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(54) Title: PISTON - CHAMBER COMBINATION - VANDERBLOM MOTOR

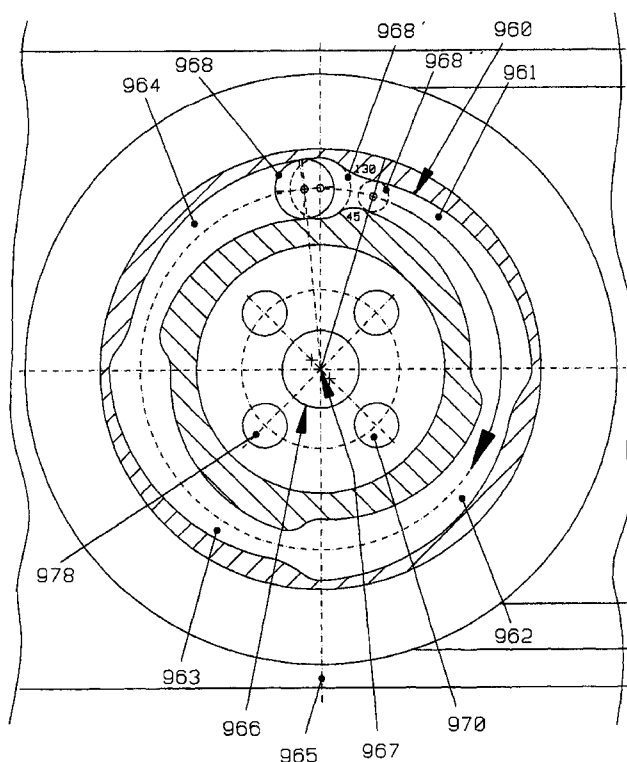


Fig.10G

(57) Abstract: A piston-chamber combination comprising a chamber which is bounded by an inner chamber wall and comprising a piston inside said chamber to be engagingly movable relative to said chamber wall at least between a first longitudinal position and a second longitudinal position of the chamber, said chamber having cross-sections of different cross-sectional areas and different circumferential lengths at the first and second longitudinal positions, and at least substantially continuously different cross-sectional areas and circumferential lengths at intermediate longitudinal positions between the first and second longitudinal positions, the cross-sectional area and circumferential length at said second longitudinal position being smaller than the cross-sectional area and circumferential length at said first longitudinal position, said piston comprising a container which is elastically deformable thereby providing for different cross-sectional areas and circumferential lengths of the piston adapting the same to said different cross-sectional areas and different circumferential lengths of the chamber during the relative movements of the piston between the first and second longitudinal positions through said intermediate longitudinal positions of the chamber, the piston is produced to have a production-size of the container in the stress-free and undeformed state thereof in which the circumferential length of the piston is approximately equivalent to the circumferential length of said chamber at said second longitudinal position, the container being expandable from its production size in a direction transversally with respect to the longitudinal direction of the chamber thereby providing for an expansion of the piston from the production size thereof during the relative movements of the piston from said second longitudinal position to said first longitudinal position,

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the container being elastically deformable to provide for different cross-sectional areas and circumferential lengths of the piston. This is accomplished by the combination comprises means for introducing fluid from a position outside said container into said container, thereby enabling pressurization said container, and thereby expanding said container and displacing said container between second and first longitudinal positions of the chamber.