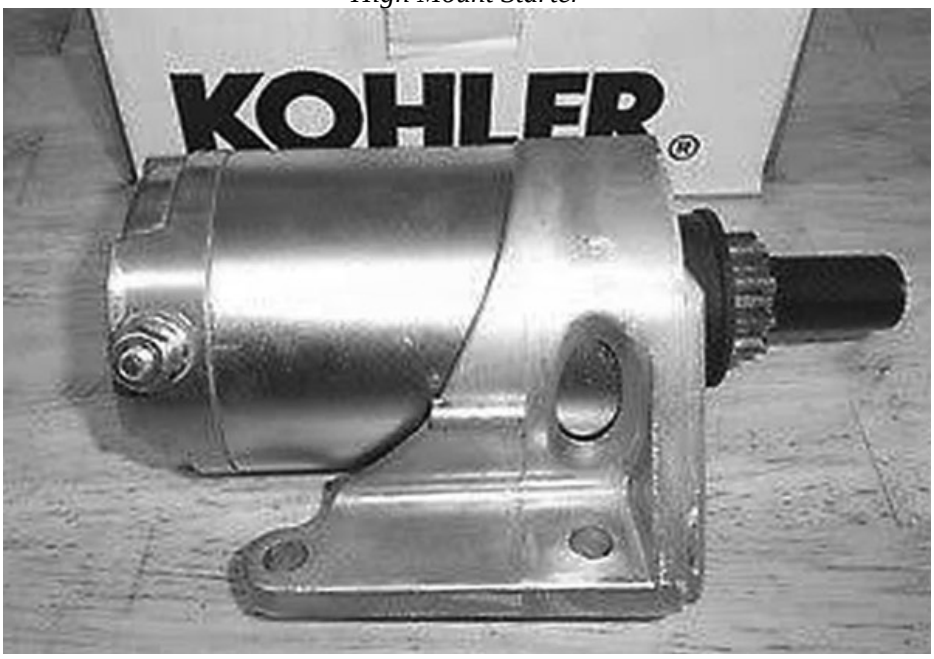
L-15 Kohler Starter Bracket Failure

By Bob Olbers

K-series Kohler engines with gear-drive starter motors come in either “high-mount” or “low-mount” configurations. The “high-mount” version has a welded bracket that runs the full length of the starter motor. My motor uses a “low-mount” starter, which has a cast-aluminum offset bracket to locate the motor farther down on the block.

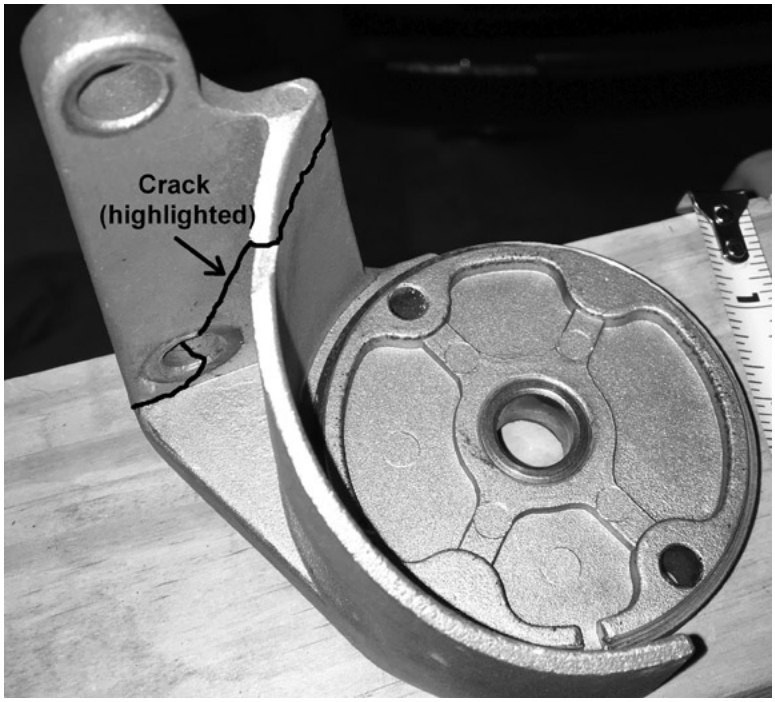
High Mount Starter



Low mount starter

The aluminum bracket is a weak point on the low-mount style. Not only is it an inherently weak casting, but it also mounts the starter in a “cantilever” fashion with just a small (separate) support tab tying the “free” end of the starter to the engine. I have now had four of these castings fail due to cracks propagating through the bolt hole closest to the gear end of the starter. The first three failures came in rapid succession. Eventually I learned that they were caused by split-ring lockwashers digging into the casting and creating stress risers. Placing flat washers between the

lock washers and the bracket seemed to cure this problem, and the starter was trouble-free for about nine years before failing last fall.



Starter bracket crack highlighted

I went ahead and bought another low-mount starter to get the car back on the road, but I now feel like it's just a matter of time before it too fails. I had thought that some Kohler engines required the low-mount starter and would not accept the high-mount version due to some difference in the block. I considered having a stronger bracket machined out of billet aluminum or steel.

After studying the Kohler parts diagrams, and referring to various online sources (including Brian Miller's excellent gardentractorpullingtips.com), I eventually determined that there is no difference in the blocks. Instead, some applications use the low-mount starter simply to provide clearance for accessories (such as a fuel tank) mounted high up on the engine.

A small "bump-out" on the engine shroud provides clearance for the starter gear. Because the starter shaft locations differ in the low- vs. high-mount configurations, so do the engine shrouds. I think that by either swapping covers or modifying mine, I can use the stronger, high-mount part. At some point I am considering pulling the engine for some cosmetic work and perhaps a little work on the head to increase the compression. At that time, I may go ahead and replace the starter just to eliminate another potential source of trouble. I'd rather invest the money up-front and avoid a breakdown in the future. □