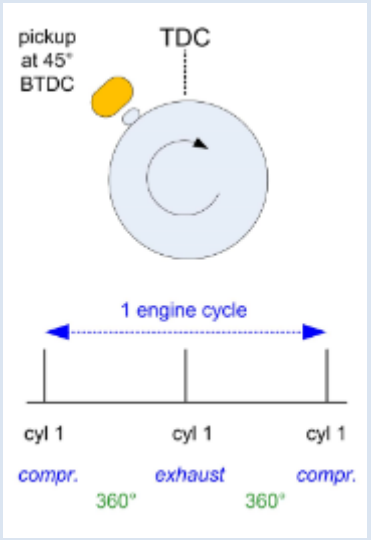
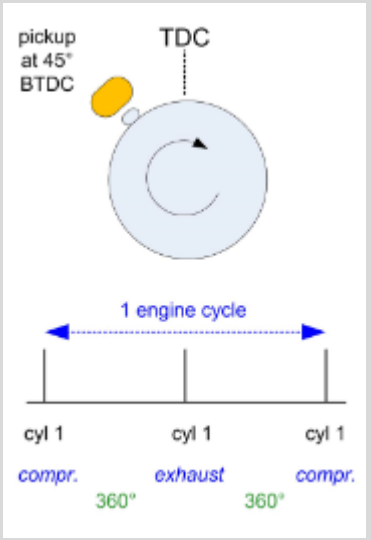
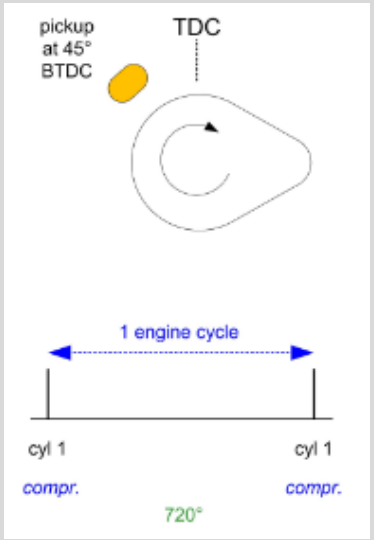
.

<table>
<tr><th colspan="3">1 cylinder</th></tr>
<tr><th>2 strokes</th><th colspan="2">4 strokes</th></tr>
<tr><td>pickup on crankshaft
There is no camshaft on a 2 strokes.</td><td>pickup on crankshaft</td><td>pickup on camshaft</td></tr>
<tr><td>Each time the piston reaches TDC (Top Dead Center) of the cylinder, there is a spark.</td><td>Each time the piston reach TDC, there is a spark.
So a useful spark happens at compression stroke and another wasted spark appends during exhaust stroke.</td><td>There is no wasted spark.

There is a spark only when piston reaches TDC of the cylinder during compression stroke.</td></tr>
<tr><td> 
</td><td> 
</td><td> 
</td></tr>
<tr><td>CDI compatibility
Yes</td><td>CDI compatibility
Yes</td><td>CDI compatibility
No
as there are 1 pickup signal every 2 rotations, CDI believes that the engine is running at 5000 when it run at 10000rpm</td></tr>
</table>

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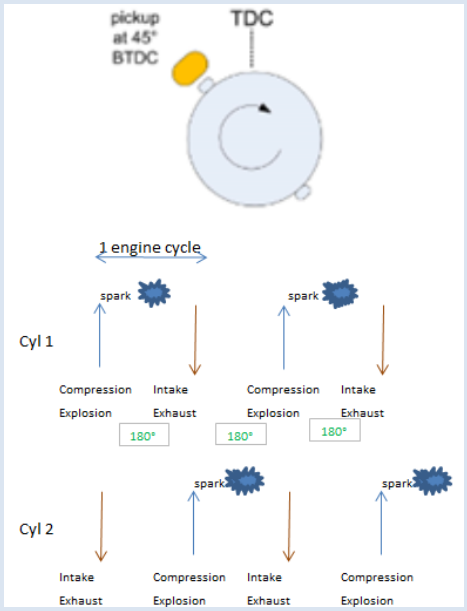
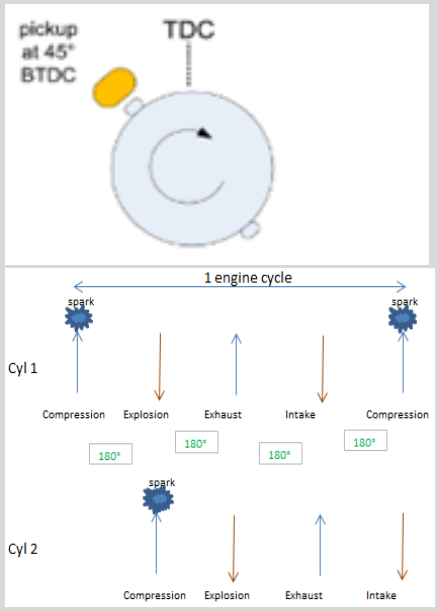
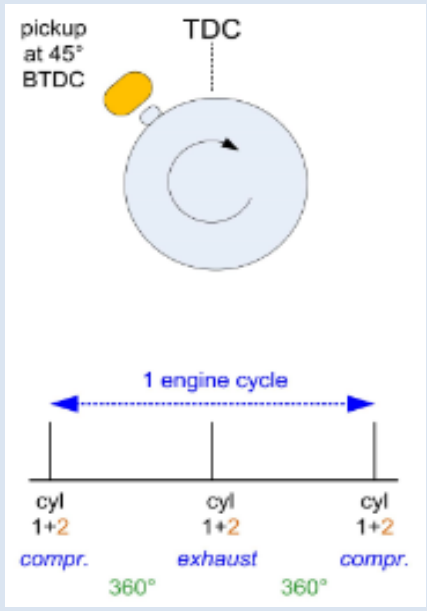
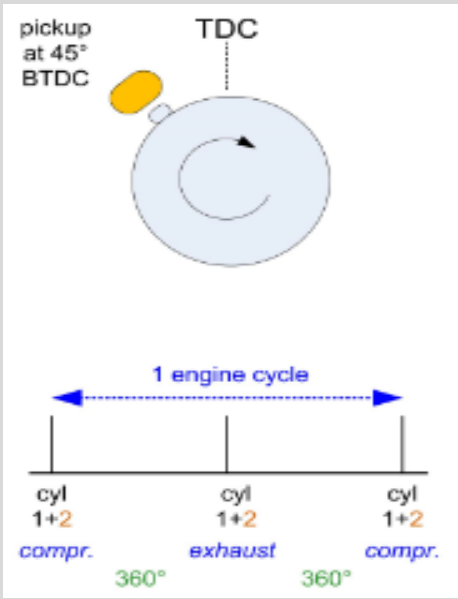
2 cylinders

Opposed pistons. Pistons are moving in the opposite direction. (*one goes up while the other goes down*)		**Synchronous pistons.** Pistons are moving in the same direction. (*both go up and down at the same time*)	
180° crankshaft		360° crankshaft	
Most Japanese Straight-twin		Old British Straight-twin	Some V-Twin engines
		180° crankshaft Flat/boxer engines	
pickup on **crankshaft**		pickup on **crankshaft**	
2 strokes	**4 strokes**	**2 strokes**	**4 strokes**
Each time one of the pistons comes to TDC, there is a spark. So a useful spark happens at compression for cyl1 and at the same time on exhaust for cyl2.	Each time one of the pistons comes to TDC, there is a spark. So a useful spark happens at compression stroke and another wasted spark appends during exhaust stroke.	Each time the 2 pistons come to TDC, there is a spark.	Each time 2 pistons come to TDC, there is a spark. So a useful spark happens at compression stroke and another wasted spark appends during exhaust stroke.
There must be 1 trigger point per crankshaft rotation.	There must be 2 trigger points per crankshaft rotation. (*1 for each piston*)	There must be 1 trigger point per crankshaft rotation.	There must be 1 trigger point per crankshaft rotation.
			
CDI compatibility Analog CDI: **Yes** *Wasted spark*	CDI compatibility No *spark occurs at wrong time*	CDI compatibility **Yes**	
Digital CDI: No *5000rpm will be seen as 10000rpm*			