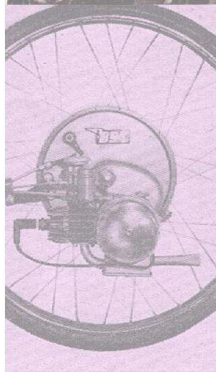


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**MAINTENANCE
AND
RUNNING INSTRUCTIONS**

FOR

Flywheel Magneto

TYPE B.S.9

**H. MILLER & CO. LTD.
ASTON BROOK STREET
BIRMINGHAM, 6
England**

FLYWHEEL MAGNETOS

TYPE B.S.9.

The Magneto, type B.S.9, consists of a Stator Plate (8), Magnetic flywheel (2), and a Cover (3). The Stator Plate is an aluminium casting, and secured to this by the means of screws are, the high tension Ignition Coil (5), Lighting Coil (7), Contact Breaker (6), Condenser (10), and the "Pick-up" (4), into which is fitted the H.T. Cable (1). The Flywheel (2) consists of a casting into which are fitted four magnets, four laminated poles, and a centre hub, which is so designed that in addition to the centre tapered hole it forms the contact breaker operating cam. The flywheel is secured to the engine crank shaft by means of a tapered shaft and fixing nut. The key in the shaft is mainly for the purpose of locating the flywheel in a correct relative position to the contact breaker and piston firing position.

When the engine is running, the flywheel revolves round the high tension and lighting coils, and the "air gap" between the flywheel poles and the coil cores is approximately .010 inch.

Contact Breaker (6).

After removing the Magneto Cover (3), the contact breaker is visible and accessible through one of the slotted holes in the flywheel. It is important that at all times the contact breaker points (contacts) should be free from oil or grease, as the presence of this will cause the contacts to become burned or blackened. To clean, use a piece of fine emery cloth and after use wipe with a petrol moistened rag. Do not leave any lint on the contacts.

Contact Breaker Setting.

The contact breaker gap is set accurately before leaving the works at .018 inch, but occasionally adjustment should be made to maintain this. Adjustment is necessary owing to the wear of the lever heel. This wear is rather more during the first 500 miles than it will be after this mileage has been attained. It is therefore advisable to check the gap at 500 miles service and then again at 1,500 miles.

The method of adjustment is as follows :

First revolve the flywheel so that the contact lever is lifted to its highest position on the cam ; then loosen the adjuster contact plate fixing screw (which is immediately under the fixed contact) just sufficient to allow the contact plate to move with pressure from a screw driver to the correct position of .018 inch between the contacts, then tighten the fixing screw.

Condenser (10).

It is desirable that a small amount of sparking should occur at the contact breaker contacts, but if this becomes excessive and the running of the engine is affected then the condenser should be suspected of being at fault. To prove this try a replacement condenser, but before doing this make sure the sparking plug and leads are in good order as it may be these parts are at fault and not the condenser.

Lubrication—every 2,000 miles.

- (a) Apply a few drops of thin oil to the felt Cam Lubricator (9).
- (b) Remove contact breaker lever and very lightly smear the pivot with thin oil.

High Tension Cable (1).

If this shows signs of cracking or perishing it should be replaced by use of 5 mm. or 7 mm. cable (P.V.C. covered recommended, but rubber covered can be used). To release cable from the magneto, take out the two screws which secure the cable retaining pressing, then pull out cable from "pick-up." When replacing, use a thick needle or similar tool to make an aperture in the conductors of the cable to receive the solid wire lead from the high tension coil.

Lighting Coil (7).

The output from this coil is sufficient to allow the use of a 6 volt 6 watt headlamp bulb, and a 6 volt 3 watt rear lamp bulb. The lamp set recommended for use with this magneto is the **Miller Set, Type 6.TM.**

Dismantling.

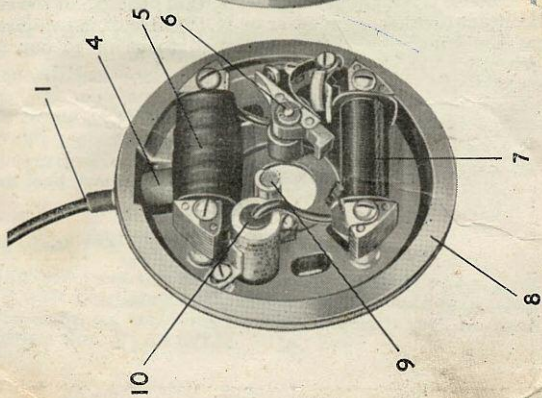
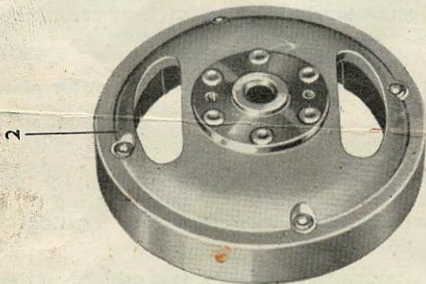
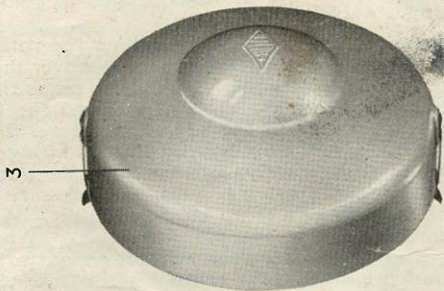
First remove the Cover (3) by pulling the spring clips outwards just sufficient to allow them to pass over the Stator Casting (8). Do not pull spring clips out too far as they may become strained. When the cover is removed the flywheel (2) will be exposed showing the nut which secures the wheel to the shaft. Remove the nut by using a good fitting spanner and turn in an anti-clockwise direction. As the nut should have been very tightly secured it may be necessary to give the lever of the spanner a sharp tap to release it. When the nut is removed use a two-pin extractor. When the two 2BA screws have been screwed into the two tapped holes in the flywheel hub, the centre screw of the extractor should be turned in a clockwise direction until the point of the screw has entered the centre hole of the engine shaft; keep turning the screw until the wheel is released from the tapered engine shaft.

Should it be necessary to remove the stator plate, this is done by removing the two securing screws which enter through the slotted holes.

When re-fitting the magneto, reverse the process as described under the heading "**Dismantling**" but read engine maker's booklet with reference to **Timing**.

Should the magneto need attention other than the renewal of contact breaker, condenser or H.T. Cable, it is recommended that the whole magneto is returned to us or to our Service Agents.

H. MILLER & CO., LTD.,
ASTON BROOK STREET,
BIRMINGHAM, 6.
ENGLAND.



ARE PARTS.

1	B.S.1	High Tension Cable c/w Securing Clamp and Rubber Brush
3	B.S.3	Magneto Cover
4	B.S.4	High Tension Pick-up
5	B.S.5	High Tension Coil
6	B.S.6	Contact Breaker, complete
7	B.S.7	Lighting Coil
8	B.S.8	Stator Plate Casting (machined only)
9	B.S.9	Lubricating Felt
10	B.S.10	Condenser
—	B.S.11	H.T. Coil Fixing Screws (set of 2)
—	B.S.12	Lighting Coil Screws (set of 2)
—	B.S.13	Condenser Fixing Screws (set of 2)
—	B.S.14	H.T. Cable Clamp Screws (set of 2)