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(54) Title: METHOD OF CALCULATING WELLHEAD SYSTEM LOAD CAPACITY

(57) Abstract: The present invention provides a method of calculating the load capacity of a wellhead system. The method comprises determining a first contact stress at a first interface between an annular component and a collar and equating a radial deflection of an inner surface of the annular component with a radial deflection of an outer surface of the collar. The method uses a first contact stress and the axial movement of the annular component to determine a contact stress at a gripping interface between a gripping surface and an inner tubular member. The method also equates a radial deflection of the outer surface of the inner tubular member with (i) a radial deflection of the gripping surface plus (ii) a depth of penetration of a ridge of the outer surface of the inner tubular member into the gripping surface (iii) a radial dimension of an initial gap between the outer surface of the inner tubular member and the inner surface of the outer tubular member.

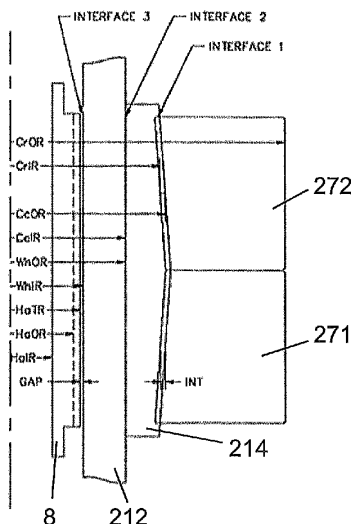


Figure 6

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