

AIRCRAFT INSTRUMENT BEARINGS

Applications

Artificial Horizon Gyros

Turn Coordinators

Directional Gyros

Rate Gyros
(Air/Electric Driven)



Improved performance for low torque applications.

NHBB is the leading supplier of ultra-precision miniature and instrument bearings for the general aviation instrument market. These bearings are designed to operate optimally in gyro spin or gimbal applications where precise running accuracy and low torque are critical.

All of the bearings produced by NHBB feature optimized raceway finishes with Grade 3 balls as standard. The operating performance can be improved further by requesting the "MC"

premium feature. Another critical component of bearing design is the roundness of the rings which are held to less than .000010" on average. A full range of retainer options are

available which include stamped steel crown and ribbon, in addition to machined

phenolic, delrin and polyamide-imide. We are testing new retainer materials to further enhance performance and extend the bearings operational life.

All bearing assembly is done in a Class 1000 Clean Room with 100% andersonmeter (dynamic noise and vibration) testing. Our in-house Test Lab has also developed a patented vibration/frequency analyzer to expand our analytical capabilities.

The Aircraft Instrument Bearings offered by NHBB are all TSO-C149 approved. We have extensive approvals in addition to unique design and manufacturing capabilities.

The use of ceramic (silicon nitride) balls can further increase the operating life, reduce the starting & running torque, prevent electric arcing and enhance overall performance with minimal lubrication.

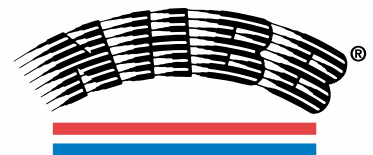
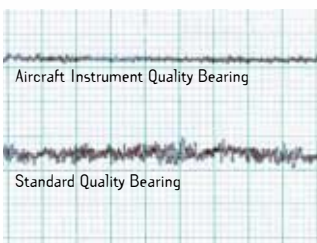
Please feel free to consult with us early in your design phase to learn about our latest developments in bearing technology.

Advantages

- Low Torque
- High Speed
- Precise Running Accuracy
- Extended Operational Life
- Reduced Noise Levels

RUNNING TORQUE TRACE COMPARISON

(Speed: 2 RPM / Axial Load: 0.5 lbs.)



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