

WHAM



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NEWS, VIEWS and REVIEWS

Different Types of Penetrating Oils by Lloyd Bender

A question that is often raised by mechanics is the effectiveness of penetrating oils in loosening rusted fasteners. Do the commercial products really loosen bolts, and if so, which one works best? To find out four of these (Kano Kroil, Liquid wrench, PB Blaster and WD-40) were tested for performance, along with a homebrew mix of one part automatic transmission fluid with one part acetone.

Natural exposure would be representative of real world applications, but requires a long time and a number of replicate samples to handle the wide sample to sample scatter encountered in natural exposure conditions. Using artificially accelerated corrosion reduces the time and provides nearly identical test samples. I don't have access to equipment for measuring the torque on fasteners, but can measure the load on a sliding fit.

So you can decide if this was a fair test or not, this is what I did. A 5/8 inch rod of cold finished low-carbon steel was lathe drilled, parted in 0.50 inch lengths and numbered. Each length was individually reamed to .25 inch. All pieces along with commercially ground 1/4 by 1 inch dowel pins were ultrasonically cleaned together for 20 minutes in methanol to remove all traces of machining oil and fluid. The dowels were inserted into each rod length with finger pressure leaving 1/4 inch extending out each end. Years of exposure was simulated by twelve hours of alternate immersion for ten minutes in 3% solution of NaCl (table salt) followed by 50 minutes in 105 F air.

The corroded samples were randomly divided into six groups, one serving as a control group. A once of each penetrating oil was used to immerse each group for a period of 12 hours. Samples were then drained on paper towels. A Baldwin compressometer on 1200 pound scale was used to determine the load required to push the dowel out. This was done in a sequence where only the samples were ID by number and not by the penetrating oil.

<u>Penetrating Oil</u>	<u>Average Load</u>	<u>Price per fluid Once</u>
ATF / Acetone Mix	53 lbs	\$0.10
Kano Kroil	106 lbs	\$0.75
Liquid Wrench	127 lbs	\$0.21
WD-40	238 lbs	\$0.25
None	516 lbs	-

The first and foremost conclusion I reached: Any oil is better than trying to strong arm things apart. All the products produced an easier method to freeing rusted components. The home brew appears to work best, but the cost comparison is skewed by the easy applicator cans the commercial products supply.

FORWARDED by Bill Schmidt

May 19, 2011 Meeting Minutes

ATTENDEES:

Mary Kay & George Avila, Les DeWitt, Jeff Englert, Jane & Earl Griffith, Marty Kline, Denise & Bill Lindsey, Marty & Jim O'Reilly, Eleanor & Jack Phelps, Charlene & Ed Salguero, Eleanor and Jack Phelps, Marilyn and Bill Schmidt, Terry Trisler, Dan Walton.

President Avila called the meeting to order.

The previous meeting minutes were approved as read.

The treasurer's report was read by the treasurer, Jim O'Reilly

New BUSINESS:

A move was made to reschedule the September meeting date to 24/25 th of September. It was passed.

OLD BUSINESS:

The obituary for Eldon Breazier was shared with everyone a the meeting.

The building seminar that Bill Schmidt presented was discussed. Seemed to be well received and educational.

Louie's Dinner was announced as the next meeting venue.

The Tulsa Gluedobbers Perry contest is tentatively scheduled for August 20th.

SHOW AND TELL:

Bill Schmidt showed a Atom .09 powered Berkeley American Ace from 1940.

George Avila had a 12" catapult glider designed by Stan Buddenbom. And a 1/2A wen mac powered Jasco Streak.

Jack Phelps had an old 1/2A Texaco converted to electric power.

Helpful hints from Bill Schmidt

Texas Micro Timer Winder

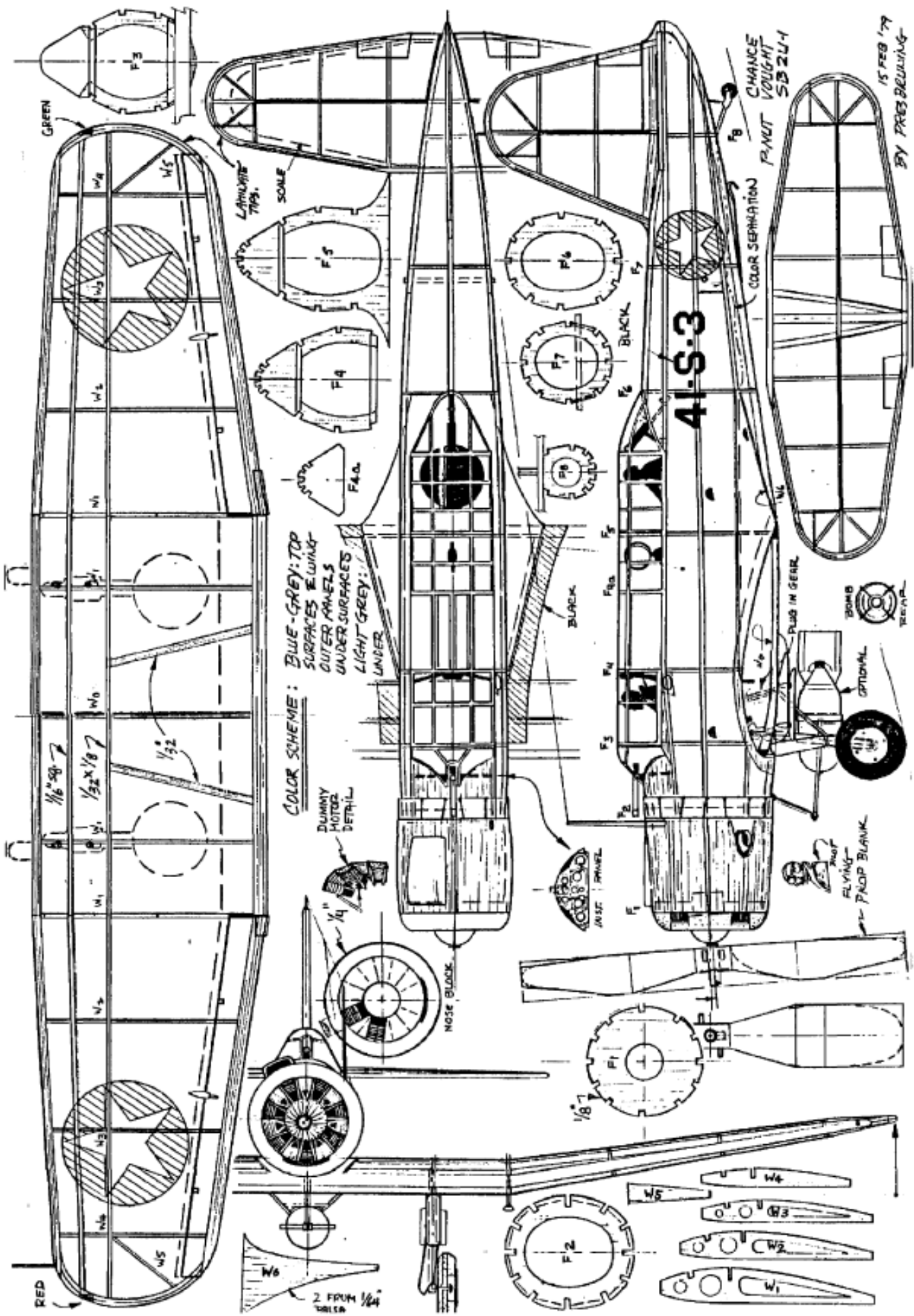
The popular Texas Micro Timer is an excellent device for a F/F engine pinch off at only 6 grams weight. However out on the flying field putting up flights one finds it oil slippery and kind of painful, at least for me, to wind time after time. Since it requires a fully wound spring for each flight in order to assure consistently correct run times the winding gets to be hard on my forefinger.

Looking carefully over the dimensional configuration of the winding scroll I thought of what it would take to make an effective and comfortable winding device. This is what I came up with as the solution.

Take a 2-1/2" length of hardwood dowel and drill a .302 (N drill) hole in one end about 3/4" deep. 5/16" dia. might work but I didn't check this out as the timer scroll measured closer to the smaller dia. allowing for a larger tolerance when drilling wood. Radius out the entry point with sandpaper and/or an X-acto knife for easy entry. Sand or turn a full radius on the other outer end for comfort – that's what this exercise is all about. Mark on it what is. Don't laugh because later you will look at it in your flight box and wonder what the devil it is. Give the tool a coat of polyurethane varnish or fuel proof dope on the outside. Now glue a 1/2" strip of about 180 grit sandpaper near the full radiused end to overcome the oily problem when in use. Now lastly, coat the inside of the hole with Sobo or Allene's RC-56 type glue for positive gripping action. I've counted about 7 different brands of this type of glue in Hobby Lobby and Jo Ann sewing stores. Take your choice.

I think you will find this tool very handy and a pleasure to use. Bill Schmidt





COLOR SCHEME:
 BLUE- GREY: TOP SURFACES & WING OUTER PANELS
 UNDER SURFACES LIGHT GREY
 UNDER BLACK

41-S-3

15 FEB '79
 BY FRED BEUKING

WHAM – News, Views and Reviews
Jeff Englert
10118 Sterling Court
Wichita, KS 67205



**FLYING
ACES**



**Sunflower Squadron
Wichita, KS**

The next SAM 56 Dinner Meeting will be at:

Louie's Grill & Bar

9747 E 21st St N, Wichita, KS 67206

(SE corner of Web and 21st N)

(316) 636-5422

Saturday, July 30, 2011

Social Hour @ 6:00 PM, Dinner @ 7:00 PM.

Upcoming events:

Jul 30/31 Contest Events: 1/2A Tex, P-20**

Aug 13/14 Contest Events: 1/2A Nos, FAC Moth, Cat G*

Sep 17/18 Meeting Site to be determined,
Contest Events: FAC Golden Age & Mass Launch, 1/2A Tex

Membership Information:

Open to all interested AMA members, founded to encourage and promote the model airplane building hobby. Member dues \$20 annually, Subscription only; \$12 annually, \$18 foreign.

Send checks to Jim O'Reilly, 4760 Battin, Wichita, KS 67220.

All memberships and subscription renewals are due January 1st of the new year.