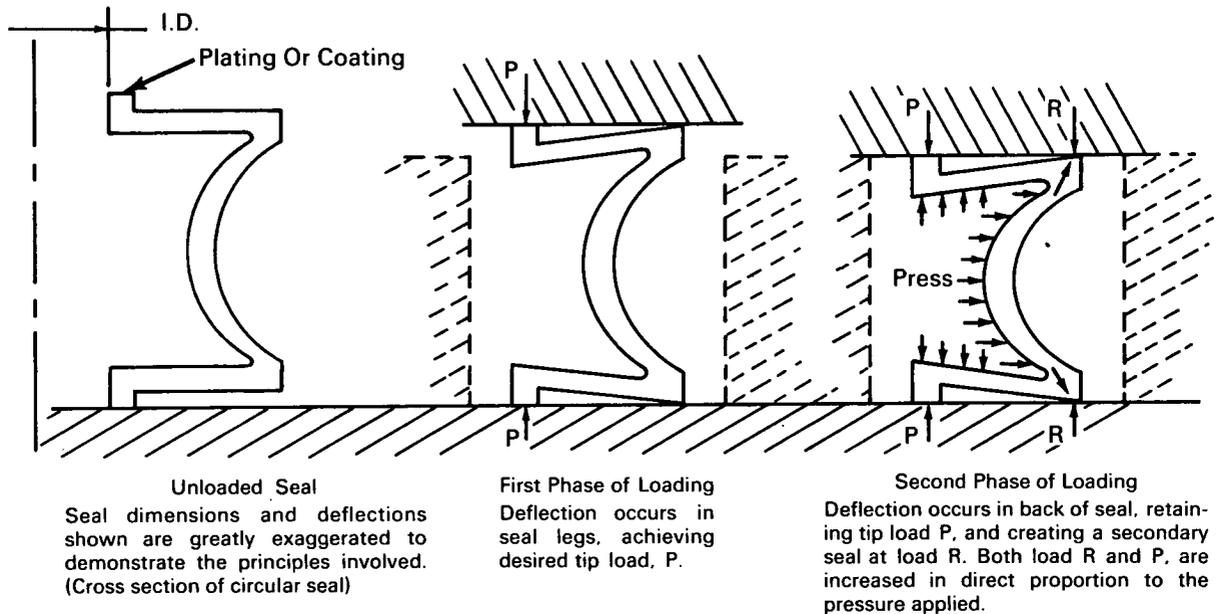


NASA TECH BRIEF



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Static Seal Concept to Accommodate Seat Tolerances



A static seal is proposed that is considered to have design characteristics permitting compensation for flange separation and flange-groove tolerances without large seal-leg deflections. Whenever the present seal deflections, because of tolerances and flange separation, are significant, considerable deviation from design requirements occurs. In the design suggested, two deflections take place; one in the seal legs, resulting in tip loading, and the other at the rear of the seal. This deflection in the rear of the seal allows for tolerances and flange separation by enabling the maintenance of practically constant tip

loading. Both the legs and back of the seal are pressure actuated as illustrated.

Note:

This development is in conceptual stage only, and as of date of publication of this Tech Brief, neither a model nor prototype has been constructed.

Patent status:

No patent action is contemplated by NASA.

Source: J. F. Hardy, III
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Category 05