

Title (en)
SEAL ARRANGEMENT HAVING A PROFILE SEAL

Title (de)
DICHTUNGSANORDNUNG MIT PROFILDICHTUNG

Title (fr)
ENSEMBLE D'ÉTANCHÉITÉ À JOINT PROFILÉ

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Application
EP 09769019 A 20090626

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Abstract (en)
[origin: WO2009156170A1] The present invention relates to a seal arrangement, particularly for hydraulic pistons or piston rods, having an idle machine part (2), a movable machine part (1), and a profile seal (3, 3') disposed in the installation space (5) provided for the idle machine part (2) as a contact seal between the idle machine part (2) and the movable machine part (1). In order to avoid the problem of a jerking start, particularly after a longer period of rest, and to minimize the sliding friction during movement, the invention provides a seal arrangement and a respective profile seal for such a seal arrangement, wherein the profile seal (3, 3') has a static sealing lip (6) on the high-pressure side, and a dynamic sealing lip (7), wherein the contact surface (8) of the dynamic sealing lip (7) facing the movable machine part (1) has at least three sealing edges (9, 10, 11), wherein during the depressurized state at least the front sealing edge (9) on the high-pressure side, but all sealing edges, are in contact with the movable machine part (1), and the further sealing edges (10, 11) have an increasing distance to the movable machine part (1) with an increasing distance from the high-pressure side (H), and wherein the further sealing edges (10, 11) successively come in contact with the movable machine part (1) as the pressure increases.

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See references of WO 2009156170A1

Citation (examination)
FREITAG E ET AL: "Polyurethannutränge mit verringerter Reibung-low friction Seal LF 300", SEALING SYSTEMS FOR FLUID POWER APPLICATIONS : BALANCING LEAKAGE, CONTROL AND PERFORMANCE ; MAY 3 - 4, 1999 IN DRESDEN / 11TH INTERNATIONAL SEALING CONFERENCE DRESDEN. [INSTITUT FÜR FLUIDTECHNIK DER TU DRESDEN,, 3 May 1999 (1999-05-03), pages 331 - 347, XP009191930

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