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### Fuel Filter Changing

1. The black plastic powerstroke cover on the engine does not have to be removed but it makes changing the fuel filter much easier.
2. Using a 13mm socket, remove the two plastic coated nuts holding the black cover on the engine.
3. Remove the black cover from atop the engine.
4. Replacing the fuel filter is easier if the filter bowl is purged of all fuel. See "Water Purging" in the next section for instructions.
5. Once the filter bowl is purged of all fuel use a strap wrench, pair of channel locks, or a fuel filter removal tool to remove the filter lid by turning counter-clockwise.
6. Firmly grasp the filter in the filter bowl and pull straight up to remove the filter.
7. Also ensure that the old o-ring was removed with the filter and also remove the bevel gasket from the outer edge of the filter bowl.
8. Make sure the tub is clean and free from debris.
9. Remove the new filter from the bag and place the new o-ring around the filter in the groove and drop in filter bowl. Firmly push the filter to the bottom of the filter bowl.
10. Place the new bevel gasket on the outer edge of the filter bowl and make sure that the bevel is facing up.
11. Now screw the black plastic lid onto the filter bowl clock-wise until hand tight. Using a strap wrench, pair of channel locks, or fuel filter tool tighten the lid down.
12. Replace the black plastic powerstroke engine cover and replace the 13mm plastic coated nuts. Using the 13mm socket tighten the nuts down.
13. Make sure that the fuel filter drain valve is closed.
14. Insert the key into the ignition and turn to the ON position. Do not start the truck yet. Let the fuel pump run for 20 seconds and then start the truck. This will ensure that the fuel pump primed the filter bowl full of fuel and the engine will start much easier.

### Water Purging

1. The black plastic powerstroke cover on the engine does not have to be removed but it makes purging the water much easier.
2. Using a 13mm socket, remove the two plastic coated nuts holding the black cover on the engine.
3. Remove the black cover from atop the engine.
4. On the backside of the fuel filter bowl there is a yellow lever that drains the fuel from the filter bowl. Locate the 5/16" steel tube running towards the passenger's side from this lever. Place a piece of 5/16" diesel-rated fuel hose on this steel line and route to a collection container (mason jar, clear fuel bottle).
5. Turn the lever to open the fuel drain and let the fuel drain out and into the fuel collection container.
6. If you desire to drain more fuel the key can be inserted into the ignition and turned to the ON position. This will turn the fuel pump on for 20 seconds and draw more diesel out of the tanks and purge the fuel lines of contaminated fuel (water, algae).
7. A quick inspection of the fuel filter and filter bowl will allow you to determine if the filter needs changing due to contaminated fuel.
8. Replace the black plastic powerstroke engine cover and replace the 13mm plastic coated nuts. Using the 13mm socket tighten the nuts down.
9. Make sure that the fuel filter drain valve is closed.
10. Insert the key into the ignition and turn to the ON position. Do not start the truck yet. Let the fuel pump run for 20 seconds and then start the truck. This will ensure that the fuel pump primed the filter bowl full of fuel and the engine will start much easier.