



Fahrzeug-Identitätsurkunde

Audi 90 (B2)

Manufacturer: AUDI AG, Ingolstadt
VIN: WAUZZZ81ZFA056859
Type code: 813-7F4
left-hand drive, manual five-speed gearbox
Engine: JS 028532
petrol engine, 5 cylinders in-line
Capacity: 1994 cc
Output: 85 kW / 115 PS at 5400 rpm
Top speed: 187 km/h
Date of manufacture: 25th October 1984
Delivered to: Netherlands
Purchase price: DM 27 490.-
(Germany, incl. purchase tax, 10/1984)
Color: L1 L1 - Zermatt silver metallic (Y7Y)
Trim: JJ - cloth upholstery "Savoy-Velours",
marine/marine
Optional equipment: A53, 430, 528, 560, 568, 619, 657

Total production figure: 20 092 (1984 - 1985)

Thomas Frank
Managing Director Auto Union GmbH

i.V. Thomas Stebich
Head of Audi Corporate Archives and museum mobile





AUDI 90 (85 kW/115 bhp)

		Dimensions, Weights, Performance, Consumption	
Engine	five-cylinder, in-line		
	Bore x stroke, mm	81.0 x 77.4	
	Capacity, cc	1994	
	Compression ratio	10.0	
	Fuel system	mechanical fuel injection with warm-up valve	
	Fuel grade	premium, min. 98 RON	
	Power output (kW/DIN bhp)	85 (115)	
	at rpm	5400	
	Max. torque (Nm)	165	
	at rpm	3200	
Electrics	Ignition system	electronic, Hall generator	
	Battery A (Ah)	300 (63)	
	Alternator, max amps	65	
Transmission	Drive layout	front-wheel drive	
	Clutch	single plate, dry clutch	
	Gearbox	5-speed automatic *	
	1st gear	2.846	2.714
	2nd gear	1.524	1.500
	3rd gear	1.065	1.000
	4th gear	0.778	
	5th gear	0.641	
	Reverse gear	3.167	2.429
	Final drive	4.900	3.250
Km/h / 1000 rpm in top gear	33.3		
* automatic: extra-price option			
Brakes	Type	diagonally split twin circuit	
	front	discs	
	rear	self-adjusting drums	
	Brake servo	yes	
	Brake pressure regulator	yes	
Steering	Type	maintenance-free rack-and-pinion, steering damper	
Wheels	Wheels	5 1/2 J x 14	
	Tyres	185/60 HR 14	
		Length, mm	4465
		Width, mm	1682
		Height, mm	1365
		Seating area, m ²	2.61
		Wheelbase, mm	2538
		Track, mm front	1400
		rear	1420
		Turning circle, m	11.0
		Luggage capacity, litres	
		sphere method	541
		VDA block method	496
		Kerb weight, kg	1060
		Gross vehicle weight, kg	1520
		Max. trailer weight,	
		with brakes, kg	1400*
		gradient, %	12
		without brakes, kg	560
		Max. roof load, kg	75
		Capacities, litres	
		fuel tank	68
		engine oil with filter	4.5
		cooling system + heater	8.1
			<u>5-speed automatic</u>
		Top speed, km/h	187 181
		Acceleration, sec.	
		0 - 80 km/h	6.4 7.9
		0 - 100 km/h	9.5 11.7
		Fuel consumption	
		DIN 70 030 (l./100 km)	
		at a constant 90 km/h	6.3 7.4
		at a constant 120 km/h	8.2 9.2
		urban cycle	11.4 11.6
		* also for vehicles with automatic transmission	

AUDI NSU AUTO UNION AG
Motoring Press
Telephone (0841) 89-2100
Telex 55 05 55 audi d



THE NEW AUDI 90

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The details of trim and equipment described in this press kit apply to models marketed in West Germany

September 1984 - subject to alteration



Summary

The new Audi 90

Following the re-arrangement of the Audi model line-up, the Audi 80 series will now only have four-cylinder engines, while the five-cylinder engines in this category are reserved for the new Audi 90.

The new Audi 90 is marketed exclusively in four-door form, with a particularly high standard of equipment. There are two engine options: the established five-cylinder unit with either 85 kW/115 bhp or 100 kW/136 bhp. The latter version also powers the Audi 90 quattro, which is also equipped with every refinement, in keeping with its performance character. All versions have a sports five-speed manual gearbox, and automatic transmission is available for the models with front-wheel drive.

The distinction between the four- and five-cylinder models makes the arrangement of the Audi line-up clearer for the customer, especially since the new Audi 90 now fills the gap between the Audi 80 and Audi 90.

The radiator grille on the Audi 90 is raked back slightly, there are flared sill panels, extended



aprons that wrap around to the wheel arches front and rear, wide guard mouldings on the side of the body, and the loading lip for the luggage compartment has been taken down to bumper height. The line of the rear lid is higher, giving slightly increased luggage capacity. The fog lights and turn signals are integrated cleanly in the front apron, and the rear end treatment, with its full-width rear light cluster, has a typical Audi look and is reminiscent of the Audi 200.

The smaller five-cylinder engine has been retained unchanged, but the Audi engine specialists have now given the 2.2 litre five-cylinder unit the "full treatment". Modifications include a larger cylinder bore (81 mm dia.) with the same stroke, a higher compression ratio, additional air feed to the injectors of the K-Jetronic system and many other improvements. The result is that the engine now peaks at 5700 rpm instead of 5900 rpm, and develops a maximum torque of 186 Nm at only 3500 rpm, instead of 171 Nm at 4800 rpm.

When powered by the "small" five-cylinder unit, the Audi 90 will reach 187 kph, and with the "big" five-cylinder the Audi 90 is capable of a 200 kph maximum, which equals the top speed of the Audi 90 quattro with the same engine.



The fuel economy of all the Audi 90 models is very good, and the acceleration figures compare favourably with sportscar standards.

An even more important factor is the pulling power, which is rated at 1400 kg for a trailer with brakes in the case of the Audi 90 (both for manual and automatic gearbox), while the Audi 90 quattro is certified for a trailer weight of 1500 kg.

All in all, the Audi 90 and the Audi 90 quattro are extremely attractive additions to the Audi range, with their advanced engineering and exclusive equipment.



Audi 90 - a performance saloon

The Audi Coupé enjoys great popularity amongst those who appreciate road performance in a car with sporting and exclusively styled body lines, but also value the comfort and convenience that go with long distance touring capability. In a similar vein Audi now has the right answer for those who prefer responsive performance combined with the advantages of a saloon body. The car is the Audi 90.

The Audi 90 is a very well appointed four-door saloon with powerful five-cylinder engines (85 kW/115 bhp or 100 kW/136 bhp). The Audi 90 quattro is marketed exclusively with the more powerful five-cylinder unit and attractive interior trim to emphasise its performance character.

The Audi 90 has a front air dam below the bumper that extends as far as the wheel arches at the side, and also incorporates integral fog lights. It also features extended sill panels below the doors and a full width rear light cluster similar to the familiar design used on the Audi 200.

The front air dam and the equivalent rear apron, which are both backed by the steel bumper beams, are manufactured from a thermoplastic material that



resists low temperatures and light impacts. They effectively protect the body panels from minor damage and also have an aerodynamic function so that, together with the slightly angled radiator grille, the flush wheel trims and the extended sill panels, the car's drag coefficient (Cd) has been cut to 0.39, in spite of the standard wide-section (60 series) tyres.

The front turn signals are incorporated in the front apron and the rear turn signals are at the corners of the rear side panels. The Audi 90 of course has halogen headlights with additional halogen driving lamps under slightly angled lenses, one for each pair of lamps. Wide guard mouldings are adhesive bonded to the sides of the body for protection against parking damage, following normal Audi practice. This fastening method avoids any risk of corrosion starting where bolts or clips are inserted in the body.

The side window frames are finished in black, and elsewhere there is very little chrome brightwork that requires extra attention when cleaning.

The slightly raised line of the rear lid also increases luggage capacity to 496 litres (measured according to the VDA method). The loading opening goes down to bumper height, and the lid opens wide and is supported by two gas-filled struts, so access to the luggage compartment of the Audi 90 is greatly facilitated.



To prevent scratched paint when loading, the bottom lip is protected with resilient plastic.

As on the Audi 100/200, one section of the tail light clusters is carried on the rear lid.

The stress-bearing body structure of the Audi 90 is extremely strong, and the rigid passenger cell is effectively protected by impact absorbing zones at the front and rear. With a total seating area of 2.61 sq. metres the interior has generous space for five adults to travel in comfort.



Five-cylinder engines for power with economy

Just one year ago the "small" five-cylinder fuel injection engine was extensively revised, and has since been used successfully to power the Audi 80 CD and the Audi Coupé. With a compression ratio of 10.0:1 it is designed to run on premium fuel, and develops 85 kW/115 bhp at only 5400 rpm. The maximum torque of 165 Nm is reached at just 3200 rpm.

With this power unit the Audi 90 returns very respectable performance figures: 0 - 100 kph in 9.5 seconds with a maximum of 187 kph. The fuel economy is perhaps even more important - measured according to DIN 70 030, this version of the Audi 90 uses only 6.3 litres/100 km at a constant 90 kph, 8.2 litres/100 km at a constant 120 kph and 11.4 litres/100 km in the urban cycle.

The ratios of the standard five-speed gearbox are spaced so that the car reaches its top speed in fifth gear. Automatic transmission is available as an option.

The most powerful engine available for the Audi 90 is the larger five-cylinder unit which has been extensively modified for the new model year, and also powers the Audi 90 quattro. The stroke is unaltered, but the cylinder bore has been increased to 81.0 mm,



giving a capacity of 2226 cc. At the same time the compression ratio has been raised to 10.0:1, giving a power output of 100 kW/136 bhp, which is now available at 5700 rpm instead of 5900 rpm as before. The torque is increased to 186 Nm, now developed at only 3500 rpm.

In addition, the engine has benefited from a number of modifications not immediately apparent. The pistons, for instance, have been lightened and the connecting rods lengthened (a measure already used on the 1.8 litre engine). The torsional vibrational damper on the crankshaft has been modified, and in place of the usual bucket tappets the engine now has hydraulic tappets manufactured with a new technique. This will eliminate the need for tappet adjustment in the future and also reduces noise from the valvetrain, without appreciably increasing the mass of the moving valve components. The mechanical fuel injection system (K-Jetronic) now operates with an additional air feed to the injectors, electronic idle speed stabilization and overrun cutoff.

The main purpose of the modifications to improve engine efficiency was an economy gain. The fuel consumption of the Audi 90 with the 100 kW/136 bhp power unit is only 6.5 litres/100 km at a constant 90 kph, 8.4 litres/100 km at 120 kph and 12.0 litres/100 km in the urban cycle (according to DIN 70 030).



This engine version is also combined with a five-speed gearbox, with ratios arranged so that the top speed of 200 kph is reached in fifth gear. Acceleration from 0 - 100 kph is 8.6 seconds, confirming that the performance potential is outstanding.

Both these engines are very quiet and smooth in operation, and are capable of combining power with economy, which is one of the great advantages of the five-cylinder configuration.



The Audi 90 chassis/suspension

The Audi 90 possesses the familiar Audi front-wheel drive running gear with McPherson strut front suspension and an extremely light torsion-stabilized dead rear axle with a diagonal Panhard rod: the design successfully used in the Audi Coupé and the Audi 80. Exact location of all four wheels, self-stabilizing steering geometry, light and precise rack-and-pinion steering and the forward centre of gravity with the engine located ahead of the front wheels: this is a combination that ensures superior stability at all speeds, forgiving handling when cornering at the limit and plenty of traction in all weathers, giving mobility that can only be bettered with permanent four-wheel drive.

The standard tyre size for the front-wheel drive Audi 90 is 185/60 HR 14 with 5 1/2 J x 14 rims. Stabilizer bars at the front and rear effectively limit body roll under cornering, and allow taut handling without compromising ride comfort. Springing and damping are set up accordingly.

Power assisted steering is standard on the 100 kW/136 bhp model, and available as an option on the car with the smaller engine.



In line with customary Audi practice, the Audi 90 has a diagonally split twin-circuit brake system, servo assisted with a load-sensitive brake pressure regulator for the rear wheels. Discs are fitted at the front, and self-adjusting drums at the rear. The 136 bhp version also has disc brakes at the rear as a standard feature. The more powerful version can be equipped with an anti-lock brake system if required.

Unternehmensarchiv AUDI AG



A high level of trim and equipment

The Audi 90's interior treatment is in keeping with the car's character. The clearly arranged dashboard with simulated leather surface and the centre console are both new designs. The layout of all instrumentation and switches is designed for clarity and easy operation. Interior surfaces have no sharp angles or edges. The four-spoke safety steering wheel is foam-backed with a large impact pad, and the safety steering column includes a break-away coupling.

To ensure clear vision and a comfortable climate there is a ventilation and heating system with three-speed blower, front footwell outlets and adjustable vents in the fascia. Generous interior dimensions and posture-formed seating contribute to passenger comfort even on long-distance trips. The driver's seat is height-adjustable and both front seats are fully reclining. The four cut-away head restraints are adjustable for height and rake. The seats and door trims are finished with velour upholstery, available in a choice of four colours individually matched to the specified body colour. The floor is fully carpeted with velour material, and even the door cappings, window surrounds and roof pillars are individually trimmed.



Standard equipment includes a laminated windscreen, a heated rear window, central locking for the doors and the rear lid, a fully lined luggage compartment with separate illumination, halogen fog lights, rear fog light, locking filler cap, full-width rear light clusters, a special rubber moulding that keeps the rear window clear in wet weather, dual-tone horns, four inertia-reel lap-and-diagonal belts with a centre lap-belt, a fabric headliner with swivelling sun visors (incorporating a vanity mirror on the passenger's side), a safety interior mirror with anti-glare position, remotely adjustable driver's door mirror, child safety catches on the rear doors, courtesy light contacts on all doors, a cigarette lighter, one front ashtray and one rear ashtray on the right, hazard lights, a parking light circuit, two-speed windscreen wipers with brief wipe contact, electric windscreen washers, wiper delay and automatic wipe/wash function, instrument cluster including speedometer, odometer, trip recorder, rev counter with analogue clock, fuel gauge, coolant temperature gauge and indicator/warning lights for alternator charge, oil pressure, turn signals, high beam headlights, hazard lights, engine coolant, heated rear window, handbrake and brake fluid level. The heater and ventilation controls and all major instruments and switches have red background lighting which is easy on the eyes and can be regulated for intensity.



Extras to order

- Power assisted steering (standard on the 100 kW/136 bhp version)
- Air conditioning
- Sliding/tilting sunroof (also power operated)
- Automatic transmission
- Towing bracket
- Green tinted glass
- Light alloy wheels
- Electric windows
- Leather upholstery* (only in combination with sports seats)
- Sports package including:
 - sport front seats
 - individually shaped rear seats with integral head restraints
 - leather-rimmed four-spoke steering wheel (380 mm dia.)
 - leather-trimmed gear lever knob and gaiter
- Cruise control
- Headlight washers
- Full size spare wheel
- A choice of radio systems
- Metallic paint finish
- Anti-lock brake system (ABS) for the 100 kW/136 bhp version

* centre part of seats and side padding upholstered with genuine leather: leather inserts on door and side trims.

- On-board computer (85 kW/115 bhp version) with the following display functions:
 - litres/100 km Ø (average consumption)
 - fuel range
 - km/h Ø (average speed)
 - trip time
 - time of day

The computer employs a liquid crystal display (LCD) combined with the digital clock, and is controlled by a function selector switch.

- All-electronic instrumentation (100 kW/136 bhp version). This is combined with the on-board computer and comprises the following displays:
 - speedometer
 - odometer/trip recorder
 - tachometer
 - tank content
 - coolant temperature
 - instantaneous consumption
 - warning/indicator lights for:
 - alternator charge
 - oil pressure
 - turn signals
 - hazard lights
 - high beam headlights
 - heated rear window
 - handbrake/brake fluid level
 - rear fog light
 - on-board computer with additional displays



The new Audi 90 quattro

The Audi 80 quattro, which was available with either of the two five-cylinder engine options prior to this year's model change, has sold about 16,000 units to date. This shows how quickly the advantages of the novel permanent four-wheel drive have become generally known.

The Audi 90 quattro is only available with the 100 kW/136 bhp five-cylinder engine, but this has now been improved so much as to give a worthwhile performance gain compared with the old Audi 80 quattro with nominally the same engine.

The engine modifications are the same as those on the more powerful front-wheel drive Audi 90 model, so a brief outline is sufficient here. Cylinder bore is increased to 81 mm, giving a larger capacity of 2226 cc with the same stroke. Compression ratio is increased to 10.0:1. The rated power is still 100 kW/136 bhp but this is delivered at only 5700 rpm. Maximum torque is now 186 Nm at just 3500 rpm. Lighter pistons, longer connecting rods, hydraulic tappets. Mechanical fuel injection (K-Jetronic) with additional air feed to the injectors, electronic idle stabilization and overrun cutoff.



Thanks to the higher torque figure, also developed at a much lower engine speed, the engine has noticeably more pulling power than before, making the Audi 90 quattro ideally suited for towing. Maximum rated towing capability (trailer with brakes) is 1500 kg, so boat trailers, caravans, horse-boxes etc. present no problems.

But the car also has special advantages for leisure time activities without an extra trailer: those interested in angling, sailing, surfing, shooting, camping, winter sports etc. can make easy progress where cars with a conventional transmission often find the going difficult.

But the Audi 90 quattro is an equally attractive proposition for all those who want to (or have to) travel in all weathers - and those who have come to appreciate the additional safety benefits of permanent four-wheel drive.

The Audi 90 quattro is marketed with the five-speed sports gearbox only. The ratios are arranged so that maximum speed comes up in fifth gear. Accordingly, acceleration is vigorous (0 - 100 kph in 9 seconds) and the 200 kph maximum also confirms what engine reserves are available. In spite of this, consumption



is still modest. According to the DIN standard 70 030, the Audi 90 quattro uses only 7.3 litres/100 km at a constant 90 kph, 9.1 litres/100 km at 120 kph and 12.9 litres/100 km in the urban cycle (premium grade fuel).

The chassis and suspension for the Audi 90 quattro is unchanged, with independent McPherson strut-type suspension all round - only the shock absorber settings are altered.

The standard tyre size for the Audi 90 quattro is 175/70 HR 14, power assisted rack-and-pinion steering is also standard, as are the disc brakes all round, with ventilated discs at the front.

The centre and rear differential locks can be engaged when on the move, as with all other cars in the quattro family.

The anti-lock braking system (ABS) can be specified at extra charge for the Audi 90 quattro. The system is specially designed for compatibility with permanent four-wheel drive, the front brakes being regulated individually and the rear brakes together by the electronic control unit.

For the Audi 90 quattro with the normal brake system, the centre differential lock provides a more even



distribution of braking force between the front and rear wheels, preventing excessive braking at one end. This is particularly effective on a slippery surface, when braking with the engine. The rear differential should only be locked in extreme road conditions to give maximum traction, or to get moving again if the car is stuck.

The outward appearance of the Audi 90 quattro, also sold in four-door form, is largely identical to that of the new Audi 90. The only features identifying the special quattro engineering are the rear spoiler finished in the body colour, twin tail pipes, quattro lettering formed by the rear window heating elements, the quattro logo on the rear side windows, and a badge on the radiator grille. The body dimensions of the Audi 90 quattro are also identical, giving equally spacious interior accommodation (only the luggage capacity is very slightly reduced: 432 litres according to the VDA method). All the refinements and equipment are similarly included, except that the interior has been given a distinctly sporting note. The Audi 90 quattro features, for instance, a leather-trimmed, four-spoke sports steering wheel with safety design (380 mm dia.), sports-type seats with cut-away head restraints and height adjustment on the driver's side, individually shaped rear seats