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SPINDLE SERVICE, REBUILDING AND PRODUCTS --- WITH EMPHASIS ON QUALITY!

Our services are focused in the repair of most machine tool spindles including ultra precision, high speed, high frequency, and belt driven spindles. With decades of experience in spindle repairs, we proudly extend our services and alliances to a wide array of industries. OEM's, Machine Tool Distributors and "end users" all use our services when required.

We can assure you that the spindles entrusted to us are repaired by highly trained spindle experts who utilize the latest in equipment and technology, readily able to analyze and repair your spindles. Your spindle will be assembled within a controlled "clean-room" environment. All rotating components are accurately balanced on ultra-precision balancing machines. Along with vibration analysis, all spindles are run-in 100% and tested to meet or exceed OEM specifications.

We believe in doing it right the first time. When your spindle leaves our facility, you can feel confident that your spindle has been repaired and tested accurately. Upon delivery to your facility, your spindle is ready for your production machinery.

Spindles fail due to a variety of reasons; however, we can offer preventative maintenance and recommend solutions to help prevent future spindle failures. We can readily document the reasons for failure and the parts required to repair your spindle as quoted.

Quality and customer service is number one with us -- it's a "MATTER OF PRIDE".

We bring total solutions to our customers by aligning ourselves with high integrity people and companies who produce quality spindle related products and services. Thus, we offer a complete range of services to your company, enabling **LOCHER, INC.** to be "**Your Complete Spindle Management Resource**".

Our most popular and unique field service is In-Place Spindle Taper Grinding. We regrind tapers to "like- new" without removal or disassembly of the spindle, keeping alignment and spindle bearings undisturbed.

In addition to in-place spindle grinding, spindle cartridge rebuilding and shaft reconditioning, we offer a complete line of products designed to establish and maintain ongoing spindle precision at your facility:

- Electronic Retention Dynamometers (Pull Force or Grip Measuring Gages) for mills and lathes
- Precision Plug and Ring Taper Gages --- Precision Test Bars
- New High Frequency Spindles and New Precision Grinding Spindles
- Rebuild of Machine Spindle Attachments Angle, Extension and Complete Machine Rebuilds
- Retrofit of spindles and spindle-bars with new replaceable tapers
- Morse Taper conversions to Cat #50 Taper using fully functional hydraulic drawbars

Please call us Toll Free at 1-800-956-2437 (800-9LOCHER) to discuss how we can quickly and accurately service your needs and requirements.

Machine Tool Repair-Calibration
Spindle Rebuilding-Inplace Regrinding



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Established 1993

In-place spindle grinding saves you the cost of new spindle bearings and significantly minimizes downtime, giving you a double benefit. Spun or galled material build-up on the machine tool spindle taper and normal wear of the machine tool spindle known as "Bellmouthing" can be repaired on-site, in-place, in the machine. Portable precision grinding machines designed by Locher, Inc. can be put to use on your machine spindles and in your facility now.

A: Note the following if you are down and have spun a tool in the machine spindle:
BEFORE SCHEDULING

- (1) VERTICAL MACHINES: Measure maximum clearance between SPINDLE FACE and TABLE SURFACE. We need a 14" minimum to fit our equipment under the spindle. On most small vertical mills we need at least 1/2 of the table surface to work in.
- (2) HORIZONTAL MACHINES: Measure the size of the pallet and access space available for our setup. We need an empty pallet or at least a 15" X 24" area to set up in.
- (3) If your machine uses a drawbolt, the drawbolt may need to be removed for the regrind operation, and replaced after regrinding. The drawbolt may have a removable tip.
- (4) Using a .0001" INDICATOR: Check the SPINDLE RUNOUT and REPEATABILITY of the RUNOUT. We cannot regrind a spindle taper in-place in the machine, running on loose, noisy, or worn out set of bearings. The end result of the regrind will be as good as your bearing condition. The runout must repeat every revolution.
- (5) If you find anything excessive or not within these checks please call for more information, when we arrive and cannot regrind your spindle we have to charge the travel costs to and from your facility.

B: Note the following if your spindle is running, not crashed:
BEFORE SCHEDULING

- (6) Using the GAGE LINE DRAWING attached to this quote, check your spindle GAGE LINE (= +, - .015" or .381mm)
- (7) VERTICAL MACHINES: Measure maximum clearance between SPINDLE FACE and TABLE SURFACE. We need a 14" minimum to fit our equipment under the spindle. On most small vertical mills we need at least 1/2 of the table surface to work in.
- (8) HORIZONTAL MACHINES: Measure the size of the pallet and access space available for our setup. We need an empty pallet or at least a 15" X 24" area to set up in.
- (9) Using a .0001" INDICATOR: Check the SPINDLE RUNOUT and REPEATABILITY of the RUNOUT. We cannot regrind a spindle taper in-place in the machine, running on loose, noisy, or worn out set of bearings. The end result of the regrind will be as good as your bearing condition. The runout must repeat every revolution.

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C: Note on all repairs and rebuilds:

Standard Warranty against defects in workmanship on rebuilds: Bearing manufacturers do not warranty bearings.

Standard Cartridges = 6 months

Special High Precision / High speed Spindles (12,000 rpm +) = 90 Days

Special or custom spindle assemblies unique to customer = 90 days

Warranty excludes damage caused by: Machine crash, parts failure, lubrication and / or coolant flow failures, operational error, improper installation or failure to comply with OEM procedures for spindle installation, run-in and / or Locher, Inc. recommended run-in procedures. We will disassemble and analyze the bearings and / or cause of failure to determine whether it is a warranty issue or not. All spindle assemblies are balanced and run-in up to maximum RPM forward and reverse directions. All spindle assemblies must again be run-in once installed in the machine. Please call if you are unsure of run-in.

NOTE: Spindle removal and installation must be performed by a qualified maintenance technician!