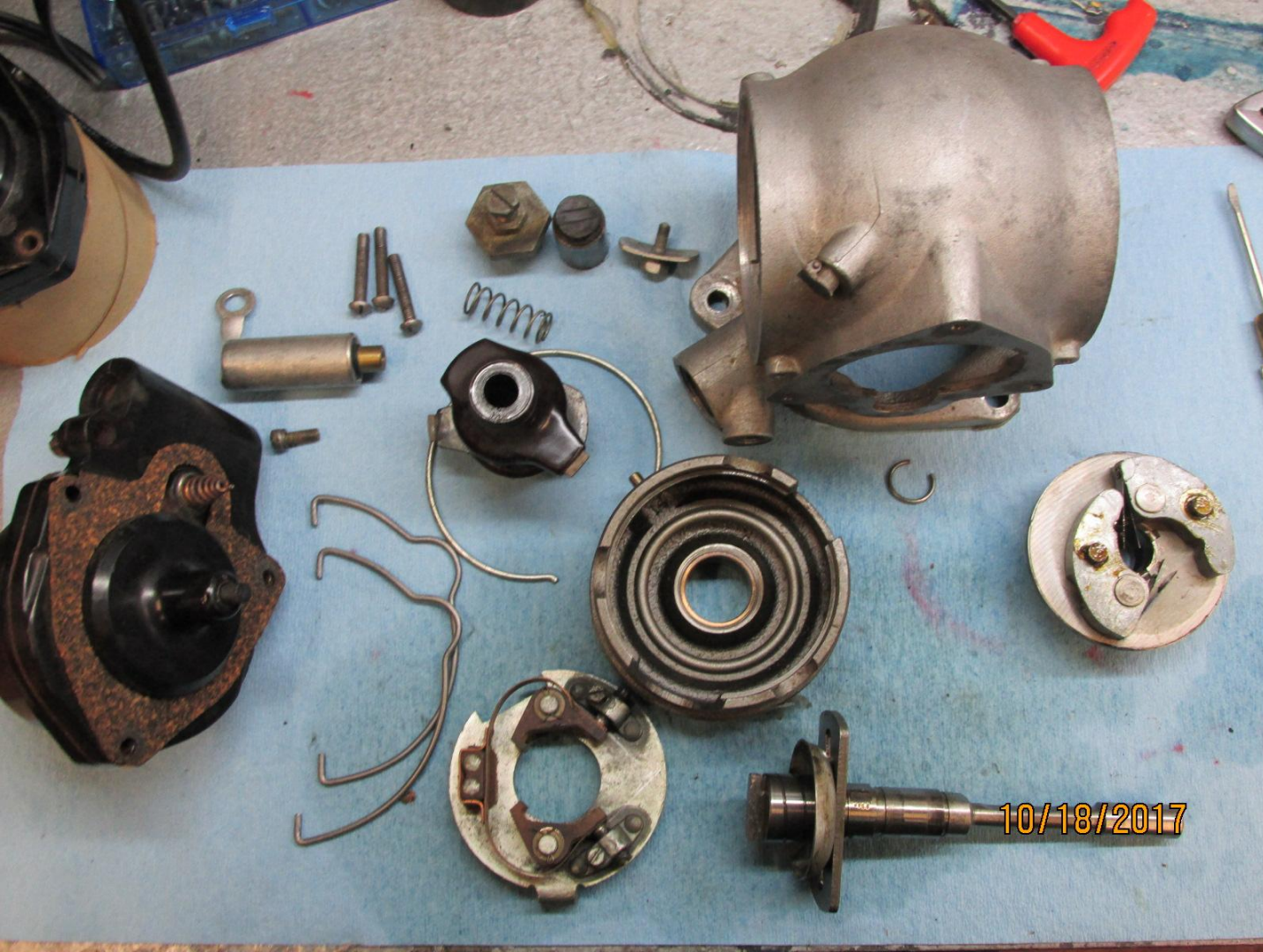


# Helmets 1932-1941



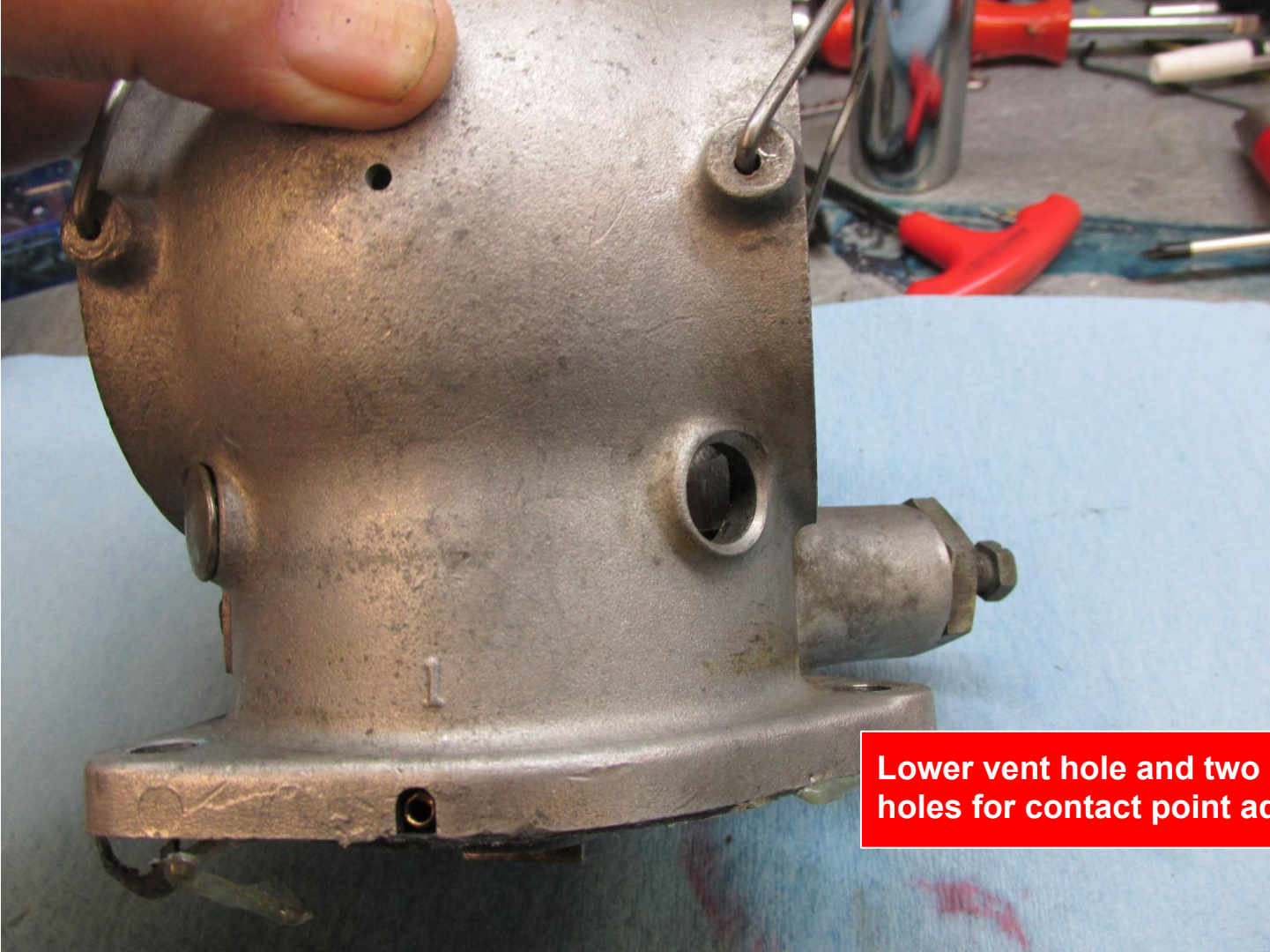
10/18/2017

Basically there are two housings and designs for the model years 32-thru 1941. The 32 is somewhat different and will be covered as a separate unit along with the oblong coil for the 1936 model year. However for the most part we will cover the two units shown.... I call them the 3 bolt with 3 bolt coil and a 4 bolt with 2 bolt coil.



Tear down of early 3 bolt housing with 3 bolt coil.

- Large cam/weights
- Ribbed rear housing
- Shielded drive shaft
- Strap points (one piece)
- 3 bolt ignition coil
- Large tip rotor
- Side mount condenser
- Single small clip



**Lower vent hole and two adjusting holes for contact point adjustment.**



Early



Late

Early rear housing shown (left upper) and later smooth unit shown. Upper unit shows ribs to be used with oil deflector and early drive shaft. Both of these are very good and very seldom need bushing replacement . Bushings are available if needed.

**40B Early Shaft**



**11A Late Shaft**



MODEL	SPEED		ADVANCE	
	MPH. Scale "B"	RPM. Scale "S"	MAX.	MIN.
18	34	850	8½°	7½°
40-A	60	1500	12½°	11½°
40-B	60	1500	8½°	7½°
68	38	950	8½°	7½°
78	38	950	8½°	7½°
901	38	950	8½°	7½°
HB	38	950	8½°	7½°
86-H	38	950	8½°	7½°

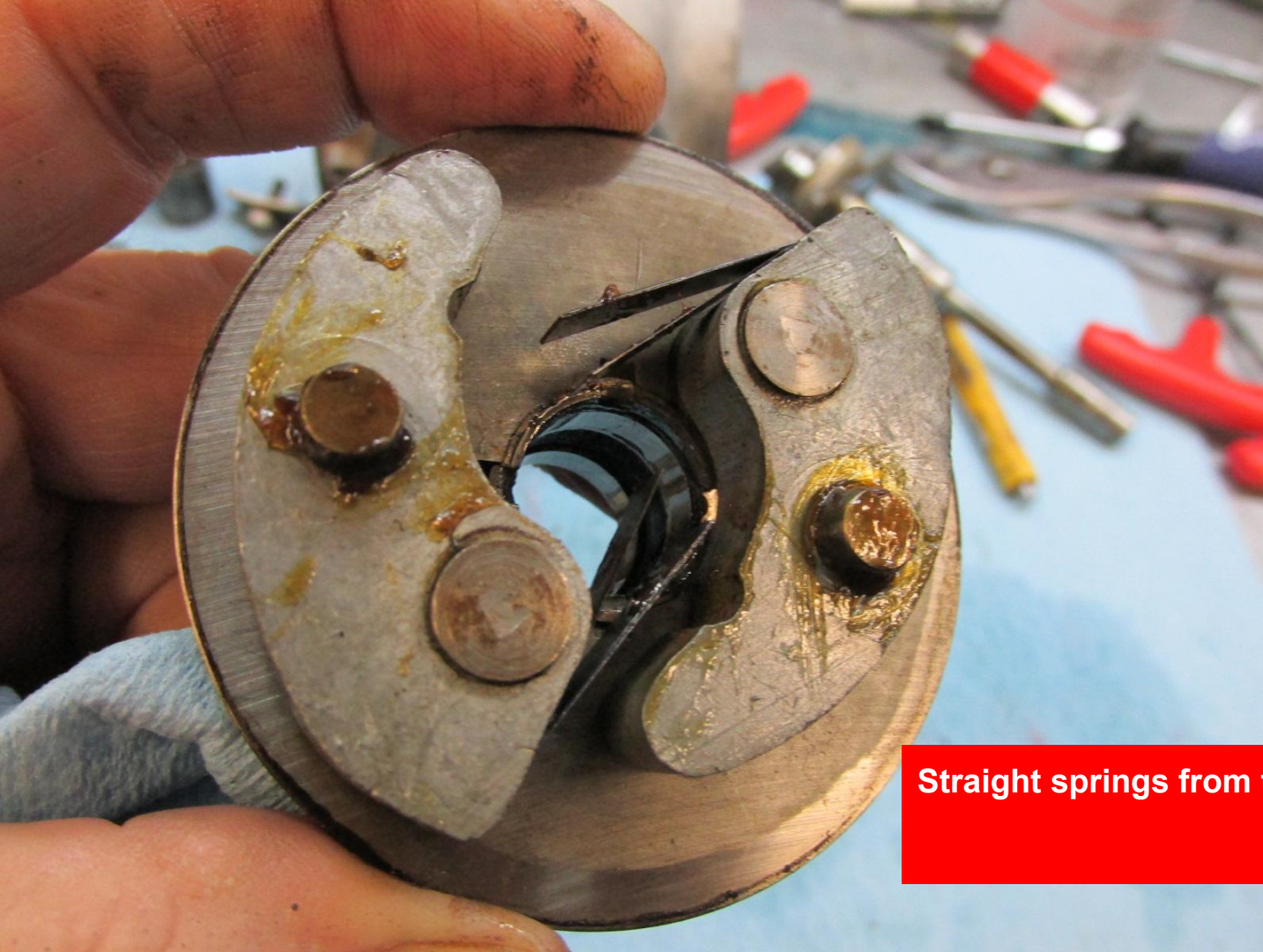


Note: There are different advance rates for different engines. Ie: Heads, compression ratios etc.  
 Notice that most are 16-18 degree distributors.  
 8 degrees distributor= 16 degrees engine.

The 11A isnt listed however the later units were 11As. This distributor uses individual contact points and 22 degrees of advance . (Same as the Crab)



**Example of way too much grease !!!!! Weights will stick and cause stumble off idle a few rpms up.. Light lube is shown on another slide .**



**Straight springs from the factory !**



# Rotor and shaft



**Rotor shaft is cleaned , polished and center ( under rotor) is insulated with shrink tubing. Spark will always take the path of least resistance and will try at times to go to center shaft. For the most part these rotors work very well and last a long time. I usually clean and inspect , looking for any sign of burning or arcing . Clean , polish brass ends and use them..... Some aftermarket replacements are very poor quality !!**



We have found the Ultra Lube 4 x to be a very good light lube for servicing these units.

Seems to work well under all temps and stays on the part.

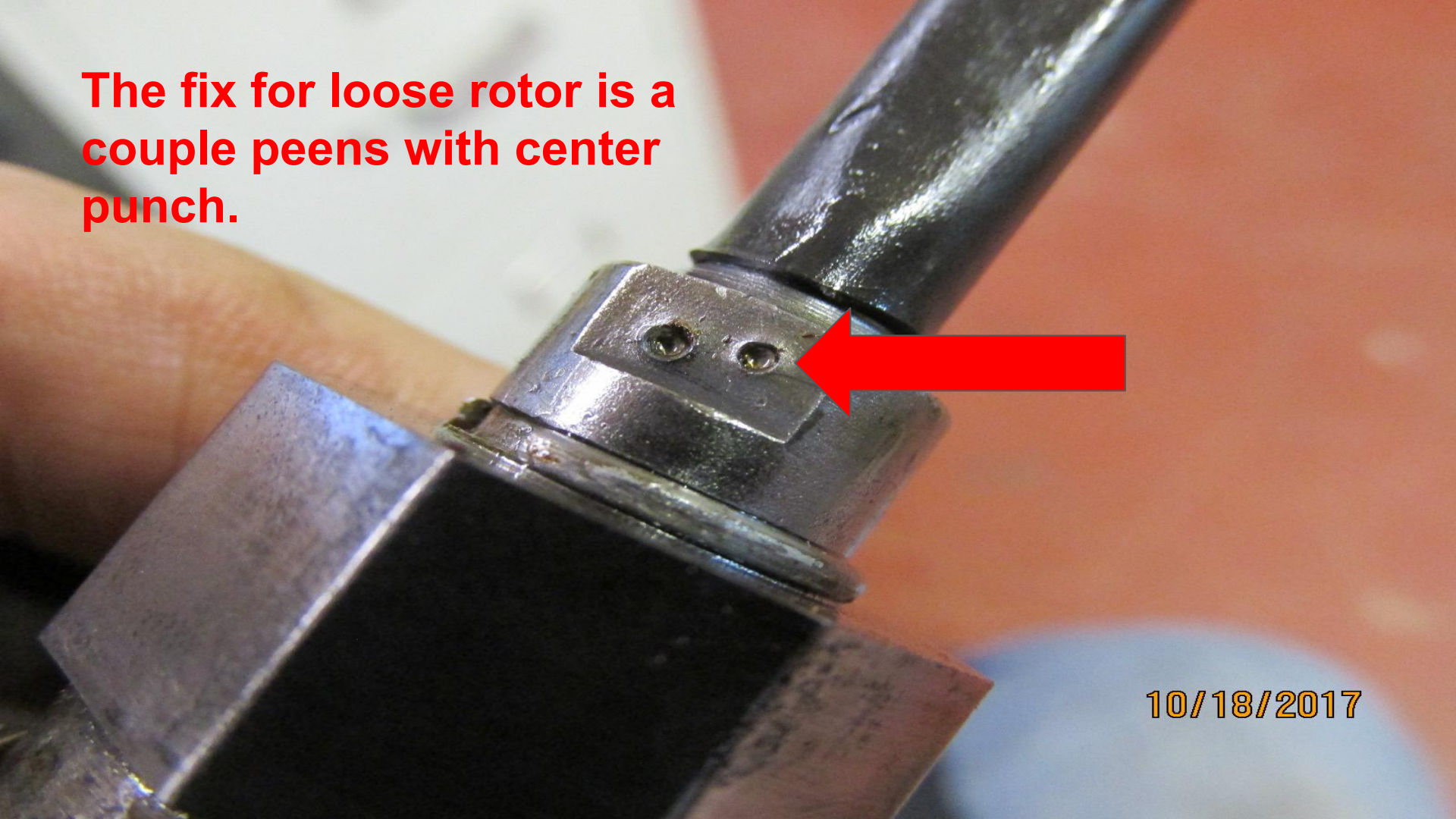
I hate rust and get to see some of these again after 4-5 years of service !

This has been the very best we have found!!

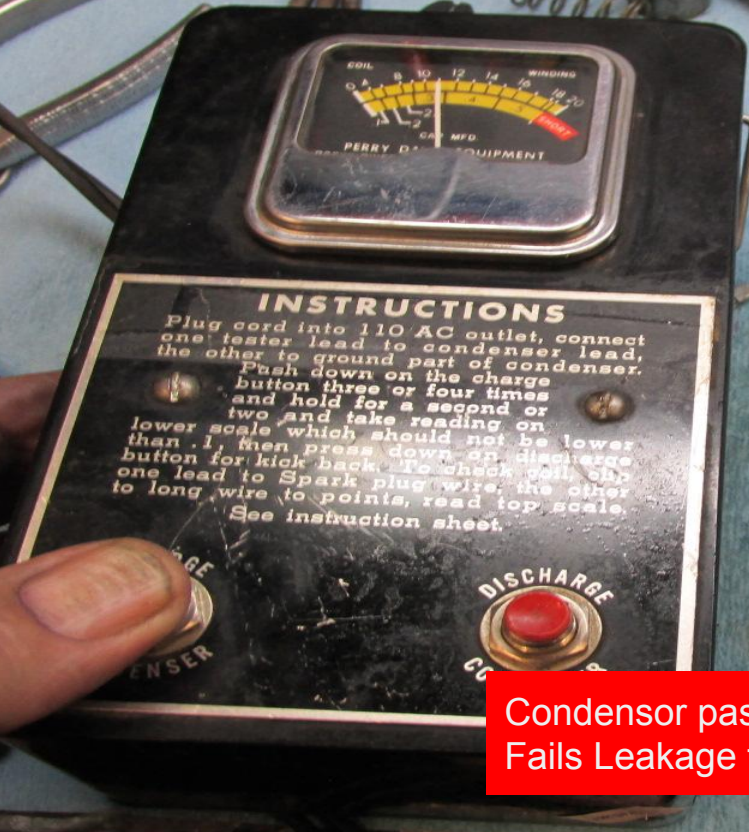
10/18/2017

Spray Lube , light oil and no rust!!!

**The fix for loose rotor is a couple peens with center punch.**



10/18/2017

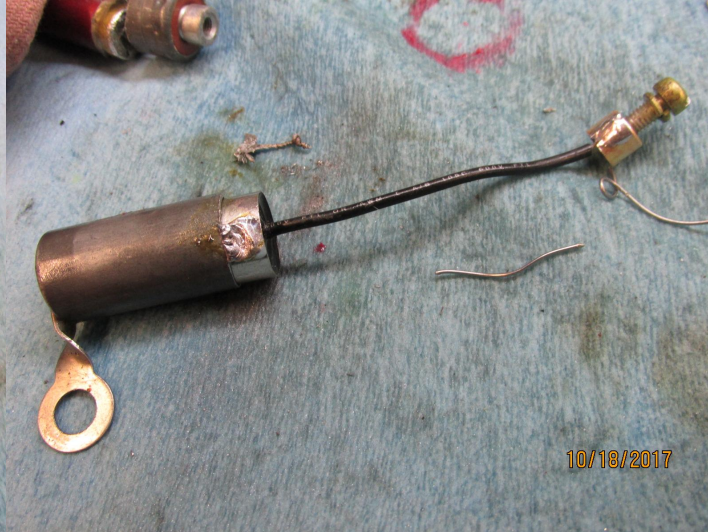


### INSTRUCTIONS

Plug cord into 110 AC outlet, connect one tester lead to condenser lead, the other to ground part of condenser. Push down on the charge button three or four times and hold for a second or two and take reading on lower scale which should not be lower than .1, then press down on discharge button for kick back. To check coil, slip one lead to Spark plug wire, the other to long wire to points, read top scale. See instruction sheet.

Condensor passes MFD test but Fails Leakage test!!!!

10/18/2017



Condensor:

Tested condenser on condenser load tester. Condenser passes MFD's at .36 but fails leakage testing. Pretty typical for a original unit !!

Cut old housing in two, remove old condenser. Replace with new Vertex Magneto condenser ( best made today) solder to case .

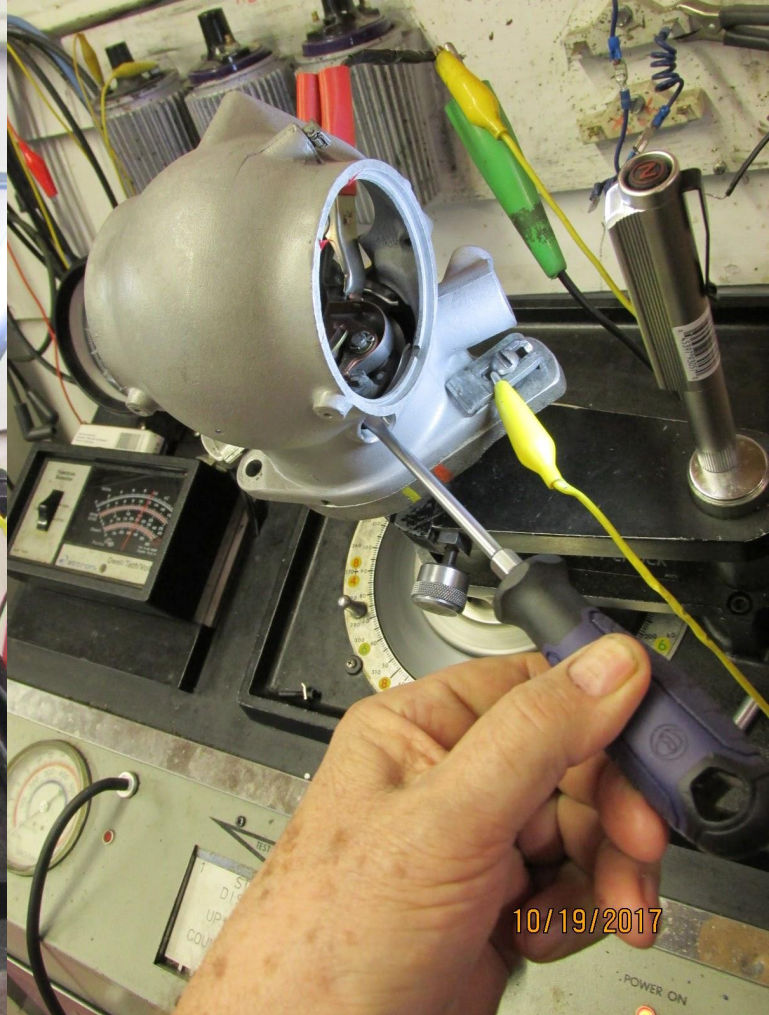
Use original brass end with slot for screwdriver to allow use of original bolt from Ford. Install in ignition coil.

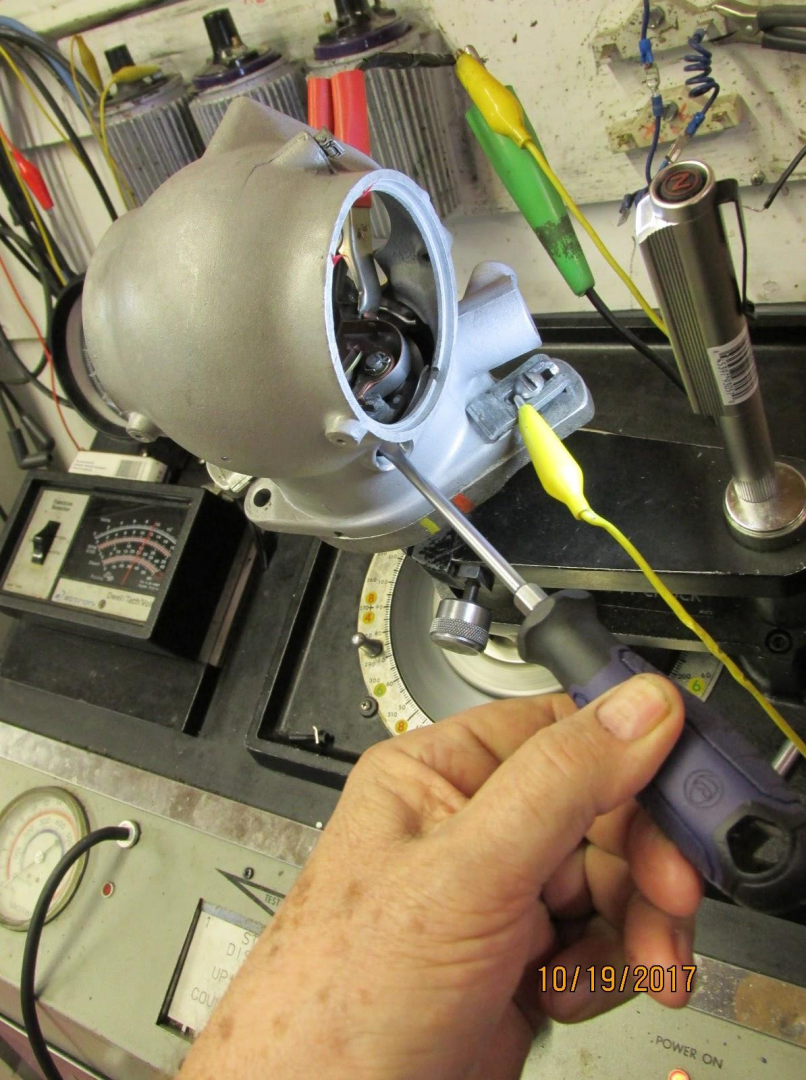


Never know it ! I have never seen a defective Vertex condenser!!!



pretty hard to see this unit has some arrow flash at 5000 rpm !  
sh= engine ignition missfire !!!





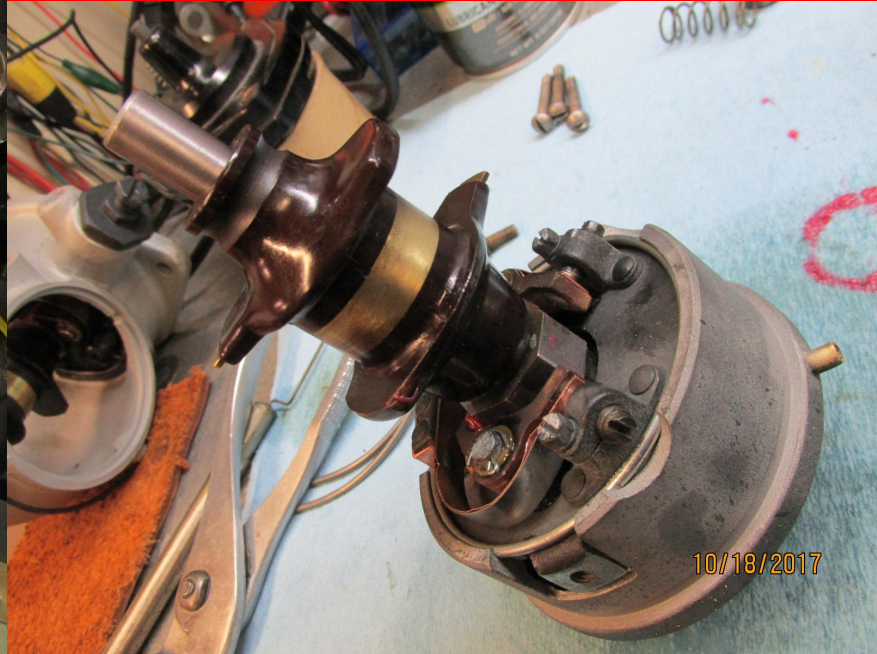
10/19/2017

## Early Helmet

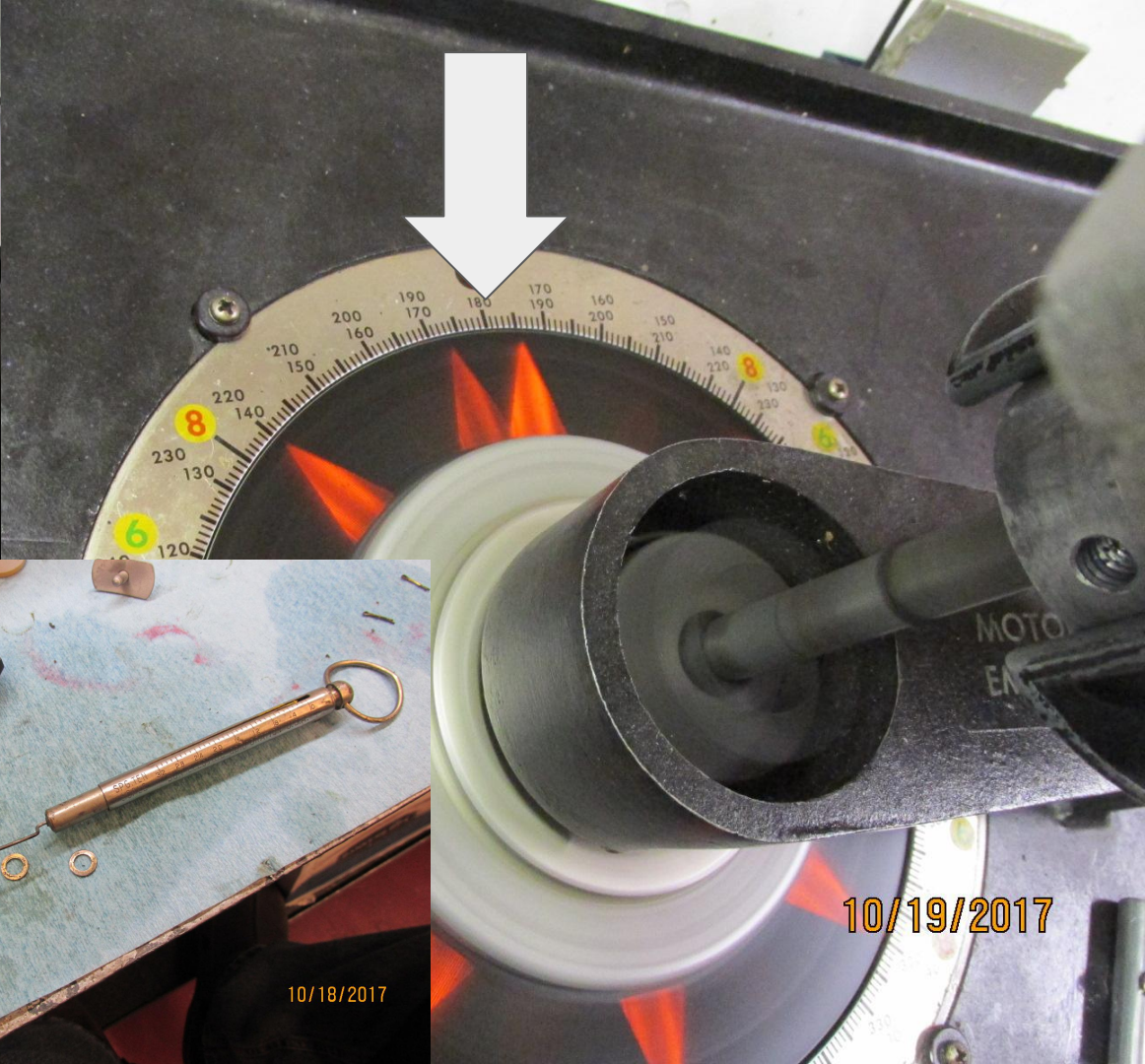
Point adjustment thru the adjusting holes in distributor base.

Drivers side dwell is adjusted to 27 degrees with pass side blocked, Then Pass side is adjusted to a total (both sets) of 36 degrees. With advance bar in centered position this will provide what i call case time.

The case and points are timed to install in engine and should require NO adjustment.



10/18/2017



Pretty typical run up with strap points. Miss fire caused by point bounce picked up at approx 3800 rpm. With some work and new points (different brands) we might get 5000 but it takes some work. Typical spring tension is approx 16-18 oz on a gauge ...







**NOS set of aftermarket points. Note the straight spring with brass bushing. Should run 5000 rpm... ????**



Properly set up is usually one mark advanced to provide 4 Degrees BTDC. 2 degrees of distributor = 4 degrees of engine timing.

Note : A new distributor with proper point gap shouldnt need any additional setting etc.

Adjustment is provided for 6 degrees either direction. I see them with the case filed to allow more range! Shouldnt be done as rotor index is affected and can cause cross fire!!!

10/18/2017



10/17/2017



10/17/2017



New leather soaked in oil, Install with tons of hi-temp grease !!!

## Vacuum Brake

With piston, leather, spring and adjuster installed.

Ford spec= Drive until spark knock is heard under load and turn adjuster inward until spark knock quits.

**NOT a vacuum advance . It is a vacuum retard under load will retard timing!!!**



10/17/2017



A perfect world????

Two customer units with new contacts, Skip Haney rebuilt coils and Vertex condensers, New side caps and terminal blocks. Machine adjusted and ran for some time on tester!!

10/20/2017



**DON'T ADJUST OUR DISTRIBUTOR !!!**

**WE TEST RUN EACH DISTRIBUTOR FOR A FEW MINUTES AND SET ALL ADJUSTMENTS TO BE JUST PERFECT.!!! CASE TIMING IS SET AT 2 DEGREES BEFORE TOP DEAD CENTER , ADVANCE RATE IS 22 DEGREES AT 2500 RPM. POINTS ARE ADJUSTED USING A DWELL METER RUNNING ON A TEST MACHINE.**

**VACUUM BRAKE IS SET AT THREE TURNS IN WITH NEW LEATHER AND PLENTY OF LUBE!!**

**THERE IS NOTHING YOU CAN DO TO MAKE THIS DISTRIBUTOR ANY BETTER!!!!**

**INSTALL THE UNIT , START THE ENGINE AND ENJOY THE RIDE!!!!!!!!!!**

**NOTE ,  
WE INCLUDE THIS WITH OUR CRAB DISTRIBUTOR.  
(the phone calls i get)**

- **THOSE GUYS SAID IT JUST DIDNT LOOK RIGHT!**
- **MY FRIEND ADJUSTED THE POINTS!!**
- **I ADVANCED THE TIMING !!!**