Cylinder Mounting Differences

All factory-installed cylinders have a shaft diameter of .50". Later service part cylinders have a shaft diameter of .58" (same dimension as 1958-64 passenger car cylinder shaft). The cylinder design was the same for all three years. Although the bracket that attaches the cylinder shaft to the frame is identical for 1955, 56, and 57, there were differences in the way that the cylinder shaft mounted to the frame bracket. Photo #1 illustrates all three types.

In 1955, the shaft end of the cylinder was mounted to the frame bracket with a lockwasher and one hex nut. In Photo #1, this is shown as type A. Starting on 3-17-55 the nut was staked to the threads to better secure it.

At the beginning of the production in 1956, the shaft mounted the same way as in late 1955, with the nut being staked. On 6-4-56, the staking procedure was eliminated and an extra nut was added to the shaft, shown as type B in Photo #1.

In 1957, at the beginning of production, the shaft mounted the same way as in late 1956. Sometime prior to 4-30-57, a procedure was initiated to drill each shaft to accommodate a slotted nut and cotter pin arrangement, see type C in Photo #1.

Other Minor Differences

The special shouldered bolt that holds the cylinder to the center link has various markings. In very early 1955 production, the head of the bolt was unmarked, or had a raised "C" cast off center. Later styles had a raised "U" cast on center. "U" style is used in all three years and is the most common.

The PS pitman arm was made slightly wider in mid-model year 1957. There is no clear indication when this was done. Casting number and part number remained the same.

There were many different types and sizes of bolts that held the hose bracket to the frame. The most common was 1/4 SAE x 1/2, recessed hex head.

The pump casting design changed many times from the 1955 models to 1959 (the last year of the generator mounted pump), but most of those changes were very subtle and many were internal.

1955 pressure and return hoses have a total of three foam covers, two on the return hose and one on the pressure hose. 1956 and 1957 hoses have only two, one each on pressure and return.

Miscellaneous Notes

An article on Bowtie power steering would not be complete without a mention of 1958 through 1964 Chevrolet passenger car power steering. While the power steering ideas used for Late Great Chevys were very similar to the earlier style, all of the parts used on the steering linkage were engineered differently and are not interchangeable with 1955, 56, and 57. Only the 1958-59 PS generator/pump assembly will interchange with 1955-6-7.

The 1958 and 59 PS generator (#1102115) was very similar to the 1957 style, but the pump reservoir designs were very different. In Photo #2, the 1955-6-7 style is on the left, the 1958 style is in the center and the 1959 design is shown on the right.

Also, the 1955-6-7 cylinder was open at the center link end, while the 1958-64 style had a ball-stud arrangement, much like a tie rod end. The two styles of cylinders are not interchangeable.

For 1955-6-7, both the pitman arm and the idler arm were different from standard steering. The pitman, casting #3709453A, is shaped to accommodate the valve. The idler, casting #3707745A, is about an inch longer than the standard steering one.

Some pumps were manufactured by Saginaw. These are very rare and may have been intended mainly for other applications (farm equipment, forklifts, marine). One explanation of their existence on Chevrolet cars may be because of a possible shortage of Vickers pumps. Internally, the pump castings are very different from Vickers. While the pump reservoir itself looks very similar to the Vickers, there is one major outward difference: there is no lip or flange that turns up at the base, it's straight at that location. There is a manufacture's mark on the reservoir, a stylized "B&H" at the same location as the "V" on the Vickers pumps (at the back, above the two attaching bolts), and the stylized Saginaw "S" below the two bolts. The Saginaw neck is dimensionally very similar to the Vickers, yet side-by-side inspection reveals subtle differences.

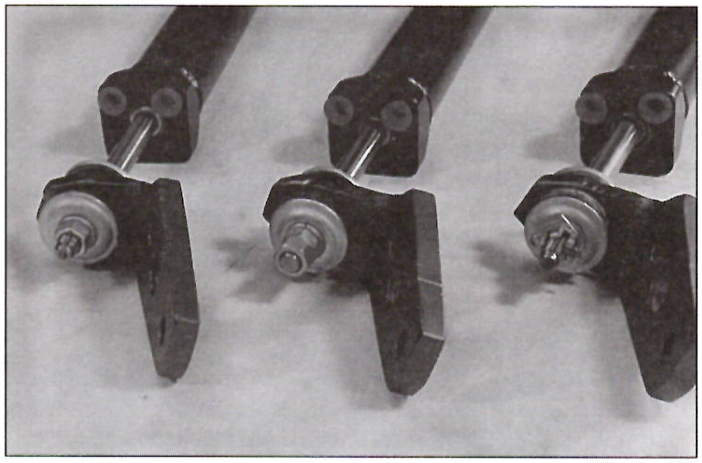

Photo #1