Valve Spring Breakage & Caution on 2007-2015 Volvo 3.2L B6324S Engines

The AERA Technical Committee offers the following caution on valve springs for 2007-2015 Volvo 3.2L B6324S engines. Unexpected valve spring breakage has been reported on these DOHC engines. Most often it has been the exhaust valve spring location.

The valve springs for these engines are unique for intake and exhaust locations. At first glance all twenty-four springs appear to be the same as the free length of 1.7874” (45.400 MM) is observed. Upon closer examination is evident the wire diameters differ by approximately .025" (.635 MM). Additional testing shows an indication of approximately 60 pounds of force difference when measured at the same height. The intake locations should receive the springs with the increased pressure.

At the time of this publication, aftermarket springs were unavailable and Volvo appears to be the only source. New springs are available with Part #30684053-9 for intakes and Part #30684055-4 for the exhausts.

To minimize possible valve spring breakage, it is good practice to replace all valve springs when doing a valve job on these engines. Many AERA machine shops replace all valve springs while doing a valve job as a normal course of action.

It may also be noted that one may think they’re working on a Ford cylinder head as FOMOCO is cast proximately onto the head casting. Further research shows Volvo’s SI6 engine began at the Ford Bridgend Engine Plant in Wales in May 2006 and was discontinued in 2016 and replaced by the straight-four Volvo modular engine design.