



AEROSPACE RECOMMENDED PRACTICE

ARP688™

REV. B

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Superseding ARP688A

Reusable Lock for Spanner Nuts

RATIONALE

This document has been determined to contain basic and stable technology which is not dynamic in nature.

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1. SCOPE:

This aerospace recommended practice is applicable to the design of a reusable locking device for cylindrical nuts which are generally tightened with a spanner wrench. Nuts of this type are commonly used to pre-load, and/or position, anti-friction bearings.

1.1 Purpose:

To provide basic information relating to the design of a reusable lock for spanner and similar cylindrical nuts.

2. REFERENCES:

MS172321

MS172236

B.S. 2090-1954

3. INTRODUCTION:

The problem of locking a pre-loading nut to prevent loosening during operation has met with a wide variety of solutions.

Advantages of the design outlined herein are:

- a. All the parts are basically reusable for an unlimited number of installation and removal cycles.
- b. The design is basically unaffected by inertia loads which result when the nut is subjected to a gravitational field such as the rotating shaft application.
- c. The locking design is positive and is applicable for severe vibratory environment applications.
- d. Since the design does not require staking or deformation at the lock, there is no danger of inadvertently damaging the lock or the mating parts when setting the lock.
- e. The installation of the lock is simple and requires no special skill or tools.
- f. Since the lock is not in place during the torquing of the nut, the possibility of inadvertently damaging the lock during the torquing operation is eliminated.

4. DESCRIPTION OF THE DESIGN:

4.1 The components of the assembly are as shown in Figure 1.

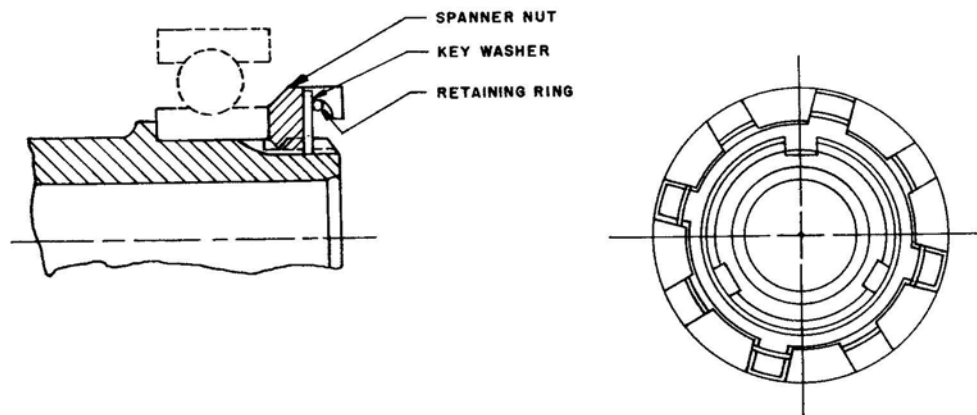


FIGURE 1