

ABSTRACT

CAM LOCK ELECTRODE CLAMP

A cam lock clamp comprises a stud having a substantially cylindrical body with a first end including a head area and a second end arranged to support one or more disc springs concentrically about the stud. A socket is arranged to mechanically couple concentrically around the stud with the head area of the stud being exposed above an uppermost portion of the socket. The socket is configured to be firmly attached to a consumable material. A camshaft has a substantially cylindrical body and is configured to mount within a bore of a backing plate. The camshaft further comprises an eccentric cutout area located in a central portion of the camshaft body. The camshaft is configured to engage and lock the head area of the stud when the consumable material and the backing plate are proximate to one another.

Fig. 2A