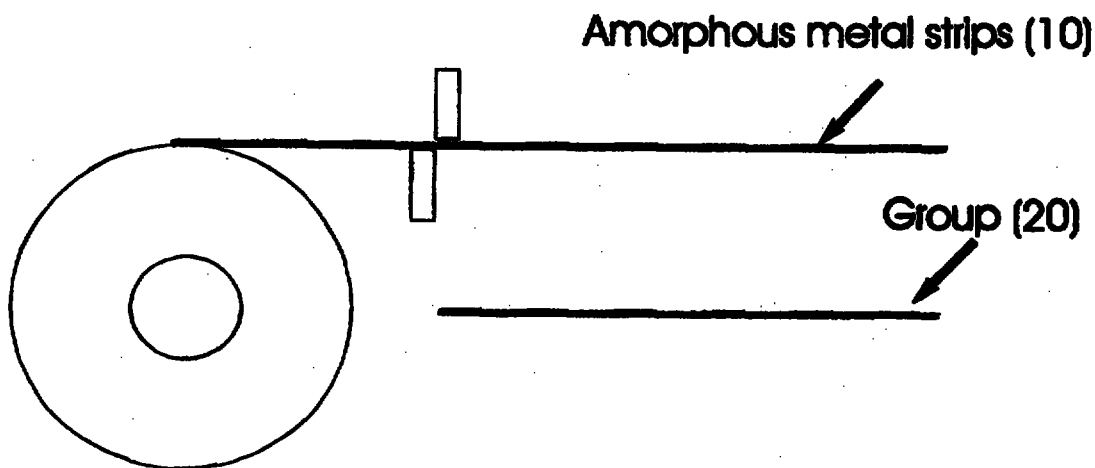




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(21) International Application Number: PCT/US98/17366 (22) International Filing Date: 21 August 1998 (21.08.98) (30) Priority Data: 08/918,194 21 August 1997 (21.08.97) US (71) Applicant: ALLIEDSIGNAL INC. [US/US]; 101 Columbia Road, P.O. Box 2245, Morristown, NJ 07962-2245 (US). (72) Inventors: NATHASINGH, M., David; 18 Powhatan Way, Hackettstown, NJ 07840 (US). NGO, Dung, Anh; 130 Littleton Road, Morris Plains, NJ 07950 (US). (74) Agents: CRISS, Roger, H. et al.; AlliedSignal Inc., Law Dept. (R. Fels), 101 Columbia Road, P.O. Box 2245, Morristown, NJ 07962-2245 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>

(54) Title: SEGMENTED TRANSFORMER CORE



(57) Abstract

A transformer core comprises a plurality of segments of amorphous metal strips. Each of the segments comprises at least one packet of the strips. The packet comprises a plurality of groups of cut amorphous metal strips arranged in a step-lap joint pattern. Packets thus formed can have C-shape, I-shape or straight segment-shape configurations. Assembly of the transformer is accomplished by placing at least two of the segments together. Core manufacturing is simplified and core and coil assembly time is decreased. Stresses otherwise encountered during manufacture of the core are minimized and core loss of the completed transformer is reduced. Construction and assembly of large core transformers is carried out with lower stress and higher operating efficiencies than those produced from wound core constructions.