

REV.
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AS3321

FEDERAL SUPPLY CLASS
5307

RATIONALE

REVISE ROTATIONAL RESISTANCE VALUE.

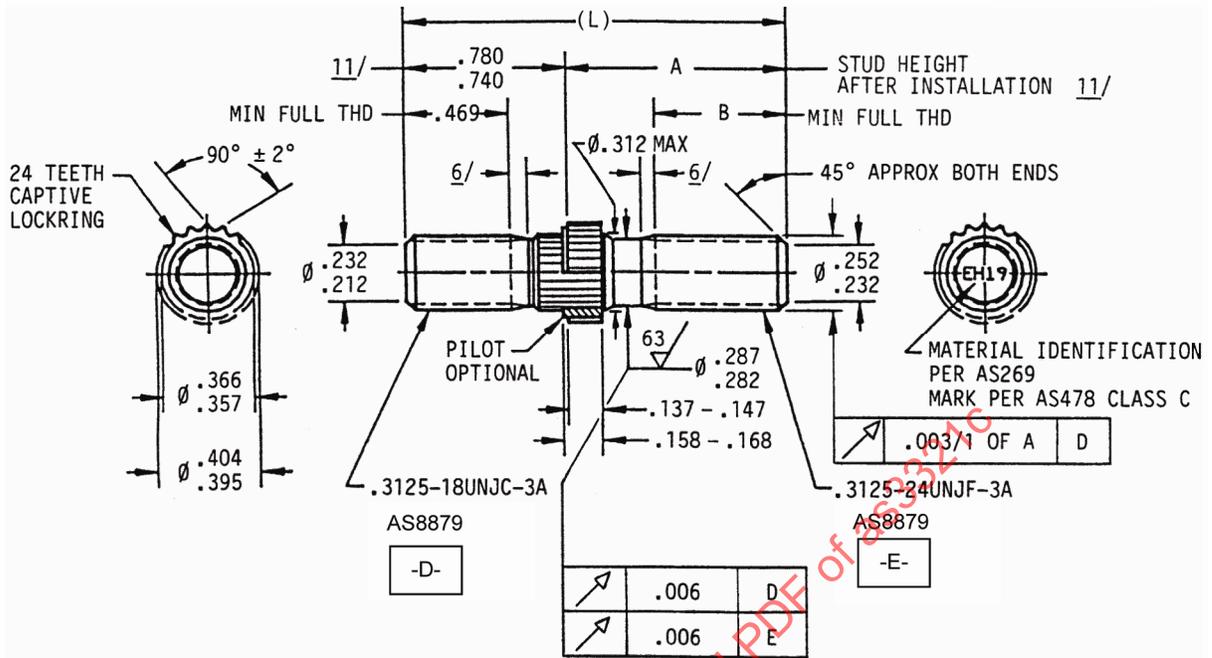
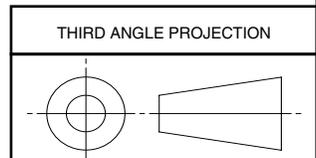


FIGURE 1 - STUD

NOTES:

1. MATERIAL: STUD - CORROSION AND HEAT RESISTANT STEEL, AMS 5731, AMS 5732, AMS 5734 AND AMS 5737. (UNS S66286)
LOCKRING - CRES, AMS 5640. (UNS S30300)
2. HEAT TREATMENT: STUD - SOLUTION AND PRECIPITATION HEAT TREATED. SEE PROCUREMENT SPECIFICATION.
3. HARDNESS: 24-37 HRC, 247-344 HB, OR 260-363 HV.
4. FINISH: STUD AND LOCKRING - CLEANED (PASSIVATED) PER PROCUREMENT SPECIFICATION.
5. FLUORESCENT PENETRANT INSPECTION: ASTM E 1417, EXCEPT LOCKRING. ACCEPTANCE CRITERIA PER AS7482.
- /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.

AS AND AMS ARE SAE INTERNATIONAL PUBLICATIONS
 ANSI IS AMERICAN NATIONAL STANDARDS INSTITUTE PUBLICATION
 ASME IS AMERICAN SOCIETY OF MECHANICAL ENGINEERS
 ASTM IS AMERICAN SOCIETY FOR TESTING AND MATERIALS
 NASM IS NATIONAL AEROSPACE STANDARD



CUSTODIAN: SAE E-25

SAE Aerospace
 An SAE International Group

AEROSPACE STANDARD

STUD - STRAIGHT, RING LOCKED,
 CRES AMS 5731
 .3125-18UNJC X .3125-24UNJF

AS3321
 SHEET 1 OF 3

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ISSUED 1979-09 REAFFIRMED 2001-11 REVISED 2006-09

7. PERFORMANCE REQUIREMENTS WHEN INSTALLED PER NOTE 15:
- 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.
 - 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 μ in Ra, EXCEPT SERRATIONS TO BE 250 μ in Ra, AND THREAD FLANKS AND ROOT TO BE 32 μ in 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 IN INCHES.
13. MARK AEROSPACE STANDARD IDENTIFICATION NUMBER AND MANUFACTURER'S IDENTIFICATION ON CONTAINER.
14. DO NOT USE UNASSIGNED AEROSPACE STANDARD IDENTIFICATION NUMBERS.
15. STUD TO BE INSTALLED IN ACCORDANCE WITH AS1561 INTO TAPPED HOLE PER AS1620.
16. THE 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.
17. INVENTORIED PARTS CONFORMING TO AS3321, REVISION B MAY BE USED TO DEPLETION.