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Valve Guide Liner Broaching Process And Tooling

Understanding why problems with the guide liner occur after having used the product for years without any problems is mainly due to worn tooling.

The installation process of K-Line Guide Liners is a simple and fast process. Great care needs to be given to the tooling used in the broaching process.

The ball broach is a hard chromed precision tool that serves two purposes:

1. Expand the liner wall to the desired size.
2. Lock the liner in the existing guide.

The fact that the broach is hard chromed does not take away the fact that with time it will wear and loose its chrome coating.

When this occurs the broach needs to be replaced immediately not doing so will cause that the liner gets pushed out of the guide during the broaching process. Or worst it will scratch the ID of the bronze



liner turning it into an abrasive surface that can in some cases cause premature valve stem wear.

This picture shows severely worn broaches the goldish color on the sizing sphere of the broach is Liner material embedded in the surface. This tool will cause a lot of damage to the liner.

It is recommended to lightly oil the broach before starting the broach process Bronze-Lube KL1224 is ideal for this purpose and will extend the life of your broach.

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