

Title (en)  
LEVEL AND/OR VERTICALITY INDICATOR USING LASER BEAMS

Title (de)  
HORIZONTAL- UND/ODER VERTIKALNIVELLIERUNGSANZEIGE MIT LASERSTRAHLEN

Title (fr)  
INDICATEUR DE NIVEAU HORIZONTAL ET/OU VERTICAL A FAISCEAUX LASER

Publication  
**EP 1325283 A4 20040915 (EN)**

Application  
**EP 00966564 A 20000930**

Priority  
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Abstract (en)  
[origin: WO0225210A1] A levelness and or vertically indicator using a laser beam is provided in which a laser beam emitted from a laser beam scanning mechanism (4) is converted to a laser beam line by using a cylindrical lens (145) or a polygonal rotary mirror and the laser beam line is used for indicating levelness and or vertically and a vertical point with the bear eyes by a calibration process for matching the laser beam line with a reference levelness line. The levelness and or vertically indicator includes a laser diode (50a) for emitting a laser beam, a laser beam converting and outputting unit for converting the received laser beam and outputting the converted laser beam, and a portion for providing a reference levelness so that the laser beam line output from the laser beam converting and outputting unit maintains the reference levelness. Also, the pendulum movement of a weight plumb (94) is stopped quickly due to magnetic resistance so that the real levelness and vertically and a vertical point are convenient are indicated by using a laser beam. Thus, the time and work amount needing for indicating levelness and or verticality is reduced. Further, when a an object to be worked on is huge, levelness and or verticality can be effectively indicated.

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IPC 8 full level  
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Citation (search report)  
• [XA] US 5182863 A 19930202 - RANDO JOSEPH F [US]  
• [XA] EP 0722080 A1 19960717 - TOPCON CORP [JP]  
• [XA] US 5459932 A 19951024 - RANDO JOSEPH F [US], et al  
• [XA] US 5604987 A 19970225 - CUPP JOHN P [US]  
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• See references of WO 0225210A1

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