Title (en)

Depth-controlled ejection valve mechanism.

Title (de)

Tauchtiefengesteuerte Ausblasventil-Einrichtung.

Title (fr)

Mécanisme à vanne de lancement, contrÔlé par la profondeur d'immersion.

Publication

EP 0360370 B1 19941102 (DE)

Application

EP 89250041 A 19890920

Priority

DE 3832059 A 19880921

Abstract (en)

[origin: EP0360370A2] In known ejection and delivery tubes for the underwater ejection of bodies, compressed-air accumulators and associated actuating appliances take up some of the tube length and require stowage room for intermediate storage on board. An ejection device accommodated inside the vehicle will be space-saving and easy to maintain and will automatically allow an adaptation to the submersion depth and, if appropriate, be constantly ready for use. For the ejection operation, blow-out air is conveyed via a blow-out valve (3). This valve is actuated when control-air moves the control piston (31) with the piston rod (32) and valve plate (33) via a control-air valve (5). The valve plate thereby displaces oil from an oil chamber (40), connected to the valve plate, into a variable oil reservoir (62) via an adjustable throttle (61). The throttle consists of a piston which is displaceable counter to spring pressure on the one hand and counter to the water pressure of the immersion depth on the other hand and which closes or opens a narrow bore (64) and, by means of a transition curve, throttles the outflow of oil from the narrow bore. The ejection and delivery device, having a space-saving design and not to be arranged in the ejection tube, makes it possible, for example, to eject containers from submarines with automatic adaptation to the submersion depth.

IPC 1-7

F41F 3/10

IPC 8 full level

F41F 3/10 (2006.01)

CPC (source: EP)

F41F 3/10 (2013.01)

Cited by

CN110713263A; CN112629320A; US5477674A; AU702332B2; US6011136A; WO9603430A1

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