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(21) International Application Number: PCT/US96/04723 (22) International Filing Date: 3 April 1996 (03.04.96) (30) Priority Data: 08/415,639 3 April 1995 (03.04.95) US (71) Applicants: E.I. DU PONT DE NEMOURS AND COMPANY [US/US]; 1007 Market Street, Wilmington, DE 19898 (US). PACIFIC SCIENTIFIC COMPANY [US/US]; 4301 Kishwaukee Street, Rockford, IL 61105 (US). (72) Inventors: TRAGO, Bradley, A.; 922 Cerasus Drive, Rockford, IL 61108 (US). BYRNES, Edward, J.; Unit #1D, 116 Woodland Court, Carpentersville, IL 60110 (US). NEAL, Griff, D.; Unit 31, 2600 North Southport Avenue, Chicago, IL 60614 (US). (74) Agent: WALKER, P., Michael; E.I. du Pont de Nemours and Company, Legal/Patent Records Center, 1007 Market Street, Wilmington, DE 19898 (US).		(81) Designated States: AU, CA, CN, JP, KR, MX, NZ, SG, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i>

(54) Title: **INJECTION MOLDED MOTOR ASSEMBLY AND METHOD OF FABRICATION**

(57) Abstract

An electrical motor and the process for forming that motor utilizes injection molding techniques to unitize the stator assembly. The stator assembly (21) includes a stator lamination stack (27) and preferably a metal front end cap (26) which is secured to the lamination stack (27) after the lamination stack is insulated and wound. The windings are terminated at a plurality of conductive pins (94) fusion welded to the terminating ends of the windings. The stator assembly (21) with front end cap (26) in place is positioned in an injection molding die. Pressure is applied to the die, and molten plastic is injected under pressure to fill voids in the stator assembly, and also to form a plastic mass which will serve as the rear end cap (25). The rear end cap (25) is also molded with a connector portion (41) which fixes the conductive pins (94) in place as a part of the connector. A bore (30) formed in the stator assembly provides mounting surfaces (31, 32) for bearings (23, 24) on a rotor assembly (20).

