



UNIRAC TECHNICAL BULLETIN

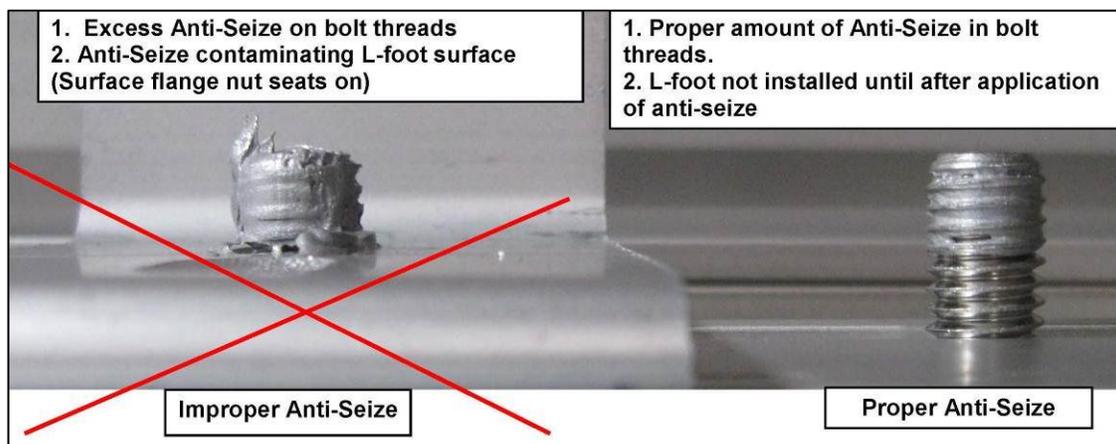
Bulletin Number: TB-100929-1001-1

Theme: Application of anti-seize onto bolts

Background: Anti-seize is a lubricant commonly used to prevent seizing / galling of stainless steel fasteners and has been successfully used with Unirac product for years. Incidents were recently reported where excessive anti-seize was applied to a 3/8 inch bolt in the process of fastening an L-foot to a SolarMount rail. In these incidents the bolt had been inserted into a SolarMount rail and an L-foot was positioned on the rail with the 3/8 inch bolt protruding through the slotted hole of the L-foot. Excessive anti-seize was then applied to the bolt. When the serrated flange nut was threaded onto the bolt excess anti-seize contaminated the flange side of the flange nut. Additionally in at least one case anti-seize was applied to, and contaminated, the L-foot where the flange nut seats. In all instances friction between the flange side of the nut and the L-foot was significantly reduced by the presence of anti-seize and, as the nut was torqued to its specified torque, the fastener connection failed. The connection failure is directly related to anti-seize lubricant on the flange side of the nut. The serrated flange on the nut is a locking feature for the system and must never be coated with any type of anti-seize or lubricant.

Description:

1. Anti-seize should only be applied to a bolt.
2. Application of anti-seize to bolt threads should be just enough to cover a few threads of the bolt and should not extend past the outer diameter of the bolt threads. (Reference photograph below.)
3. The flange side of a serrated flange nut is a locking feature intended to keep the nut from loosening.
4. Anti-seize should never be applied to or allowed on the locking feature of a serrated flange nut.
5. Anti-seize should never be applied to the surface the flange nut is intended to be seated on. (Reference photograph below.)
6. (2) 3/8-16 bolts are shown in the photographs below but this bulletin applies to all bolt/serrated flange nut connections.



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