

1965 - 1967 Corvette: Tonawanda Engine

Service Notes: Valve Springs, Rocker Arms, Camshafts

Subject: Valve Springs, Rocker Arms, Camshafts

Model and Year: 1965 - 1967 Corvette with 396 or 427 ci engines.

Source: Tonawanda Engine Service Notes from Mr. W.O. Wittholz,
Chevrolet Tonawanda Engine Plant

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MISC. Information from Mr. W.O. Wittholz of Tonawanda Motor

396-427 VALVE SPRINGS. Part number 3859911 (used in all engines except L-35 "b" car and L-88) identified with a silver and red strip down the coils was discontinued in production on all models calling for this spring on 1-18-67.

Two new spring sources with the same part number (38599111), identified with either a purple and red or tan and red strip down the coils, were put into production on the same date. The greater durability of these new springs has eliminated valve spring failure with these engines. Due to the springs having the same part number, it will be necessary to visually check each spring for color coding.

396-427 ROCKER ARMS are either standard or hi-performance and identified with an "X" on the top of the arm above the valve stem end for standard part number 3860305 or a "Y" at the same location for hi-performance part number 3860308. When any rocker arm and ball show indication of over-heating, burning, or breaking it is recommended that the

"Y" rocker arm be used. Any of the 396-427 engines can be affected depending on the type of service the engine is subjected to.

396-427 CAMSHAFTS were changed in 1967 to eliminated the oil groove annulus on the rear camshaft journal. 1966 and past models, including all service, use this groove for oil passage to the lifter galleys. 1967 now has the oil passage underneath the rear camshaft bearing. Under these circumstances it is possible to use a 1966 and past model camshaft in a 1967 engine but do not use a 1967 camshaft in earlier models or the lifter will be starved for lube. It is also impossible to use a 1966 bare block for replacement in a 1967 vehicle since neither the block nor the camshaft would be machined for oil passage to the lifters. 1967 production intermixed camshafts on a stock exhaust basis, therefore, both types of camshafts will be found in the field on early engines.

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