



FREQUENTLY ASKED QUESTIONS

4-STROKE ENGINE QUESTIONS

1. **How often should the valve clearance be checked?** The valve clearance on most stock engines should be checked approximately every 30 hours of running time to ensure proper wear. On semi-hi performance ATV engines the valves should be checked every 15-20 hours. For hi performance race engines the valves should be checked every 5-10 hours. Do not take checking and setting your valve clearance for granted. A trained technician should always perform this operation. The valve train fooled with by an unskilled person can cause more harm than good.
2. **How regularly should the oil be changed?** The motor oil in your 4-stroke ATV should be changed every 20 hours for stock type recreational ATV engines. For performance type race engines, change the oil every 5-10 hours. Always replace the oil filter with a new one when performing an oil change. It is advisable to change your oil when it is warm to help collect any unwanted material in the oil and disperse with it. Always use a reputable brand of oil. DR recommends using *Maxima* products. Check your oil level before each ride.
3. **What is viscosity?** A fluid's resistance to flow. Oil with high viscosity is thick and flows slowly. Oil with a low viscosity flows easily.
4. **What is the compression stroke?** It is the second stroke of the four-cycle engine. During the compression stroke the piston moves upward from bottom dead center (BDC) to top dead center (TDC), compressing the air fuel mixture.
5. **What is combustion?** In a 4-cycle engine, combustion is the burning of the air-fuel mixture.
6. **What is a camshaft?** A camshaft is a shaft in the engine usually driven by a chain from the crankshaft. The shaft contains a series of cams for opening and closing the intake and exhaust valves.