Claims:

1. A method for reconditioning a rotor of a drilling mud motor where the rotor has a worn or damaged rotary connection at one end thereof, the drilling mud motor having a top sub which connects the mud motor to a drill string, a power section which is made up of the rotor and a stator, a transmission section where eccentric power from the rotor is transmitted as concentric power to a drill bit, a bearing assembly which protects the chilling mud motor from of bottom and on bottom pressures, and the bottom sub which connects the drilling mud motor to the bit, the method comprising the steps of:

   removing the worn or damaged rotary connection which is present on a selected end of the rotor;

   provided a new rotary connection which is machined from a generally cylindrical, solid blank of metal;

   machining an externally threaded pin end connection on a selected end of the solid blank of metal;

   machining a mating female threaded opening on a selected end of the rotor body, the female internally threaded opening comprising an internal bore which terminates at an internal end surface;

   screwing the pin end of the rotary connection into the mating female internally threaded opening on the rotor body;

   wherein the externally threaded pin end of the new connection is threaded a predetermined depth which is selected to contact the internal end surface of the female, internally threaded opening and bottom out at a selected depth; and

   the new metal rotary connection then being welded to the rotor body at an intersection of the connection and selected end of the rotor body.

2. The method of claim 1, wherein the new connection has a connecting end, opposite the threaded end which is provided with an internally threaded bore.

3. The method of claim 2, wherein the internally threaded bore provided on the opposite threaded end of the new connection is provided with a REG or NC connecting thread.