11 Publication number:

0 103 964 A3

12)

EUROPEAN PATENT APPLICATION

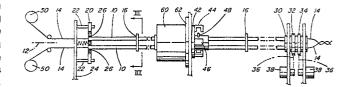
21 Application number: 83304425.8

(f) Int. Cl.3: H 01 B 13/02

22 Date of filing: 01.08.83

30 Priority: 24.08.82 CA 410002

- 7) Applicant: NORTHERN TELECOM LIMITED, 1600 Dorchester Boulevard West, Montreal Quebec H3H 1R1 (CA)
- 43 Date of publication of application: 28.03.84 Bulletin 84/13
- (72) Inventor: Roberge, Jean Marc, 125 Somervale Gardens, Apt. 8, Pointe Claire Zuebec, H9R 3H6 (CA) Inventor: Garner, John Nicholas, 169 Liddell Crescentre, Kingston Ontario, K7M 2T5 (CA)
- 84 Designated Contracting States: CH DE FR GB IT LI NL SE
- (74) Representative: Crawford, Andrew Birkby et al, A.A. THORNTON & CO. Northumberland House 303-306 High Holborn, London WC1V 7LE (GB)
- 88 Date of deferred publication of search report: 15.08.84 Bulletin 84/33
- 54 Stranding wires.
- (10, 52, Wire stranding apparatus having tubular means 54) having passage means to provide wire feedpaths, the tubular means being rotationally flexible about an axis, being held against rotation about this axis at an upstream end and having twisting means (30) to cause alternating torsional twisting at its downstream end. The feedpaths are held in fixed positions apart either along the whole length of the tubular means where the tubular means is a single tube with at least two side-by-side passages or comprises tubes (52) with their outer surfaces in continuous contact. When the tubular means comprises two or more spaced tubes (10), these are held in fixed relative positions at spaced locations along the tubes. To accommodate axial contraction and extension during twisting, the tubular means has an axially acting resilient means (28) which maintains axial tension on the tubular means.



03 964 A



EUROPEAN SEARCH REPORT

0 1 Antain 6 6 4

EP 83 30 4425

	DOCUMENTS CONS	IDERED TO BE RELEVA	NT	
Category	Citation of document with indication, where appropriate, of relevant passages		Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Ci. 3)
A,D		(PHILLIPS CABLE) ne 11 - column 5 3 *	9,12	Н 01 В 13/02
A,D	US-A-4 325 214 TELECOM) * Column 2, li	ne 63 - column 7	, 1,2,12	
A,D	US-A-3 910 022 ELECTRIC) * Column 1, li line 64; figures	ne 56 - column 4	1,2,10 -12)
		- 		
				TECHNICAL FIELDS SEARCHED (Int. Cl. 3)
				Н 01 В
	The present search report has t		roh I	Examiner
Place of search THE HAGUE Date of completion of the search 25-04-1984		DEMOI	DER J.	
Y : pa do A : te O : no	CATEGORY OF CITED DOCI articularly relevant if taken alone articularly relevant if combined w ocument of the same category chnological background on-written disclosure termediate document	E : earliei after t vith another D : docun L : docun	r patent document, he filing date nent cited in the ap nent cited for other er of the same pate	