

Penetrating Oils

Machinist's Workshop MagT recently published some information on various penetrating oils that I found very interesting. Some of you might appreciate this. The magazine reports they tested penetrates for break out torque on rusted nuts. They are below, as forwarded by an ex-student and professional machinist. They arranged a subjective test of all the popular penetrates with the control being the torque required to remove the nut from a "scientifically rusted" environment.

Penetrating oils Average torque load to loosen

No Oil used 516 pounds
WD-40 238 pounds
PB Blaster 214 pounds
Liquid Wrench127 pounds
Kano Kroil 106 pounds
ATF*-Acetone mix.....53 pounds

The ATF-Acetone mix is a "home brew" mix of 50 - 50 automatic transmission fluid and acetone. Note this "home brew" released bolts better than any commercial product in this one particular test.

Our local machinist group mixed up a batch and we all now use it with equally good results.

Note also that "Liquid Wrench" is almost as good as "Kroil" for about 20% of the price.

Steve from Godwin-Singer says that ATF-Acetone mix is best, but you can also use ATF and lacquer thinner in a 50-50 mix. *ATF=Automatic Transmission Fluid

As a side note, I have been using this mixture for a couple of years now, and have found that the Acetone does not dissolve with the ATF, so you have to keep shaking. Whereas lacquer thinner does mix, so I have been using a mix of 50-25-25. In storage keep the mixture sealed otherwise you lose the acetone and lacquer. This actually works well, power-steering fluid also works as well as trans fluid!