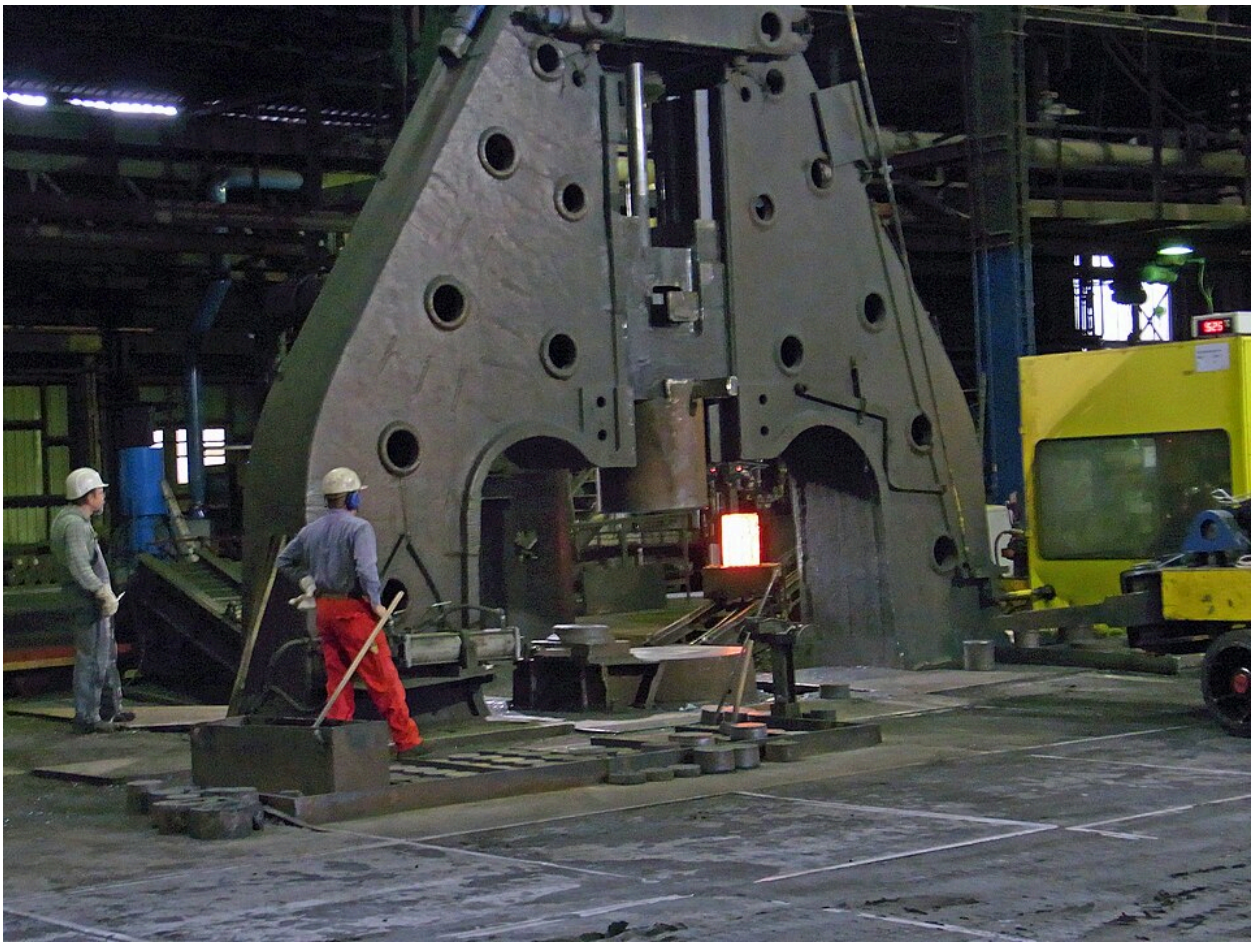
Simple Stuff
Forging Ahead

by Bob Vitrikas



Hot forging takes some seriously BIG machinery and lots of HEAT!
Hearing protection is advised. One of these workers didn't get the memo. Oh oh …
Courtesy of Wikipedia

You've probably seen the term "forged" used in descriptions of crankshafts, wheels and other metal bits and pieces. It is one of the oldest forms of metal working dating back hundreds, even thousands, of years. You've undoubtedly seen blacksmiths hammering away at a piece of red hot metal to literally beat it into shape. This is forging in its most basic form. So what does that mean? Short answer, stronger and longer lasting parts when compared to cast metal parts. In automobile applications forged parts are used wherever strength and durability are needed e.g. engine crankshafts and connecting rods, suspensions and steering. Forged wheels resist cracking and bending, providing protection not only in racing applications but also guarding against damage from pot holes and the like. Forged parts are also commonly used in the aerospace, defense, and railroad industries.

How is metal forged? There are many ways to forge metal, smack it with a hammer, slowly compress it, or roll it are the most common. These processes can be done when the metal is hot or cold and is used to form and strengthen metals such as steel, aluminum and magnesium. Here's a short video that describes the process much better than I can with mere words. Simply enjoy the show!

Courtesy Forging Industry Association