

# The Motor Road Test No. 13/53

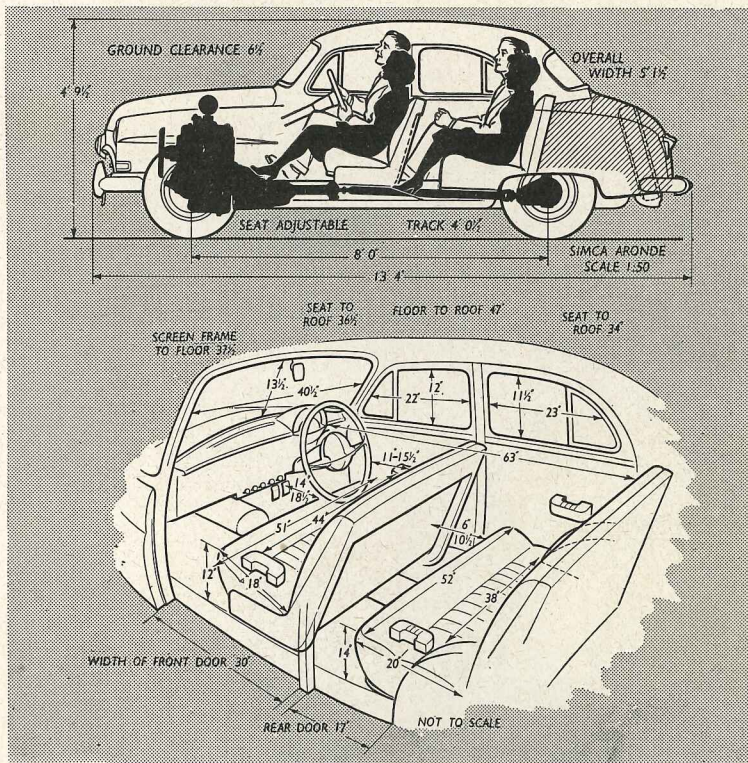
Make: Simca

Type: Aronde

Makers: Société Industrielle de Mécanique et Carrosserie Automobile,  
Avenue Georges Clemenceau, Nanterre, Paris, France

(Test car submitted by Fiat (England) Ltd., Water Road, Wembley, Middlesex)

## Dimensions and Seating



## In Brief

Price in Britain £632 plus purchase tax  
£264 9 2 equals £896 9 2.

Capacity . . . . . 1,221 c.c.  
Unladen kerb weight . . . . . 18 3/4 cwt.  
Fuel consumption . . . . . 30.7 m.p.g.  
Maximum speed . . . . . 73.5 m.p.h.  
Maximum speed on 1 in 20  
gradient . . . . . 58 m.p.h.  
Maximum top gear gradient 1 in 12.5  
Acceleration:  
10-30 m.p.h. in top . . . . . 14.9 sec.  
0-50 m.p.h. through gears . . . . . 18.4 sec.  
Gearing: 15.5 m.p.h. in top at 1,000  
r.p.m., 78.5 m.p.h. at 2,500 ft. per  
min. piston speed.

## Specification

**Engine**  
Cylinders . . . . . 4  
Bore . . . . . 72 mm.  
Stroke . . . . . 75 mm.  
Cubic Capacity . . . . . 1,221 c.c.  
Piston area . . . . . 25.2 sq. in.  
Valves . . . . . Pushrod o.h.v.  
Compression ratio . . . . . 6.75/1  
Max. power . . . . . 44.5 b.h.p.  
at . . . . . 4,500 r.p.m.  
Piston speed at max. b.h.p. . . . . 2,210 ft. per min.  
Carburettor . . . . . Solex 32 PBIC downdraught  
Ignition . . . . . 12-volt coil  
Sparking plugs . . . . . Marchal CR35  
Fuel pump . . . . . Mechanical  
Oil filter . . . . . Full flow

**Transmission**  
Clutch . . . . . Single dry plate  
Top gear (s/m) . . . . . 4.78  
3rd gear (s/m) . . . . . 7.03  
2nd gear (s/m) . . . . . 11.4  
1st gear . . . . . 17.7  
Propeller shaft . . . . . Open  
Final drive . . . . . 9/43 Hypoid bevel

**Chassis**  
Brakes . . . . . Hydraulic  
Brake drum diameter . . . . . 9.85 in.  
Friction lining area . . . . . 174 sq. in.  
Suspension:  
Front . . . . . Coil and wishbone I.F.S., with anti-roll  
torsion bar  
Rear . . . . . Semi-elliptic

Shock absorbers . . . . . Armstrong telescopic  
Tyres . . . . . 5.50x15

**Steering**  
Steering gear Gemmer, cam and double roller  
Turning circle . . . . . 32 ft.  
Turns of steering wheel, lock to lock . . . . . 3 1/2

**Performance factors (at laden weight as tested)**  
Piston area, sq. in. per ton . . . . . 22.6  
Brake lining area, sq. in. per ton . . . . . 156  
Specific displacement, litres per ton mile . . . . . 2,125  
Fully described in "The Motor," June 6, 1951.

## Test Conditions

Cool weather with moderate wind. Dry Tarmac road surface. Premium-grade pump fuel.

## Test Data

### ACCELERATION TIMES on Two Upper Ratios

	Top	3rd
10-30 m.p.h. . . . .	14.9 sec.	8.7 sec.
20-40 m.p.h. . . . .	14.4 sec.	8.6 sec.
30-50 m.p.h. . . . .	15.4 sec.	11.0 sec.
40-60 m.p.h. . . . .	18.4 sec.	—

### ACCELERATION TIMES Through Gears

0-30 m.p.h. . . . .	7.0 sec.
0-40 m.p.h. . . . .	11.9 sec.
0-50 m.p.h. . . . .	18.4 sec.
0-60 m.p.h. . . . .	28.6 sec.
Standing Quarter Mile . . . . .	23.6 sec.

### FUEL CONSUMPTION

42.0 m.p.g. at constant 30 m.p.h.
40.5 m.p.g. at constant 40 m.p.h.
37.5 m.p.g. at constant 50 m.p.h.
33.0 m.p.g. at constant 60 m.p.h.
29.0 m.p.g. at constant 70 m.p.h.
Overall consumption for 460 miles, 15 gallons = 30.7 m.p.g.

### HILL CLIMBING (At steady speeds)

Max. top gear speed on 1 in 20 . . . . .	58 m.p.h.
Max. top gear speed on 1 in 15 . . . . .	45 m.p.h.
Max. gradient on top gear . . . . .	1 in 12.5 (Tapley 180 lb./ton)
Max. gradient on 3rd gear . . . . .	1 in 8.0 (Tapley 280 lb./ton)
Max. gradient on 2nd gear . . . . .	1 in 5.3 (Tapley 415 lb./ton)

### BRAKES at 30 m.p.h.

0.95 g retardation (= 31 1/2 ft. stopping distance) with 110 lb. pedal pressure
0.90 g retardation (= 33 1/2 ft. stopping distance) with 75 lb. pedal pressure
0.57 g retardation (= 53 ft. stopping distance) with 50 lb. pedal pressure
0.15 g retardation (= 200 ft. stopping distance) with 25 lb. pedal pressure

### MAXIMUM SPEEDS

Flying Quarter Mile	Mean of four opposite runs . . . . . 73.5 m.p.h.	Best time equals . . . . . 75.0 m.p.h.
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### Speed in Gears

Max. speed in 3rd gear . . . . .	60 m.p.h.
Max. speed in 2nd gear . . . . .	44 m.p.h.

### WEIGHT

Unladen kerb weight . . . . .	18 3/4 cwt.
Front/rear weight distribution . . . . .	53/47
Weight laden as tested . . . . .	22 1/4 cwt.

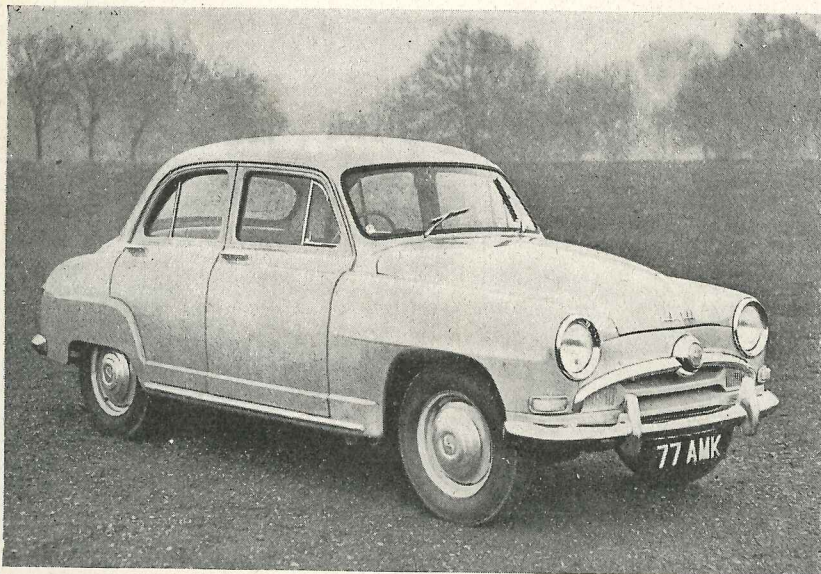
### INSTRUMENTS

Speedometer at 30 m.p.h. . . . .	7% slow
Speedometer at 60 m.p.h. . . . .	8% fast
Distance recorder . . . . .	1% fast

## Maintenance

**Fuel Tank:** 8 1/2 gallons, **Sump:** 8 1/2 pints S.A.E. 30 winter, S.A.E. 40 summer. **Gearbox:** 1 1/2 pints S.A.E. 90 E.P. gear oil. **Rear Axle:** 1 1/2 pints S.A.E. 90 E.P. gear oil. **Steering Gear:** Grease. **Radiator:** 12 pints (3 drain plugs). **Chassis Lubrication:** By grease gun every 600 miles to 20 points. **Ignition timing:** 4° B.T.D.C. static (advance range, 44°). **Spark Plug gap:** 0.020 in. **Contact breaker gap:** 0.015-0.019 in. **Valve timing:** I.O. 12° B.T.D.C. I.C. 60° A.B.D.C. E.O. 52° B.B.D.C. E.C. 20° A.T.D.C. **Tappet clearances:** (cold) Inlet 0.004 in. Exhaust 0.006 in. **Front wheel toe-in:** 0.04-0.12 in. laden. **Camber angle:** 1° 30'. **Castor angle:** 1° 55' ± 23'. **Tyre pressures:** Front 23 lb., Rear 24 lb. **Brake fluid:** Lockheed. **Battery:** 12-volt, 45 amp. hr. **Lamp bulbs:** Headlamps 36/45 watt. Sidelamps 3 watt festoon-type. Front blinkers 15 watt. Rear lamp 18 watt/4 watt (stop).

## The SIMCA Aronde

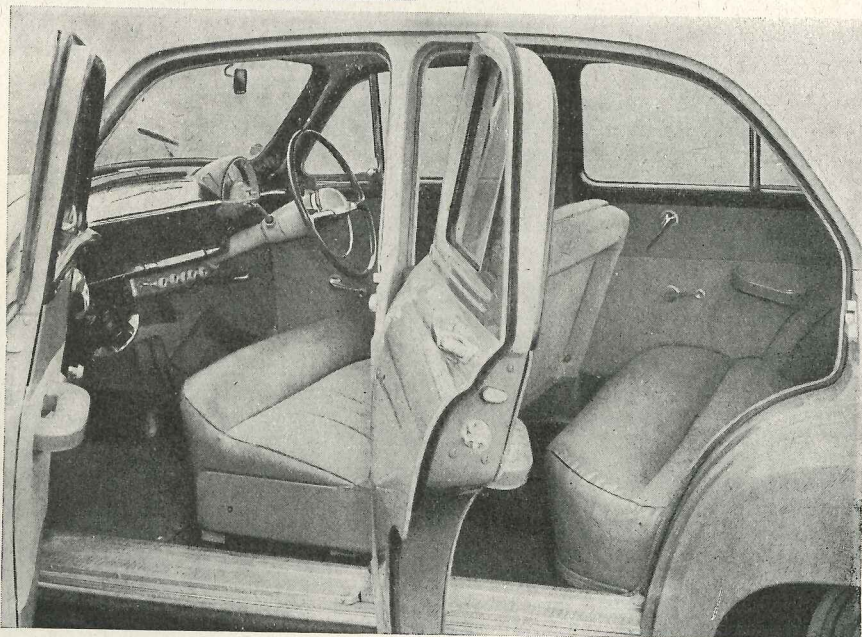


NEAT AND PRACTICAL coachwork styling is evident in the photograph above, although appearances are marred by the windscreen wiper blades which do not park clear of the screen. Interior arrangements of the four-door four-seater body may be seen in the lower picture.

TO many British motorists, the name Simca is unfamiliar, and this test report upon a car which is now being sold in Britain should include some reference to the model's pedigree. For many years, Fiat cars of Italian design were built under licence in France by the Société Industrielle de Mécanique et Carrosserie Automobile; in 1951, however, the Aronde was announced, and an example was tested in France by the Technical Editors of *The Motor*, this being an exclusively Simca design even though its power unit remained rather similar in layout to that of the Fiat 1100. The Simca Aronde has been progressively developed since that time, and is now being offered on the British market at an inclusive price of £896 9s. 2d., by Fiat (England), Ltd.

Specification details and measured performance figures which appear on the data page of this report tell a great deal of the story concerning this model. It is a car of popular size, a compact but not tiny four-door four-seater powered by an o.h.v. engine of 1,221 c.c. displacement. With reasonable acceleration in top gear, quite good acceleration through the gears, and a maximum speed of 73.5 m.p.h., it habitually covers at least 30 miles on each gallon of fuel with which it is supplied. Furthermore, photographs taken in the November gloom of London do no more than justice to the good looks of an exceedingly shapely car.

Dimensionally, this car has both the virtues and the imperfections which are at present common in cars of its size. It is very comfortably wide inside the body, so that two people on the front or the rear seat need never "elbow" one another, and so that in emergency the carrying of six



people could be contemplated. Rear-seat knee-room becomes rather limited when the front seat is adjusted to suit a tall driver, however, and the head of a rear-seat passenger is very apt to contact the upper rim of the sloping rear window. However, the front seat adjusts very easily, and it can move far enough back to provide comfort for a tall driver.

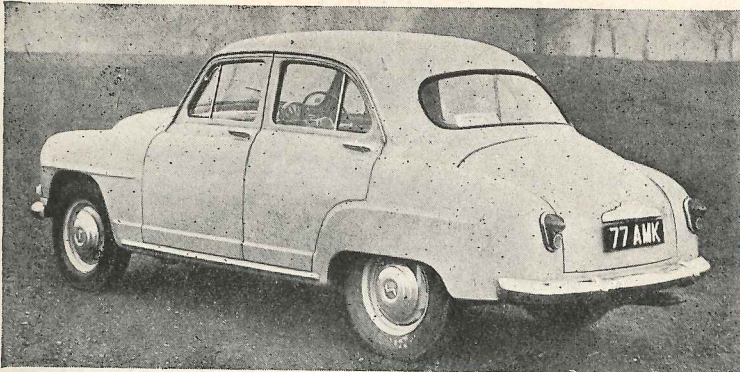
Details, like dimensions, call for comments which in some cases amount to criticism. The rear seat is extremely comfortable within its dimensional limits, but some drivers commented upon rather thin cushioning of the front seat backrest. Fixed armrests on the four doors are quite comfortably placed, but the front-hinged doors only close securely when slammed quite vigorously, and as pull-handles the armrests are too far back for convenience whereas the door handles are very far forward towards the hinges. Entry to the car would be easier if the doors opened through greater angles.

A Quiet and Economical French Car which is Now on Sale in Britain.

Interior decoration on this car has been carried out in a style which should be pleasing to quite widely varied tastes. A hooded quadrant above the steering column accommodates a neat yet legible and sensibly illuminated speedometer, the internal mechanism of which does not unfortunately quite match the evenly calibrated scale. Only one other instrument is provided, a fuel contents gauge, but there are warning lamps to indicate low fuel level, low oil pressure, lack of dynamo charge, and an extremely brilliant one showing the operation of the flashing-light turn signals. Despite a rather low

driving seat, the two-spoke steering wheel is comfortable to handle, but the horn ring and non-self-cancelling turn indicator switch were rather awkwardly placed. The fascia is a neatly arranged panel of dark brown plastic, incorporating lids which disappear upwards to reveal two small glove lockers, and also incorporating a pull-out ashtray. Seats are trimmed in cloth, but with plastic material protecting their front edges. Provided with very neat switchgear, the lights give an excellent main beam but a rather sharply cut-off spread of light when dipped.

Despite the modest size of its engine, the performance of the Simca Aronde is extremely creditable, as the published performance test results show. A maximum speed of 73.5 m.p.h. will be noted, this speed being attained and sustained without the least fuss or sense of effort. The top-gear acceleration is adequate without being startling, but by using the four-speed gearbox it is possible to secure



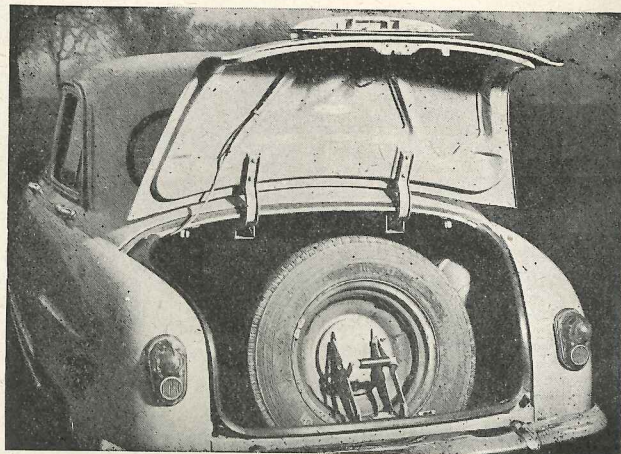
very brisk acceleration and hill climbing—the gears are pleasantly quiet, and the car does not feel at all fussy if run up to 50 m.p.h. in 3rd gear.

The fuel economy figures which appear on our data page are, over the whole range of cruising speeds from 30 to 70 m.p.h., quite outstandingly good for a car of this roominess and performance. It will be noted that, without favourable conditions or gentle driving, the overall consumption recorded over a substantial mileage was usefully better than 30 miles per gallon. The test car was evidently operating on rather lean carburettor settings, there being a perceptible "flat spot" at around 30 m.p.h. during full-throttle top-gear acceleration, and anyone who so desired could undoubtedly re-tune the carburettor to secure higher performance at the expense of sacrificing a few m.p.g.

One characteristic of the Simca which had certainly not been sacrificed in the quest of economy was willingness to settle down promptly after a start from cold. The engine always started from cold at the first pull of the starter knob, and in rather mild British winter weather it was a matter of seconds rather than minutes before the choke control could be pushed in and forgotten. In contrast, starting a warm engine with one pull of the starter knob depended upon nicely judged use of a little accelerator pedal movement.

Quietness over the whole range of cruising speeds is the other outstanding virtue of the Simca Aronde, noise levels being substantially below what is expected of a small all-steel saloon. Outside the car, quite a sharp exhaust note is audible, but structural sturdiness which is evident from the "feel" of the doors has obviously been supplemented by generous use of sound insulating material—this model has none of the internal bareness which characterizes some small cars built on the mainland of Europe, and it is something of a surprise to measure a "kerb" weight of only 18½ cwt. There are slight resonances audible at very low engine r.p.m., but on the open road the car is very quiet mechanically and makes only a very moderate amount of wind noise: consequently, at

ACCESS to the luggage compartment is obtained by lifting the lid and pulling out the spare wheel on its hinged bracket. Note the reflectors mounted below the tail lamps, the left-hand lamp swinging aside on hinges to give access to a concealed fuel filler cap.



above 60 m.p.h. a driver can converse normally with his rear-seat passengers.

### Springing and Steering

Riding qualities secured from coil front springs and a conventional layout of semi-elliptic rear suspension call for no very emphatic comments in any direction. We sampled the car full and empty, as driver and as rear-seat passenger, over good roads and over really bad surfaces, and always its behaviour was satisfactory without being outstandingly good or bad. The springs incline towards firmness, and the telescopic dampers are set to allow them a fair degree of freedom, the rear springs having supplementary leaves which come into action to reinforce them when a fully laden car encounters a large bump.

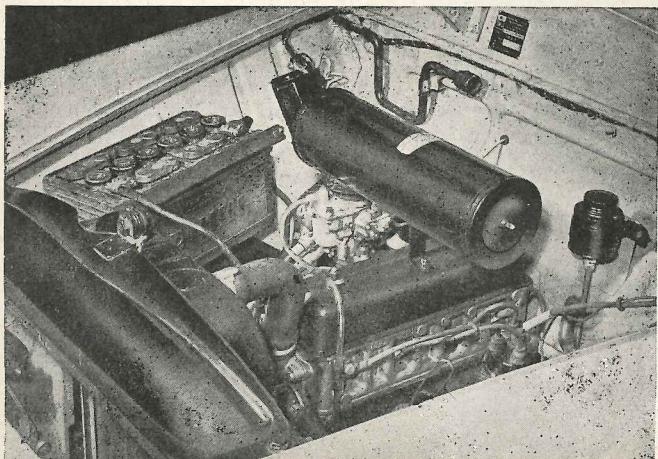
Since we tested an Aronde two years ago, some changes have been incorporated in the steering layout, but the new handling qualities will not be pleasing to every driver. Familiarity brings acceptance of characteristics which initially can be disconcerting, and reveals that the recommended inflation pressures for tyres of unusually generous section seem to be a maximum rather than (as more often is the case) a minimum for good handling qualities, but it remains true that this is a car which asks for a rather light and sensitive touch on the steering wheel. In effect, there feels to be a slight degree of lateral freedom in the suspension before the anti-roll torsion bar inter-connecting the front springs takes effect, so that at high speeds on a straight road the car can snake slightly. Once an appreciable amount of steering lock is in use for nego-

tiating a corner, however, the car shows a very marked under-steer characteristic, progressively more steering movement being needed as the speed around any given corner is increased, and although the steering mechanism is virtually free from lost motion, the transition from oversteer to understeer and vice versa is apt to be disconcerting until a driver becomes familiar with the car. It is virtually impossible to induce tyre squeal by cornering fast, and, fortunately, the Aronde's unusual steering characteristics are least evident when road surfaces are slippery.

For town driving, the car is delightfully manoeuvrable, the steering being light yet not unduly low geared, and the car having a compact turning circle which greatly facilitates parking in confined spaces. Two years ago we complained of difficulty in locating reverse gear with certainty, but there is no longer any cause for criticism here, although the remote control linkage from a very neat steering-column mounting of the gear lever to a very pleasant four-speed synchromesh gearbox retains a lot more flexibility and a little more friction than is desirable.

Another change which has been made since we last tested the Aronde concerns stowage of the spare wheel, which has been removed from the floor of the luggage locker to a hinged mounting in the locker mouth. This arrangement has eliminated the need to rest luggage on an irregularly shaped spare wheel, but means that heavy bags must be held rather awkwardly at arms length when they are put into or taken out of the locker, the actual cubic capacity of which is perhaps rather smaller than is usual in these days of inter-axle seating.

To sum up, the especial attractions of the Simca Aronde are its good looks and its quiet running on open roads with a very low fuel consumption. Despite the incidence of import duty and purchase tax, this well-tried model of very modern appearance is being offered in Britain at a price which makes it directly competitive with a number of under-1½-litre British saloons, and there can be no doubt that an appreciable number of purchasers will decide that it provides the opportunity to own a distinctive car at an attractively reasonable purchase and running cost.



ECONOMY of fuel at high speeds as well as low is a feature of the Aronde engine, access to which is obtained by opening an alligator-type bonnet, the release for which is concealed inside the radiator grille.