BI-DIRECTIONAL ANNULUS SEAL

ABSTRACT

A wellhead seal assembly (51) forms a metal-to-metal seal between inner (15) and outer (11) wellhead members. A metal seal ring (53) has inner (54) and outer (56) walls separated by a slot (57). A lock ring (81) has grooves (83) for locking the inner wellhead member (15) to the outer wellhead member (11) during installation. An energizing ring (31) has a C-ring (41) captured on its inner surface. When the energizing ring (31) is moved further into the slot (57), the C-ring (41) is forced from its pocket (37) and engages the surface of the inner wellhead member (15), locking the seal assembly (51) to the inner wellhead member (15).

[Fig. 1]