



Suzuki M109R Engine Guards Installation

Special thanks to **Duende01** from **M109RIDERS** forums for this info, pictures and original document from which this one was made.

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Tools Required:

1. Ratchet
2. 3" Extension
3. Torque Wrench
4. 12mm Socket
5. 14mm Socket
6. 17mm Socket
7. 8mm Hex Bit
8. 4mm Hex Bit
9. 17mm Wrench (Opened or Adjustable)
10. Phillips Screwdriver
11. Small Flat Blade Screwdriver
12. Scissor Jack
13. Flat Block of Wood
14. Your Favorite Beverage

PREP AREA:

****** To prevent from possible cosmetic damage to your M109R, it is strongly recommended that a soft towel or sheet be placed over the front fender. In addition, a soft sheet should be placed on the floor by the forward section of your motorcycle.





Remove The Left and Right Frame Side Covers:

(The original instructions provided with the engine guards do not mention removing the side covers; however, while it might not be necessary to remove these covers, this was simply done in order to prevent from scratching or damaging the side covers while removing the gas tank):

1. Remove the front seat and locate the two push-pin fasteners securing the side covers.
2. With a small object, press firmly on the center portion of the two fasteners and remove.





3. In addition to the two (2) push-pins, the frame side covers are held in place by one (1) external screw and four (4) internal rubber hook type fasteners on each side.

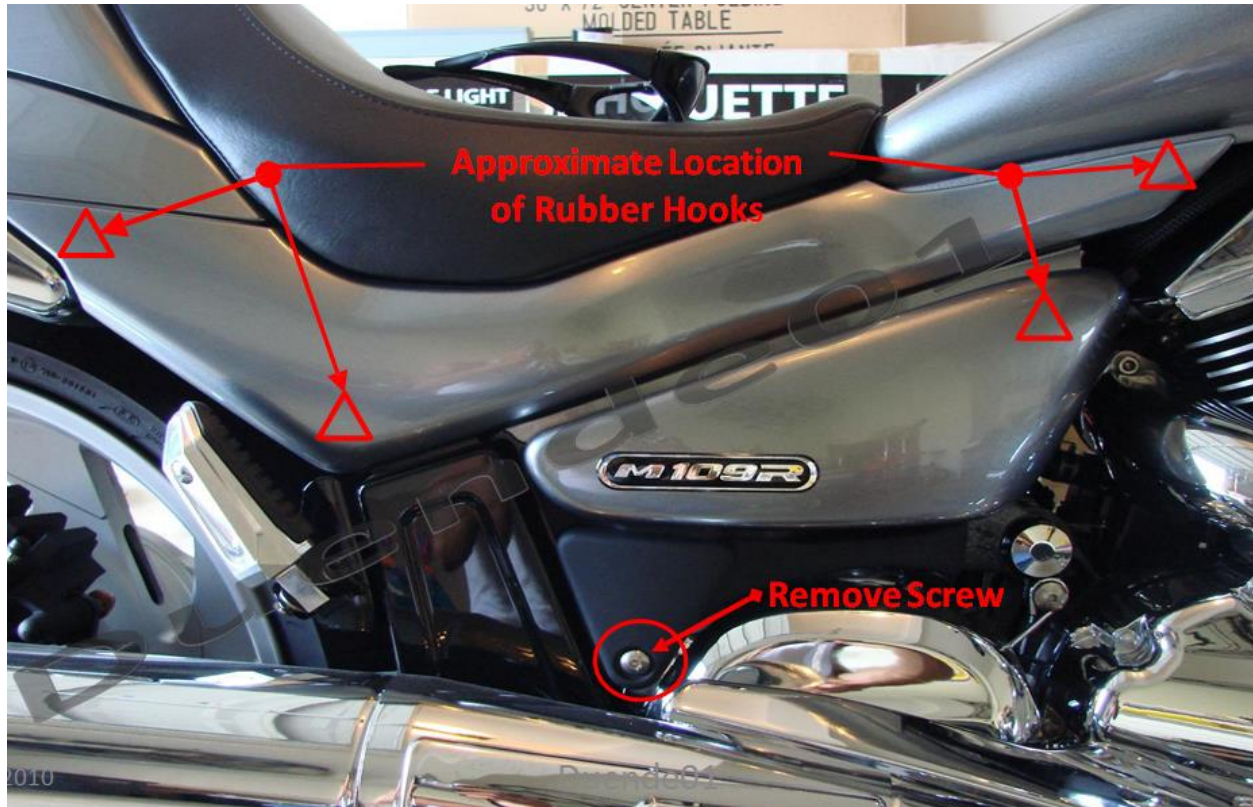
LEFT SIDE





4. In addition to the two (2) push-pins, the frame side covers are held in place by one (1) external screw and four (4) internal rubber hook type fasteners on each side.

RIGHT SIDE

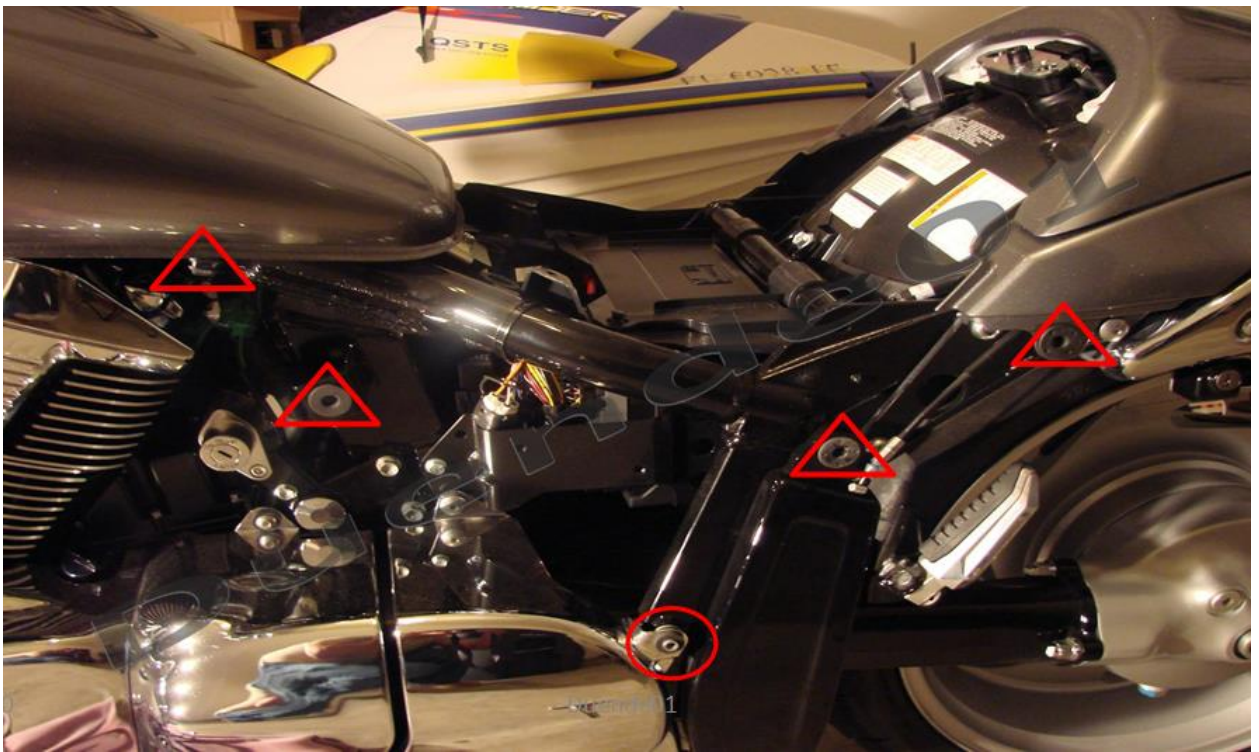




5. Once the screws and the push-pins have been removed on each side, you can start pulling each cover individually. Starting on the rear corner of each cover (closest to the chrome piece of the rear fender). Proceed to firmly pull cover away from the frame while paying attention at each rubber hook location. These covers will not break, so don't be afraid to pull.

LEFT SIDE COVER REMOVED

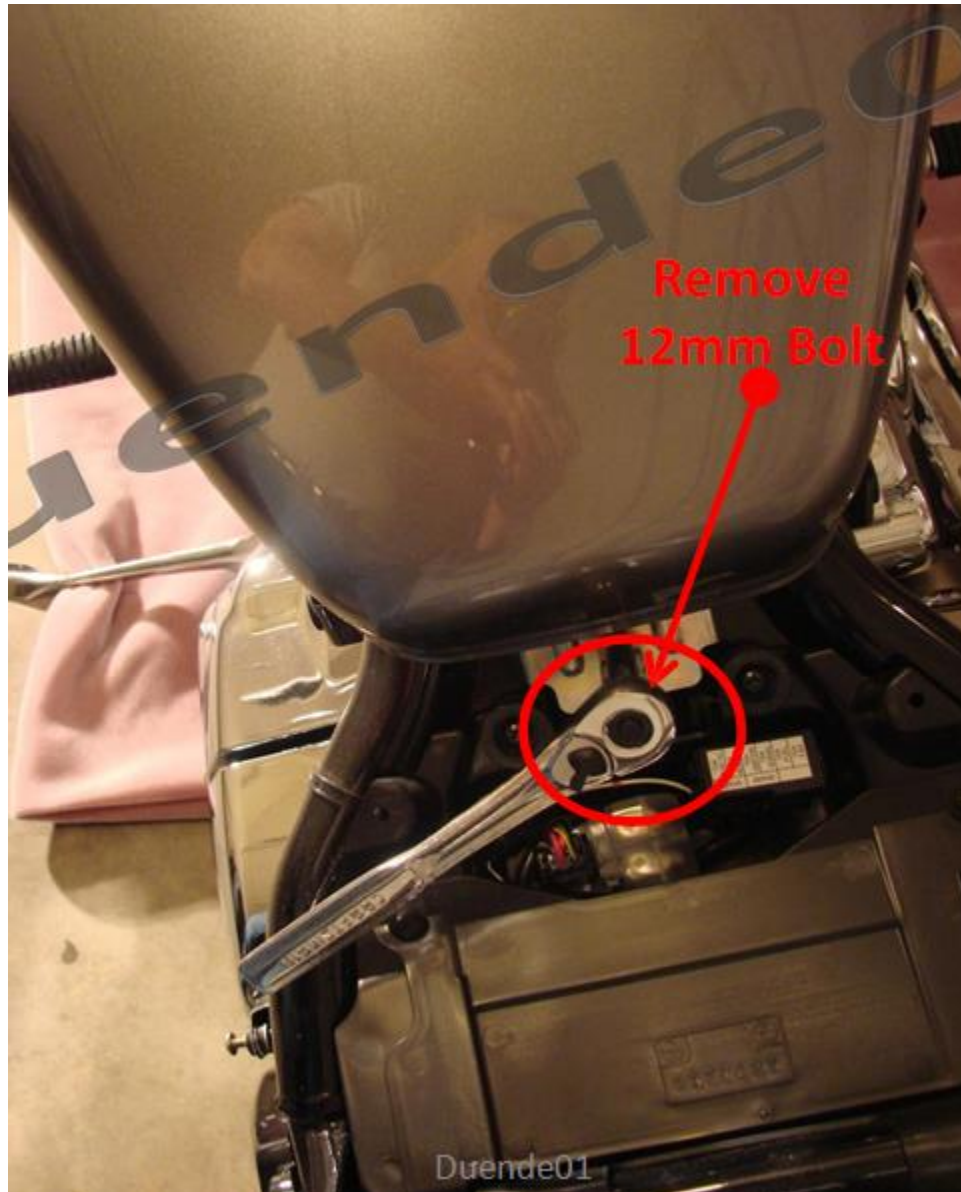
(this should give you an idea how these covers are held to the frame)





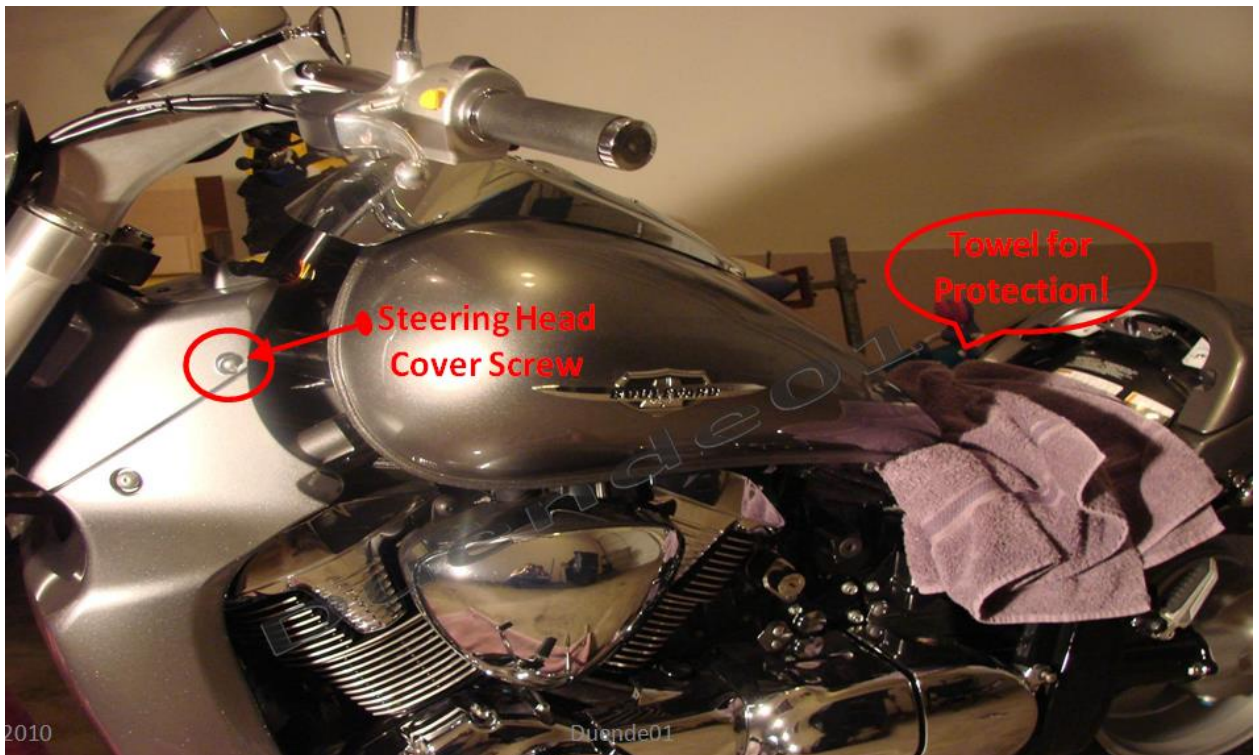
REMOVE THE GAS TANK:

6. Using a 12mm socket remove the gas tank rear mount bolt.



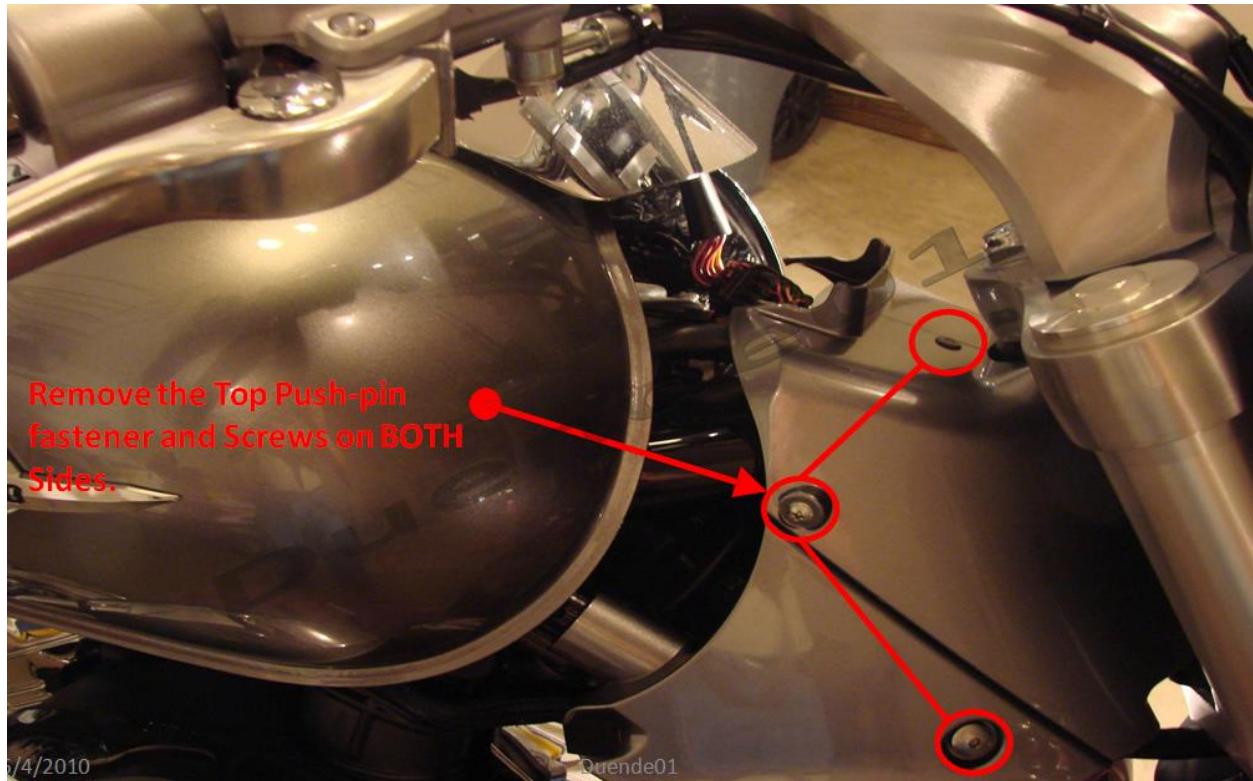


7. To prevent cosmetic damages to the gas tank, place some protection such as a towel on the frame on top of the battery compartment.
8. Using extreme caution, lift the tank up and slide back approximately 3 to 3.5 inches just enough to expose the screws on the steering head covers.



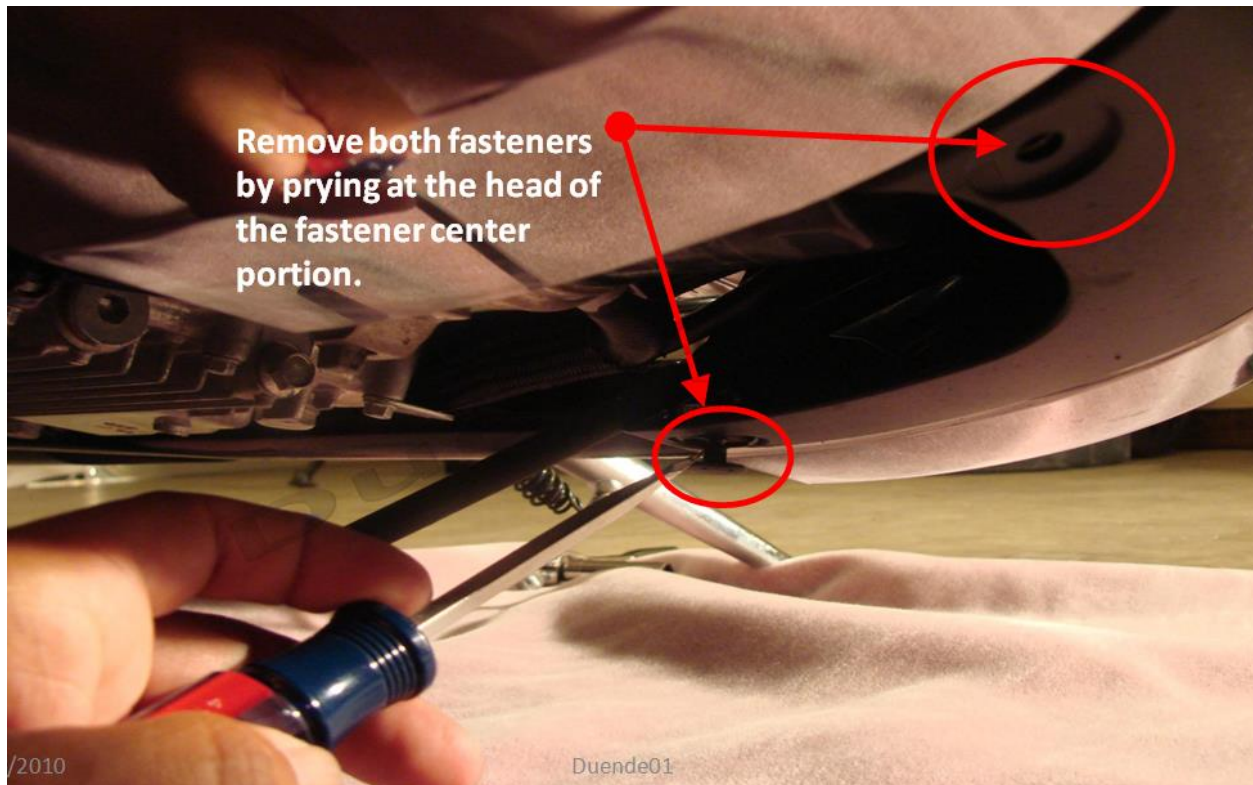


9. With the gas tank out of the way and the steering head cover exposed, proceed to loosen up the steering head-cover and radiator cover by removing the top push-pin fastener and all screws on both sides.



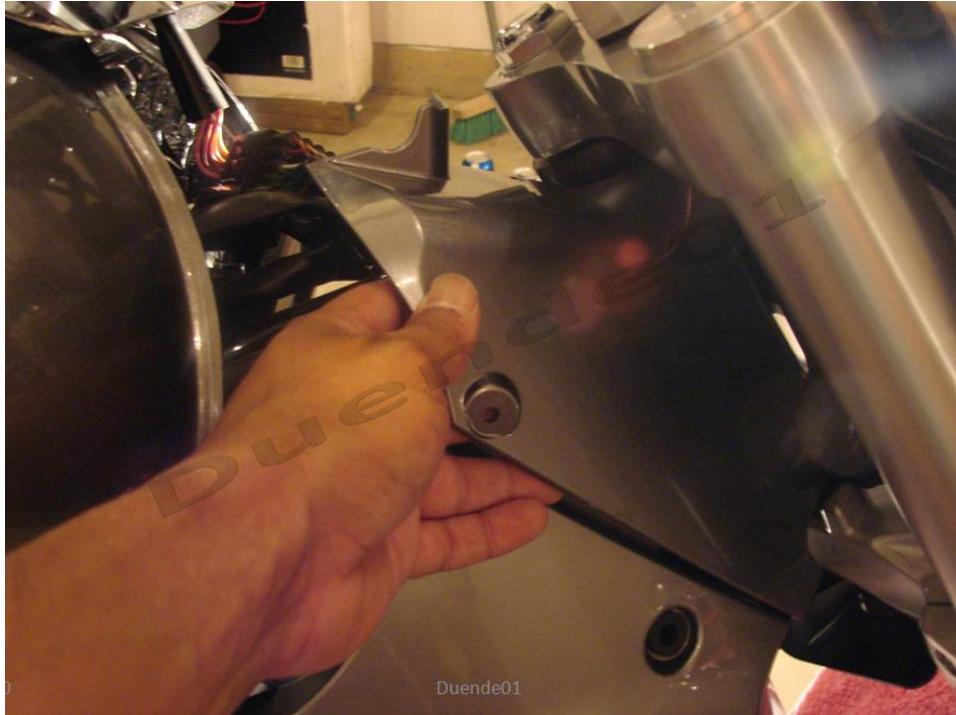


10. Using a “Flat-Head” screw-driver, remove the two fasteners found on the bottom of the radiator cover by prying at the head of the fastener’s center portion (I don’t believe this to be absolutely necessary --you can try separating the top of the radiator cover and pulling it towards the front fender in order to get the proper clearance to secure the engine guard to top portion of the motorcycle frame).





11. Remove both steering head covers by separating them from each other and from the frame of the motorcycle.





*** NOTES ***

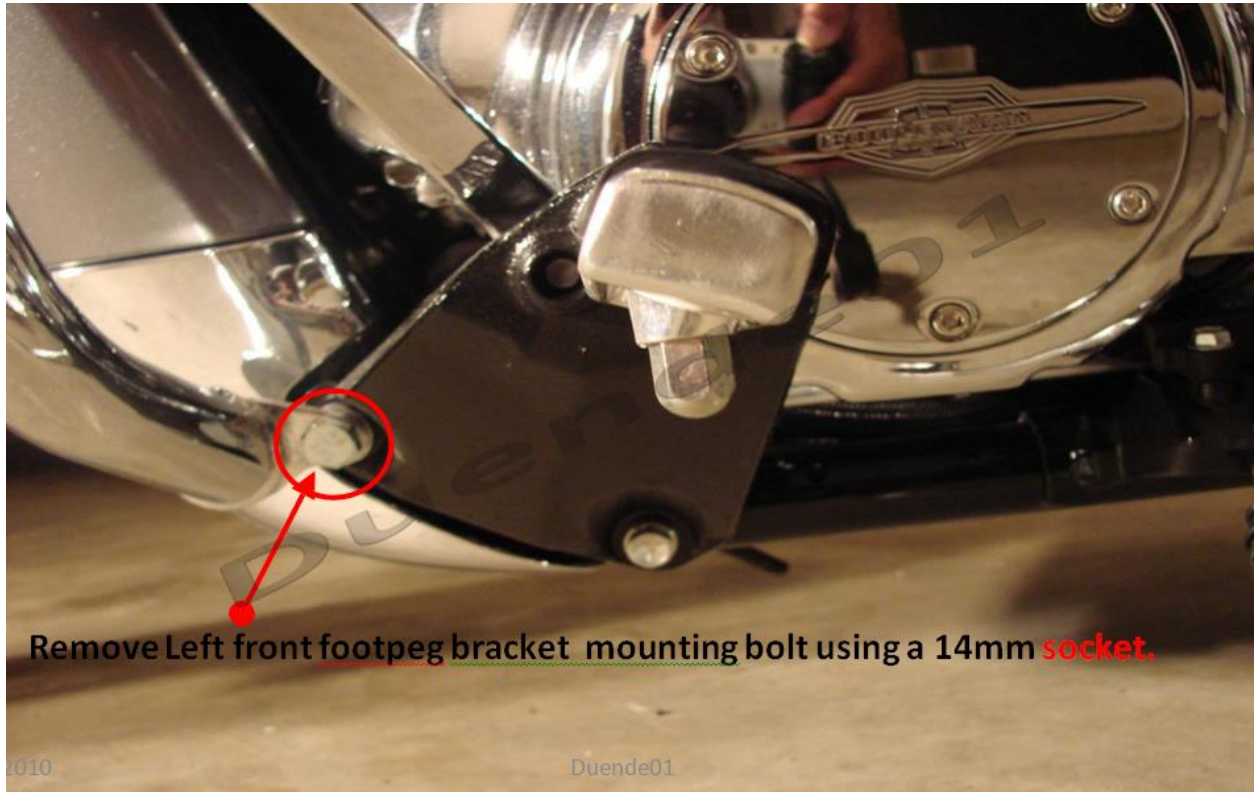
While the original instructions were somewhat pretty straight forward, of course, other than the crappy black-and-white pictures, this is where I deviated a bit from the instructions provided, and it worked out just fine. Of course, I cannot guarantee that it will work out the same for you, but you might give it a try.

According to the original instructions you are to start installation on the right side. They also suggest that a "Scissor Jack" and a "Flat Block of Wood" be placed under the oil pan area to support the engine during installation. Well, I started on the left side and did not use the "Scissor Jack" or the "Flat Block of Wood."



LEFT SIDE Installation: (Original Instructions as Follows)

12. Remove the left front footpeg bracket mounting bolt using a 14mm socket.





LEFT SIDE Installation (Cont.): (Original Instructions as Follows)

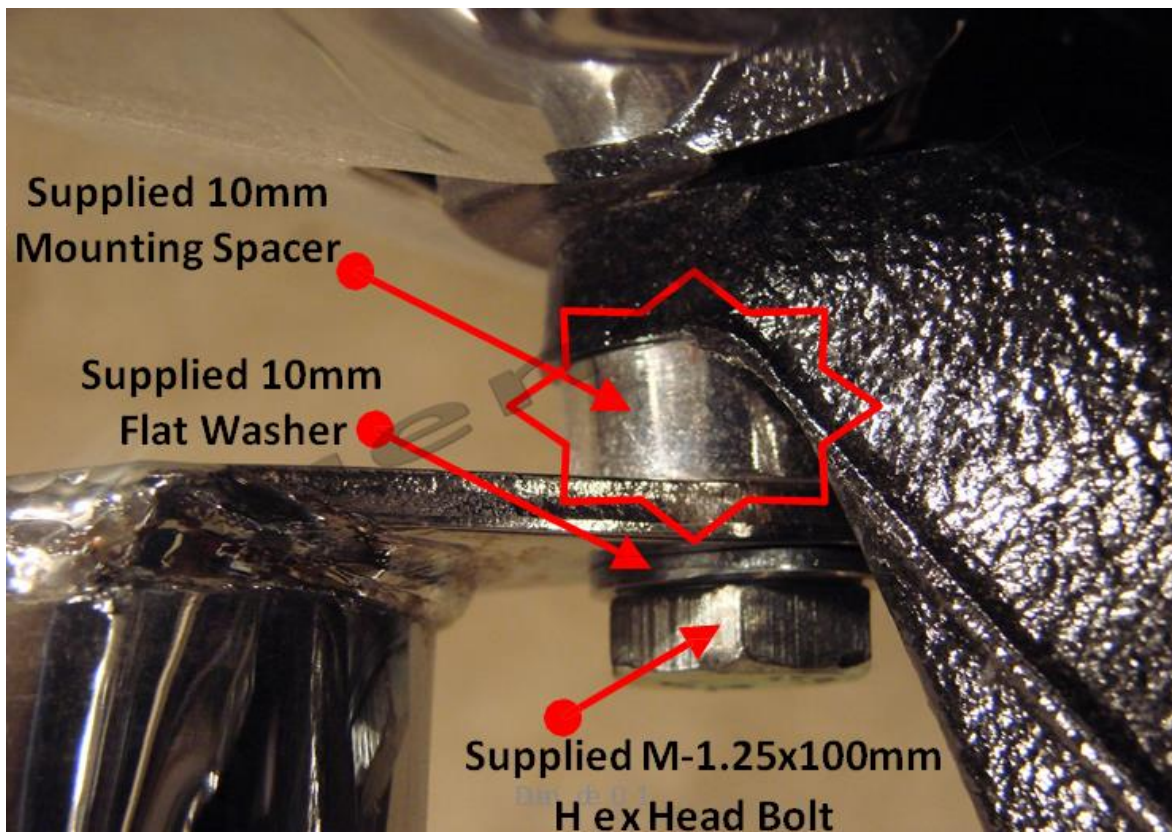
13. Locate the pre-drilled hole found at the top of the frame and insert the supplied M8-1.25x60mm hex flange head bolt through the upper mount of the left engine guard, and loosely start the wedge tube/nut on the exposed threads of the bolt. (See Figure #6 of the original mounting instructions). Slide the upper mounting tube assembly into the boss on the motorcycle frame but do not tighten the bolt.





LEFT SIDE Installation (Cont.): (Original Instructions as Follows)

14. Place the supplied 10mm mounting spacer between the lower engine guard mounting bracket and the front footpeg mounting bolt location. Secure the engine guard mounting bracket and spacer to the frame using the supplied m10-1.25x100mm hex head bolt and 10mm flat washer. (See Figure #7) or picture below.





LEFT SIDE Installation: (Cont.)

15. Once you have installed both, the top and bottom ends of the engine guards utilizing supplied hardware, tighten everything to the specifications given in the original instructions, or as follows:

- Lower Left: MUST be tightened to 50 N.m (36 lb-ft)
- Upper Left: Tighten to 23 N.m (16.5 lb-ft)
- Lower Right: MUST be tightened to 60 N.m (43.5 lb-ft)
- Upper Right: Tighten to 50 N.m (36 lb-ft)





RIGHT SIDE Installation: (Original Instructions as Follows)

15. Remove the right front footpeg bracket mounting bolt using a 14mm socket.





RIGHT SIDE Installation: (Original Instructions as Follows)

16. Using the supplied M10-1.25x40 socket head bolt add one 10mm flat washer, install the engine guard lower mount to the footpeg bracket, but do not fully tighten yet.



Supplied M10-1.25x40 socket head bolt and one 10mm flat washer.



RIGHT SIDE Installation (Cont.): (Original Instructions as Follows)

THIS STEP IS **NOT** PICTURED:

17. Locate the pre-drilled hole found at the top of the frame and insert the supplied M10- 1.25mm hex head bolt and one supplied 10mm flat washer, install the upper engine guard mount to the boss of the motorcycle frame using the supplied M10-1.25mm hex nylon nut on the inside of the boss.
18. Fully tighten engine guards bolts as previously

Noted and as follows:

- Lower Left: MUST be tightened to 50 N.m (36 lb-ft)
- Upper Left: Tighten to 23 N.m (16.5 lb-ft)
- Lower Right: MUST be tightened to 60 N.m (43.5 lb-ft) Upper Right: Tighten to 50 N.m (36 lb-ft)

YOU ARE DONE!

NOW BEGIN THE REASSEMBLE PROCESS:

Reverse steps 1-10 to completion and enjoy.

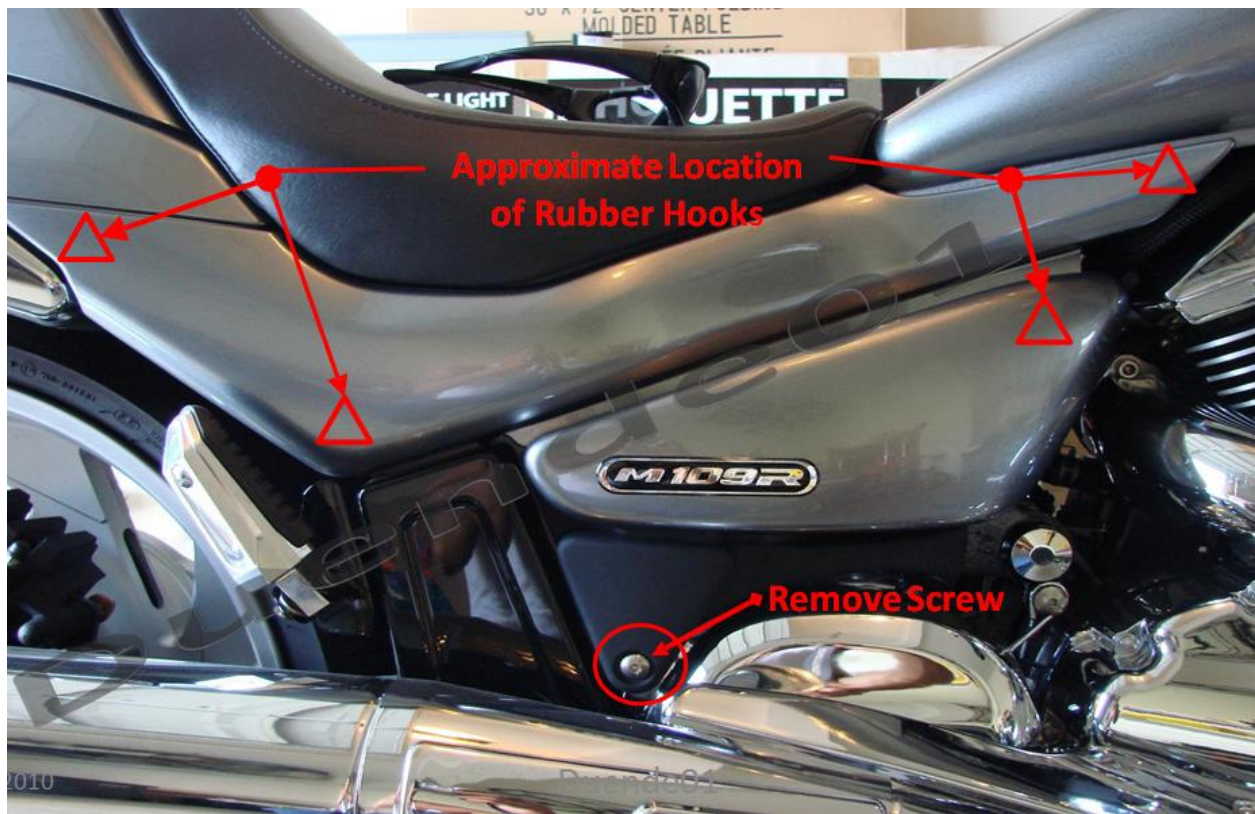


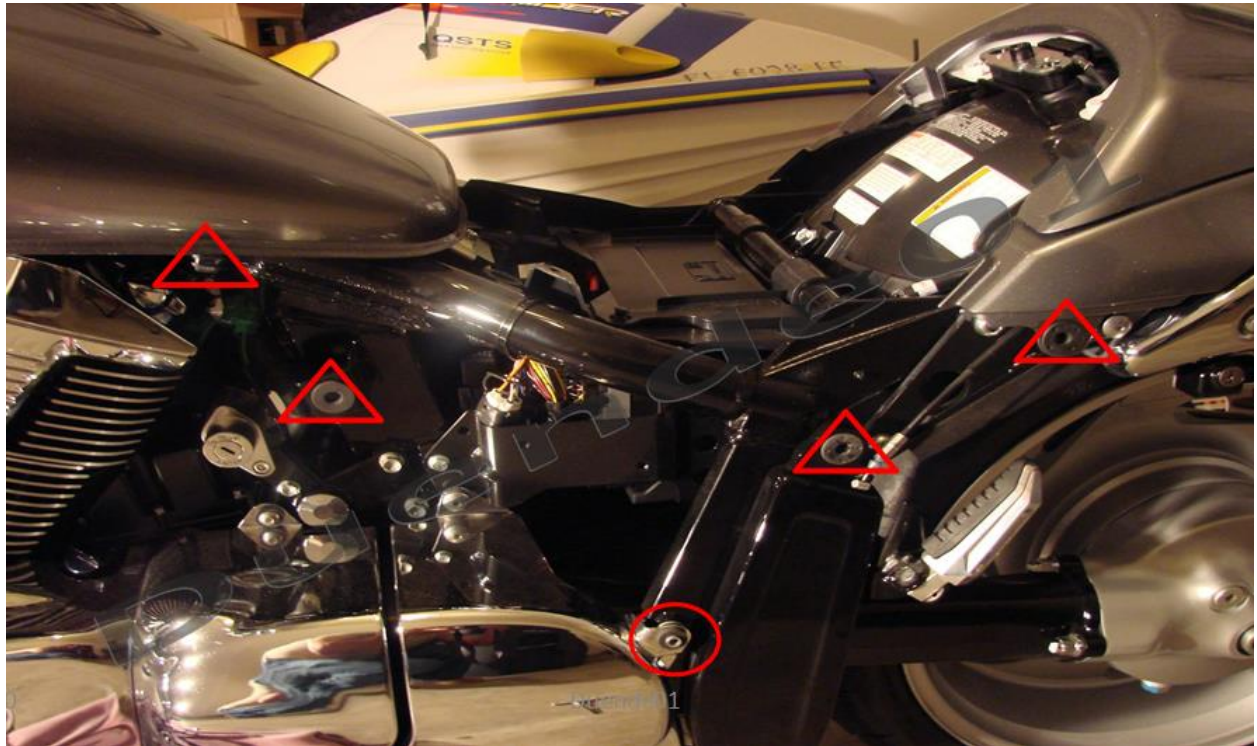
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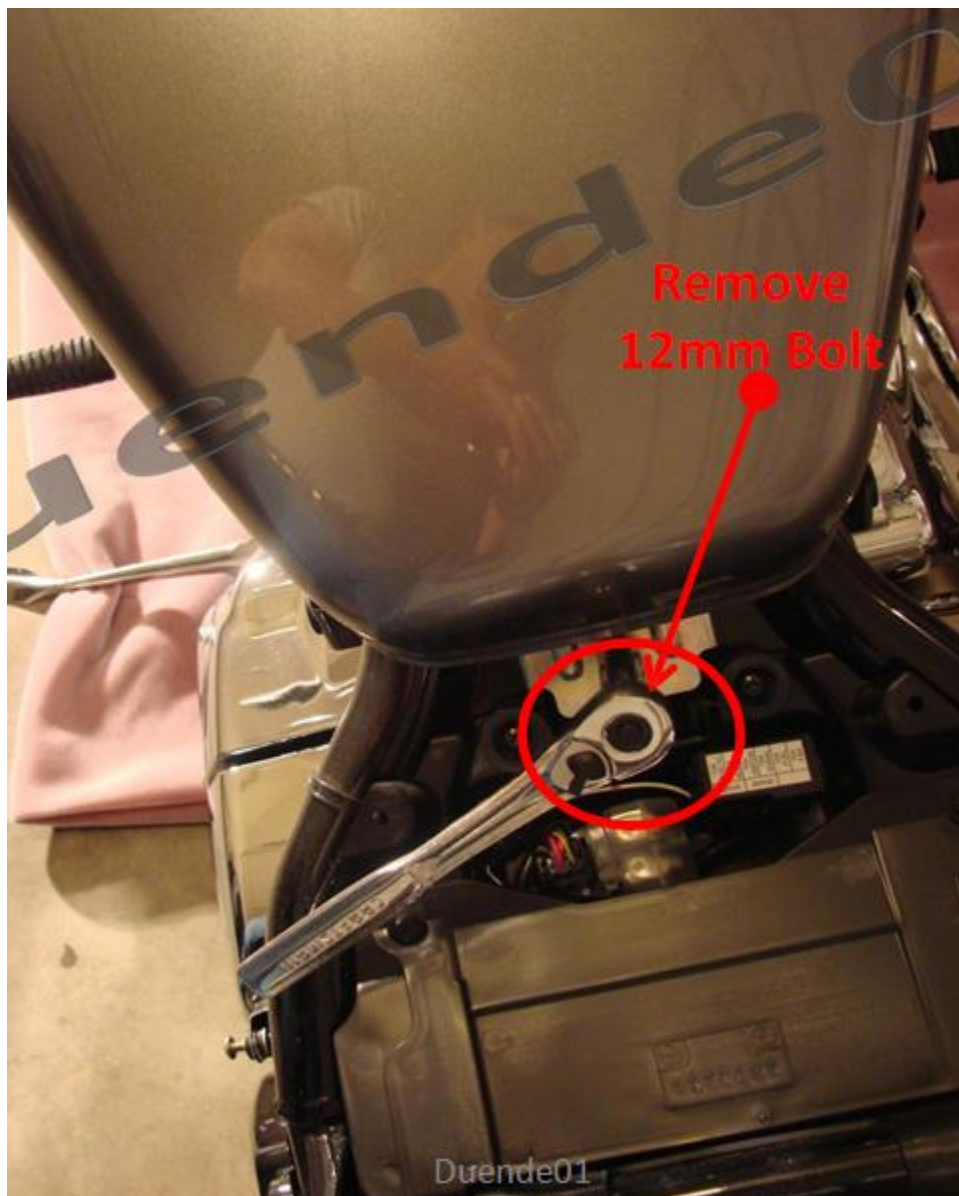


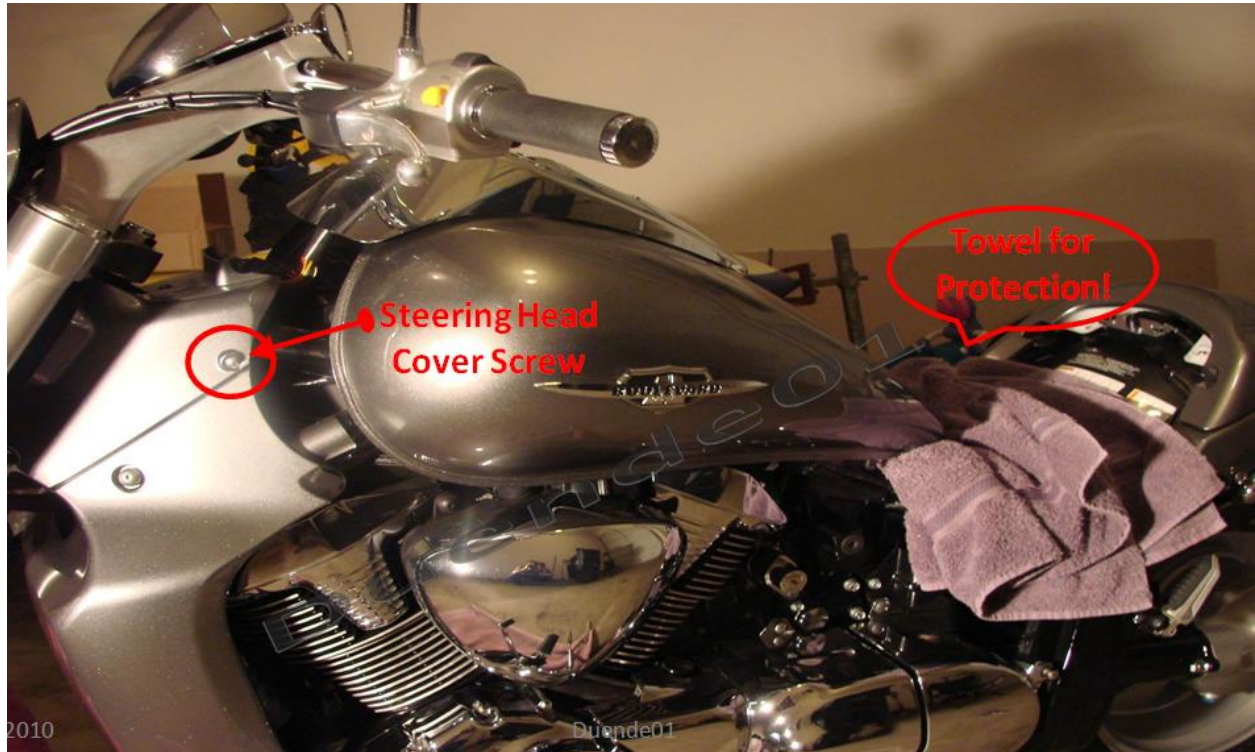


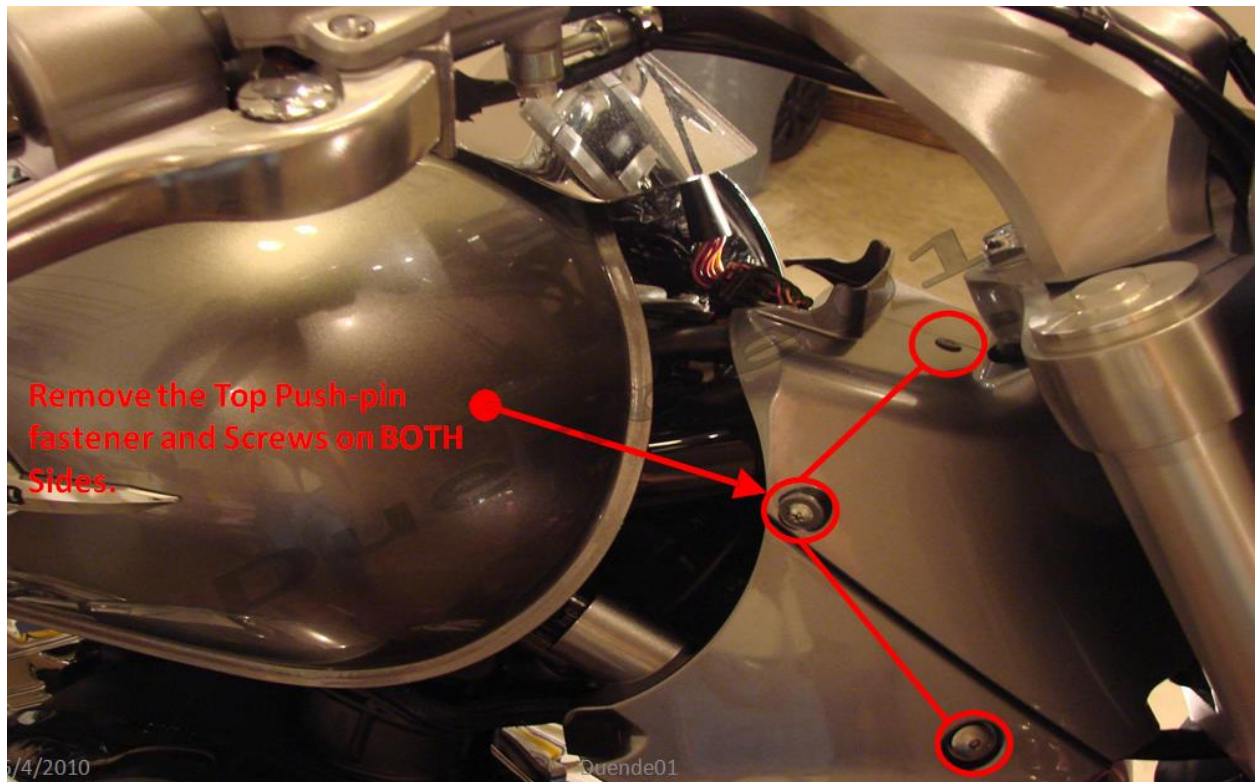


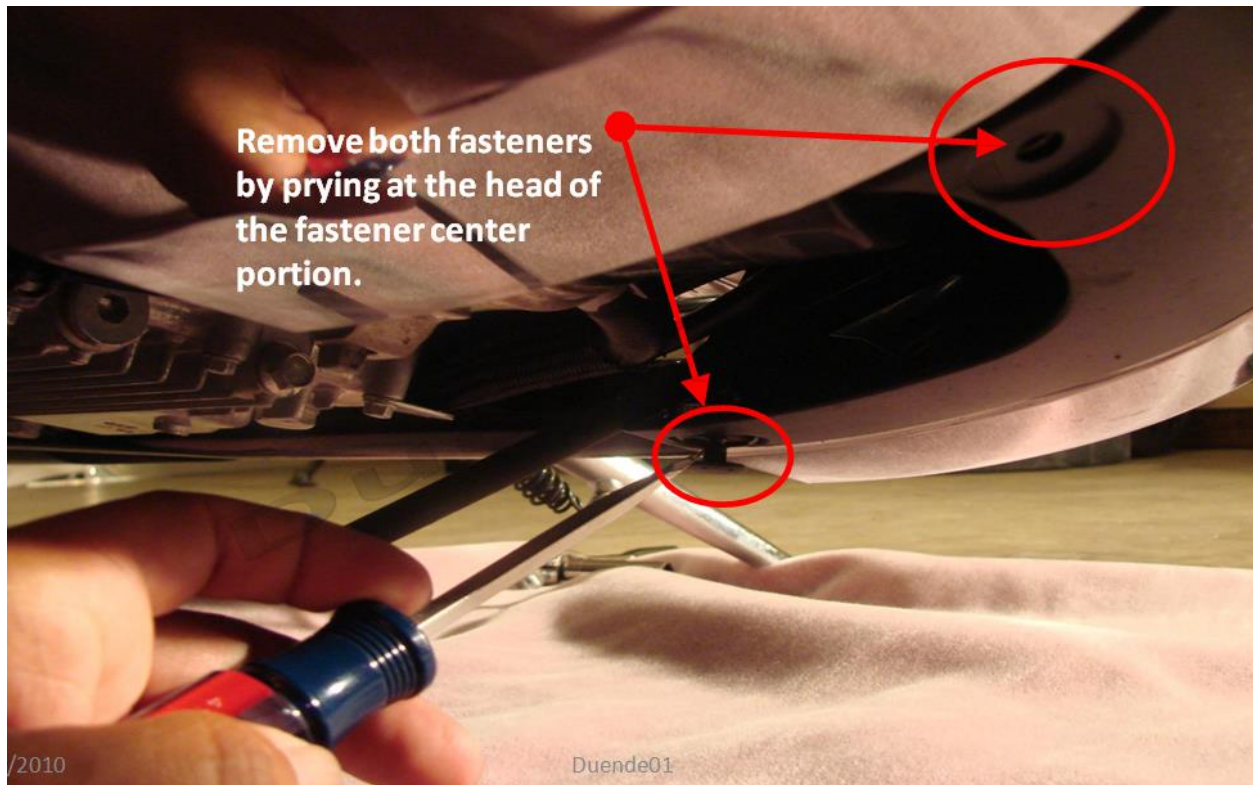


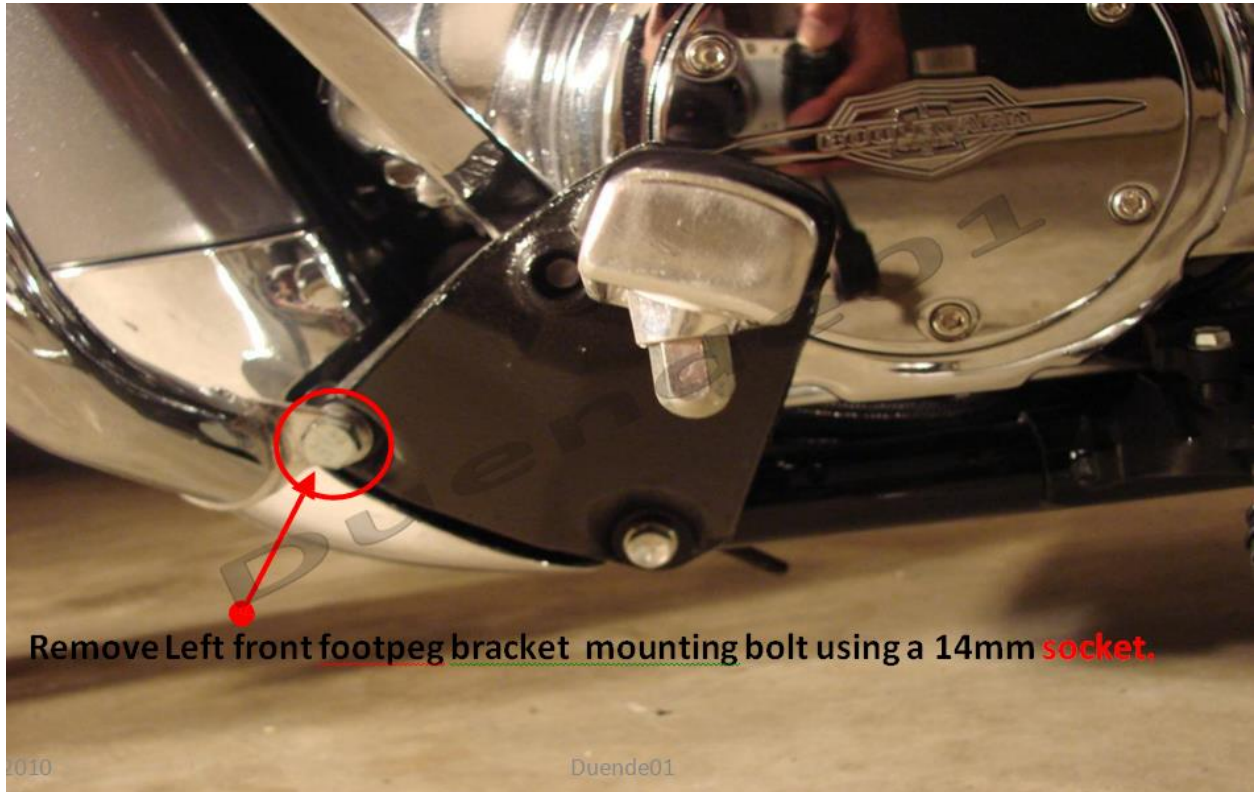




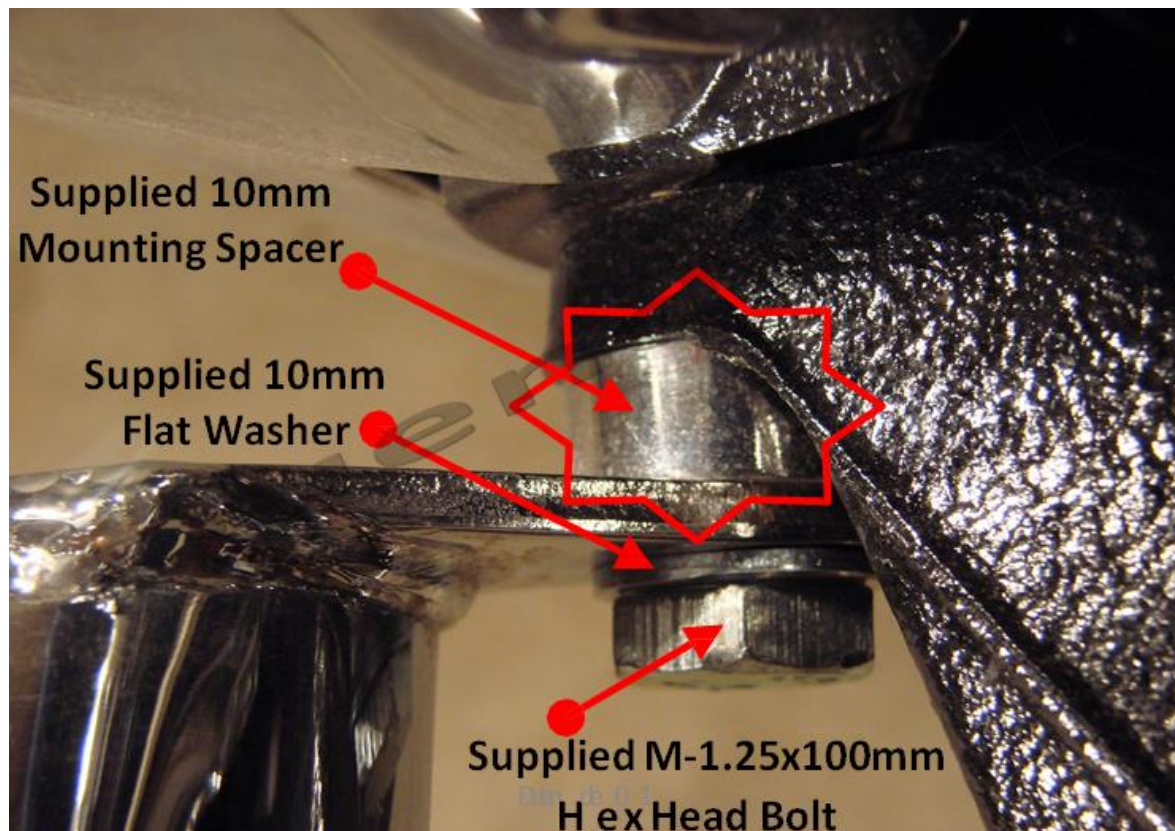




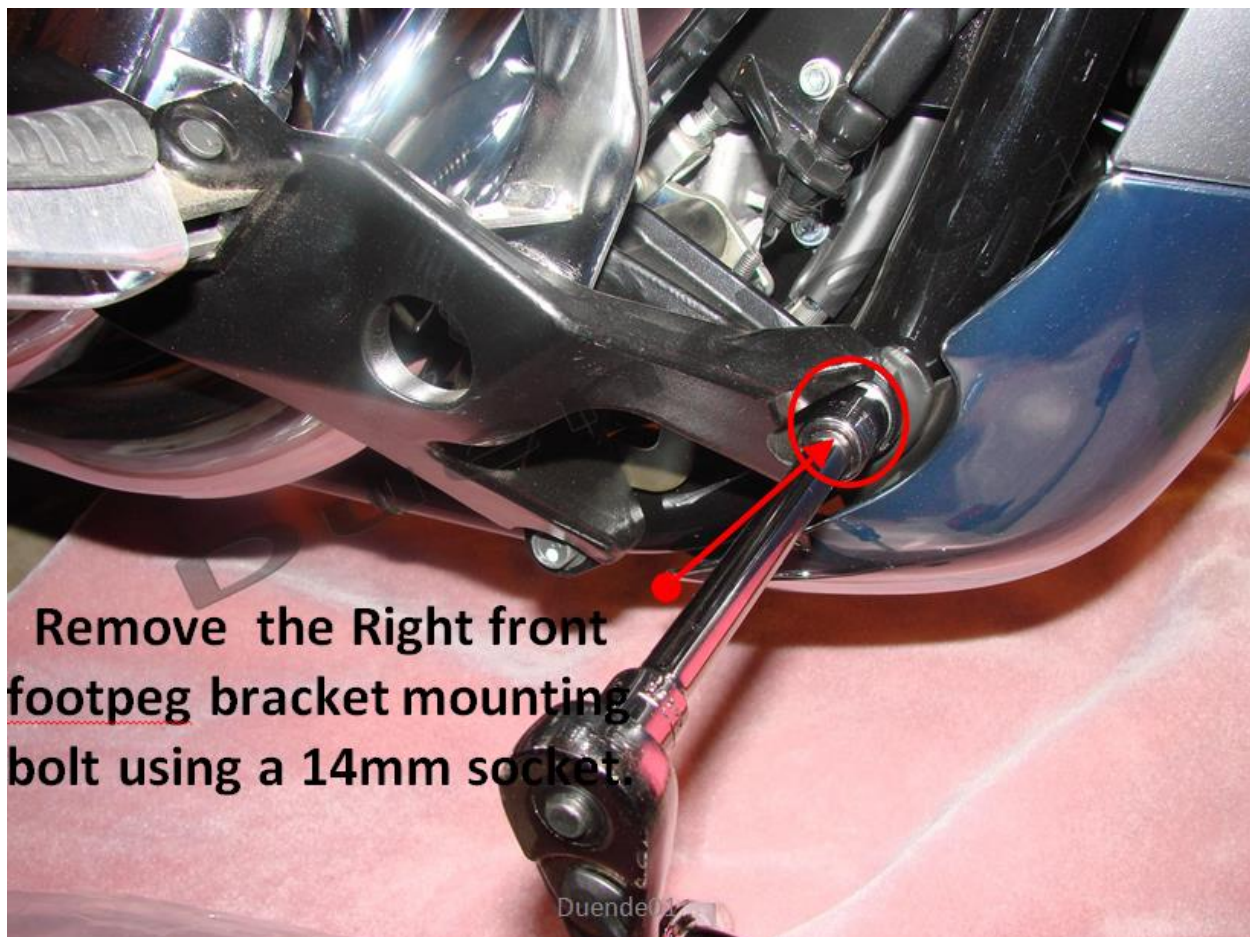












**Remove the Right front
footpeg bracket mounting
bolt using a 14mm socket.**

