

position **9** = **comfort** ( clockwise direction)  
 position **1** = **sport** ( counter- clockwise direction)

During the adjustment you will hear a positive „click“ at each position of the adjustment.

#### **Instruction for the front axle**

The adjusting element of the front struts is located at the bottom edge of the strut, covered by a blue plastic cap. That cap must be removed before adjusting. After the adjustment the cap must be replaced again.

#### **Before installation please observe the following points:**

- Read all information in this manual carefully. All suspension components are fitted and removed acc. to the manufacturer's specifications for fitting and removing, if not otherwise required in these instructions.
- Check that your vehicle type is listed in the certificate as being released for this kit.
- Check the product for all components before starting installation!
- Check that dimensions and fastening points are comparable between the original and Bilstein shock absorbers.
- Directional references (left, right, front, rear) are always with reference to the driving direction.
- The test vehicles are left- hand drive cars.



**After installation please observe the following points:**

Set the vehicle height by adjusting spring plates and lock nuts on the new dampers. Only use the supplied spanner wrenches.

After installing the suspension system, caster and camber must be checked and adjusted according to manufacturer's specifications.

Check and reset load- dependent brake compensator and ABS system according to manufacturer's specifications.

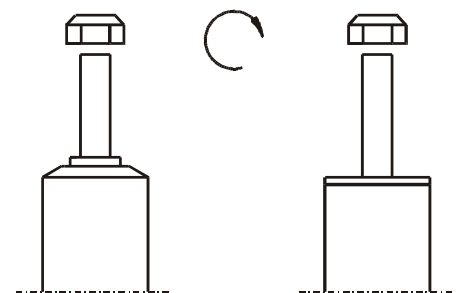
Check and adjust headlight aim.

Because the vehicle has been lowered, freedom of movement for all wheel- / tire- combinations must be checked.

All rubber- mounted strut/ damper attachments must not be fully tightened until AFTER the suspension system is loaded (wheels on the ground). Other mounting fasteners (for example brackets) must be securely tight-ened BEFORE load is placed on the suspension system.

All diagrams are generalized and not to scale!  
Brackets, etc. specific to strut are not shown!

- list of torques						
	M 8	M 10	M 12	M 14	M 16	Thread
	13	25	45	72	110	Torque Nm
	10	19	34	54	83	Torque ft lb



**Do not use an impact tool to loosen or tighten fasteners due to possible damage to the product.**  
**Self- locking nuts must only be used once!**

## Removal

Place vehicle on a chassis hoist, lift it and remove wheels.

Disconnect the negative battery pole.

Vehicles equipped **with xenon headlight** the movable element of sensor for the headlamp levelling controller must removed befor.



***The lower control arm must be supported by suitable means!***

Remove bottom mount.

Remove top fixing nut from support bearing. Do not remove center nut at this time!

Remove complete strut and clamp it in an appropriate strut vise.

Using a suitable spring compressor, compress suspension spring until tension on support bearing is released.

Release center nut and remove original mounting parts and coil spring. Please refer to diagram to identify which parts will be replaced with BILSTEIN- supplied components.

## Installing

Assemble BILSTEIN and/ or original mounting parts, as well as the new BILSTEIN spring on the BILSTEIN strut in reverse sequence of removal.



***IMPORTANT! Spring plates must not be adjusted outside the ranges specified below!***

The correct mounting position of the suspension springs can be determined by the printing on the springs; install them with the print upright.

Do not reuse original- bumper, since BILSTEIN- strut has built in bump stop.

Fit assembled BILSTEIN strut to the vehicle in reverse sequence to removal.

Connect the negative battery pole again.

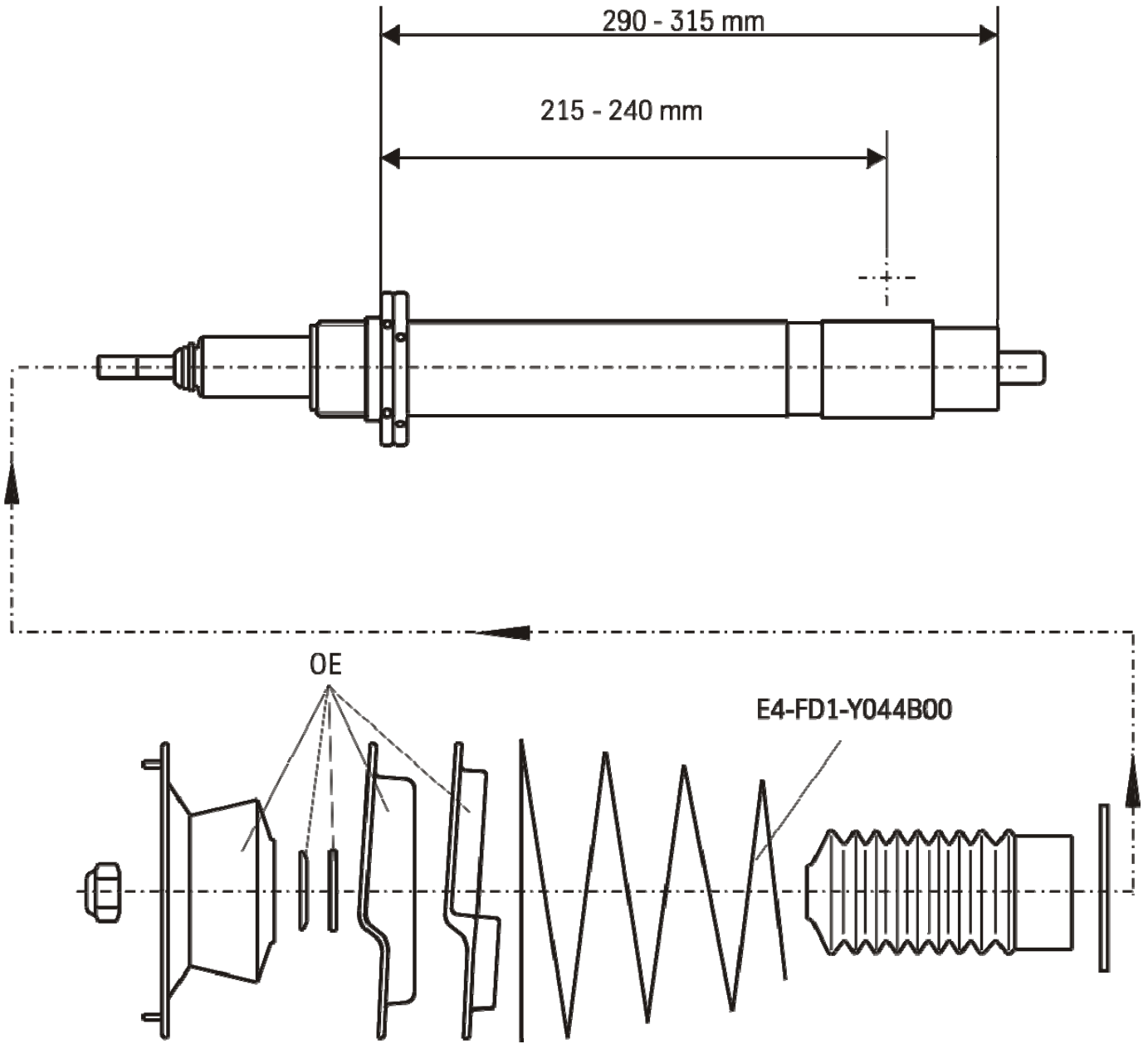
The adjustment range of the spring plates is only approved within the range of the values given in Point 1. Adjustment must be carried out so that the body is level when the vehicle is empty apart from the driver. The lowest approved adjustment and the permissible adjustment range are to be entered, stating the fixed axle reference points (Example, see below).

Manufacturer	<b>BMW</b>
ABE-/ EG- BE- No.	<b>e1*2001/116*0253*..</b>
type designation	<b>663C</b>
model	<b>E 63, E 64 6 coupe and convertible</b>

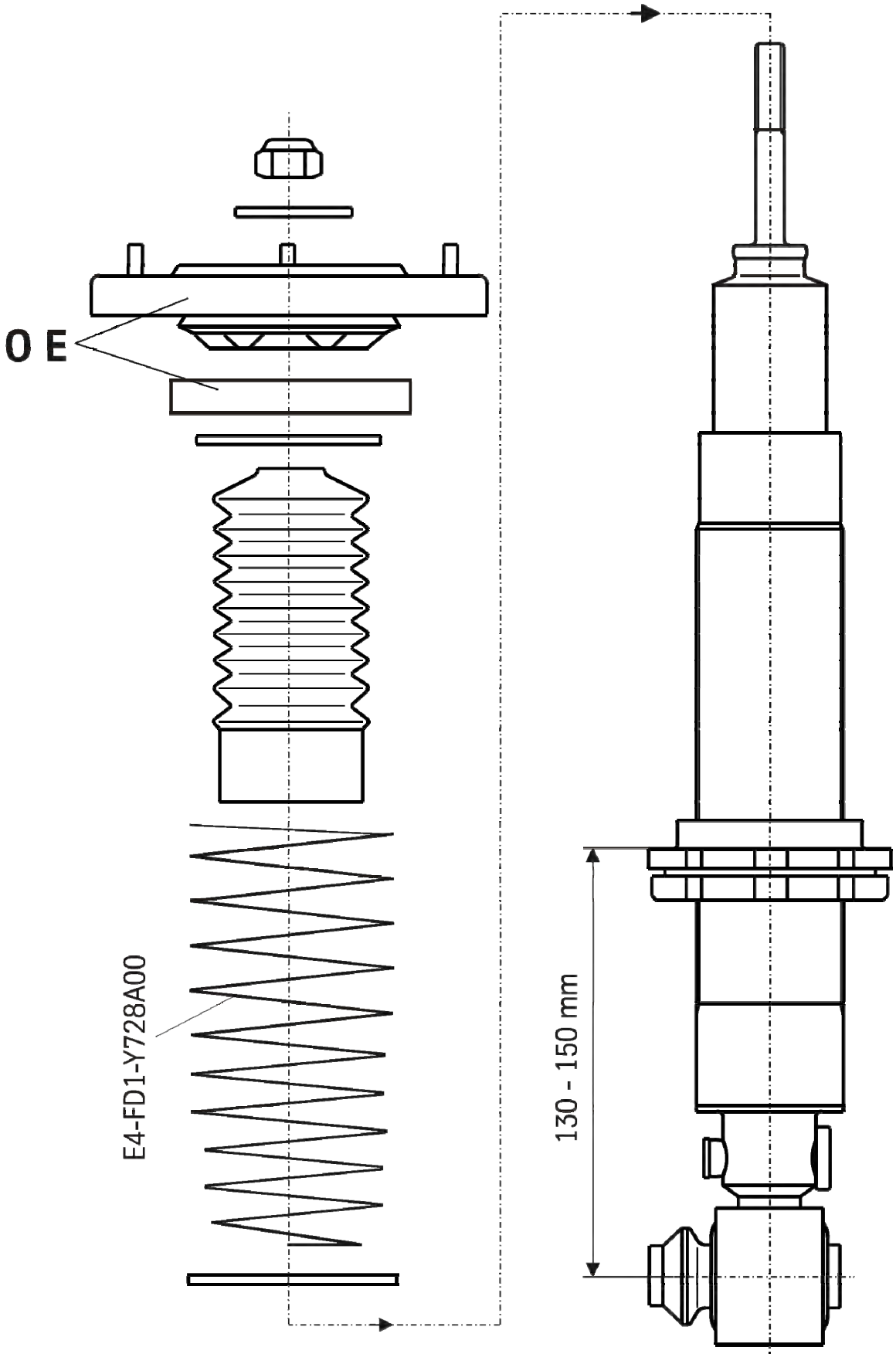
<b>FRONT</b>	<b>maximum permissible axle load 1070 kg ( 2354 lb)</b>
spring part number	main spring <b>E4-FD1-Y044B00</b>
shock absorber part number	<b>VM3-B120</b> with damping force adjustment
permissible adjustment range	<b>215 – 240 mm*= 25 mm range</b>
* measurement: <b>top edge of spring seat down to the center of bottom mounting screw</b>	

<b>REAR</b>	<b>maximum permissible axle load 1270 kg ( 2794 lb)</b>
spring part number	main spring <b>E4-FD1-Y728A00</b>
shock absorber part number	<b>VM3-C396</b> with damping force adjustment
permissible adjustment range	<b>130 - 150 mm* = 20 mm range</b>
* measurement: <b>top edge of spring seat down to centre of strut mounting screw</b>	

- There are no technical objections against the use of all O.E. wheel/ tyre combinations.
- Because of the increased bump travel on axle 1, all special wheel/ tyre combinations which have already been entered ( approved) must be re- examined with regard to freedom of motion. Critical areas are f. e.: area of inner and outer tyre flank above centre of wheel.
- In so far as these wheel-/ tyre combinations are not listed below, the examination must be carried out by an officially recognised expert or test engineer at a TÜV/ TÜH test facility. The vehicle registration document in accordance with §21 German Road Traffic Licensing Code - StVZO must be presented. Any certificates already obtained with regard to special wheel/tyre combinations are invalid if they do not contain a reference to the suspension system described in this document.
- The dynamic ground clearance is decreased by the provision of special springs/ dampers which increase the bump travel of the front and rear axle. In the case of the test vehicle, the **distance from the ground** amounted to **150 mm** under the motor crossbar. Care must be taken when driving over humps, barriers and heightened paving or road surfaces.
- If special spoilers, aprons and exhaust systems are mounted, attention must be paid to the decreased overhang angle ( driving up ramps etc.).
- The specified minimum height of the coupling ball above the road surface with the permissible total weight of the vehicle ( acc. DIN 74058) is 350 mm.



**OE** = Original Anbauteile



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