

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
17 June 2004 (17.06.2004)

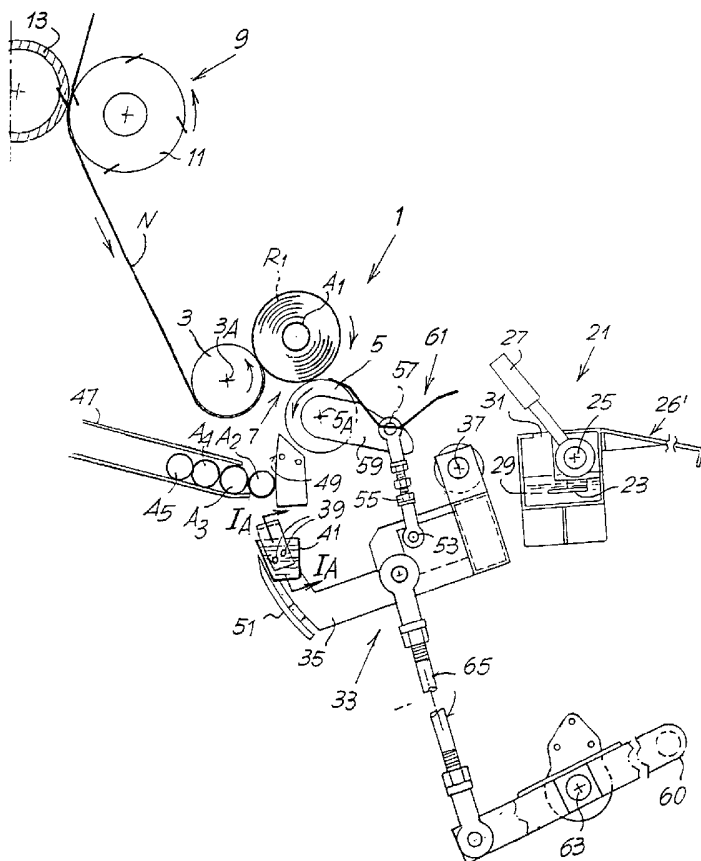
PCT

(10) International Publication Number  
**WO 2004/050520 A3**

- (51) International Patent Classification<sup>7</sup>: **B65H 19/22**, 19/30, 19/28
- (21) International Application Number: PCT/IT2003/000785
- (22) International Filing Date: 27 November 2003 (27.11.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
FI2002A000236 3 December 2002 (03.12.2002) IT  
FI2003A000157 30 May 2003 (30.05.2003) IT
- (71) Applicant (for all designated States except US): **FABIO PERINI S.p.A.** [IT/IT]; Zona Ind.le P.I.P Mugnano Sud, I-55100 Lucca (IT).
- (72) Inventors; and
- (73) Inventors/Applicants (for US only): **BIAGIOTTI, Guglielmo** [IT/IT]; Via di Vorno, 105, I-55060 Capannori (IT). **BONACCHI, Raffaello** [IT/IT]; Via Nottolini, 39, I-55100 Lucca (IT). **BENVENUTI, Angelo** [IT/IT]; Via del Chiasso, 327, I-55100 Lucca (IT).
- (74) Agents: **MANNUCCI, Michele** et al.; Uff. Tecn. Ing. A. Mannucci S.r.l., Via della Scala, 4, I-50123 Firenze (IT).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: REWINDER MACHINE FOR THE PRODUCTION OF ROLLS OF WEB MATERIAL



(57) Abstract: The rewinder machine comprises: a first winding roller (3); a second winding roller (5), defining with said first winding roller (3) a winding cradle; a feeder (33) for sequentially introducing winding cores to said winding cradle; an optional glue applicator (21) for applying glue to said cores. The feeder (33) may include an element (39) for applying glue to the winding cores while they are being fed to said winding cradle. In a special embodiment, the feeder is mechanically linked to a system for unloading the roll from the winding cradle.

WO 2004/050520 A3



Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,  
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,  
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,  
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**(88) Date of publication of the international search report:**  
4 November 2004

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**Published:**

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/IT 03/00785

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B65H19/22 B65H19/30 B65H19/28

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B65H

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	FR 2 544 701 A (PAPER CONVERTING MACHINE CO) 26 October 1984 (1984-10-26) page 17, line 12 - page 21, line 26; claim 11; figures	1, 43
A	US 6 422 501 B1 (DAUL THOMAS J ET AL) 23 July 2002 (2002-07-23) the whole document	
A	EP 0 395 593 A (PERINI NAVI SPA) 31 October 1990 (1990-10-31) the whole document	
A	US 5 772 149 A (BUTTERWORTH TAD T) 30 June 1998 (1998-06-30) column 3, line 59 - column 4, line 45; claims; figures	32-42, 46
	----- -/--	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

° Special categories of cited documents :

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*&amp;\* document member of the same patent family

Date of the actual completion of the international search

26 August 2004

Date of mailing of the international search report

10.09.2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Stroppa, G

INTERNATIONAL SEARCH REPORT

International Application No  
PCT/IT 03/00785

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 97/32804 A (PERINI FABIO SPA ; BIAGIOTTI GUGLIELMO (IT)) 12 September 1997 (1997-09-12) cited in the application -----	47-50

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/IT 03/00785

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-31, 43-45

Rewinder machine for the production of rolls of web material having a feeder which includes at least one element for applying glue to the winding cores during their introduction to the winding cradle and method thereof.

---

2. claims: 32-42, 46

A rewinder machine having an extractor member for extracting a roll formed in the winding cradle, the extractor member being mechanically linked to the feeder that sequentially introduces winding cores into the winding cradle and method thereof.

---

3. claim: 47

A rewinder machine having a feeder for sequentially introducing winding cores to the winding cradle, a gluer for gluing the free end edge of rolls made by said machine and a common actuator member that controls the movement of feeder and gluer.

---

4. claims: 48-49, 50

A rewinding machine comprising only two winding rollers forming a winding cradle, the winding rollers being kept into rotation during discharge of a completed roll and inserting of a new winding core and method thereof.

---

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IT 03/00785

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
FR 2544701	A	26-10-1984	BE 899146 A	02-07-1984
			BR 8400838 A	05-03-1985
			DE 3404225 A1	25-10-1984
			FR 2544701 A1	26-10-1984
			IT 1180674 B	23-09-1987
US 6422501	B1	23-07-2002	AT 273224 T	15-08-2004
			AU 2732502 A	03-06-2002
			BR 0114953 A	09-12-2003
			CA 2425949 A1	30-05-2002
			DE 1337452 T1	15-04-2004
			EP 1337452 A2	27-08-2003
			JP 2004514619 T	20-05-2004
			WO 0242187 A2	30-05-2002
EP 0395593	A	31-10-1990	IT 1233273 B	26-03-1992
			BR 9001410 A	09-04-1991
			CA 2013399 A1	30-09-1990
			EP 0395593 A2	31-10-1990
			JP 2282145 A	19-11-1990
			JP 7110731 B	29-11-1995
			KR 9308670 B1	11-09-1993
			US 5040738 A	20-08-1991
US 5772149	A	30-06-1998	AU 4647997 A	14-04-1998
			EP 0935577 A1	18-08-1999
			WO 9812134 A1	26-03-1998
			US 6000657 A	14-12-1999
WO 9732804	A	12-09-1997	IT FI960040 A1	05-09-1997
			AT 194584 T	15-07-2000
			AU 2042197 A	22-09-1997
			BR 9702340 A	16-03-1999
			CA 2236854 A1	12-09-1997
			CN 1190376 A ,B	12-08-1998
			DE 69702485 D1	17-08-2000
			DE 69702485 T2	19-04-2001
			EP 0827483 A1	11-03-1998
			ES 2149576 T3	01-11-2000
			GR 3033867 T3	31-10-2000
			IL 122699 A	30-04-2001
			WO 9732804 A1	12-09-1997
			JP 2000513687 T	17-10-2000
			PL 328718 A1	15-02-1999
			RU 2169691 C2	27-06-2001
			US 6050519 A	18-04-2000
			ZA 9701562 A	29-08-1997