

(19) World Intellectual Property Organization
International Bureau



PCT



(43) International Publication Date
20 November 2008 (20.11.2008)

(10) International Publication Number
WO 2008/140956 A3

(51) International Patent Classification:

B02C 25/00 (2006.01) **B02C 18/14** (2006.01)
B02C 18/22 (2006.01) **B27L 11/02** (2006.01)

(21) International Application Number:

PCT/US2008/062236

(22) International Filing Date: 1 May 2008 (01.05.2008)

(25) Filing Language: English

(26) **Publication Language:** English

(30) Priority Data:

60/928,926	10 May 2007 (10.05.2007)	US
------------	--------------------------	----

(71) **Applicant** (for all designated States except US): **VERMEER MANUFACTURING COMPANY** [US/US]; 1210 Vermeer Road East, Pella, IA 50219-0200 (US).

(72) Inventors; and

(75) **Inventors/Applicants (for US only): GALLOWAY, Edwin, N.** [US/US]; 1628 Birch Lane, Pella, Iowa 50219 (US). **O'HALLORAN, James, L.** [US/US]; 2041 Carter Drive, Pella, IA 50219 (US).

(74) **Agent: BRUESS, Steven, C.;** Merchant & Gould P.C., P.O. Box 2903, Minneapolis, MN 55402-0903 (US).

(81) **Designated States** (*unless otherwise indicated, for every*

kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) **Designated States** (*unless otherwise indicated, for every*

kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

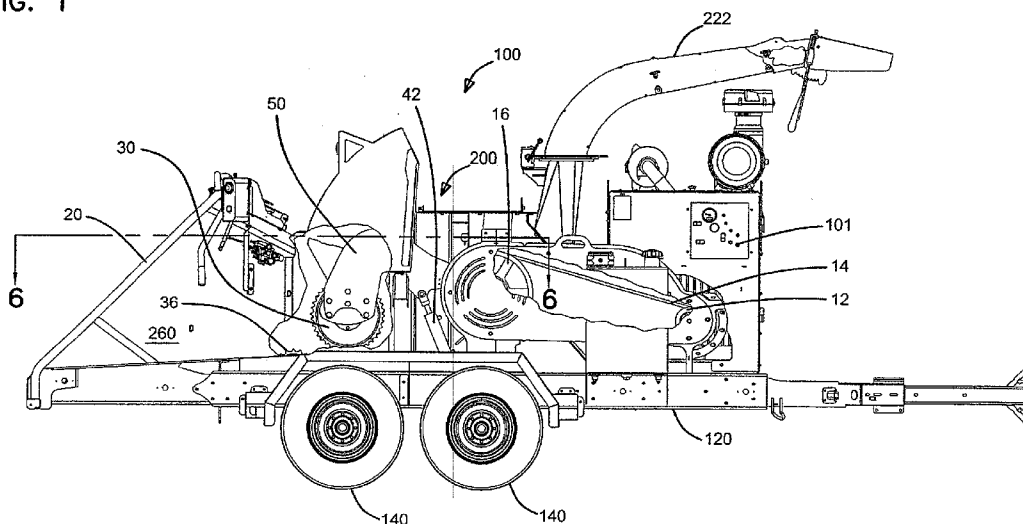
- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:

5 February 2009

(54) Title: SYSTEM FOR CONTROLLING THE POSITION OF A FEED ROLLER

FIG. 1



(57) Abstract: A feed system that is configured to more effectively grab and pull brush and tree materials into a chipper is provided. The system of the present disclosure is configured such that a large, heavy tree trunk can be effectively pulled into the chipper. The system includes a hydraulic pump that applies variable down pressure on a feed roller.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2008/062236

A. CLASSIFICATION OF SUBJECT MATTER

INV. B02C25/00 B02C18/22 B02C18/14 B27L11/02

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)

B02C B27L A01G

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.
A	US 2003/111566 A1 (SEAMAN TONY H [US] ET AL) 19 June 2003 (2003-06-19) cited in the application the whole document	1-24
A	US 3 955 765 A (GAITTEN WALDEN M) 11 May 1976 (1976-05-11) cited in the application the whole document	1-24
A	US 6 357 684 B1 (MOREY MICHAEL BOYD [US]) 19 March 2002 (2002-03-19) cited in the application the whole document	1-24

☐ Further documents are listed in the continuation of Box C.

☒ See patent family 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.
- *&* document member of the same patent family

Date of the actual completion of the international search

5 September 2008

Date of mailing of the international search report

17/12/2008

Name and mailing address of the ISA/

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

Authorized officer

Kopacz, Ireneusz

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2008/062236

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 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 No. III Observations where unity of invention is lacking (Continuation of item 3 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 allsearchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers 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.:

1-24

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ 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: 1-24

Adjusting the actuating cylinders depending on the measured feeding gap

2. claims: 25-28

Delaying of applying the squeezing force on the feeding rollers

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2008/062236

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003111566	A1	19-06-2003	NONE
US 3955765	A	11-05-1976	AT 353468 B 12-11-1979
		CA 1027459 A1	07-03-1978
		DE 2528876 A1	15-01-1976
		FI 751813 A	28-12-1975
		NO 752052 A	30-12-1975
		SE 7506639 A	29-12-1975
US 6357684	B1	19-03-2002	NONE