

ASSIGNMENT 5

Textbook Assignment: "Aircraft Hardware," chapter 5, pages 5-1 through 5-20.

- 5-1. Rivets and threaded fasteners are identified by which of the following prefixes?
1. AN
 2. MS
 3. NAS
 4. All of the above
- 5-2. For procurement of aircraft hardware from supply, the specification number and factory part number are converted to what numbers?
1. Standard numbers
 2. Air Force-Navy numbers
 3. Stock numbers
 4. Cross-reference numbers
- 5-3. Most aircraft bolts are of what type series thread?
1. American National Aircraft Standard (NS)
 2. National coarse (NC)
 3. National fine (NF)
 4. National good (NG)
- 5-4. What is the grip of a bolt?
1. The shank area
 2. The threaded area
 3. The unthreaded part of the bolt shaft
 4. The area from the top of the bolt head to the bottom of the threads
- 5-5. If an aircraft bolt becomes unserviceable, you must consider which of the following bolt dimensions for its replacement?
1. Length
 2. Diameter
 3. Head thickness and width
 4. Each of the above
- 5-6. What relation should the grip length have to the materials being bolted together?
1. It should be less than the diameter of the bolt
 2. It should be less than the thickness of the bolted materials
 3. It should be equal to the thickness of the bolted materials
 4. It should be greater than the thickness of the bolted materials
- 5-7. AN bolts come in what total number of head styles?
1. Five
 2. Two
 3. Three
 4. Four
- 5-8. What head style is common to AN, NAS, and MS aircraft bolts?
1. Countersunk
 2. Hex head
 3. Internal wrenching
 4. Clevis
- 5-9. What marking or bolt dimension indicates the material of which standard bolts are made, and if it is a close-tolerance bolt?
1. Bolt diameter
 2. Bolt length
 3. Head marking
 4. Grip length marking
- 5-10. What are the main types of screws?
1. Machine, structural, and self-tapping
 2. Structural, self-tapping, and fillister head
 3. Reed and Prince, Phillips, and common
 4. Brazier head, round head, and common
- 5-11. What type of screw is used to assemble structural parts?
1. Machine
 2. Structural
 3. Self-tapping
 4. Fillister head
- 5-12. What material is used to make structural screws?
1. Aluminum alloy
 2. Corrosion resistant steel
 3. Alloy steel
 4. Low-carbon steel
- 5-13. What type of screw is normally used to attach nameplates to castings?
1. Sheet metal self-tapping
 2. Machine self-tapping
 3. Standard
 4. General purpose

- 5-14. Which, if any, of the following fasteners may be replaced by self-tapping screws?
1. Standard screws
 2. Standard nuts
 3. Standard bolts
 4. None of the above
- 5-15. Which of the following screws are used to hold gears on a shaft?
1. Structural screws
 2. Machine screws
 3. Self-tapping screws
 4. Setscrews
- 5-16. What nonself-locking nut is used with a drilled-shank AN hex head bolt?
1. Castellated shear nut
 2. Castle nut
 3. Plain nut
 4. Wing nut
- 5-17. Plain hex nuts are NOT used to a great extent on aircraft structures for which of the following reasons?
1. They require auxiliary safety locking devices
 2. They cannot withstand very large tensional loads
 3. They are not designed to accommodate cotter pins or safety wire
- 5-18. What type of nut is commonly used on battery connections?
1. Wing nut
 2. Plain nut
 3. Castle nut
 4. Castellated shear nut
- 5-19. Which of the following nuts, when used to provide a tight connection, will not loosen under vibration?
1. Self-locking nuts
 2. Castellated shear nuts
 3. Wingnuts
 4. Plain checknuts
- 5-20. What are the two general types of self-locking nuts?
1. Boots and Flexloc
 2. Elastic stop and nonelastic stop
 3. All-metal and nonmetallic insert
 4. Flexloc and nonmetallic insert
- 5-21. Which of the following is a nonmetallic type of self-locking nut?
1. Elastic stop
 2. Camloc
 3. Flexloc
 4. Boots
- 5-22. Access panels are usually secured to the aircraft by what type of screws or fasteners?
1. Machine screws
 2. Structural screws
 3. Self-tapping fasteners
 4. Turnlock fasteners
- 5-23. Which of the following common fasteners is referred to as a Turnlock fastener?
1. Dzus
 2. Camloc
 3. Airloc
 4. Each of the above
- 5-24. Which of the following parts of a Camloc fastener are secured to the access door?
1. Stud and grommet only
 2. Stud and receptacle only
 3. Grommet and receptacle only
 4. Stud, grommet, and receptacle
- 5-25. What is the difference between Camloc high-stress panel fasteners and screws?
1. The deep No. 2 Phillips recess in the stud head
 2. The bushing in which the stud is installed
 3. Both 1 and 2 above
 4. The deep Reed and Prince recess in the stud head
- 5-26. To remove an Airloc stud from a panel, you should take what action?
1. Remove the cross pin
 2. Remove the grommet
 3. Remove the snap ring
 4. Saw it into two pieces
- 5-27. Which of the following is a component of a heavy duty Dzus fastener but not of a light duty one?
1. Stud
 2. Spring
 3. Grommet
 4. Receptacle

- 5-28. Which of the following major types of rivets are used in aircraft construction?
1. Standard and Special
 2. Special and Blind
 3. Roundhead and Special
 4. Blind and Solid
- 5-29. Which of the following rivets is used where streamlining is important?
1. Universal head
 2. Round head
 3. Flat head
 4. Countersunk head
- 5-30. Blind rivets are so named for what reason?
1. Limited space does not allow for a bucking bar
 2. They are self-heading
 3. They are lighter than solid shank rivets
 4. They retain the stem in position by friction
- 5-31. What are two head styles for Rivnuts?
1. Flathead and countersunk
 2. Brazier and countersunk
 3. Flathead and universal
 4. Countersunk and universal
- 5-32. Which of the following types of Rivnuts is used on sealed flotation or pressurized compartments?
1. Open-end
 2. Closed-end
 3. Externally threaded
 4. Groove shanked
- 5-33. A snap ring is a ring of metal with spring-like action that can be reused as long as it retains its shape.
1. True
 2. False
- 5-34. What is the purpose of the right- and left-hand threads in a turnbuckle barrel?
1. To obtain correct cable tension and to make minor changes in cable length
 2. To obtain correct cable tension and to locate the barrel accurately along the cable length
 3. To make minor changes in cable tension and to locate the barrel accurately along the cable length
 4. To ensure that one terminal is payed out and the other payed in at the same rate
- 5-35. A flat head pin used in a tie-rod terminal should be secured with what device?
1. Safety wire
 2. A cotter pin
 3. A self-locking nut
 4. A sheet spring nut
- 5-36. When you are installing a hose between two duct sections, what is the maximum allowable distance between the duct ends?
1. 1/2 inch
 2. 5/8 inch
 3. 3/4 inch
 4. 13/16 inch
- 5-37. If the correct torque value is not specified on the clamp, which of the following publications should you consult?
1. NATOPS manual
 2. IPB
 3. Maintenance instructions manual
 4. General structural repair manual
- 5-38. What type of wire is used for electrical installations in aircraft maintenance?
1. Twisted
 2. Multiconductor
 3. Braided
 4. Stranded conductor
- 5-39. What type of cable has two or more insulated conductors in the same jacket?
1. RF cable
 2. Shielded cable
 3. Twisted cable
 4. Multiconductor cable
- 5-40. What type of cable has two or more insulated conductors twisted together?
1. RF cable
 2. Shielded cable
 3. Twisted cable
 4. Multiconductor cable
- 5-41. What type of cable has a single insulated conductor with a metallic braided outer conductor?
1. RF cable
 2. Shielded cable
 3. Twisted cable
 4. Multiconductor cable

- 5-42. The part of a connector that is usually mounted on a part of the equipment is known as what unit?
1. Plug
 2. Terminal
 3. Coupling nut
 4. Receptacle
- 5-43. Aircraft wires are fastened to studs by what means?
1. Wrapping
 2. Terminal lugs
 3. Bonding
 4. Twisting
- 5-44. What does the term "safetizing" mean?
1. Permanently locking all aircraft nuts and bolts
 2. Checking the aircraft for structural weaknesses
 3. Securing aircraft fasteners so they will not work loose
 4. Thoroughly inspecting all aircraft fasteners
- 5-45. What is the most common method of safety wiring?
1. The single-wire, double-twist method
 2. The single-twist method
 3. The clip-locking method
 4. The wire-wrapping method
- 5-46. What safety wiring method should be used in places that are hard to reach?
1. The single-wire method
 2. The double-wire method
 3. The clip-locking method
 4. The wire-wrapping method
- IN ANSWERING QUESTIONS 5-47 THROUGH 5-50, REFER TO FIGURE 5-23 IN THE TEXT.
- 5-47. What examples in the figure show a single-threaded part wired to a housing or lug?
1. 1 and 2
 2. 2 and 3
 3. 4 and 5
 4. 6 and 7
- 5-48. What example in the figure shows the correct way to wire several parts in series?
1. 1
 2. 2
 3. 3
 4. 4
- 5-49. What example in the figure shows the proper way to wire castellated nuts and studs?
1. 1
 2. 2
 3. 3
 4. 4
- 5-50. What example in the figure shows the proper way to safety wire parts in a closely spaced, closed geometrical pattern with the single-wire method?
1. 8
 2. 7
 3. 6
 4. 5
- 5-51. When six widely spaced bolts are being safety wired by the double-twist method, what procedure should you follow?
1. A group of three should be the maximum number safety wired in one series
 2. All six should be safety wired in one series
 3. They should be safety wired individually
 4. The number that can be safety wired by a 24-inch length of wire should be the maximum number in a series
- 5-52. When safety wiring closely spaced bolts, what is the longest wire you can use to safety wire the most bolts in a series?
1. 30 inch
 2. 24 inch
 3. 18 inch
 4. 12 inch
- 5-53. What method is used to safety wire turnbuckles on modern aircraft?
1. Single-wire method
 2. Clip-locking method
 3. Double-twist method
 4. Wire-wrapping method
- 5-54. What method is used to safety wire turnbuckles on older types of aircraft?
1. Clip-locking method
 2. Single-wire method
 3. Double-twist method
 4. Wire-wrapping method

- 5-55. What total number of twists should be in a pigtail that is one-half-inch long?
1. Six to eight
 2. Five to seven
 3. Three to six
 4. Four to five
- 5-56. Safety wire is installed properly if you observe which of the following actions?
1. The tension of the wire tends to tighten the bolt or nut
 2. The tension of the wire tends to loosen the bolt or nut
 3. The wire is as tight as possible
 4. The wire has 5 turns per inch
- 5-57. What are the general classes of washers used in aircraft structures?
1. Plain, complex, and special
 2. Plain, lock washer, and special
 3. Castellated, castle, and plain
 4. Castellated, lock, and plain
- 5-58. Lock washers are used with what type of nuts?
1. Castle
 2. Plain hex
 3. Elastic stop
 4. Castellated shear
- 5-59. A star washer may be used what total number of times?
1. One
 2. Two
 3. Three
 4. Four
- 5-60. What safetying device should be selected if it will be subjected to extreme heat and high vibration?
1. Cotter pins
 2. Snap rings
 3. Tab lock washers
 4. Safety wire
- 5-61. Tab washers may be used what total number of times?
1. One
 2. Two
 3. Three
 4. Four
- 5-62. What type of washers are widely used under AN hex nuts to provide a smooth bearing surface?
1. Special washers
 2. Star lock washers
 3. Plain washers
 4. Tab lock washers
- 5-63. What class of washer is used under lock washers to prevent damage to surfaces of soft material?
1. Special
 2. Castle
 3. Complex
 4. Plain