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Machinist's Workshop V20 number 2, April/May 2007, page 35 Article: "Testing Penetrating oils"

This reports a test of penetrating oils where they measured the force required to loosen rusty test devices. The details reported here were validated by the original article author. He also added some details on the methods.

You must buy the issue if you want to see how they did the test. The back issue is available for purchase.

The table below extracts the results table The lower the number of pounds the better. Interesting that a simple mix of acetone and power steering fluid (PSF) works the best!

Penetrating oil	Average load	Price per fluid ounce
None	516 pounds	
WD-40	238 pounds	\$0.25
PB Blaster	214 pounds	\$0.35
Liquid Wrench	127 pounds	\$0.21
Kano Kroil	106 pounds	\$0.75
PSF-Acetone mix	53 pounds	\$0.10 (50/50 mix)

Note from original article author:

- 1) These are loads required to free the test piece after 8 hours of immersion in penetrating oil. This is probably not representative of a quick squirt just before a wrench is applied.
- 2) The original article states ATF was used in the DIY mix. It was actually PSF. I corrected the table to reflect this.
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