GTI VR6 Front Wheel Bearing DIY – http://www.GTIShrine.com

This procedure covers replacing the front wheel bearings.

Tools and Parts required:

- Wheel Bearing Puller w/ ABS adapter. Available for rent from GermanAutoParts.com for $30.
- 36mm socket
- 30mm 12-point socket
- 17mm socket
- 13mm socket
- Half-inch drive ratchet socket
- Torque wrench
- Breaker bar (2ft or larger)
- Phillips screwdriver
- Needle-nose pliers
- New wheel bearing
- New wheel hub

Step	Photo
1. Picture of the Schley Products 63500 VW bearing puller ABS adaptor (on left), small hub and two washers on left.	

2. Picture of the Schley Products 63500 VW bearing puller with washers and nut threaded on bolt.	
3. With the car on the ground, loosen, but don't remove the five lug bolts with a 17mm socket and the breaker bar (alternately, use the VW tool that came with your car). Remove the center cap with a flat-blade screwdriver. Loosen, but don't remove the center 30mm 12-point bolt with the breaker bar and an extension.	

4. Jack both sides of the car up. Use jack stands in addition to your jack to ensure safety. Remove the five lug bolts. Remove the wheel from the car. The rotor and brakes will be exposed.	
5. Next, you need to move the caliper out of the way without disconnecting it from the brake line. Use the 17mm socket to unbolt the caliper from the wheel knuckle. The 17mm bolts and behind the rotor. Use stiff wire to hang the caliper from the strut coil. Hang the caliper so that it is out of the way and is not hanging by the brake line or stressing the brake line.	

6. Notice the single Phillips screw on the rotor. Unscrew this screw and remove the rotor. The screw may be rusted and seized and will need to be drilled out. The rotor may be rusted and sized to the wheel hub. You may need to hit it (very hard) with a hammer (and WD-40) to get it off the wheel hub. This picture shows the wheel hub after the rotor is removed.	
7. Remove the 30mm 12-point nut from the outer CV joint axle.	

8. Using the 13mm socket, remove the three bolts from the lower control arm. This picture is taken from underneath the car. Removing the three bolts will allow the joint to swing free and allow the wheel knuckle to move. Mark the location of the joint on the top of the control arm by using a screwdriver to scratch the metal. You'll use these marks to realign when you put the knuckle back.	

9. Remove the wheel hub and wheel knuckle from the outer CV axle. Push the axle into the hub. You may need to hit it with a hammer if it is rusted. If it is badly seized, barely thread the nut back on and use the hammer to hit the nut - in this way you won't damage the axle threads. The picture shows the axle free of the wheel hub once the knuckle has been swung out.	
10. You'll now use the wheel bearing puller in different configurations to first remove the old bearing and then install the new one. Place the bolt through the ABS adaptor, through the wheel hub. Thread the nut onto the other size. Use an adjustable wrench on the inside nut and a 36mm socket to tighten the bolt. Place the ABS adaptor against the wheel knuckle so it is secure.	

11. As you tighten, the wheel hub and inner race of the wheel bearing will come off. Notice that this wheel bearing has failed (see rust colored bearings). Before you can remove the rest of the bearing, you must remove the circlip. The circlip keeps the bearing in place; it is a metal ring that fits inside the wheel knuckle against the bearing. It has two holes. Use the needle nose pliers to squeeze the circlip and remove it.	
12. Use a washer that seats comfortably on the inner race, but is slightly smaller than the outer race. Place this washer on the inside of the wheel knuckle. As you tighten, you want this washer to pull the wheel bearing out of the wheel knuckle. In addition to the washer, I used several smaller washers on the inside end, threaded the nut on and pulled the bearing into the cup. The bearing will fight to stay in - apply steady pressure.	

13. Once the bearing is out, clean the rust and old grease out of the wheel knuckle. Put new grease into the wheel knuckle. You'll now use the bearing puller to install the new bearing. Use a washer that fits inside the inner race and is exactly the same diameter as the outer race (as shown in the picture here).	
14. Second picture of pushing the new bearing in. On the inside, we're using the cup with a washer and the nut. Note that I've removed the ABS sensor wire so it isn't damaged.	

15. Picture of the new bearing installed. Now, install the new circlip (that came with the wheel bearing kit - don't use the old circlip). Again, using the needle nose pliers, squeeze the circlip and it will snap into place (in the groove of the wheel knuckle) to secure the bearing. You may need an extra pair of hands to push while squeezing the circlip in.	
16. Push the new wheel hub into the inner race. Use an washer on the side that fits into the inner race, but is slightly smaller than the outer race. Thread the bolt through the wheel hub, through the bearing and attach the nut. As you tighten, it will press the hub into the bearing.	

17. Insert the CV axle into the new hub. Reattach the control arm. You may need to thread the center 30mm 12-point nut on. Don't tighten the 30mm nut. Always use a new 30mm nut; it is a self-locking nut.	
18. Place the rotor onto the new wheel hub. Insert the philips screw to hold the rotor onto the hub.	

19. Reattach the brakes.	
20. Picture of all my old parts :)