

Title (en)
Dual cylinders for effecting tilt and pitch functions of a dozer blade

Title (de)
Doppelzylinder zur Bewirkung der Neigungs- und Spitzenfunktionen einer Baggerschaufel

Title (fr)
Deux cylindres servant aux fonctions d'inclinaison et de pas d'une lame de remblayage

Publication
EP 2578754 A2 20130410 (EN)

Application
EP 12187472 A 20121005

Priority
US 201113269157 A 20111007

Abstract (en)
A blade 50 of a work vehicle 10 is coupled to the forward ends of right and left push-beams 32, 34 of a push frame 30 for having the blade pitch adjusted about a transverse axis 66 defined by pivotal connections of the blade 50 with the push-beams 32, 34; and right and left push-beam cylinders 68, 70 are provided between the push-beams 32, 34 and blade 50 for effecting pitch adjustments and for effecting tilt adjustments of the blade 50 about a longitudinal axis 80 located midway between the push-beams 32, 34. The push frame 30 is mounted for pivoting vertically about a second transverse axis 40 so as to adjust the height of the blade 50, with a pair of lift cylinders 82 being coupled between the work vehicle 10 and the blade 50 for effecting this adjustment. An electro-hydraulic control system 100 including an electronic controller 130 is provided for effecting individual or simultaneous control of the push-beam cylinders 68, 70 for effecting blade tilt and pitch adjustments in accordance with operator inputs, with position feedback being provided by cylinder position sensors 140, 142, 144, 146.

IPC 8 full level
E02F 3/76 (2006.01); **E02F 3/84** (2006.01)

CPC (source: EP US)
E02F 3/7618 (2013.01 - EP US); **E02F 3/845** (2013.01 - EP US)

Citation (applicant)
• US 3184869 A 19650525 - OLSEN NORMAN G
• US 5996703 A 19991207 - YAMAMOTO SHIGERU [JP], et al

Cited by
CN106759589A; US2020407951A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2578754 A2 20130410; JP 2013083143 A 20130509; US 2013087351 A1 20130411

DOCDB simple family (application)
EP 12187472 A 20121005; JP 2012180013 A 20120815; US 201113269157 A 20111007