



(51) International Patent Classification:

A01G 25/09 (2006.01) B05B 3/12 (2006.01)
A01G 25/00 (2006.01)

(21) International Application Number:

PCT/US2012/046819

(22) International Filing Date:

14 July 2012 (14.07.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/507,693 14 July 2011 (14.07.2011) US

(71) Applicant (for all designated States except US): VALMONT INDUSTRIES, INC. [US/US]; One Valmont Plaza, Omaha, NE 68154 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): MALSAM, Craig, S. [US/US]; 17914 Shirley Circle, Omaha, NE 68130 (US).

(74) Agent: BENSON, Tyson, B.; Advent IP, P.C., L.L.O., 2425 South 144th Street, Suite 202, Omaha, NE 68144 (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, CL, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, 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, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

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

7 March 2013

(54) Title: VARIABLE-SPEED IRRIGATION SYSTEM

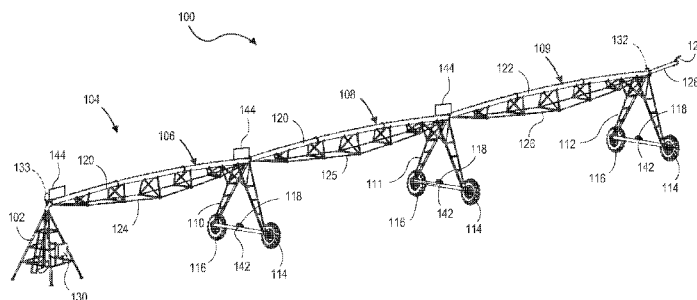


FIG. 1A

(57) **Abstract:** An irrigation system is disclosed that is configured to maintain a near straight alignment. In an implementation, an irrigation system includes multiple interconnected spans which are supported by multiple tower structures. Each tower structure includes a variable-speed drive unit for selectively driving a tower structure at a selected speed. The irrigation system also includes multiple sensors that are each associated with a corresponding span to determine an alignment of the corresponding span with respect to adjacent spans. Each of the sensors is in communication with a corresponding variable-drive control unit. Each of the variable-drive control units are configured to control the selected speed of a corresponding variable-speed drive unit to maintain the interconnected spans in a substantially linear orientation with respect to adjacent ones of the plurality of interconnected spans along a generally longitudinally oriented axis (e.g., maintain alignment of the spans with respect to each other).



INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/046819**A. CLASSIFICATION OF SUBJECT MATTER*****A01G 25/09(2006.01)i, A01G 25/00(2006.01)i, B05B 3/12(2006.01)i***

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)

A01G 25/09; B05B 3/12; B05B 3/00; H02P 27/00

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) & Keywords: irrigation, pivot, potentiometer, variable speed control, drive motor

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6755362 B2 (KRIEGER; NEAL et al.) 29 June 2004 See abstract; column 4, lines 21-43, line 62 - column 5, line 17, lines 32-49; column 6, lines 41-59; column 7, lines 33-46;	1-3,5-9,11-12
A	column 8, lines 14-32, lines 50-59; column 9, lines 55-60; and figures 1-6.	4,10,13-17
A	US 06007004 A (UNRUH; RUDY R.) 28 December 1999 See abstract; column 3, lines 31-43, 63-37; column 5, lines 17-55; claim 1; and figures 1,6,10,12.	1-17
A	US 04034778 A (SAGE; DOUGLAS E. et al.) 12 July 1977 See abstract; column 4, lines 5-36; column 5, line 21-24; column 6, line 58 - column 7, line 12, lines 36-54; and column 8, lines 15-26; and figures1-4.	1-17
A	US 06045065 A (GERDES; JERRY D.) 04 April 2000 See abstract; column 2, line 66 - column 3, line 50; claim 2; and figures 1-4.	1-17
A	US 2010-0141194 A1 (KOEHL ROBERT M.) 10 June 2010 See abstract; and paragraphs [0023]-[0024].	1-17

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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Date of the actual completion of the international search

21 DECEMBER 2012 (21.12.2012)

Date of mailing of the international search report

21 DECEMBER 2012 (21.12.2012)

Name and mailing address of the ISA/KR

Korean Intellectual Property Office
189 Cheongsu-ro, Seo-gu, Daejeon Metropolitan
City, 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

Seo Kwang Wook

Telephone No. 82-42-481-3364



INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2012/046819

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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