

## Doosan

### Forklift Engines

Forklifts are classified as small-engine vehicles, the same category wherein lawnmowers are classed. Forklift engines all follow the principles of internal combustion. Different forklift brand names and models will have varying engine design and layout. Forklifts are designed more toward producing high torque than for speed. They generally are geared to low speeds. The engine runs the forklift's drive wheels. The engine is also required to lower and lift the forks via a series of chain pulleys. The majority of forklift engines that are modern are fueled by propane since they will be used for indoor applications, where diesel and gasoline engines will be inappropriate because of the exhaust they generate.

Usually, the lift truck is a four-cylinder engine-block. Forklift engines are similar to car engines as they contain pistons connecting to a camshaft. Every cylinder head consists of a spark plug, an intake hatch and an exhaust hatch, each of them one-way and spring-loaded.

### Engine Function

Once the driver starts up the forklift engine, propane passes through the opened throttle-plate in a fine spray and mixes with air which comes from the mass air intake prior to moving into the head intake hatches of the cylinder. Each one of the four pistons is staggered to rise in an exact sequence, that compresses the air and propane mixture as each piston rises to the top of the head. With really precise timing, the alternator and battery of the engine generate an electrical current which passes through the spark plug. The fuel ignites causing an explosion which drives the piston back down to the bottom of the cylinder, resulting in a continuous turning of the camshaft. In the cylinder, an air pressure imbalance causes the the exhaust hatch to draw out exhaust as more fuel passes into the cylinder. Propane burns much cleaner than gasoline and diesel and the exhaust is not as harmful.