



TT00020
Cummins K Series Valves

S. B. International, Inc., offers the following technical information regarding Cummins K Series engine valves.

Many Cummins K engines were sold for standby operations, and as such, had low-grade material valves installed. Specifically, the intake OEM #s 207241 & 3803515 (SBI # 01534) was supplied with Silchrome #1 material, and the exhaust OEM #s 3024395 & 3035110 (SBI # 01533S) was supplied with 23-8N/ Stellite 6 inlay. These are regular materials not designed for extreme load conditions. In our and Cummins' experience, these materials are only suitable for occasional operation.

In continuous operation engines such as marine applications, the heads must be upgraded to Premium #1 or #2 CPLs and require the use of material specific valves and seats to ensure satisfactory operational life. Specifically, the intake, OEM # 3052820 (SBI # 01738S), comes with Silchrome #1 / Tribaloy inlay, and the exhaust, OEM # 3034827 (SBI #01734), comes with Inconel 751 / solution and age heat-treat. The intake valve has an additional complication in that it must be run against a Tribaloy seat, OEM # 3152816 (SBI # SB2381E-1C), to prevent valve face erosion. The exhaust valve's Inconel is a nickel-based super-alloy and is solution-treated to double the tensile strength of the valve head. It must also be run against a special Stellite seat, OEM # 205093 (SBI # SB2381E-2C) to ensure the longevity of the cylinder head.

These are good reasons for the cost difference between the standard and premium valves and seats. A good way to check if another supplier is offering the correct parts is first ask them for the standard parts by OEM number. Then, note their part numbers and ask for the premium numbers. If the supplier numbers are the same for both OEMs, you are not getting the correct materials. For additional parts needed for these upgrades, please refer to Cummins Bulletin # 94T2-3 dated January 1994.

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