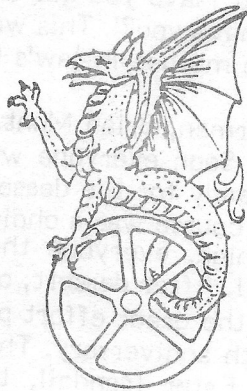


WESSEX STATIONARY ENGINE CLUB



NEWSLETTER

December 1986

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'OLD LISTER'S NEVER DIE'

The restoration of a D-type Lister, no.142387 supplies to Stanley Engineering, The Triangle, Oldfield Park, Bath, Somerset on the 1st June 1938. It is a $1\frac{1}{2}$ hp, at 700 rpm, reverse rotation, spec.DHR.

The engine was purchased in February 1985 after it was advertised in the Wiltshire Times by a gentleman who had left it standing for years under a lean-to in his back garden. When recovered it was dirty and coated with a horrible gungy green paint. The exhaust valve was seized open but the magneto gave a spark. It was found to be fitted with a flywheel from a 2 hp engine, a 12" dia.one stamped with ser.no.I/5527.

The whole engine was stripped down and each part treated separately. Firstly, the magneto was dismantled and thoroughly cleaned and the bearings greased and adjusted. The timing case was the most difficult part of the whole restoration; after stripping, cleaning, scraping off them old paint and priming, I started to put it all back together again. This is where the problems all started as when I was putting the castle nut back onto the end of the engagement fork, the threaded end broke off. I replaced the fork with one from another engine which I had been given but when the timing case was finally assembled, it was all very slack. Later on in the project, the whole thing was taken apart again and yet another built up from four - yes, four - different ones. Great care was taken this time with the engagement fork.

New piston rings were needed to be purchased and fitted after a delicate filing operation to set the gaps correctly. The big and small ends were beyond use and the flywheel bearings were very slack. A new petrol tank was called for; my next door neighbour was my saviour here. He took the old tank to work, cut off the fittings and made a new tank - all this in exchange for a $\frac{1}{2}$ cwt sack of spuds! The rest of the paint on the various parts was chiselled off, then they were primed onto bare metal and painted with Car Plan lacquer; this did not produce a very good result. I then used three coats of Japlac British Racing Green which is tough and has a very good shine. The rocker breather was also replaced since the one which came on the engine was one half of a 'No Parking at any time' sign; the half with '....at any time' on! When I changed to big and small ends I heated the con rod and, using the vice, pressed the bushes in carefully using a suitable sized piece of bar and a tube. I changed the complete flywheel unit, bearings and all to get the correct 14" flywheel. Each piece of brass fittings on the engine was covered in the green gunge. I scraped and wire-brushed the worst off and polished them up using PI000-PI200 wet and dry and then finally Brasso.

In May of this year, I purchased a water pump from a Wessex member who lives in Keynsham. It was in good mechanical order but I stripped off the paint and found more brasswork so I gave it the same treatment as the engine. Also this time I was able to use the polishing machine at school to give a better shine. The pump is a John Blake type OB piston pump; I have yet to see another OB but I have seen an OE owned by Mr. W.B.Speake of Abergavenny. It is the same year as my own, 1951, which causes much interest at rallies and I have received many compliments for my set-up. It is double acting, ser.no.3939, 350 gal/hr at 200ft.head and was originally supplied to the Air Ministry in 1951 fitted with a 3-4 hp Crompton and Brooke electric motor.

Finally, thank you to all who have assisted with the restoration of 142387.

Graham Mark Raymond (Junior member)

Thank you Graham. You seem to have got to grips with the essence of our hobby - the restoration. Now, if a Junior member can write an article, what about the rest of the 260-strong membership-Ed.

WESSEX SOCIAL EVENING - Chilcompton Village Hall, December 1st

As we were getting into our friend's car to travel to Chilcompton, Maureen said 'Have you got the raffle prize?'. 'No' I said, 'It's on the kitchen table, have you got a door key?'. 'No, have you?'. This was a good start to the evening, locked out of our own house, so it was a quick dash to mother-in-law's to get spare key, grab raffle ticket prize and off again to arrive by 7.30 p.m.

By this time many members had arrived and been welcomed by our Vice-Chairman, Brian Munt. I then took over handing out the wine as fast as Catherine could fill the glasses. Soon everyone was seated and the soup was served; many members forgot to lick their soup spoons ready for the dessert which made a lot of extra work for the kitchen staff washing them up. The main course was a choice of Jacket Potatoes with ham, turkey and salad or Lasagne. With plates piled high, everyone then returned to their seats. Thank you Shirley and colleagues for such a splendid meal. After dessert, our President, Tom Randall, made his speech in which he thanked the committee for the great effort put into organising the evening. Tom also reminded us that next year will be our tenth anniversary. Then followed a short speech by Rob Lambert and a small gift was presented to Ester Randall, the President's wife, on behalf of the Club. It was noticed partway through the evening that our Punch & Judy man was juggling with hot potatoes, is this to add to his repertoire? The main entertainment for the evening got underway with 'Al Fresco'; midway through the raffle took place conducted by Herb and Brian, prizes were again wrapped to make identification difficult and no-one could tell in which packet the dreaded corsets were hidden. The prize winners were as follows: the first ticket was drawn by the President's younger daughter, Mellissa and was that of Alyson Goddard, hair styling set; Shirley Clack - bottle of wine; Dave Clack - bottle of wine; Kenneth Hill - pen & pad; Anne Kempson - car foot pump; Evelyn Cox - ice cream cup set; Richard Jones - bottle of sherry; Eleanor Penny - toilet set; Steve Butler - pair of mugs; Sue Millard - bottle of wine; Bob Hallam - picture; Nicky Millard - little wigglo; Simon Pike - chocolates; Brian Munt - cookery book; Audrey Harris - pound coin and handkerchief; Ian Craddock - bottle of scrumpy; Wendy Gane - stick of rock; Mary Verrall - Christmas Turkey; Joanne Emery - picture; Emmerson Salkeld - watch; Rod Hurkett - diary; Katie Weston - book on antiques; Dave Clack - funny thing on a stick...!; Dave Clack - gallon of antifreeze; Steve Butler - powder puff; Chris Hauler - book on motorcycles; Carol Jones - basket of fruit; Mary Skinner - perfume; Rob Lambert - book on motor cars; Roy Cox - three miniatures; Steve Emery - torch; and the lucky chair was won by Shirley Gale who found she was sitting on a sack of spuds! Phil Harris was really suited by the pair of frilly knickers that he won whilst Emmerson Salkeld is kitted out for the winter nights with his prize - a 'willie' warmer. Finally Gordon Cleall won the dreaded corsets.

With the raffle concluded, it was back to 'Al Fresco' for the remainder of the evening and the dance floor was fully occupied for most of the time. Sadly, the clock struck twelve and our evening came to an end; everyone having thoroughly enjoyed themselves. I should like to thank all those who worked so hard to make the evening such a success, the helpers in the kitchen, bar and the hall; and for clearing up so fast that we could go home at a reasonable hour. Special thanks to those who offered help which was not utilised, for their willingness to give up their time for the Club.

May I take this opportunity to wish everyone a Happy Christmas and Good Luck in the New Year.

Eric, Maureen and Catherine Gay

THE OCTOBER MEETING - 27th October 1986

With the clocks going back and the nights drawing in, what better way to spend an evening than watching Jim Wilkey's 'Dustbin Films' - he says they have all been in somebody's dustbin before he gets them!

The opening film was an agricultural publicity film called 'Power in the Land', made in 1946 to show how farming had progressed from all hand work to mechanisation to help produce more food at a time of need after the war. Most of the machinery shown was factory produced but one or two things shown were farmer's own inventions; they looked very much as though Mr. Heath Robinson had been around when they were built.

When the film finished, Jim then ran through the titles of the rest of the film he had brought with him and asked us to take our pick. The first film chosen was 'Let there be Bread', a mainly educational film concerned with starvation problems in the third world. Some of the irrigation systems, although they were working, left a lot to be desired but it showed us how the subject of food production in the Third World was a major problem. The third film 'Jalopy Jockeys' was a humorous look at how some Americans treat their old cars. Fairground dodgems had nothing on this as every driver had to try and disable all his rival's cars either by driving backwards or forwards or whatever. The winner was the last one still moving. The second race shown was similar to the Banger Racing at Charterhouse where all the cars travel on a figure of eight shaped course. Very good fun to watch with wheels and bonnets flying in all directions and in this case the eventual winner seemed to be the scrap metal man who towed away all the wrecks to be recycled, melted down, and reused to make new cars!

The greatest event of all WSEC meetings came next - Herbie's raffle! This month the winners were 1st Ted Phillips - tin of biscuits; 2nd Diana Emery - bottle of sherry; 3rd Wally Camp - wickerwork waste paper basket. When the raffle was over, our next film was 'The Great Plains' which

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showed both a historic and current account of life on the plains of America. It depicted Indians, Buffalo, cattle ranches, and cattle. It told of the depression of the 1920's and the boom times producing oil, cattle and corn. Next a film made for sales promotion by Land Rover entitled 'Anything you can Do' made in 1954 showing the versatility of the Land Rover pulling a trailer, supplying power for a portable welder and by mountain rescue teams in the Peak District. Also how the vehicle is used by the Army and the Fire Service and how it was tested at their test track at Solihull, Warwickshire. Finally, the evening was rounded off by a cartoon film 'The Story of the Motor Car'. This was basic to the extreme so I think anyone watching would have gone away fully comprehending the development of the engine and the car itself. It is worth noting that the projector used by Jim Wilkey was a Bell & Howell 16mm bearing a note inside stating that it was 'overhauled in 1947'. Thanks to Jim Wilkey for a most interesting and nostalgic evening.

Gerald Atherton

***** OBITUARY

It is with great sadness that we record the death on November 19th of Club member Albert Gane of West Pennard following a long illness. We remember how much he enjoyed our Club evening meetings at the Old down Inn and all our sympathies are extended to Mrs. Gane, Herb, Wendy and all the family.

***** MESSAGE FROM THE CHAIRMAN

I am sure many of you are saying 'where did 1986 go?'. Unbelievably fast, that's what I would say. I think the older we all get time seems to go by much quicker or perhaps we keep so busy and occupied we don't appear to notice until late Autumn, when our social calendar doesn't seem to hectic.

What a year 1986 was, for those who like to keep on the move there was a stationary engine event to go to every weekend from Easter until November, even abroad if you could stand the sea crossings. For those who prefer a more sedate atmosphere, an evening at the Old down Inn listening to a guest speaker or watching a slide or film show kept everyone interested. Which ever you choose, we as a Club, continue to grow; our membership increases with each month and for next year many events have already been arranged and this being our tenth anniversary we hope to make this a very special year.

So, with 1986 almost behind us, I would like to wish all our Club members and friends a very Happy Christmas and a Happy New Year and look forward to seeing you again in the New Year.

Rob Lambert and Committee

***** WESSEX ENGINES (6) The Hodge & Son

Otherwise known as the 'Keynsham Engine' and is frequently seen on West Country rallyfields. First encountered during the early sixties driving a test bed for vintage cable-operated breaking systems at the Newport Towers in Gloucestershire. Even in those early days this engine was coupled to a small 'Jenny'; it is still being used for the same purpose even on the same bed. In the meanwhile, apart from being in daily use by Rails and Race, the well known Filton multi-stage compressor manufacturers, the Keynsham has powered light micro-devices even down to the Chug-a-drill which is best known for drilling holes in its own smoke! An engine of great character.

***** THIS'n THAT

Congratulations to Michael Cannon on being chosen to address the Newcomen Society at Birmingham Museum of Science and Industry on December 3rd. Michael's talk was 'Tangyes Ltd. - One Hundred Years of Craftmanship' which many members will remember having its first presentation during one of our meetings at the Old Down Inn.

Welcome to Miss Susan Evans who has taken over the Newsletter Editorship of the Glamorgan and Gwent Group of the NVTEC from Emerson Salkeld, who has retired. New members may not be aware that the WSEC exchanges Newsletters with certain other Clubs to ensure an interchange of ideas and policies over a wider range.

Eagle-eyed early evening viewers of BBC TV on November 21st would have seen our former Treasurer and member, Stuart Ashman, demonstrating his new-found skills as a juggler, hand in glove with his juggling rabbit 'Tosser'. Well done Stuart for your efforts towards the Children in Need Fund.

Members are respectfully reminded that Annual Subscriptions are due at the end of this month unless you have joined recently. The subs. remain the same as last year: £5 single membership; £6 joint or 'family' membership; £1 for junior membership under 18 years of age. The Junior membership does not include third party liability insurance and requires that, in order to rally an engine, he or she must be accompanied by a parent or legal guardian who must also be a full Club member. Cheques payable to Wessex Stationary engine Club to Mrs. J. Lambert, 15 Beechwood Avenue, Frome, Somerset.

4. FORTHCOMING EVENTS

Jan.26

We are fortunate to secure one of the Stationary Engine Magazine's photographic contributors, Philip Thornton-Evison, who will give us a slide show mainly of interesting engines from outside of our area. He was busy photographing at the Full Quart Crank-Up so be warned, you may see someone you recognise.

Feb.23

Annual General Meeting. A chance for all members to come along and help chose a new committee, ask any questions or make some suggestions for future events.

PLEASE NOTE THAT THE ABOVE TWO DATES HAVE BEEN INCORRECTLY STATED IN THE LAST TWO NEWSLETTERS.

March 7

Inter-Club Skittles Match at the Brook House Inn, between Castle Cary and Shepton Mallet between the SSAPC and the WSEC. All members are welcome to come along and give their support. Start about 7.30 p.m.

There will be a full list of 1987 events in the January Newsletter, including the Club Rally at Cheddar, June 20/21.

FOR SALE

Ransomes MG5 Crawler tractor, Commer TS3 (Rootes two-stroke diesel) engine, gear-box, etc. Offers to Andrew Mercer, Whitslade, Lauder, Berwickshire, Scotland.

Lister LR Diesel Startomatic lighting plant, aircooled, 250 volt recently removed from service and manufactured in 1968. Original handbook. Sensible offers please for this very nice piece of equipment to Mrs. Beryl Smith, Thoulstone, Chapmanslade, Westbury, Wilts. Tel.Chapmanslade 613 (evenings only).

FREE....,Bamfords No.2 corn mill, rusty but not seized - when you buy my Ruston Hornsby 3 hp PB tank-cooled trolley mounted engine, recently restored to Class 1. £200 or will take part-exchange for smaller engine of 1-1½ hp. WANTED diecast mag. mounting plate and oil level/filler for 1½ hp Fowler PA or will sell otherwise complete engine for spares or repair. Tony Marlow, 231 Chantry Gardens, Southwick, Trowbridge. or Tel. Trowbridge 62212.

Stuart Turner, Stuart Turner. Would the member who telephoned Stuart Ashman in response to the ad. in the October Newsletter for Stuart Turner Fx.GPO generating set only to be told that it was already sold, please telephone again as the intending purchaser reneged on the deal. Tel.Chew Magna 332655.

THAT WAS THE YEAR THAT WAS

Another twelve months gone by - and wet months at that! This was the year that we chose about the only hot weekend for our Club Rally, the year that August Bank Holiday Monday should have been St.Swithins day and the year that Dave and Shirley Clack, enjoying the change from tent to motor-caravan, learnt to secure the handbrake before retiring for the night! It has been the year of the president's drainage system, the Chairman's reluctance to paint his Victoria engine and the Vice-Chairman's Sausage Machine producing fodder for crocodiles.

1986 saw the nice Ingeco of Ian Skuse making but one appearance on the rallyfield, likewise our old friend Tony Jones (now the new domestic version!) make a brief appearance and Bob Hallam was reported as 'giving it all up...! but didn't. Jeremy Adams, Brain Verrall, Mike Hodges and other got their names in the Stationary Engine.....so did yours truly!.....whilst Mike Cannon had a busy year, moving house, ringing bells, recovering Blackstones, Petter S types, hot air balloons and Crossleys; at the same time cultivating an increase in facial hair.

Phil Harris' Bedford TK did many rallying miles, John Emery exhibited a floral decoration with his Madison at Bristol Docks, Stuart Ashman emerged into the daylight for the Full Quart and Stephen Butler suddenly found himself the owner of a Lister pump just when he had given up all hope. It was the year that Barrie Thomas found out how nicely his friends could decorate his front lawn - in the dark! and the year that young Graham Raymond showed the Club that even the restoration of the humble Lister D-type can be interesting when chronicled.

A fast-moving year, a good year - but next year must be a SPECIAL year as it is our tenth anniversary year. Thanks to Doug Newton of the Cotwold Oil Engine Club for the good wishes, thanks to all those who have taken the time and trouble to contribute to this Newsletter, and to SSAPC for their hospitality at their 'Yesterday's Farming'.

Finally, a Very Happy New Year to everyone out there in Stationary Engineland.

F.merson Brantingham.

MAGNETO FAULT FINDING DIAGRAM

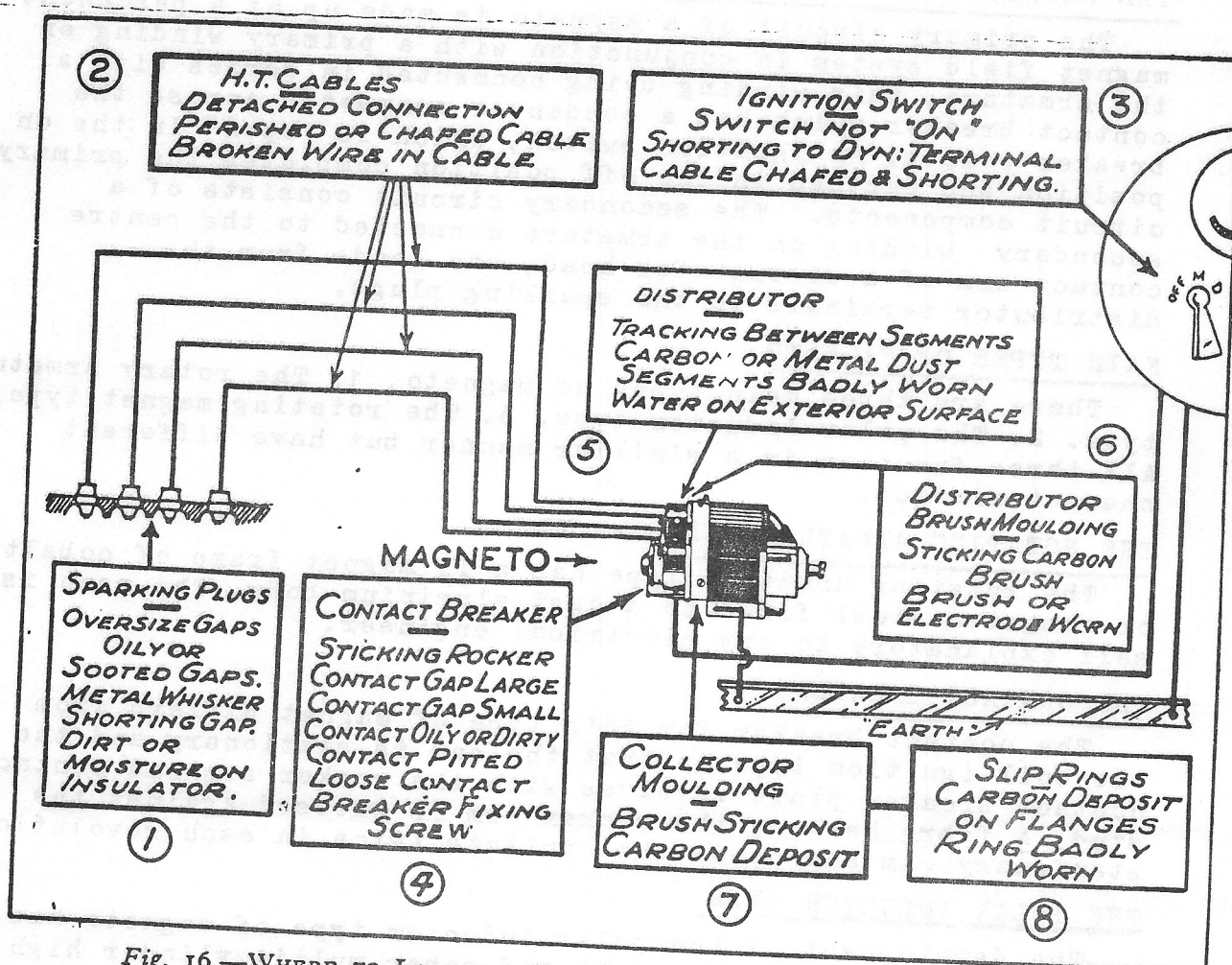


Fig. 16.—Where to Look for Trouble in a Magneto Ignition System.
(Pictorial diagram.) See also Fig. 17.

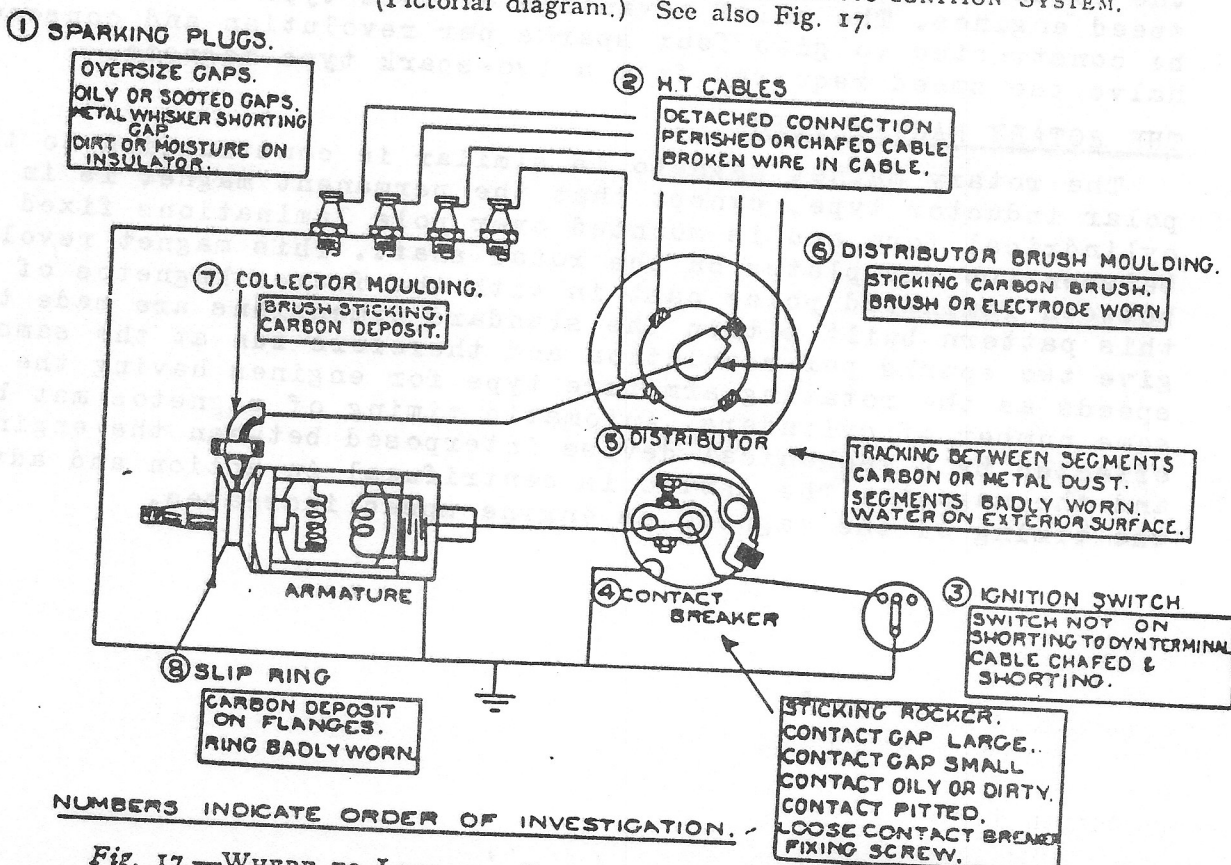


Fig. 17.—Where to Look for Trouble in a Magneto Ignition System.
(Technical diagram.) To be studied in conjunction with Fig. 16.

THE MAGNETO IGNITION SYSTEM

The primary circuit of a magneto is made up of a permanent magnet field system in conjunction with a primary winding on the armature, this winding being connected in series with a contact breaker which has a condenser connected across the breaker points. An ignition switch, which is 'open' in the on position and earthed in the off position completes the primary circuit components. The secondary circuit consists of a secondary winding on the armature connected to the centre contact arm of a distributor head, and leads from the distributor terminals to the sparking plugs.

MAIN TYPES OF MAGNETO

There are three main types of magneto, 1. The rotary armature type. 2. The polar inductor type. 3. The rotating magnet type. All three function in a similar manner but have different characteristics.

THE ROTATING ARMATURE TYPE

The rotating armature type has a Π magnet frame of cobalt or tungsten steel fixed to a cast aluminium body. The name is self explanatory to any electrical engineer.

THE CONTACT BREAKER

The contact breaker for this type of magnet differs from the coil ignition type in that the cam is stationary and the contact breaker plate revolves with the rocker arm and contact stud. A fibre heel on the rocker arm is pressed against the stationary cam and opens the contacts twice in each revolution.

THE POLAR INDUCTOR TYPE

The development of the polar inductor type of magneto has met the requirements of six, eight and other multi-cylinder high speed engines. The chief advantage of this type is that it can be constructed to give four sparks per revolution and consequently halve the speed required from a two-spark type magneto.

THE ROTARY MAGNET TYPE

The rotary magnet magneto is similar in construction to the polar inductor type, except that the permanent magnet is in cylindrical form and is mounted over pole laminations fixed between two end plates on the rotar shaft. This magnet revolves between laminated poles cast in with the frame. Magnetos of this pattern built within the standard dimensions are made to give two sparks per revolution and therefore run at the same speeds as the rotating armature type for engines having the same number of cylinders. Automatic timing of magnetos may be effected by a mechanical device interposed between the engine and the magneto. The device is centrifugal in action and advances the timing of the magneto as engine speed increases.