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(54) Fluid displacement body for emergency floatation of marine craft

(57) A portable inflatable water displacing body (10) for preventing complete submersion of watercraft in immanent danger of sinking due to a sudden influx of water is comprised generally of at least one bladder (12), normally mounted within the hull of the vessel in a collapsed and deflated condition, each bladder having: 1) internal volumetric expansion means (14) including an inlet (26) connected to an external gas source (24) for charging the expansion means and a relief valve (30) for controlling the amount of pressure in the expansion means, and 2) a check valve (16) for allowing one-way passage of ambient air into the bladder. The expansion means (14) is comprised of an extremely light-weight, highly flexible tubular framework which when charged with the gas expands into a pre-defined three-dimensional geometric shape causing the volume within the surrounding bladder to increase. The increase in volume reduces the pressure and creates a partial vacuum, which is filled by air pushed in through the check valve by the higher atmospheric pressure. The expanded water displacing body competes for and successfully occupies space within the vessel's hull, and preferably but not essentially below the waterline, which would otherwise be filled by incoming water. Because both the volume of the vessel and its average density are substantially maintained, so is the buoyancy needed to keep the vessel afloat.

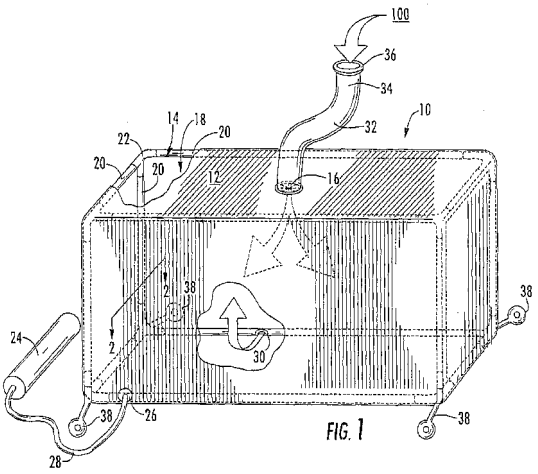

FIG. 1

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EUROPEAN SEARCH REPORT

Application Number
EP 08 10 5342

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	4 August 2010	De Sena Hernandorena

CATEGORY OF CITED DOCUMENTS

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