FEDERAL SUPPLY CLASS
5307

RATIONALE

FIGURE 1 RE-DRAWN AND TABLE 1 RE-FORMATTED, REVISE NUT END RUNOUT TO POSITION REQUIREMENT, ADD TYPE 1 TO LOCKRING MATERIAL CALLOUT, ADD SURFACE TEXTURE REQUIREMENT ON THREAD FLANKS, ADD PACKAGE MARKING PER AS478, REVISE NOTE FOR DISPOSITION OF EXISTING INVENTORY, UPDATE REFERENCES AND EDITORIAL CHANGES THROUGHOUT.

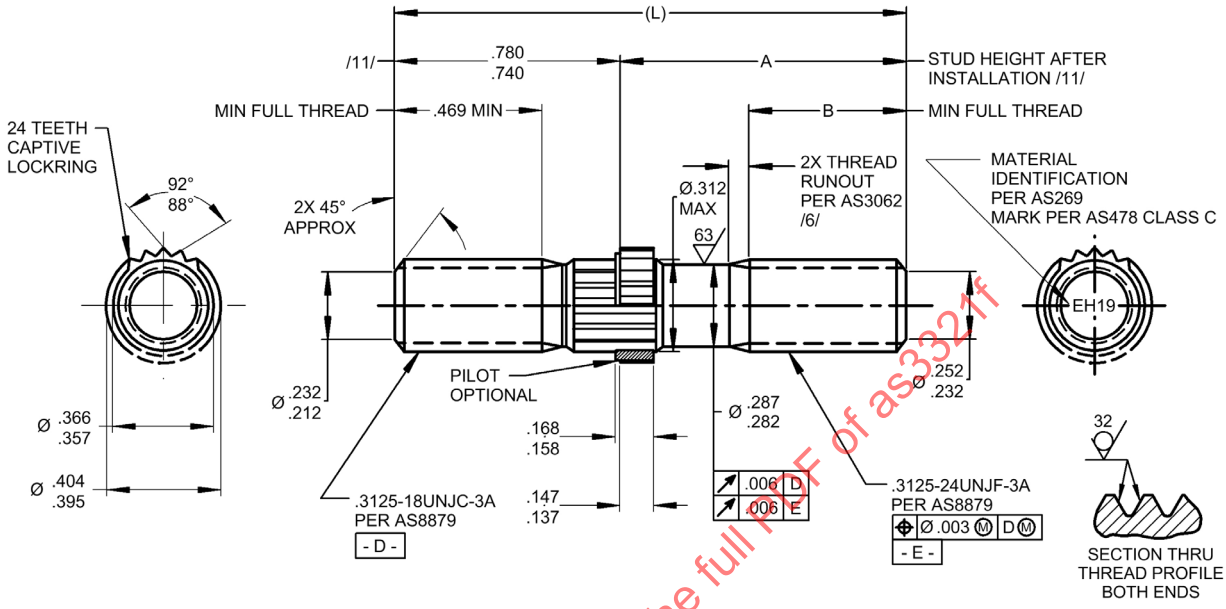


FIGURE 1 - STUD

NOTES:

1. MATERIAL: STUD - CORROSION AND HEAT RESISTANT STEEL, AMS5731, AMS5732, AMS5734, AND AMS5737. (COMPOSITION SIMILAR TO UNS S66286)
   LOCKRING - CRES, AMS5640 TYPE 1 (COMPOSITION SIMILAR TO UNS S30300)

2. HEAT TREATMENT: STUD - SOLUTION AND PRECIPITATION HEAT TREATED. SEE PROCUREMENT SPECIFICATION.

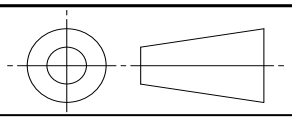
3. HARDNESS: STUD - 24-37 HRC, 247-344 HB, OR 260-363 HV.

/4/ FINISH: STUD AND LOCKRING - CLEAN (PASSIVATE) PER PROCUREMENT SPECIFICATION OR PASSIVATE PER AMS2700, METHOD 1, CLASS 4.

5. FLUORESCENT PENETRANT INSPECTION: ASTM E1417/E1417M, EXCEPT LOCKRING. ACCEPTANCE CRITERIA PER AS7482.

ISSUED 1979-09 REAFFIRMED 2001-11 REVISED 2020-06

THIRD ANGLE PROJECTION



For more information on this standard, visit
https://www.sae.org/standards/content/AS3321F/

CUSTODIAN: E-25

PROCUREMENT SPECIFICATION: AS7482 /4/ /6/

SAE INTERNATIONAL

AEROSPACE STANDARD

STUD - STRAIGHT, RING LOCKED,
CORROSION AND HEAT RESISTANT STEEL
(UNS S66286), .3125-18 UNJC X .3125-24 UNJF

AS3321™
SHEET 1 OF 3

REV. F

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/6/ PROCUREMENT SPECIFICATION: AS7482, EXCEPT STRESS RUPTURE TEST IS WAIVED, AND SPECIAL STUD END THREAD REQUIREMENTS OF AS3062 ARE NOT APPLICABLE. INCOMPLETE LEAD AND RUNOUT THREAD REQUIREMENTS ON BOTH THREADS SHALL BE AS SPECIFIED IN AS3062 FOR BOLTS.

7. PERFORMANCE REQUIREMENTS WHEN INSTALLED PER NOTE 15:

   a. STUD SHALL HAVE A MINIMUM RESISTANCE TO PULLOUT OF 8325 LBF BASED ON A MINIMUM PARENT MATERIAL SHEAR STRENGTH OF 25 KSI. TEST PROCEDURE PER NASM45909 AS APPLICABLE.

   b. STUD SHALL PRODUCE A MINIMUM ROTATIONAL RESISTANCE VALUE OF 160 LBFxIN. TEST PROCEDURE PER NASM45909 AS APPLICABLE.

8. SURFACE TEXTURE: SYMBOLS PER ANSI Y14.36. REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, SURFACES TO BE 125 MICROINCHES Ra, EXCEPT SERRATIONS TO BE 250 MICROINCHES Ra, AND THREAD FLANKS AND ROOT TO BE 32 MICROINCHES Ra.

9. BREAK EDGES .003 TO .015, EXCEPT LOCKRING. NO BREAK EDGE ALLOWED ON ENTRY OF LOCKRING.

10. DIMENSIONING AND TOLERANCING: ASME Y14.5M-1982M (ASME PUBLICATION).

/11/ LOCKRING INTERNAL SERRATIONS TO HAVE FREE MOVEMENT ALONG STUD AXIS. DIMENSIONS APPLY WHEN LOCKRING IS AGAINST STOP TOWARD 0.3125-24 THREAD.

12. DIMENSIONS ARE IN INCHES.

13. MARK PART NUMBER AND MANUFACTURER'S IDENTIFICATION PER AS478 METHOD 37.

14. DO NOT USE UNASSIGNED PART NUMBERS.

15. STUD TO BE INSTALLED IN ACCORDANCE WITH AS1561 INTO TAPPED HOLE PER AS1620.

16. UNLESS OTHERWISE SPECIFIED, PART INVENTORY MANUFACTURED TO PREVIOUS REVISIONS OF THE APPLICABLE DRAWING OR SPECIFICATION MAY BE PROCURED AND USED UNTIL STOCK IS DEPLETED.

17. REVISION INDICATOR: A CHANGE BAR (I) LOCATED IN THE LEFT MARGIN IS FOR THE CONVENIENCE OF THE USER IN LOCATING AREAS WHERE TECHNICAL REVISIONS, NOT EDITORIAL CHANGES, HAVE BEEN MADE TO THE PREVIOUS ISSUE OF THIS DOCUMENT. AN (R) SYMBOL TO THE LEFT OF THE DOCUMENT TITLE INDICATES A COMPLETE REVISION OF THE DOCUMENT, INCLUDING TECHNICAL REVISIONS. CHANGE BARS AND (R) ARE NOT USED IN ORIGINAL PUBLICATIONS, NOR IN DOCUMENTS THAT CONTAIN EDITORIAL CHANGES ONLY.

AS AND AMS ARE SAE INTERNATIONAL PUBLICATIONS.
ASME IS AN AMERICAN SOCIETY OF MECHANICAL ENGINEERS PUBLICATION.
ASTM IS AN ASTM INTERNATIONAL PUBLICATION.
NASM IS A NATIONAL AEROSPACE STANDARD PUBLICATION.