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(54) **METHOD AND SYSTEM FOR POLE RETAINER WITH INTEGRATED COOLING**

(71) Applicant: **DRS Naval Power Systems, Inc.**, Milwaukee, WI (US)

(72) Inventors: **Calvin H. Corey, Ill**, Scituate, MA (US); **William R. Wink**, Brookline, NH (US)

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(57) **ABSTRACT**

The disclosed apparatus, system, and techniques described herein allow pole retention hardware of the electric motor to also function as a cooling manifold for removing heat generated by the electrical coils. A pole retainer apparatus can include a pole retainer for retaining a pole to a hub. The pole retainer can include a proximal end mounted on the hub and a distal end. The pole retainer can include a channel extending through the pole retainer from the proximal end of the pole retainer mounted on the hub to the distal end of the pole retainer. The apparatus can include a mount located at the distal end of the pole retainer and configured to retain the pole on the hub. The apparatus can include a fluid transfer duct connected to the mount. The cooling system can be employed on TORUS Axial Flux Permanent Magnet motors, and various other motor designs.