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This cross-sectional view shows a multi-layered structure. A central cavity is defined by a top layer (8002) and a bottom layer (8008). The top layer has a top surface (8006) and a bottom surface (8005). The bottom layer has a top surface (8007) and a bottom surface (8008). A side flange (8009) is located on the right side of the cavity. On the left side, there are two flaps (8000) that extend outwards. A central layer (8001) is positioned between the top and bottom layers. A dashed line (8020) indicates a vertical plane of symmetry or a specific layer boundary. Various other layers and interfaces are labeled with numbers 8003, 8004, and 8005.

(57) Abstract: A linear compressor has a hollow piston (8002) with crown (8009) and sidewall (8006) reciprocating in a cylinder with a piston rod (8000) connecting the piston (8002) to a spring. A axially stiff but laterally compliant connection (8001) between the piston rod (8000) and the piston (8002) transmits axial forces directly to the piston crown (8009) while transmitting lateral forces to the piston (8002) at axial location away from the piston crown (8009). The connection (8001) allows rotational flexibility between the piston (8002) and the piston rod (8000) transverse to and uniformly around the piston reciprocation axis.



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