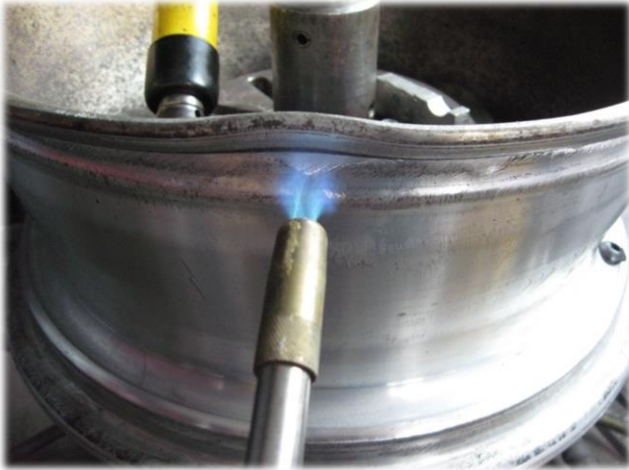




Heating Essentials

Heating a wheel is necessary in most cases but sometimes it can be a risky strategy. Improper applications of heat can affect the strength of a wheel and, in some cases, can render it dead soft and irreparable.

Heat enhances the strain-relieving straightening process, making it easier to move the bent material back to its original position. Propane, MAPP, Oxy- Acetylene and even TIG welding technology are all effective, under specific guidelines.



Regardless of the heating method used, the prevailing constraints are as follows:

1. Keep the heat localized to the repair
2. Heat to as low a temp as possible
3. Heat as short a time interval as possible
4. Before re-heating let wheel air cool enough to touch
5. Keep the maximum spoke temperature below 400 degrees F



Prolonged heating while the rams are in position can damage the seals on the Enerpac rams.

It is best to pre-position the rams and move them away while heating.



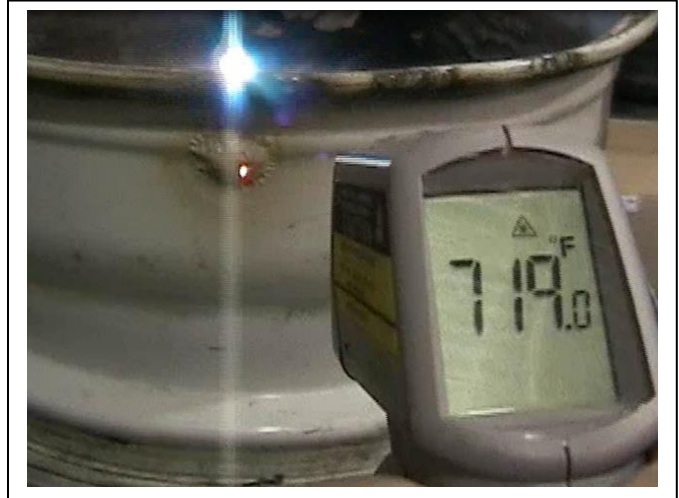
You must then be ready to move quickly to reposition the rams for straightening to take advantage of the malleability of the metal.

The best way to control the heat is to know when you have reached the optimal temperature you want for heating the aluminum.



Monitoring the heat level of the wheel is extremely important. Both temperature and time factor are critical.

A wheel can be heated to a fairly high temperature for a brief period to time and still maintain a dependable tensile strength.



Heating is the single most critical factor in wheel straightening. Improper heating can irreparably damage a wheel. It is important to monitor heat application, making sure that prolonged wheel temperature does not exceed 400 degrees. No matter what type of torch is used, a wheel could be damaged. Time at temperature is the key. If a wheel is heated to over 400 degrees for a several minutes, the heat treat level could be damaged. The heating shown in the left photo is with a MAPP gas torch. The right photo shows heating with Oxy-Acetylene, which has rendered that wheel scrap.