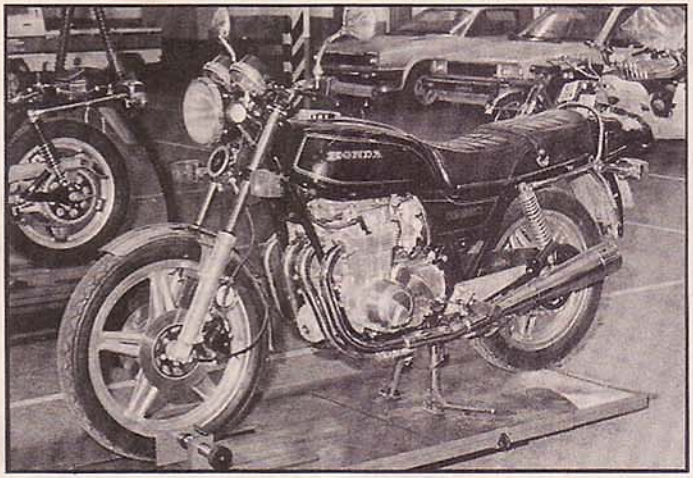
Simple Service



HONDA CB650

THE LAST in a long line of single overhead camshaft fours, the CB650 from Honda is not just a bored out 500/550. Servicing differs from the older models in quite a few ways, the oil filter being one of them. This engine has the highest oil temperature of any bike in the Honda catalogue. For this reason the oil filter has a different part number from early filters. You must use the correct filter in this motor — 15410-426-000, the earlier filters will fit, but they are not up to the job.

Ignition timing is electronic and you can check it without any special tools at all. You simply line up the firing mark "S' with the fixed pointer and then check that the pip on the rotor lines up with the pip on the black pick up box.

The tappets are checked directly on the cam lobe, position the engine as follows: crank at the 1:4 mark with number one on compression set the inlet and exhaust on No 1, exhaust on No 2 and inlet on No 3.

With the crank at 1:4 with number four on compression, set the inlet and exhaust on No 4, exhaust on No 3, inlet on No 2. It sounds complicated but when you have the engine in front of you it's quite straight forward.

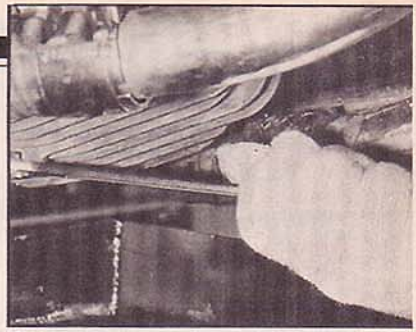
The spark plugs are the usual Honda DR8ES, but the "L" suffix stands for a slightly extended heat range so you should try to get these if you can.

Finally, for setting the tappets it is worth investing in the Honda special spanner.

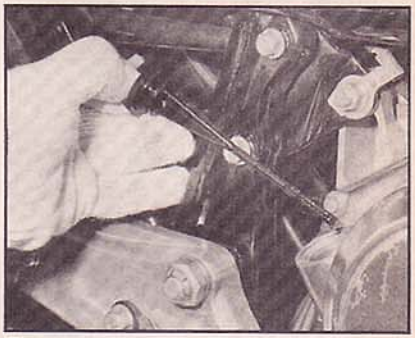
HONDA CB650 SCHEDULE

	600 miles	3,600 miles	7,200 miles	10,800 miles	
Engine Oil	R	R	R	R	Yearly
Engine oil filter	R	R	R	R	Yearly
Air cleaner		C	R	C	
fuel lines		I	I	I	
Spark Plugs		I	R	I	
Valve clearance	I	I	I	I	
Cam chain tension	A	A	A	A	
Throttle operation	I	I	I	I	
Carburettor choke		I	I	I	
Carburettor synchronize	I	I	I	I	
Carburettor idle speed	I	I	I	I	
Drive chain	I, L EVERY 1,000km (600 miles)				
Battery	I	I	I	I	
	monthly				
Brake fluid (front)	I	I	I	R	Monthly
	replace every two years				
Brake pads shoes wear		I	I	I	
Brake system	I	I	I	I	
Brake light switch	I	I	I	I	
Headlight aim	I	I	I	I	
Clutch free play	I	I	I	I	
Side stand		I	I	I	
Suspension	I	I	I	I	
Nuts, bolts, fasteners	I	I	I	I	
Wheels	I	I	I	I	
Steering head bearing	I		I		

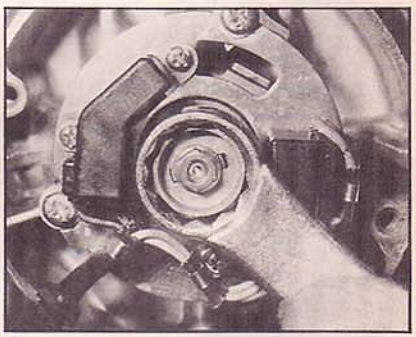
● KEY: R = Replace, C = Clean, A = Adjust, I = Inspect, L = Lubricate.



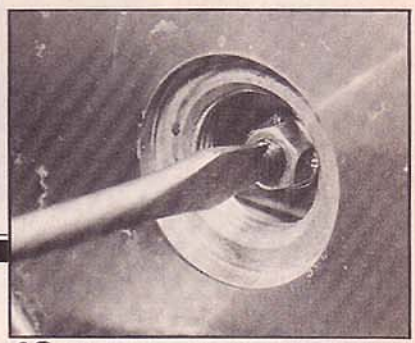
1 *Draining the engine oil is straight forward, but don't overtighten the drain plug when refitting, you can easily strip the thread.*



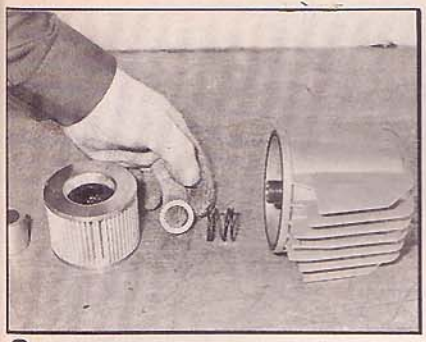
5 *When checking the oil level make sure the bike is on even ground and on the centre stand, not the side.*



9 *When turning the engine over to check static timing or tappets, don't damage the ignition unit with the end of the spanner.*

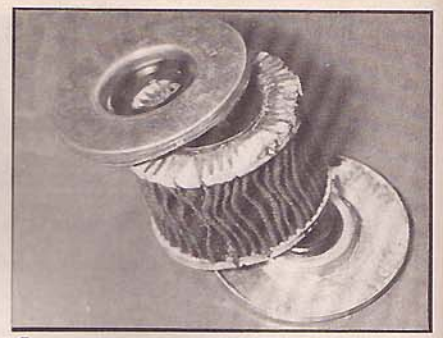


13 *Clutch push-rod is adjusted by unlocking adjuster, taking in the screw until resistance is felt, then backing off ½ of a turn.*

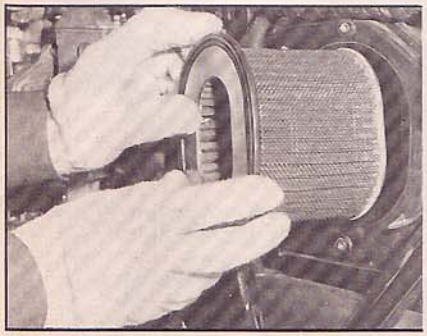


2 *When changing the oil filter don't lose this washer that fits over the spring, correct asembly order is shown here.*

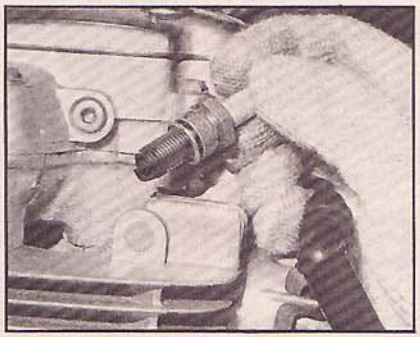
3 *This is how a genuine Honda oil filter should be packed, on the 650 model you can only use this 426 filter, no other will do.*



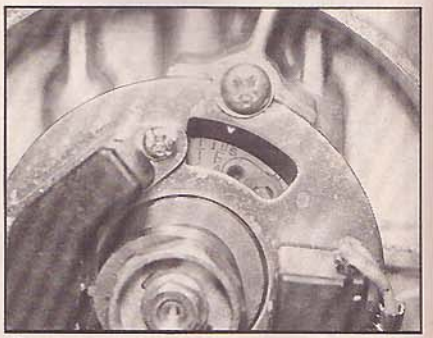
4 *This pattern filter broke up, the resulting mess blocked an oil passage and destroyed the engine's crankshaft.*



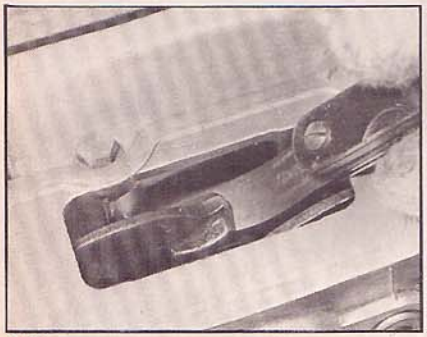
6 *The air filter cannot be washed out, simply blow out with an air line or replace when it gets really dirty.*



7 *Plugs should be NGK DR8ES-L ideally cleaned by sand blasting and then gapped .6 to .7mm. This plug was a touch rich.*

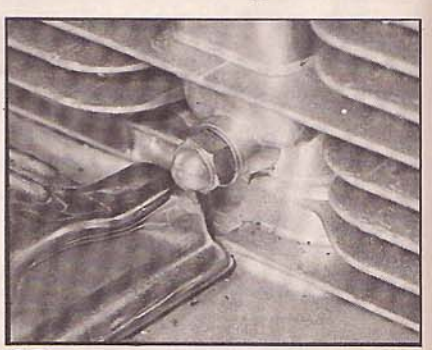


8 **There are two marks for ignition timing, the 'S' mark for static timing, the 'I' mark is for strobe, both lines are opposite 'F'.**

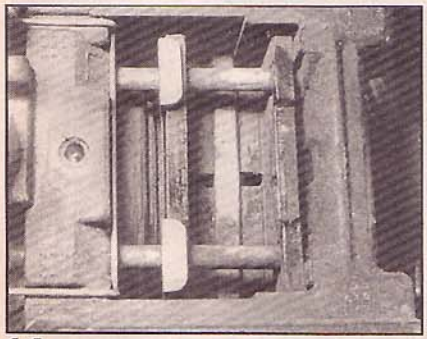


10 *Tappets are checked here under the rocker, not directly under the tappet adjuster as on earlier ohc fours.*

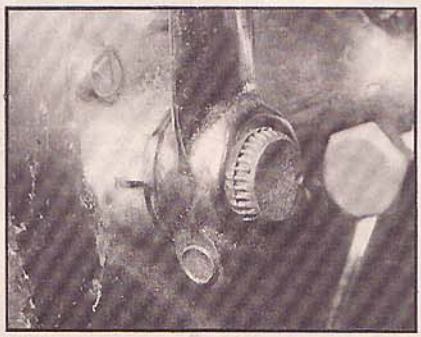
11 *The tappet adjuster is well hidden and this special tool is worth the expense, although you can just manage without it.*



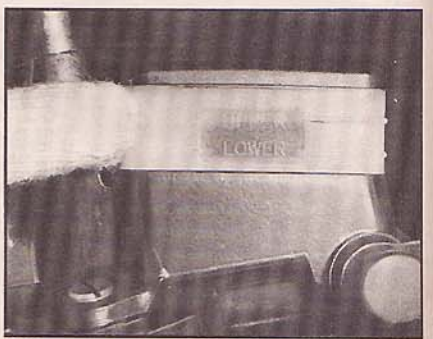
12 *To adjust the cam-chain you simply let the engine idle and then slacken this single chromed nut, tension is automatically taken up.*



14 *Although calipers are fitted with plastic "windows" you still have to remove them to get a good view of the pads for checking.*



15 *The drum brake is checked by applying the brake and checking that these two arrows don't line up, indicating worn out shoes.*



16 *Brake fluid level can be checked through the cover by turning the bars until the reservoir is level.*