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Brief 65-10302

NASA TECH BRIEF

Burnishing Technique Improves Lubrication of Threaded Fasteners

The problem: Conventional methods of applying dry film lubricants such as molydisulfide to threaded fasteners involve the use of binders and vehicles to ensure coverage and retention during fastening. These necessary materials are subject to displacement and loss during storage and handling.

The solution: A molydisulfide coating is burnished into the thread surfaces during final manufacturing operations.

How it's done: The fastener threads are rolled 0.010 to 0.015 inch oversize and the molydisulfide coating is applied. A final rolling operation both reduces the threads to design size and burnishes the dry film lubricant into the thread surfaces.

Notes:

1. The molydisulfide may be applied by any convenient method including final rolling of the threads in a molydisulfide environment.
2. Inquiries concerning this innovation may be directed to:

   Technology Utilization Officer
   Lewis Research Center
   21000 Brookpark Road
   Cleveland, Ohio, 44135
   Reference: B65-10302

Patent status: NASA encourages commercial use of this innovation. No patent action is contemplated by NASA.

Source: James L. Gruper of
Lockheed Missiles and Space Company
under contract to
Lewis Research Center
(Lewis-217)

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