

Title (en)  
DEPTH CONTROL DEVICE

Title (de)  
TIEFENREGELGERÄT

Title (fr)  
DISPOSITIF DE CONTROLE DE L'IMMERSION

Publication  
**EP 0991564 B1 20020313 (EN)**

Application  
**EP 98930947 A 19980625**

Priority  
• GB 9801858 W 19980625  
• GB 9713973 A 19970703

Abstract (en)  
[origin: WO9901338A1] A depth control device (1) for a submersible body comprises a depth monitor (5) and depth controller (6). A variable volume buoyant body operates under the control of the depth controller and comprises three chambers, the first (10) containing air and the second and third chambers (7, 8) containing hydraulic fluid. The second and third chambers (7, 8) communicate reversibly with one another by means of a tube (13) and bypass valve (12) in a pump (3), so that a piston (9) at the entrance to the first chamber (10) is displaced in response to movement of fluid between the second and third chambers. Thus, the volume of the buoyant body is varied and hence the buoyancy of the submersible body which it controls. To keep the submersible body at a particular depth, a depth trigger value is set in the depth controller (6), so that a reversible change in the volume of the buoyant body is initiated in response to a change in depth sensed by the depth monitor (5) by pumping fluid between the two chambers (7, 8). The depth monitor is generally a pressure sensor and the pump is typically a swash plate pump.

IPC 1-7  
**B63B 22/18**; **B63G 8/24**

IPC 8 full level  
**B63B 22/18** (2006.01); **B63G 8/24** (2006.01)

CPC (source: EP)  
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Cited by  
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**WO 9901338 A1 19990114**; AU 732699 B2 20010426; AU 8122298 A 19990125; CA 2294978 A1 19990114; DE 69804221 D1 20020418; DE 69804221 T2 20021010; EP 0991564 A1 20000412; EP 0991564 B1 20020313; GB 2340466 A 20000223; GB 2340466 B 20010725; GB 9713973 D0 19970910; GB 9928379 D0 20000126; NZ 501725 A 20010126

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