The Inboard Passive Stabilizer (IPS) is part of the plasma stabilizing system built into the TPX. Its purpose is to provide passive stabilization of the plasma vertical instability on short time scales. With CFC armor tiles it serves as a startup limiter, protects the vacuum vessel from radiation heat load during steady-state operation and also functions as neutral beam armor. The Inboard Passive Stabilizer is a saddle coil constructed of a ring of copper plates, armored with carbon-carbon tiles, that surrounds the vacuum vessel center post at the midplane. The design of the plates, the support structure, cooling lines, CFC tiles, and tile attach methods is described. Tiles that see only the normal head load of 0.4 MW/m\(^2\) are attached with mechanical fasteners. Tiles in the neutral beam shinethrough area can see as much as 1.7 MW/m\(^2\) and are brazed to the IPS. Thermal and stress analyses are reviewed. Also shown and analyzed are the forces generated in the plates by the currents during a disruption as well as the thermal forces, generated during bakeout cycles. The plates are required to be fully remotely handled, including tile replacement, and the influence of this requirement on the design is discussed.

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