



parts like carburetors are often more suspect because of poor core availability and questionable quality control. In other instances, the cost to remanufacture some components is too high to offer a significant price advantage over new. In any case, a shop operator must weigh all of these factors when choosing a remanufactured part.

DEFINITIONS

Circle 42 on Card

Before we get too far into this discussion, let me define the differences between the words "rebuilt" and "remanufactured." In my experience, a "rebuilt" component is one in which only the worn or defective parts are replaced. A remanufactured component, on the other hand, is one in which all of the wearing or expendable parts are replaced. Aside from small specialty rebuilders who rebuild a component on-demand, most remanufacturing is usually done on an assembly line basis by wholesale suppliers.

Longest Lasting Lubrication and Corrosion Prevention www.Fluid-Film.com

Automatic transmissions provide an apt illustration of the difference between rebuilt and remanufactured. Many automatic transmissions can be "rebuilt" by simply replacing a few worn bands and clutch packs. In most cases, these transmissions work well, but have a correspondingly lower service life than a remanufactured transmission that had all of the bushings, thrust washers, clutch seals and roller clutches replaced. In addition, the remanufactured automatic transmission should have all of the original equipment manufacturer (OEM) component updates installed to prevent a repeat failure of the unit.

In any case, the remanufactured market continues to change in response to new technology and to new market forces. In light of the inherent risk and liability of any auto repair, the following examples might well illustrate how modern shops choose and utilize remanufactured auto parts.

ROTATING ELECTRICAL

Because modern starters use permanent magnets and reduction gear cranking mechanisms, their overall reliability has been greatly improved. Whereas the starter designs of the 1960s through the 1980s generally began to fail at 40,000 miles, modern starters easily last 100,000 or more miles. Consequently, the reliability of the original design has increased the reliability of the remanufactured component.

In addition, modern starters live in a friendlier operating environment, free of oil being slung from a leaking rear main bearing oil seal that, in years past, would rapidly saturate the roller clutch assembly with oil, causing it to slip. Similarly, electronic fuel injected engines generally start after the first few revolutions of the crankshaft, which greatly eases the load on the starter motor and drive assembly. Because their overall quality has increased, I've experienced few failures in remanufactured starters during the past five years.

I've had similar experiences with remanufactured alternators, with only one out-of-the box failure in the past several years. Here again, modern alternators capable of providing more than 100 amperes of output simply last longer than the old 30-60 ampere alternators of old. When most original equipment alternators fail, it's usually due to worn brushes or noisy bearings.

REMANUFACTURED WATER PUMPS

Remanufactured water pumps are a staple of the remanufacturing industry because the casting itself is a major part that's easily salvaged. Most water pump assemblies can be easily repaired by replacing the impeller and the bearing and seal assembly. One minor difficulty is that some reman-