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VW MKVI-A6 Golf family including Jetta SportWagen (~ 2010-2014) Discussions area for A6/MkVI (2010-2014) Golf and Golf Wagons (Jetta Sportwagon in the USA).



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[Thread Tools](#)

February 11th, 2010,
14:00

#1

[UberVW_TDI](#)

Veteran Member



Join Date: Sep 2009
Location: Austin, TX
TDI(s): [2010 Golf Variant TDI](#)

Sport Spring Installation Part 1 of 4.

A friend and I just installed the H&R Sport Springs (#54751) on my 2010 Jetta SportWagen TDI and I thought I'd spend some time to post a "How To" as a reference for my fellow VW "Do it yourselves..."
I'm not a professional mechanic, so please use this as a reference only.

Here is some before shots for reference:





Jack up the rear, install a set of jack stands and remove the rear tires. Put a floor jack under the lower transverse link (lower control arm) jack up the lower control arm about one inch. With the jack holding the lower control arm, remove the lower transverse link (lower control arm) bolt and nut at the wheel bearing housing.



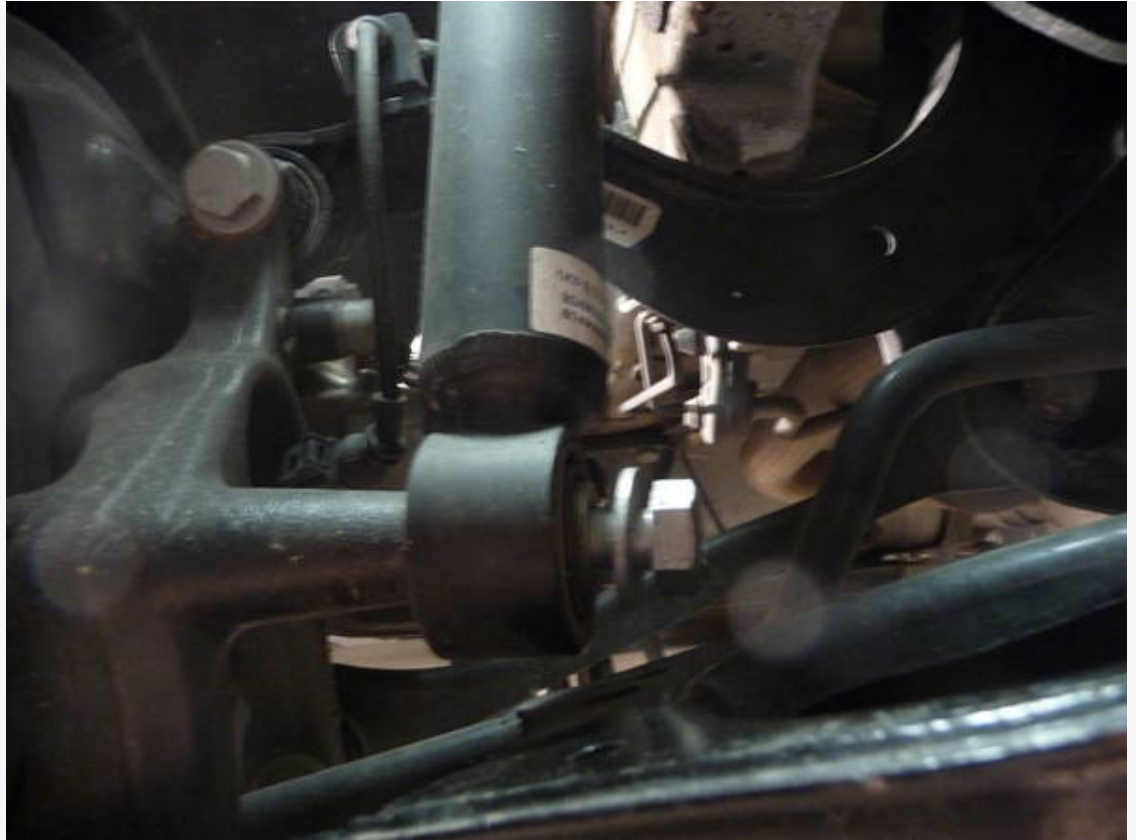
Slowly lower the floor jack. The spring will then come right out.



stock and new H&R rear spring comparison.



Remove the shock lower mounting bolt



Remove the shock upper mounting bolts (x2)



Pry the plastic cover off the rear shock to allow access to the upper nut, remove this nut.



CP3 HPFP, Valeo SMF Clutch Kit, Dieselgeek Sigma6 Sport Shifter, H&R Premium Performance Coilovers, H&R 24mm Rear Stabilizer Bar, H&R 26mm Front Stabilizer Bar, 17" VW Goal Wheels, Michelin Pilot Sport A/S 3 (245/45R17)

Last edited by UberVW_TDI; February 12th, 2010 at 11:38.



February 11th, 2010,
14:02

#2

UberVW_TDI

Veteran Member



Join Date: Sep 2009
Location: Austin, TX
TDI(s): [2010 Golf Variant TDI](#)

Reassemble the rear shock. Use new nut: VW part number N-103-041-02. Also, install the suspension limiter as shown in picture below.



Install shock. Upper bolts first. Torque spec is 37 ft lbs + 45 degrees.



Before installing the shock rear lower bolt, raise the suspension to "ride height" position using the floor jack. This is to prevent the rear shock lower rubber bushing from binding and squeeking. My pre-spring right height as measured from the center of the hub to the top of the wheel well was 14 5/8 inches. Post spring install was 13 3/4 inches. So tighten your lower mounting bolt with the suspension at ~13 3/4 inches. Torque for shock lower bolt is 133 ft lbs.



Transfer the upper rubber mount pad to new spring. Install the sport spring, ensure bottom end of spring is butted against the stop molded into the rear lower control arm. Raise the rear lower control arm back up using the floor jack. Install new bolt and nut. VW part number. Bolt = N-106-286-01, Nut = N-101-064-02. Torque spec is 66 ft lbs + 90 degrees.



Repeat for the other side.

The rear spring installation is done! That was the easy end! Now for the front springs....

Jack up the front of the car. Install jack stands, Remove the front tires.

Remove the drive axle bolt.



Remove the stabilizer bar connecting link from the strut



Remove nuts from ball joint. (under lower control arm)



Push down on the lower control arm to remove it from the front hub.
Pull outer joint of drive axle out of wheel hub. My car only had 5300 miles on it but my drive axle would not come out of the hub. I had to get a hub puller and push it out. It came right out with the puller. I went to O'Reillys and used the Evertough 67032 front wheel drive hub puller from their loan-a-tool program. I had to use a long socket to give the puller screw enough length to completely remove the axle out of the hub.



Here is a picture of the axle coming out of the hub.



CP3 HPFP, Valeo SMF Clutch Kit, Dieselgeek Sigma6 Sport Shifter, H&R Premium Performance Coilovers, H&R 24mm Rear Stabilizer Bar, H&R 26mm Front Stabilizer Bar, 17" VW Goal Wheels, Michelin Pilot Sport A/S 3 (245/45R17)

Last edited by UberVW_TDI; February 11th, 2010 at 14:44.



February 11th, 2010,
14:03

#3

UberVW_TDI

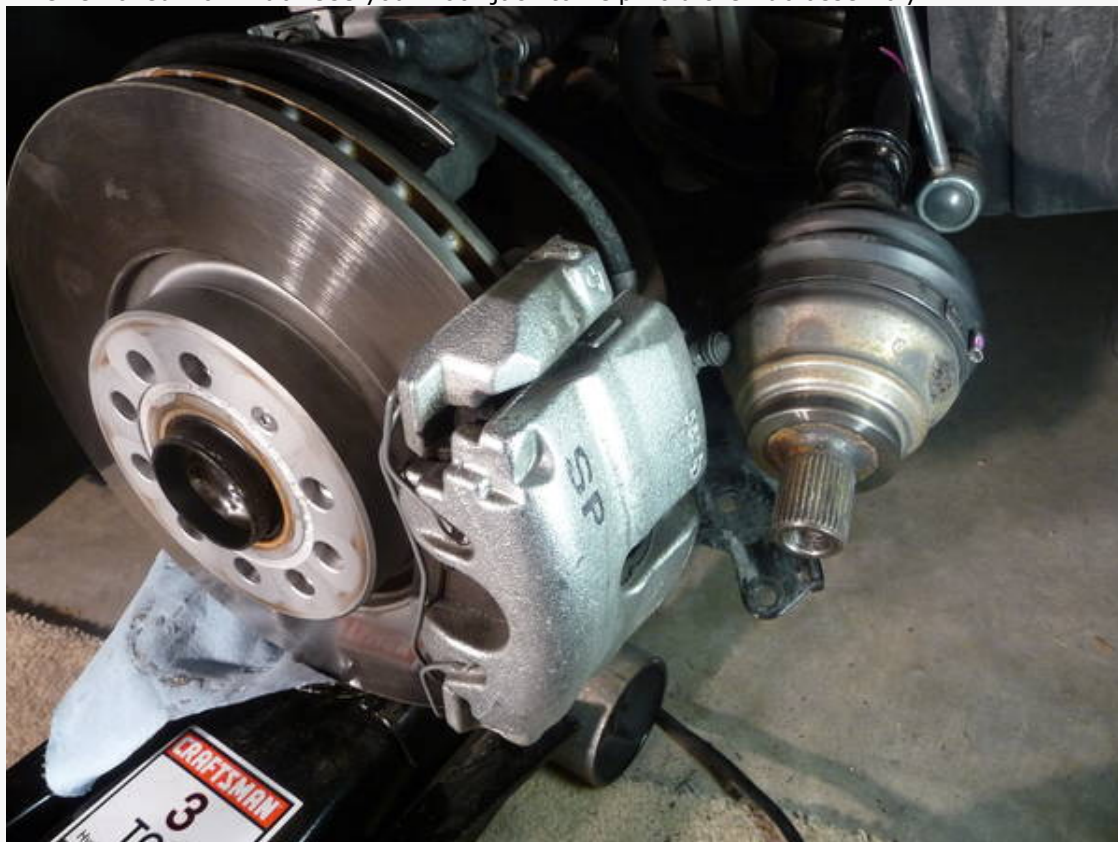
Veteran Member



Join Date: Sep 2009
Location: Austin, TX
TDI(s): [2010 Golf Variant TDI](#)



Axle removed from hub. Use your floor jack to help hold the hub assembly.



Remove the strut lower bolt/nut



Install a spreader socket known as VW tool #3424 to open up the hub clamp around the strut. I got my spreader from www.zdmak.com. If you search zdmak.com "3424" you'll find it.



Pull the hub down and away from the strut.



Remove the three bolts from the top of the strut.



Remove the strut.



Compress the spring with spring compressors. I got mine from autozone loan-a-tool program.

Remove the top nut from the strut (As a safety precaution I must mention to insure spring tension is removed from strut before removing the top strut nut).

I used an open socket (#3186 21mm) that I ordered from www.zdmark.com to remove the strut upper nut. You'll also need a torx L-wrench size T45. You have to keep the inner shaft of the strut from spinning while loosening the upper strut nut.



Disassemble the strut and install the suspension limiter.



Reassemble the strut with the new spring. Ensure the bottom spring end is butted up

against the stop molded into the strut.
Use a new nut VW part number N-910-216-01.
Torque spec is 44 ft lbs

Install the strut into the car....top three bolts first. Use new bolts (x3). VW part number N-101-277-07.
Torque spec is 11 ft lbs + 90 degrees.



Slip the bottom of the strut into the hub, remove the spreader socket.
At the same time, feed the axle back into the hub. It will slid back into the hub.
Install a new bolt and nut to secure the strut to the hub assembly. VW part number. Bolt = N-909-548-02, Nut = N-101-064-02.
Torque spec is 52 ft lb + 90 degrees.



CP3 HPFP, Valeo SMF Clutch Kit, Dieselgeek Sigma6 Sport Shifter, H&R Premium Performance Coilovers, H&R 24mm Rear Stabilizer Bar, H&R 26mm Front Stabilizer Bar, 17" VW Goal Wheels, Michelin Pilot Sport A/S 3 (245/45R17)

Last edited by UberVW_TDI; May 11th, 2010 at 21:51.



February 11th, 2010,
14:03

#4

UberVW_TDI

Veteran Member



Join Date: Sep 2009
Location: Austin, TX
TDI(s): [2010 Golf Variant TDI](#)



Install a new nut on stabilizer bar connecting link to strut. VW part number N-015-081-6. Torque spec is 48 ft lbs.



Install new nuts for the lower control arm to ball joint VW part number N-103-320-02. Torque spec is 44 ft lbs.



Have a friend hold the brake while you install a new drive axle bolt. VW part number WHT-002-795.

Torque spec is in two stages. For the 12 point style bolt, the first stage is 52 ft lbs.



After torquing to 52 ft lbs, install the wheel with the center cap removed. Put the vehicle weight on the wheel and tighten the drive axle bolt an additional 90 degrees (second torque stage). You will need a long breaker bar for this. I used a 24mm 12 point socket with a 2 foot breaker bar to get the 90 degrees.



Install the center cap.
Torque your lug nuts, 88 ft lbs.

So the Nut/Bolt replacement parts needed are:

Rear:

1. Shock Upper Bolts, N-910-661-01, 4 needed
2. Shock Lower Bolts, WHT-003-467, 2 needed
3. Shock Top Nuts (hold shock assembly together), N-103-041-02, 2 needed
4. Lower Control Arm Bolts, N-106-107-02, 2 needed
5. Lower Control Arm Nuts, N-101-064-02, 2 needed

Front:

1. Drive Axle Bolt, WHT-002-795 (Now superceded by WHT-005-437), 2 needed
2. Stabilizer bar connecting link nut, N-015-081-6, 2 needed
3. Front lower control arm nuts, N-103-320-02, 6 needed
4. Strut lower bolt, N-909-548-02, 2 needed
5. Strut lower nut, N-101-064-02, 2 needed (same nut as used on rear shock lower nut)
6. Strut upper bolts, N-101-277-07, 6 needed
7. Strut assembly rod nut, N-910-216-01, 2 needed

MISC tools needed:

1. Fwd HUB puller (rented at O'Reillys, Evertough 67032)
2. Spreader Socket (VW tool # 3424)
3. Spring Compressor (rented at AutoZone)
4. Open Socket (VW tool # 3186)
5. Torx L-wrench T45
6. Suspension limiters (VW part number 000-071-501-A)
7. 24mm 12-point socket
8. Torque wrench
9. 2 foot breaker bar (used to get the additional 90 degrees on the front axle nut)

Post sport spring pics:





Well, all is well. No squeeks or weird noises. The car handles much better to me. Firm but not harsh.

The steering response is definitely improved!

I hope this thread can help others who want to do the spring install themselves!

I'll have to make the trip down to my local VW dealer in a couple hundred miles to get the alignment checked. It will probably need to be adjusted.

Update: I got the alignment checked 3300 miles later at a VW dealer. No adjustment was needed. All measurements were still in spec.

Update: 11JULY2013

Removed the H&R sport springs and installed H&R Premium Performance Coilovers (same install procedure as the sport springs). Love the adjustability and more aggressive characteristics of the coilovers.

Update: 29MAR2014

I've had the H&R coilovers installed for 76,000 miles now. Performance is still great.



CP3 HPFP, Valeo SMF Clutch Kit, Dieselgeek Sigma6 Sport Shifter, H&R Premium Performance Coilovers, H&R 24mm Rear Stabilizer Bar, H&R 26mm Front Stabilizer Bar, 17" VW Goal Wheels, Michelin Pilot Sport A/S 3 (245/45R17)

Last edited by UberVW_TDI; August 16th, 2014 at 12:16. Reason: Update parts list.



February 11th, 2010, 14:04

#5

[2010Wagen](#)



Member



Join Date: Nov 2009
Location: Orlando
TDI(s): [2010 Sportwagen](#)

Cool! thanks for posting, I did this on my BMW and the front shocks were a pain!
 I may go with the cup kit instead of just springs



2010 Sportwagen TDI 😊

2006 Treg V8 🐼
 2000 BMW 330i 🇩🇪



February 11th, 2010, 15:56

#6

[Jim'stdi](#)

Veteran Member



Join Date: Jan 2010
Location: Birmingham, AL
TDI(s): [2010 JSW](#)



Uber,

Great Report and how to!!! You going to do the sway bars next?

2010 TDI JSW |Reflex Silver|6M|Pano Roof|MDI |Goal Anthracite|Dieselgeek short shifter kit|Panzer plate|APR 28mm Rear Sway Bar



February 11th, 2010, 16:14

#7

[k3ys3r_so3](#)

Newbie

Join Date: Jan 2010
Location: Vancouver, BC
TDI(s): [2010 Golf Wagon](#)



Nice "how to " post Uber - very informative. Cars looking good. I think I'll be going this route also. What is the rated drop for those H&R springs? Was it accurate?

2010 Volkswagen Golf Wagon TDI Highline
 2005 Audi A4 Avant 1.8T Quattro
 1995 BMW 318i



February 11th, 2010, 16:41

#8

[UberVW_TDI](#)

Veteran Member



Join Date: Sep 2009
Location: Austin, TX
TDI(s): [2010 Golf Variant TDI](#)



Quote:

Originally Posted by **k3ys3r_so3**
 ...What is the rated drop for those H&R springs? Was it accurate?

H&R states that the drop would be 1.5" front and 1.4" rear.

My drop is -1.13" front, and -1.25" rear. So my rear dropped a little (0.12") more than the front.

I've only had the springs on for 1 day. I expect they might settle a little more in the next couple days.



CP3 HPFP, Valeo SMF Clutch Kit, Dieselgeek Sigma6 Sport Shifter, H&R Premium Performance Coilovers, H&R 24mm Rear Stabilizer Bar, H&R 26mm Front Stabilizer Bar, 17" VW Goal Wheels, Michelin Pilot Sport A/S 3 (245/45R17)

Last edited by UberVW_TDI; February 26th, 2010 at 18:59.



February 11th, 2010, 16:45

#9

UberVW_TDI

Veteran Member



Join Date: Sep 2009

Location: Austin, TX

TDI(s): [2010 Golf Variant TDI](#)

Quote:

Originally Posted by **Jim'stdi**
Uber,

Great Report and how to!!! You going to do the sway bars next?

I really doubt it. I'm not sure they will give me much bang for the buck.

When the stock shocks/struts wear out I plan on putting on some Bilstein Sports. Other than that, I don't think I'll change anything else.

Update 5/8/2010: After some rear stabilizer bar research, I've decided I'm going to install a H&R 24mm rear stabilizer bar. I'm looking to continue improving the stability and handling of my sportwagen.



CP3 HPFP, Valeo SMF Clutch Kit, Dieselgeek Sigma6 Sport Shifter, H&R Premium Performance Coilovers, H&R 24mm Rear Stabilizer Bar, H&R 26mm Front Stabilizer Bar, 17" VW Goal Wheels, Michelin Pilot Sport A/S 3 (245/45R17)

Last edited by UberVW_TDI; May 8th, 2010 at 19:44.



February 11th, 2010, 17:12

#10

fleuger99

Veteran Member

Join Date: Nov 2009

Location: MA

TDI(s): [2012 Touareg TDI](#)

Thanks for the great How To!

Car looks fantastic, I plan on doing the same once Spring weather arrives in another 4 - 6 weeks.

2012 Touareg TDI Lux| Tow Package

Past - 2010 Graphite Blue TDI JSW

2008 R32 MKV

2006 Jetta GLI

1998 Passat V6



February 11th, 2010, 18:29

#11

[giewont](#)

Member

**Join Date:** Oct 2005**Location:** Austin, TX**TDI(s):** [Jetta A5, 2006 Reflex Silver](#)

DM,

The car looks great. I just hope the fronts settle a little bit more to balance out the ride height. Your going to have to take me for a ride.

MALONE TUNING LTD.

2006 Jetta A5 TDI Reflex Silver Package 0 (GLI front brake setup, Stage 2 Custom tune (Dynamic Idle & EGR), DieselGeek Sigma Short shifter, H&R Sport Springs, H&R 24mm Rear Stabilizer Bar, NewSouth Ventpod Boost gauge, GTI MFSW.
1998 Jetta A3 TDI....RIP 5/1/08



February 11th, 2010, 19:03

#12

[UberVW TDI](#)

Veteran Member

**Join Date:** Sep 2009**Location:** Austin, TX**TDI(s):** [2010 Golf Variant TDI](#)

Quote:

Originally Posted by **giewont**

DM,

The car looks great. I just hope the fronts settle a little bit more to balance out the ride height. Your going to have to take me for a ride.

Before installing the springs it was 1/4" lower in the rear from the factory. The sport springs increased that difference another 1/8" to make it 3/8" lower in the rear.

It does have a bit of a squat look, which I'd prefer not to have.

Does anyone make a spacer to put between the spring and frame of the car to help raise it up a bit?

I'll wait and see if it levels out a bit more on its own.

giewont, thanks for your help with the install! I'll let you drive it to see what you think.



CP3 HPFP, Valeo SMF Clutch Kit, Dieselgeek Sigma6 Sport Shifter, H&R Premium Performance Coilovers, H&R 24mm Rear Stabilizer Bar, H&R 26mm Front Stabilizer Bar, 17" VW Goal Wheels, Michelin Pilot Sport A/S 3 (245/45R17)



February 12th, 2010, 07:38

#13

[artargyle](#)

Member


Join Date: Dec 2009**Location:** dallas**TDI(s):** [2010 jetta sportswagon](#)

great post.

Thanks UberVW. Nice to see the process. The car looks great. After 1600 miles my H&R's have settled a bit and the total drop is just about as HR stated. The rear drop & overall front-to-back rake looks ideal to my eyes (app. same as Audi A3 angle)

I have 255/40 17" tires w/ 17X7.5 Goals 50ET and have not experienced rubbing or bottoming out: I did not do spring limiters. Do you think the spring limiters have an effect/purpose that might warrant a retro fit in this context?


Enjoy the springs!





February 12th, 2010, 07:50

#14


[dpg](#)
Veteran Member
Join Date: Jan 2010
Location: Chi-Town
TDI(s): [2013 JSW TDI, 2010 JSW - retired](#)



nice write-up and thanks for taking the time to do it.


Silver TDI - 2013 Volkswagen Jetta
44 Fuel-ups
driven by dpg



35.6
Avg MPG









February 12th, 2010, 10:16


#15

[mostchillin](#)
Member
Join Date: Nov 2009
Location: Columbia, SC
TDI(s): [2010 JSW TDI](#)


Looks great! And a great write-up!

It will settle some more -- mine definitely did. I think some of that "squat look" will go away once settled. Mine -- based solely on pictures -- doesn't have as much of a squat look. For reference, I have about 4000 miles on mine at this point.




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