gases, condensed moisture, and corrosive acid vapors through a large outlet tube.

### AIR-FUEL system feeds the engine just right

Oil-bath air cleaner stops dust before it can enter the fuel chamber. It traps dust particles in an oil reservoir and in an oilwetted mesh.



**Dual-throated carburetor "meters" the right** amount of fuel-air mixture to the cylinders. It is a downdraft type of carburetor with two throats, each of which feeds four cylinders.

Integral automatic choke provides easy starting under all engine temperatures by maintaining proper air-to-fuel mixture.

Balanced intake manifold gives controlled air-fuel distribution, with manifold branches to all cylinders being almost equal in length. Successively firing cylinders receive airfuel mixture from opposite throats of the dual carburetor.



Automatic manifold heat control gives full engine efficiency even during warm-up. Until the Dodge engine reaches normal running temperature, the fuel mixture is preheated by hot gases from the exhaust manifold.

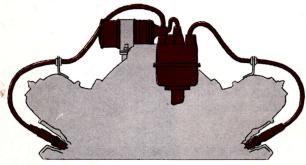
Oilite fuel filter fully protects fuel system because, unlike competitive fuel filters, it is located in the fuel tank and protects fuel supply at the source. The porous metal filter element screens out both dirt and water.

### Red Ram ELECTRICAL system sparks engine performance

**Double-breaker distributor provides hotter spark** by giving the ignition coil more time to build up high voltage between firing cycles.

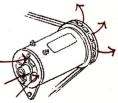
**Dual-automatic spark control regulates exact ignition timing,** using *both* a mechanical control and a vacuum spark advance in the distributor.

Waterproof ignition system insures dependable all-weather starting by protecting the engine against water splash.



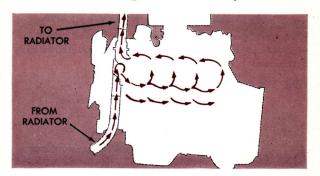
Resistor-type spark plugs reduce frequency of spark plug resetting because a resistor that slows burning away of electrodes is built into the spark plug.

High-capacity generator and battery provide ample reserve capacity for all electrical accessories. Generator output (45 amperes) is automatically controlled by a three-unit regulator. Battery has 105 amp.-hr. rating.



**Starter is heavy-duty** with a follow-through drive that keeps it cranking until the engine is running.

### COOLING system has high efficiency



Water by-pass system gives better engine performance and longer life. During engine warm-up, the choke-type thermostat causes water to recirculate through the engine without entering the radiator. This assures uniform warm-up and eliminates hot spots in the block or head.

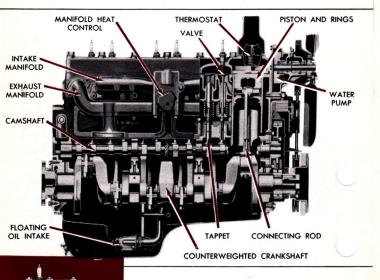


Pressure-vent radiator cap assures proper cooling, and eliminates unnecessary pressure on radiator core and hoses, by keeping cooling system at atmospheric pressure during normal driving. Cap seals for high temperature cooling under extreme conditions. Spring-loaded safety valve prevents development of injurious high pressures.

### Better, More Powerful Than Ever... The Famous Dodge "GET-AWAY" Six

(For your prospects who prefer 6-cylinder power . . . but want pleasant, bright performance and dependable operation)

- FOR 1955: New 123 horsepower
  - New two-barreled carburetor
  - New intake manifold
  - · New, larger air cleaner
  - New chrome-plated top piston ring



Simple, L-head design has few moving parts and requires a minimum of maintenance. The "Get-Away" Six valves, located in the block, are operated directly from the camshaft by short tappets.

7.4 to 1 compression ratio provides outstanding performance and efficiency.

New two-barreled, 4-in-1 carburetion gives extra zip and supplies just the exact amount of fuel needed for best performance and efficiency at all engine speeds and loads.

Larger intake manifold further improves engine breathing and increases performance by a faster flow of the fuel mixture to the combustion chambers.

Chrome-plated top piston ring allows faster, safer engine break-in, lengthens life of all four rings.

Lightweight pistons of aluminum alloy reduce the load on main and connecting rod bearings. This conserves power and saves fuel by reducing engine work.

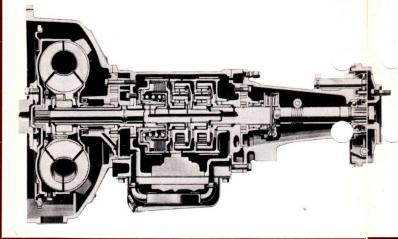
Micronic oil filter cleans the engine oil as it circulates. It filters out dust and other foreign matter that could cause bearing and cylinder wall wear.

Splashproof ignition insures easy all-weather starting and operating.

#### Other Time-Proved Features of the "Get-Away" Six

- Automatic manifold heat control
- High-capacity generator
- Resistor spark plugs
- Dual-automatic spark control
- Water by-pass system
- Pressure-vent radiator cap
- Positive-pressure lubrication
- Floating oil intake
- Rotary-type oil pump
- Filtered crankcase ventilation
- Floating power type engine mounts
- Exhaust valve seat inserts
- Oilite bearings
- Automatic choke

### DODGE PowerFlite . . . puts with the finest of



### the Dodge owner out ahead no-shift driving

An automatic transmission should make driving as effortless as possible. Dodge PowerFlite does that better than any competitive transmission. But, an automatic transmission must do other things, too. It must operate smoothly for greater comfort. It must provide maximum torque multiplication for outstanding getaway. It must provide the best combination of performance and economy. It must be foolproof for greater safety. It must be simple in construction to avoid unnecessary maintenance.

On every one of the above counts, Dodge PowerFlite is superior to its competition . . . and gives you benefits you can sell and sell hard.

#### PowerFlite Is the Easiest To Operate

PowerFlite is easier to operate than any other automatic transmission. The Dodge owner has less to do. The PowerFlite selector lever has but four positions, compared with the five positions of all other automatic transmissions. PowerFlite's positions are: R (Reverse), N (Neutral), D (Drive), and L (Low). There is no need for P (Park) position because of the Dodge independent parking brake.

On 1955 models, the PowerFlite Flite Control lever is mounted on the control panel. The lever is within finger-tip reach from the steering wheel. This eyecatching new location is in keeping with the practical facts of PowerFlite's no-shift driving. Since the lever is used so seldom, it is only logical to locate it out of the way of the steering wheel . . . on the instrument panel with the radio, heater, and light controls.



### Driving Simplicity is a PowerFlite Major Benefit

The Dodge engine cannot be started unless the Flite Control lever is in the N position. After the engine is running, you simply move the selector lever to D. Then, release the hand brake. To start, just step on the accelerator pedal. As the car gains speed, the transmission automatically shifts to direct drive at just the right time. This shift is smooth and quiet. Very often, it is impossible to tell exactly when the shift takes place. To stop, you simply step on the brake pedal.

The shift to direct drive depends on the engine load. With the accelerator all the way down, the shift does not occur until approximately 65 m.p.h. If the accelerator is only partly depressed, the upshift will normally take place at approximately 20 m.p.h.

The downshift occurs automatically at around 11 m.p.h. Like the upshift, this is so smooth and quiet that it is barely noticeable.

#### L (Low) Is Used Infrequently

Approximately 98 per cent of all forward driving is done in D (Drive) range. However, L (Low) range is useful when engine braking is desired—when pushing or towing a heavy load—or when rocking the car in mud, snow, or sand. At any speed under 65 m.p.h., the Flite Control lever may be moved safely from D (Drive) to L (Low) position.

Actually, PowerFlite always starts in L (Low) gear, even when the Flite Control lever is in D (Drive) position. However, when the lever is in L (Low) position, the transmission *stays* in low gear. It will not automatically upshift to direct drive.

At any speed under 55 m.p.h., the driver can get an *instantaneous downshift* to low gear simply by pressing the accelerator pedal all the way down. This provides the extra surge of power sometimes needed for safe passing.

### Sell safe, foolproof operation with PowerFlite Flite Control lever "gates"

It is virtually impossible to move PowerFlite's Flite Control lever to an undesired position by accident. This is the result of the "gated" control. A stop, or "gate," prevents the lever from moving to another position, unless the lever is moved slightly to the left.

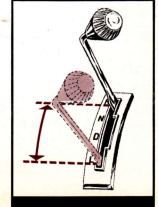
For example, you might want to shift from N (Neutral) to D (Drive). A stop or "gate" will prevent the lever from moving through D (Drive) to L (Low). If you want to move the lever to L (Low), it must be moved to the left.

Also, a "gate" keeps the lever from moving through N (Neutral) into the R (Reverse) position. To move into R (Reverse), the lever must be moved to the left.

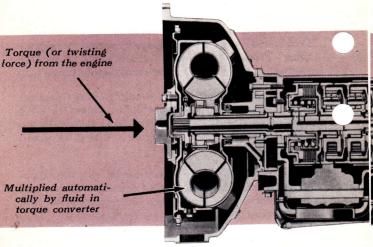
You can change the PowerFlite Flite Control lever by "feel," while keeping your eyes on the road. And that's a real safety advantage. With some other automatic transmissions, it is necessary to look at the quadrant when moving the lever.

### Here is another PowerFlite operational advantage

By keeping the lever over to the left, you can move it back and forth between R and L as rapidly as you wish. This simplifies "rocking" the car out of sand, mud, or snow. You don't pass through N or D when the lever is hard over.



### Here is the way Dodge PowerFlite works



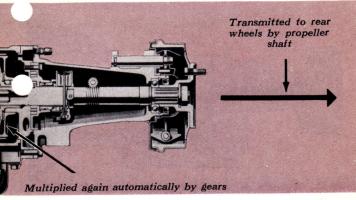
It multiplies engine power

A torque converter automatically multiplies torque (engine twisting force) when it is needed during acceleration. Then it automatically goes into the equivalent of direct drive when the extra push is no longer needed. It also acts as a fluid coupling between the engine and the drive shaft, cushioning thrusts either from the engine or from the rear wheels. This means longer part life and smoother operation.

#### Here is another performance plus for Dodge PowerFlite

It always starts in the high-powered, low-speed starting gear. When PowerFlite is in starting gear, the gear reduction is 1.72 to 1. When the 2.6 multiplication of the torque converter is *multiplied* by the 1.72 ratio of the starting gear, PowerFlite provides a 4.47 to 1 total ratio of torque multiplication.

Dodge PowerFlite is a combination of the most efficient torque converter in the automobile industry and a fully automatic two-speed planetary gear transmission. The result is the smoothest operating, most completely automatic, simplest, and lightest weight automatic transmission on any American automobile.

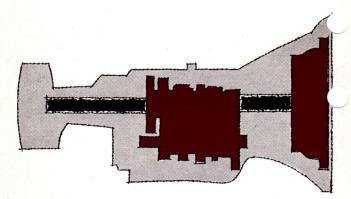


#### **PowerFlite Competitive Advantages**

Unlike PowerFlite, all competitive automatic transmissions have a Park position. In order to lock the transmission when the selector lever is in Park position, many manufacturers have placed a locking pawl in the gearbox. But, if the selector lever is accidentally moved to Park position while the car is in motion, the pawl might possibly shear off or "freeze" the transmission. Any one of these competitive transmissions can be damaged if the car receives a sharp bump from behind while locked in the "park" position.

Dodge PowerFlite is less complicated and has fewer parts than any other automatic transmission. This means less service, less chance of part wear, and more economical operation. And PowerFlite is easy to service, on those very rare occasions when service is needed.

# DODGE STANDARD TRANSMISSION is famous for smooth, dependable operation and rugged, long life



In the Dodge manually operated three-speed transmission, the gearshift lever slides into position easily and quietly because a synchronizing device equalizes the speed of gears before they mesh. As a result, there is no clashing of gear teeth. The helical gears are precision-finished in pairs. Long-life antifriction bearings keep them perfectly aligned to assure smooth operation, even after thousands of miles of driving.

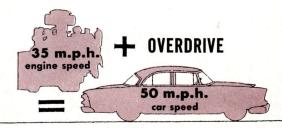
The easy-operating, long-lasting Dodge clutch, furnished with the standard transmission, is cooled by air



drawn in and circulated by fan-like ribs on the pressure plate. The clutch plate has unusually longlasting molded facings.

A new suspended clutch pedal has a low-friction linkage for easier operation and long life.

### Extra Economy, Quieter Operation, Longer Engine Life Are Major Benefits of Dodge Automatic Overdrive



During normal country or flat-road driving, Dodge automatic Overdrive lets the engine turn over almost a third slower. For example, when the car is traveling 50 m.p.h. in Overdrive, the engine is turning over at a speed that would normally produce 35 m.p.h. Thus, the engine is using less fuel. And it is operating quietly at a speed which does not cause so much wear. Overdrive is available at extra cost with the standard three-speed transmission.

Overdrive Makes Driving Easier. For fast getaway, Dodge uses a higher rear axle ratio with Overdrive. This permits good acceleration from a standing start in second gear. Many drivers seldom use first gear. So there's less need for manual shifting. Up to 20 m.p.h., the shift between second and third can be made without the clutch. This is done by releasing the accelerator pedal fully before shifting.

At car speeds over 25 m.p.h., Overdrive is put into operation automatically by releasing the accelerator pedal momentarily.

It's Easy to Lock Out Overdrive. At speeds below 20 m.p.h., Overdrive can be locked out by pulling out the control handle. At speeds over 25 m.p.h., it can be locked out by pressing the accelerator pedal to the floor and then pulling out the control handle.