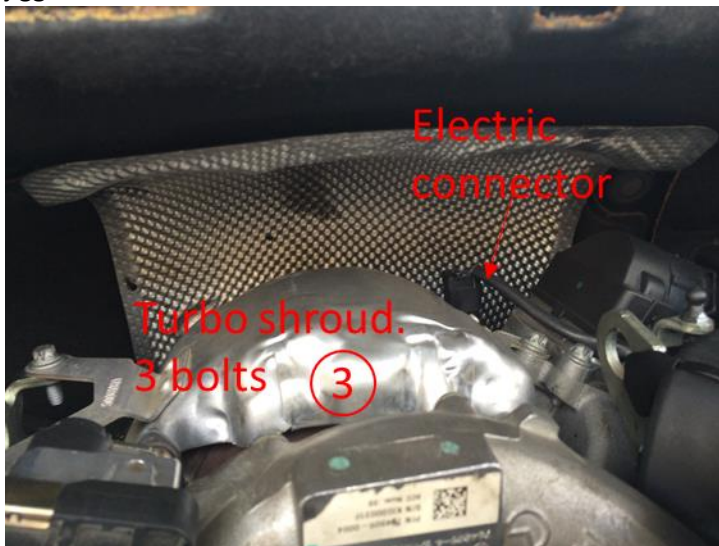


Sorry guys, I did not take any pictures. Job took me a total 18 hours...i had to figure stuff out. Pictures from this thread are pretty good. I will just share my learning's. If you not done any major repairs in the past, you made want to makes notes as you remove parts. I tried to take a few shortcuts but in the end you have to remove a lot of items. I could have saved at least 2 hours. Sounds daunting but take your time. Check out this thread as well (<http://mbworld.org/forums/m-class-w164/490076-2008-ml320-cdi-oil-cooler-seals-replacement.html>), I pulled two pics from here.

Some additional tips here:

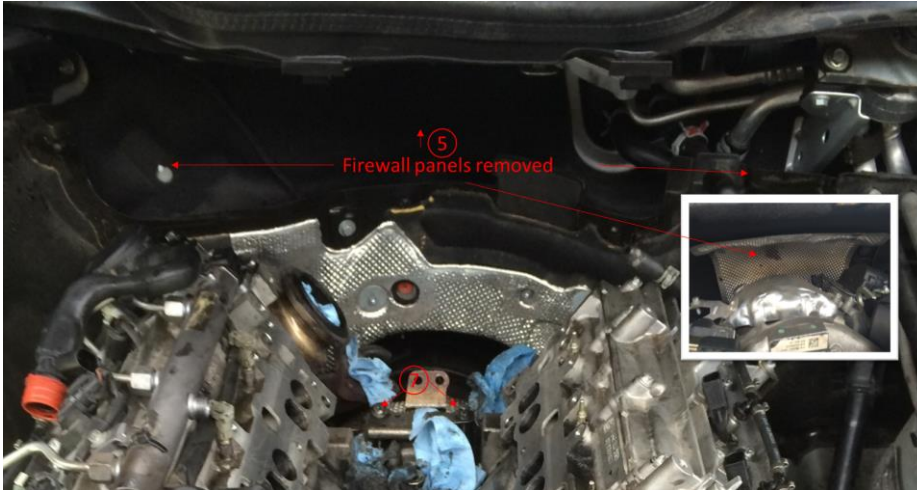
1. Drain some coolant. I just took of the plastic covers from below the engine,,, about 10 bolts. Find a two inch coolant pipe on the right side and remove this.
2. Air intake pipe. I always loosen the air filter housing (take of the two bolts on each housing) and pull it back. Air intake pipe is a lot easier to remove this way.
3. Remove the turbo shroud. Remove the electrical connector on the EGR and you may have to jiggle a little.



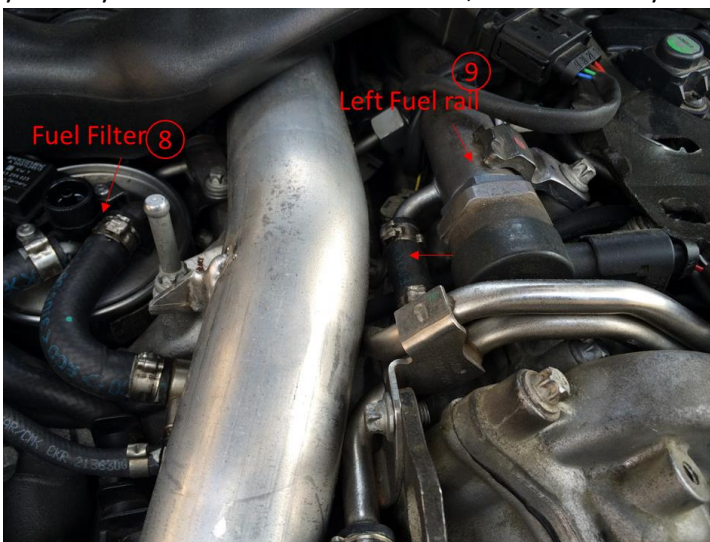
4. Remove the exhaust outlet elbow. Three bolts on the turbo and the clamp. Just jank hard it will come off. Now you have a little more space to work.



5. Remove the firewall panels. One behind the turbo and the two for the air filter housing. Give you a lot of space to work.



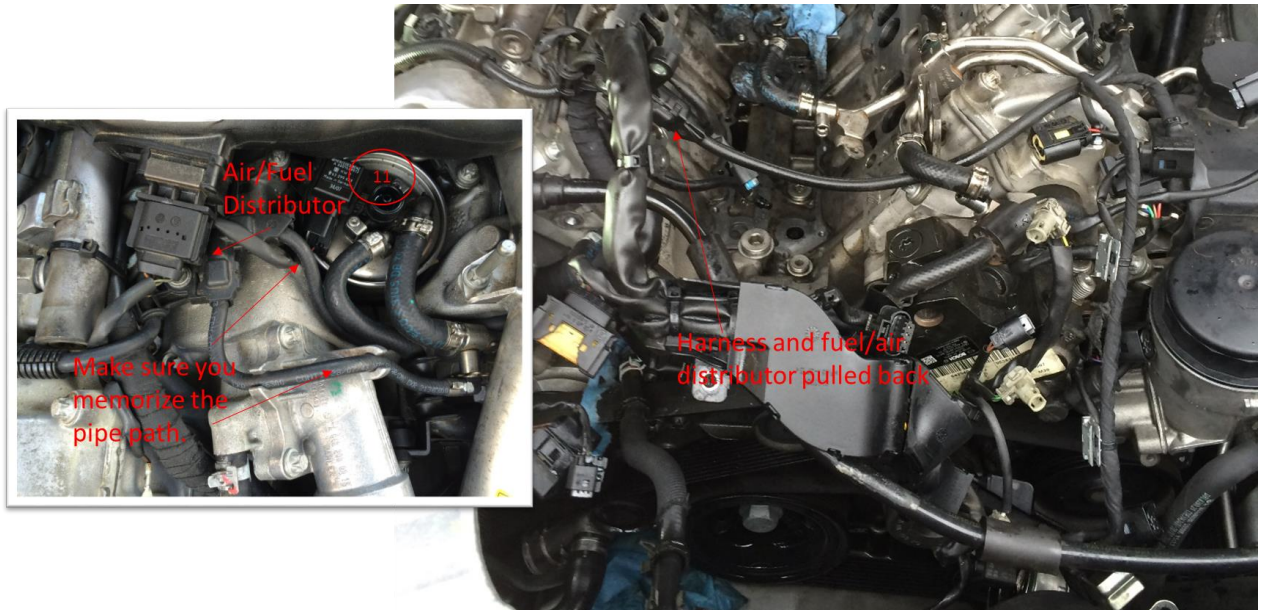
6. Now you can start removing the bypass to the EGR and exhaust manifold bolts. I used 3/8 torx sockets and swivels as required. Make sure they are snug on the bolts. Surprisingly easy to remove but don't get too lax here.
7. There is a bracket that holds down the turbo on the back. You can use a long extension and remove the bolts from the top – these bolt directly into the engine block. I made the mistake and took the one from the back. This was a PITA, took me two hours. Finally used long extensions over the tranny (almost two feet) and they came loose with a breaker bar. Save time here. See picture above
8. Now you can start removing other items. Remove the fuel filter, air filter housing other obvious stuff. Fuel filter pipes, use the right tool to remove the click clips. I just use a pincer plier and small screwdriver.
9. Remove the left fuel rail pipes. Not an easy task. The pipes need a metric 18 wrench. I took a ring and cut a slit. Difficult part was taking of the little bypass hose for the fuel pipes. Just work your way from the end of the fuel lines, don't force anything.



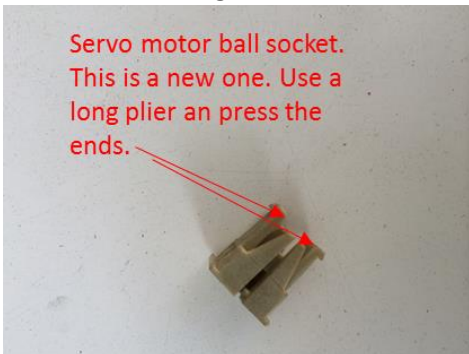
10. Remove radiator hose, silver pipe from turbo, inlet pipes etc. These are obvious on how to remove. I took of the glow plug module...just makes like easy.



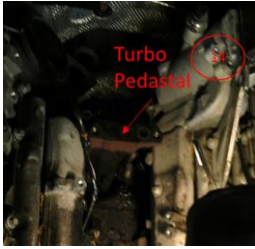
11. There is a black fuel/air distributor on the top of the left manifold. I did not remove the clamps, just the circlip. Once you take left rail just pull the distributor, pipes and electrical harness forward to gain access. There may be some cable ties to cut off.



12. Your choice when at what point you pull the turbo off. I did when it made sense. Remove, the 2 bolts that hold down the pedestal. And front bracket. Lift up move it back a little and pull it out.
13. Remove the butterfly servo. The linkages are held by "ball sockets". Use a long nose plier to press the lugs that you see. Press them hard enough....don't worry if they break. I preferred this, avoid other damage. Remove the servo.



14. Remove the turbo pedestal. Make sure you plug all the oil holes, exhaust, manifolds etc. You don't want to drop anything into the holes.



15. Remove the inlet manifolds bolts, lift up and separate. There is a water connector pipe. It will separate when you lift out the manifolds.
16. You can clean up the area, and just remove the oil cooler bolts and remove. I always loosen all the bolts $\frac{1}{2}$ a turn, then remove.
17. You are now in business to clean your parts. The dirtiest part, wear decent gloves. I just used gasoline and rinses. I did not take pictures of all the gunk and soot. Search for these.
18. Assemble in reverse order.

Additional notes.

- a. The plastic rail on the left manifold that connects to the servo opens the butterfly shows ware on the hole in the rear (servo end). I guess this is so because the servo pivots on this. You cannot buy a rail. I just popped the pins that hold it and flipped it around. Should give me more life.
- b. Make notes and take pictures of the bolts. Some short ones need to go into specific areas.
- c. Check you electrical connections. I missed the turbo one, started the car and it threw all sorts of codes.
- d. When installing the left rails and fuel pipes plus pipe for the air/fuel distributor, make sure the pipe is threaded correctly. **I messed up here.**
- e. When I started the car, it cranked for a while without starting. I just sprayed started fluid in the intake. It fired up and was fine as soon as it build fuel pressure.
- f. Attaching the parts list as well. Not included here is the rings for the water connector pipe between the manifolds.
- g. Attached pictures I took.

Good luck. PM me if you start and get stuck in the process, I can help.