09 JUL 2002
20020041291

162162

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
19 July 2001 (19.07.2001)

PCT

(10) International Publication Number
WO 01/52004 A1

(51) International Patent Classification[7]: G05B 19/39, G03F 7/20

(21) International Application Number: PCT/US01/00484

(22) International Filing Date: 5 January 2001 (05.01.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/175,993 11 January 2000 (11.01.2000) US

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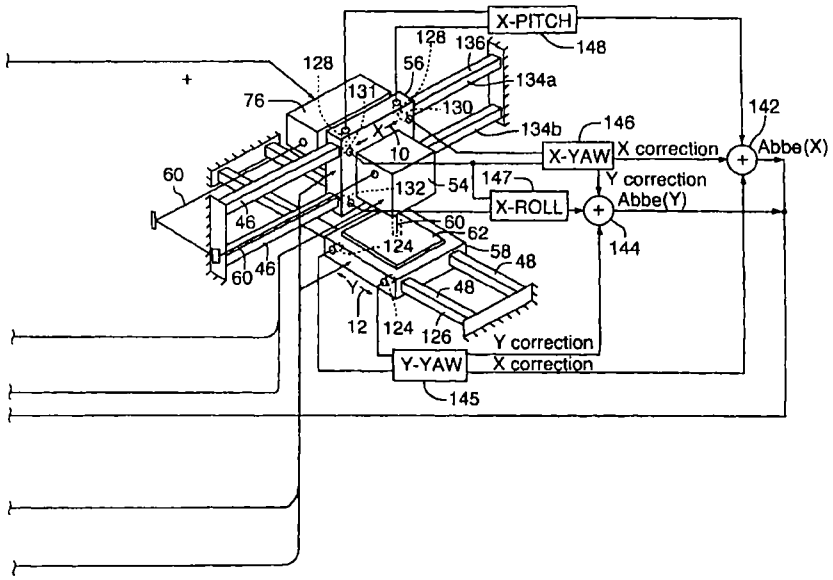
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

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.

(54) Title: ABBE ERROR CORRECTION SYSTEM AND METHOD



(57) Abstract: The present invention preferably employs non-contact, small-displacement, capacitive sensors (124, 128, 130, 131, 132) to determine Abbe errors due to the pitch (20), yaw (22), or roll (18) of a near linear mechanical stage (56, 58) that are not indicated by an on-axis position indicator, such as a linear scale encoder or laser interferometer. The system is calibrated against a precise reference standard so the corrections depend only on sensing small changes in the sensor readings and not on absolute accuracy of the sensor readings. Although the present invention is preferred for use in split-axis positioning systems (50) with inertially separated stages (56, 58), the invention can be employed in typical split-axis or stacked stage systems to reduce their manufacturing costs.

WO 01/52004 A1

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