

## 2 Stroke Head Repair - When is it needed?

### Minor damage



The head in the picture to the left has some very minor pitting from debris in the engine, slight detonation, or possibly a porous casting from the manufacturer. This type of pitting has no effect on performance. A light sanding and polishing of the squish angle area and the dome is all that is required. The gasket surface should always be checked on a lapping plate for flatness. Millennium offers a basic service to hand sand the combustion chamber and lightly lap the gasket surface on a surface plate.

The head to the right has slightly more damage from debris in the engine. It also does not need to be repaired as performance will not be affected and there is no danger of detonation. A light sanding and polishing of the squish angle area and the dome is all that is required. The gasket surface should always be checked on a lapping plate for flatness. Millennium offers a basic service to hand sand the combustion chamber and lightly lap the gasket surface on a surface plate.



### Moderate Damage



This head has moderate damage from debris caused by an engine component failure. It also does not need to be repaired as performance will not be affected and there is no danger of detonation. A light sanding and polishing of the squish angle area and the dome is all that is required. The gasket surface should always be checked on a lapping plate for flatness. If you did want to have the head repaired to eliminate the dings Millennium can weld and machine the head to OE or performance specs. It is always best to avoid welding if possible due to warpage and material hardness changes from the heat which is applied during welding.

## Extensive Damage



The two heads in the above pictures have extensive damage from detonation and engine component failure. Welding and machining are required to repair these heads.

## Welding and Machining



The head above had detonation damage that was repaired by welding and machining.