

Catalog & Price Sheet 2017

# Magneto Parts

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#### How I Got Started

I grew up on a farm in southeastern Mass. It was a small dairy farm that switched over to raising hay in the mid 70's when milk became unprofitable. All the equipment we used every day would be considered antiques today (Farmall H tractors and lots of other stuff from the late 40's and early 50's vintage.) We also had an old hit & miss engine, a 1 ½ HP Fairbanks Z hooked up to a Meyers spray pump for spraying fruit trees (though it hadn't been used since the 1920's.) About the time the cows went, the old barn that housed most of the real "gems" fell down, exposing most of the old stuff to the weather and passers by. And so it was with the engine, a friend of the family spotted it and bought it for \$25 on the spot. We had no idea that these things were worth anything back then, never mind that anybody (or even me) would collect these things.

I never gave it another thought until about 15 years later when I was at a farm auction when he spotted me. To make a long story short, I was able to buy the engine back, get it running, and start my way down the long path of being a "collector" that so many of us have traveled. But like certain potato chips, you can't just have one. A so it was with me.

Today, I have many stationary engines and half a dozen tractors. And that doesn't even count the rest of the tractors I used as a kid on the farm that are still there in use just waiting for a fresh coat of paint.

But while I was restoring that Fairbanks Z, I came across an obstacle that I couldn't easily overcome without some help. It was of course the magneto. The AB-33 oscillating mag looked nothing like the H-4 mag on Farmall tractors and did not work despite countless hours of disassembling, reassembling, and general staring with a puzzled look. It was then that a good friend of mine taught me how to fix mags (it helped that I was an electrical engineer, so it wasn't too much of a stretch.) And it was a good thing, because the backlog of my engines and tractors with mags (and I could only assume they needed work too) was getting pretty deep.

And so I learned to fix mags. I set up at shows working on other peoples' mags, hopefully making them better (maybe making a few worse, I hope not....) and I have fixed quite a number over the past few years. I still do plenty of mag work and have done more than I can remember. Never did get to that backlog of my mags though.....

The parts you see listed here are the outgrowth of my mag business. Most of these are parts I have used to repair mags, others are listed because they are parts I needed when I restored my "collectors' items" I hope that you will find some of these parts useful too. And if you know of a good source for some parts that other collectors might be able to use, let me know and I will add them to the list. I am always looking to grow the business (so I can buy more "collectors' items" of course!)

1. A friend of mine has a good notion of what a "collector" and a "collector's item" is. And as he would say "... and the 'collector' comes around every Thursday!"

#### Magneto Repair Service

I repair quite a number of mags each year at shows and in my shop. If you have a mag that needs some attention, I can be of help. I can repair almost any mag (there are a few that just aren't worth it, and I can help you find a good substitute) whether it be tractor, engine, modern, or antique. I supply the following services:

- Complete magneto and ignitor repair with all work and parts guaranteed for 2 years. Since I currently have a full-time job, and I do this as a hobby, I have VERY limited time to do mag repair. If you are in a rush, then I can recommend some shops that may have a shorter backlog.
- Coil rewinding for shuttle wound coils and other coils that just aren't available any more. The guy who winds my coils is the best in the business. Coils are wound with state-of-the-art CNC winding machines. None but the best materials are used. Rewound coils are almost always hotter than the original was when it was new.

- Free magnet charging and free labor at the shows
- 2-for-1 swaps on certain mags, i.e. you give me 2 dead complete mags of the same make, I repair one for you and keep the other. Mags I offer 2-for-1 swaps are Wico EK and Bosch AB-33 & 34, FM R-1 & RV-1.
- I usually have a small inventory of rebuilt guaranteed mags for sale. I usually have one or two Wico EK's, AB-33's, FM R's. I have many other mags, just ask. If I don't have it, I can refer you to someone who can.
- Have any extra mags? I'll buy them from you or trade for parts. I am always looking for stationary engine and tractor mags and pay the going rate for them. Let me know what you have!

#### Just a quick note:

I just want to thank you for your business over the last ten years. It doesn't seem how it can be that long, but it has. Though I still only operate this as a part time business, it has clearly taken more and more of my time! I haven't touched one of my engine projects in just about five years. But meeting the great number of customers from all over the world has been a true pleasure!

Thanks again for your business, and we hope to see you at the shows!

Bill

# Webster Magneto Parts

The Webster "Tripolar" mag was the most popular low tension mag for single cylinder engines. There are numerous types, but the M (single thick magnet), MM (double thick magnet), K (double thin magnet) and L (triple thin magnet) are the most popular. Coils should always be replaced as the new ones are MUCH hotter than the original ones, and most of the original ones are corroded badly.

Bearing plates are cast from a high-quality bearing bronze. The shaft bore can be custom bored undersize or oversize depending upon your needs.

Points are fabricated from a high nickel-content alloy (known as Meteor Metal) and are an excellent match to the original alloy. Steel, tungsten, bronze, and most other metals are not suitable for points as they will quickly burn. These points have been shown time and time again to outlast ALL other materials. Point material is available in rod form by the inch so you can fabricate your own points for ignitor repair. (This material is easily machined with SHARP steel lathe bits.) I used to sell pre-made points, but they just take too much time to make. If you don't have a lathe, you can cut disks from the rods and silver-braze them in place. That is actually how I repair ignitors, it works much better and allows you to align miss-aligned points.

| Order number | Description  | Price each |
|--------------|--|------------|
| WEB10        | Bearing plate, type M, K or L, bronze                      | 46.00      |
| WEB25        | Coils M, MM  | 50.00      |
| WEB26        | Coils K, L   | 50.00      |
| WEB27        | Coils PY, JY   | 60.00      |
| WEB28        | Coils JZ   | 60.00      |
| WEB30        | Coils, type 1 mag  | 60.00      |
| WEB29        | Coils, type 2 mag  | 60.00      |
| WEB31        | Coils, Milton Webster                                      | 70.00      |
| WEB40        | Cover, top, M, pot-metal body mag                          | 15.00      |
| WEB41        | Cover, top, M, bronze body mag                             | 18.00      |
| WEB42        | Cover, top, K, pot-metal body mag                          | 15.00      |
| WEB43        | Cover, top, K, bronze body mag                             | 18.00      |
| WEB44        | Cover, JY, PY  | 18.00      |
| WEB50        | Fahnstock clip, long, phosphor bronze                      | 2.00       |
| NP083        | Nameplate, brass band, M, ¾" wide                          | 12.00      |
| NP084        | Nameplate, brass band, K or L, 1" wide                     | 12.00      |
| WEB80        | Nut, armature, ¼"x20, small pattern                        | 1.00       |
| WEB85        | Oil hole cover & felt, 1/4" flip top                       | 1.50       |
| OC02         | Oil hole cover, flip top, 1/4"                             | 1.25       |
| OC12         | Oil cup, ¼" captive ball                                   | 1.25       |
| PT01         | Point material, 3/16" diameter, by the inch                | 2.00/inch  |
| PRC03        | <b>Priming cup</b> , 1/8" pipe thread, lever handle        | 12.00      |
| PRC04        | <b>Priming cup</b> , 1/8" pipe thread, T handle            | 12.00      |
| WEB100       | Roller for ignitor, 1/2" ID x 1" OD, most brackets         | 8.00       |
| WEB101       | Roller for ignitor, 9/16" ID x 1 1/4" OD                   | 8.00       |
| WEB110       | <b>Spring</b> , mag, 1 5/8 x 5/8, for type M anad MM mags  | 6.00       |
| WEB111       | Spring, mag 1 3/4 x 5/8, for type K & L mags               | 6.00       |
| WEB113       | Spring, mag, 2 1/4 x 7/8, for type JY, JZ & PY mags        | 6.00       |
| WEB112       | Spring, mag 1 7/8 x 7/8, for Type 1 mags                   | 6.00       |
| WEB114       | <b>Spring,</b> ignitor tension for Type 1 mags (new style) | 7.00       |

| WEB130 | Spring roller, for M, MM, K & L mags  | 3.00  |
|--------|---|-------|
| WEB131 | Spring roller, for JY, PY, & JZ mags  | 4.00  |
| WEB140 | Trip handle, for M, MM, K & L mags  | 10.00 |
| WEB141 | Trip handle, for JY & JZ mags   | 10.00 |
| WEB144 | <b>Wire</b> , lead-out, black cotton braid covered #18 solid wire, just like the original | 2.00  |
| WEB146 | Wire bushing, M, MM, K & L mags   | 1.00  |

## Wico EK, PR, OC, R, & Other Magneto Parts

Wico, or The Witherbee Ignitor Company, started sometime around 1910 in Longmeadow, MA (near Springfield). Their first magneto systems were a kind of high tension mag that used no points. They had a complicated mechanism for reversing the magnetic flux direction through the coil. While quite effective, it was awfully noisy and very difficult to adjust. They made several models of mags of this type, including the O, L and R series. These models were replaced with more conventional oscillating mags, like the PR, and the EK. These mags were much more reliable and repairable, but were not well suited for high speed engines and were replaced by a long running series of rotary mags including the LD, A, C, XH and many others. As engines got more and more compact, mags moved under the flywheel. Wico ended it's long run in the early 70's after being probably the most prolific manufacturer of magneto ignition systems.

The Wico EK is the most popular high-tension mag for 1 cylinder stationary engines. The PR is an earlier version of the EK. The OC and R mags were used on oil field engines. Some parts are also available for the earlier oscillating mags like the L, O, & B1. If you have any literature on the B-1 mag, I would love to have a copy. To my knowledge, none has yet surfaced.

*Service tip*: A couple of notes about EK mags. Aside from internal electrical component failures, there are two other very common points of failure for these mags. The most common is weak, broken, or seized drive springs. This is a very common problem and will cause a perfectly rebuilt mag not to function. Be sure and check the dimensions on your springs before ordering.

The second most common problem is a worn armature bushing and guide pin. Most well-used EK mags have this problem. To see if your mag has this problem, try to pry up one side of the armature with a screwdriver while holding the other side down with your thumb. If you can pry up either side more than 1/32", you must rectify this problem. To fix this problem, the armature bushing and the guide pin must be replaced. If you are a machinist, it is not too difficult to do. If not, then order a new armature bushing and a new deck plate. It will be the quickest and surest way to solve the problem.

| Order number  | Description  | Price each |  |  |
|---------------|--|------------|--|--|
| Wico EK Parts |  |            |  |  |
| WIC067        | Armature bushing, specify .500 or .525 (most common) threads | 12.00      |  |  |
| WIC021        | Coil set, like the originals                                 | 115.00     |  |  |
| WIC057        | Coil Insulator Gasket, use above & below coils               | 1.00       |  |  |
| WIC040        | Condenser, new type  | 5.00       |  |  |
| WIC041        | Condenser, original type, more easily installed              | 10.00      |  |  |
| WIC045        | Cover, front, brass, with stop button                        | 20.00      |  |  |
| WIC046        | Cover, front, brass, without stop button                     | 18.00      |  |  |
| WIC048        | Cover, rear, brass   | 16.00      |  |  |
| WIC049        | Cover, wrap around band, brass                               | 28.00      |  |  |

| WIC064           | Deck plate, with alignment pin and point tower  | 42.00  |
|------------------|---|--------|
| WIC055           | Insulator strip, use on most mags               | 1.00   |
| WIC056           | Insulator strip, thin                           | 1.00   |
| WIC058           | Lead-out tower,                                 | 6.00   |
| WIC063           | Mounting casting (rear casting)                 | 35.00  |
| NP085            | Nameplate, etched brass with rivets             | 6.00   |
| WIC066           | Nut, 7/32 x 32                                  | 0.50   |
| WIC070           | Oil felt  | 1.00   |
| WIC080           | Point set, includes 2 oil felts                 | 18.00  |
| WIC081           | Point spring, does not come with the points     | 1.00   |
| WIC082           | Rocker arm, drive type 2, out of stock          | 1100   |
| WIC083           | Roller, case hardened                           | 4.00   |
| WIC086           | Screw, 7/32 x 32 with nut & washer              | 7.00   |
| WIC089           | Spring holder arm, return type 2                | 11.00  |
|                  | See table below before ordering springs         | 11100  |
| WIC090           | Spring, drive, type 1                           | 5.00   |
| WIC091           | Spring, return, type 1 & type 3                 | 5.00   |
| WIC092           | Spring, drive, type 2                           | 5.00   |
| WIC093           | Spring, return, type 2                          | 5.00   |
| WIC094           | Spring, drive, type 2, Witte TG                 | 5.00   |
| WIC095           | Spring, return, type 2, Witte TG                | 5.00   |
| WIC047           | Stop button with spring, for front cover        | 3.50   |
| W100+1           | Wico PR & AX Parts                              | 0.00   |
| WIC021           | Coil set  | 115.00 |
| WIC059           | Lead-out tower                                  | 30.00  |
| WIC040           | Condenser, new type                             | 5.00   |
| WIC041           | Condenser, original type, more easily installed | 10.00  |
| WIC083           | Roller, case hardened                           | 4.00   |
| WIC086           | Screw, 7/32 x 32 with nut & washer              | 7.00   |
| WIC071           | Top cover, PR                                   | 38.00  |
| WIC072           | Side cover, PR, leadout side                    |        |
| WIC073           | Side cover, PR, other side                      |        |
| WIC074           | Front cover, PR                                 |        |
|                  | Wico OC Parts                                   | 1      |
| WIC027           | Coil, left                                      | 70.00  |
| WIC028           | Coil, right                                     | 70.00  |
| WIC029           | Coil pair (1 left and 1 right)                  | 130.00 |
| WIC040           | Condenser, new type                             | 5.00   |
| WIC041           | Condenser, original type, more easily installed | 10.00  |
| WIC059           | Lead-out tower                                  | 30.00  |
|                  | Wico R Parts                                    | •      |
| WIC030           | Coil left                                       | 70.00  |
| WIC031           | Coil right                                      | 70.00  |
| WIC032           | Coil pair (1 left and 1 right)                  | 130.00 |
|                  | Lead-out tower                                  | 30.00  |
| WIC059           | Lead-out tower                                  | 00.00  |
| WIC059           | Wico B1 Parts                                   | 00.00  |
| WIC059<br>WIC042 |   | 10.00  |

| WIC034             | Coil set |  | 130.00 |  |
|--------------------|----------|--|--------|--|
| Wico O1 & O2 Parts |          |  |        |  |
| WIC035             | Coil set |  | ask    |  |

There were numerous PR & EK drive springs. The most popular ones are available here. Check yours against this table before ordering. There is also a type 4 drive, but I am not sure which springs are used there.

|        | Table of Wico EK & PR Drive Springs |          |          |          |          |           |         |
|--------|-------------------------------------|----------|----------|----------|----------|-----------|---------|
| Part # | Drive                               | Drive or | Outside  | Inside   | Number   | Wire      | Overall |
|        | Types                               | Return   | Diameter | Diameter | Of Turns | Thickness | Length  |
| WIC090 | 1                                   | Drive    | .715     | .475     | 7        | .125      | .985    |
| WIC091 | 1, 3                                | Return   | .632     | .500     | 10       | .065      | 1.675   |
| WIC092 | 2                                   | Drive    | .462     | .300     | 14       | .080      | 1.632   |
| WIC093 | 2                                   | Return   | .630     | .500     | 12       | .062      | 1.340   |
| WIC094 | 2                                   | Drive    | .715     | .475     | 4        | .125      | .594    |
| WIC095 |                                     | Drive    | .756     | .500     | 10       | .134      | 1.750   |

### Wico Rotary Magneto & Distributor Parts

I can get most parts for Wico rotary mags, and I can get nearly all parts for type XH mags. Parts not listed here may be a special order item and take a couple of weeks. I addition, I can get new mags for many applications (type XH). Call, write, or e-mail with requests. I also have a large collection of parts mags with used but good parts.

Wico rotary mags were most popular on **John Deere** tractors, **Case** tractors, and **Wisconsin** engines. They were used, however, on countless other engines. Early **John Deere** tractors used the type C Wico (among other brands) and later **John Deere** tractors used the type XH mag. Be sure to get the right mag type before ordering parts. If you are unsure, ask or visit my website at <a href="www.magnetoparts.com">www.magnetoparts.com</a>. There are lots of pictures there to help. There is also an application chart for all XH-series mags. It will tell you exactly what parts you need for your mag.

There are also LOTS of parts available for Wico mags used on **Caterpillar** engines, far too many to list and to stock. I am now listing parts for most of these mags. (Once I sort out what else is popular, I will stock them.) I can get most of them at a reasonable price (far less than from Cat). If you don't see what you need, let me know. Chances are I can get it. I am making a first pass at an application chart for Cat. Mags below. Some mags were supplied new on the tractor. Others were supplied as replacements to American Bosch and Eisemann mags. Check the ID tag on the side of your mag.

The XB was a distributor, not a mag (I won't bother telling the long story of when I first came across one not knowing what it was and trying to figure out why there was a battery connection.....) Most of the parts are the same as the XH series of mags. The condenser and coil are the major differences. There are a couple of other XB parts here as well. DB was an earlier distributor, much like a Prestolite or a Delco. The DB uses an external coil which can be found in the Distributor Coils section.

The B-4 was a distributor for certain **John Deere** diesel engines with gasoline start. I can get just about every part for this mag.

**International** LA & LB engines used Wico mags (AH-1 and the H-1) as well as **IHC** mags. Parts are not interchangeable, but the mags themselves are. Parts for the IHC mag are listed in the **IHC** section. Parts for the AH-1 and H-1 are listed here. The parts for these 2 mags are NOT interchangeable. Look for AH-1 coil covers next year. The condenser for the H-1 & LD mags is a generic one (the original is no longer available.)

<sup>\*\*\*</sup> Service Note: Adjust the points on all Wico rotary mags to .015" \*\*\*

| Order    | Description  |               | Price    |
|----------|--|---------------|----------|
| number   |  |               | each     |
|          | Wico Models A , AH & C Magneto Parts   | 3             |          |
| WIC200   | Instructions, for A & AH series mags   |               | 2.50     |
| WIC201   | Instructions, for AP series mags,  |               | 2.50     |
| WIC202   | Instructions, for C series mags  |               | 2.50     |
| WIC210   | <b>Coil</b> , A, AH, C, 5-5086   |               | 70.00    |
| WIC211   | Coil, AP   |               | 130.00   |
| WIC220   | Condenser, A, AH, C, 2-5076  |               | 16.00    |
| WIC221   | Condenser, AP  |               | 16.00    |
| WIC225   | <b>Points</b> , A, AH, C, 1-5084   |               | 18.00    |
| WIC227   | Coil cover, AH-1   |               | 50.00    |
| WIC228   | Coil cover, AP   |               | 50.00    |
| WIC230   | Distributor cap, C, 2 cyl JD, 3-5007   | WICH SO       | 54.00    |
| WIC231   | <b>Distributor cap</b> , C, 2 cyl <b>JD L</b> (3 terminals across the front), discontinued | 608           |          |
| WIC232   | Distributor cap, C, 4 cyl, 3-5008  | WICO WICO     | 54.00    |
| WIC233   | Impulse spring, A, C, XH, 94-5016  |               | 12.00    |
| WIC237   | Cap gasket, C, 94-5085   |               | 1.50     |
| WIC238   | Coil cover gasket, C, 94-5113  |               | 1.50     |
| WIC219   | Coil cover gasket, A   |               | 1.50     |
| WIC240   | Coil cover gasket, AH-1, for IHC LA/LB with Wico mag                                       |               | 2.00     |
| WIC241   | Point cover gasket, AH-1, for IHC LA/LB with Wico mag                                      |               | 2.00     |
| WIC242   | Body gasket, AH-1, for IHC LA/LB with Wico mag   |               | 1.00     |
| IH85     | Flange gasket, AH-1, H-1, for IHC 1 ½ - 2 ½ HP LA/LB with Wico mag                         |               | 2.00     |
| IH86     | Flange gasket, AH-1, H-1, for IHC 3 - 5 HP LA/LB with Wico mag                             |               | 2.00     |
| WIC236   | <b>Coil cover</b> , C, 94-5096   |               | 54.00    |
| WIC239   | Rotor, A, C, 4-5000  |               | 10.00    |
| WIC217   | Bearing, A, C  |               | 5.00     |
| WIC295   | Bearing, AH, LD, H-1   |               | 10.00    |
| WIC300   | Knob, A, C plastic with brass insert   |               | 3.00     |
|          | Kits contains points, condenser, rotor, coil, and one distribut cover gasket               | or gasket and | one coil |
| WIC-KIT- | Repair kit for all Wico series "C" mags, save %10 !!                                       |               | 105.00   |

| 1      |  |              |       |
|--------|--|--------------|-------|
| •      | Wico Model XH, XHD, & XHE Magneto Part                   | <br>S        |       |
| WIC206 | Instructions, for XH, XHD, & XHE mags, 10 pages          |              | 2.50  |
| WIC272 | Points, all XH, 1-5008 (also replaces 1-5007)            |              | 18.00 |
| WIC267 | Condenser, all (except some Cat.)XH, X6916/2-5007        |              | 8.00  |
| WIC350 | Condenser Bracket, 94-5167                               |              | 2.50  |
| WIC351 | Cam Felt   |              | 1.00  |
| WIC265 | Coil, type XH, single spark, 5-5011                      |              | 65.00 |
| WIC263 | Coil, XHD, or XH with D suffix, 5-5029                   | 0 =          | 80.00 |
| WIC261 | Coil, XH, dual spark, 5-5030                             |              | 80.00 |
| WIC301 | Coil clip, (holds down the coil), XH, 94-5080            |              | 2.00  |
| WIC352 | Coil Lamination Bar, 94-5066                             |              | 8.00  |
| WIC250 | Cap, XH, John Deere, most 2 cylinder tractors, 3-5000    | WIE .        | 38.00 |
| WIC251 | Cap, XH, JD L, 3-5012                                    |              | 42.00 |
| WIC252 | Cap, XH, 4 cyl, Case & MH, 3-5014                        | 7 8 6 6 V    | 54.00 |
| WIC253 | Cap, XH, 1 cyl, Wisconsin & others, 94-5212              | OP WICO      | call  |
| WIC254 | Cap, XH, 2 cyl, Wisconsin & others, 94-5092              | OBOS<br>WILO | 26.00 |
| WIC259 | Cap, XH, 4 cyl, Wisconsin & others, 3-5001 (also 3-5002) | WICO WICO    | 38.00 |
| WIC258 | Cap, XH, 6 cyl, 3-5015                                   |              | 65.00 |
| WIC317 | Cap, XH, 2 cyl, Kohler, 3-5030                           |              | 60.00 |
| WIC255 | Cap gasket, XH, rectangular 94-5076                      |              | 2.50  |
| WIC256 | Cap gasket, XH, rounded bottom, 94-5200                  |              | 2.50  |
| WIC276 | Rotor, XH, JD, Cat., 4-5003, dual arm                    |              | 12.00 |
| WIC277 | Rotor, XH, JD L, 4-5018, single arm                      |              | 12.00 |

| 14/100=0        | B ( )/   O ( O   MII O ()   4 5040  | _        | 00.00   |
|-----------------|---|----------|---------|
| WIC278          | Rotor, XH, Cat., Case, MH & others, 4-5010  |          | 28.00   |
| WIC279          | Rotor, XH, XB, 6 cyl, 4-5004  |          | 32.00   |
| WIC362          | Distributor gear, XH, all 4 cyl mags, 30-5009   |          | 14.00   |
| WIC360          | Cap brush, XH, 94-5242  |          | 4.00    |
| WIC296          | Bearing Assy, XH, 94-5156   |          | 28.00   |
| WIC299          | Bearing, bronze, point plate, 24-5000   |          | 4.00    |
| WIC361          | Seal, main bearing, 43-5066   |          | 3.00    |
| WIC297          | Drive-End Hardware Kit (includes bearing seal), 90-5027   |          | 26.00   |
| WIC285          | Stop button assy., XH, 90-5042  |          | 8.00    |
| WIC286          | Stop button only, XH, 94-5079   |          | 2.50    |
| WIC233          | Impulse spring, C, XH, 94-5016  |          | 12.00   |
| WIC234          | Impulse pawl spring, XH, 50-5017, used when mag is mounted on side or upside down, CCW rotation **        |          | 4.50 ea |
| WIC235          | <b>Impulse pawl spring</b> , XH, 50-5016, used when mag is mounted on side or upside down, CW rotation ** |          | 3.00 ea |
| WIC348          | Impulse dust cover gasket, cork, 94-5075  |          | 2.00    |
| WIC288          | Impulse trip arm package, XH, 90-5033   |          | 16.00   |
| WIC289          | <b>Impulse coupling package</b> for XH477 mag for <b>John Deere</b> , "long-lug", 70-5070                 |          | 80.00   |
| WIC290          | <b>Impulse coupling package</b> for XH1042 mag for <b>John Deere</b> , 70-5071                            |          | 80.00   |
| WIC291          | <b>Impulse coupling package</b> for XH909 mag for <b>JD "L"</b> , 70-5078                                 |          | 80.00   |
| WIC292          | Nut, XH, impulse coupling, 43-5067  |          | 5.00    |
| WIC293          | Nut, XH, impulse coupling, when used with a gear, 90-5019   |          | 13.00   |
| WIC294          | Impulse stop, most mags, 94-5070  |          | 10.00   |
| WIC298          | Impulse stop, XH-1343B mag, 94-5383   |          | 10.00   |
|                 | New Complete XH-Series Mags *   |          |         |
| WIC-XH-<br>184  | New XH-184, CW 4-cylinder magneto for a variety of earlier engines & tractors                             |          | 425.00  |
| WIC-XH-<br>477  | New XH-477 magneto for <b>John Deere</b> tractors, long lug   |          | 360.00  |
| WIC-XH-<br>909  | New XH-909 magneto for <b>John Deere</b> L & LA tractors  |          | 360.00  |
| WIC-XH-<br>1042 | New XH-1042 magneto for <b>John Deere</b> tractors, short lug   |          | 360.00  |
|                 | Wico XH-Series Parts For Caterpillar  |          |         |
| WIC207          | Instructions, for XH mags for Caterpillar   |          | 2.50    |
| WIC273          | Points, Cat. only, see table below, 1-5090  |          | 18.00   |
| WIC274          | Points, Cat. only, see table below, 1-5111  |          | 18.00   |
| WIC269          | Condenser, XH-1906, 1907, & 1908, Cat, 2-5077   |          | 10.00   |
| WIC266          | Coil, type XH, single spark, 5-5011   | <b>6</b> | 65.00   |
| WIC256          | Cap, XH, 2 cyl, Cat., 3-5013  |          | 56.00   |
| WIC320          | <b>Cap,</b> XH, 2 cyl, Cat, 3-5025  |          | 68.00   |

| WII 0004        | Com VII 2 and Cot 2 5002   |          | 00.00  |
|-----------------|--|----------|--------|
| WIC321          | Сар, ХН, 2 суl, Cat., 3-5023                                       |          | 68.00  |
| WIC315          | Cap, XH, 2 cyl, Cat, 3-5054  | WILE OF  | 64.00  |
| WIC314          | Cap, XH, 2 cyl, Cat, 3-5052 (also replaces 3-5044)                 |          | 60.00  |
| WIC322          | Cap, XH, 2 cyl, Cat, 3-5032  |          | 46.00  |
| WIC323          | <b>Cap</b> , XH, 2 cyl, <b>Cat</b> , 3-5036                        |          | 52.00  |
| WIC318          | Cap, XH, 2 cyl., Cat., 3-5046                                      |          | 50.00  |
| WIC252          | Cap, XH, 4 cyl, Case & MH, 3-5014                                  | TA SE    | 54.00  |
| WIC316          | <b>Cap</b> , XH, 4 cyl, <b>Cat</b> , 3-5057                        |          | 64.00  |
| WIC257          | Cap gasket, XH, Cat., rectangular, 4 mounting holes, 94-5234       |          | 2.50   |
| WIC258          | Cap gasket, XH, Cat. rounded bottom, 94-5235                       |          | 2.50   |
| WIC259          | Cap gasket, XH, Cat. Rectangular, 6 mounting holes, 94-5257        |          | 2.50   |
| WIC278          | Rotor, XH, Cat., Case, MH & others, 4-5010                         |          | 28.00  |
| WIC340          | Rotor, XH, Cat., 4-5008  |          | 58.00  |
| WIC343          | Rotor, XH, Cat., 4-5016  |          | 62.00  |
| WIC341          | Rotor, XH, Cat., 4-5009  |          | 38.00  |
| WIC342          | Rotor, XH, Cat., 4-5015  |          | 38.00  |
| WIC360          | Cap brush, XH, 94-5242   |          | 4.00   |
| WIC-XH-<br>1906 | New XH-1906 magneto for <b>Cat</b> tractors, also replaces XH-2837 |          | 425.00 |
| WIC-XH-<br>1907 | New XH-1907 magneto for <b>Cat</b> tractors, also replaces XH-2836 |          | 425.00 |
| WIC-XH-<br>1908 | New XH-1908 magneto for <b>Cat</b> tractors, also replaces XH-2838 |          | 424.00 |
|                 | Wico XV Series Magneto Parts                                       | -        |        |
| WIC272          | Points, all XV, 1-5008 (also replaces 1-5007)                      |          | 18.00  |
| WIC267          | Condenser, all XV, X6916/2-5007                                    |          | 8.00   |
| WIC263          | Coil, XV 5-5029  | <b>6</b> | 80.00  |
| WIC277          | Rotor, XV, all, 4-5018   |          | 12.00  |

|         | Wico XB Distributor   |                                       |        |
|---------|---|---------------------------------------|--------|
| WIC208  | Instructions, for XB and B-4027 distributors                |                                       | 2.50   |
| WIC272  | Points, 1-5008  | £3                                    | 18.00  |
|         |   |                                       |        |
|         |   | S.                                    |        |
| WIC268  | <b>Condenser</b> , 90-5072                                  |                                       | 12.00  |
| WIC262  | Coil, 5-5093  |                                       | 80.00  |
|         |   |                                       |        |
| WIC353  | Lamination Bar, 94-5109                                     |                                       | 15.00  |
| WIC276  | Rotor, 2 cyl., John Deere, 4-5003, except XB-4023, dual arm |                                       | 12.00  |
|         |   |                                       |        |
| WIC277  | Rotor, 2 cyl., John Deere, 4-5018, XB-4023, single arm      |                                       | 12.00  |
|         |   |                                       |        |
|         |   |                                       |        |
| WIC278  | Rotor, 4 cyl., 4-5010                                       |                                       | 28.00  |
| W/IC070 | Beter Cod 4 5004  |                                       | 20.00  |
| WIC279  | <b>Rotor</b> , 6 cyl., 4-5004                               | 10                                    | 32.00  |
| WIC250  | Cap, 2 cyl, John Deere, 3-5000, except XB-4023, use with 4- |                                       | 38.00  |
|         | 5003 dual arm rotor   | WICO.                                 |        |
| WIC319  | Cap, 2 cyl, John Deere, 3-5016, XB-4023, use with 4-5018    |                                       | 46.00  |
|         | single arm rotor  |                                       |        |
| WIC252  | <b>Cap</b> , 4 cyl., 3-5014                                 |                                       | 54.00  |
|         |   | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |        |
|         |   |                                       |        |
| WIC258  | Cap, 6 cyl., 3-5015   | 175 C                                 | 65.00  |
|         |   |                                       |        |
|         |   |                                       |        |
| WIC255  | <b>Cap</b> gasket, 94-5076                                  |                                       | 2.25   |
| WIC303  | Resistor, 94-5190   |                                       | 7.00   |
|         | Wico Model H-1 & LD Magneto Parts                           | ı                                     |        |
| WIC221  | Condenser, generic for H-1, LD                              |                                       | 5.00   |
| WIC239  | Rotor, LD, 4-5000   |                                       | 10.00  |
| WIC264  | Coil, H-1, LD   |                                       | 130.00 |
| IH85    | Flange gasket, AH-1, H-1, for IHC 1 ½ - 2 ½ HP LA/LB        |                                       | 2.00   |
| IH86    | Flange gasket, AH-1, H-1, for IHC 3 - 5 HP LA/LB            |                                       | 2.00   |
|         | Model DB Distributor  | 1                                     |        |
| WIC226  | Points, DB, 1-5032  |                                       | 9.00   |
| WIC222  | Condenser, DB, 2-5094, replaces all others                  |                                       | 9.00   |
| WIC280  | Rotor, DB, 4-5017   |                                       | 7.00   |
| WIC310  | Cap, 2 cyl, 3-5060  |                                       | 34.00  |
| WIC311  | Cap, 4 cyl, 3-5059  |                                       | 34.00  |
| WIC312  | Cap, 6 cyl, 3-5061  |                                       | 34.00  |
| М       | odel B-4027 Distributor for John Deere Diesel Sta           | rting Engin                           | es     |
| MAY31   | Points, 1-5009 (yes they are the same points used in        |                                       | 18.00  |
|         | Maytags, go figure!)  |                                       |        |
| WIC270  | Condenser, 2-5080   |                                       | 12.00  |
| WIC265  | Coil, 5-5091  |                                       | 85.00  |

| WIC302 | Cover gasket, 94-5192  | 2.50  |
|--------|------------------------|-------|
| WIC313 | Backing plate, 94-5193 | 28.00 |
| WIC303 | Resistor, 94-5190      | 7.00  |

<sup>\*</sup> New complete replacement magnetos are just that, brand new with all new parts. Made from the original dies and molds, they are identical to the originals (excepts the ID tags). They are bolt-on ready and come with a mounting gasket (if available).

<sup>\*\*</sup> Direction of rotation (clockwise or counter-clockwise) is determined for ALL mags by looking at the impulse coupling

| John Deere Tractor Application Chart |              |            |            |             |              |                  |               |
|--------------------------------------|--------------|------------|------------|-------------|--------------|------------------|---------------|
| Magneto<br>#                         | Application  | Points     | Cond.      | Coil        | Rotor        | Cap              | Repair Kit ** |
| •                                    | John Deere T | Tractors I | Equipped ' | With A W    | Vico Series  | "C" Mag          | neto          |
| C-477                                | Long lug     | 1-5084     | 2-5076     | 5-5086      | 4-5000       | 3-5011           | WIC-KIT-1     |
| C-909                                | "L", "LA"    | 1-5084     | 2-5076     | 5-5086      | 4-5000       | 3-5011           | WIC-KIT-1     |
| C-1042                               | Short lug    | 1-5084     | 2-5076     | 5-5086      | 4-5000       | 3-5007           | WIC-KIT-1     |
| J                                    | ohn Deere T  | ractors E  | quipped V  | Vith A W    | ico Series ' | 'XH" Ma          | gneto         |
| XH-477                               | Long lug     | 1-5008     | 2-5007     | 5-5011      | 4-5003       | 3-5000           | WIC-KIT-5     |
| XH-909                               | "L", "LA"    | 1-5008     | 2-5007     | 5-5011      | 4-5018       | 3-5012           | WIC-KIT-6     |
| XH-1042                              | Short lug    | 1-5008     | 2-5007     | 5-5011      | 4-5003       | 3-5000           | WIC-KIT-5     |
|                                      |              | Case       | Tractor A  | pplication  | n Chart      |                  |               |
| C-184,                               |              |            |            |             |              |                  |               |
| C-894,                               | 4 cyl.       | 1-5084     | 2-5076     | 5-5086      | 4-5000       | 3-5008           | WIC-KIT-1     |
| C-1344                               |              |            |            |             |              |                  |               |
| XH-184,                              |              |            |            |             |              |                  |               |
| XH-894,                              | 4 cyl.       | 1-5008     | 2-5007     | 5-5011      | 4-5010       | 3-5014           | WIC-KIT-10    |
| XH-1344,                             |              |            |            |             |              |                  |               |
| XH-1950                              |              |            |            |             |              |                  |               |
|                                      | <b>.</b>     | Oliver     | Tractor A  | Application | on Chart     |                  | 1             |
| XHD-<br>2700                         | 4 cyl.       | 1-5008     | 2-5007     | 5-5011      | 4-5010       | 3-5014           | WIC-KIT-10    |
| XH-977                               | 6 cyl.       | 1-5008     | 2-5007     | 5-5011      | 4-5004       | 3-5015           |               |
| A11-911                              | o cyn.       |            | r Engine A |             |              | 3 3013           |               |
| XH-184,                              | 4 cyl.       | 1-5008     | 2-5007     | 5-5011      | 4-5010       | 3-5014           | WIC-KIT-10    |
| XH-2043                              | i cyr.       | 1 3000     | 2 3007     | 3 3011      | 1 3010       | 3 3011           | Wie ini io    |
| XH-2006                              | 4 cyl.       | 1-5008     | 2-5007     | 5-5011      | 4-5010       | 3-5006*          |               |
| XH-                                  | 2 cyl.       | 1-5008     | 2-5007     | 5-5030      |              | 94-5092          |               |
| 2062F                                |              | 1 0000     | 2000       |             |              | ) . co, <u>-</u> |               |
| XH-                                  | 2 cyl.       | 1-5008     | 2-5007     | 5-5011      | 4-5010       | 3-5030           |               |
| 2485D                                |              |            |            |             |              |                  |               |
| 21002                                |              | Wiscon     | sin Engine | Annlicat    | ion Chart    |                  |               |
| XH-                                  |              | 77150011   |            | Герпси      |              |                  |               |
| 1295D,                               | 1 cyl        | 1-5008     | 2-5007     | 5-5011      |              | 94-5212          |               |
| XH-                                  |              |            |            |             |              |                  |               |
| 2477B,                               |              |            |            |             |              |                  |               |
| XH-150C                              |              |            |            |             |              |                  |               |

| XH-     | 2 cyl. | 1-5008 | 2-5007 | 5-5030 |        | 94-5092 |            |
|---------|--------|--------|--------|--------|--------|---------|------------|
| 2531C   |        |        |        |        |        |         |            |
| XH-2904 | 2 cyl. | 1-5008 | 2-5007 | 5-5011 | 4-5010 | 3-5023* |            |
| XH-     | 4 cyl. | 1-5008 | 2-5007 | 5-5011 | 4-5018 | 3-5001  |            |
| 1343B   |        |        |        |        |        |         |            |
| XH-241, |        |        |        |        |        |         |            |
| XH-184, | 4 cyl. | 1-5008 | 2-5007 | 5-5011 | 4-5010 | 3-5014  | WIC-KIT-10 |
| XH-2207 |        |        |        |        |        |         |            |
| XHD-    | 6 cyl. | 1-5008 | 2-5007 | 5-5029 | 4-5004 | 3-5015  |            |
| 2900    |        |        |        |        |        |         |            |

<sup>\*</sup> Item may not be normally stocked, but usually available in 1-2 weeks \*\* Repair kits contain points, condenser, coil, rotor, and all necessary gaskets

|           | Caterpillar Application Chart   |          |        |        |        |        |         |  |
|-----------|---|----------|--------|--------|--------|--------|---------|--|
| Magneto # | Application   | Rotation | Points | Cond.  | Coil   | Rotor  | Cap#    |  |
|           |   |          | #      | #      | #      | #      |         |  |
| XH184     | 5 ton, 10, 10-14, 10-15, 15,<br>15-20, 20, 20-25, 22, 28, 30,<br>35, R2, R3, R4, R5                     | CW       | 1-5008 | 2-5007 | 5-5011 | 4-5010 | 3-5014  |  |
| XH1906    | D7, D8, D800, D8800,<br>D11000, D13000  | CCW      | 1-5008 | 2-5077 | 5-5011 | 4-5010 | 3-5023  |  |
| XH1907    | D2, D4, #10 Auto Patrol   | CCW      | 1-5008 | 2-5077 | 5-5011 | 4-5010 | 3-5013  |  |
| XH1908    | D5, D6 (early), DW10, #12<br>Auto Patrol  | CW       | 1-5008 | 2-5077 | 5-5011 | 4-5010 | 3-5013  |  |
| XH1263    | D5, D6 (late)   | CCW      | 1-5008 | 2-5007 | 5-5011 | 4-5003 | 3-5000  |  |
| XH2450C   | D7, D8, D9, DW15, early<br>models – DW20, DW21  | CCW      | 1-5111 | 2-5007 | 5-5011 | 4-5008 | 3-5025* |  |
| XH2631    | D8, early model   | CW       | 1-5111 | 2-5007 | 5-5011 | 4-5009 | 3-5032* |  |
| XHD2700   | 40, 50, 60, 65, 70, 10-ton  | CW       | 1-5008 | 2-5007 | 5-5011 | 4-5010 | 3-5014  |  |
| XH2823    | D7-E, D8-H, D9, 630-B, 631-G, 824-B, 834  | CW       | 1-5090 | 2-5007 | 5-5011 | 4-5015 | 3-5052  |  |
| XH2836    | D2, D4, D3000, D4400,<br>replaces Am. Bosch MJK 4/2<br>360 D47  | CCW      | 1-5111 | 2-5007 | 5-5011 | 4-5008 | 3-5025* |  |
| XH2837    | D7, D8, D7700, D8800,<br>D1100, D13000, replaces<br>Am. Bosch MJK 4/2 180<br>D311                       | CCW      | 1-5111 | 2-5007 | 5-5011 | 4-5008 | 3-5054* |  |
| XH2838    | D5, D6. D48, D318, D4600, replaces Am. Bosch MJK 4/2 360 D408   | CW       | 1-5111 | 2-5007 | 5-5011 | 4-5016 | 3-5025* |  |
| XH2839    | D6, D318, replaces Am.<br>Bosch MJK 4/2 360 D410  | CW       | 1-5111 | 2-5007 | 5-5011 | 4-5016 | 3-5025* |  |
| XH2842    | D1300, replaces Am. Bosch<br>MJK 4/2 180 D107   | CCW      | 1-5111 | 2-5007 | 5-5011 | 4-5008 | 3-5054* |  |
| XH2843    | D6, D7, D8, D40, D50, D75, D211, D1100, D1300, D6600, D7700, D8000, replaces Am. Bosch MJK 4/2 180 D109 | CCW      | 1-5111 | 2-5007 | 5-5011 | 4-5008 | 3-5054* |  |
| XH2845    | D7, D8, D1300, D8800,   | CCW      | 1-5111 | 2-5007 | 5-5011 | 4-5008 | 3-5057* |  |

| replaces Am. Bosch MJK 4D |  |  |  |
|---------------------------|--|--|--|
| 313                       |  |  |  |

<sup>\*</sup> Indicates special order. Parts may not normally stocked, but are available. Please inquire for price and availability.

### Wico Flywheel Magneto Parts

Wico flywheel mags are a more complicated story. Wico first entered the flywheel mag business with the model F mag. It used stationary magnets with a rotating interrupter. Design improvements were quickly made and the FG series of mags were developed. These mags were popular on the Johnson Utilimotor, Associated Colt, Nelson Brothers, and several other small engines. Some mags came with one coil, others with 2. The single coil that I have now fits in either the one or the two coil mags. Regardless of how many coils you have, you only use one new coil. (If you have a 2 cylinder version, then there might be a different solution. Ask for details.)

After a while, Wico designed a new series of flywheel mags, the FW series. Each customer had different requirements, and therefore needed a different mag. Few parts were interchangeable. There are at least 800 variants of this mag (really!) in my book. Parts were discontinued and consolidated at a frantic rate. Cross referencing is a nightmare at best! But anyway, I can still get many parts. You will have to call/e-mail/write and ask. Sometimes I will have a generic replacement, other times I will have a custom made part. Either way, I should be able to help with points, condensers & rotors. I cannot supply any parts for mags with electronic ignition modules (no points.) Replacement flywheels are not available for any mag.

Many of Wico's customers (like Maytag) asked that their engine not be listed in the Wico book. This complicates things even more. I have one good reference sheet where nearly all mags are listed, but I have to do a lot of cross-referencing to find what you need. In this listing I am showing the parts that I stock. They fit many variants of the mag. There are many more parts than what I stock, so if you don't see what you need, then ask, I might be able to get it.

| Order numbe                | r Description                 | Price each |  |  |  |
|----------------------------|-------------------------------|------------|--|--|--|
| Model F & FG Flywheel Mags |                               |            |  |  |  |
| WIC223                     | Condenser, rebuilt for F & FG | 25.00      |  |  |  |
| WIC263                     | Coil, F & FG                  | 130.00     |  |  |  |
| Model FW Flywheel Mags     |                               |            |  |  |  |
| WIC461                     | Points, 1-5004                | 15.00      |  |  |  |
| WIC462                     | Points, 1-5005                | 13.00      |  |  |  |
| WIC460                     | Points, 1-5009                | 18.00      |  |  |  |
| WIC463                     | Points, 1-5021                | 14.00      |  |  |  |
| WIC464                     | Points, 1-5025                | 9.00       |  |  |  |
| WIC465                     | Points, 1-5034                | 17.00      |  |  |  |
| WIC423                     | Condenser, 2-5003/2-5013      | 12.00      |  |  |  |
| WIC427                     | Condenser, 2-5005             | 14.00      |  |  |  |
| WIC422                     | Condenser, 2-5008             | 14.00      |  |  |  |
| WIC425                     | Condenser, 2-5010             | 14.00      |  |  |  |
| WIC420                     | Condenser, 2-5016             | 7.00       |  |  |  |
| WIC421                     | Condenser, 2-5017             | 8.00       |  |  |  |
| WIC428                     | Condenser, 2-5021             | 14.00      |  |  |  |
| WIC424                     | Condenser, 2-5024             | 7.00       |  |  |  |
| WIC429                     | Condenser, 2-5027             | 8.00       |  |  |  |
| WIC430                     | Condenser, 2-5030             | 7.00       |  |  |  |
| WIC426                     | Condenser, 2-5053             | 7.00       |  |  |  |

| WIC444 | Coil, 5-5009 / 5-5015 (formerly X7345) 1 coil replaces both | 50.00 |
|--------|---|-------|
|        | part numbers, also 5-5013                                   |       |
| WIC446 | <b>Coil</b> , 5-5014 (formerly X-7233)                      | 50.00 |
| WIC445 | <b>Coil</b> , 5-5017 (formerly X-7500)                      | 55.00 |
| WIC447 | <b>Coil</b> , 5-5025 (formerly X-9533)                      | 35.00 |
| WIC448 | Coil, 5-5032  | 50.00 |
| WIC443 | Coil, 5-5034, replaces X9965, X11260, 11654, X12325,        | 35.00 |
|        | X12905, X12910, X12915, X12920                              |       |
| WIC440 | <b>Coil</b> , 5-5035 (formerly X12935B)                     | 35.00 |
| WIC449 | <b>Coil</b> , 5-5037  | 45.00 |
| WIC441 | <b>Coil</b> , 5-5039 (formerly X-13313D)                    | 35.00 |
| WIC442 | <b>Coil</b> , 5-5054 (formerly X-16343D)                    | 35.00 |
| WIC450 | <b>Coil,</b> 5-5136   | 40.00 |

#### IHC Magneto Parts

My family was big into IHC stuff. We had numerous Farmall H's and a Farmall M, as well as some later number series stuff. When the H's and the M were bought, they all had the original mags. As time went on and the mags stopped working for one reason or another, the mags were all replaced with distributor systems that ran off the battery. While this solved the short term problem and got the tractor going again, another bigger problem arose in that as the starters got tired and drew more current, there was less voltage available for the coil. And once again, the tractors got to be hard to start. If only we had known then how to fix mags.... The moral of the story is "Don't ever let anyone tell you that a battery system is better than a well tuned mag!" People had tried to tell me that when I was young and I didn't believe them. Well, I guess age, experience, and my engineering background have taught me many lessons.

IHC got into the mag business by buying the Accurate Engineering Company. Accurate was making the low-tension mags for their stationary engines at the time (and probably for a lot of other people too.) Early IHC high-tension mags were made by K-W and later Splitdorf. IHC's first high-tension mag of their own design, was the E-4A. It was a darn good mag for the time. While I don't list parts for these mags, they are easily rebuilt. I rebuild condensers and rewind coils for these mags. Points can usually be resurfaced. I also have bearings.

The later mags, the F, H, and J series, are very reliable and easily rebuilt. These are most of the parts available for these tractor and stationary engine (LA & LB) mags. I grew up with these mags on the tractors on my family farm. Many other parts are available. Please call, write, or e-mail with requests.

I can also replace bearings, rewind coils and rebuild the mounting plates on IHC (and other) low tension mags. I will also have the gears (and maybe bearing plates) real soon. Real early IHC stationary engines used Webster and Motszinger mags. Look for Webster parts in the Webster section. For the Motszinger, I can supply coils and nameplates.

\*\*\* Service Note: Adjust the points on all IHC rotary mags to .013" except F6 mag which should be adjusted to .020" \*\*\*

| Order number              | Description                   | Price each |  |  |  |
|---------------------------|-------------------------------|------------|--|--|--|
| E4A & Dixie Magneto Parts |                               |            |  |  |  |
| NP086                     | Nameplate, IHC E4A mag, brass | 18.00      |  |  |  |
| IH40                      | Thumb nut, E4A cap            | 4.00       |  |  |  |
| SPL10                     | Thumb nut, Dixie mag          | 4.00       |  |  |  |
| F4, F6 Magneto Parts      |                               |            |  |  |  |

| IH64   | Points   | 16.00 |
|--------|--|-------|
| IH55   | Condenser  | 10.00 |
| IH54   | Coil   | 65.00 |
| IH60   | Cap, F4, with brushes, hand cast from an original, with IHC logo     | 75.00 |
| IH65   | Cap, F4, with brushes, plastic repro, no IHC logo                    | 56.00 |
| IH63   | Lead out tower, internal, brings high voltage from coil to cap       | 50.00 |
| IH50   | Bearing, 3 piece   | 25.00 |
| IH52   | Cap brush  | 3.00  |
| IH57   | Drive float  | 18.00 |
| IH61   | Coil cover gasket  | 2.50  |
| IH62   | Point cover gasket   | 1.00  |
|        | H1 & H4 Magneto Parts  |       |
| IH80   | Points   | 16.00 |
| IH55   | Condenser  | 10.00 |
| IH54   | Coil   | 65.00 |
| IH50   | Bearing, 3 piece   | 25.00 |
| IH72   | Coil cover   | 26.00 |
| IH73   | Coil cover, with IHC logo & brass inserts                            | 50.00 |
| IH75   | Distributor cap, H4  | 18.00 |
| IH76   | Distributor gear, H4   | 32.00 |
| IH79   | Impulse pawl kit, H4, right hand                                     | 18.00 |
| IH84   | Rotor, H4  | 9.00  |
| IH77   | Gasket set (does not include LA/LB mount gasket for H1 mag)          | 9.00  |
| FM191  | Gasket, mount, SAE, for H4 mag (included in gasket set)              | 2.00  |
| IH78   | Coil cover gasket, extra thick, ALWAYS use when installing new coils | 2.00  |
| IH85   | Flange gasket, H-1, for IHC 1 ½ - 2 ½ HP LA/LB                       | 2.00  |
| IH86   | Flange gasket, H-1, for IHC 3 - 5 HP LA/LB                           | 2.00  |
|        | J4 Magneto & Battery Distributor Parts                               |       |
| IH90   | Coil, J4 mag   | 70.00 |
| IH91   | Condenser, J4 mag and battery ignition distributor                   | 10.00 |
| IH92   | Distributor cap, J4 mag and battery ignition distributor             | 28.00 |
| IH93   | Coil cover, J4, brass inserts & IHC logo                             | 50.00 |
| IH95   | Points, J4 mag and battery ignition distributor                      | 12.00 |
| IH97   | Rotor retainer, J4 mag   | 25.00 |
| IH98   | Rotor, IHC battery ignition distributor                              | 8.00  |
| IH99   | Gasket set   | 7.50  |
| COIL01 | Ignition coil, 6 volt, replaces the coil on most 6 volt systems      | 27.00 |
| COIL02 | Ignition coil, 12 volt, replaces the coil on most 12 volt systems    | 35.00 |

# Fairbanks Morse Magneto Parts

Fairbanks Morse became famous in the mid to late 1800's for platform scales. F-M went on to have a very diverse product line beyond their famous scales, including engines, locomotives, generators, tractors, and many other products. In the early days of engine production, FM bought a number of different mags, the most popular being the

AB33 & the AB34. These were made by American Bosch and are listed here mainly because they were used exclusively on Fairbanks Morse engines. I can get coils rewound, and rebuild condensers for you. I can also make other parts as needed. I cannot get point disks. When installing lead-out towers on AB34 mags, the mounting holes must be slightly elongated. I can also replace bearings on AB33 and AB34 mags. Please inquire for details.

Fairbanks Morse got started rather late in the mag business with their first mag being the type R rotary mag for their type Z engines. They made a modification to this mag to make it a two cylinder mag by adding a rather complicated gear reduction system. They cast a leaping deer onto the back casting and sold them to John Deere. It was not the best of mags. They refined the model into the RV series of mags, a much more easily produced and much more reliable mag.

The remainder of the Fairbanks Morse mags were rotary mags with permanent magnets in the rotor (except the flywheel mags.) These mags were used on a wide range of engines and tractors both as original equipment and as aftermarket replacements. When ordering parts, it is best to give me the actual mag model number from the tag so I can check my parts list. I can get most any part, **far more** than listed here, so call, e-mail, or write with needs. F-M also briefly got into the flywheel magneto business. After selling about 5 variants, they decided that this was not the business for them. Few if any parts are available for flywheel mags. I can probably have custom coils made and supply generic condensers.

FM-P & FM-PE mags are 1 and 2 cylinder mags for semi-industrial applications. A few variants of this mag were used for aviation applications. I am not certified to sell parts to aviation users and I WILL NOT sell parts for aviation applications! FM-L, LTR, LX, & LTX are low tension mags used on industrial applications. I have a few parts for these mags and can get many more parts as well on special order.

**IMPORTANT NOTE!!!** When determining the direction of rotation of a mag, always look at the drive end (the impulse coupling.) If it turns to the right, it is clockwise. If it turns to the left, it is counter-clockwise.

\*\*\* Service Note: Adjust the points on all FM rotary mags to .020" \*\*\*

| Order  | Description   |    | Price  |
|--------|---|----|--------|
| number | ·   |    | each   |
|        | AB33/AB34 Mag Parts for Type "Z" Engin  | es |        |
| FM010  | Actuating arm, AB33/AB34, 2 3/4" long   |    | 28.00  |
| FM011  | Actuating arm, AB33/AB34, 5 1/4" long   |    | 30.00  |
| FM012  | Actuating arm, AB33/AB34, later style, 2 3/4" long  |    | 28.00  |
| FM018  | Lead-out tower, AB33, AB34, specify which   |    | 28.00  |
| FM016  | Gasket, lead-out tower, AB33  |    | 1.50   |
| FM017  | Brush, lead-out tower, with spring, AB33  |    | 4.00   |
| FM027  | Point cover, AB33   |    | 9.00   |
| FM030  | Roller, spring, AB33/AB34 (hardened)  |    | 4.00   |
| FM034  | Spring, oscillator, AB33, AB34  |    | 6.00   |
|        | Coil, AB33, rewind exchange   |    | 100.00 |
|        | Coil, AB34, rewind exchange   |    | 120.00 |
|        | Condenser rebuild   |    | 25.00  |
|        | Fairbanks Morse Rotary Mags   |    |        |
|        | FM-J Series   |    |        |
| FM110  | <b>Condenser</b> , FM-J,X, for two and four cylinder mags that use the R2477C coil, AXMR2433            |    | 8.00   |
| FM111  | <b>Condenser</b> , FM-J,X, for single and two cylinder mags that use the T2477C or Q2477C coil, SXY2433 |    | 10.00  |
| FM154  | Points, FM-J, clockwise, R2437A   |    | 18.00  |
| FM156  | Points, FM-JV4, FM-JVE4, FM-JVE4B7C, T2437  |    | 54.00  |

| FM155                    | Points, FM-J, counter clockwise, S2437  |          | 20.00  |
|--------------------------|---|----------|--------|
| FIVITOS                  | Foints, FIVI-J, Counter Clockwise, 52437  |          | 38.00  |
|                          |   |          |        |
| FM170                    | Coil, some two and all four cylinder mags, R2477C,                              |          | 65.00  |
|                          | (Use this coil if the mag has a gear-driven distributor rotor, i.e.             |          |        |
|                          | M2765, otherwise use T2477C coil)   |          |        |
| FM171                    | Coil, all one and some two cylinder mags, T2477C                                | STATE .  | 70.00  |
| FM172                    | Coil, dual spark, Q2477C  |          | 80.00  |
| FM147                    | Rotor, FM-J4, X4, XE4, XV4, B, M2765  |          | 18.00  |
| FM149                    | Rotor, some FM-JE4 & FM-XE4, X2765  | <b>Q</b> | 38.00  |
| FM223                    | Rotor, FM-J2, counter-clockwise, used with LX2430 cap,                          |          | 56.00  |
|                          | jump gap spark distribution, Q2765  |          |        |
| FM221                    | Rotor, FM-J2, clockwise, used with LX2430 cap, jump gap                         |          | 40.00  |
|                          | spark distribution, R2765   |          |        |
|                          | Caps & covers, see below  |          |        |
| FM185                    | Distrib. Shaft & gear assy., FM-J4, JF2 N5939                                   | 8        | 30.00  |
| FM230                    | Gear, magnetic rotor (armature), FM-J4, most, F5952                             | 100      | 26.00  |
| FM126                    | Bearing, main, driven end, C5949  |          | 16.00  |
| FM260                    | <b>Bearing</b> , bronze, distributor end in point plate, press in, FM-J, B5950A |          | 25.00  |
| FM260                    | Bearing, bronze, distributor cap, press in, FM-J, B5950C                        |          | 18.00  |
| FM237                    | Bearing & Point Support Plate, clockwise, H4631, *** special order              |          | 105.00 |
| FM238                    | Bearing & Point Support Plate, counter clockwise, J4631, *** special order      |          | 105.00 |
| FM181                    | Seal, main bearing, G3861   |          | 2.00   |
| FM130                    | Gasket kit, FMJ1,2, GK16  |          | 6.00   |
| FM131                    | Gasket kit, FMJ4, others, GK17  |          | 8.00   |
| FM140                    | Gasket, cap, FM-J, H2498  |          | 2.00   |
| FM120                    | Gasket, distributor cap, FMJ4, B682   |          | 1.50   |
| 20                       | FM-K Series   |          | 1.00   |
| FM157                    | Points, FM-K & others, clockwise, P2437   |          | 52.00  |
| FM158                    | Points, FM-K & others, counter clockwise, Q2437                                 |          | 36.00  |
| FM110                    | Condenser, AXMR2433   |          | 8.00   |
| FM170                    | Coil, FM-K, can fit in, not as hot as FM174, R2477C                             |          | 65.00  |
|                          |   |          | 00.00  |
| FM174                    | Coil, FM-K, a hotter coil with a better fit, P2477C                             | •        | 240.00 |
| FM126                    | Bearing, main, driven end, C5949  |          | 16.00  |
| FM181                    | Seal, main bearing, G3861   |          | 2.00   |
| FM195                    | Gasket, cover, F2498  |          | 3.00   |
|                          | FM-L Series   |          | 2.00   |
| FM159                    | Points, certain mags, Q2437A  |          | 70.00  |
| FM112                    | Condenser, all FM-L series, RX2433  |          |        |
| 1 <sup>-</sup> 1V1   1 Z | CONCENSEN, AN FIVEL SENES, RAZ433   |          | 45.00  |

|       | Coils are available but are special order, please call   |  |        |
|-------|--|--|--------|
|       | FM-P Series  |  |        |
| FM159 | Points, FM-P1, FM-PE1, FM-PE1-2, Q2437A  |  | 70.00  |
| FM112 | Condenser, RX2433, ask before ordering   |  | 45.00  |
| FM113 | Condenser, FM-PE1-2B16B, VX2433  |  | 60.00  |
|       | Coils are available but are special order, please call, <b>no sales</b>  | to aviation  | 00.00  |
|       | users!!!!  |  |        |
|       | FM-S Series  |  |        |
| FM110 | Condenser, FM-S, AXMR2433  |  | 8.00   |
| FM160 | Points, FM-S, HX2437   |  | 40.00  |
| FM173 | Coils, TS2477C, special order  |  | 260.00 |
|       | FM-X & FM-Z Series   |  |        |
| FM110 | <b>Condenser</b> , FM-J,X, for two and four cylinder mags that use the R2477C coil, AXMR2433   |  | 8.00   |
| FM111 | Condenser, FM-J,X, for single and two cylinder mags that use the T2477C or Q2477C coil, SXY2433  |  | 10.00  |
| FM112 | Condenser, FM-X, shielded mags, RX2433   |  | 45.00  |
| FM150 | <b>Points</b> , FM-X clockwise rotation, FM-XD, FM-XV, FM-Z A2437A, Also replaces W2437  |  | 18.00  |
| FM151 | <b>Points</b> , FM-X counter clockwise rotation, FM-Z, B2437A Also replaces X2437  |  | 18.00  |
| FM170 | <b>Coil</b> , FM-X, some two and all four cylinder mags, R2477C, (Use this coil if the mag has a gear-driven distributor rotor, i.e. M2765, otherwise use T2477C coil) |  | 65.00  |
| FM171 | Coil, FM-X, all one and some two cylinder mags, T2477C   | Service Control of the Control of th | 70.00  |
| FM172 | Coil, dual spark, Q2477C   | ( See  | 80.00  |
| FM174 | Coil, FM-Z, four and six cylinder mags, P2477C   | -  | 240.00 |
| FM175 | Coil, FM-XV, 4 cylinder mags, QS2477C, special order   |  | 325.00 |
| FM176 | Coil, FM-XZ, 4 cylinder mags, RS2477C, special order   |  | 275.00 |
| FM147 | Rotor, FM-J4, X4, XE4, XV4, B, M2765   |  | 18.00  |
| FM149 | Rotor, some FM-JE4 & FM-XE4, X2765   |  | 38.00  |
| FM148 | Rotor, XE4 & others, X2765X  |  | 62.00  |
| FM222 | Rotor, FM-X2B7(E,F) & others, used with WZ2430 & LX2430 cap, clockwise, FY2765   |  | 22.00  |
| FM223 | Rotor, FM-OR4, FM-XOR, FM-XR, FM-Z4, FM-Z6, used with TX2430 cap, Z2765  |  | 36.00  |
| FM224 | Rotor, FM-X4B7C & others, used with VX2430X cap, M2765X  | ~  | 40.00  |
| FM225 | Rotor, FM-X4 for Kohler, DX2765  |  | 24.00  |
|       | Caps & covers, see below   |  |        |
| FM186 | Distrib. Shaft & gear assy., FM-X4, Y5939  | - Contraction  | 30.00  |
| FM187 | <b>Distrib. Shaft &amp; gear assy</b> ., FM-X4, militarized mags, Q5939 (also Q5939X)  |  | 60.00  |
| FM231 | Gear, magnetic rotor (armature), FM-X4, most, Q5952  | 10 m   | 75.00  |
| FM126 | Bearing, main, driven end, FM most, C5949  | - <del>-</del>   | 16.00  |
| FM127 | Bearing, bronze, distributor end, press in, most FM-X,   |  | 10.00  |

|         | A5950A   |  |        |
|---------|--|--|--------|
| FM128   | Bearing, bronze, distributor rotor, press in, D5950C                                 |  | 8.00   |
|         | Bearing, needle/roller, distributor end, certain FM-X & FM-Z,                        |  |        |
|         | D5949A, no longer available, order new point support plate                           |  |        |
|         | below with bronze bearing (included)   |  |        |
| FM239   | Bearing & Point Support Plate, clockwise, single-cylinder                            |  | 60.00  |
| ENAGEO  | mags, V4631  |  | 05.00  |
| FM250   | <b>Bearing &amp; Point Support Plate</b> , counter-clockwise, single-cylinder, W4631 |  | 65.00  |
| FM235   | Bearing & Point Support Plate, clockwise, multi-cylinder                             |  | 75.00  |
| 200     | mags with a gear driven rotor, X4631   |  | 70.00  |
| FM236   | Bearing & Point Support Plate, counter-clockwise, multi-                             |  | 90.00  |
|         | cylinder mags with a gear driven rotor, Y4631  |  |        |
| FM130   | Gasket kit, FMX1,2, GK16   |  | 6.00   |
| FM131   | Gasket kit, FMX4, others, GK17   |  | 8.00   |
| FM140   | Gasket, cap, FM-X, H2498   |  | 2.00   |
| FM141   | Gasket, cap, FM-J & FM-X, metalized, for military use                                |  | 27.00  |
| FM120   | Gasket, distributor cap, FMX-4, J4, B682   |  | 1.50   |
| FM121   | Gasket, distributor cap, FMX-6, D682   |  | 6.50   |
| FM190   | Gasket, mount, FM-X, A4910   |  | 2.00   |
| FM191   | Gasket, mount, SAE, C4910  |  | 2.00   |
| FM192   | Gasket, mount, Wisconsin, D4910  |  | 1.50   |
| FM163   | Brush, E2460B  |  | 3.00   |
| FM164   | Brush, F2460A  |  | 3.00   |
| FM240   | Kill wire & post kit, B2541B   |  | 10.00  |
| FM241   | Key switch block, internal support for key lock barrel, does                         |  | 45.00  |
|         | not include key and lock, FM-Z for Harley Davidson                                   |  |        |
| FM180   | <b>Seal</b> , G2501  |  | 2.00   |
|         | <b>Distributor Caps And Coil Covers</b>  |  |        |
| FM142   | Distributor cap, FM-J, X, most 4 cylinder, C800                                      | . The state of the | 65.00  |
| FM143   | Distributor cap, FM-JV, XV, 4 cylinder, G800   | 9 9  | 65.00  |
| FM144   | Distributor cap, certain FM-X4, FM-Z4, W800  | (a) (a) (7)  | 80.00  |
| FM145   | Distributor cap, FM-XF2B7, 2 cylinder, D800  |  | 80.00  |
| FM146   | Distributor cap, FM-Z6, 6 cylinder, Q800, special order                              |  | 110.00 |
| FM201   | Coil cover, FM-JF2, FM-J4, CX2430  | <b>-</b>   | 48.00  |
| FM207   | Coil cover, FM-X4, AZ2430  |  | 44.00  |
|         |  |  |        |
| FM210   | Coil cover, FM-Z4, Z6, TX2430, special order   | 0 -20  | 80.00  |
| FM200   | Coil cover, FM-J1, FM-X1, lead-out points up, AX2430                                 |  | 38.00  |
| FM206   | Coil cover, FM-X1, lead-out points up, BZ2430  |  | 36.00  |
| 1111200 | Con Cotton, 1 Mi XI, load out pointe up, 522 loo                                     | £ 50   | 00.00  |
| FM203   | Coil cover, FM-J1B2, lead-out points straight out, SX2430                            | (a)  | 38.00  |
|         |  |  |        |
| FM202   | Coil cover, FM-X1-2B7 & all Harley Davidson, 2 cylinder                              |  | 40.00  |
|         | dual-spark, points straight out, BY2430  | <b>"⊕⊕</b> ∫   | 13.03  |
|         |  |  |        |

| FM205  | Coil cover/distributor, 2 cyl, FMX2B7 & others, LX2430, jump-gap spark distribution | 84.00 |
|--------|---|-------|
| FM208  | Coil cover, FM-X2B7(D,E) & others, WZ2430, jump-gap spark distribution              | 72.00 |
| FM209  | Coil Cover, FM-X4B44A,B, R2430C   | 78.00 |
|        | Impulse Parts, FM-J, FM-X, FM-Z   |       |
| FM197  | Impulse spring, clockwise mags, D2565   | 20.00 |
| FM198  | Impulse spring, counter-clockwise mags, E2565                                       | 30.00 |
| FM245  | Impulse pawl, single cylinder, H2566  | 12.00 |
| FM246  | Impulse pawl, multi-cylinder, Q2566   | 10.00 |
|        | RV-1, RV-2  |       |
| FM022  | Coil cover, RV-1  | 50.00 |
| FM170  | Coil, a suitable replacement for RV-1   | 66.00 |
| WIC040 | Condenser, new type, installs next to the coil                                      | 5.00  |
| FM040  | Points, RV-1  | 17.00 |
|        | R-1, R-2  |       |
| FM020  | Lead-out tower, R-1   | 45.00 |
| FM025  | Collector ring, R-1   | 35.00 |

| Application Chart  |               |             |                |              |             |             |
|--------------------|---------------|-------------|----------------|--------------|-------------|-------------|
| John Deere Tractor |               |             |                |              |             |             |
| Magneto #          | Application   | Points      | Cond.          | Coil         | Rotor *     | Cap *       |
| FM-J2B6            |               | S2437       | AXMR2433       | R2477C       | Q2765       | WZ2430      |
| FM-J2A6            |               | S2437       | AXMR2433       | R2477C       | Q2765       | WZ2430      |
| FM-X2B6            |               | B2437A      | AXMR2433       | R2477C       | Q2765       | WZ2430      |
| FM-X2A6            |               | B2437A      | AXMR2433       | R2477C       | Q2765       | WZ2430      |
| * Note: If your m  | nag had the o | riginal sty | le cap and rot | or (flat dis | sc), you mi | ust replace |
| the cap and rotor  | together as t | the origina | l cap and rote | or are no lo | nger avail  | able        |
|                    |               | Allis Cha   | almers Tract   | or           |             |             |
| Magneto #          | Application   | Points      | Cond.          | Coil         | Rotor       | Dist. Cap   |
| FM-J4B3            |               | R2437       | AXMR2433       | R2477C       | M2765       | C800        |
| FM-X4B3            |               | A2437A      | AXMR2433       | R2477C       | M2765       | C800        |
|                    |               | Fairbanks   | Morse Engi     | nes          |             |             |
| FM-J1A2            | ZD & others   | R2437       | AMXR2433       | R2477C       |             | BZ2430      |
| FM-X1A2            | ZD & others   | A2437A      | AMXR2433       | R2477C       |             | BZ2430      |
|                    |               | Wisco       | nsin Engines   |              |             |             |
| FM-J1A7            | Most 1 cyl    | S2437       | AMXR2433       | T2477C       |             | BZ2430      |
| FM-X1A7            | Most 1 cyl    | B2437A      | AMXR2433       | T2477C       |             | BZ2430      |
| FM-X1-2B7,A        | 2 cyl         | A2437A      | SXY2433        | Q2477C       |             | BY2430      |
| FM-JF2B7           | 2 cyl         | R2437       | AMXR2433       | R2477C       | M2765       | H800 *      |
| FM-X2B7D,E         | 2 cyl         | A2437A      | SXY2433        | T2477C       | FY2765      | WZ2430      |
| FM-XF2B7           | 2 cyl         | A2437A      | AMXR2433       | R2477C       | M2765       | D800 *      |

| FM-JV4B7,                             | V4 cyl.     | T2437     | SXY2433            | QS2477<br>C * | M2765    | G800    |
|---------------------------------------|-------------|-----------|--------------------|---------------|----------|---------|
| A, B                                  |             |           |                    | C "           |          |         |
| FM-XV4B7,                             | V4 cyl.     | A2437A    | SXY2433            | QS2477        | M2765    | G800    |
| <b>A</b> , <b>B</b> , (not <b>C</b> ) |             |           |                    | C *           |          |         |
| FM-J4A7A                              | 4 cyl.      | R2437     | AMXR2433           | R2477C        | M2765    | C800    |
| FM-X4A7                               | 4 cyl.      | B2437A    | AMXR2433           | R2477C        | M2765    | C800    |
| FM-X4A7A                              | 4 cyl.      | A2437A    | AMXR2433           | R2477C        | M2765    | C800    |
| FM-X4A7B                              | 4 cyl.      | A2437A    | AMXR2433           | R2477C        | M2765    | C800    |
| FM-X4B7                               | 4 cyl.      | A2437A    | AMXR2433           | R2477C        | Call     | Call    |
|                                       |             | Kohl      | ler Engines        |               |          |         |
| FM-J4A23                              | 4 cyl.      | S2437     | AMXR2433           | R2477C        | M2765    | C800    |
| FM-X1-2B44                            | 2 cyl.      | A2437A    | SXY2433            | Q2477C        |          | BY2430  |
| FM-X4A23                              | 4 cyl.      | B2437A    | AXMR2433           | R2477C        | M2765    | C800    |
| FM-X4B44A,                            | 4 cyl.      | A2437A    | AXMR2433           | R2477C        | DX2765   | W800    |
| -3                                    |             |           |                    |               |          |         |
| Harley Da                             | avidson Mot | torcycles | with F-M, Jo       | oe Hunt, o    | r Morris | Mags    |
| FM-Z2-2B63B                           | HD 29503-   | B2437A    | SXY2433            | Q2477C        |          | BY2430  |
|                                       | 56R         |           |                    |               |          |         |
| <b>FM-Z2-</b>                         | HD 29501-   | D04074    | A A A V (D O 4 O O | 004770        |          | D)/0400 |
| 2C63A,                                | 62 & Joe    | B2437A    | AMXR2433           | Q2477C        |          | BY2430  |
| <b>FM-Z2-</b>                         | Hunt        |           |                    |               |          |         |
| 2C10A,                                |             |           |                    |               |          |         |
| <b>FM-Z2-</b>                         |             |           |                    |               |          |         |
| 2C63C                                 |             |           |                    |               |          |         |

<sup>\*</sup> Parts available, but may not be normally stocked. Call for price and availability.

### American Bosch Magneto Parts

American Bosch was probably one of the best of the early magneto makers. A-B started out as Simms-Bosch making the "Arc-Flame" series of high tension magnetos. Bosch became enamored with low tension ignition systems and demanded that Simms-Bosch concentrate on low tension systems. Simms refused, and Bosch left to start his own business. Robert Bosch, as it was known, quickly discovered the error of his ways and switched back to high tension systems. His high tension mags were so high quality that he quickly put his former partner Simms out of business. World War I and the "Trading With The Enemy" act saw the breakup of Bosch into Robert Bosch (in Germany) and American Bosch in the US. Both companies flourished, producing a long line of top quality ignition systems. In my opinion, American Bosch produced the highest quality mags during the first half of the 20'th century. Robert Bosch mags were nearly as good, but they did not make as many technological advances in the 30's and 40's as A-B did.

American Bosch made primarily rotary mags. They briefly experimented with flywheel mags, but ended up with very few contracts (their largest was for the Maytag 92). They eventually conceded the business to Wico, Phelon, and their former partner Robert Bosch.

Most of A-B's early mags (Robert Bosch too) used shuttle wound coils with condensers built into the end of the armature. These armatures are not user-serviceable and must be professionally repaired. The person who does my coil winding is the best in the business and I rebuild the condensers myself. Send me your complete armature to be rebuilt. I can also supply bearings for most of the mags, look in the bearing section.

Parts for the AB33 and AB34 oscillating mag are listed under Fairbanks-Morse magneto parts (since they were used exclusively on Fairbanks Morse engines.)

Once A-B switched to a permanent magnet design, they produced a long line of quality mags. Their first mag with a permanent magnet was the MVA. It can be basically classified as a bad idea! Nothing is available for them and I strongly recommend against rebuilding them. The rest of the A-B rotary mags were of top quality and have lasted for years. Many of the parts were discontinued over the years as their popularity decreased, but some are available. When Bosch finally got out of the magneto business, they sold off the rights to their parts to an aftermarket supplier. Only what had not been discontinued at that time is still available. If you have an early A-B mag such as the MJA, B, C, H or MVA mag that needs a lot of work, strongly consider replacing the entire mag with a new Wico mag. You may find that the cost to rebuild you're A-B mag may be more than the price of a new mag. Later mags are not so much of a problem. Most parts are available for MRD mags.

**Caterpillar** used the MJK mag. I can get many of the parts, but don't stock all of them. If your mag is really rough and needs lots of parts, consider getting a replacement Wico mag. I can get them brand new to fit most applications.

\*\*\* Service Note: Adjust the points on all American Bosch rotary mags to .016" \*\*\*

| Order number    | Description   | Price each |  |  |  |
|-----------------|---|------------|--|--|--|
| ZEV Rotary Mags |   |            |  |  |  |
| AB100           | Lead out tower, ZEV mag, left hand, with brush                  | 35.00      |  |  |  |
| AB101           | Lead out tower, ZEV mag, right hand, with brush                 | 35.00      |  |  |  |
| AB120           | Lead out tower screw, tapered                                   |            |  |  |  |
|                 | MJA, MJB Variable & Fixed Timing Rotary Mags                    | ·          |  |  |  |
| AB11            | Condenser, CW5210, MJA ed A,B,C, MJB, variable timing           | 24.00      |  |  |  |
| AB12            | Condenser, CW5291, MJA ed D, MJB ed B, fixed timing             | 24.00      |  |  |  |
| AB13            | Condenser, CW5279, MJH, MRD, MSA, MSB                           | 10.00      |  |  |  |
| AB20            | Points, CS521, MJA, MJB, MRA, MRF, MRB                          | 18.00      |  |  |  |
| AB60            | Gasket, control arm cover, MJA, MJB, GA521                      | 2.00       |  |  |  |
| AB67            | Gasket, cap,MJA, GA522  | 6.00       |  |  |  |
| AB61            | Gasket, cap, MJB, MRF GA523                                     | 3.00       |  |  |  |
| AB46            | Distributor rotor, MJA 4 cylinder, RT52418AS, *** special order | 115.00     |  |  |  |
| AB47            | Distributor rotor, MJA 4 cylinder, RT52422AS, *** special order | 110.00     |  |  |  |
| AB48            | Distributor rotor, MJA 4 cylinder, RT52425AS, *** special order | 85.00      |  |  |  |
| AB49            | Distributor rotor, MJA 4 cylinder, RT52426AS, *** special order | 90.00      |  |  |  |
| AB30            | Coil, a generic replacement, CL521043                           | 75.00      |  |  |  |
|                 | MJC Rotary Mags   |            |  |  |  |
| AB14            | Condenser, CW5232   | 28.00      |  |  |  |
| AB23            | Points, edition C only (most common), CS523                     | 28.00      |  |  |  |
| AB30            | Coil, CL521043  | 75.00      |  |  |  |
|                 | MJH Rotary Mags   |            |  |  |  |
| AB13            | Condenser, CW5279, MJH, MRD, MSA, MSB                           | 10.00      |  |  |  |
| AB21            | Points, BK52203, MJH, MRD, MSA, MSB, TDG                        | 18.00      |  |  |  |
| AB30            | Coil, a generic replacement, CL521043                           | 75.00      |  |  |  |
| AB80            | Rotor, RT52288, MJH edition C only, 2 & 4 cyl                   | 40.00      |  |  |  |
| AB81            | Rotor, RT52304, MJH edition C only, 6 cyl                       | 40.00      |  |  |  |
| AB62            | Gasket, cap, MJH, GA5261  | 1.50       |  |  |  |

| AB68         | Gasket, cap, 2-cylinder, used in addition to AB62, GA52145                     | 6.00   |
|--------------|--|--------|
|              | MJK Rotary Mags  |        |
| AB10         | Condenser, flange mount, CW52110, MJK  | 38.00  |
| AB22         | Points, BK52234, MJK   | 35.00  |
| AB45         | Rotor, MJK, RT52154PAS   | 80.00  |
| AB41         | Brush & spring, BR521004   | 8.00   |
| AB30         | Coil, a generic replacement, CL521043  | 75.00  |
| AB51         | Cap, DP52442, lead-outs diagonally across from each other, ** special order ** | 120.00 |
| AB65         | Cap gasket, GA52148  | 6.00   |
| AB66         | Rear gasket, GA52157   | 7.00   |
| AB70         | Seal, MJK editions C & D, PK5237   | 7.00   |
| AB73         | Bronze Bearing, Edition "D" mags ONLY, BG52160                                 | 5.00   |
|              | MRA, MRB Rotary Mags   |        |
| AB11         | Condenser, CW5210, MRA & MRF variable timing                                   | 24.00  |
| AB12         | Condenser, CW5291, MJA ed D, MJB ed B, fixed timing                            | 10.00  |
| AB20         | Points, CS521, MJA, MJB, MRA, MRF, MRB   | 18.00  |
| AB52         | Coil, CL52164, MRA, ** special order **  | 180.00 |
|              | Rotors, call with model #, some are available                                  |        |
|              | MRD Rotary Mags  |        |
| AB13         | Condenser, CW5279, MJH, MRD, MSA, MSB  | 10.00  |
| AB21         | Points, BK52203, MJH, MRD, MSA, MSB, TDG                                       | 18.00  |
| AB30         | Coil, CL521043   | 75.00  |
| AB40         | Brush, BR173   | 8.00   |
| AB50         | Cap, 1 cylinder, MRD, DP521005   | 30.00  |
| AB82         | Cap, 4 cylinder, MRD, DP52607, ** special order **                             | 160.00 |
| AB83         | Cap, 6 cylinder, MRD, DP52610, ** special order **                             | 170.00 |
| AB80         | Rotor, RT52288, MRD, 2 & 4 cyl   | 40.00  |
| AB81         | Rotor, RT52304, MRD, 6 cyl   | 40.00  |
| AB84         | Gear, distributor, 4 cyl, GE52238, ** special order **                         | 55.00  |
| AB85         | Gear, distributor, 6 cyl, GE52243, ** special order **                         | 50.00  |
| AB62         | Gasket, cap, MRD, GA5261   | 1.50   |
| AB64         | Cam Felt, MRD  | 2.50   |
|              | MRF Rotary Mags  |        |
| AB11         | Condenser, CW5210, MRA & MRF variable timing                                   | 12.00  |
| AB12         | Condenser, CW5291, MJA ed D, MJB ed B, fixed timing                            | 10.00  |
| AB20         | Points, CS521, MJA, MJB, MRA, MRF, MRB   | 18.00  |
| AB61         | Gasket, cap, MRF GA523   | 3.00   |
|              | MSA, MSB Rotary Mags   | 0.00   |
| AB13         | Condenser, CW5279, MJH, MRD, MSA, MSB  | 10.00  |
| AB21         | Points, BK52203, MJH, MRD, MSA, MSB, TDG                                       | 18.00  |
| AB62         | Gasket, cap, MSA, MSB, GA5261  | 1.50   |
| <b>&gt;-</b> | Common Parts to Most Mags  | 1.00   |
| AB63         | Gasket, flange, SAE  | 2.00   |
| AB70         | Seal, PK5237   | 7.00   |
| AB71         | Seal, SE3004   | 6.00   |
| AB72         | Impulse coupling disk, 2 ½" OD, 1" ID, DC739-1                                 | 25.00  |
| -            | Impulse Parts  |        |

| AB75 | Impulse spring, compression type, spring with 2 ball bearings | 30.00 |
|------|---|-------|
|------|---|-------|

#### Edison/Splitdorf/Sumter Magneto Parts

Edison was one of the many companies that tried to cash in on the good name of Thomas Edison. I do not believe that Edison Electric was founded by Edison himself, but rather the name was sold to make people THINK that Edison was the founder. None the less, Edison Electric was an ordinary magneto company that produced a wide variety of mags. Their last mag, the AJ series was heavily used on Indian motorcycles and on Gravely tractors. It also proved to be their undoing, as they tried to pack too much into a small package.

Splitdorf was one of the early success stories in Magneto development. They produced a wide variety of high tension mags under the trade names Dixie & Aero, that were used on trucks, cars, tractors, airplanes, etc... just about everything. In fact, they were probably equally as popular (if not more so) than Bosch. Though the mags were not as hot as Bosch mags, they were incredibly reliable. In fact, it is quite rare to find a bad coil or even a bad condenser in one to this day! Building a mag that resists corrosion & decay for almost 100 years is quite a feat! At some point in the mid teens, Splitdorf bought Sumter, probably to get their wide line of low tension mags. The Sumter name was dropped and Splitdorf tags were put on the mags.

At some point Edison either bought Splitdorf or they merged. Edison seemed to come out on top as the name became, (for a while), Edison-Splitdorf. This lasted for a while and then the Splitdorf name was dropped. Too bad, in my opinion they dropped the wrong name....

I have a few parts for these mags. I can always have coils rewound and rebuild condensers. I am just now starting to get some repro caps for these mags. Stay tuned, I'm sure to get more as time goes by.

| Order number | Description   | Price each |
|--------------|---|------------|
| SPL10        | Thumb nut for Splitdorf magneto caps                        | 3.00       |
| SPL11        | Cap for AJ-1 mag  | 50.00      |
| SPL12        | Cap for AJ-2 mag  | 75.00      |
| LT20         | Sumter replacement base for mag, #12                        | 45.00      |
| LT21         | Sumter replacement base for mag, #14                        | 45.00      |
| LT22         | Sumter replacement base for mag, #22                        | 55.00      |
| LT25         | Sumter end cap, with internal fahnstock clip                | 25.00      |
| ED01         | Cap Gasket, type CD mag                                     | 3.00       |
| ED02         | Body Gasket, type CD mag                                    | 3.00       |
| ED30         | Rotor, type CD mag  | 75.00      |
| ED03         | Coil Cover Gasket, type RM mag, 1 & 2 cyl                   | 2.50       |
| ED04         | Point Cover Gasket, type RM mag, 1 & 2 cyl                  | 2.50       |
| ED05         | Distributor Cap Gasket, type RM mag, 1 & 2 cyl (rounded     | 2.50       |
|              | bottom)   |            |
| ED06         | Distributor Cap Gasket, type RM mag, 4 & 6 cyl              | 2.50       |
| WIC427       | Condenser, 2-5005, can be modified for use in Edison RM mag | 12.00      |

#### Case Magneto Parts

I finally discovered the history of Case mags. At some point in the 30's, Case decided to make their own mags. They were of a fairly unique design. Many of the mags even had the Case eagle, "Old Abe" embossed on the cap. There were large, nice looking mags. Case even supplied mags for aircraft engines. At some point, Case spun off or

sold off their magneto business. The new company was called the Slick Magneto Co. Slick supplied parts for Case mags for a while, but gave that effort up a long time ago. Slick went on produce an excellent line of aviation mags that are used to this day. Their design is amazingly simple and extremely reliable. Most small airplanes that use mags fly with Slick mags today. Many thanks to the engineer at Slick who called me from out of the blue one day to fill me in on the details!

I can supply a few parts, but they take a little "enginuity" to make them fit. When replacing the coils, reuse the existing lamination stack. You may have to cut the old coil off the laminations. Don't worry, it wasn't any good anyway. If you can't get the laminations apart, send me the mag. My coil winder has a special puller. The condenser is tubular with wires at both ends. Case even supplied them this way in the later days. You will have to find a place to fit them in.

I may be getting caps at some point, so stay tuned. If all this is too frustrating, don't worry. I can supply new Wico mags that will replace the entire unit.

| <b>NOTE</b> : I will NOT supply parts for aircraft mag |
|--|
|--|

| Order number | Description                                       | Price each |
|--------------|---|------------|
| CAS10        | Coil, 4CMA, rewind, you must supply your original | 140.00     |
| CAS11        | Coil, 4JMA  | 130.00     |
| CAS12        | Coil, 41  | 130.00     |
| CAS15        | Points, 4JMA                                      | 43.00      |
| CAS20        | Condenser, all mags                               | 8.00       |
| CAS25        | Rotor, 41, 4JMA                                   | 47.00      |
| CAS30        | Cap Gasket, type CMA mag                          | 3.00       |
| CAS31        | Body Gasket, type CMA mag                         | 3.00       |
| CAS32        | Coil Cover Gasket, type CMA mag                   | 3.00       |
| CAS33        | Cap Gasket, type JMA & 41 mag                     | 2.50       |
| CAS34        | Coil Cover, type 41 mag                           | 2.50       |

#### Briggs & Stratton Magneto Parts

Briggs and Stratton got its start making locks for ignition systems and doors. In fact, they are still a leading supplier of these parts. Briggs and Stratton was basically a machine shop for hire making parts as needed when they smelled opportunity in the early 20's in the rapidly developing engine market. They bought out the rights to Smith Motor Wheel, a motorized wheel that could be added to a carriage or buggy making it horseless. Along with the Motor Wheel, they got the rights to the engine. The Wheel was a flop, but the engine was a hit. This was the catalyst for Briggs to enter the small engine market.

After the demise of the motor wheel, Briggs designed engines for use in washing machines, lawn mowers, and a long line of other applications. When other engine manufactures were buying magnetos from other companies to put on their engines, Briggs always used their own, preferring their own designs to other specialists like Wico and Phelon. In fact, Briggs mags have proven to be quite reliable over the years. It is unfortunate that some of the early coils have been discontinued, but fortunately I am able to supply rewound coils for early Briggs.

Early Briggs engines used a magneto under the flywheel with a large crescent-shaped coil assembly. This coil must be rewound. Send the me the coil with laminations for rewinding. Most later coils can be supplied outright.

| Order<br>number | Description   | Price each |
|-----------------|---|------------|
| BS10            | Coil, rewind, early engines with crescent shaped coil under the flywheel, | 150.00     |

|      | you must send me your coil to be rewound   |       |
|------|--|-------|
| BS13 | <b>Coil</b> , engines with M shaped coil assembly outside flywheel, 5, 6, 8, 19D, 23D, 23C, 806xx, 808xx, 816xx, 818xx, & others, S2-400 | 30.00 |
| BS14 | <b>Coil</b> , engines with M shaped coil assembly outside flywheel, 60xxx, 61xxx, 801xx-805xx, & others, S2-408X                         | 27.00 |
| BS20 | Condenser, A-Z series, 5, 6, 8, 23C, & others, S2-100  | 5.00  |
| BS21 | Condenser, 19D, 23C, 200400, & others, S2-103  | 5.00  |
| BS30 | Points, 5, 6, 6S, 8, 140xxx, 141xxx, 142xxx, 143xxx & others, S2-400   | 7.00  |
| BS31 | <b>Points</b> , 9, 14, 19, 23, 23C & others, S2-417  | 8.00  |
| BS32 | <b>Points</b> , 19D, 23D, 233xxx, & others, S2-483   | 19.00 |
| BS40 | Points & Condenser set, 6B, 8B, 60xxx,8xxxxx & others, S2-408X   | 11.00 |

#### Maytag Magneto Parts

Points are not available new for the Eisemann twin. Try and save the ones you have. If they are beyond repair, I may be able to resurface them. The Wico points are a different design and replace the original ones nicely. The condensers fit with no problems. As for the coils, see the story below.

Parts for the single cylinder engine are a little more difficult. I can get coils rewound, but I must have your core. I use the same generic condenser for the singles as the twin. You may have to get a little creative with the mounting hardware. Points are not available, try and save the ones you have. Try and save the ones you have. If they are beyond repair, I may be able to resurface them. I hope to make some leadout towers this winter.

Service tip: I have been noticing recently on Eisemann twin mags, that the mags fire better with a smaller than recommended point gap. Try setting the point gap to .010" instead of .020". This may be due to the wearing of the rub block on the points and is affecting timing. I have also never met an Eisemann flywheel that did not need to be recharged. Consider sending me the entire mag with the flywheel for service. Flywheels are extremely difficult to charge without the proper charging blocks, which I have.

NOTE: I am currently out of stock of Maytag twin coils. It may be quite a while before I have more.

| Order number | Description  | Price each |
|--------------|--|------------|
| MAY20        | Condenser, for single & Eisemann twin                          | 8.00       |
| MAY21        | Condenser, for Wico twin                                       | 12.00      |
| MAY31        | Points, for Wico twin, new design that replaces the original   | 18.00      |
| MAY40        | <b>Grommet</b> , for spark plug wire for twin cylinder engines | 0.40       |

#### Bendix Magneto Parts

Bendix made a wide variety of different mags, mostly for heavy-duty industrial and aircraft. They did, for a while, produce flywheel mags for a variety of light-duty engine makers. They were a very good magneto, but the coils did not stand the test of time. Most used a red-colored plastic coating that broke up over time. When the cover broke, it also caused the fragile wire inside to fracture. I have seen countless NOS Bendix coils, still in the original box, completely worthless due to fractured outer coating. The moral of the story, NEVER BUY A NOS BENDIX COIL! I have never seen a good NOS Bendix coil, and I doubt I ever will.

I have one replacement coil that I offer for sale outright. It replaces most, but not all of their flywheel coils. It is new (NOT NOS!!) and uses a completely different outer coating process. I have never had a failure reported to me. There are several different sizes of these coils. If your coil matches the dimensions, then use the new coil. Otherwise send me your old coil to be rewound.

| Order number | Description  | Price each |
|--------------|--|------------|
| BX01         | Bendix flywheel coil, new                                      | 75.00      |
|              | Bendix flywheel coil rewind, must have your old coil as a core | 130.00     |
| FM110        | Condenser, generic replacement                                 | 8.00       |

**BX01 coil dimensions**: Overall length,  $3^{1}/_{8}$ " from end to end of the laminations, Coil body OD,  $1^{3}/_{8}$ ", coil body length, 2". If your coil is even close to these dimensions, use BX01. The other coils are SIGNIFICANTLY smaller. You should be able to tell quite easily if you can use BX01 or you need a rewind. BX01 does not come with a molded-in high-tension wire. If you want one, order that separately.

#### Other Low-Tension Magneto Parts

I have other odd and ends for assorted low tension mags. The mag used on the ignitor-style John Deere E engine was made by Associated and is the same as used on later Associated engines (2 bolt mount). I can replace the base on these. Send my your mag body and I can repair it. If the mag body is too far gone, I can supply replacement bodies. These are a special order and will take several weeks.

I also have replacement bases for Sumter mags. These will replace the broken pot-metal base with a nicely cast bronze piece. No further machining is required. Inquire for details.

I can also fabricate most brushes for low tension mags. Inquire for details. I will be fabricating many lead-out towers and covers this winter. Inquire for details.

| Order number | Description   | Price each |
|--------------|---|------------|
| LT01         | Associated (John Deere) bearing plate for rotary mags   | 40.00      |
| LT02         | Associated (John Deere) lead-out tower for rotary mags  | 22.00      |
| LT03         | Associated (John Deere) brush for lead-out tower for mag  | 4.00       |
| LT04         | Associated (John Deere) replacement body for rotary mag   | 250.00     |
| LT05         | Associated lead-out tower for 4-bolt mount mag  | 18.00      |
| LT06         | Associated (John Deere) armature end plate & shaft, drive end   | 45.00      |
| LT07         | <b>Associated (John Deere)</b> armature end plate & shaft, collector ring end (no collector ring, re-use yours) | 45.00      |
| LT30         | IHC type L, R bearing plate for mags  | 42.00      |

#### Other High-Tension Magneto Parts

I have other odd and ends for assorted high tension mags.

| That to other odd and ones for assorted high tension mags. |  |            |  |
|--|--|------------|--|
| Order number   | Description  | Price each |  |
| HT10   | Montgomery-Ward coil cover, 1-cylinder   | 50.00      |  |
|  | <b>Associated</b> lead out tower, high tension mag used on the Pony engine, with brush | 35.00      |  |
| RB10   | Point cover, Robert Bosch only (NOT American Bosch)                                    | 55.00      |  |

#### Distributor Coils

I have a short list of coils for distributor systems. The 6 volt coil will work with most 6 volt battery ignition systems. It is a quality coil and is made by Standard Motor Products. The Ford coil is a direct replacement for the coil on Ford 9N tractors and certain Model A cars with a front-mounted distributor.

| Order number | Description   | Price each |
|--------------|---|------------|
| COIL01       | Ignition coil, 6 volt, replaces the coil on most 6 volt       | 27.00      |
|              | systems   |            |
| COIL02       | Ignition coil, 12 volt, replaces the coil on most 12 volt     | 35.00      |
|              | systems   |            |
| FRD01        | Ignition coil, 6 volt, for Ford 9N, front-mounted distributor | 70.00      |

## Magneto Gears

I have a small but growing list of new magneto gears. These gears are top quality and will work quite well with your engine. More gears will be forthcoming over the next year. Inquire with needs. I also have some other crank and side shaft gears listed later in this catalog. If you need a gear that is not listed here, I may be able to have it made. If you can supply an original gear (can be broken with missing teeth) I can measure it and supply a new replacement.

| Order<br># | Description  | # of  | Outside  | Shaft    | Price |
|------------|--|-------|----------|----------|-------|
| •          | Assessment Albertane and Proclams at Proclams                  | teeth | diameter | diameter | each  |
| GR01       | Associated 4 bolt mag gear, Hired Man, Hired                   | 25    | 2.7"     | 5/8"     | 50.00 |
|            | Hand, Chore Boy, 1 ¾ HP, 2 ¼ HP, & 3 HP, Associated part # BYV |       |          |          |       |
| GR02       | Associated 2 bolt mag, Hired Man, Hired Hand,                  | 25    | 2.7"     | 3/8"     | 50.00 |
| ONOZ       | Chore Boy, 1 ¾ HP, 2 ¼ HP, & 3 HP,                             | 20    | 2.,      | 0,0      | 00.00 |
|            | Associated part # HLZ  |       |          |          |       |
| GR03       | Associated mag idler, 4 bolt mag, 9/16" face, 1                | 12    | 1.9"     | 5/8"     | 65.00 |
|            | ½ HP, 1 ¾ HP, 2 ¼ HP, 3 HP, & 3 ½ HP                           |       |          |          |       |
|            | ,Associated part number DVB                                    |       |          |          |       |
| GR04       | Associated mag idler, 2 bolt mag, 7/16" face                   | 12    | 1.9"     | 5/8"     | 65.00 |
| GR05       | Associated 4 bolt mag gear, 4 HP, Associated                   | 24    | 3 1/4"   | 5/8"     | 55.00 |
|            | part # BUE   |       |          |          |       |
| GR08       | Associated 4 bolt mag gear, 6 & 8 HP,                          | 28    | 3 ¾"     | 5/8"     | 65.00 |
|            | Associated part # BUF  |       |          |          |       |
| GR06       | Associated mag idler, 4 bolt mag, 4, 6, 8 HP,                  | 10    | 2"       | 5/8"     | 65.00 |
|            | Associated part # DUZ  |       |          |          |       |
| GR07       | Associated, mag, Johnny Boy 1 ½ HP,                            | 20    | 2.2"     | 5/8"     | 50.00 |
| 25.12      | Associated part # DVC  |       |          |          |       |
| GR10       | Fairbanks Morse, 25 tooth, short(no) hub,                      | 25    | 2.7"     | tapered  | 50.00 |
| 0544       | tapered shaft  |       | 0.0"     | 0.40"    |       |
| GR11       | Fairbanks Morse, headless, Sumter mag                          | 30    | 3.2"     | 3/8"     | 55.00 |
| GR12       | Fairbanks Morse, 3 HP, Sumter mag                              | 35    | 3.7"     | 3/8"     | 55.00 |
| GR25       | Fuller & Johnson, 1 ½ HP complicated, ask!!!!                  | 25    | 2.7"     |          | call  |
| GR20       | John Deere E, 1 ½ HP, JD part # E76RT                          | 26    | 2.8"     | 3/8"     | 65.00 |
| GR21       | John Deere E, 3 HP   | 30    | 3.2"     | 3/8"     | 70.00 |
| GR22       | John Deere E, 6 HP   | 35    | 3.7"     | 3/8"     | 70.00 |

| GR30 | IHC type "L" mag gear for 1 ½ HP "M", IHC part # 9679T | 30 | 2.64" | 3/8"    | 50.00  |
|------|--|----|-------|---------|--------|
| GR34 | IHC bosch mag gear for 1 ½ HP "M"                      | 30 | 2.64" | Tapered | 55.00  |
| GR31 | IHC type "L" mag gear for 3 HP "M, IHC part # 9779T    | 36 | 3.16" | 3/8"    | 55.00  |
| GR32 | IHC type "R" mag gear for 6 HP "M", IHC part # 9879T   | 30 | 3.2"  | 3/8"    | 55.00  |
| GR33 | IHC Mogul, 1 HP, mag gear, IHC part # 1879T            | 32 | 3.4   | 3/8"    | 55.00  |
| GR35 | IHC Mogul, 4 HP, mag gear *                            | 36 | 3.8"  | 3/8"    | 55.00  |
|      | Sparta, 1 ½ HP & 2 HP Help me out, send me             |    |       |         |        |
|      | your bad gear so that it can be copied                 |    |       |         |        |
| GR42 | Sparta Economy Elkhart mag gear, 6 HP                  | 22 | 3"    | tapered | 150.00 |

## Magneto Bearings

These were the most popular bearings used on early mags. They are the 3-piece take-apart design. Bearings for later mags can be found under the parts listing for that mag.

| Order number | Description                             |         | Price each |
|--------------|---|---------|------------|
| BRG04        | Magneto bearing, type E12               |         | 35.00      |
| BRG01        | Magneto bearing, type E13               | 45      | 30.00      |
| BRG05        | Magneto bearing, type E14               |         | 35.00      |
| BRG02        | Magneto bearing, type E15, most popular |         | 25.00      |
| BRG03        | Magneto bearing, type E17               | - 100 M | 25.00      |
| BRG06        | Magneto bearing, type E18               |         | 35.00      |

#### Low-Tension Coils

I currently have 2 types of coils available for low-tension engines. Both coils are an excellent scale reproduction of the coils commonly used on earlier engines. Though originally designed for models, this coil has been used with great success on engines as large as 25 HP! (This includes a very slow running early 5 HP electric lighting Otto!) The coil is a horizontal type, fabricated with 20 gauge copper wire and a laminated (individual varnished wires) transformer steel core. The windings are protected with black heat-shrink tubing. It runs well with either 6 or 12 volts. The wood is cherry with a nice varnished finish. The match of the fine wire and the laminated core allows the coil to give a high output (but not too high) with a minimum of battery current. Many of the current lower-cost coils on the market today use a solid core and heavier wire to produce the same spark. This leads to excessive drain of the battery and overheating of the coil.

| Order number | Description                                | Price each |
|--------------|--|------------|
| COIL11       | Horizontal coil, small ***out of stock *** |            |

#### **Ignitor Parts**

I have all the parts you should need to rebuild most ignitors. I can supply machined points, or I can supply the point material in rod form. The material I supply is a high nickel-content metal called "meteor metal". It is a very close substitute for the point material used in most ignitors, especially Webster brackets. Other materials such as steel,

tungsten, bronze, or the many other metals, are not suitable. Most tend to burn rather rapidly as they were not designed for this purpose (tungsten is used in high tension ignition points where the object is to have as little sparking across the points as possible. The rod is 3/16" or 1/8" diameter and is supplied by the inch. It is easily machined with SHARP steel bits and LOTS of cutting fluid.

The long Fahnstock clip is similar to what you would find on most ignitors. It is fabricated from beryllium copper and actually has the brand name "Fahnstock" stamped on it. The short clip is stamped brass and is about 1" long.

| Order number | Description   | Price each |
|--------------|---|------------|
| PT01         | Point material, 3/16" diameter, by the inch                 | 2.00/inch  |
| PT02         | Point material, 1/8" diameter, by the inch, good for models | 2.00/inch  |
| WEB50        | Fahnstock clip, long  | 2.00       |
| TRM05        | Fahnstock clip, short, brass                                | 0.50       |

#### Mica Washers & Tube

Thes washers are made from quality mica by a leading US manufacturer. All washers are .015 thick and come in bags of a ¾" stack. Mica tubes are made of layered mica and can either be machined or unwrapped to fit.

Teflon tube is the easiest to work with and is an excellent modern substitute for mica. It has excellent electrical and thermal properties and is what I use in all ignitor repairs (unless requested otherwise.) When boring the inside cavity, use the next size up drill (i.e. use a letter F, or a 17/64" drill for a ¼" hole.) When cutting the tube to length, make it slightly longer than the thickness of the body. Machine a shoulder on each end and slip a few washers over the shoulder. You will need to enlarge the holes in these first few washers. Using this technique ensures a good seal and prevents carbon from collecting between the end of the tube and the first washer.

I also supply solid teflon tube. It is sold by the inch and is easily turned on a lathe. When ordering, order a piece at least an inch longer than what you need so you have something to hold on to in you lathe chuck. Bore the inside cavity first (as with the tube, use the next larger drill), machine the outside, and then part with a parting tool. If you do not have a lathe, use either teflon or mica tube.

| Order number | Description                                      | Price each |
|--------------|--|------------|
| MCW01        | Mica washer, 1/2" OD, 1/4 ID                     | 3.50       |
| MCW02        | Mica washer, 5/8" OD, 5/32" ID                   | 3.50       |
| MCW03        | Mica washer, 5/8" OD, 3/16" ID                   | 3.50       |
| MCW04        | Mica washer, 3/4" OD, 1/4" ID                    | 3.50       |
| MCW05        | Mica washer, 3/4" OD, 7/32" ID                   | 3.50       |
| MCW06        | Mica washer, 3/4" OD, 5/16" ID                   | 3.50       |
| MCW07        | Mica washer, 3/4" OD, 3/8" ID                    | 3.50       |
| MCW08        | Mica washer, 1" OD, 3/16" ID                     | 3.50       |
| MCW09        | Mica washer, 1" OD, 1/4" ID                      | 3.50       |
| MCT01        | <b>Mica tube</b> , 3/8" OD, 1/4" ID, 1 3/4" long | 3.50       |
| MCT02        | <b>Mica tube</b> , 5/8" OD, 1/4" ID, 1 3/4" long | 3.50       |
| TFT01        | Teflon tube, ½" OD, ¼" ID, 1 ¾" long             | 2.50       |
| TFT02        | Teflon tube, ½" OD, ¼" ID, sold by the inch      | 1.25/inch  |
| TFR01        | Teflon rod, ½" OD, sold by the inch              | 1.00/inch  |
| TFR02        | <b>Teflon rod</b> , 5/8" OD, sold by the inch    | 1.75/inch  |
| TFR03        | Teflon rod, 3/4" OD, sold by the inch            | 2.50/inch  |

# **Ignitor Springs**

I have LOTS of different types of ignitor springs. Those that I don't have, I can generally make or find one that is close enough. Send me either the original springs or the whole ignitor for a rebuild and I can get you what you need.

You will notice that there is a long section for FM springs. There are numerous styles of ignitors. Send me the original springs for matching or at the very least a REALLY good description. It may take a couple of attempts to get the right one. Springs for FM-Z engines should be no problem.

| Order number | Description   | Price each |
|--------------|---|------------|
| SPR42        | Aermotor, 8-cycle, ignitor tension                                      | 7.00       |
| SPR43        | Aermotor, 8-cycle, ignitor torsion                                      | 7.00       |
| SPR44        | Aermotor, 8-cycle, ignitor trip   | 7.00       |
| SPR01        | Associated ignitor pick   | 12.00      |
| SPR02        | Associated, United, or Waterloo Boy ignitor tension                     | 7.00       |
| SPR03        | Economy, Sparta ignitor tension, 1 ½ HP                                 | 7.00       |
| SPR04        | Economy, Sparta & Waterloo Boy ignitor tension                          | 7.00       |
| SPR05        | Empire ignitor  | 11.00      |
| SPR06        | FM ignitor Torsion, type T 2-12 HP, 1910 & 1911 pattern                 | 7.00       |
| SPR07        | <b>FM</b> ignitor Tension, type T 2-12 1914, type N 5-60 1914, Jack Jr. | 7.00       |
| SPR08        | FM ignitor Tension, type T 2-12 HP 1910 pattern                         | 7.00       |
| SPR09        | FM ignitor Tension, type H 2-6 HP 1910, type T 2-12 1911                | 7.00       |
| SPR10        | FM ignitor torsion, type N 5-60 HP 1910 & 1911 pattern                  | 7.00       |
| SPR11        | FM ignitor Tension, type N 5-60 HP 1910 & 1911 pattern                  | 7.00       |
| SPR12        | FM ignitor Torsion, type H 2-6 HP 1910 pattern                          | 7.00       |
| SPR13        | FM ignitor Torsion, type H 2-6 HP 1911, type T 2-12 1914                | 7.00       |
| SPR14        | FM ignitor Torsion, 1 1/2 HP Z headless, 1915                           | 7.00       |
| SPR15        | FM ignitor, 3 & 6 HP Z, 1917 pattern with 1 bolt                        | 7.00       |
| SPR16        | FM ignitor Torsion, 1 1/2 HP Z, 1917 pattern                            | 7.00       |
| SPR17        | FM ignitor Tension, 1 1/2 HP Z, 1917 pattern                            | 7.00       |
| SPR18        | F & J, ignitor tension  | 7.00       |
| SPR19        | F & J, ignitor torsion  | 7.00       |
| SPR20        | Galloway ignitor tension  | 7.00       |
| SPR21        | IHC Famous ignitor Tension, 1 HP HC                                     | 7.00       |
| SPR22        | IHC Famous ignitor torsion, 1 HP HC                                     | 7.00       |
| SPR23        | IHC Famous ignitor tension, 2-6 HP vertical                             | 7.00       |
| SPR24        | IHC Famous ignitor torsion, 2-6 HP vertical                             | 7.00       |
| SPR25        | IHC Famous ignitor Tension, 4-25 HP HC                                  | 7.00       |
| SPR26        | IHC Famous ignitor Torsion, 4-25 HP HC                                  | 7.00       |
| SPR27        | IHC Famous ignitor Trip, 1 HP HC  | 7.00       |
| SPR28        | IHC Famous ignitor trip, 2-6 HP vert                                    | 10.00      |
| SPR45        | IHC Mogul Jr., ignitor spring set                                       | 14.00      |
| SPR29        | IHC Mogul ignitor tension, 1-2 1/2 HP                                   | 7.00       |
| SPR30        | IHC Mogul ignitor torsion, 1- 2 1/2 HP                                  | 7.00       |
| SPR31        | IHC mag, oscillator, 4-15 HP  | 5.00       |
| SPR32        | IHC mag, oscillator, 10 HP M  | 5.00       |
| SPR33        | IHC ignitor tension, M  | 7.00       |

| SPR34 | IHC ignitor torsion, M          | 7.00  |
|-------|---------------------------------|-------|
| SPR35 | IHC M under-strike ignitor, set | 14.00 |
| SPR39 | John Deere E ignitor tension    | 7.00  |
| SPR40 | John Deere E ignitor torsion    | 7.00  |
| SPR41 | John Deere E ignitor trip       | 7.00  |
| SPR36 | New Holland ignitor tension     | 7.00  |
| SPR37 | R & V ignitor tension           | 7.00  |
| SPR38 | R & V ignitor torsion           | 7.00  |
| SPR46 | Stover, type W, ignitor         | 7.00  |

## Ignitor Spring Dimensions

| Order  | Overall | Outside  | Number   | Wire     | Direction | Notes                   |
|--------|---------|----------|----------|----------|-----------|-------------------------|
| number | Length  | Diameter | Of Turns | Diameter |           |                         |
| SPR01  | n/a     |          | n/a      | n/a      | n/a       | Flat metal pick spring  |
| SPR02  | 2"      | .65"     | 8        | .062"    | CW        | Cone-shaped             |
| SPR03  | 1.4"    | .65"     | 13       | .078"    | CW        | Cone-shaped             |
| SPR04  | 1.65"   | .7"      | 13       | .080"    | CW        | Cone-shaped             |
| SPR05  |         | 1"       | 1        |          |           | Flat metal spring       |
| SPR06  | 2.4"    | .875"    | 10       | .080"    | CW        | Partial cone            |
| SPR07  | 1"      | .75"     | 6        | .047"    | CW        |                         |
| SPR08  | .9"     | .95"     | 4        | .062"    | CW        |                         |
| SPR09  | 1.5"    | .375"    | 28       | .033"    | CW        | Partial cone at one end |
| SPR10  | 1.1"    | .95"     | 4        | .062"    | CCW       |                         |
| SPR11  | 2.4"    | .875"    | 10       | .080"    | CCW       | Partial cone at one end |
| SPR12  | 2.1"    | .75"     | 9.5      | .080"    | CCW       | Cone-shaped             |
| SPR13  | 1"      | .93"     | 4        | .062"    | CCW       |                         |
| SPR14  | 1.3"    | .83"     | 7        | .071"    | CCW       |                         |
| SPR15  | 1.2"    | .95"     | 8.5      | .062"    | CCW       |                         |
| SPR16  | 1.3"    | .95"     | 8.5      | .062"    | CCW       |                         |
| SPR17  | .85"    | .5"      | 7        | .040"    | CW        | Cone-shaped             |
| SPR18  | 1.2"    | .78"     | 5.5      | .050"    | CW        |                         |
| SPR19  | 2"      | .78"     | 11.75    | .067"    | CW        | Cone-shaped             |
| SPR20  | 1.8"    | .7"      | 11.5     | .062"    | CW        | Cone-shaped             |
| SPR21  | 1.1"    | .6"      | 7.5      | .054"    | CW        |                         |
| SPR22  | 1.1"    | .6"      | 12.75    | .042"    | CCW       |                         |
| SPR23  | 1.9"    | .85"     | 9.25     | .062"    | CCW       |                         |
| SPR24  | 1.6"    | .85"     | 11       | .062"    | CW        |                         |
|        |         |          |          |          |           |                         |
|        |         |          |          |          |           |                         |
|        |         |          |          |          |           |                         |

#### Assorted Hardware

Thumb nuts are great for coils, ignitors, and other electrical connections. The sparkplug thumb nuts are excellent reproductions of the originals. Brass balls are used as check ball and have a great resistance to gasoline and other petroleum based products.

The asphaltic looming is used to bundle wires together when making harnesses. It is very similar to what was used as original equipment on early cars, trucks, and tractors.

| Order number | Description                                   | Price each |
|--------------|---|------------|
| HDWR008      | Thumb nut, brass, 4x40                        | 0.60       |
| HDWR001      | Thumb nut, brass, 6x32                        | 0.75       |
| HDWR002      | Thumb nut, brass, 8x32                        | 0.80       |
| HDWR003      | Thumb nut, brass, 10x24                       | 1.00       |
| HDWR004      | Thumb nut, brass, 10x32                       | 1.00       |
| HDWR005      | Thumb nut, brass, 12x24                       | 1.25       |
| HDWR006      | Thumb nut, brass, 1/4x20                      | 2.00       |
| HDWR007      | Thumb nut, brass, 5/16x18                     | 2.50       |
| HDWR040      | Thumb nut, spark plug, 8x32                   | 0.75       |
| HDWR041      | Thumb nut, spark plug, 8x40                   | 0.75       |
|              |   |            |
| GRM01        | Rubber grommet, ½" OD x ¼" ID                 | 0.30       |
| GRM02        | Rubber grommet, 5/8" OD x 1/4" ID             | 0.30       |
| GRM03        | Rubber grommet, ¾" OD x 7/16" ID              | 0.40       |
| GRM04        | Rubber grommet, 7/8" OD x 3/8" ID             | 0.40       |
| GRM05        | Rubber grommet, 1" OD x 1/2" ID               | 0.60       |
|              |   |            |
| AL01         | Asphaltic loom, 1/4"                          | 0.65/ft    |
| AL02         | Asphaltic loom, <sup>3</sup> / <sub>8</sub> " | 1.00/ft    |
| AL03         | Asphaltic loom, ½"                            | 1.25/ft    |
| AL04         | Asphaltic loom, <sup>5</sup> / <sub>8</sub> " | 1.60/ft    |
| AL05         | Asphaltic loom, 3/4"                          | 2.00/ft    |

#### Wire

This is quality reproduction wire. The patterns used are the same patterns that were used in early automotive wiring. This wire has been made by the same company for over 60 years. All use a cotton woven jacket over a modern wire insulation material. The copper conductor is high-grade and is easily tinned. All colored cable has a shiny lacquered finish. The black is available in a shiny and a dull finish.

A recent addition is 12 gauge solid core wire. This wire is used for battery, coil, and ignitor connections. It is fabric covered and will hold a good curl. All original wires used to connect to ignitors was solid core. My experience has found that it performs significantly better than stranded wire (makes better contact to Fahnstock clips.) It is sold only by the foot. This wire is NOT for Webster mags. See the Webster section for that wire (it IS different.)

Use 7mm wire for almost all spark plug connections. 9mm is used for certain VERY early industrial stationary engines, marine engines, and early Briggs & Stratton engines. I received some 8mm from my wire supplier (by accident) and I am offering it here. If it is popular, I will continue to stock it and add a couple of colors. **For most applications, you should always use 7mm**. Consider using 8mm for motorcycles. The clips that I supply will only work on 7mm wire.

Prices for lengths from 1 - 99 feet are per foot.

| Order<br>#     | Description  | 1' -<br>10' | 11'<br>-99' | 100'<br>roll  | Shipping<br>Weight<br>100' roll |
|----------------|--|-------------|-------------|---------------|---------------------------------|
| WIR01          | 9mm Sparkplug wire, black, dull lacquer finish   |             |             |               |                                 |
| WIR02          | 9mm <b>Sparkplug wire</b> , orange with black & red dual cross tracers   | 2.00        | 1.75        | 110.00        | 6.5 lbs                         |
| WIR03          | 9mm <b>Sparkplug wire</b> , yellow with black & red dual cross tracers   |             |             |               |                                 |
|                |  |             |             |               |                                 |
| WIR08          | 8mm Sparkplug wire, orange with black & red dual cross tracers   | 1.80        | 1.40        | 100.00        |                                 |
|                |  |             |             |               |                                 |
| WIR10          | 7mm Sparkplug wire, black, high-gloss  | <u> </u>    |             |               |                                 |
| WIR11          | 7mm Sparkplug wire, black, dull lacquer  | 1           |             |               |                                 |
| WIR12          | 7mm <b>Sparkplug wire</b> , orange with black & red dual cross tracers   | 1.50        | 1.25        | 95.00         | 4.25 lbs                        |
| WIR13          | 7mm <b>Sparkplug wire</b> , yellow with black & red dual cross tracers   | 1           |             |               |                                 |
| WIR14<br>WIR15 | 7mm <b>Sparkplug wire</b> , red with black dual tracers 7mm <b>Sparkplug wire</b> , yellow with dual green cross tracers | 1           |             |               |                                 |
| WIKIS          | 7 min Sparkplug wire, yenow with duar green cross tracers  |             |             |               |                                 |
| WIR20          | #10 <b>Primary wire</b> , black, high-gloss  |             |             |               |                                 |
| WIR20<br>WIR21 | #10 Primary wire, black, dull lacquer finish   | 1           |             |               |                                 |
| WIR22          | #10 <b>Primary wire</b> , orange with black & red dual cross tracers   | 1           |             | 85.00         | 5 lbs                           |
| WIR23          | #10 <b>Primary wire</b> , yellow with black & red dual cross tracers   | 1.30        | 1.20        |               |                                 |
| WIR24          | #10 <b>Primary wire</b> , red with black dual cross tracers  | 1           |             |               |                                 |
| WIR25          | #10 <b>Primary wire</b> , yellow with dual green cross tracers   | 1           |             |               |                                 |
|                | , , ,  |             |             |               |                                 |
| WIR30          | #12 <b>Primary wire</b> , black, high-gloss  |             |             | 65.00         | 3.25 lbs                        |
| WIR31          | #12 <b>Primary wire</b> , black, dull lacquer finish   | 1           | 1.10        |               |                                 |
| WIR32          | #12 <b>Primary wire</b> , orange with black & red dual cross tracers   | 1.20        |             |               |                                 |
| WIR33          | #12 <b>Primary wire</b> , yellow with black & red dual cross tracers   | 1.20        |             |               |                                 |
| WIR34          | #12 <b>Primary wire</b> , red with black dual cross tracers  |             |             |               |                                 |
| WIR35          | #12 <b>Primary wire</b> , yellow with dual green cross tracers   |             |             |               |                                 |
|                |  |             |             |               |                                 |
| WIR81          | #12 Solid core ignitor wire, black, dull lacquer finish  | 1           |             |               |                                 |
| WIR82          | #12 <b>Solid core ignitor wire,</b> orange with black & red dual cross   |             |             |               |                                 |
| WIR83          | tracers #12 Solid core ignitor wire, yellow with black & red dual cross  | 1.50/1      | foot, all   | lengths       |                                 |
| WIKOS          | tracers  |             |             |               |                                 |
| WIR84          | #12 <b>Solid core ignitor wire,</b> red with black dual cross tracers  | 1           |             |               |                                 |
| WIKOT          | #12 Bond core ignicor wire, red with black data cross tracers  |             |             |               |                                 |
| WIR40          | #14 <b>Primary wire</b> , black, high-gloss  |             |             |               |                                 |
| WIR41          | #14 <b>Primary wire</b> , black, dull lacquer finish   |             |             |               |                                 |
| WIR42          | #14 <b>Primary wire</b> , orange with black & red dual cross tracers   |             |             |               |                                 |
| WIR43          | #14 <b>Primary wire</b> , yellow with black & red dual cross tracers   | 1.00        | 0.5         | <i>(5.00)</i> | 0.05.11                         |
| WIR44          | #14 <b>Primary wire</b> , red with black dual cross tracers  | 1.00        | .95         | 65.00         | 2.25 lbs                        |
| WIR45          | #14 <b>Primary wire</b> , yellow with dual green cross tracers   |             |             |               |                                 |
| WIR48          | #14 <b>Primary wire</b> , red, dull lacquer finish   |             |             |               |                                 |
| WIR49          | #14 <b>Primary wire</b> , brown, dull lacquer finish   |             |             |               |                                 |
|                |  |             |             |               |                                 |
| WIR50          | #16 <b>Primary wire</b> , black, high-gloss  |             |             |               |                                 |
| WIR51          | #16 <b>Primary wire</b> , black, dull lacquer finish   | 4           | .95         | 65.00         |                                 |
| WIR52          | #16 <b>Primary wire</b> , orange with black & red dual cross tracers   | 1.00        |             |               | 1.75 lbs                        |
| WIR53          | #16 <b>Primary wire</b> , yellow with black & red dual cross tracers   | -           |             |               |                                 |
| WIR54          | #16 <b>Primary wire</b> , red with black dual cross tracers  | -           |             |               |                                 |
| WIR55          | #16 <b>Primary wire</b> , yellow with dual green cross tracers   |             |             |               |                                 |

| WIR60 | #18 <b>Primary wire</b> , black, high-gloss                          |     |     |       |          |
|-------|--|-----|-----|-------|----------|
| WIR61 | #18 <b>Primary wire</b> , black, dull lacquer finish                 |     |     |       |          |
| WIR62 | #18 <b>Primary wire</b> , orange with black & red dual cross tracers | .80 | .70 | 55.00 | 1.25 lbs |
| WIR63 | #18 <b>Primary wire</b> , yellow with black & red dual cross tracers | .80 | .70 |       |          |
| WIR64 | #18 <b>Primary wire</b> , red with black dual cross tracers          |     |     |       |          |
| WIR65 | #18 <b>Primary wire</b> , yellow with dual green cross tracers       |     |     |       |          |
|       |  |     |     |       |          |
| WIR71 | #20 <b>Primary wire</b> , black, dull lacquer finish                 |     |     |       |          |
| WIR72 | #20 <b>Primary wire</b> , red, dull lacquer finish                   | .80 | .70 | 55.00 | 1.25 lbs |
| WIR73 | #20 <b>Primary wire</b> , green, dull lacquer finish                 |     |     |       |          |

#### Wire Gauge Table

The following table gives approximate dimensions for the conductors and outer jackets of my reproduction wire. The number size is standard American Wire Gauge (AWG), also known as Brown & Sharp Gauge. The outer jacket dimensions are non-standard due to the cloth & varnish over-coating. The current capacity is an approximation. You may think these numbers are rather low, but keep in mind that the cotton and varnish jacket will prevent the wire from dissipating as much heat as it would if the jacket were not there. When used is a bundle, the capacity must be de-rated by a factor of .8 for bundles of 2-5, and .7 for bundles of 6 or more.

|                                       | Wire Dimensions and Current Capacities |          |          |          |          |            |            |  |
|---------------------------------------|--|----------|----------|----------|----------|------------|------------|--|
|                                       | #10                                    | #12      | #14      | #16      | #18      | 7mm        | 9mm        |  |
|                                       | stranded                               | stranded | stranded | stranded | stranded | spark plug | spark plug |  |
| Conductor diameter (inches)           | .116                                   | .093     | .073     | .059     | .047     |            |            |  |
| Conductor diameter (mm)               | 2.946                                  | 2.369    | 1.854    | 1.499    | 1.194    |            |            |  |
| Conductor area (inches <sup>2</sup> ) | .0078                                  | .0048    | .0030    | .0019    | .0013    |            |            |  |
| Conductor area (mm2)                  | 5.038                                  | 3.105    | 1.954    | 1.327    | 0.830    |            |            |  |
| Jacket outer diameter (inches)        | .200                                   | .170     | .144     | .127     | .113     | .261       | .330       |  |
| Jacket outer<br>diamter<br>(mm)       | 5.08                                   | 4.32     | 3.66     | 3.23     | 2.87     | 6.5        | 8.5        |  |
| Current rating                        | 50 amps                                | 38 amps  | 28 amps  | 20 amps  | 16 amps  | N/A        | N/A        |  |

<sup>\*</sup> Information Source: Alpha Wire Co.

### Wire Clips

Use these clips for connections to spark plugs and distributor towers. The forked and ringed brass are the most popular and are the ones I use in most mag repair for early engines and tractors (pre 1930). They are made of stamped brass, will accept 7mm wire easily (8 and 9mm too, with a little effort) and are typical of spark plug terminals of that day. The straight, right angle, and 45 degree steel clips are more commonly used on engines from the 40's to the late 60's. Most tractors would use these.

The distributor clip, TRM14, is used on most distributors and lead-out towers. The distributor nipple is made of black neoprene rubber and fits most distributors.

The Fahnstock clip (or sometimes called battery or wire clip) is stamped brass and is made from the same dies that made them years ago. They are an excellent replacement on your coil box.

| TRM01 0.75 ea.                      | TRM02 0.50 ea.                   | TRM03 0.75 ea. TRM05        | 0.50 ea.           |
|-------------------------------------|----------------------------------|-----------------------------|--------------------|
| Terminal, spark                     | Terminal, spark plug             | Terminal, spark Termin      |                    |
| plug forked, brass                  | forked, steel                    | plug, ring, brass ring, ste | eel                |
|                                     |                                  |                             |                    |
| TRM10 0.50 ea.                      | TRM11 0.50 ea.                   | TRM12 0.50 ea. TRM14        |                    |
| Terminal, spark                     | <b>Terminal</b> , spark plug, 90 |                             | distributor, brass |
| plug, straight, steel               | degree, steel                    |                             | ommon, fits most   |
|                                     |                                  | mags &                      | dist. caps)        |
|                                     |                                  |                             |                    |
| TRM15 0.50 ea.                      | TRM16 0.50 ea.                   | TRM17 0.50 ea               |                    |
| Nipple,                             | Nipple, distributor, right       | Nipple, coil, straight      |                    |
| distributor, straight               | angle                            |                             |                    |
|                                     |                                  |                             |                    |
| TRM23 0.50 ea.                      | 1.00 ea.                         | TRM24 0.50 ea.              |                    |
| Boot, plug,                         |                                  | Boot, plug, 90              |                    |
| straight, black                     |                                  | degree, black               |                    |
|                                     |                                  |                             |                    |
| TRM05 0.50 ea.                      |                                  |                             |                    |
| <b>Fahnstock</b> clip, short, brass |                                  |                             |                    |
|                                     |                                  |                             | 1                  |

# Spark plugs

Champion Spark Plug Company was founded by Albert Champion in 1904 with backing from investors. The partnership soon dissolved, and Albert was pushed out of the company, but they continued to produce plugs under his name. Albert was not done with the spark plug industry, he later went on to found AC Spark Plug Co. (AC was his initials.) Autolight Ignition Co. was originally founded by a German fellow, Otto Leight (no, not really, couldn't resist!) Champion continues to this day to produce many of the same plugs that it developed over the company's life. Two of of their earliest plugs, the X and the 3X are made and packaged exactly as they were when they were first produced.

I stock Champion and Autolite brand plugs (except the CM6 which is made be NGK). The ignition tester is a plug with a 5mm gap that is used to test for spark outside the engine. It has an alligator clip for convenient attachment to

the nearest ground. Any high-tension magneto or coil should jump this gap in open air if it is to jump an .025 gap in the engine under compression. This is an EXTREMELY useful tool! Every toolbox should have one.

The Champion Y82 and NGK CM6 are good for larger models.

| Order number | Description  | Price each |
|--------------|--|------------|
| SP22         | Autolite 3095, ½" pipe thread  | 5.00       |
| SP04         | Champion W14, <sup>7</sup> / <sub>8</sub> "  | 8.00       |
| SP05         | Champion W18, <sup>7</sup> / <sub>8</sub> "  | 8.00       |
| SP25         | <b>Autolite</b> 3076, <sup>7</sup> / <sub>8</sub> "                                      | 5.00       |
| SP06         | Champion W20, <sup>7</sup> / <sub>8</sub> "  | 8.00       |
| SP07         | <b>Champion</b> W89D, <sup>7</sup> / <sub>8</sub> ", for diesel engines with gas start   | 9.50       |
| SP08         | Champion D16, 18mm   | 3.50       |
| SP28         | Autolite 386, 18mm   | 5.00       |
| SP09         | Champion D21, 18mm   | 3.50       |
| SP10         | Champion D23, 18mm   | 7.00       |
| SP11         | <b>Champion</b> , D89D, <sup>7</sup> / <sub>8</sub> ", for diesel engines with gas start | 9.00       |
| SP12         | Champion H12, 14mm   | 3.50       |
| SP13         | Champion J8C, 14mm   | 3.50       |
| SP33         | Autolite 295, 14mm   | 3.50       |
| SP14         | Champion J11C, 14mm  | 3.50       |
| SP34         | Autolite 306, 14mm   | 3.50       |
| SP15         | Champion RJ12C, 14mm, for Maytag twin  | 3.50       |
| SP35         | Autolite AR72, 14mm, for Maytag twin   | 4.00       |
| SP16         | Champion CJ8, 14mm   | 3.50       |
| SP18         | Champion Y82, 10mm, good for larger models   | 9.00       |
| SP17         | NGK CM6, 10mm, good for larger models  | 5.00       |
|              | Ignition Tools   |            |
| SP50         | Gap gauge, round   | 2.50       |

# Complete Engine Oilers & Oil Cups

These oilers are true engine oilers with built-in check ball and relief tube. The bodies are fully machined cast brass and are made from a genuine oiler company that has been in business for over 70 years. These are a direct replacement for most oilers and truly look as if they belong.

The oil cups are also made cast brass and are fully machined. They have a screw-on lid. Fill the cup with felt rope to absorb oil and provide a slow drip onto bearings. They are a reproduction of those found on early engines.

See the section on Model Parts for oilers and oil cups for model engines (or real small gas engines).

| Order<br>number | Description | Pipe<br>Thread | OD     | Glass<br>height<br>(inches) | Capacity<br>(ounces) |       |
|-----------------|-------------|----------------|--------|-----------------------------|----------------------|-------|
| OLR01           | Oiler, #1 ½ | 1/4"           | 1 3/4" | 1 5/8"                      | 1 ½ oz               | 68.00 |
| OLR02           | Oiler, #2   | 3/8"           | 2"     | 1 7/8"                      | 2 ½ oz               | 70.00 |
| OLR03           | Oiler, #3   | 3/8"           | 2 1/4" | 2 1/8"                      | 4 oz                 | 77.00 |
| OLR04           | Oiler, #4   | 3/8"           | 2 1/2" | 2 3/8"                      | 5 oz                 | 82.00 |

| OLR05 | Oiler, #5                    |              | 1/2"       | 3"                            | 3"               | 10                            | ΟZ            | 89.00  |
|-------|------------------------------|--------------|------------|-------------------------------|------------------|-------------------------------|---------------|--------|
|       | Mac                          | hined Br     | ass Oil Cu | ıps                           |                  |                               |               |        |
|       |                              |              |            | Pipe<br>Thread                | Outsi<br>Diamete |                               | Price<br>each |        |
| OC22  | Oil cup, #00, brass          | -            |            | 1/8"                          |                  | 5/8"                          |               | 25.00  |
| OC20  | Oil cup, #0, brass           |              |            | <sup>1</sup> / <sub>8</sub> " |                  | 3/4"                          |               | 30.00  |
| OC21  | Oil cup, #1, brass           |              | 4          | 1/8"                          |                  | <sup>7</sup> / <sub>8</sub> " |               | 32.00  |
| WCK01 | Felt Rope, for use in oil cu | ıps, sold by | the inch   |                               | •                |                               | .2            | 5/inch |

### Oiler Parts

All glass is borosilicate glass (**Pyrex**), absolutely NO plastic. Gaskets are neoprene and also work well as fuel filter bowl gaskets. I also have smaller glass for sight glass and for making models. Look in the **Model Parts** section for a listing.

| Order  | Description                |               |                                 | Price |
|--------|----------------------------|---------------|---------------------------------|-------|
| number |                            |               |                                 | each  |
|        | Oiler Body                 |               |                                 |       |
|        |                            | Outside       | Glass Height                    |       |
|        |                            | Diameter (in) | (in)                            |       |
| OG002  | Oiler glass, #00           | 1 1/8"        |                                 |       |
| OG003  | Oiler glass, #0            | 1 1/4"        |                                 |       |
| OG004  | Oiler glass, #1            | 1 ½"          |                                 |       |
| OG005  | Oiler glass, #1 ½          | 1 3/4"        |                                 | 8.00  |
| OG006  | Oiler glass, #2            | 2"            |                                 | 9.50  |
| OG007  | Oiler glass, #3            | 2 1/4"        | 2 1/8"                          | 12.50 |
| OG008  | Oiler glass, #4            | 2 ½"          | 2 3/8"                          | 20.00 |
| OG009  | Oiler glass, #5            | 3"            | 3"                              | 25.00 |
| OG010  | Oiler glass, #6            | 3 ½"          | 4"                              | 34.00 |
| OG011  | Oiler glass, #7            | 4 1/4"        | 5"                              | 41.00 |
| OG012  | Oiler glass, #8            | 5 ½"          | 7"                              | 60.00 |
|        | Oiler Body Gasket          | s (neoprene)  |                                 |       |
|        |                            | Outside       | Inside                          |       |
|        |                            | Diameter (in) | Diameter (in)                   |       |
| OG020  | Oiler glass gasket, #000   | 1"            | 3/4"                            | .60   |
| OG021  | Oiler glass gasket, #00    | 1 1/8"        | 7/8"                            | .60   |
| OG022  | Oiler glass gasket, #0     | 1 1/4"        | 1"                              | .60   |
| OG023  | Oiler glass gasket, #1     | 1 1/2"        | 1 1/8"                          | .75   |
| OG024  | Oiler glass gasket, #1 1/2 | 1 3/4"        | 1 3/8"                          | .75   |
| OG025  | Oiler glass gasket, #2     | 2"            | 1 5/8"                          | .75   |
| OG026  | Oiler glass gasket, #3     | 2 1/4"        | 1 <sup>3</sup> / <sub>4</sub> " | 1.00  |
| OG027  | Oiler glass gasket, #4     | 2 ½"          | 2"                              | 1.00  |
| OG028  | Oiler glass gasket, #5     | 3"            | 2 ½"                            | 3.00  |
| OG029  | Oiler glass gasket, #6     | 3 ½"          | 3"                              | 3.00  |
| OG030  | Oiler glass gasket, #7     | 4 1/4"        | 3 3/4"                          | 3.50  |
| OG031  | Oiler glass gasket, #8     | 5 ½"          | 5 "                             | 5.00  |
|        | Sight GI                   | ass           |                                 |       |
|        |                            |               |                                 |       |

|       |                         | Outside          | Glass Height                  |      |
|-------|-------------------------|------------------|-------------------------------|------|
|       |                         | Diameter (in)    | (in)                          |      |
| OG040 | Sight glass, 1/2 x ½    | 1/2"             | 1/2"                          | 2.50 |
| OG041 | Sight glass, 1/2 x 5/8  | 1/2"             | <sup>5</sup> / <sub>8</sub> " | 2.50 |
| OG042 | Sight glass, 1/2 x 3/4  | 1/2"             | 3/4"                          | 2.50 |
| OG043 | Sight glass, 1/2 x 7/8  | 1/2"             | 7/8"                          | 2.50 |
| OG044 | Sight glass, 1/2 x 1    | 1/2"             | 1"                            | 2.50 |
| OG045 | Sight glass, 5/8 x 5/8  | 5/8"             | 5/8"                          | 2.50 |
| OG046 | Sight glass, 5/8 x ¾    | 5/8"             | 3/4"                          | 2.50 |
| OG047 | Sight glass, 5/8 x 7/8  | 5/8"             | <sup>7</sup> / <sub>8</sub> " | 2.50 |
| OG048 | Sight glass, 5/8 x 1    | 5/8"             | 1"                            | 2.50 |
| OG049 | Sight glass, 3/4 x 5/8  | 3/4"             | 5/8"                          | 2.50 |
| OG050 | Sight glass, 3/4 x 3/4  | 3/4"             | 3/4"                          | 2.50 |
| OG051 | Sight glass, 3/4 x 7/8  | 3/4"             | 7/8"                          | 2.50 |
| OG052 | Sight glass, 3/4 x 1    | 3/4"             | 1"                            | 2.50 |
| OG053 | Sight glass, 7/8 x 5/8  | 7/8"             | <sup>5</sup> / <sub>8</sub> " | 2.50 |
| OG054 | Sight glass, 7/8 x ¾    | 7/8"             | 3/4"                          | 2.50 |
| OG056 | Sight glass, 7/8 x 7/8  | 7/8"             | 7/8"                          | 2.50 |
| OG055 | Sight glass, 7/8 x 1    | 7/8"             | 1"                            | 2.50 |
|       | Sight glass, 1" x ?     | 1"               |                               | 4.00 |
|       | Sight Glass Gas         | skets (neoprene) |                               |      |
|       |                         | Outside          | Inside                        |      |
|       |                         | Diameter (in)    | Diameter (in)                 |      |
| OG060 | Sight glass gasket, ½   | 1/2"             | 1/4"                          | .30  |
| OG061 | Sight glass gasket, 5/8 | 5/8"             | 3/8"                          | .30  |
| OG062 | Sight glass gasket, ¾   | 3/4"             | 1/2"                          | .30  |
| OG063 | Sight glass gasket, 7/8 | 7/8"             | 5/8"                          | .30  |
|       | Filler                  | Caps             |                               |      |
| OG070 | Oiler filler cap, 5/16" |                  |                               | 7.00 |
| OG071 | Oiler filler cap, 3/8"  |                  |                               | 7.25 |
| OG072 | Oiler filler cap, 7/16" |                  |                               | 7.50 |
| OG073 | Oiler filler cap, 1/2"  |                  |                               | 7.75 |

# Brass Drain Cocks & Priming Cups

Nice cast brass made by the same company that probably made them for your engine. Priming cups are suitable for head or cylinder priming cups, but not for Webster brackets (while they would physically work, they do not look the same.). Those are available in the **Webster Parts** section. The drain cocks can also be used as a compression release on large flywheel engines.

| Order numb | er Description   |          | Price each |
|------------|--|----------|------------|
| DRC01      | Drain cock, <sup>1</sup> / <sub>8</sub> ", RA, bibb, T   |          | 12.00      |
| DRC02      | Drain cock, ¼ ", RA, bibb, T                             |          | 12.00      |
| DRC03      | Drain cock, <sup>3</sup> / <sub>8</sub> ", RA, bibb, T   | The same | 12.00      |
| DRC04      | Drain cock, ½ ", RA, bibb, T                             |          | 12.00      |
| DRC05      | Drain cock, <sup>1</sup> / <sub>8</sub> ", RA, bibb, lev |          | 12.00      |
| DRC06      | Drain cock, ¼ ", RA, bibb, lev                           |          | 12.00      |

| DRC07 | <b>Drain cock</b> , $^3/_8$ ", RA, bibb, lev                            |           | 12.00 |
|-------|---|-----------|-------|
| DRC08 | Drain cock, 1/2 ", RA, bibb, lev  |           | 12.00 |
| DRC09 | Drain cock, <sup>1</sup> / <sub>8</sub> ", T                            |           | 10.00 |
| DRC10 | Drain cock, ¼ ", T  |           | 10.00 |
|       |   |           |       |
| DRC11 | Drain cock, <sup>1</sup> / <sub>8</sub> ", lever                        | - A. P.   | 10.00 |
| DRC12 | Drain cock, ¼ ", lever  | e di Camp | 10.00 |
|       |   |           |       |
| PRC01 | Priming cup, <sup>1</sup> / <sub>8</sub> "                              |           | 25.00 |
| PRC02 | Priming cup, ¼ "  |           | 25.00 |
|       |   |           |       |
| SHO01 | <b>Shut-off,</b> <sup>1</sup> / <sub>8</sub> ", male on one end, female |           | 12.00 |
|       | on the other  | 200       |       |
| SHO02 | <b>Shut-off,</b> ¼" , male on one end, female on                        | -1-       | 12.00 |
|       | the other   | #         |       |

# Miscellaneous Brass Parts

The brass pipe fittings are good for air and steam engines and models. They can also be used for fuel connections on engines. I will start to add things here over time that can be tricky to find.

| Order number | Description                                    | Price each |
|--------------|--|------------|
| BRB02        | Hose barb, 3/16" tube, 1/8" male PT            | 4.00       |
| BRB03        | Hose barb, 3/16" tube, 1/4" male PT            | 4.00       |
| BRB12        | Hose barb, ¼" tube, 1/8" male PT               | 4.00       |
| BRB13        | Hose barb, ¼" tube, ¼" male PT                 | 4.00       |
| FT01         | Brass reducing bushing, 1/4" PT x 1/8" male PT | 3.00       |
| FT22         | Brass reducing bushing, ½" PT x ¼" PT          | 4.00       |
| PLG01        | Brass pipe plug, 1/8" PT                       | 1.50       |
| PLG02        | Brass pipe plug, ¼" PT                         | 2.25       |
| PLG03        | Brass pipe pig, 3/8" PT                        | 3.00       |
| PLG04        | Brass pipe plug, ½" PT                         | 4.50       |
| CPL01        | Brass pipe coupling, 1/8" PT                   | 2.50       |
| CPL02        | Brass pipe coupling, ¼" PT                     | 4.00       |
| CPL03        | Brass pipe coupling, 3/8" PT                   | 5.50       |
| CPL04        | Brass pipe coupling, ½" PT                     | 7.00       |
|              | Brass Pipe Nipples                             |            |
|              |  |            |
| PIP01        | Pipe nipple, 1/8" PT, close                    | 2.50       |
| PIP02        | Pipe nipple, 1/8" PT, 1.5" long                | 3.00       |
| PIP03        | Pipe nipple, 1/8" PT, 2" long                  | 3.50       |
| PIP04        | Pipe nipple, 1/8" PT, 3" long                  | 4.00       |

| PIP05 | Pipe nipple, 1/8" PT, 4" long   | 5.00  |
|-------|---------------------------------|-------|
| PIP07 | Pipe nipple, 1/8" PT, 6" long   | 6.50  |
|       |                                 |       |
| PIP11 | Pipe nipple, ¼ " PT, close      | 3.50  |
| PIP12 | Pipe nipple, 1/4" PT, 1.5" long | 3.50  |
| PIP13 | Pipe nipple, ¼" PT, 2" long     | 4.00  |
| PIP14 | Pipe nipple, ¼" PT, 3" long     | 5.00  |
| PIP15 | Pipe nipple, ¼" PT, 4" long     | 6.50  |
| PIP17 | Pipe nipple, ¼" PT, 6" long     | 10.00 |
|       |                                 |       |

### Grease Cups

When I was a kid, my dad used what he called "cup grease" to grease things. I thought that it was called that because he kept it in a cup (really!) Later, I learned that it was for use in "grease cups" like what I have for sale here. These grease cups are excellent replacements for lost cups on your engine. Steel cups were standard on most hit-and-miss engines. The automatic grease cups are the screw-down type and are machined cast brass. These look very nice and were commonly found on marine engines but also look nice on any flywheel engine or machine tool.

| Order<br>number | Description             |                                       | Capacity (ounces)           |                               | Outside<br>Diameter             | Price each |
|-----------------|-------------------------|---------------------------------------|-----------------------------|-------------------------------|---------------------------------|------------|
|                 |                         |                                       | ,                           |                               | (inches)                        |            |
| GC01            | Grease cup, #000, steel |                                       | 1/4                         | <sup>1</sup> / <sub>8</sub> " | <sup>13</sup> / <sub>16</sub> " | 8.00       |
| GC09            | Grease cup, #000, steel | ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( | 1/4                         | 1/4"                          | <sup>13</sup> / <sub>16</sub> " | 8.00       |
| GC02            | Grease cup, #00, steel  |                                       | 1/2                         | <sup>1</sup> / <sub>8</sub> " | 1"                              | 12.00      |
| GC03            | Grease cup, #00, steel  | 257 80                                | 1/2                         | 1/4"                          | 1"                              | 12.00      |
| GC05            | Grease cup, #0, steel   |                                       | <sup>2</sup> / <sub>3</sub> | 1/4"                          | 1 1/4"                          | 16.00      |
| GC06            | Grease cup, #1, steel   |                                       | 1                           | 1/4"                          | 1 ½"                            | 17.00      |
| GC07            | Grease cup, #2, steel   |                                       | 2                           | 1/4"                          | 2"                              | 20.00      |
| GC08            | Grease cup, #3, steel   |                                       | 3 – ½                       | <sup>3</sup> / <sub>8</sub> " | 2 ½"                            | 22.00      |
| GC40            | Grease cup, #00,        |                                       | 1/3                         | <sup>1</sup> / <sub>8</sub> " | 1"                              | 58.00      |
|                 | automatic, brass        |                                       |                             |                               |                                 |            |
| GC41            | Grease cup, #1,         | F 5 - 401                             | 1 – ½                       | 1/4"                          | 1 ½"                            | 73.00      |
|                 | automatic, brass,       |                                       |                             |                               |                                 |            |
| GC42            | Grease cup, #2,         |                                       | 3                           | <sup>3</sup> / <sub>8</sub> " | 2"                              | 95.00      |
|                 | automatic, brass        |                                       |                             |                               |                                 |            |

### Oil Cups & Oil Wick

I stock 2 different types of oil cups, captive-ball end and flip-top (or as a friend calls them "toilet-seat") type. I currently have only 1/4" in captive-ball end.

Oil wick (or hard white felt rope) is used in the hole below the cup. Order one size smaller than the cup. Wick is sold in 2" lengths, enough for half a dozen or more cups. Longer lengths are available, please ask. ALWAYS thoroughly pre-soak the wick before installing in the hole as a dry wick will soak up any oil on the shaft. Dimensions are for the hole to press the oil cup into.

|  | Order number | Description |  | Price each |
|--|--------------|-------------|--|------------|
|--|--------------|-------------|--|------------|

| OC01  | Oil cup, <sup>3</sup> / <sub>16</sub> ", flip top            |             | 1.25 |
|-------|--|-------------|------|
| OC02  | Oil cup, ¼", flip top  |             | 1.25 |
| OC03  | Oil cup, <sup>5</sup> / <sub>16</sub> ", flip top            | Property of | 1.25 |
| OC04  | Oil cup, <sup>3</sup> / <sub>8</sub> " flip top              |             | 1.50 |
| OC12  | Oil cup, ¼" captive ball                                     |             | 1.25 |
| WCK01 | Oil wick, <sup>1</sup> / <sub>8</sub> " diameter, 2" length  |             | 0.50 |
| WCK02 | Oil wick, <sup>3</sup> / <sub>16</sub> " diameter, 2" length |             | 0.50 |
| WCK03 | Oil wick, <sup>1</sup> / <sub>4</sub> " diameter, 2" length  |             | 0.50 |
| WCK04 | Oil wick, <sup>3</sup> / <sub>8</sub> " diameter, 2" length  |             | 1.00 |

# Assorted Engine Gears

I have a few gears for engine crankshafts and other assorted applications. I don't intend to get a complete line of crank gears, but will add other items as they become available. They are of the same high quality as the magneto gears and should work without any trouble.

| Order  | Description   | Number   | Outside                         | Shaft  | Price  |
|--------|---|----------|---------------------------------|--|--------|
| number |   | of teeth | Diameter                        | Diameter   | each   |
| GR110  | Associated crank gear, Johnny Boy   | 20       | 2.2"                            | 1 <sup>1</sup> / <sub>8</sub> "<br>1 <sup>3</sup> / <sub>8</sub> " | 50.00  |
| GR111  | Associated crank gear, 1 ¾, 2 ¼ HP  | 25       | 2.7"                            | Ü  | 50.00  |
| GR112  | Associated crank gear, 3 HP, 3 ½ HP   | 25       | 2.7"                            | 1 <sup>5</sup> / <sub>8</sub> "                                    | 50.00  |
| GR113  | Associated crank gear, 4 HP   | 24       | 3.25"                           | 1 3/4"   | 55.00  |
| GR114  | Associated crank gear, 6 HP *   | 28       | 3 3/4"                          | 2 1/4"   | 60.00  |
| GR115  | Associated crank gear, 8 HP *   | 28       | 3 3/4"                          | 2 ½"   | 60.00  |
| GR116  | Associated crank gear, 12 HP *  | 27       | 4.8"                            | 2 3/4"   | 75.00  |
| GR181  | Carlisle & Finch, cam gear with cam   |          |                                 |  | ask    |
| GR180  | Cushman Motor Scooter, crank,   | 20/50/   |                                 |  | 65.00  |
|        | cam, & starter gear set   | 20       |                                 |  |        |
| GR100  | <b>Domestic</b> side-shaft gear, 1" bore,<br>Domestic part # 314  | 12       | 2.5"                            | 1 "  | 80.00  |
| GR101  | Domestic crankshaft gear, 1 ¼" shaft diameter, 1 ½ HP, Domestic part # 400                                    | 6        | 3.1"                            | 1 1/4"   | 125.00 |
| GR102  | <b>Domestic</b> crankshaft gear, 1 5/8" shaft diameter, 7/16" hub, 2 & 3 HP, Domestic part # 313              | 6        | 3.1"                            | 1 <sup>5</sup> / <sub>8</sub> "                                    | 125.00 |
| GR103  | <b>Domestic</b> crankshaft gear, 1 5/8" shaft diameter, 3/16" hub, die cast bearing cap, Domestic part # 313A | 6        | 3.1"                            | 1 <sup>5</sup> / <sub>8</sub> "                                    | 125.00 |
| GR104  | Domestic crankshaft gear, 6 HP  | 6        | 3.1"                            | 2"   | 125.00 |
| GR150  | <b>Elgin</b> , "Half-a-Horse", crank-shaft fiber gear   | 19       | 1 <sup>29</sup> / <sub>32</sub> | 3/4"   | 65.00  |
| GR185  | Grey, 1 HP crank  |          |                                 |  | 50.00  |
| GR186  | Grey, 1 1/2 HP crank  |          |                                 |  | 50.00  |
| GR190  | Hercules governor gear, 1 ½ HP – 12 HP  |          |                                 |  | 40.00  |

| GR130 | IHC Tom Thumb A/C & 1 HP          | 28 | 1 <sup>7</sup> / <sub>8</sub> " | 1 <sup>1</sup> / <sub>8</sub> "       | 50.00  |
|-------|-----------------------------------|----|---------------------------------|---------------------------------------|--------|
|       | Famous H/C crank gear             |    |                                 |                                       |        |
| GR133 | IHC Famous, 4 HP *                | 33 | 4 <sup>3</sup> / <sub>8</sub> " | 1 <sup>5</sup> / <sub>8</sub> "       | 75.00  |
| GR134 | IHC Mogul Jr., mag and crank gear |    |                                 |                                       | 100.00 |
|       | set (Always order as a set)       |    |                                 |                                       |        |
| GR136 | IHC Mogul, mag drive gear *       | 48 | 5"                              | 1 1/4"                                | 75.00  |
| GR137 | IHC Mogul, 1 HP crank *           | 26 | 2.33"                           | 1 <sup>5</sup> / <sub>16</sub> "      | 50.00  |
| GR138 | IHC Mogul, 1 HP cam gear *        | 52 | 4.5"                            | .812" x 4"                            | 75.00  |
|       |                                   |    |                                 | shaft                                 |        |
|       | IHC Titan Jr., made to order      |    |                                 |                                       | Ask    |
|       | Jacobsen, helical and mag gears,  |    |                                 |                                       | Ask    |
|       | inquire                           |    |                                 |                                       |        |
| GR120 | R & V governor gear, 1 HP         | 12 | 1.4"                            | <sup>5</sup> / <sub>8</sub> " x 2.675 | 65.00  |
|       |                                   |    |                                 | shaft                                 |        |
| GR160 | Simplicity, crank gear, 3 HP      | 20 | 2 3/4"                          | 1 ½"                                  | 70.00  |
| GR140 | Waterloo Boy, crank gear, 1 ½ HP, | 25 | 2.7"                            | 1 1/4"                                | 55.00  |
|       | 2 HP                              |    |                                 |                                       |        |
| GR141 | Waterloo Boy, crank gear, 3 HP    | 28 | 3"                              | 1 ½"                                  | 55.00  |
| GR170 | Witte, 2HP, crank gear, throttle  | 15 | 2.4"                            | 1 1/4"                                | 55.00  |
|       | governed                          |    |                                 |                                       |        |
| GR171 | Witte, 2HP, headless, crank gear, |    |                                 | 1 1/4"                                | 55.00  |
|       | throttle governed                 |    |                                 |                                       |        |

<sup>\*</sup> Made to order, call for availability

# Brass Check Balls & Check Valves

These are brass check balls suitable for use in fuel check valves. They have a high resistance to corrosion from fuels. The check valves are machined brass and are patterned after the valve found on Hercules engines. I may have some other styles soon.

| Order   | Description  | Price |
|---------|--|-------|
| number  |  | each  |
| HDWR010 | Brass ball, 3/32"  | 0.35  |
| HDWR011 | Brass ball, 1/8"   | 0.35  |
| HDWR012 | Brass ball, 5/32"  | 0.35  |
| HDWR013 | Brass ball, 3/16"  | 0.35  |
| HDWR014 | Brass ball, 7/32"  | 0.35  |
| HDWR015 | Brass ball, 1/4"   | 0.35  |
| HDWR016 | Brass ball, 5/16"  | 0.50  |
| HDWR021 | Brass ball, 11/32"   | 0.75  |
| HDWR017 | Brass ball, 3/8"   | 0.75  |
| HDWR018 | Brass ball, 7/16"  | 1.50  |
| HDWR019 | Brass ball, ½"   | 1.50  |
| HDWR020 | Brass ball, 5/8"   | 2.50  |
|         |  |       |
| CV01    | Check valve, Hercules style, vertical, ¼' pipe thread inlet, | 15.00 |
|         | 1/4 tubing outlet  |       |
| CV02    | Check valve, Hercules style, right angle, 1/4' pipe thread   | 15.00 |
|         | inlet, ¼ tubing outlet                                       |       |

# Engine, Tractor & Magneto Nameplates

These nameplates are etched brass or aluminum and are of the highest quality. The Wico EK tag comes with 2 rivets. I will be continually adding nameplates to this list.

| Order  | Description   | Brass/  | Width    | Height/ | Price |
|--------|---|---------|----------|---------|-------|
| number |   | Alum    | (inches) | Length  | each  |
|        | Engine & Tractor Name   | eplates |          |         |       |
| NP001  | Associated oval, early engines & Pony                             | Br      | 3 3/4    | 1 3/4   | 12.50 |
| NP002  | Associated Busy Boy   | Br      | 5 5/8    | 3 1/4   | 18.00 |
| NP003  | Associated Johnny Boy   | Br      | 5 5/8    | 3 1/4   | 18.00 |
| NP004  | Associated Chore Boy  | Br      | 5 3/4    | 3 3/8   | 18.00 |
| NP005  | Associated Hired Man  | Br      | 5 3/4    |         |       |
| NP006  | Associated Hired Hand   | Br      | 5 3/4    | 3 3/8   | 18.00 |
| NP007  | Associated Tired Man  | Br      | 5 ¾      | 3 3/8   | 18.00 |
| NP158  | Associated Jerry Boy, hand car engine                             | Br      |          |         | 20.00 |
| NP066  | <b>Briggs &amp; Stratten,</b> horizontal, brass, early engines    | Br      | 2 1/4    | 1 1/4   | 10.00 |
| NP067  | <b>Briggs &amp; Stratten,</b> vertical, brass, very early engines | Br      | 1 1/4    | 2 7/8   | 10.00 |
| NP008  | Case tractor, rectangle (alum)                                    | Al      | 6 ½      | 3       | 14.00 |
| NP009  | Case oval (alum)  | Al      | 5 3/4    | 3 1/4   | 18.00 |
| NP010  | Case oval (brass)   | Br      | 5 3/4    |         | 22.00 |
| NP153  | Case tractor, 1 line for serial # and model #                     | Al      | 3 1/4    |         | 12.00 |
| NP157  | Case tractor, 2 lines for serial # & model #                      | Al      | 3 1/4    | 1 ½`    | 12.00 |
| NP011  | Continental Motor   | Al      | 3 ¾      | 2       | 10.00 |
| NP012  | Deyo  | Br      | 4        | 2 3/4   | 12.00 |
| NP056  | Economy, improved   | Br      | 3 5/8    | 1 ½     | 12.00 |
| NP013  | FM, 1 1/2 HP Z  | Br      | 4        | 2 1/4   |       |
| NP014  | FM 2 HP Z   | Br      | 4        | 2 1/4   | 12.50 |
| NP015  | FM 3 HP Z   | Br      | 4 ½      | 2 5/8   | 14.00 |
| NP016  | FM 6 HP Z   | Br      | 5        | 3       | 15.00 |
| NP057  | FM headless   | Br      | 5        |         | 18.00 |
| NP159  | FM marine   | Br      | 5        |         |       |
| NP017  | Foos Type J   | Br      | 3        |         |       |
| NP018  | Foos Jr.  | Br      | 3        |         |       |
| NP019  | Galloway (new)  | Br      | 2 1/4    |         |       |
| NP020  | Galloway (old)  | Br      | 4        | 2       |       |
| NP021  | Happy Farmer Tractor  | Br      | 4        | 2 ½     |       |
| NP161  | Hawbolt oval  | Br      |          |         | 20.00 |
| NP022  | Hercules (new)  | Br      | 3 3/4    |         |       |
| NP023  | Hercules (old)  | Br      | 3 3/4    | 1 1/4   | 10.00 |
| NP024  | Ideal vertical  | Br      | 4        | 2 ½     | 10.00 |
| NP160  | Ideal power mower   | Br      |          |         | 10.00 |
| NP025  | IHC Famous (large)  | Br      | 6 1/4    | 3       |       |
| NP026  | IHC Famous hopper   | Br      | 4        |         |       |
| NP027  | IHC Famous air  | Br      | 4        | 1 7/8   | 12.00 |
| NP028  | IHC M timing plate  | Al      | 5 1/4    | 4 ½     | 20.00 |
| NP150  | McCormick M timing plate  | Al      | 5 1/4    | 4 ½     | 20.00 |

| NP029   | IHC M kerosene                            | Al       | 3 5/8    | 1 3/4 | 10.00 |
|---------|---|----------|----------|-------|-------|
| NP156   | IHC M gasoline                            | Al       | 3 5/8    | 1 3/4 | 10.00 |
| NP030   | McCormick, M, 1 1/2 HP, gasoline          | Al       | 3 5/8    | 1 3/4 | 10.00 |
| NP151   | McCormick, M, kerosene                    | Al       | 3 5/8    | 1 3/4 | 10.00 |
| NP031   | IHC Mogul (large)                         | Br       | 6 1/4    | 3     | 18.00 |
| NP032   | IHC Mogul (small)                         | Br       | 3 ½      | 1 ½   | 12.00 |
| NP033   | IHC Titan (large)                         | Br       | 6 1/4    | 3     | 18.00 |
| NP034   | IHC Victor                                | Br       | 6 1/4    | 3     | 15.00 |
| NP052   | IHC LA 1½ - 2½ HP                         | Al       | 3 5/8    | 1 3/8 | 12.00 |
| NP053   | <b>IHC</b> LA 3 – 5 HP                    | Al       | 3 5/8    | 1 3/8 | 12.00 |
| NP054   | IHC LB 1½ - 2½ HP                         | Al       | 3 5/8    | 1 3/8 | 12.00 |
| NP055   | IHC LB 3 – 5 HP                           | Al       | 3 5/8    | 1 3/8 | 12.00 |
| NP065   | Jacobsen                                  | Br       | 4        | 2     | 18.00 |
| NP050   | Julien                                    | Br       | 4        | 1 3/4 | 18.00 |
| NP068   | Lauson - Lawton, The Wisconsin            | Br       | 4        | 1 5/8 | 16.00 |
| NP058   | Majestic                                  | Br       | 3 ½      | 2 1/4 | 12.00 |
| NP035   | Massey-Harris (rect)                      | Al       | 4        | 1 ½   | 10.00 |
| NP074   | Maynard                                   | Br       | 2 3/4    | 1 ½   | 10.00 |
| NP036   | Monitor (oval, aluminum)                  | Al       | 3 ½      | 1 3/4 | 10.00 |
| NP059   | Monitor (oval, brass)                     | Br       | 3 ½      | 1 3/4 | 12.00 |
| NP049   | Monitor/Baker (rectangle)                 | Br       | 2 3/4    | 1 3/8 | 12.00 |
| NP069   | Myrick Leader Field Force Pump            | Br       | 3        | 1 1/4 | 14.00 |
| NP070   | Nelson Bros. Little Jumbo                 | Br       | 3        | 1 5/8 | 12.00 |
| NP037   | New Holland (brass)                       | Br       | 3 3/4    | 1 ½   | 14.00 |
| NP154   | New Holland Machinery, for implements     | Al       | 3        | 1 ½   | 14.00 |
| NP038   | Novo (oval)                               | Br       | 5 1/4    | 3 3/8 | 18.00 |
| NP039   | Novo (rect)                               | Br       | 5 1/4    | 3     | 18.00 |
| NP063   | Novo Jr. (rect)                           | Br       | 4        | 2     | 15.00 |
| NP071   | Novo Hildreth                             | Br       | 5 3/8    | 3     | 20.00 |
| NP072   | Olds, Seager Engine Works                 | Br       | 3 3/8    | 3 1/4 | 12.00 |
| NP170   | Ottawa                                    | Br       |          |       | 12.00 |
| NP162   | Pohl                                      | Br       |          |       | 16.00 |
| NP165   | Reeves                                    | Br       |          |       | 12.00 |
| NP040   | Rumsey                                    | Br       | 2 7/8    | 1     | 18.00 |
| NP041   | Sandwich                                  | Br       | 3        | 1 ½   | 12.00 |
| NP060   | Sandwich, large, 6 HP & above             | Br       | 4        | 2     | 12.00 |
| NP152   | Sattley, oval                             | Al       | 3 7/8    | 2     | 12.00 |
| NP163   | Sattley, oval                             | Br       |          |       | 12.00 |
| NP164   | Sattley, rectangular                      | Br       |          |       | 12.00 |
| NP166   | Schmidts Chilled Cylinder                 | Br       |          |       | 18.00 |
| NP155   | Shaw garden tractor                       | Al       | 3        | 1 1/4 | 12.00 |
| NP167   | Shaw garden tractor                       | Br       |          |       | 12.00 |
| NP061   | Simplicity                                | Br       | 4        | 1 3/4 | 12.00 |
| NP051   | Sta-Rite                                  | Br       | 2 3/4    | 1 5/8 | 12.00 |
| NP042   | Stover CT (rect)                          | Br       | 3 ½      | 1 3/4 | 12.00 |
| NP043   | Stover (oval), with space to stamp engine | Br       | 3 ½      | 1 3/4 | 12.00 |
| <u></u> | model                                     | <u> </u> | <u> </u> |       |       |
| NP073   | Stover K (oval)                           | Br       | 3 ½      | 1 ¾   | 12.00 |
| NP044   | Tayoga, Field Force Pump                  | Br       | 3        | 1 1/4 | 18.00 |

| NP045 | United   | Br   | 3 ¾   | 1 3/4 | 12.00 |
|-------|--|------|-------|-------|-------|
| NP046 | Waterloo engine  | Br   | 3 5/8 | 2 1/4 | 12.00 |
| NP047 | Waterloo tractor   | Br   | 3 5/8 | 2 1/4 | 20.00 |
| NP048 | Witte (headless)   | Br   | 4     | 2     | 12.00 |
| NP064 | Witte, throttle governed   | Br   | 3     | 1 ½   | 12.00 |
| NP168 | York   | Br   |       |       | 20.00 |
|       | Magneto Namepla  | tes  |       | "     |       |
| NP080 | Accurate R mag   | Br   | 2     | 13    | 16.00 |
| NP099 | American Bosch, brass, for smaller mags such as the FX with wide strap | Br   | 1 7/8 | 11    | 15.00 |
| NP125 | American Bosch, brass, 1922 model                                      | Br   |       |       | 12.00 |
| NP086 | IHC E4A mag, brass   | Br   |       |       | 18.00 |
| NP081 | IHC L mag, alum  | Al   | 1 3/4 | 12 ½  | 12.00 |
| NP087 | IHC L mag, brass   | Br   | 1 3/4 | 12 ½  | 15.00 |
| NP088 | IHC R mag, alum  | Al   | 2     | 13    | 14.00 |
| NP089 | IHC R mag, brass   | Br   | 2     | 13    | 15.00 |
| NP107 | IHC O mag, brass   | Bt   |       |       | 20.00 |
| NP082 | Motzinger Autosparker  | Br   |       |       | 15.00 |
| NP091 | Sumter, 12   | Br   | 5/8   | 7 1/4 | 10.00 |
| NP092 | Sumter, 14   | Br   | 5/8   | 7 1/4 | 10.00 |
| NP093 | Sumter, all others   | Br   | 5/8   | 8 ½   | 10.00 |
| NP108 | Weber, round   | Br   |       |       |       |
| NP083 | Webster mag, 3/4"  | Br   | 3/4   |       | 12.00 |
| NP084 | Webster mag, 1"  | Br   | 1     |       | 12.00 |
| NP100 | Webster, "bow tie", for JY, JZ & PY mags                               | Br   | 2 1/8 | 1 ½   | 20.00 |
| NP104 | Wico, C  | Al   | 1 3/8 | 5/8   | 8.00  |
| NP085 | Wico EK  | Br   | 2 3/4 | 1 ½   | 8.00  |
| NP094 | Wico, oval, PR, OC, R and others                                       | Br   | 3 1/4 | 1 ½   | 10.00 |
| NP169 | Wico, blank, for early oscillating mags                                | Br   | 2 3/4 | 1 ½   | 8.00  |
| NP105 | Wico, XH & XV, black lettering   | Al   | 1 1/8 | 7/8   | 8.00  |
| NP101 | Wizzard, rectangular with slots for magnet clamp                       | Br   | 3     | 1 ½   | 15.00 |
| NP102 | Wizzard, narrow magnet strap   | Br   | 1 ½   | 12    | 15.00 |
| NP103 | Wizzard, wide magnet strap   | Br   | 2     | 12 ½  | 15.00 |
| NP106 | Wizzard, round, friction drive magneto                                 | Br   |       |       | 20.00 |
|       | Buzz Coil Namepla  | ates |       |       |       |
| NP095 | Cushman special coil   | Br   | 2 1/4 | 1     | 7.50  |
| NP096 | National coil  | Br   | 1 3⁄4 | 1     | 7.50  |
| NP097 | New Way coil   | Br   | 3     | 1 ½   | 7.50  |
|       | Other Nameplate  |      |       | Ţ     |       |
| NP121 | Ajax toy motor/generator   | Br   |       |       | 6.00  |
| NP122 | Boucher toy motor/generator  | Br   |       |       | 6.00  |
| NP120 | Lake Breeze Fan, set of two  | Br   |       |       | 20.00 |
| NP123 | Little Hustler toy motor/generator                                     | Br   |       |       | 6.00  |
| NP098 | Lucas generator  | Br   |       |       | 7.50  |
| NP124 | Voltamp toy motor/generator  | Br   |       |       | 6.00  |

## Model Engine Parts

When I first started going to shows, I ended up meeting a long-time (about 15 years) engine collector who lived not too far from me. I was really just getting started in the hobby and was always lugging around the absolute maximum amount of heavy iron that I could possible fit in a Dodge minivan. I even had helper springs in the van to offset the tremendous weight I was carrying around (no fat jokes!).

My collector friend had also started out hauling lots of heavy iron around, but found that building and displaying models was far more interesting (and a lot lighter) than carrying numerous big heavy "counter-weights" around. The models were small, light, quickly packed, and quite fascinating to watch run. After a few shows, my collector friend predicted that I would get tired of hauling around the heavy iron and switch to models. I protested, saying "It would never happen!"

Well, after a few years, I did get into models, partly because of my fascination with them, and partly because hauling parts around left little room for full sized engines. Once hooked, there was no going back! Now that I have models as a permanent part of my display, people have been asking me for model parts.

The meteor metal is for ignitor points. Cut it into slabs and silver braze onto your ignitor or machine into rivets and swage in.

| Order  | Description                                   | Thread     | Overall | Max.     | Price     |
|--------|---|------------|---------|----------|-----------|
| number |   | size       | height  | diameter | each      |
|        | Model Engine Low Te                           | ension C   | Coils   |          |           |
| COIL11 | Horizontal coil, small, out of stock          |            |         |          |           |
|        | Meteor Metal Ignito                           | r Mater    | al      |          |           |
| PT01   | Point material, 3/16" diameter, by the inch ( | (2" minimu | m)      |          | 2.00/inch |
| PT02   | Point material, 1/8" diameter, by the inch (2 | 2" minimun | 1)      |          | 2.00/inch |
|        | Glass For Model Or S                          | Small Oi   | lers    |          |           |
|        | 1/4" OD x various lengths                     |            |         |          | 2.00 ea   |
|        | 5/16" OD x various lengths                    |            |         |          | 2.00 ea   |
|        | 3/8" OD x various lengths                     |            |         |          | 2.00 ea   |
|        | Model Engine Nar                              | ne Tags    | 3       |          |           |
| NP200  | Associated, 1/3 scale                         |            |         |          | 5.00      |
| NP201  | Associated Little Brother                     |            |         |          | 5.00      |
| NP202  | Domestic, ½ scale, finished                   |            |         |          | 10.00     |
| NP203  | Domestic, ½ scale, rectangle                  |            |         |          | 5.00      |
| NP204  | New Holland, 1/3 scale                        |            |         |          | 5.00      |
| NP205  | Novo Jr., ½ scale                             |            |         |          | 5.00      |
| NP206  | Olds, ½ scale                                 |            |         |          | 5.00      |
| NP207  | Olds, ¼ scale                                 |            |         |          | 5.00      |
|        | Model Engine Ge                               | ar Sets    |         |          |           |
| MG01   | Associated, 1/3 scale                         |            |         |          | 30.00     |
| MG02   | Associated, Little Brother                    |            |         |          | 25.00     |
| MG03   | Olds, ½ scale                                 |            |         |          | 50.00     |
| MG04   | Olds, ¼ scale                                 |            |         |          | 30.00     |
| MG05   | Nanzy   |            |         |          | 25.00     |
| MG06   | New Holland, 1/3 scale                        |            |         |          | 25.00     |
| MG07   | Domestic, ½ scale                             |            |         |          | 95.00     |