

How Does a Stamp Mill Work?

A stamp could weigh between 850 and 2,000



Photographed by Barry Swackhamer, October 24, 2011

2. Golden Gate Mine Stamp Mill

The marker is on the right.

pounds.

Stamp mills became popular in the Sierra after the Sawyer Act of 1883 that outlawed hydraulic mining and used in lode and hard rock mining for gold, silver, and copper. A stamp mill is comprised of a set of heavy wooden or metal beams that are loosely held vertically in a frame so that they can be raised and lowered like battering rams to crush ore. Each frame and beam set is called a “stamp”. A stamp could weigh between 850 and 2,000 pounds. Cams on the frame lift and release the stamps, which fall onto the ore, similar to how cam lifts and closes valves in an internal combustion engine. The crushed ore is then either washed over mercury coated sheets or combined with mercury in a “battery box” where gold sticks to the mercury and is separated from the quartz ore. The gold and mercury combination is called an amalgam. The pure gold is separated from the amalgam by heating and evaporating the mercury and then forming into gold blocks.