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(71) Applicant: **SANMEIDENKI KABUSHIKIKAISHA**
6-10 Ushimaki-cho
Mizuho-ku Nagoya-shi Aichi-ken(JP)

(72) Inventor: **Yokoi, Toshiro**
1958-2 aza-Kitazawa Ohaza-Nonami
Tenpaku-cho Tenpaku-ku Nagoya-shi(JP)

(72) Inventor: **Okita, Toshiaki**
Okehazamaso 1-409 10 Okehazamahiratsubo
Arimatsu-cho Midori-ku Nagoya-shi(JP)

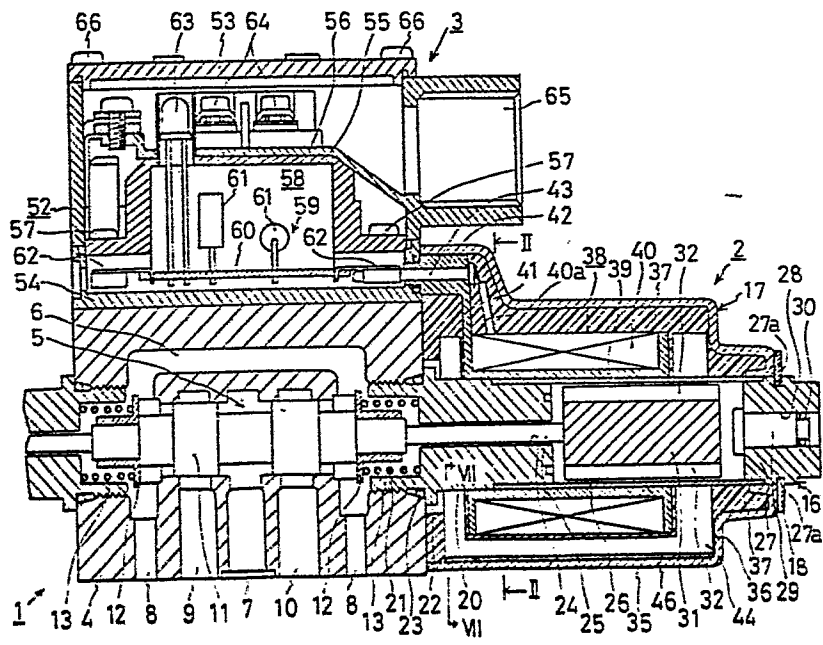
(72) Inventor: **Sawai, Koji**
Daiichinaruminishijutaku 401
4-1 Urasato Midori-ku Nagoya-shi(JP)

(74) Representative: **Evans, David Charles et al,**
F.J. CLEVELAND & COMPANY 40-43, Chancery Lane
London, WC2A 1JQ(GB)

(54) **An electromagnet and a method for manufacturing it.**

(57) A cylindrical yoke of an electromagnet consists of two or more yoke elements, each of which is made of a number of yoke pieces made of magnetizable metal sheets and arranged radially around a cylindrical coil member of the electromagnet and of a filler member unifying the yoke pieces. The thickness of the yoke piece increases with increasing radial distance in order to improve the space factor of the yoke. The eddy current generated in the yoke is reduced due to the laminated construction of the yoke. The yoke disposed close to and coaxially with the coil member also contributes to the radial dispersion of the heat generated in the coil member and the yoke. The improved space factor results in the reduction of the leakage flux of the electromagnet and of the outermost size of the electromagnet for a certain available actuating power.

FIG.1





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DOCUMENTS CONSIDERED TO BE RELEVANT			EP 84306400.7
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
X	US - A - 4 087 773 (JENCKS) * Column 1, lines 59-66; fig. 1,5 *	1	H 01 F 7/16 H 01 F 41/00
Y	* Column 1, line 66 - column 4, line 31 *	5-7	
Y	-- GB - A - 2 040 585 (EIC) * Claim 7; page 2, lines 12-123; fig. 2-5 *	5-7	
A	-- DE - A1 - 3 209 355 (SCHÖTTLE) * Page 13, line 16 - page 14, line 7; fig. 14,15 *	1,4	
A	-- US - A - 4 004 343 (MARSDEN) * Column 3, lines 31-44; fig. 3 *	3,4	TECHNICAL FIELDS SEARCHED (Int. Cl.4) F 16 K 31/00 H 01 F 3/00 H 01 F 7/00 H 01 F 15/00 H 01 F 41/00
A	-- GB - A - 1 344 951 (PHILIPS) * Page 2, line 111 - page 3, line 107; fig. 1-3 *	7,9,10	
The present search report has been drawn up for all claims			
Place of search VIENNA		Date of completion of the search 15-04-1985	Examiner PIRKER
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			