



WitchDoctor's Billet Specialties LLC
Rear 300mm Wheel
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Warning:

This is an install at your own risk product. If you are not capable of installing it successfully then we suggest you take this item to a professional shop. Consult the proper service manual for removal & installation procedures.

Step 1: support the bike with a suitable bike jack or lift. The rear tire needs to be raised off the floor. Remove the seat, rear fender rails, belt guards and rear fender. These only need to be removed to gain access to the upper sub-frame and make assembly easier. On most models it is not necessary to remove the exhaust and front belt cover. They are only removed in the photos to better show the steps. If you follow **Step:2** you should be able to raise the swing arm to get the axle out without removing the exhaust. Honestly!

Step2: Remove the rear bolt holding the lowering links to the swing arm. This will make it easier to install the 300mm wheel and check for clearance to swing arm and upper sub-frame. **Be careful as swing arm will drop when removing the bolt. (Fig1)**

Step 3: Remove the stock rear wheel assembly. Consult your service manual on proper procedures. This is also a good time to check the condition of your drive belt and brake pads. Replace as needed.



(Fig1)



Step 4: Remove the bolt and metal tab that secures the brake line to the swing arm. (Fig2)

(Fig.2)

Step 5: Using your stock spacers, brake rotor, pulley & axle install the 300mm wheel assembly into the swing arm. At this point it is not necessary to install the brake caliper. Make sure to install the belt and align it properly. *This step is critical! If the belt is not aligned properly you will not be able to figure out the proper clearance between swing arm and tire.* (Fig. 3) If using a stock pulley it may be necessary to clearance the drive studs to swing arm. (Fig 4) If you need clearance grind the studs not the swing arm.



(Fig.3)



(Fig.4)

Step 6: Check clearance between tire and swing arm where the brake line tab mounted. On some bikes you will need to grind smooth the raised pad on the swing arm. (Fig. 5 & 6)

Chrome swing arms don't seem to need to be ground.



(Fig. 5)



(Fig. 6)

With the wheel still in the swing arm raise it up by hand to see where the tire will hit the upper sub-frame assembly. You will need to grind a portion of the sub-frame to have enough clearance. (Fig. 7)



(Fig.7)

Once you figure out what needs clearance, lower the wheel & grind the sub-frame pads. On most bikes you will need to grind the sub-frame almost to the round support tube going from side to side. It seems like the right side needs ground more than the left side.(Fig.8 & 9)



(Fig.8)



(Fig.9)



You will want to grind a tiny bit at a time. That's Ok but it will take you forever. Grind it almost to the tube and you will be close. Honestly! Look at the pictures!

Raise the 300 mm rear wheel back up and make sure you now have enough clearance. Move the wheel through its complete range of motion to make sure nothing hits. Repeat the steps if you need to grind more. (Fig.10)



(Fig.10)



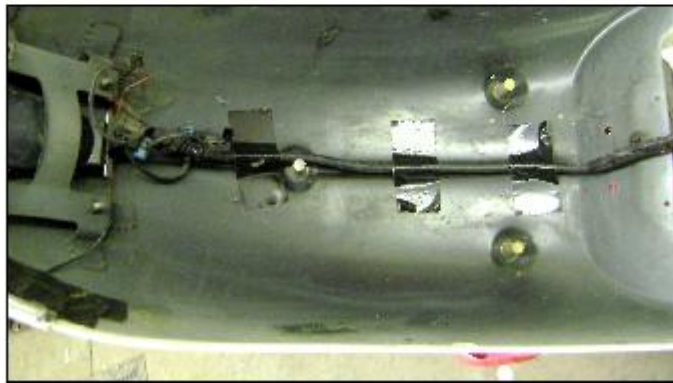
Step 7: once you determine that all clearances are correct and belt is aligned properly reinstall the 300mm tire with your brake rotor, pulley and all parts. **You need to have the lower link bolt in to properly align and tighten the belt.** Tighten and adjust parts as necessary. You may also want to put some paint on the parts your ground at this time.

Step 8: When installing the brake line you must bend the brake line tab as pictured. (Fig. 11) Turn the tab around from how it was in the stock position and use the supplied round head bolt to attach it. Make sure to keep the line away from the tire. Twist the tab around until you get the brake line adjusted. You want to attach the tab before putting the tire back in.



(Fig. 11)

Step 9: Move the tail light wiring to the inside of the fender. We found cleaning the fender with brake clean and securing the wires with Gorilla Tape works well. This tape can be found at the hardware store. If you have the factory wiring clips on the fender you won't need the tape. (Fig.12)



(Fig.12)

Step 13: Reinstall fender, seat, brakes & fender rails. Install bolt back in lower link and tighten.

Step 14: Install the belt guard. Check clearance between belt guard and tire. (Fig.13) It may be necessary to slightly bend or grind the guard to clear the tire. If using the lower belt guard– sorry you cant anymore. If you choose to grind the guard and it is chrome it will rust. Try bending it first! If you grind, make sure to put some clear paint on it so it doesn't rust.



(Fig.13)

Step 15: Double check all clearance areas and bolts for tightness. Start the bike up and spin the rear tire *slowly and verify belt runs true and brakes are operating correctly!* Correct any problems found.

Step 16: Lower the bike back on the ground. Ride slowly for the first few miles and check for any problems. After a few miles recheck fasteners and belt for proper alignment and tightness.



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- Open Belt Drive
- Chrome Brake Rotor, Bolts & Caliper
- Chrome Swing arm



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