

SERVICING

Installation and timing

Slowly turn the engine crankshaft in the normal manner until the piston is approximately $\frac{1}{4}$ " before top dead centre on the compression stroke (*i.e.* when both valves are closed). Then remove the magneto contact breaker cover (2074) and turn the magneto in a clockwise rotation until the breaker points close, then reverse the rotation until the breaker points just begin to separate. Then fit the fibre coupling on to the engine coupling and secure the magneto in position.

To re-check the timing, slowly pull the engine over on the compression stroke, and if the magneto has been correctly positioned, the magneto impulse will give a click just before top dead centre.

Timing

No adjustment is provided for timing the magneto, which is unnecessary, as the magneto is correctly set before leaving the works, so that the starting spark occurs just before top dead centre and the running spark 15° before top dead centre.

Lubrication

The magneto is provided with two spring oilers (1423). Once every 200 hours either one of these oilers should be filled to overflowing with Castrolite. After every 1,000 hours it is necessary to re-lubricate the cam oil pad (5446). This is done by removing the pad and squeezing and working into it a Summer grade of motor transmission grease which will closely resemble that used at the factory. Do not use ordinary grease.

Impulse coupling

The impulse coupling is designed to give a spark of high density for starting. It automatically cuts out at about 165 r.p.m. **The engine should not be run continuously below this speed, as this would cause unnecessary strain and wear on the impulse parts.**

The impulse also provides a retarded spark for starting, automatically advancing it as the engine speeds up, returning to the retarded position when the engine stops.

Cleaning of impulse

If the impulse becomes clogged with dirt, and the trip arm fails to engage or disengage, or the impulse is sluggish in action, it should be flushed out thoroughly with paraffin, taking care not to allow any paraffin to work its way into the magneto housing.

Replacement of breaker points

If the points need replacing, both the fixed and moving points should be replaced at the same time.

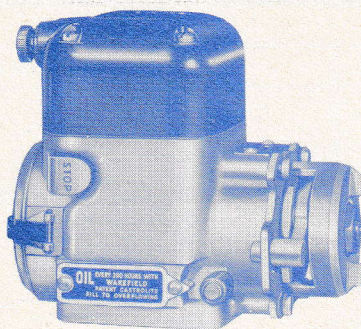
To remove the breaker arm, take off the breaker arm clamp screw, lock-washer and clamping washer, together with the breaker arm terminal screw and pull the assembly off the breaker arm pivot. The fixed contact plate may then be taken off the breaker arm pivot, after removing the fixed contact screw.

Removal of condenser

Remove screw holding down the breaker arm spring. The condenser is then taken from the breaker box by removing the two screws (1100) fastening it down.

Removal of coil

Remove the top cover (X1407) and the breaker box cover (2074). Viewing the magneto from the driving end, release the primary lead by loosening the right-hand side earth stud. Then remove the two screws holding down the core



THIS MAGNETO IS FITTED AS STANDARD EQUIPMENT TO THE

J.A.P.
ENGINE

MODELS 4/2, 5 & 6

MAIN DETAILS OF MAGNETO

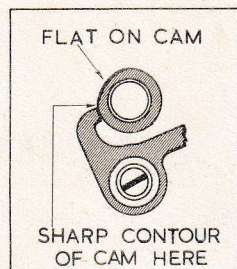
Type	Series "A"
Rotation	Anti-clockwise
Mounting	Base
Centre height of shaft	35 mm.
Drive	Direct coupled (driving dogs $\frac{1}{4}$ " wide)
Impulse lag	20°
Switch	Push type
H.T. lead	State length
Breaker point setting	.015"
Engine cylinders	Single
Spark plug	WIPAC P40L

clamps (1384). Turn the magneto shaft until the magnetism no longer grips the coil core to the main housing, pull the coil (X1410) and the coil core (X1409) free. The coil is held on the core by a wedge. If the coil is to be replaced, considerable force may be necessary to remove the coil from the core.

In replacing the coil and coil core, be sure that the ground surface of the core is against the housing, that the primary lead to the earthing stud is properly located and that the primary earth lead is fastened under the coil core clamp screw.

Breaker point opening

The correct breaker point opening is mentioned in the panel above. When re-adjustment is necessary, loosen the screw which locks the fixed contact plate and turn the eccentric-headed screw until the correct opening of points is obtained. Then lock the plate securely.



UNITS	COMPONENTS & SETS	PARTS IN EXPLODED VIEW
16X121C H.T. LEAD GROUP (State Length)		
X2089 Breaker Box Cover Unit		
X1589 Cam Unit	06407 Cam Fixing Set	
	1373 Cam	
	06401 Contact Set	
	06402 Box Screws and L.W. Set	
X2088 Breaker Box Unit	06524 Cover Fixing Set	
	06400 Condenser Set	
X1407 Cover Unit	X2175 Breaker Box	
	16-463 H.T. Lead Terminal	
	06406 Fixing Set	
X1411 Coil Unit	06399 Coil Fixing Set	
	X1410 Coil Group	
	X1409 Core Group	
B140X Stop Button Unit		
X1638 Main Housing Unit (Rotor not incl.)	06390 Ground Lead Set	
	06393 Oil Instruction Plate Set	
X1592 Rotor	06391 Oiler Set	
X1669B Oiling Disc Unit	06392 Bearing Set	
X1260 End Plate Unit	06395 Stop Set	
	06396 Plate Fixing Set	
X1635 Impulse Unit	01421 Driven Flange Set	
	06180 Drive Spring	
	00783 Drive Cup Set	
	06398 Lock Nut Set	

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