

FORD 6.0L POWER STROKE TECH BULLETIN – PREMATURE INJECTOR O-RING FAILURE

This bulletin addresses common issues encountered with the premature failure of the G2.8 injector oil seal or sometimes called the “D-Ring”

Problem / Complaint:

- Engine has a “Hard Start” or “No Start”
- Engine stalls when hot, won’t restart

Probable Causes:

Most likely causes are bad injector oil seals “D-ring” (Check Figure 1 Below)



FIGURE 1

Causes of Injector D-ring Erosion:

Leakage from hair line fractures in the Ball Tube

- Fractures propagate from the damage on the end of the Ball Tube (Check Figure 2)
- Fractures are typically visible (with magnification) on the inside diameter of the Ball Tube
- High pressure oil blast through the crack and erodes the D-ring from the inside

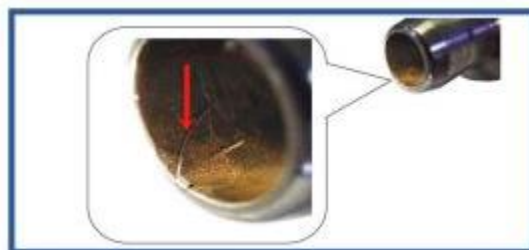


FIGURE 2

Leakage between the Ball Tube and Injector D-ring

- Installation damage to the D-ring from reuse of damage Ball Tubes.
- Poor D-ring to the Ball Tube Seal from reuse of worn Ball Tube (Check Figure 3)

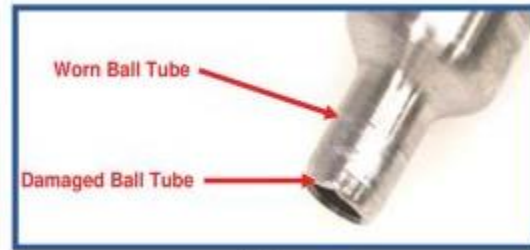


FIGURE 3

Leaking Ball Tube O-Ring

- Ball Tube O-ring flattens and hardens with age, allowing high pressure oil to escape past the Ball Tube O-ring, and blasting the top of the injector D-ring. (Check Figure 4)



FIGURE 4

Leaking between Ball Tube and Injector D-ring

- Installation damage to D-ring from misaligned Ball Tubes (Check Figure 5)

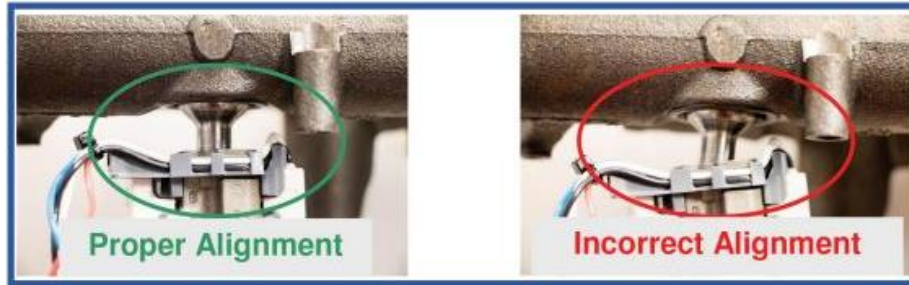


FIGURE 5

Recommendations:

- Replace Ball Tube and O-ring ([F60ORB-T-8](#)) when installing injectors
- Use clean engine oil to lube Ball Tubes prior to installation
- Ensure Ball Tubes are aligned properly when installing injectors.

Torque Specification:

- Ball tube Retaining Nut – 100 lb-ft (136 Nm)
- Injector Hold Down Screw – 24 to 26 lb-ft (33Nm)

Preventative Maintenance Schedule:

- Replace Engine Oil (15 Qts.) – 5,000-7,500 miles
- Replace Fuel Filters – 10,000-15,000 miles