

Wellhead Assembly having a Sinusoidal Sealing Profile and a Method to Assemble the Same

Abstract of the Disclosure

An outer tubular wellhead member (13) having wickers formed in a bore (17) of the outer tubular wellhead member (13) that vary in axial position and methods to assemble a subsea wellhead (11) including the same is disclosed. The plurality of circumferentially extending wickers (21) are formed in sealing profiles (15) of the wellhead member (13). Each wicker (21) varies axially in position around the circumference of the bore (17) so that when a seal member (47) engages each wicker (21), the wicker (21) deforms the surface of the annular seal (47) to form circumferential sealing bands at each wicker (21) from an upper end of the sealing profile (15) to a lower end of the sealing profile (15), upper portions of each wicker (21) deforming the surface of the annular seal (47) before lower portions of the same wicker (21) so that fluid between adjacent wickers (21) flows from the higher axial location of the wicker (21) to the lower axial location of the wicker (21) to limit hydraulic lock.

Figure 1