



Proven Precision Dry Lubrication

DICRONITE®



Military Helicopter Bearings

Situation:

- Combat helicopters are vulnerable to sudden loss of transmission lubrication due to enemy fire
- Increasing the transmission life after sudden lubrication loss increases the probability of finding a suitable emergency landing site and directly saves lives

Testing:

- The performance of standard bearings and Dicronite dry lubricated standard bearings was compared under sudden lubrication loss conditions
- Bearings: M-50 steel roller bearings
- Load: 114Kgf (250lbf) radial load
- Speed: 10,000 rpm, inner race
- Lubricant: MIL-PRF-7808 lubricant at 65°C (175°F)

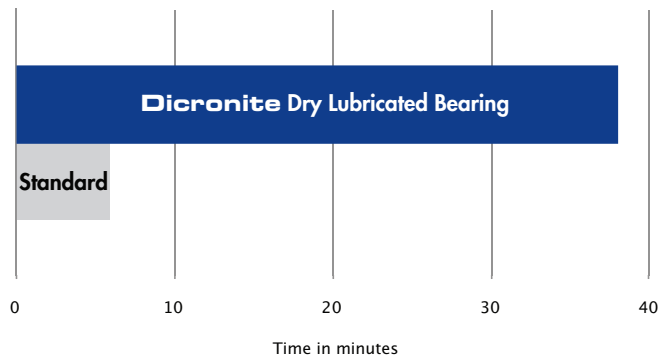


Results:

- Under normal lubricated conditions, the outer race temperature measured 107°C (250°F)
- Under lubrication loss conditions, standard bearings failed at a maximum time of 6 minutes, minimum time of 3 minutes. An outer race temperature of 154°C (335°F) was measured at failure time.
- A Dicronite dry lubricated bearing ran for the duration of the test (38 minutes), under lubrication loss conditions, a six fold increase. An outer race temperature of 204°C (425°F) was measured.

Conclusion:

- **Dicronite dry lubrication** increased bearing life sufficiently to enable an emergency landing per the military's test conditions.



Dicronite is available throughout the world. For more information visit us at: www.dicronite.com or contact Lubrication Sciences International at 800.874.4319 • 408.834.7442 • inquiries@dicronite.com