



Engine Runs Rough or Misfire on 2011-2016 Ford 6.7L Diesel Engines

The AERA Technical Committee offers the following information on a rough running or engine misfire on 2011-2016 Ford 6.7L diesel engines. This condition may not be noticeable 100% of the time and many do not realize a concern.

Some 2011-2016 F-Super Duty vehicles equipped with a 6.7L diesel engine may exhibit a runs rough/misfire condition only during the exhaust regeneration process. This condition typically occurs on light throttle tip in-between 40-70 Mils per hour and will not set diagnostic trouble codes (DTCs). The concern may be intermittent and a knocking noise may be present during the concern.

It appears this regeneration process may allow a condition that affects the exhaust valves ability to seal compression adequately. To repair this condition, the Ford Motor Company has authorized a repair of removing the left bank cylinder head and replacing all eight exhaust valves and seals. Upon inspection of the removed cylinder head and examination of the exhaust valves, some valves have cracked surfaces which allow a compression loss. It has also been reported that the cracking problem is not limited to the left bank cylinder head.

Ford has been changing part numbers of the original exhaust valve used, below is a list of the history of those part numbers

Ford Exhaust Valves for 6.7L Diesel

Part #	First Used	End Date
BC3Z-6505-A	2/22/10	7/25/11
BC3Z-6505-AA	7/25/11	3/17/14
CC3Z-6505-A	3/17/14	Unknown
CC3Z-6505-B	from 3/17/14	Still Current

Aftermarket suppliers of valves for these engines have not expressed concerns with the exhaust valves cracking with their product.

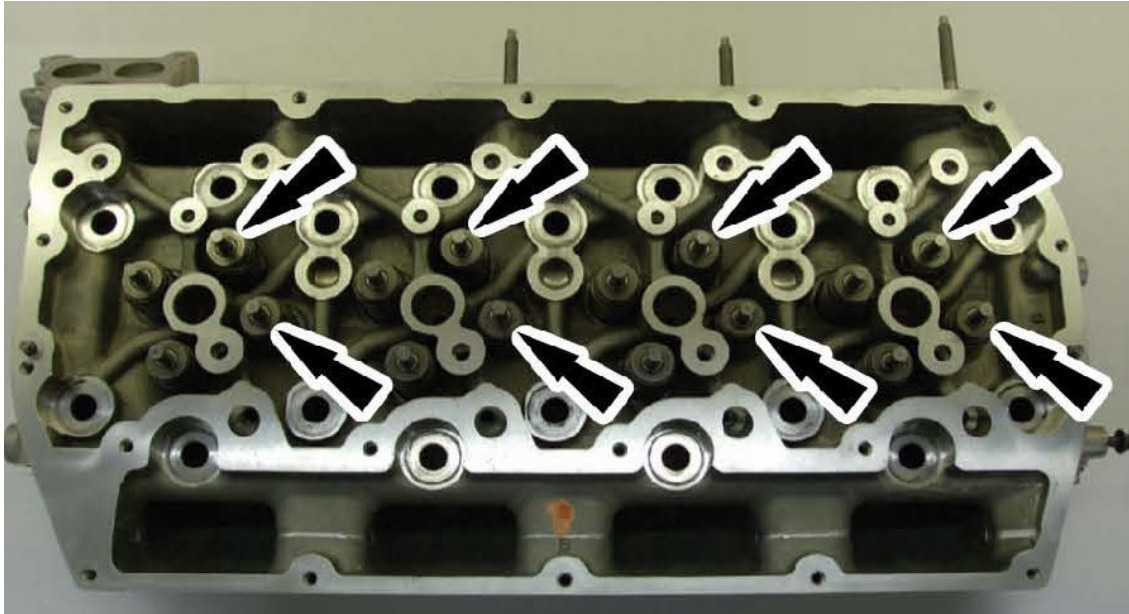


Figure 1. Exhaust Valve Locations