

Title (en)

Depth measuring device for watches and watches incorporating such a measuring device

Title (de)

Tiefenmessvorrichtung für Armbanduhren und Armbanduhren, die mit einer solchen Messvorrichtung ausgestattet sind

Title (fr)

Dispositif de mesure de la profondeur pour montres et montres intégrant un tel dispositif de mesure

Publication

EP 2104009 A3 20091230 (FR)

Application

EP 09009111 A 20061212

Priority

- EP 06831685 A 20061212
- CH 19832005 A 20051215
- CH 2052006 A 20060208

Abstract (en)

[origin: WO2007069028A2] The depth measuring device for a diving watch, more particularly a watch with a chronograph mechanism, comprises a plunger (343) which is moved by external pressure through a rolling membrane (346) against the action of a return element. The plunger acts on cams (351) belonging to a circular slide (350) mounted in a casing ring (330). The movement of the slide (350) is transmitted by a gear train (359) to a depth needle (307) and to a dead needle (308). A pressure sensing device (324) comprises a sliding plunger mounted inside the winding button (314). This plunger acts on a control device (325) for automatically starting and stopping the chronograph mechanism. A locking device (327) is used to lock and release the control device (325) and displays a diving flag (443) in the released position. The gear chain (359) is also designed to display a safety flag (389) at a predetermined depth. A resetting device (328) allows the various mechanisms and devices to be reset to zero. This construction provides a depth measuring device that can easily be incorporated into pre-existing watches and permits automatic starting and stopping of the chronograph mechanism.

IPC 8 full level

G04B 47/06 (2006.01)

CPC (source: EP)

G04B 47/066 (2013.01); **G04F 7/0804** (2013.01); **G04F 7/0842** (2013.01); **B63C 11/02** (2013.01)

Citation (search report)

- [XA] CH 448901 A 19680411 - JENNY & CIE S A LENGNAU PRES B [CH]
- [A] US 4533256 A 19850806 - OSTENDORF LARRY P [US]
- [A] EP 0942339 A2 19990915 - INT WATCH CO IWC [CH]
- [A] DE 1523923 A1 19691016 - HOLDING FAVRE LEUBA S A

Cited by

EP3168694A1; RU2712198C2; US10739136B2

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