

Audi > A8/A8L > 2004-2008**01 - Maintenance and Service****01 - General Information**⇒ [Engine Overview](#)⇒ [Type Plate/VIN](#)⇒ [Raising Vehicle](#)⇒ [Tow Starting/Towing](#)⇒ [Vehicle Checks During Inspection and Maintenance](#)⇒ [Contact Corrosion](#)⇒ [Oil Change Service](#)⇒ [Inspection Service](#)

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Engine Overview

Engine code		BVJ	BFM	BSM
Emissions category		EU IV	EU IV	EU IV
No. of cylinders		8	8	10
Valves per cylinder		4	5	4
Displacement	L	4.2	42	5.2
Output	kW at RPM	257/6800	246 / 6500	331/7000
Torque	Nm at RPM	440/3500	400 / 3500	540/3000-4000
Bore	∅ mm	84.5	84.5	84.5
Stroke	mm	92.8	93.0	92.8
Compression ratio		12.5	11.0	12.5

Engine code		BVJ	BFM	BSM
Fuel injection/Ignition		Motronic MED 9.1.1 FSI	Motronic ME 7.1.1	Motronic MED 9.1.1 FSI
RON	min.	98 ¹	98 ¹	98 ¹
Camshaft adjustment		X	X	X
On Board Diagnostic		X	X	X

Secondary air injection	X	X	X
Turbocharger	-	-	-

Type Plate/VIN

A - Type plate

- It is located on the front lock carrier.
- Vehicles for some countries have no type plate.

B - Vehicle Identification Number (VIN)

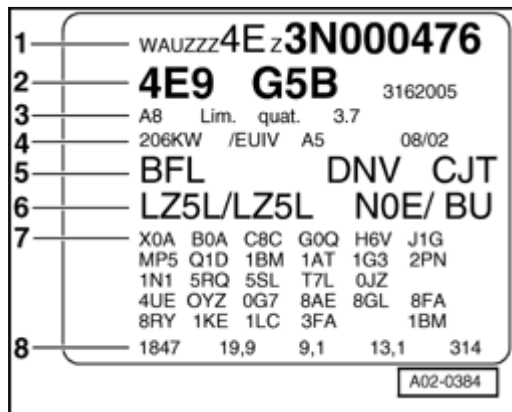
- It is stamped into the crossmember under the passengers seat.

Meaning of Vehicle Identification Number (VIN):

WAU	ZZZ	4E9	3	N	000 476
Manufacturer code	Filler characters	Model	Model year 2003	Production location	Serial number

Vehicle data label

The vehicle data label is in the customers service schedule and in the vehicle in the spare wheel recess or on the luggage compartment floor.



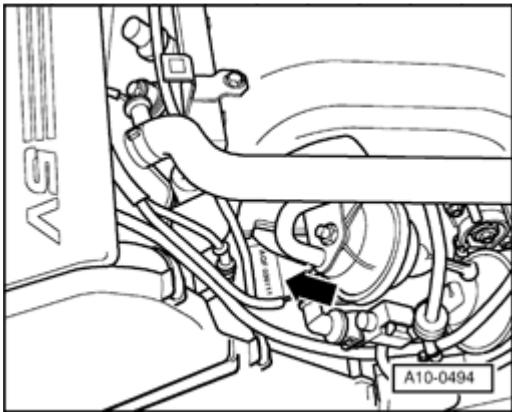
Sticker contains the following vehicle data:

- 1 - Vehicle Identification Number (VIN)
- 2 - Model identification number/Production control number
- 3 - Model explanation
- 4 - Engine output/Emissions standard/Transmission
- 5 - Engine and transmission codes (no information for certain countries)
- 6 - Paint number/interior equipment identification number
- 7 - Optional equipment identification numbers
- 8 - Curb weight/Consumption/CO₂ emissions (no information for certain countries)

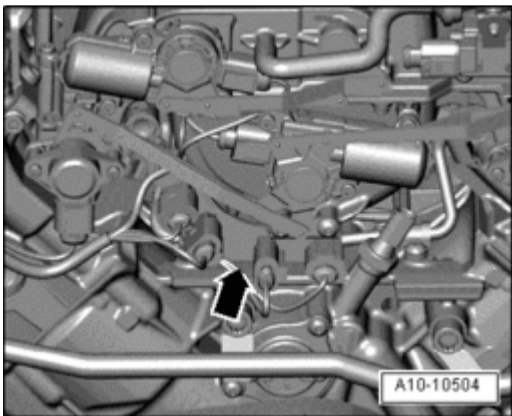
Engine code and engine identification

Note:

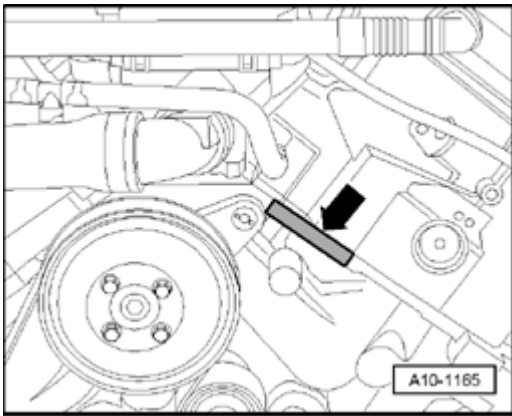
- ◆ The "engine code" is on the vehicle data sticker in the service schedule and in the spare wheel recess or on the luggage compartment floor.
- ◆ The engine number and engine code are stamped into the engine block.



- ◆ V8 gasoline engine



- ◆ V10 gasoline engine



- ♦ W12 gasoline engine

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Raising Vehicle

Vehicle lift mode

Note:

- ♦ *Before lifting vehicle with vehicle jack or lift, vehicle lifting mode must be activated so that the automatic air suspension regulating process does not make lifting with vehicle jack or lift more difficult.*
- ♦ *Vehicle lifting mode automatically switches off when vehicle speed exceeds 10 mph (15 km/h).*
- ♦ *When vehicle lifting mode is activated, the indicator light in the instrument cluster comes on.*

Switching on

- Switch ignition on.
- Press "CAR" function key. Main menu "adaptive air suspension" appears.
- Press "SETUP" function key. "adaptive air suspension" menu appears.
- Turn control knob to desire mode and select "ON" .

Switching off

- Switch ignition on.
- Press "CAR" function key. Main menu "adaptive air suspension" appears.

- Press "SETUP" function key. "adaptive air suspension" menu appears.
- Turn control knob to "Vehicle lifting mode" and select "OFF" to switch of vehicle lifting mode.

CAUTION!

- ◆ **Before driving on to a hoist ensure there is sufficient clearance between low lying vehicle components and hoist.**
- ◆ **Before driving a vehicle onto a lifting platform it must be ensured that the vehicle weight does not exceed the permissible lifting capacity of the platform.**
- ◆ **Vehicle may only be lifted at points indicated in illustration in order to avoid damaging vehicle floor pan and to prevent vehicle from tipping.**
- ◆ **Never start engine and engage a gear with vehicle lifted so long as even one wheel has contact with the floor. There is a risk of an accident if this is not observed!**
- ◆ **If work is to be performed under vehicle it must be supported by suitable stands.**

Floor jack

Always use a suitable rubber or wooden block between the jack and the vehicle.

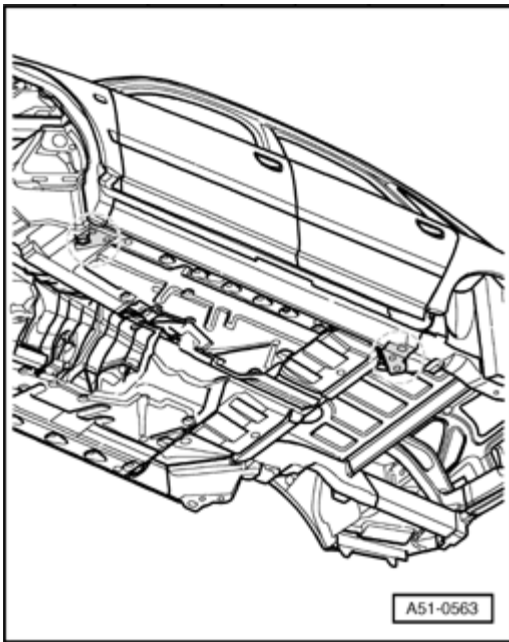
A floor jack must be attached only at the mounting points depicted in the illustration.

Do not lift the vehicle at the engine oil pan, transmission, or on front or rear axles as serious damage may result.

Vehicle hoist

Before driving on to a lifting platform ensure there is sufficient clearance between low lying vehicle components and lifting platform.

Lifting points for lifting platform and floor jack



Front and rear:

On oval rubber discs on vehicle floor.

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Tow Starting/Towing

Note:

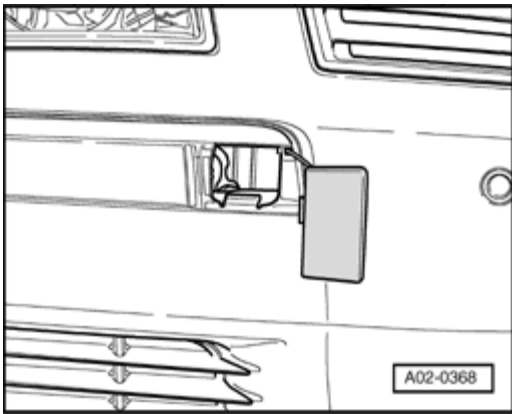
- ✦ *If air suspension shock absorbers in one axle lose pressure completely, the vehicle does not have enough ground clearance. The vehicle must not be moved in this condition. To drive onto a car transporter or a lift, for example, suspension blocks must be installed. ⇒ [Transport Protection, Installing Suspension Strut Locking Pieces](#)*

Note:

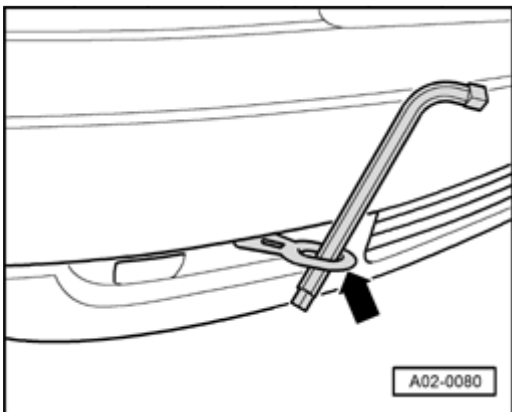
- ✦ *Remove towing eye after use and return to vehicle tool kit storage compartment. Towing eye must always be in vehicle.*
- ✦ *For the 2008 Audi A8, The towing eye/loop can be located either in the vehicle tool kit or the spare wheel well storage compartment.*

Front towing eye

– Attach tow rope or bar only at following eyes:

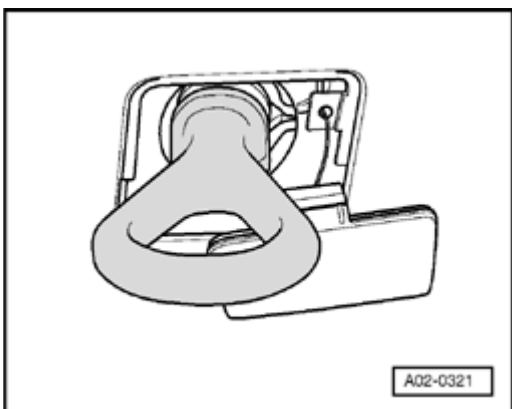


- Remove cover from below.
- Remove towing eye from vehicle tool kit or the spare wheel well storage compartment.



- Screw in towing eye - **arrow** - until stop and tighten eye with wheel bolt wrench.

Rear towing eye



- Remove cover from above.

Note:

- ◆ *The tow-rope should be able to stretch to reduce the risk of damage to both vehicles. It is advisable to use synthetic fiber ropes or ropes of similar elastic material only. However, it is safer to use a tow-bar!*
- ◆ *Avoid excessive towing effort and do not jerk. During towing operations on unsurfaced roads there is always a danger that the attachment points will be overstressed and damaged.*
- ◆ *Vehicle towing should only be done if it is not possible to start the engine with the starting assist cable.*

If the vehicle must ever tow or be towed, observe the following:

- ◆ Regulations concerning towing must be observed.
- ◆ Both drivers must be familiar with the specifics of towing procedures. Inexperienced drivers should not attempt to tow start or tow.
- ◆ When using a tow rope the driver of the towing vehicle must engage the clutch very gently when moving off and changing gear.
- ◆ The driver of the vehicle being towed must ensure that the tow rope is always taut.
- ◆ The emergency lights must be switched on both vehicles - unless local regulations differ.
- ◆ The ignition must be switched on, so that the steering wheel is not locked and the turn signals, horn, windshield wipers, and windshield washer system can be operated.
- ◆ Since the brake booster only works with the engine running, the brake pedal must be stepped on with substantially more force when the engine is switched off.
- ◆ With the engine switched off, the power steering also does not work, increasing the amount of steering effort.
- ◆ Without lubricants in the manual transmission and/or automatic transmissions the car may only be towed with raised drive wheels.

When towing vehicles with manual transmission, observe the following:

- Before tow starting, push in clutch pedal and hold, and select gear 2 or 3.
- Switch ignition on.
- When both vehicles are moving, release clutch pedal.
- As soon as engine starts, depress clutch and move gear stick into neutral to avoid running into the towing vehicle.

Note:

- ◆ *Vehicles with catalytic converter (gasoline engine only) must not be started when the catalytic converter is at operating temperature and pulling the vehicle over a longer distance of more than 50 m. Otherwise unburned fuel may pass into the catalytic converter and cause damage.*
- ◆ *Tow starting vehicles with an automatic transmission is for technical reasons not possible.*

When towing vehicles with front wheel drive and automatic transmission, observe the following:

- ◆ Selector lever must be in the "N" position.
- ◆ Do not tow vehicle faster than 30 mph (50 km/h).
- ◆ Do not tow further than 30 miles (50 km).

For longer distances, the front end of the vehicle must be raised.

Reason: When the engine is not running the transmission oil pump is not working and the transmission is not adequately lubricated for high speeds or long distances.

Using a breakdown vehicle, the vehicle may only be towed suspended at the front.

Reason: If given a rear suspended tow, the drive shafts turn backward. This would cause the planetary gears in the automatic transmission to achieve such high RPM that the transmission would be heavily damaged within a very short time.

When towing vehicles with all wheel drive and manual transmission, also observe the following:

- ◆ Do not tow vehicle faster than 30 mph (50 km/h).
- ◆ Do not tow further than 30 miles (50 km).

Using a breakdown vehicle the vehicle may be towed suspended at front or rear.

Note:

- ◆ *If normal towing of the vehicle is not possible, the vehicle must be transported with a special transporter or trailer. This is also valid for distances greater than 30 miles (50 km).*

When towing vehicles with all wheel drive and automatic transmission, also observe the following:

- ◆ Selector lever must be in the "N" position.

- Do not tow vehicle faster than 30 mph (50 km/h).
- Do not tow further than 30 miles (50 km).

The vehicle must not be towed by a tow truck with front or rear axle raised.

Note:

- *If normal towing of the vehicle is not possible, the vehicle must be transported with a special transporter or trailer.*

Vehicle Checks During Inspection and Maintenance

For vehicle checks, we recommend interactive acceptance VAS 5000 and performance test stand V.A.G 1858.

Brake check

Information for checking brakes on front and all wheel drive vehicles is in the corresponding brake system repair manual.

Performance check

Perform performance check on performance test stand recommended by Audi. The corresponding correction factors for automatic transmissions and all wheel drive are provided in these test stands. Vehicles with all wheel drive may only be tested on a four-wheel performance test stand. The four-wheel performance test stand V.A.G 1858 has movable rollers in order to be able to test vehicles with different axle spacing.

Tachometer check

With the tachometer test, the vehicle wheels are driven. Vehicles with all wheel drive may only be tested on a four-wheel test stand.

Shock absorber check

Information on testing shock absorbers can be found in the suspension repair manual.

Contact Corrosion

Contact corrosion can occur if improper fastening elements (bolts, nuts, washers, etc.) are used.

For this reason, only fastening elements with a special surface coating are installed. These elements can be recognized by their green color.

In addition, rubber, plastic parts and adhesive are made of non-conductive material.

If there are doubts as to whether parts can be reused, install new parts.

CAUTION!

- ◆ **Only using original Audi A8 parts!**
- ◆ **Accessories must be approved by Audi of America!**
- ◆ **Damage due to contact corrosion is not covered by warranty!**

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Oil Change Service

For information regarding oil change service, refer to refer to Maintenance Schedules for appropriate model year located in ServiceNet. Also for oil type and usage, refer to ServiceNet; Additional information; Fluid Capacity Charts for appropriate Model and Year

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Inspection Service

For information regarding inspection service, refer to Maintenance Schedules for appropriate model year located in ServiceNet

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