SERVICE WIPAC INSTRUCTIONS IG 1487

INTRODUCTION

This Flywheel magneto features a high spark output for easy starting and provides unprecedented slow or high speed performance. It consists of two main parts; a FLYWHEEL and a STATOR PLATE, and through its simplicity should require little or no attention over long periods of service.

The Flywheel (finned or plain) contains a permanent magnetic unit of a special alloy which concentrates a powerful magnetic charge within a small space and volume. By virtue of its ability to retain indefinitely this high magnetic concentration, the flywheel is able to provide the magneto with extraordinary high spark output throughout its entire life. The inductive characteristics are such that the magneto yields a maximum spark output over a wider timing range, thus eliminating the frequent adjustment of breaker points that is necessary with the conventional type instrument.

The Stator Plate contains the necessary H.T. coil or coils mounted on a laminated core, breaker mechanism and condenser. Usually, one H.T. coil is embodied per engine cylinder. All are easily accessible for servicing.

SERVICING

Checking magneto for spark

If the engine fails to start and there is indication that the magneto is at fault:—

(A) Disconnect H.T. lead from the spark plug and hold it about $\frac{3}{16}$" away from some unpainted portion of the frame or engine. Rotate the engine and a spark should jump this gap.

(B) If no spark is visible:—
1. Check H.T. lead for continuity.
2. Check contact breaker points for correct gap setting and see that they are clean.
   Check breaker point adjustment screws for tightness.
3. By removing the flywheel examine the internal leads for breaks and see they are all properly secured. Make sure covered leads are not chafed and earthing.
4. Make sure there are no metallic particles inside the unit.
5. If the insulation of the H.T. coil has broken down it will show signs of charring on the outside but it is unlikely that this will happen in normal use.

Flywheel

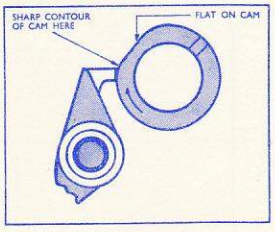
This unit is robustly constructed and it is unlikely to develop any faults in normal use. A KEEPER RING IS NOT NECESSARY WHEN WITHDRAWING IT FROM THE STATOR PLATE.

Removal. Remove the nut securing the flywheel to the shaft. If an extractor is not available and the flywheel cannot be easily withdrawn, grasp the flywheel firmly and while attempting to pull it off tap the end of the crankshaft with a mallet or lead hammer, being careful during this operation not to damage the thread. When replacing the flywheel make sure metalized dust or small steel items have not been attracted onto the magnets.

Condenser

A weak or faulty condenser can be detected by badly burnt and pitted contacts or a continuous **intense blue** spark across the contacts when running. A very small white spark across the points when running is normal.

The condenser can be removed by undoing the one or two screws securing it and releasing the lead from it.



H.T. coil

Removal. First remove the laminated core complete, then take off the coil from the core. Release condenser lead before removing core. Considerable force may be necessary to remove coil from core. A fibre wedge is sometimes used to ensure a tight fit.

Contact breaker points

The majority of flywheels have holes or slots in them to allow for point adjustment and the correct setting is mentioned in the panel above. If there is no slot in the flywheel it will have to be removed for point adjustment.

Adjustment. Turn engine over until points are fully open. See sketch.

Test with feeler gauge between " points ". If the " points " require adjustment two screw heads will be seen beside them. Slacken the large screw and carefully turn the small screw, which is eccentric, until the correct gap is obtained. Tighten large screw.

The breaker point setting should only be adjusted in the manner described and **at no time should the fixed contact be loosened or the breaker arm bent to provide adjustment.**

The moving contact is integral with the breaker arm. If the contact points need replacement it is recommended that both the fixed and movable points be replaced at the same time.

Lubrication

After every 1,000 hours re-lubricate the cam grease pad. To do this, slide the pad out from its holder and squeeze and work into it a Summer grade of motor transmission grease. Do not use oil.

THIS MAGNETO IS FITTED AS STANDARD EQUIPMENT ON

BERINI

Model M.13.

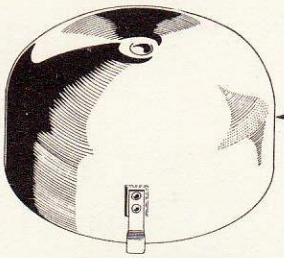
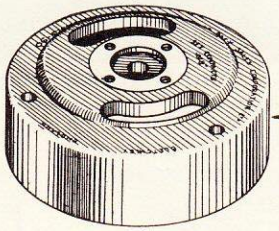
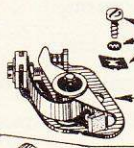
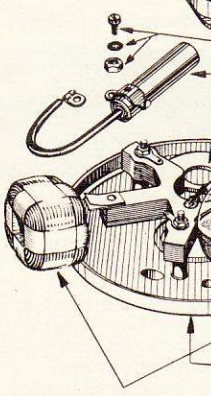
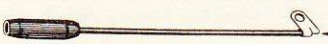
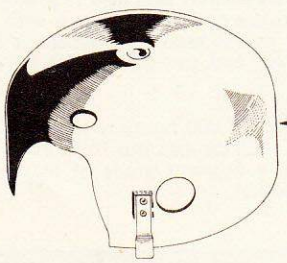
MAIN DETAILS	
Wipac Type	Series 90
Lighting output	6 volt 9 watt
Rotation	C.W.
Flywheel type	Plain
,, weight	34 ozs.
,, diameter	$4\frac{5}{16}$"
Breaker point setting	.018"
H.T. Lead	5 mm. 20"
Engine cylinders	Single
Flywheel extractor	00494

For complete service instructions see leaflet S90/1

THE WIPAC GROUP — BLETCHLEY — ENGLAND
TELEPHONE: BLETCHLEY 320 TELEGRAMS: WICOMAGSCO BLETCHLEY

Ref. B. 1487

IG 1487 SPARE PARTS LIST

PARTS IN EXPLODED VIEW	COMPONENTS	UNITS	SETS
			**01838 Cover Unit**
			**S0285 Flywheel Unit**
		00488 Cam Key	
	S0287 Breaker Cam 00479 Breaker Cam Spring		**S0286 Cam Set**
		06486 Breaker Point Fixing Set 00695 Breaker Point Set	
	06484 Condenser Fixing Set 00689 Breaker Point Support Plate S0288 Coil Lead and Core Fixing Set 00468 Cam Grease Pad 00742 Core Group S0010 H.T. Coil Set (includes S0011) S0289 L.T. Coil Set S0011 H.T. Coil Terminal Shield and Grommet Set	06483 Condenser Set (includes 06484) S0291 Coils and Core Set 01144 Stator Plate Assembly	**00773 Stator Plate Unit**
	S0290 L.T. Terminal Set		
			**00500 L.T. Lead Group**
			**00467 H.T. Lead Group (20″)**
			**01924 Cutaway Cover (Engine Side)**

BRITISH BUILT BY THE WIPAC GROUP

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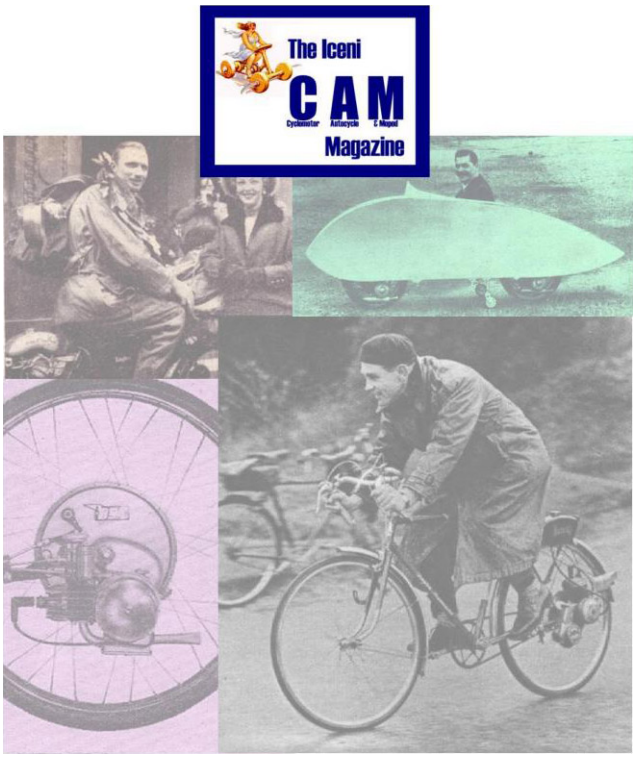

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