
Squeeze-Film Bearings

Externally Pressurized Bearings

DISCUSSION
R. F. Martin
I am taking this opportunity to point out an error in Table 1. Although in the past eight years, Bell Aerosystems Company has

Journal of Lubrication Technology
Copyright © 1968 by ASME
OCTOBER 1968 / 739
done development work on both the spool and the spherical (free-rotor) types of gyro spring bearings, our present BRIG gyroscopic bearings incorporate a cone-type self-acting spin bearing. Furthermore, the BRIG gyroscopes are two-degree-of-freedom instruments. Bell Aerosystems does not make a single-degree-of-freedom gyro.

Lack of gap variation with temperature is one of the interesting possibilities of the coaxial conical bearing, as mentioned in the paper. At Bell Aerosystems, both the coaxial and noncoaxial configurations have been fabricated and tested. Our findings were that for the noncoaxial geometry with similar metals throughout a slight temperature differential between the rotor and the stationary part of the bearing can result in proportionately large changes in the operating gap. In some tests, seizure occurred. This problem is eliminated with the coaxial conical bearing.

Authors' Closure

We are sorry for tabulating the Bell Aerosystem effort incorrectly and are happy to receive the updated information.