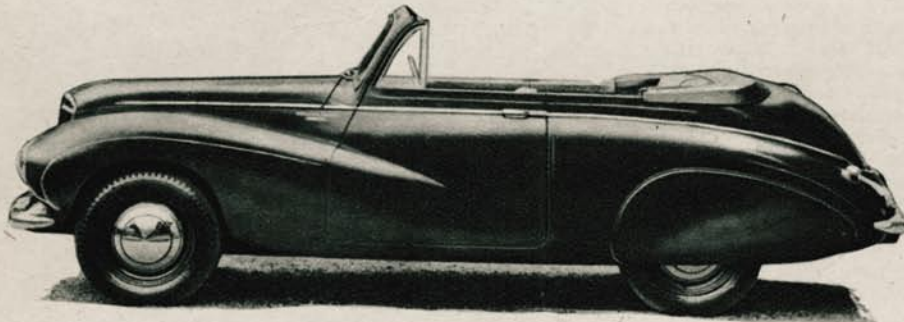


NEW CARS DESCRIBED

The Latest in Sunbeam-Talbots



Here is the closed or open model of the new Sunbeam-Talbot, the sports convertible coupé, with coachwork by Thrupp and Maberly. With a similar steel body shell to the sports saloon, the coupé has a top which when raised forms the equivalent of a saloon, but which can be folded down out of sight to convert the car to an open four-seater within approximately one minute. The windows drop into the doors and rear quarters. There is also a third position of the hood, open only in the middle to form a coupé de ville. This is a style of body which has many devotees.



Graceful Modern Lines, New Overhead-valve Engines, and Many Attractive Special Features of Design and Equipment

OLD and new Sunbeam-Talbot "fans" are, it may be surmised, going to be decidedly charmed with the two new models—the 80 and the 90. The current Sunbeam-Talbots always take the eye and win a second look when they go by, and they have a most satisfying road performance coupled with excellent controllability. The new models have made a bound forward. They are in the modern style, but have retained their recognizable characteristics, to become more graceful and speedy looking.

The new appearance is really attractive. Modern styling is not always an unqualified success, but the Sunbeam-Talbots have achieved it. They display an harmonious adaptation of streamlining on a road vehicle; their atmosphere suggests speed and buoyancy, and the lines are clean.

One of the most difficult points in the "new look" is to blend an inbuilt head lamp into the front of a wing without introducing curves or surfaces from which an artistic eye instinctively recoils. By clever balance of proportions the Sunbeam-Talbot designers have achieved this, and the lamp front appears to be in its natural place, while the wing behind it is without blemish in curvature. Another point about modern styling is that it is apt to look heavy and slab-sided; that pitfall, too, has been avoided by skilful use of raised panels or "reveals."

Intrinsically there is only one model of the new Sunbeam-Talbot, the difference between the 80 and the 90 being mainly of engine size, for the chassis and the coachwork are the same. The 80 would be the choice of an owner who wants a fine performance with economy of consumption, whilst the 90 is for the man who wants the extra performance which

the larger engine can give. Both four-cylinder engines are entirely new and have overhead valves. The 80 is 1,184.5 c.c. with a compression ratio of 6.88 to 1, and can develop 47 b.h.p. at 4,800

r.p.m. The piston speed is then 2,992ft per min, and the maximum torque developed is 61 lb/ft. The 90 is 1,944 c.c., with a compression ratio of 6.57 to 1; it can develop 64 b.h.p. at 4,100 r.p.m. Piston speed at maximum b.h.p. is 2,958ft per min, and the maximum torque is 100 lb/ft.

Although the chassis is a new design it is developed from well-tried experience and there is nothing uncertain about it.

SPECIFICATIONS

Engine.—80: Four cylinders, 63×95 mm (1,185 c.c.). Overhead valves operated by push rods. Three-bearing counterbalanced crankshaft. Aluminium pistons with steel connecting-rods. Pressure lubrication with AC by-pass filter. Pump and fan cooling with thermostat by-pass. Down-draught carburettor with automatic choke. Compression ratio: 6.88 to 1. 47 b.h.p. at 4,800 r.p.m.

90: Four cylinders, 75×110 mm (1,944 c.c.). Main features similar to 80. Light alloy connecting-rods. Full-length water jackets. Carburettor intake ducted from in front of radiator. Compression ratio: 6.57 to 1. 64 b.h.p. at 4,100 r.p.m.

Transmission.—Rubber-mounted unit construction of engine and gear box. Borg and Beck dry single-plate clutch with chain linkage to pedal. Four-speed gear box with baulk ring type synchromesh on second, third and top. Finger-tip gear change below steering wheel. Overall gear ratios: 80: Top 5.22, third 7.78, second 12.89, and first 18.6 to 1; 90: top 4.3, third 6.41, second 10.62, and first 15.32 to 1. Open propeller-shaft. Spiral bevel final drive.

Suspension.—Half-elliptic springs with steel and rubber bushes. Extra leaves on 90 front springs and plastic grease-retaining gaiters. Girling piston-type hydraulic dampers.

Steering.—Burman Douglas worm and nut.

Brakes.—Lockheed hydraulic two-leading-shoe. Central hand brake with mechanical operation on rear

wheels. Brake drums 9in diameter on 80 and 10in diameter on 90.

Fuel System.—10-gallon rear tank. AC mechanical fuel pump.

Tyres and Wheels.—80: Dunlop E.L.P. 5.50×16in. 90: Dunlop Fort E.L.P. 5.50×16in. Disc wheels. Three-stud fixing for 80 and five-stud for 90.

Electrical Equipment.—Lucas 12-volt with 51 ampere-hour battery and constant voltage control dynamo. Coil and battery ignition. 90 has vacuum as well as centrifugal advance control. Flush-fitting sealed reflector head lamps with side lamp bulbs. Flush-fitted pass and fog lamps. Dual wind-tone horns.

Frame.—Box-section side members; three box-section and one tubular cross-member.

Jacking.—Four corner sockets and mechanical jack.

Main Dimensions.—Wheelbase 8ft 1½in. Track: front, 3ft 11½in, rear, 4ft 2½in. Overall length, 13ft 11½in; width, 5ft 2½in; height, 5ft 0½in. Ground clearance, 5½in. Turning circle, 36 feet. Weight, unladen, 80: 23 cwt 1 qr. 90: 25 cwt 1 qr.

Prices (in Great Britain).—80: Sports saloon, £695, plus £193 16s 1d purchase tax. Total, £888 16s 1d. Convertible coupé, £745, plus £207 13s 11d purchase tax. Total, £952 13s 11d.

90: Sports saloon, £775, plus £216 0s 7d purchase tax. Total, £991 0s 7d. Convertible coupé, £825, plus £229 18s 4d purchase tax. Total, £1,054 18s 4d.

THE LATEST IN SUNBEAM-TALBOTS—Continued

The main features are a frame of large box-section intended to give that rigidity which is so essential in a fast car, half-elliptic springs back and front for the purpose of combining light and accurate steering with stability on corners, the new and powerful overhead-valve engines, the latest baulking-ring type of synchromesh gear box, with a light gear change situated below the steering wheel on the left side, an extension to the tail of the gear box which shortens the length of the open propeller-shaft, and the latest type of Lockheed hydraulic two-leading-shoe brakes. Both chassis and coachwork are full of special features of detail.

When the eye of the observer has noted with appreciation the general appearance of the four-door sports saloon body, various details begin to emerge. The safety-glass windscreen is curved; the result of this development is to bring the flanks of the screen closer to the driver and to set the screen pillars farther aft, thereby materially increasing the unobstructed forward field of vision—undoubtedly a contribution to safety. Moreover the down slope of the bonnet gives a clearer view of the road close up to the front of the car. The screen is fixed and has special wipers to deal effectively with its curved surface in rain. The back window is also of curved glass, giving an unusually good view for driving in reverse. The door handles merge into the chromium plated waist rail, and they do not turn to open but hinge outwards. The doors themselves are carried on particularly stout but invisible hinges, and they close on to the centre pillars.

Good Rear Seat Vision

An attractive point about the Sunbeam-Talbot saloon has always been the way in which the window of each rear door merges into the adjacent quarter window without any pillar, giving improved visibility from the rear seats and a light appearance. This arrangement is retained in the new model.

It will be noticed that the rear wheels are largely concealed by a panel which fills what would otherwise be an unsightly gap in the rear wings and so preserves the fine lines of the car. For the purpose of wheel changing this panel can be removed in a moment by releasing a quick-action safety catch and pulling the panel downward and rearward. Rubber edging prevents the possibility of rattle. The pressed steel disc wheels have wide-

This is the new Sunbeam-Talbot, "as pretty as paint." It will be obtainable with a 1,185 c.c. engine for the 80, or a 1,944 c.c. for the 90. The illustration shows the 90. Among the features are a large-section rigid frame, half-elliptic springs front and rear, a four-speed gear box with a finger-light control lever below the steering wheel, a short propeller-shaft, near-vertical steering wheel, driving seat with vertical as well as horizontal adjustment, curved glass windscreen and rear window, inbuilt lamps, large luggage boot, provision for radio and air conditioning and a sliding roof.

base rims for the tyres, are fitted with smart-looking large chromium plated hub covers, and are provided with slots to enable non-skid chains to be fitted in winter. The wheels are balanced.

Beneath the front of the unmistakable Sunbeam-Talbot style of radiator grille is a number plate combined with the nicely blended and stout bumper bar, which again is blended to the front of the car by a valance.

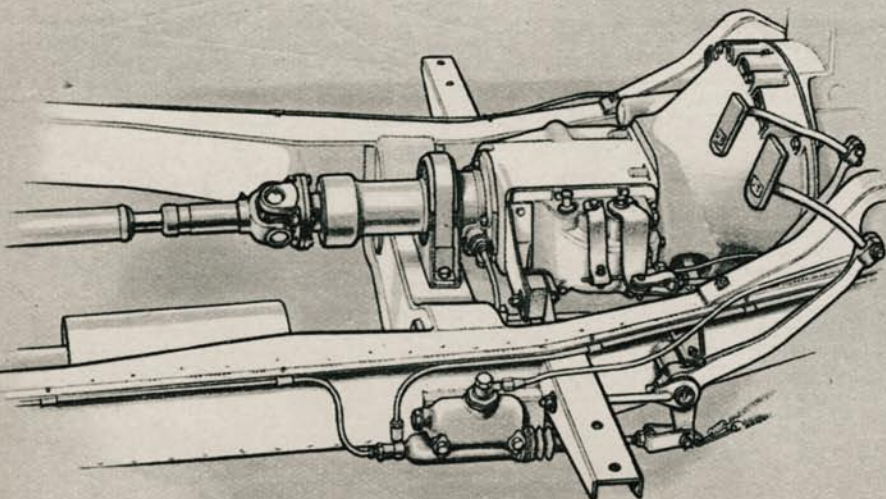
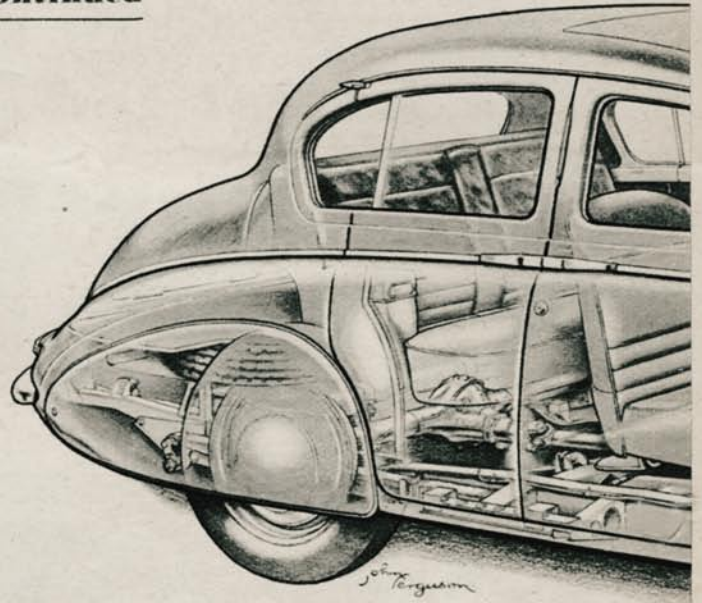
The inbuilt head lamps also incorporate pilot bulbs which replace separate side lamps. When the dip-switch control is operated the head lamp beams are extinguished and a broad, flat beam comes on from the separate pass light. An independent switch on the instrument panel operates a similar fog-penetrating beam from the second of the two smaller inbuilt lamps. It seems hardly necessary to remark that inbuilt lamps not only reduce the air resistance of the front of the car, but also make cleaning much more easy. Incidentally the alligator type of bonnet top is locked from inside the car, and also has a safety catch.

At the back of the car, where the shapely body merges into the stream-

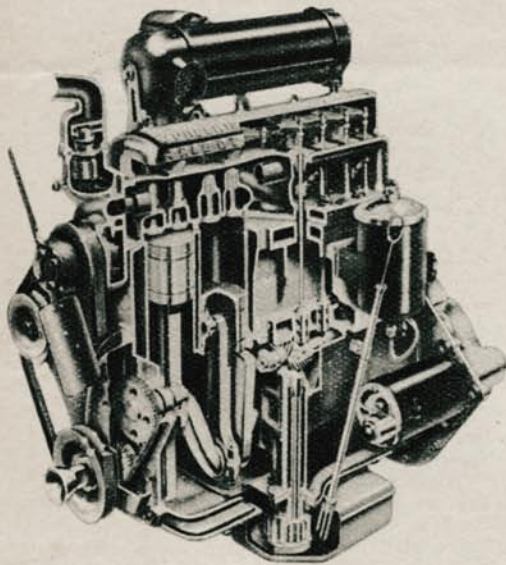
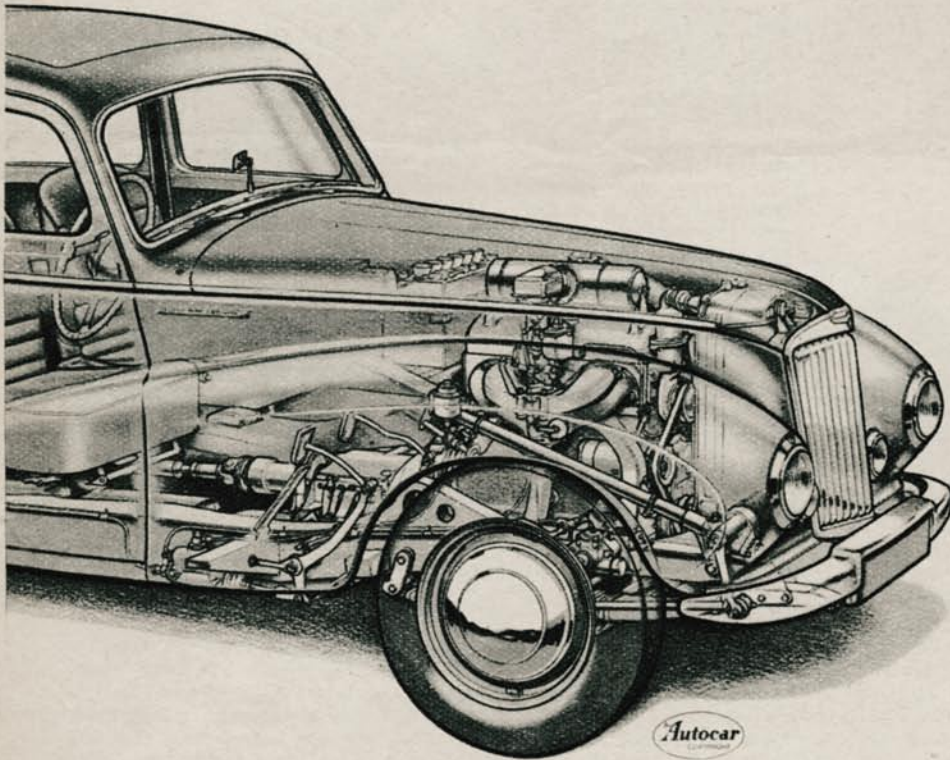
lining of the rear wings, there is an inbuilt luggage boot of considerable capacity. The lid is hinged on its bottom edge and so extra luggage can be carried thereby should it be necessary. This lid is hollow, and on the inner side has a false lid which is recessed and padded to house such items as the jack, pump, wheel-changing tools and starting handle. Below the luggage locker is a separate compartment housing the spare wheel. The lid of this carries the inbuilt number plate and its illumination and is fixed on swan-neck hinges which enable it to be opened downward over the rear bumper without obscuring the number plate. Rear lights, stop light and reversing lights are built into the extremities of the wings.

From the driving seat one becomes aware of many interesting points. The first is that the near-vertical position of the T-spoked steering wheel, and its situation relative to scuttle and seat, give an unusually comfortable driving position which is equally suitable for tall or short drivers. Then there is a very attractive new arrangement; a streamlined metal fairing blends the boss of the steering wheel into the instrument panel in one harmonious whole. The finger-tip gear lever projects neatly from under the left side of the fairing. Altogether this is a neat and practical way of covering the usually rather untidy projecting portion of a steering column.

All dials are immediately in front of the driver, and all controls easily within reach of his left hand. In the centre of the attractively styled fascia the ignition and lighting switch is mounted with



Centre of the stout chassis showing the gear box extension which shortens the propeller-shaft, the rubber mounting, and selector mechanism on the side. In the foreground is the master cylinder of the Lockheed brake system.



This section of the overhead-valve engine of the new Sunbeam-Talbot 90 shows the stout balance-weighted crankshaft in the rigid crankcase, the light-alloy connecting rods and pistons, the shape of the combustion chambers, with the larger inlet valve above the crown and the smaller exhaust slightly offset, the water gallery through the detachable cylinder head which feeds direct to the exhaust valve seats, the valve operating gear, and the oiling system.

The four-door sports saloon fitted with either the 80 or the 90 overhead valve engine. The new styling is not ostentatious and the new model looks even more attractive when actually seen than in a photograph. A curved-glass windscreen will be noticed; outward visibility for driver and passengers is particularly good.

minor controls on each side of it. Above that is a recess which is used either as a shelf or to accommodate the control panel of a radio, if that is fitted as an extra. On the left side of the fascia is a wide locker the lid of which opens horizontally to form a table. Inside this locker is an electric lamp which clearly illuminates any document, such as a map, placed on the table. The panel forming the lid is interchangeable with the panel carrying the instruments and steering column fairing, so that the car can be assembled in production for either right- or left-hand drive.

Because the gear change lever is mounted below the wheel and the stout lever of the hand brake lies out of the way between the two front seats the front floor is unobstructed. Just in front of the hand brake, on the floor, is a well-placed ash tray with tip-up lid. Another good point is that proper rest for the foot is afforded by the side of the clutch pedal, which is a boon on a long run. A locker on the left side of the scuttle conceals a neat rubberized wallet housing small tools.

Mention has been made of the well-arranged driving position. This is completed by a driving seat which is not only adjustable for leg reach, but can also be raised or lowered instantly by means of a hand wheel on the right side.

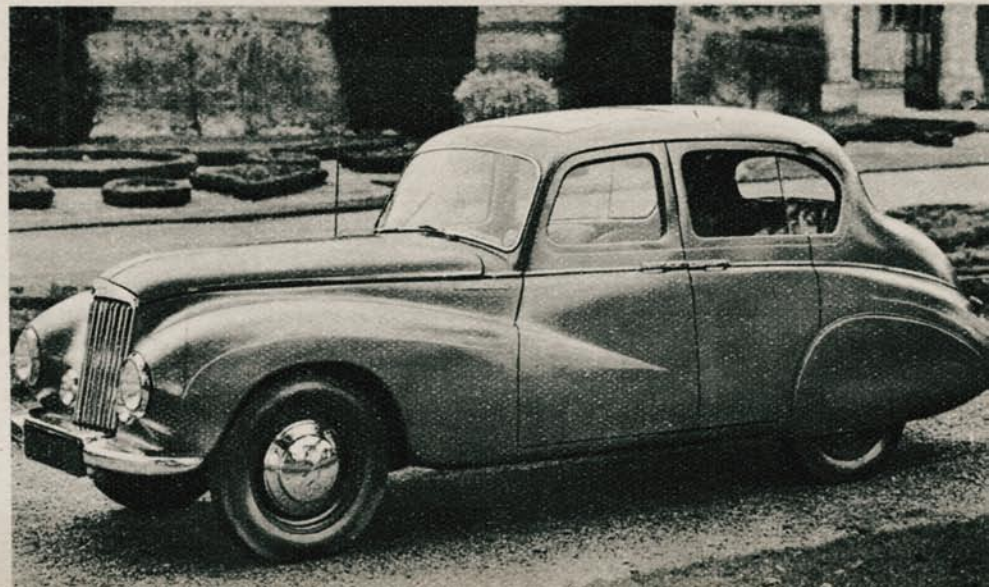
The interior of the body is styled in an attractive manner; there are elbow rests, a folding centre arm rest, and foot rests for the rear passengers; the front windows are operated by quick-lift handles, and a sliding roof is provided. A pleasing touch is the opalescent metallic mother-of-pearl finish applied to the instrument panel and cappings.

Provision is made for an air-conditioning plant to be fitted as an extra, and there are ducts concealed in the fascia to provide currents of warm air over the screen to prevent misting. Also, ducts are concealed within the front wings, and draw fresh air from in front of the radiator. They continue back to the scuttle, where a valve on each side controls a supply of fresh air into the body. On the 90 the intake of the engine air silencer is drawn through a flexible hose from the left-side duct. These ducts are used in conjunction with air conditioning when a heater unit is fitted.

Engine Design

Both engines are new designs, but on somewhat similar lines. The 90 has four cylinders, 75 x 110 mm bore and stroke (1,944 c.c.). A rigid cylinder block has the crank chamber carried well down below the centre line of the crankshaft and closed off at the foot by a detachable steel oil sump. The cylinder barrels are separated by water spacing to ensure even cooling, and the water jacket extends to the foot of the barrel. Three steel-backed bearings carry the crankshaft, which is counterweighted and balanced. Stiff connecting-rods of aluminium alloy, with floating gudgeon pin bearings and spurt holes to play oil inside the barrels, run up to long alloy pistons having three pressure rings and one scraper close to the top, and provision in the slotted skirt for an additional ring in later life.

From the front end of the crankshaft a twin roller chain provides the drive to the camshaft, towards the centre of which is mounted a skew gear driving a vertical shaft with a submerged large-size oil pump at its foot, and the contact-breaker and distributor unit at its head in an accessible position. Barrel-shaped tappets bear on the cams and from them vertical hollow steel push rods reach up to the valve rockers. Closing



"THE AUTOCAR" ROAD TESTS . . . continued

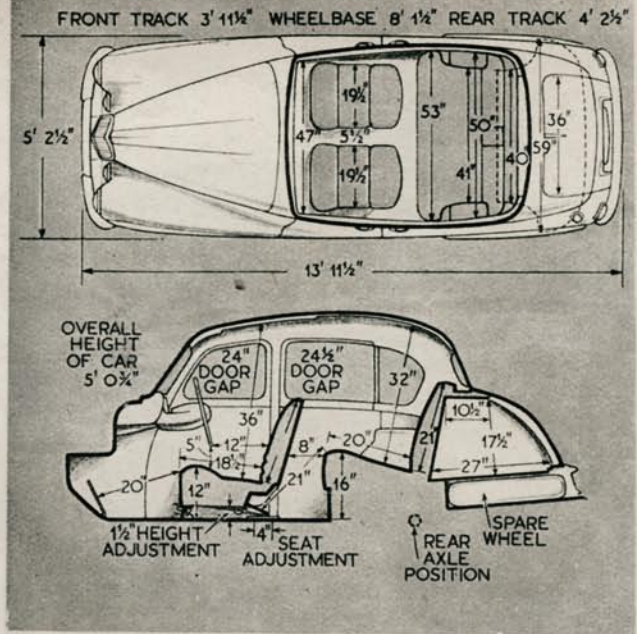
latitude to accommodate drivers of different stature. There is room for a long man, and comfort plus visibility for a short one. This is by reason of a seat not only instantly adjustable for leg reach, but for height as well.

This car has a somewhat novel fairing which blends the steering wheel to the instrument panel, hides the unsightly head of the column and brings the left-side under-wheel gear change lever into the same assembly. It looks attractive. But when one comes to drive the car there is evidence of more than good looks in this arrangement, because the arc-shaped dial of the speedometer around the base of the fairing proves unusually easy and quick to see, since the T-shaped layout of the multiple banks of spokes of the wheel permits a free view. The arrangement of the instruments in front of the driver, with the minor controls at the centre of the fascia board, and the left-side gear lever, proves to be very good indeed, making the car very easy to handle and to be at home with quickly.

Light Steering-column Gear Change

On starting away from rest one finds that the gear lever comes naturally to the left hand, and that it operates lightly. Under-the-wheel gear changes are apt to require a slow, steady movement rather than a snappy one, no doubt because of the linkages and long connections inherent in their design. This particular one certainly works lightly, and fairly fast, but is not at its absolute best for the very quick movement necessary when making acceleration tests. For ordinary handling it is excellent. The clutch seems well up to its work, giving a smooth and easy get-away on first or second gear, and it was able to withstand a good deal of hard work during the tests. Incidentally, an excellent provision is a proper rest for the left foot by the side of the clutch pedal. The fact of the selector mechanism of the gear box being at the side instead of on top removes some height from the floorboards, and so it is easy to get into the driving seat by the left-hand door as well as the right.

Gear changing is superlatively easy; the mechanism of the synchromesh employs baulking rings which ensure that a change cannot be made until the relative speeds are correct. It would take a very clumsy driver to "beat" this synchromesh. The indirect gears are all that they should be as regards quietness of running; in fact, the quietness of the car as a whole reaches a high standard. At the higher speeds one can hear the exhaust note, but it is rather pleasing than otherwise. At cruising speeds the



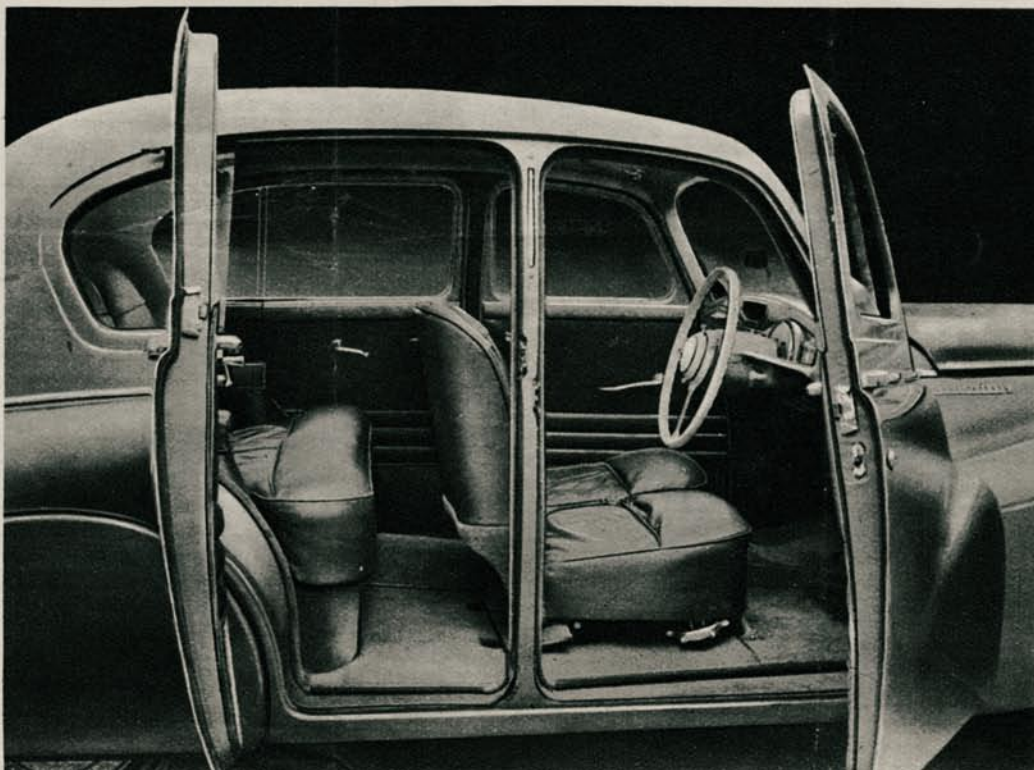
Measurements are taken with the driving seat at the central position of fore and aft adjustment. These body diagrams are to scale.

noise level is low enough to permit quiet conversation. There is nothing of the old-fashioned sports car about this speedy saloon.

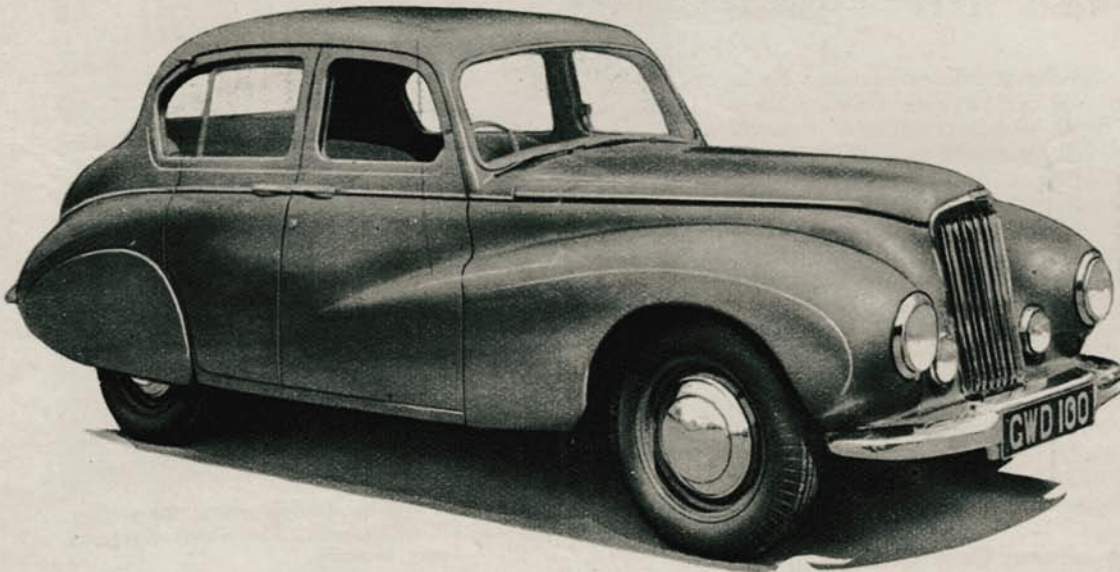
For the new overhead valve engine there is nothing but praise. It produces plenty of power, and yet is quite unobtrusive. It takes life with a light heart, and does not mind being put to continuous hard work on a long run. The cruising speed is what the road conditions allow the driver to make it, for the car is happy at any speed within its considerable range. It is a quite lively performer, as the figures in the accompanying data panel will show. Those figures are not necessarily the best that a car can do, but an honest average of what it has been checked to do several times over. Moreover, these tests were made on one of the first production cars, and later samples, well run-in, should be better still.

One of the objects of the design of the Sunbeam-Talbot has been to secure stability on the road, so that the car feels safe, and is safe, at any speed of which it is capable. To that end a stout box-section frame has been embodied. On the whole the suspension, with half-elliptic springs and a beam-type front axle, is a very good compromise for a car of this type; it is soft enough to be comfortable, particularly in the front seats, but not so soft as to reduce stability. On good and medium roads the ride is pleasantly flat. Stability is good.

Another very good feature is the brake set—Lockheed



Several special points are evident from this interior view. The near-vertical position of the steering wheel, in conjunction with a seat adjustable vertically as well as horizontally, ensures a comfortable position for tall or short drivers. The hand wheel for the vertical adjustment is in plain view, as also are the rear seat foot rests below the backs of the front seats. A new note is struck by the fairing around the steering column. Easy entry is provided by wide doors which hinge on the body structure and not on the centre pillars. The flooring back and front is flat.



No. 1358
SUNBEAM-
TALBOT
90 SPORTS
SALOON

The Autocar ROAD TESTS

DATA FOR THE DRIVER

SUNBEAM-TALBOT 90

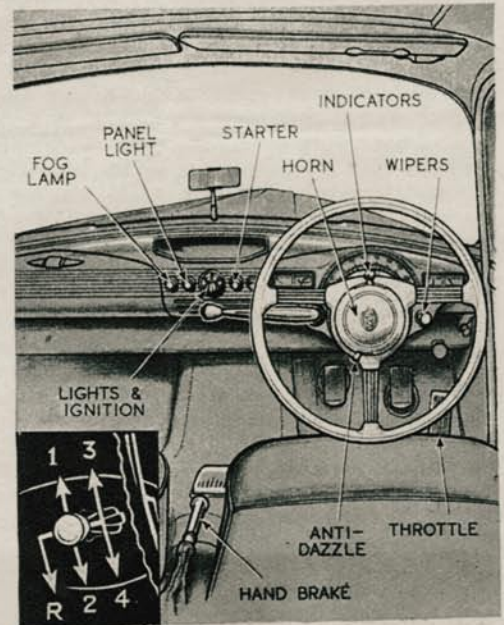
PRICE, with four-door sports saloon body, £775, plus £216 os 7d British purchase tax. Total (in Great Britain), £991 os 7d.
RATING: 13.95 h.p., 4 cylinders, overhead valves, 75 x 110 mm, 1944 c.c.
TAX (in Great Britain), £10.
BRAKE HORSE POWER: 64 at 4,100 r.p.m. COMPRESSION RATIO: 6.59 to 1.
WEIGHT, without passengers: 25 cwt 1 qr. LB per C.C.: 1.45.
TYRE SIZE: 5.50 x 16in on bolt-on steel disc wheels.
LIGHTING SET: 12-volt. Automatic voltage control.
TANK CAPACITY: 10 gallons: approximate fuel consumption range, 22-28 m.p.g.
TURNING CIRCLE: 36ft (L and R). MINIMUM GROUND CLEARANCE: 5½in.
MAIN DIMENSIONS: Wheelbase, 8ft 1½in. Track, 3ft 11½in (front); 4ft 2½in (rear). Overall length, 13ft 11½in; width, 5ft 2½in; height, 5ft 0½in.

ACCELERATION				Speedometer correction by Electric Speedometer:—			
Overall gear ratios	From steady m.p.h. of			Car Speed-ometer	Electric Speed-ometer	Car Speed-ometer	Electric Speed-ometer
	10 to 30	20 to 40	30 to 50				
4.30 to 1	11.5 sec.	11.7 sec.	12.7 sec.	10 = 11	50 = 48	20 = 20	60 = 57.5
6.41 to 1	7.6 sec.	7.9 sec.	9.9 sec.	30 = 29.25	70 = 67	40 = 38.5	80 = 76.5
10.62 to 1	5.2 sec.	—	—				
15.32 to 1	—	—	—				
From rest through gears to:—				Speeds attainable on gears (by Electric Speedometer)			
30 m.p.h.	..	..	.. 6.7 sec.	1st	..	..	.. 22-28
50 m.p.h.	..	..	.. 17.6 sec.	2nd	..	..	.. 32-39
60 m.p.h.	..	..	.. 26.8 sec.	3rd	..	..	.. 58-64
70 m.p.h.	..	..	.. 38.9 sec.	Top	..	..	.. 80

Steering wheel movement from lock to lock: 2½ turns.

WEATHER: Dry, warm; light wind.

Acceleration figures are the means of several runs in opposite directions.



Current model described in "The Autocar" of July 2, 1948.

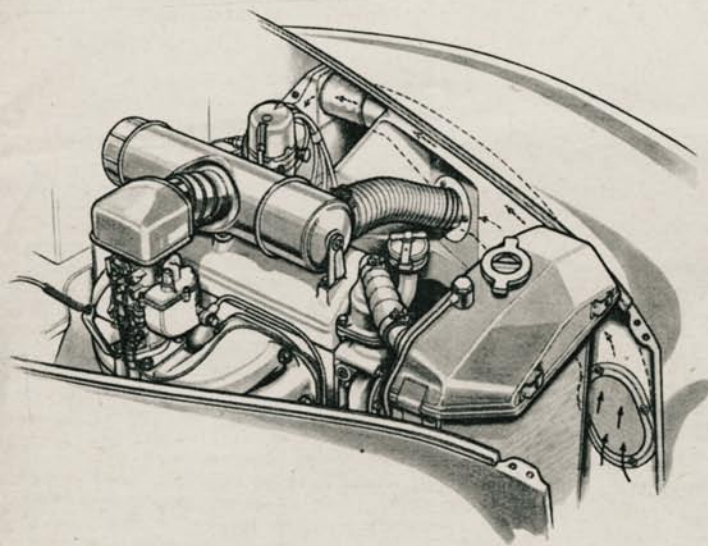
IN the past Sunbeam-Talbots have gained an enthusiastic following amongst motorists who seek a really smart and lively car, not too large in size and able to give a pleasant and spirited road performance. The latest edition, the 90, which supersedes the Two-litre, is a new design; so arresting to the eye that its appearance attracts attention which is almost embarrassing, whilst its performance, by reason of its new overhead valve engine, is very satisfying. The engine is exceptionally smooth running and the flexible mounting so good that one might be travelling behind six cylinders instead of four.

Perhaps the first item to draw attention when one gets into the driving seat and sets off enthusiastically down the road is the freedom of forward visibility. The slope of the bonnet and its tapering shape, together with the absence

of any projecting head or side lamps, give an exceptional area of vision, and the road can be seen within a few feet of the front of the car. Curiously enough this close-up visibility at first produces a sensation of speed greater than may actually be the case, because of nearby objects rushing past. The field of view is further enhanced by the width of the curved windscreen and by the close-up position of the windscreen pillars.

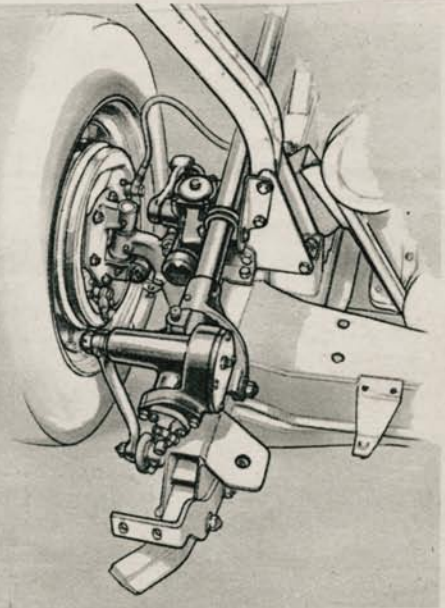
The next point is the driving position. A near-vertical steering wheel tucks comfortably into the lap, and the driver's arms fall into a good position for the hands to take a free hold of the steering wheel rim. The driving seat is reasonably upright, as it should be if one is to avoid tiredness on a long run. Then the controls are so placed and the wheel so positioned that there is a surprising

The Latest in Sunbeam-Talbots—Contd.



Left: On the 90 model fresh air from in front of the radiator is drawn through hollow ducts concealed in the front wings to the air intake silencer of the engine. The same ducts are continued back to the scuttle, where a valve can be opened to admit cool fresh air.

Right: Stout front end of the Sunbeam-Talbot frame. The forward position of the steering box gives a well-sloped column. Note the diagonally placed rubber engine mounting, and the balancing weights on the wheel.



off the top of the cylinder block is a detachable cylinder head, arranged with the overhead valves in line.

Operated through pressure-lubricated rockers on a common shaft, the valves are situated in combustion chambers of lozenge shape, so arranged that the larger inlet valves are directly above the pistons, whilst the smaller exhausts are slightly offset. Compound valve springs

are used, and a special seal is employed to prevent excess of oil flooding the inlet valve stems. Over the valve gear is a neat aluminium cover. The water pump is attached to the front of the cylinder head and is driven in tandem with the two-bladed fan from a triangulated V belt which also serves the adjustably mounted dynamo. A proportion of the cool water delivered by the pump passes down a special gallery pipe in the cylinder head and is played through orifices on to the exhaust valve seatings. In the header pipe leading out of the engine to the radiator is a thermostatically operated by-pass valve which provides for rapid warming-up after a cold start. The oil sump is closed off by a filter gauze, and the submerged pump delivers oil under pressure to all the main bearings and the rocker gear. The oil is kept clean by an external by-pass filter.

Automatic Choke

The exhaust and inlet ports issue on the right-hand side of the engine, and the inlet ports are individual. In order to ensure even distribution of gas the inlet manifold from the downdraught carburettor is arranged in two banks, side by side, giving approximately equal lengths of passage to each valve. Between exhaust and inlet manifold is a hot-spot. The carburettor has a choke automatically controlled by a thermostat in the exhaust system. This engine is a well-considered design on well-understood principles. On the 90 the air for the silencer intake is drawn in through the ducts in the wings, already mentioned in connection with ventilation.

The main points of detail difference between the 80 and the 90 engines are that the 80 has steel connecting-rods with clamped gudgeon pins, shorter water jacket, normal air silencer (that is, not ducted to intake from in front of the radiator), manifolds on the left side, mushroom tappets, dynamo mounted level with the cylinder head, and other features dictated by the difference in size.

Between the two editions of the complete cars the main differences will be seen in the specification, and chiefly concern final drive ratio, overall gear ratios,

tyre equipment, brake drum size, and spring details.

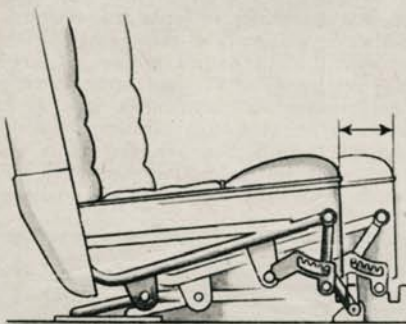
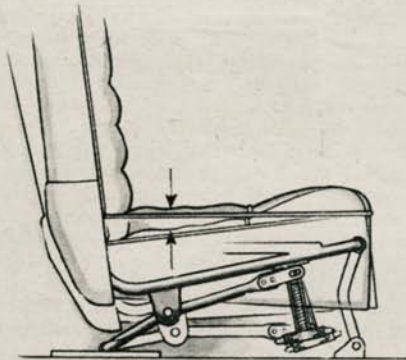
There are several points in the chassis which demand notice. The first, of course, is the latest type of gear box; the synchromesh mechanism has baulking rings which not only ensure that a gear change takes place noiselessly but also add a resistance as a warning to the driver should he attempt to change, so to speak, "out of step." The gear control beneath the steering wheel has the advantages of giving a clear floor to the front compartment and bringing the lever into a position where the shortest movement of the left hand from the rim of the steering wheel is secured, and the gear change itself is pleasantly light to operate. The engine and gear box units of these cars are rubber cushion mounted to damp out all vibration. The movement of the unit on its rubber bed does not affect the clutch pedal, which has a chain form of linkage. Another good point is that the tail end of the gear box is extended some way aft, thus shortening the length of the open propeller-shaft and reducing any tendency to whirl and vibrate at high speeds.

To sum up it may be remarked that the whole car, whether in coachwork or chassis, bears evidence of a very thorough attention to detail. It is essentially a practical design, based on experience and replete with modern ideas.

Alternative Open-closed Body

Besides the sports saloon another type of body will be made, a sports convertible coupé, with coachwork by Thrupp and Maberly. The outlines of this model are the same below the waist rail, but above that there is a special form of hood which can be used to form a completely enclosed car or can be folded right down out of sight to make an open car; or the back of the hood can be left up and the roof furlled back in coupé de ville style. It is a two-door body with a steel body shell, but the doors are of aluminium. The front windows have quick-lift winders and the quarter-lights are wound down into the sides of the body.

A Road Test of the 90 model appears on the following pages.



Adjustment of the driving seat. Top: The seat hinges at a point below its front edge, and the back edge rests on a rail which is pivoted just below the arrows showing the vertical movement. This rail continues forward as a lever where a screw and nut adjustment controlled by a hand wheel is employed to adjust height. Below: The whole seat can be moved bodily forward or back by pressing a catch in the front of the quadrant.