

# Federal Aviation Agency

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AIRCRAFT

EFFECTIVE :

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**SUBJECT :** LIMITATIONS OF SELF-LOCKING CASTELLATED NUTS

1. PURPOSE. This circular provides information on the limitations of cotter pinned self-locking castellated nuts.
2. GENERAL. A means has been developed for reducing the possibility of nut-bolt separation due to the failure or omission of a cotter pin. This recent development consists of a self-locking castellated nut which employs a nonmetallic type of insert as an additional locking means. Results of laboratory vibration tests show that the self-locking feature extends cotter pin life and the vibration life of the nut-bolt connection after cotter pin failure, when compared with an AN-310 or AN-320 castellated nut.
3. INFORMATION.
  - a. Self-locking castellated nuts conforming to Military Standards 17825(WEP) and 17826(WEP) will meet the same performance requirements as the AN-310 and AN-320 castellated nuts except as delineated in the following table:

Nut Type	Ultimate Tensile Strength (lbs Minimum)	
	7/16 in Dia	1/2 in Dia
AN-320	6800	9250
MS 17826(WEP)	5600	6200

- b. Self-locking castellated nuts may be used in those types of applications for which slotted or castellated nuts are approved and where the temperature does not exceed 250°F, except that the above diameter sizes of self-locking castellated nuts are not interchangeable with the respective size AN-320 nuts unless the application is substantiated for the lower tensile strength.

Acting George B. Moore  
Director  
Flight Standards Service