

# Outline of 1938 Models

10/37

(There are a number of makers missing from this forecast of automobile models for the coming year. This is due either to the late arrival of their car descriptions or to the release dates having been set so late that Motor West went to press before they expired.)

BUICK  
1938

## AMERICAN BANTAM

An entirely new line of passenger cars and trucks, known as the Bantam "60," will be presented by The American Bantam Car Co., which purchased the plant of the former Austin Car Co. in Butler, Pa., several months ago. Models include Bantam coupes, roadsters and quarter-ton panel and pickup trucks.

It is claimed that these cars will go up to 60 miles on a gallon of gasoline, will attain a speed of 60 miles an hour, and can be operated at a cost of less than three-quarters of a cent per mile for gasoline, oil and tires.

The American Bantam motor is of four-cylinders, cast en-bloc, of L-head type and mounted on live rubber, with three-point suspension; bore 2.2 inches, stroke 3 inches, piston displacement 45.6 cubic inches. Actual brake horsepower, 20-h.p. at 3900 r.p.m. Head is of aluminum, high-compression, with exclusive turbulence type combustion chambers. Pistons are of aluminum alloy, auto-thermic, split skirt, tin-plated, invar strut type. Crankcase of aluminum alloy, and fan bracket and attachments of aluminum. Water jackets furnish full cooling directional circulation. Cylinder walls have a mirror finish. Crankshaft is drop-forged, scientifically counter-weighted, statically and dynamically balanced. Connecting rods are of H-section, drop-forged, heat-treated alloy steel. Intake valves are of chrome nickel steel; exhaust valves of chrome Sicilian steel. Lubrication is of positive vane type, with force feed to all rods. Camshaft is of nickel alloy steel, precision ground, silent, helical, gear-driven. Firing order, 1-3-4-2.

A five-gallon fuel tank is located in the rear. The synchro-mesh transmission is of the selective type with silent second gear. Pressed steel artillery wheels carry 5.00x15 balloon high-speed tires. Larger wheels are available for unimproved roads. Four-wheel brakes are of the internal expansion type. Steering is "finger-tip" control. Shock absorbers are oversize.

The cars are being built complete in the company's modern 14-acre auto-

mobile factory at Butler, Pa. A continuous daylight assembly line, capable of delivering a completed car every five minutes, has been set up to provide straight-line handling under one roof, from the point where materials are received to the warehouse for assembled cars.

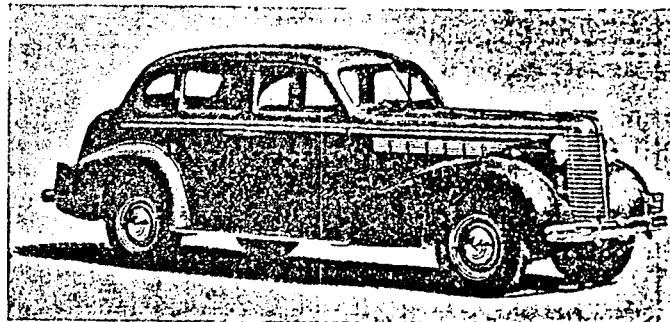
Delivered prices at the factory, including standard equipment, safety glass and with all Federal taxes paid, are in a \$400 price range. Bodies are available in standard colors at no extra cost. Special colors are \$20 additional. All finishes are of Duco baked lacquer.

## BUICK

Four outstanding engineering developments, with major improvements both in style and mechanical design, feature the new Buick cars for 1938.

The new cars have one of the most important engine developments of the

THIS BUICK SERIES 40 SPECIAL FIVE-PASSENGER TOURING SEDAN HAS A DYNAFLASH ENGINE DEVELOPING 107 H.P. THE CAR IS ON A 122-1 IN CH WHEELBASE CHASSIS. INCIDENTALLY, THE SERIES 40 SPECIAL IS THE LOWEST-PRICED BUICK GROUP



past 10 years by which power has been substantially increased and gasoline economy bettered without increasing the bore and stroke or otherwise changing the size of the engine.

At the same time, a startling new rear suspension has given new riding and steering qualities to the 1938 cars not heretofore achieved with former designs.

A new method of body mounting, by which body bolts are located in quiet zones, or zones of least vibration on the frame, likewise contributes to the riding comfort and effectively dampens noise and vibration within the car bodies.

A fourth major improvement, which

will be optional at extra cost on the Series 40 Buick cars, is the new self-shifting transmission which automatically shifts gears and provides a new gear ratio effecting marked improvement in performance and economy.

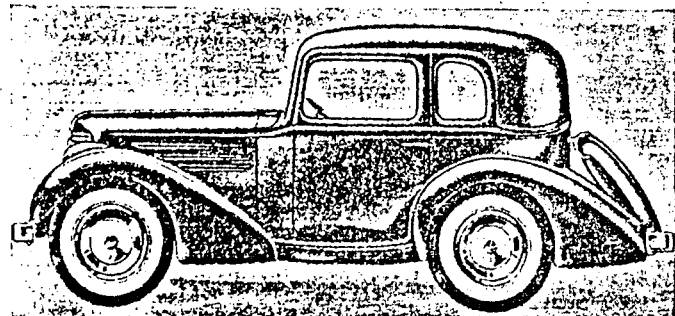
Buick cars will be offered in four series for 1938—the Series 40 Special in the lower medium-price field, the Series 60 Century and the Series 80 Roadmaster in the medium-price field, and the Series 90 Limited, a deluxe car offered in limousine and touring sedan types, in the upper medium-price class. The new cars are being produced in a total of 21 body models. There are sedan models both with and without built-in trunks and all have spacious luggage compartments. Five-wheel equipment is standard on all series, with six-wheel fender well equipment optional at extra cost.

The rears of the new Buicks are completely restyled, the gas tank filler cap this year having been placed under the left rear fender, completely smoothing up the rear end. Access is through a small door in the fender. An unusual arrangement of tail lights, license illumination and stop light is used on all sedans and convertible phaetons. The

license plate is mounted in the center of the rear deck lid and is illuminated by a license plate light combined in a single attractive unit with the lid handle and lock.

Interiors of the new cars are exceptionally attractive and are completely redesigned throughout. The new instrument panel has a center section recessed to take the radio grille, with control knobs placed just below. Instruments are clustered in an attractive panel directly in front of the driver, while a newly-designed electric clock is mounted in the door panel of the glove compartment. Ash receivers and other accessories are built into the rear compartments of the various models.

The new "Dynaflash" engine makes use of a special dome-shaped piston, called a "Turbulator" piston, which permits controlled burning of the fuel mixture and a higher compression ratio without the usual detonation or "ping" that accompanies high compressions with conventional types of pistons. As a result, without increasing bore and stroke, Buick engineers were able to increase power and consequent performance by seven per cent in the



THE AMERICAN BANTAM COUPE FOR 1938 HAS A LARGE REAR COMPARTMENT FOR PERSONAL LUGGAGE OR PACKAGE DELIVERY. 60 M.P.H. IS CLAIMED FOR THESE REMARKABLE LITTLE CARS, WHICH CAN GO 60 MILES ON A GALLON OF GASOLINE

Series 80 engine and about eight per cent in the larger engine used in the Series 60, 80 and 90 cars.

The vacuum-controlled starter switch has been combined with the automatic choke, eliminating connecting linkage. The generator has been relocated and is rigidly mounted on the side of the water jacket.

Buick for 1938 again is making use of the "Aerobat" carburetor, an airplane type which insures positive fuel feed under all driving, starting and stopping conditions. The Aerobat carburetor metering system functions perfectly on any grade, will not cause the motor to miss or stall on sharp turns, has no tendency to stall on fast stops and results in improved hot starting and better acceleration at low speeds.

Buick uses a specially designed oiling system that forces oil under pressure to all main, connecting rod, camshaft and rocker arm bearings, besides providing a spray of oil on cylinder walls and a constant supply to such parts as timing chain and valve lifter mechanism.

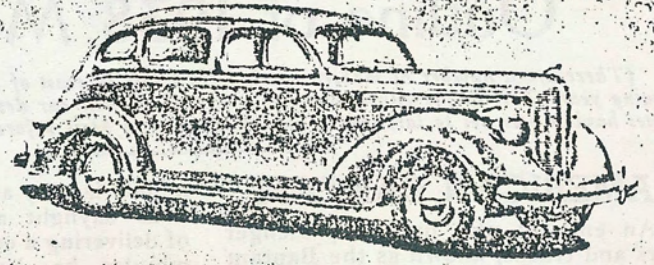
Blowout dangers are greatly reduced by the new rear suspension, according to the engineers, who say that by tests on the General Motors Proving Ground, in which tires were intentionally blown out, a front-wheel blowout required only a slight deflection of the steering wheel to correct the car direction, while with a rear-tire blowout no additional steering correction was necessary.

Hydraulic brakes of self-energizing design and increased braking area provide the utmost in operating ease, safety and smooth deceleration. All brake pipes are securely attached and fitted to the new frames in such positions as will shield them from flying stones. The master cylinder is easily accessible and carries a large reservoir of brake fluid. In the new hand brake lever, easy release with positive locking has been provided, while a new cable hook-up has been devised to prevent all binding and the possibility of in-operation from mud, slush and freezing.

Buick continues its sealed chassis for 1938 in which all mechanism is completely enclosed. In addition to sealing the running gear from dust and dirt by means of the torque tube, countless other parts are protected—an air cleaner and crankcase ventilator seal the engine from dirt and other foreign matter, while the cooling system, steering connections, wheel bearings, and all four brakes are sealed from such elements as dust, snow, dirt or water.

The Buick self-shifting transmission will shift itself once the car is under way, and automatically provides a selectivity of gear ratios to meet all requirements. It is sensitive in its shifting both to the speed of the car and the performance desired by the driver. Controls of the self-shifting transmission are located on the steering post

DODGE FOUR-DOOR SEDAN FOR 1938 HAS EVERYTHING THAT CONTRIBUTES TO DRIVING AND RIDING COMFORT. WIDE AND DEEP SEATS, LARGE WINDOWS AND SLENDER CORNER POSTS. WIDE DOORS INSURE SAFETY FOR PASSENGERS



just under the wheel at the right, and the center gear-shift lever is eliminated from the driver's compartment.

Among other advantages, both in city and country driving, are a fourth speed direct drive for increased economy, and exceptional acceleration both in the lower gear ratios and in third speed, where it is desirable for passing other cars on highways or making unusually steep grades.

Windshields on the new cars are of the split V-type and are equipped with twin windshield wipers. The new cars likewise have twin horns on all models. New this year is a center arm rest in the rear compartment of Series 60 Century sedans.

## DODGE

The 1938 Dodge passenger car models offer ten body selections, and incorporate some forty-seven progressive improvements affecting appearance, comfort and performance. Coupes come in three styles—business, rumble seat and convertible. Sedan and touring sedan models include two- and four-door closed types and a convertible style. There also are two 132-inch wheelbase vehicles—rated as seven-passenger sedan and seven-passenger limousine, but in reality accommodating eight passengers.

Changes and improvements distinguish the 1938 models in the power plant, transmission, brakes, steering mechanism, clutch, wheels and other components. Floating power and other engine details, silenced all-steel safety bodies, hydraulic brakes, hypoid rear axle, and a variety of automatic operating features are either retained or used with modifications. New also are hood louvres, fenders and their mountings, windshield, instrument panel, seat adjustment, head lamps, door and luggage compartment locks, brake drums, engine impulse neutralizer, muffler, clutch facings, clutch baffle and release bearings, generator and interior treatment.

The mechanism by which the front seats may be adjusted for different drivers now has its operating lever on one side, in convenient reach of the driver's left hand. As the front seat moves forward it also rises, bringing shorter drivers closer to the control pedals and elevating them to a higher position in which they retain full vision of surroundings.

The employment of the hypoid rear axle drive not only eliminates the propeller shaft tunnel, but produces a level floor in rear compartments; mechanically, the hypoid rear axle combines the strength of the bevel-gear drive with the quietness of the worm drive.

Safety and convenience have been guiding motives in the design of the instrument panels of the new Dodge models. The heat indicator, ammeter dial, fuel and oil gauges are grouped in a circular layout and placed beside the speedometer so that the driver, in reading the instruments, does not have to turn his eyes out of the direction in which the car travels. Switches, control knobs, glove compartment and ash tray handles, even the ignition lock, are sunk into the instrument panel so that none of them can act as obstructions.

One feature retained from previous Dodge designs is the sway eliminator, now operating without being linked to the shock absorbers. The present sway eliminator is a U-bar of heat-treated steel, rubber cushioned on the forward portion of the frame. The function of the device is to minimize body tilt in turning curves at considerable speeds.

The engine is of 3¼ in. bore and 4¾ in. stroke and develops a maximum of 87 horsepower. Engine features like the full-length water jackets, steel valve inserts, pressure lubrication, aluminum pistons, automatic choke, and spark advance are continued, some in modified forms, in the 1938 Dodge series.

Minor improvements have been made in the Dodge synchro-silent three-speed transmission. The transmission or parking brake is now applied and released by a pistol-grip-shaped lever located in the center of the instrument panel. The arrangement, by eliminating the conventional parking brake lever, clears the floor area in the front compartment, thus giving greater freedom to driver and front seat occupants.

While leaving engine power and car speed practically unchanged, Dodge engineers have boosted stopping power by increasing the diameter of the air-cooled brake drums from 10 inches to 11 inches. The ribbed drums are of special cast iron having a high friction coefficient and a rapid cooling rate.

The head lamps supply a main beam for open-road travel and an optional courtesy or passing beam. Both beams are of 32 candlepower brightness. But while the main or driving beam points straight ahead, the courtesy beam is