

Title (en)

RADIAL LIP SEAL AND METHOD OF MAKING IT.

Title (de)

RADIALLIPPENDICHTUNG UND VERFAHREN ZU DEREN HERSTELLUNG.

Title (fr)

JOINT A LEVRE RADIALE ET SON PROCEDE DE FABRICATION.

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Application

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Abstract (en)

[origin: WO8001598A1] This invention relates to the field of methods for making oil seals. A method of forming an elastomeric radial lip seal (Figs. 3-5) with a bonded solid, deformable, and non-moldable wear insert having a hydrodynamic surface positioned at the sealing lip through compression molding. Such method includes employing a preheated mold core (10) forming a portion of a mold cavity with the core having assembled thereto a negatively imprinted surface (23) having a hydrodynamic fluted configuration at a preselected location. An annular deformable and non-moldable solid material (26) is positioned on the lower core (10) of the mold situated so as to be in close proximity to the preselected location having the fluted imprinted surface. An annular, uncured elastomeric material (27) is positioned adjacent to the deformable and non-moldable annulus (26). The elastomer, deformable and non-moldable annuli (26, 27), and a seal case member (20) are joined by heating and compressing under pressure which is sufficient in magnitude to force portions of the deformable and non-moldable annulus (26) onto the negatively imprint fluted surface (23) by hydrostatic pressure generated by the elastomer being cured, such that a positive imprint is formed on the deformable non-moldable annulus (26) which is generally complementary to the negatively imprinted surface on the seal mold.

Abstract (fr)

Un procede de formation d'un joint a levre radiale elastomere avec un organe d'usure, solide, deformable et non moulable ayant une surface hydrodynamique positionnee sur la levre d'etancheite par moulage sous pression. Un tel procede consiste a utiliser un noyau de moule prechauffe (10) formant une partie d'une cavite d'un moule, le noyau ayant une surface imprimee negativement (23) presentant une configuration cannelee hydrodynamique a un endroit predetermine. Un materiau deformable annulaire et solide non moulable (26) est place sur le noyau inferieur (10) du moule situe de maniere a etre a proximite de l'endroit predetermine ayant la surface imprimee cannelee. Un materiau elastomere annulaire non durci (27) est positionne de facon adjacente a l'anneau deformable et non moulable (26). Les anneaux elastomeres, deformables et non moulables (26, 27), et un boitier de joint d'etancheite (20) sont joints par chauffage et compression a une pression suffisante pour forcer les parties de l'anneau deformable et non moulable (26) sur la surface cannelee imprimee negativement (23) par pression hydrostatique produite par l'elastomere qui durcit par reaction, de telle sorte qu'une impression positive est formee sur l'anneau deformable non moulable (26) qui est generalement complementaire de la surface imprimee negativement sur le moule du joint d'etancheite.

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