

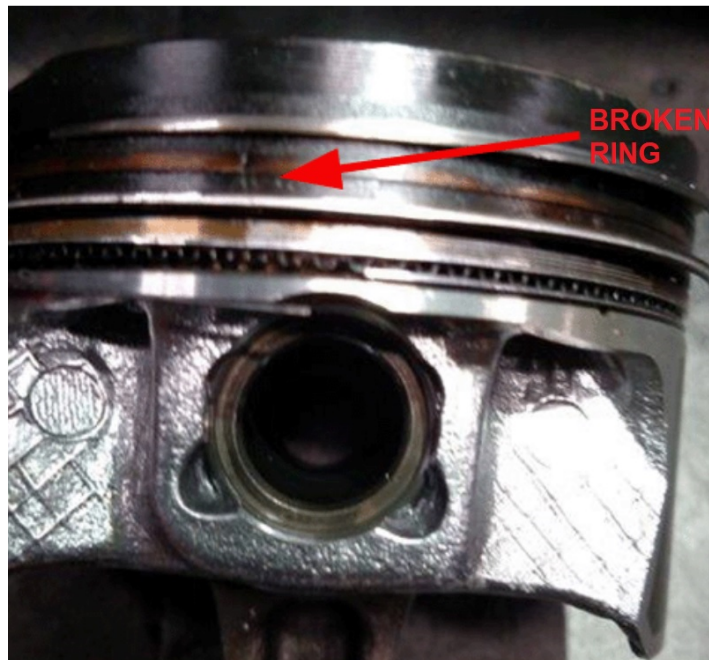


## Broken Piston Rings and Misfire on 2011-2019 GM 1.4L LUV and LUJ Engines

The AERA Technical Committee offers the following information on broken piston rings and misfire on 2011-2019 GM 1.4L LUV and LUJ engines. These turbocharged engines are used in Cruze, Trax, Sonic and Encore vehicles.

Drivers of these vehicles may complain of lack of power and oil consumption and there may be a diagnostic trouble code PO300 (engine misfire) stored. The misfire(s) may be caused by lack of compression in one or more cylinders caused by broken or stuck piston rings. Often times, a cylinder head ends up being sent to a machine shop before the cause of a misfire was determined.

It is suggested that a compression test and cylinder leak-down test be performed to determine how many cylinders are affected. Using a bore-scope inspection camera may also provide additional views of anticipated repairs before removing the cylinder head.



If the cylinder bores are determined to be undamaged, it is suggested that all four piston and ring sets be replaced. If the cylinder bores are damaged, oversize boring or short block replacement is required to repair this situation.