



PIONEER BROACH COMPANY
"The Finest in Cutting Tools"

6434 TELEGRAPH ROAD
LOS ANGELES, CALIF. 90040
PHONE (213) 728-1263
FAX (213) 722-1699

Checking for Sharpness of a Broach

There are a number of objective signs that may be observed by the operator which indicate the need for resharpening/reconditioning a broach. The following is a *non-exhaustive* list of signs for the operator to look for. If any of the signs are present, the broach should be taken out of production and resharpened/reconditioned.

1. POOR PART FINISH
 - a. *I.e.*, tearing, rough finish, excessive burrs, or out-of-tolerance dimensions.
2. INCREASE IN HYDRAULIC PRESSURE REGISTERED ON MACHINE'S PRESSURE GAGE
 - a. Note: Operator should regularly check the pressure gage for any inconsistencies. Consistent broaching at increased pressures is a clear signal that the broach has become dull.
3. SOUND MADE BY TOOL WHEN CUTTING
 - a. Note: Operator should be alert to any change in the normal cutting sound, as this is often an early sign of tool wear.
4. VISUAL INSPECTION OF TOOL (*SEE ATTACHED DRAWING*)
 - a. Operator should frequently inspect the tool, as the presence of any of the following conditions indicates the need for resharpening/reconditioning:
 - i. "build-up" of material on cutting faces;
 - ii. "packing of chips" in the chip pockets;
 - iii. excessive wear on lands of teeth (*i.e.*, .005" wear on ANY tooth)
 - iv. nicks and/or burning of the cutting edges;
 - v. "rollover" of the cutting edges.

In addition to the above objective signals, the operator/tool department may wish to establish production "norms" (*i.e.*, the establishment of the number of parts produced per sharpening to govern the tool maintenance interval.).

Being conscientious of the above factors and the establishment of production norms is the best way to ensure maximum tool life and tool performance.