

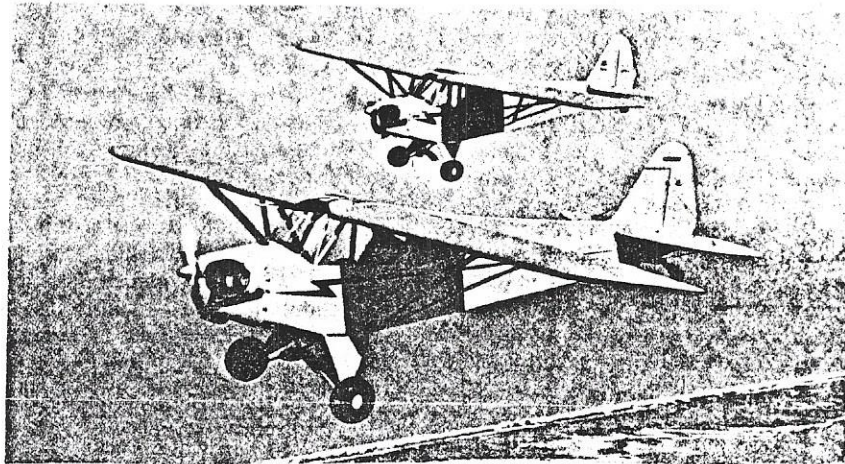
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JANUARY 1981

JANUARY MEETING: DUTCH TREAT DINNER
PLACE: PRITCHETT'S 4901 HAMILTON ROAD, COLUMBUS
TIME : 7:30 P.M. THURSDAY JANUARY 8th

BRING YOUR OR SOMEBODY'S GIRLFRIEND, WIFE, AND RUTH IT'S OKAY
FOR YOU TO BRING TOMMY..... AND CHARLES WE WANT TO SEE YOUR
LATEST PASSENGER AGAIN.

PLEASE ATTEND! MINIMUM BUSINESS, MAXIMUM FUN!!!

WE ALL OWE A DEBT OF THANKS TO BUD SCHUMAN FOR HIS EARLY EFFORTS IN SECURING
MEMBERS AND SERVING AS OUR PRESIDENT FOR THIS FIRST YEAR AND INCIDENTALLY FOR
SELLING TEN CALENDARS. CONGRATULATIONS BUD!

A PROPOSAL WILL BE MADE AT OUR MEETING TO CHANGE OUR DUES BASIS TO THE
CALENDAR YEAR INSTEAD OF HAVING DATES STAGGERED ACCORDING TO WHEN YOU JOINED
AS THEY ARE NOW. AND WHILE WE ARE ON THIS SUBJECT, SOME MEMBERS HAVE NEGLECTED
TO PAY DUES WHICH WERE DUE IN NOVEMBER. PLEASE SEE RUTH.

WELCOME TO NEW MEMBER BOB JONES OF ERCOUPE FAME.

Charles Hanna

Several questions have recently arisen as to the use and identification of aircraft bolts.

Space does not permit the discussion of all of the bolt types and their uses in aircraft; and more complete information can be obtained from several sources. I suggest beginning with Advisory Circular AC 65-9A, chapter 6.

The general purpose hex headed aircraft bolt is what is most commonly used on light aircraft today and these are what the homebuilder of light-plane owner will encounter most. These bolts are numbered in accordance with the AN numbering series (Air Force-Navy Standard), beginning with the AN 3 and going thru AN 20. These all purpose structural bolts are used for most applications where either tension or shear loads exist and a light drive fit is required around the shank (ie. .006" clearance for a 5/8" bolt).

The bolts are numbered according to their diameter in sixteenths of an inch and their length in eighths of an inch. An AN 3 bolt is 3/16" dia. while the AN 20 bolt is 20/16" or 1-1/4" dia. The dash numbered lengths begin with -3 which is 3/8" long and go up in eighth inch increments. Please note however, dash numbers ending in eight or nine do not exist, since there are only eight eighths in an inch while you have a ten number system to work with (0 thru 9). See Figure #1 for examples.

The only bolts directly interchangeable with this series of bolts are the AN 73 (3/16") thru AN 81 (3/4") series, which differ in having a slightly taller head which is drilled thru all six sides.

To further identify the bolts, a system is used to indicate where the bolt is drilled (shank or head) if at all.

An "A" following the dash number indicates a plain, undrilled shank, while an "H" following the basic AN number indicates a drilled (one way only head). See Figure #2 for examples of all four possible combinations.

Remember that elastic type locking nuts or nutplates should never be used in conjunction with AN 3 or AN 4 drilled shank bolts. These elastic stop nuts include the AN 364 and AN 365 series and the AN 366 anchor nut, among others.

The average homebuilder should have available an AN bolt gauge to determine the length and size of the bolts he is using to assure conformance with the plans and manuals he is using. Another helpful device is the AN bolt computer with which he can determine what length bolt should be used for a certain thickness material, and allow for washers and the nut installation.

That's it folks, till next month.

AN? - 3 = 3/8" length
AN? - 4 = 1/2" length
AN? - 5 = 5/8" length
AN? - 6 = 3/4" length
AN? - 7 = 7/8" length

AN? - 10 = 1" length
AN? - 30 = 3" length
AN? - 31 = 3 1/8" length
AN? - 32 = 3 1/4" length
AN? - 33 = 3 3/8" length
AN? - 34 = 3 1/2" length
AN? - 35 = 3 5/8" length
AN? - 36 = 3 3/4" length
AN? - 37 = 3 7/8" length
AN? - 40 = 4" length

Figure #1

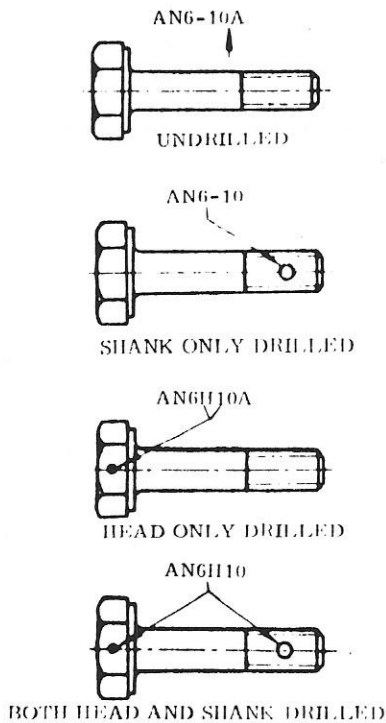


FIGURE NO. 2

It's The Little Things That Count

Big things can do lots of damage!
So can little things . . .

- Termites destroy more property than do earthquakes.
- Rodents are more destructive than tornadoes.
- More fire losses are caused by matches than by volcanoes.
- More people are killed by cars than by wars.
- Microscopic bacteria are more deadly than the atom bomb.
- More money is stolen in minor thievery than in major robberies.
- More character is damaged by small evils than by flagrant violations of morality.
- More heartache and sorrow is caused by little words and deeds of unkindness than by open acts of dislike or enmity.

