

Advantages of gas turbine engines

- Very high power-to-weight ratio, compared to reciprocating engines;
- Smaller than most reciprocating engines of the same power rating.
- Moves in one direction only, with far less vibration than a reciprocating engine.
- Fewer moving parts than reciprocating engines.
- Low operating pressures.
- High operation speeds.
- Low lubricating oil cost and consumption.

Disadvantages of gas turbine engines

- Cost is much greater than for a similar-sized reciprocating engine since the materials must be stronger and more heat resistant. Machining operations are also more complex;
- Usually less efficient than reciprocating engines, especially at idle.
- Delayed response to changes in power settings.

These disadvantages explain why road vehicles, which are smaller, cheaper and follow a less regular pattern of use than tanks, helicopters, large boats and so on, do not use gas turbine engines, regardless of the size and power advantages imminently available.