

Title (en)

DEVICE AND METHOD FOR MONITORING A LASER BEAM

Title (de)

VORRICHTUNG UND VERFAHREN ZUR ÜBERWACHUNG EINES LASERSTRAHLS

Title (fr)

DISPOSITIF ET PROCÉDÉ DE SURVEILLANCE D'UN FAISCEAU LASER

Publication

**EP 3152983 A1 20170412 (DE)**

Application

**EP 14728957 A 20140606**

Priority

EP 2014061816 W 20140606

Abstract (en)

[origin: WO2015185152A1] The invention relates to a device comprising a drive laser assembly having a beam source for generating a laser beam (7) and having an amplifying assembly for amplifying the laser beam (7), and comprising a unit (15) for monitoring the laser beam (7), having a transmitting optical element (12), in particular a plane-parallel plate, the normal direction (12a), in relation to the beam axis (7a) of the laser beam (7), of which element is arranged at a tilt angle ( $\beta$ ), and a position-sensing detector (16) for detecting laser radiation (13a, 13b) reflecting back on the optical element (12). The optical element (12) has a first side (14a) and a second side (14b) which are arranged at a wedge angle to one another, and through which the laser beam (7) passes, said first side (14a) reflecting a first sub-beam (13a) and the second side (14b) reflecting a second sub-beam (13b) of the incident laser beam (7). The unit (15) has an optical filter (20) that prevents one of the two reflected sub-beams (13b) from reaching the detector (16). The invention also relates to a corresponding method for monitoring a laser beam (7).

IPC 8 full level

**H05G 2/00** (2006.01)

CPC (source: EP KR US)

**H01S 3/0014** (2013.01 - KR); **H01S 3/0071** (2013.01 - KR US); **H01S 3/1003** (2013.01 - KR); **H01S 3/1305** (2013.01 - US);  
**H01S 3/2232** (2013.01 - US); **H01S 3/2366** (2013.01 - US); **H05G 2/008** (2013.01 - EP KR US)

Citation (search report)

See references of WO 2015185152A1

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)

**WO 2015185152 A1 20151210**; EP 3152983 A1 20170412; KR 102267532 B1 20210618; KR 20170019409 A 20170221;  
TW 201611663 A 20160316; TW I571180 B 20170211; US 10044167 B2 20180807; US 2017085054 A1 20170323

DOCDB simple family (application)

**EP 2014061816 W 20140606**; EP 14728957 A 20140606; KR 20177000167 A 20140606; TW 104118381 A 20150605;  
US 201615367904 A 20161202