



## Journal maintenance

To insure constant rotational velocities, the gear should fit properly on the journal. In addition, the journal must be straight. A bent journal will cause slack and whipping of the web. Maintaining journal dimensions assures proper fit and constant roll rotation.

The bearings ride on specific journal steps called “bearing journals” which are typically held to tighter TIR (total indicator run out) and diameter tolerances than other journal surfaces.

These tighter tolerances insure proper fit of the bearings and proper support of the roll face. If the bearing surfaces become damaged or worn, the face can wobble or vibrate which can cause inconsistencies in the doctoring action and a loss of control over ink distribution.

Journal maintenance includes such basic steps as wiping them down with solvent to remove ink, grease & dirt; removing burrs with a fine bastard file; and applying a light lubricant to the journals with a cloth to help prevent corrosion. Also, a thread file purchased from a hardware store can be used to remove minor damage to threaded surfaces. When retracing threads, you must use the correct thread file, which corresponds to the thread being repaired.

When journals are heavily worn or damaged, they need to be resurfaced by welding or thermal spray. In either case, metal is applied to the journal surface to build it up. The surface can then be machined back to original equipment manufacturer’s specifications for diameter and concentricity.