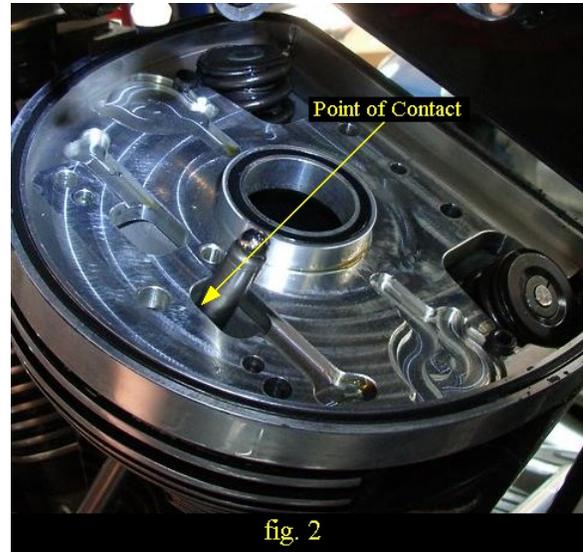
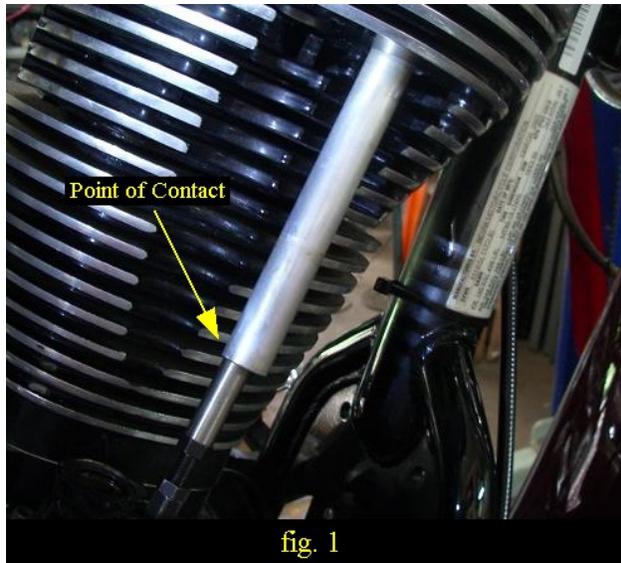


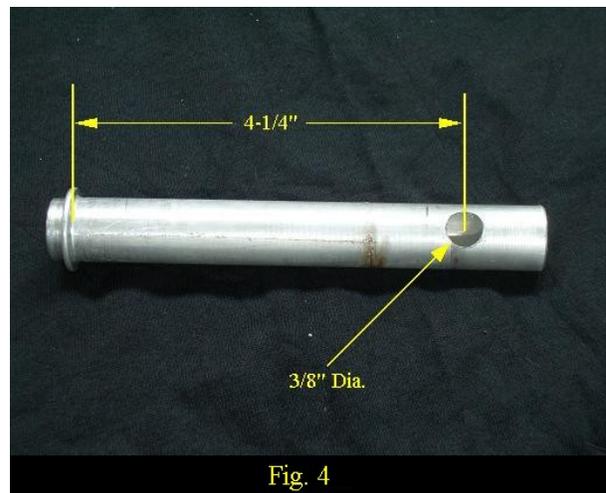
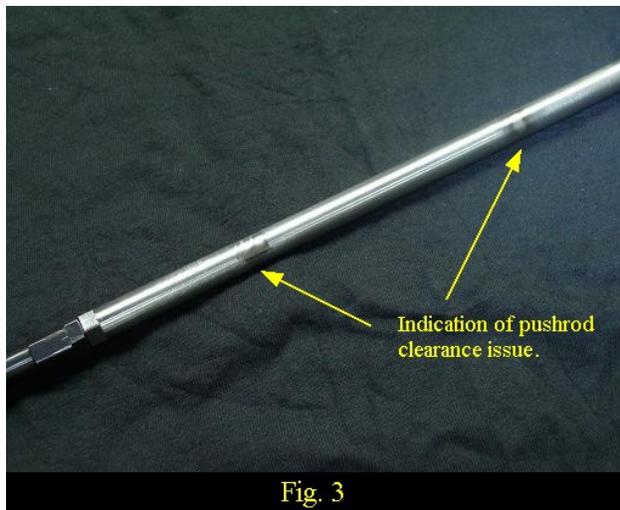
Powerplus™ 100 Rocker Arm & Pushrod Clearancing

Clearancing the Front Exhaust Pushrod:

The larger size 7/16" front exhaust pushrod might rub at two places causing unnecessary noise and wear. At the lower end of the upper pushrod tube (fig.1) and where it passes through the lower half of the rocker box (fig.2).



An indication that there is a clearance issue can clearly be seen by wear marks on either end of the pushrod itself (fig.3).



To clearance the upper pushrod tube, start by drilling a 3/8" dia. hole 4-1/4" from the ridge at the top of the tube (fig.4). Then cut a wedge shape from the drill hole to the bottom edge (fig.5).



Fig. 5

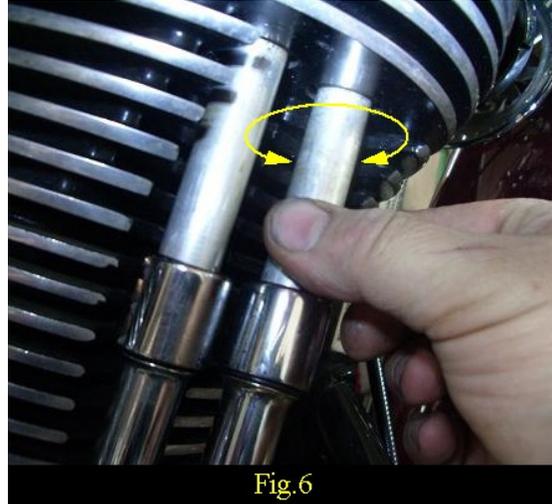


Fig.6

Centering the pushrod in the notch can be done by turning the tube back and forth and feeling where the edges contact the pushrod (fig.6). Locating the center point can be interpreted from there.

Some people prefer to just shorten the length of the tube. By cutting the notch in the area that contacts the pushrod, the skirt around the rest of the tube adds support to prevent movement and/or leakage from the pushrod tube.

To clearance the lower half of the rocker box, remove a small amount of material in the right rear corner of the passage along the same plain as the pushrod (fig.7 & 8).



Fig. 7

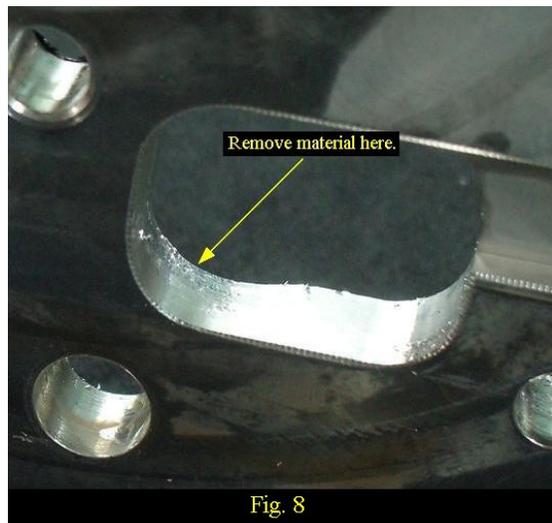
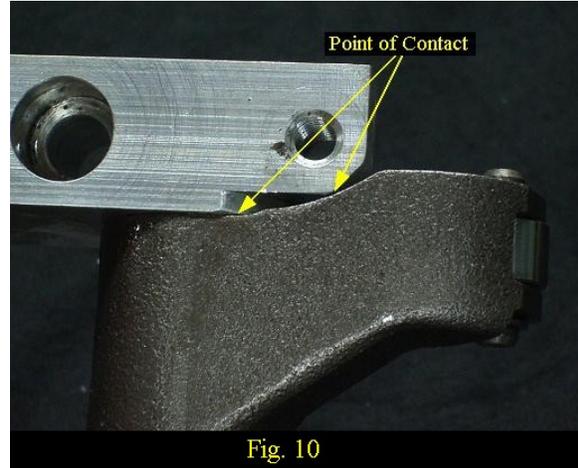
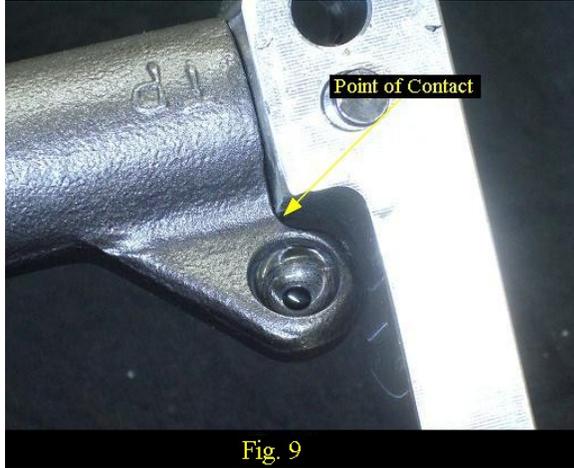


Fig. 8

Clearance Issues with Rocker Arms:

In some cases roller rocker arms may contact the rocker arm girdles causing noise and limiting rocker arm travel. This can be found on the small radius where the pushrod receiver arm meets the rocker arm body (fig.9) and at the opposite end along the edge of the valve arm (fig.10).



This condition can easily be remedied by removing material on the girdle at each contact point with a 3M™ disc on a pneumatic surfacing tool (fig. 11 & 12).



Note on High Lift Cams:

In some cases with high lift camshafts it is found that the top of the roller rocker arm on the valve end will also contact the inside of the top half of the rocker box limiting travel and causing noise.

Shimming the Rocker Arms:

Another cause of excessive noise is the side to side motion of the rocker arms. Placing a shovelhead style shim on the pushrod side between the rocker arm and rocker arm girdle will eliminate this. Before unbolting the rocker arm girdle from the cylinder head measure the space between the rocker arm and girdle with a feeler gauge (fig.13). Use a combination of shims that will bring the clearance between .003”-.005”. Typically, shovelhead rocker arm shims come in .005”, .007”, .010”, .015”, .020” and .025” thicknesses.



Fig. 13