

Title (en)

Image Forming Apparatus comprising a driving system for a plurality of photosensitive bodies

Title (de)

Bilderzeugungsvorrichtung mit Antriebsvorrichtung für die photoempfindlichen Trommel

Title (fr)

Appareil de formation d'images contenant un mécanisme d'entraînement pour les tambours photosensibles

Publication

**EP 1973008 A3 20140521 (EN)**

Application

**EP 08152262 A 20080304**

Priority

- KR 20070028896 A 20070323
- KR 20080005765 A 20080118

Abstract (en)

[origin: EP1973008A2] An image forming apparatus capable of minimizing color mis-registration due to runout of gears is disclosed. The image forming apparatus includes a plurality of photosensitive bodies 41Y, 41M, 41C, 41K having transfer points to transfer images onto a transfer object, a driving source to drive at least two photosensitive bodies of the plurality of photosensitive bodies, and a driving gear train 200, 300, 400, 500 to transmit driving power from the driving source to the at least two photosensitive bodies. The driving gear train includes photosensitive body shaft gears respectively connected to the photosensitive bodies driven by the driving source, and connecting gears to transmit the driving power to the photosensitive body shaft gears. When any one of the photosensitive body shaft gears is set to a reference photosensitive body shaft gear, the number of teeth of the connecting gear, which is disposed at a  $j$ th position from the reference photosensitive body shaft gear, is determined so that a value calculated from the following equation is substantially an integer.  $L \cdot \frac{1}{D} \cdot \frac{1}{R_j}$  Here,  $D$  refers to a diameter of each of the photosensitive bodies,  $L$  refers to a distance between the transfer points of two adjacent photosensitive bodies, and  $R_j$  refers to a speed reduction ratio from the  $j$ th connecting gear to the reference photosensitive body shaft gear.

IPC 8 full level

**G03G 15/00** (2006.01)

CPC (source: EP)

**G03G 15/757** (2013.01)

Citation (search report)

- [A] US 2007031166 A1 20070208 - ZENSAI SHOICHI [JP]
- [A] EP 0895132 A2 19990203 - CASIO COMPUTER CO LTD [JP]
- [A] US 2005050975 A1 20050310 - SASAKI HIROBUMI [JP], et al
- [X] US 2006037501 A1 20060223 - MASUBUCHI FUMIHITO [JP]

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

**EP 1973008 A2 20080924; EP 1973008 A3 20140521; EP 1973008 B1 20181031**

DOCDB simple family (application)

**EP 08152262 A 20080304**