

United States Patent [19]

[11] Patent Number: 4,888,071

Kauffman et al.

[45] Date of Patent: Dec. 19, 1989

[54] METHOD FOR MANUFACTURING RIBBON CABLE AND TRANSPOSED CABLE

[58] Field of Search 29/469.5, 245, 825; 57/212, 213, 215-217, 233; 156/50, 51, 269, 180, 204; 174/34, 113 A, 117 F, 117 FF, 129 R, 129 S; 428/375-378, 397

[75] Inventors: John C. Kauffman; Richard A. Westenfeld, both of Fort Wayne, Ind.

[56] References Cited

[73] Assignee: Phelps Dodge Industries, Inc., New York, N.Y.

U.S. PATENT DOCUMENTS

4,473,716 9/1984 Jesseman 156/50 X

[21] Appl. No.: 890,099

Primary Examiner—Robert A. Dawson
Attorney, Agent, or Firm—Lundy and Walker

[22] Filed: Jul. 28, 1986

[57] ABSTRACT

Related U.S. Application Data

[62] Division of Ser. No. 634,041, Jul. 24, 1984, Pat. No. 4,650,924.

Methods and apparatus for manufacturing an improved ribbon cable comprising a plurality of insulated wires juxtaposed in fixed relationship to each other and an improved transposed cable in which each conductor of the cable of the invention is in the form of a continuous helix. The electromagnetic device of the invention has the ribbon cable of the invention as its magnetic windings.

[51] Int. Cl.⁴ H01B 13/06

[52] U.S. Cl. 156/50; 156/51; 156/180; 156/204; 156/269; 174/72 TR; 174/117 F; 174/117 FF

32 Claims, 3 Drawing Sheets

