

SAS-10037 Front Right Air Strut Volkswagen Touareg (7P) (2011-2016) Audi Q7, Porsche Cayenne (958) (2011-2016)



# SAS-10037

Front Right Air Strut





#### **GENERAL WARNINGS:**

CAUTION: Damage to the vehicle and air suspension system can be incurred if work is carried out in a manner other than specified in the instructions or in a different sequence.

The air suspension system under pressure(max 10 bar, or 150lbf/in; before Disassembly, confirm that the pressure has been released and disconnect the power supply of the air suspension system.

Do not let dust or grease enter the system.

Always wear standard hand, ear and eye protection device when servicing the air suspension system.

Do not store struts below 5°F (-15°C) or above 122°F (50°C)

Avoid damages to air lines and wires

Must be disassembled and installed by a fully qualified professional at a specialist garage

Use car manufacturer's diagnostic software

Use car manufacturer's documentation for correct tightening torques

To avoid the possibility of short circuits while working with electric components consult your owner's manual on how to disconnect your battery.

For the correct Jack fulcrum and other maintenance, safety and maintenance instructions of the vehicle, please refer to your user manual, service manual, or consult your car dealer. In any case, do not work under the vehicle without sufficient support, because it may cause serious casualties.



## **Disassembly the Front Air Strut:**

The ignition must remain off during operation of the pneumatic spring module.

- 1. Adjust the steering wheel to face the front.
- 2. Open the hood, then raise the vehicle and remove the corresponding tires with the special sockets. (Figure 1,2,3)



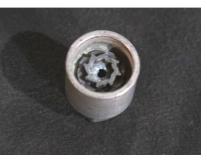




Figure 1

Figure 2

Figure 3

3. Disassemble the air intake duct. (Figure 4,5)



Figure 4



Figure 5

4. Remove the height sensor bracket nut. (Figure 6)



Figure 6



5. Remove the air strut lower retaining bolt. (Figure 7, 8)



Figure 7



Figure 8

6. Remove the lower fixing nut of the connecting rod and remove the bolt. (Figure 9, 10)



Figure 9



Figure 10

- 7. Remove the large half-shaft nut. (Figure 11)
- 8. Remove the cable from the steering trunnion. (Figure 12)



Figure 11

Figure 12

9. Remove the upper lateral control arm and steering knuckle short shaft nut and disconnect the steering knuckle connection with a special tool. (Figure 13, 14)





Figure 13

Figure 14

- 10. Disconnect the air strut solenoid valve plug. (Figure 15)
- 11. Remove the top three nuts of the air strut. (Figure 16)









12. Remove the air suspension strut and disassemble the connecting rod. (Figure 17, 18)



Figure 17



13. Compare the old and new air suspension struts for consistency ,and disassembly is completed. (Figure 19)



Figure 19



### Installation of Air Strut:



Tighten all bolts and nuts according to the manufacturer's specifications during installation.

### Installation steps:

- 1. Install the connecting rod back into the new air strut (without tightening). (Figure 1)
- 2. Install the new air strut into the vehicle. (Figure 2)



Figure 1



Figure 2

- 3. Tighten the three nuts on top of the air strut. (Figure 3)
- 4. Assemble the air strut solenoid valve plug. (Figure 4)



Figure 3



Figure 4

5. Install the short shaft of the steering knuckle on the upper lateral control arm and tighten the retaining nut (torque to the manufacturer's specifications) (Figure 5, 6)







6. Install the air strut lower retaining bolt and tighten the nut. (Torque to manufacturer's specifications). (Figure 7, 8)



Figure 7

Figure 8

7. Install the steering cross tie rod steering knuckle and tighten the nut. (Torque to manufacturer's specifications) (Figures 12, 13)





Figure 12

Figure 13

8. Install the large half-shaft nut and tighten the nut. (Torque to manufacturer's specifications) (Figure 14)

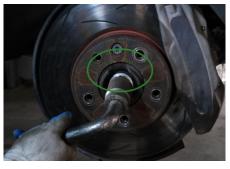


Figure 14

9. Install back the connecting rod bolts and lock the connecting rod nuts on both ends. (Torque to manufacturer's specifications) (Figures 15, 16)



Figure 15



- 10. Install the height sensor bracket nut. (Torque to manufacturer's specifications) (Figure 17)
- 11. Install the brass nut back on the air intake tube. (Figure 18)



Figure 17

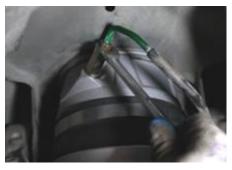


Figure 18

- 12. Secure the cable back to the steering trunnion. (Figure 19)
- 14. Install car tires. (Figure 20)



Figure 19



Figure 20

13. Lower the vehicle to the standard height, start the engine, wait for two minutes, slowly lower the vehicle until the body can be raised automatically, and check the air suspension for air leaks (Figure 21); connect the special diagnostic equipment to calibrate the vehicle.



Figure 21



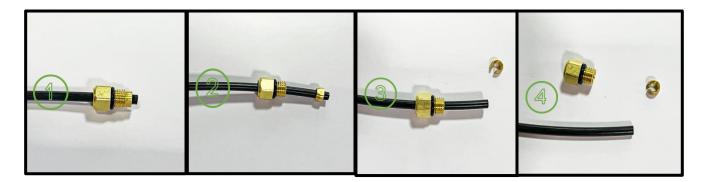
- 14. Close the engine hood.
- 15. Installation is completed.



1. Do not lower the car from the lift when there is no pressure on the air suspension / air suspension module.

2. Precautions for installing air pipe:

Remove the original air line before inserting it into the new air pipe connector Remove the old factory air line connector.



1.original joint

2.Slide the threaded part along the pipe path

- 3.Remove the collet
- 4.Remove the threaded part, disassembly is complete



1.Remove and dispose of shipping pins



2.Insert the air line into the connector and press until it is felt to engage



3.After entering the air line, pull the air line outward to lock and ensure secure connection