

Title (en)

A semi-closed circuit, underwater breathing apparatus for medium and great depths

Title (de)

Unterwasseratmungsgerät für mittlere- und grössere Tiefen, mit halbgeschlossenem Kreislauf

Title (fr)

Appareil respiratoire pour plongées moyennes et profondes avec circuit semi-fermé

Publication

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Application

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Priority

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Abstract (en)

A semi-closed circuit, underwater breathing apparatus for medium and great depths, comprising a source of breathing gas connected through a delivery pressure regulator to an expandible plenum chamber (4) having a pair of rigid walls (15,16); said expandible plenum chamber (4) being connected to a semi-closed circuit including a soda-lime filter (7) and an inspiration/exhalation mouthpiece for a diver; said expandible plenum chamber (4) being in mechanical connection with a discharge valve (11) towards the environment for discharging the surplus of breathing gas in the exhalation circuit as a consequence of an excessive expansion of said expandible plenum chamber caused by an increase of pressure of the breathing gas within said plenum chamber during normal breathing; there being also provided means with automatic control for the adjustment of the flow of breathing gas towards said plenum chamber as a function of the environment pressure (water head), and means for increasing the flow of breathing gas towards said plenum chamber for counteracting a possible collapsing of said expandible plenum chamber in the event of a fast increase of the environment pressure. <IMAGE>

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Citation (search report)

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