

NEW CARS DESCRIBED

TRIUMPH-ENGINEED HIGH-SPEED ROADSTER

THE SWALLOW DORETTI

ONE of the latest cars to compete in the sports car market in the U.S. is the Swallow Doretta. This trim sports two-seater is based on the mechanical components used in the Triumph sports car, which was fully described in *The Autocar* of October 24, 1952. The engine, transmission and front suspension units—all based on the Triumph—are mounted on a neat tubular chassis frame. A modified steering layout is used and the three-piece track rod and idler lever assembly, together with the steering box, are mounted forward of the front axle centre line. The independent front suspension is by wishbones and coil springs, telescopic dampers being used. At the rear, the suspension is by half-elliptic leaf springs (inclined at an angle of 8 degrees to give a measure of roll under-steer) and two tie-rods pivoted to the chassis frame at a point above the front attachment point of the rear spring. They are pivoted to the axle casing at their rear end. It is claimed that these struts reduce axle hop and, of course, prevent the leaf springs from winding up under braking or engine torque reaction.

The chassis frame is composed of two straight three-inch diameter tubular side members of 50-ton chrome molybdenum steel. To provide additional stiffness and to increase the beam strength channel section, pressings are welded above and below the tube in the centre section. Out-rigger brackets are welded to the main chassis side members for supporting the

body, and a rectangular tubular member forms the front bulkhead support.

The engine and the gear box are set fairly far back in the frame, so that the main front cross member tube and stiffening struts run in front of the engine. One of the most interesting features of the car is the body construction. This consists of two plates which run the whole length of the car (except where they are cut away for the doors), and form the main wing contour lines. These are suitably braced by the body frame cross members and are also used as attachment points for the wheel arches. The main body panels are bolted to the plates so that, although the car has very smooth-flowing lines, the wing bracings can be detached in the event of accidental damage. The main body frame and plates are of 22 gauge steel, while the body panels are of 16 gauge light alloy. A one-piece bonnet top is hinged at the front end and allows reasonable access to the engine and its components. A plain fascia panel has the control switches neatly laid out between the rev counter and speedometer. The top edge of the fascia is lined with a sponge rubber moulding and a grab handle is fitted for the convenience of passengers.

A 16in plain three-spoke steering wheel is raked at a convenient angle, and the gear lever is of the short central remote control type. The hand brake lever is

mounted on the propeller-shaft tunnel.

Interior trimming is of good quality; the doors are lined and map pockets are incorporated. The all-weather equipment includes separate sidescreens and a quickly detachable hood which folds down behind the seats when not in use. The spare wheel and tool kit are located in the luggage locker above the fuel tank, which has a capacity of 12 gallons.

Optional extras for the Doretta include an overdrive which, when fitted, gives a ratio of 3.03 to 1, compared with the normal top gear ratio of 3.7 to 1. Aero screens, heater, centre lock wire wheels, and a high-speed tuning kit are also available. The Doretta is being manufactured by the Swallow Coachbuilding Co. (1935), Ltd., The Airport, Walsall, Staffordshire, and sales and service in America will be handled by the Standard-Triumph organization.

SPECIFICATION

Engine.—4-cyl, 83 × 92 mm. 1,991 c.c. Compression ratio 8.5 to 1. 90 b.h.p. at 4,800 r.p.m.

Transmission.—Dry single-plate clutch.

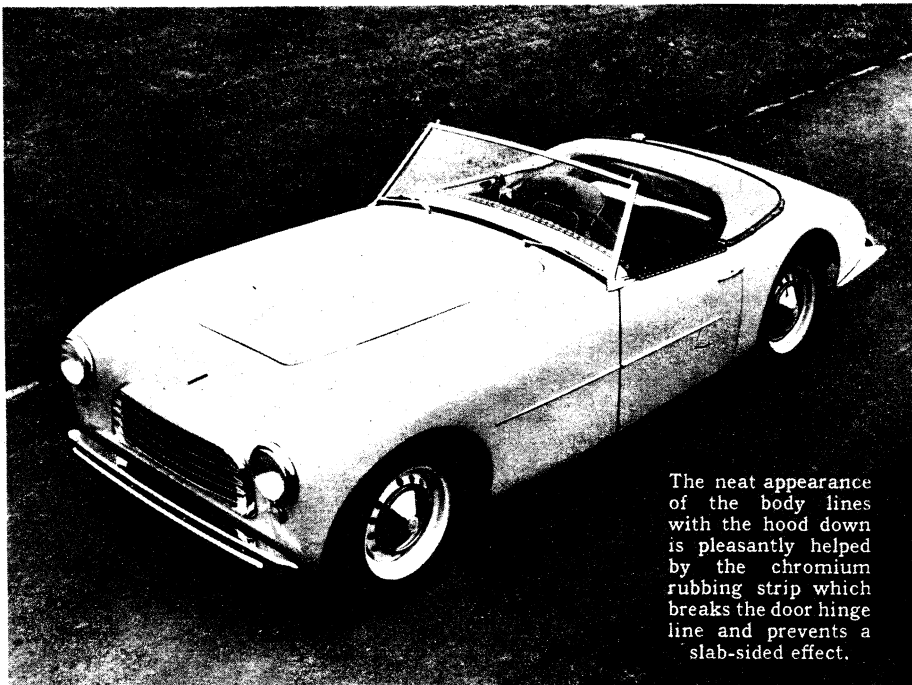
Gear Box.—Overall ratios: Top 3.7, third 4.9, second 7.4, first 12.5 to 1; reverse 15.8 to 1.

Final Drive.—Hypoid axle.

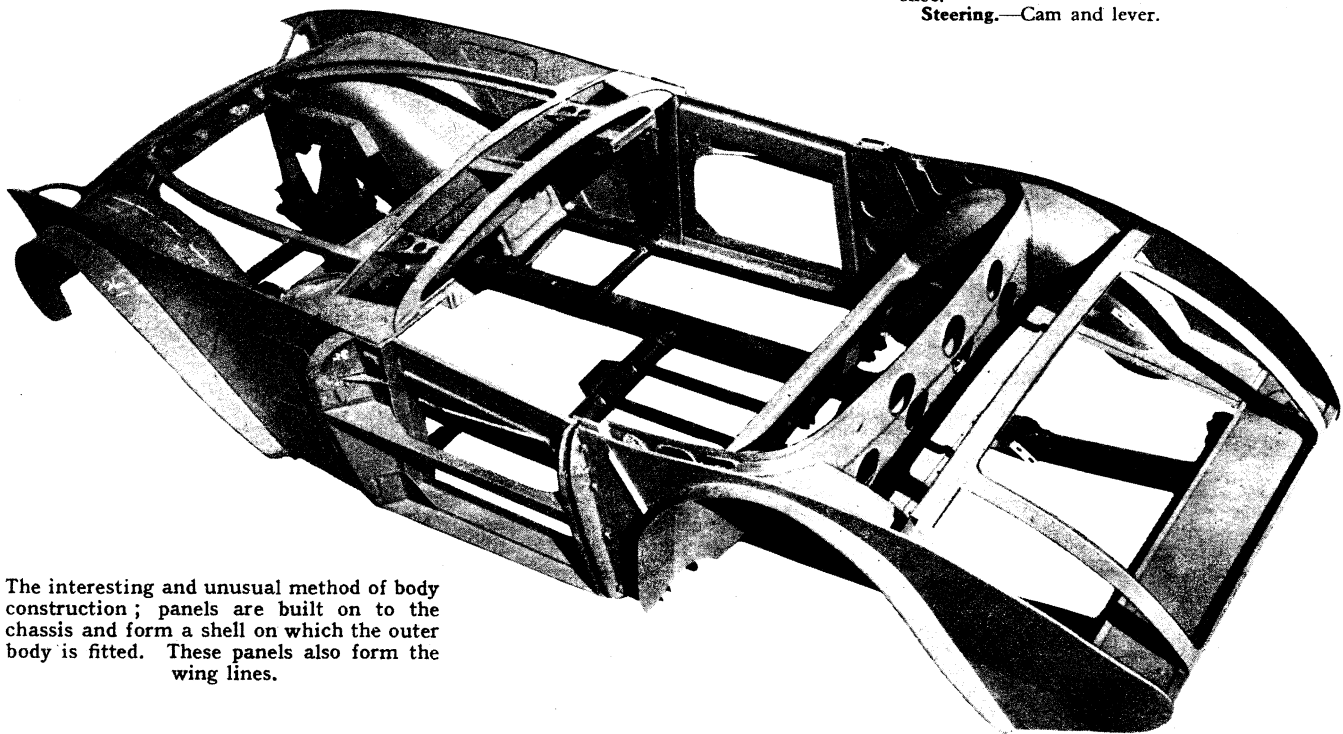
Suspension.—Front: independent coil springs. Telescopic dampers. Rear: half-elliptic springs. Telescopic dampers.

Brakes.—Lockheed hydraulic. Front: two-leading shoe. Rear: leading and trailing shoe.

Steering.—Cam and lever.



The neat appearance of the body lines with the hood down is pleasantly helped by the chromium rubbing strip which breaks the door hinge line and prevents a slab-sided effect.



The interesting and unusual method of body construction; panels are built on to the chassis and form a shell on which the outer body is fitted. These panels also form the wing lines.