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## O-RING SEAL FOR ROCK BIT BEARINGS

### Abstract of the Disclosure

5 An improved O-ring seal for rock bit bearings comprises a body formed from a resilient elastomeric composition and a modified surface comprising a permanent surface enhancing material integral with the body. The surface comprises a layer of surface enhancing material that encapsulates and is molecularly bonded to an underlying surface of an elastomeric seal body. The surface enhancing material selected may include metal disulfides, fluoropolymers, ethylene polymers, silicone polymers, and urethane polymers. 10 The O-ring surface displays enhanced properties of reduced break-off friction, increased lubricity and wettability, and increased thermal resistance. These enhanced surface properties serve to minimize stick-slip and material loss from the O-ring surface resulting from stick-slip, thereby increasing the service life of the O-ring seal and rock bit

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