

Dingo Seat Covers

[About Us](#) [Fitting](#) [Mine Safety](#) [Prices](#) [Products](#) [Quality](#) [Stories](#)

[Home](#) → [Stories](#) → [ILean](#) → **[Nutsert](#)**

[Introduction](#)
[Alternator](#)
[Nutsert](#)
[Power upgrade](#)
[Seat mod](#)
[VDO gauges](#)
[Radiator access](#)

ILean's Patio Nutsert

All you wanted to know about NUTSERTS.
Alright alright so its all I know about nutserts.

Ok so blind nuts have been around in one form or another since Adam was a boy. They are an excellent way of fastening things together. They have the same clamping pressure as any other nut. Seriously go have a look at an aircraft airframe. You will find the little buggers everywhere. Even the old Mirage Fighters that I did my time on had high tensile blind nuts, now they were a bitch to maintain but flew like the gods. Ahh seems like another lifetime.



Mirage III D & E from 20cu squadron.

I downloaded this pic from wikipedia. A USA air force member took this picture in 1980 during war games. I was stationed at 77 sqn at the same RAAF base as 20cu. Both our squadrons went up against the yanks and kicked their butt, as

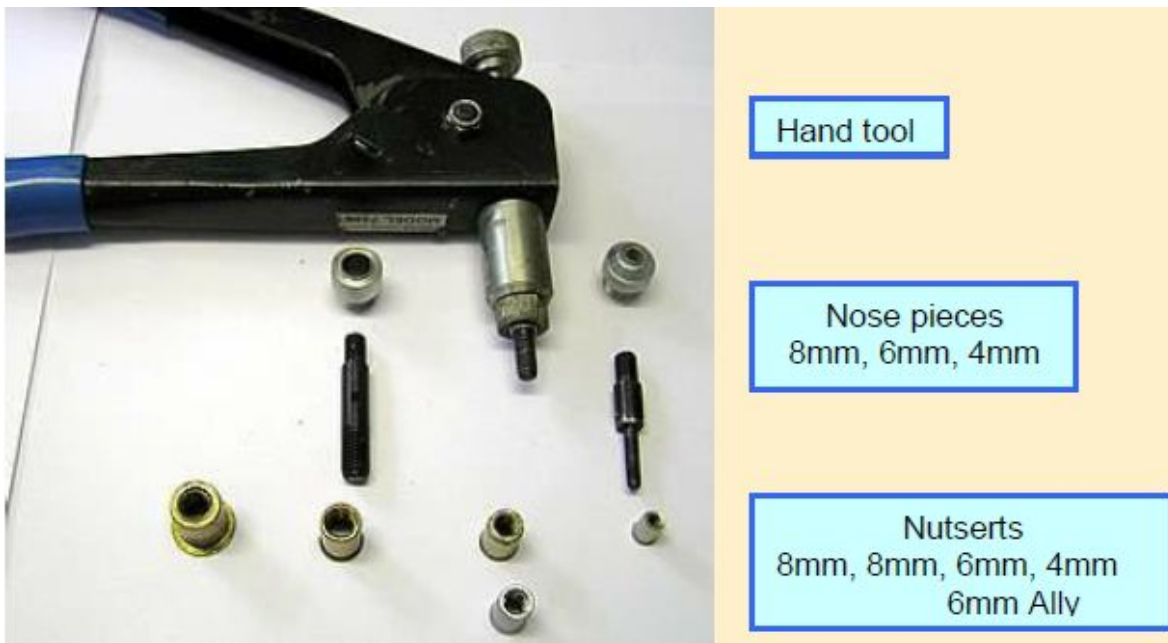
we always did.

More importantly we shook down all their ground crew playing two up and bear drinking games. The fun of youth

So back to business. There are numerous tricks on getting the most out of blind nuts (No not me, I'm a tricky blind OLD nut).

The common garden variety are made by TEXTRON and called Nutserts. A

hand tool costs about \$80 and another \$15 or so for each nose piece. Each thread needs its own nose piece. The tools are readily available from any general engineering tool shop like Blackwoods.



So far I have only come across 8mm, 6mm and 5mm in the OKAs
The 8mm was in the engine bay and secures the gear stick panel in place and also the roof braces.



6mm are everywhere, engine bay access panels, door handles.

5mm holds the radio switch panel in place. They also hold the park brake/Speedo Hall effect sensor panel in place (I swapped these out for 6mm).

So my advice is to buy the 6mm and 8 mm nose pieces and if you have trouble with the 5mm change them out to 6mm. I also use 4mm for bolting odd small fiddly things together.

What nuts to buy.

There are a few different blind nuts on the market. (That was well put).

- The type that OKA used on my XT is the worst version (V1), simply because even nutserts get high tech improvements over the years. These were the best available at the time. This type has a very small flange, drill hole size is critical and they do not clamp particularly well. However they have little spacer effect between the two joining pieces.
- Shop around and you will find ones with bigger flanges that have grip corrugations on the underside (V2). Drill hole sizes are not so important and they clamp quite well.
- If you come across a type that have splines on their shoulders (V3) grab em, but be warned these type need a pneumatic gun that will set you back about \$2,500. These are the Ducks Guts. Hope the OKA boys are now using this type.



How to get the most out of your Nutserts.

Spinning nuts are painful.

- A trick that works nine times out of ten is to hook up your socket to a battery drill (think Tim the Tool Man and use a BIG ONE). This normally spins the Nutsert fast enough that it re-clamps to the panel and cracks the seized thread.
- If this fails use a ring spanner to hold the bolt and drill through the bolt then

the nut.

- Failing the above get out the grinder. Watch out for hot sparks hitting glass.
- Always replace a Nutsert if it has spun.
- I like to add a touch of 680 Locktight to the clamping region. This seals the metal to prevent corrosion or water leaks. It also adds another element into the clamping equation.
- Never use Locktight on the threads. If you do, remember to heat up the bolt to loosen the Locktight prior to attempting to undo it.
- I have found that Lanyteck works well (Wool fat in my RAAF days) on preventing thread problems with nutserts. This minimizes the vibration effect that undoes bolts plus prevents any corrosion. I have had great success using Lanolene grease on Stainless coarse threaded bolts and Aluminium tapped plate when I make bolt on canopies for Aluminium Ute trays.
- Always use the same type of metal nutserts as the plate that you are installing it into. This will prevent dissimilar metal corrosion. Alloy nutserts for Aluminium plate.
- I would stay clear of putting stainless to stainless, as the threads tend to ball up then harden quickly from heat. You then have a nasty problem to try and drill out. Stainless is relatively soft until heated then it gets very hard and brittle. Again if you must then use Lanyteck on the threads.
- When painting areas where nutserts are thread a bolt into them. This will stop paint clogging up the thread.
- Always start threads by finger to ensure thread alignment. I just replaced the bottom row of nutserts along the rear engine panel. Every one had a misaligned hole in the panel so had to be cross-threaded from day one. I elongated the holes with a bur, problem solved.

The series of pictures below shows how I fitted the cover plate over my Alternator “easy tensioning” access hole.



Sneaky old Airframe fitter's trick #001

1. Draw desired plate shape onto job.
2. Trace over with paper then cut to shape
3. Trace around paper onto plate.
4. Cut plate to size.
5. Pre drill holes in plate for self-drilling counter head screws. *The counter heads will center in the plate hole if you drilled it a touch too big.*
6. Hold plate in correct position. *Not 5mm too high like I did.* Drill in screws
7. You now have perfectly aligned centre drill holes



Hole size is important

A couple of \$ will buy you a dodgy plastic vernier from the local hardware. These are great for general duty.

"Dairs a lump round da back".

Ok so if you don't know how to read them then I'm being rood.

Top scale. Next number down from the bottom scale's 0 is your first reading.

Bottom scale number that aligns exactly with a top scale increment is your decimal.

Best to look either side (2&4), as misalignment is easier to see. So did you get 10.3 mm?



De burr the 10.3mm holes



1 drop of 680

Initially I need to leave a couple of threads short on the tool so that the crimping squeeze is easier. Don't forget to do the threads up and have another squeeze. Best to avoid sideways movement when squeezing as you can break the nosepiece's threaded rod



Further info.

www.avkfasteners.com is a North American company. Their website gives you a tantalizing picture of what is available. Watch the video on using their air tool. I found their Big hand tool AU\$390 available from [Miami stainless](#) on the Gold Coast Qld.

Thanks,
Tim Forsyth

© Copyright 2012
DingoSeatCovers [Terms of Use](#)