

## 2017-2022 L5P Duramax Billet Exhaust Manifolds

Covers installation of PN: WCF100373

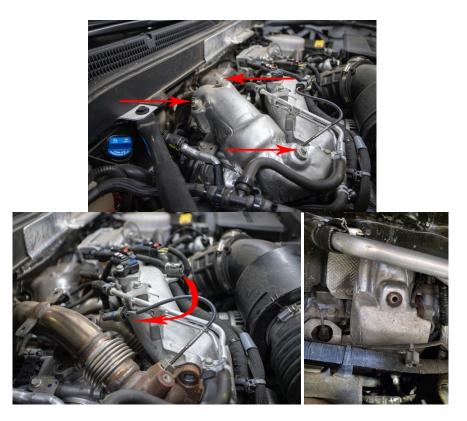


- 1. Disconnect the batteries.
- 2. Remove both front fender liners.



## On the Passenger Side:

- 3. Remove air intake (Instructions available at wcfab.com).
- 4. Remove heat shields from exhaust manifold, lower section of the up pipe, EGR Valve pipe and the EGR pipe on the top of the engine for access.





Remove bolts from the passenger valve cover heat shield and the foam insulator to allow for access to the up pipe bolts at rear of exhaust manifold.



6. Remove the EGR valve and temperature sensor from the manifold. Push both up and tie up and out of the way.



- 7. Remove the down pipe (Instructions available at wcfab.com).
- 8. Remove 3 up pipe bolts at the exhaust manifold. Heat and working them back and forth helps prevent them from snapping. \*\*\*WARNING\*\*\* Extra caution may be needed because they are prone to breaking. Pre-soaking the bolts with penetrating oil prior to the install will reduce the risk of them breaking under pressure. There is also a replacement up pipe bolt kit available at wcfab.com (part# WCF100199).
- 9. Remove 8 manifold nuts and studs going into the cylinder head.
- 10. Slip the manifold up and out over frame rail.
- 11. Clean up the head mating surface for the manifold with a wire brush or something similar. Be sure not to damage the aluminum during this process.
- 12. To remove the up pipe gaskets, grind off rivets holding gaskets on the up pipes. Our manifolds do not allow for the use of factory gasket with rivets in place.
- 13. Install the new manifold with provided new gaskets and ARP bolts. Torque to 24 Ft/Lbs. Start at the center bolt and work your way out to the ends.
- 14. Bolt the up-pipe to manifold using the new gasket. We recommend using the ARP up pipe bolt kit. Factory bolt torque: 18 Ft/Lbs. ARP bolt torque: 24 Ft/Lbs.
- 15. Reinstall the down pipe.
- 16. Install the EGR valve to the manifold using factory bolts and studs with new provided gasket.
- 17. Reinstall the temp sensor.
- 18. Reassemble the truck by completing these steps in reverse. The manifold heat shields will not work with our manifolds and are not necessary.

## On the Drivers Side:

19. The steering shaft will need to be moved out of the way for manifold replacement. Secure the steering wheel so it will not rotate during shaft separation. This is typically done with the seat belt through the steering wheel, or rachet strap/bungee cord. Remove the bolt holding the steering shaft together. Slide the upper section of the steering shaft up towards the firewall. The upper part will slide out of the lower section. Lay the lower section on the engine mount to allow access. Don't turn the steering wheel or move the steering gearbox while this shaft is unhooked, or damage may occur.



- 20. Remove the driver side intercooler pipe from truck completely (Instructions available at WCFab.com).
- 21. Remove bolts from the valve cover heatshield/insulator to allow access to dipstick bolt underneath.
- 22. Remove the dipstick bolt from valve cover and remove the engine oil dipstick lower bolt. Bend the dipstick tube toward wheel gently to allow more room for the manifold after the bolts have been removed.



23. Remove the manifold heat shields.

24. Remove up-pipe bolts. The lower heat shield bolt may need to be removed and the shield may need to be tweaked to allow better access to the bolt. Heating and working them back and forth helps prevent them from snapping. Bolts are very prone to breaking depending on use and age of the truck.



- 25. Remove manifold nuts and studs going into the cylinder head.
- 26. Remove the manifold from the truck by lifting it up and over the frame rail.
- 27. Clean up the head mating surface for manifold.
- 28. Grind off rivets holding gaskets on to the up-pipes. \*\*Our manifolds do not allow the use of factory rivets on the up pipe gaskets.
- 29. Install the new manifold with provided new gaskets and ARP bolts. Torque to 24 Ft/Lbs.
- 30. Bolt the up-pipe to manifold using the new gasket. We recommend using the ARP up pipe bolt kit. Factory bolt torque: 18 Ft/Lbs. ARP bolt torque: 24 Ft/Lbs.
- 31. Reinstall up-pipe heat shield lower bolt.
- 32. Reassemble the truck by completing these steps in reverse. The manifold heat shields will not work with our manifolds and are not necessary.
- 33. It is best to start the truck cold with inner fenders off to listen for any exhaust leaks. After it is determined that there aren't any leaks, install the inner fender liners. This part has been ceramic coated and may burn off oils during the first few drive cycles, especially during a regen which may result in unusual smoke / odors from the installation area on the truck. This is completely normal and will go away after the first few heat cycles of the part.

Any Questions, Comments, or Feedback?

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Or the shop phone- 630-277-8239

Thank you for purchasing from Wehrli Custom Fabrication!