

INSTALLATION AND HANDLING INSTRUCTIONS
DUNHAM SPINDLE ASSEMBLIES
Read carefully before installation
Save this for reference DO NOT DESTROY

This spindle is a precision device--rugged, dependable, built for lasting accuracy. It deserves the same care in handling and use as any fine precision tool.

INSTALLATION

1. Never hammer or force a spindle into or out of its mounting bracket or Headstock. If the bracket is the split type, wedge the split open with a screw driver until the spindle will slide in easily.
2. Never over-clamp a spindle. Tighten only enough to keep the housing from moving.
3. Never clamp a cold spindle firmly in a warm bracket. Wait until the spindle has warmed before final clamping.
4. If belt driven, belt tension should be only enough to prevent slipping. Excessive tightness will shorten bearing life. Always use endless belts of the proper size.
5. Never use a hammer to remove wheel holders or pulleys. Use a puller designed for the purpose.
6. Never strike a spindle with a hammer or use force at any time either in installing or removing a spindle.
7. Never tighten a cold extension arbor in a warm spindle. Wait until the temperatures equalize before tightening.
8. Make sure the extension arbor shank and the tapered hole in the spindle are clean and free of bruised or damaged surfaces. Dress minor burrs before assembling.

START-UP

Determine whether the spindle is grease or oil mist lubricated; Dunham Spindles are typically grease lubricated. Use the proper start-up procedure for each type. Oil and grease will settle during shipment or long idle periods. Never operate a newly installed or long idle spindle at sustained full speed until the lubricant is properly distributed.

GREASE LUBRICATED SPINDLES

1. When starting up for the first time or after a long idle period, jog the spindle through three or four cycles with a start-stop sequence of about two or three minutes each. Let the spindle coast to a stop between starts. This will redistribute the grease that has settled during shipment or storage without risk of running the bearing dry.
2. After the jogging routine, if the spindle operates at 3600 RPM or less, run at full speed for about 30 minutes (see maximum speed stamped on end cover). Check frequently for over-heating. Spindles that operate at more than 3500 RPM should not be permitted to reach maximum speed during jogging.
3. If the spindle heats to over 120°F, stop promptly and let cool to room temperature. Wait about one hour before restarting.
4. A temperature of 120°F or over is not bearable to the hand when the spindle housing is touched near either end. For more accurate readings, use a temperature gauge.

GENERAL

1. When either type spindle will operate at maximum speed for 30 minutes or more at or under 120°F, the lubricant has been properly distributed and the spindle should run within normal temperature range.
2. When guards are available for safety, never operate without guards.
3. When bearing replacement or general rebuilding is eventually required, Dunham Tool Company offers fast, efficient replacement or rebuilding service.
4. Never try to take a spindle apart. Pack securely before returning to us for rebuilding to avoid shipping damage.

IF YOU HAVE TROUBLE: When a machine is not producing good work, the tendency is to blame the spindle. Actually, most troubles are due to other components. Defective tooling, unbalanced motors, defective bearings in motors, worn gears and improper belts are far more often the cause of poor finish. Check these and other machine components carefully before blaming the spindle.

MANUALS/SPINDLE INSTALLATION INSTRUCTIONS