

EFFECTS OF PRESSURE-DEPENDENT VISCOSITY ON THE LOAD CAPACITY OF CONICAL SQUEEZE FILM BEARINGS

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Abstract

The purpose of this paper is to study the effects of pressure-dependent viscosity on the load capacity of conical squeeze film bearings. Comparing with the iso-viscous lubricants, the effects of pressure-dependent viscosity provide an increase in the film pressure and load capacity. The results provide useful information in designing the conical squeeze film bearings.

Keywords: conical squeeze film bearings, pressure-dependent viscosity