



Revised Valve Spring and Cylinder Head on 8.3L Cummins G/GTA Engines

The AERA Technical Committee offers the following information on a revised valve spring and cylinder head used on 8.3L Cummins G/GTA engines. These engines run on gaseous fuels and use a spark plug for combustion.

Cummins introduced a cylinder head valve spring change for Industrial and Power Generation G/GTA 8.3 Gas engines and Automotive C-series Gas engines. The change consists of using valve spring, Part #3991085, which is presently used on the C8.3 and QSB 6.7, this spring has an improved load capability. Valve spring, Part #3991085, obsoletes and supersedes valve spring, Part #3906412.

It is recommended that the new cylinder head, Part Number 2870893, be used on industrial and power generation G/GTA8.3, G8.3 and GTA8.3 CM558 engines. Cylinder head, Part #4940658 must not be used in industrial or power generation applications, unless they are up-fitted with the new valve spring, Part #3991085. The remaining inventory of cylinder heads, Part #4940658, can be used up on automotive C-Series gas engines without up-fitting the valve springs.

During this cylinder head change, ReCon® cylinder head, Part #4940658RX, has been released. These ReCon® cylinder heads are currently being built with the new valve spring, Part #3991085. Therefore, they are suitable to be used on any application.

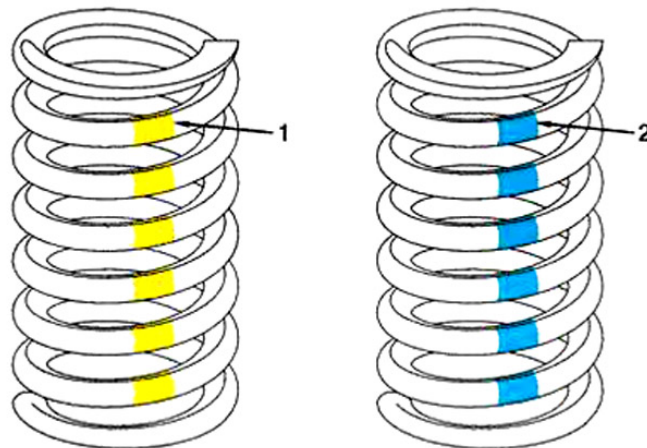


Figure 1. Yellow Color Former, Blue Color Current

The springs can be identified with a visual inspection. New valve springs have a blue marking (2) on each of their coils, while old springs have a yellow marking (1) on their coils, as shown in the above illustration.



The new valve spring is backwards compatible, so it can be installed on the old cylinder head assembly, Part #4940658. Service procedures, including inspect for reuse guidelines, remain the same. If an old valve spring on an existing engine requires replacement, replace all the valve springs with the new valve spring, Part #3991085.

Table 1: New Part Numbers Being Introduced

Engine	Old Part Number	New Part Number	Description
G/GTA8.3	4940658	2878493	Head, Cylinder
G/GTA8.3	3906412	3991085	Spring, Valve

Table 2: Production Dates and Engine Serial Number First

Engine	Production Dates	Engine Serial Number First
G/GTA8.3	03-25-2009	46991657