CASE STUDY: BG ENGINE PERFORMANCE RESTORATION® SERVICE

SERVICE	BG Engine Performance Restoration® Service
PRODUCTS	BG EPR® Engine Performance Restoration®, PN 109

VEHICLE:

2024 Ford Bronco Sport, 1.5L Turbo
44,784 miles (72,073 km)

PROBLEM

Modern engines are designed to offer high performance while delivering excellent fuel economy and producing lower emissions. One way these engines achieve this is by utilizing variable camshaft timing (VCT), which is typically controlled by oil pressure. However, with the adoption of low-tension piston rings and the use of thinner engine oil, these engines can suffer from carbon deposits that form on piston rings and VCT actuators, triggering a chain reaction of engine issues that include compression loss, oil dilution, and increased blow-by. The result is a decline in engine performance, elevated oil consumption, and increased emissions.

SOLUTION

The BG Engine Performance Restoration® Service is designed to soften and dissolve hard-to-remove deposits found on piston rings and micropassageways, restoring ring function, improving compression, and reducing oil consumption.

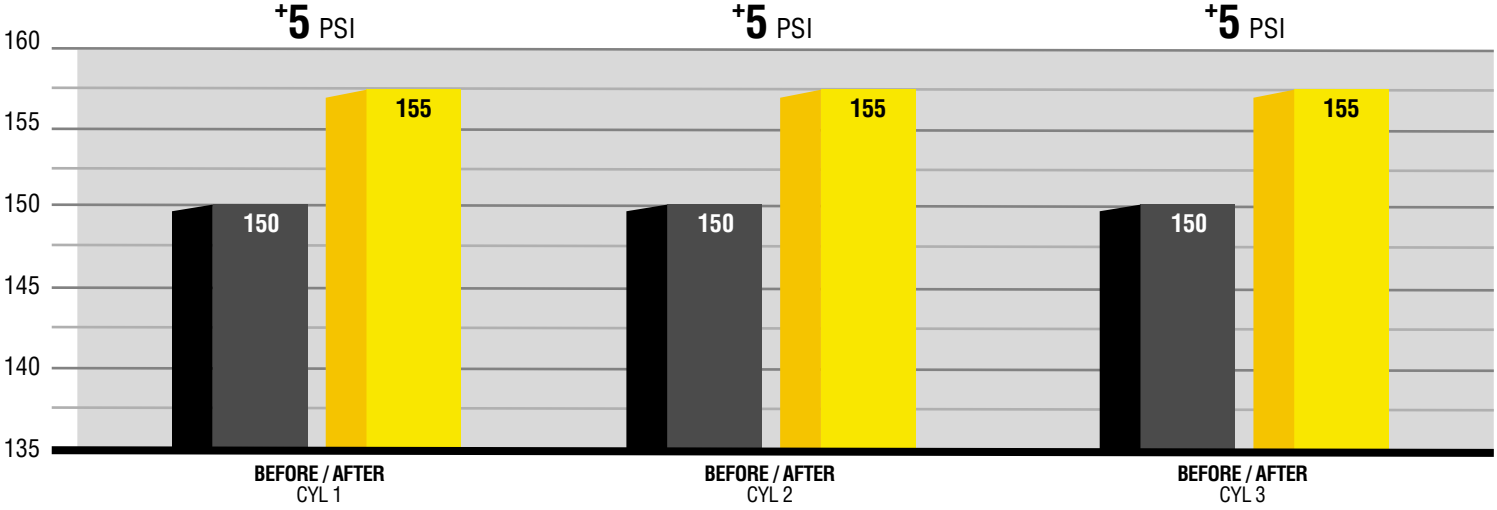
BG EPR® is added to the crankcase with the existing worn-out oil, dissolves deposits, and is removed with the used oil.

This service:

- **Dissolves fuel gums**
- **Restores compression**

PERFORMANCE TESTING RESULTS

COMPRESSION RESULTS: Compression was restored across all cylinders after the BG service was performed.



SUMMARY

- Today's engines offer impressive performance and fuel economy. Over time, these engines can suffer from carbon deposits that form on the piston rings—a problem that leads to compression loss, increased emissions, and expensive engine repairs. A dirty oil system also has a detrimental effect on the VCT system.
- Making the BG Engine Performance Restoration® Service a part of your maintenance routine is required to stay ahead of deposit formation on the piston rings and the entire oil system. Performing this service regularly helps keep the engine performing as it was designed, leading to restored power output and overall engine efficiency while prolonging the life of expensive engine components.

[Conducted by BG Proving Ground. 10/28/2025]