

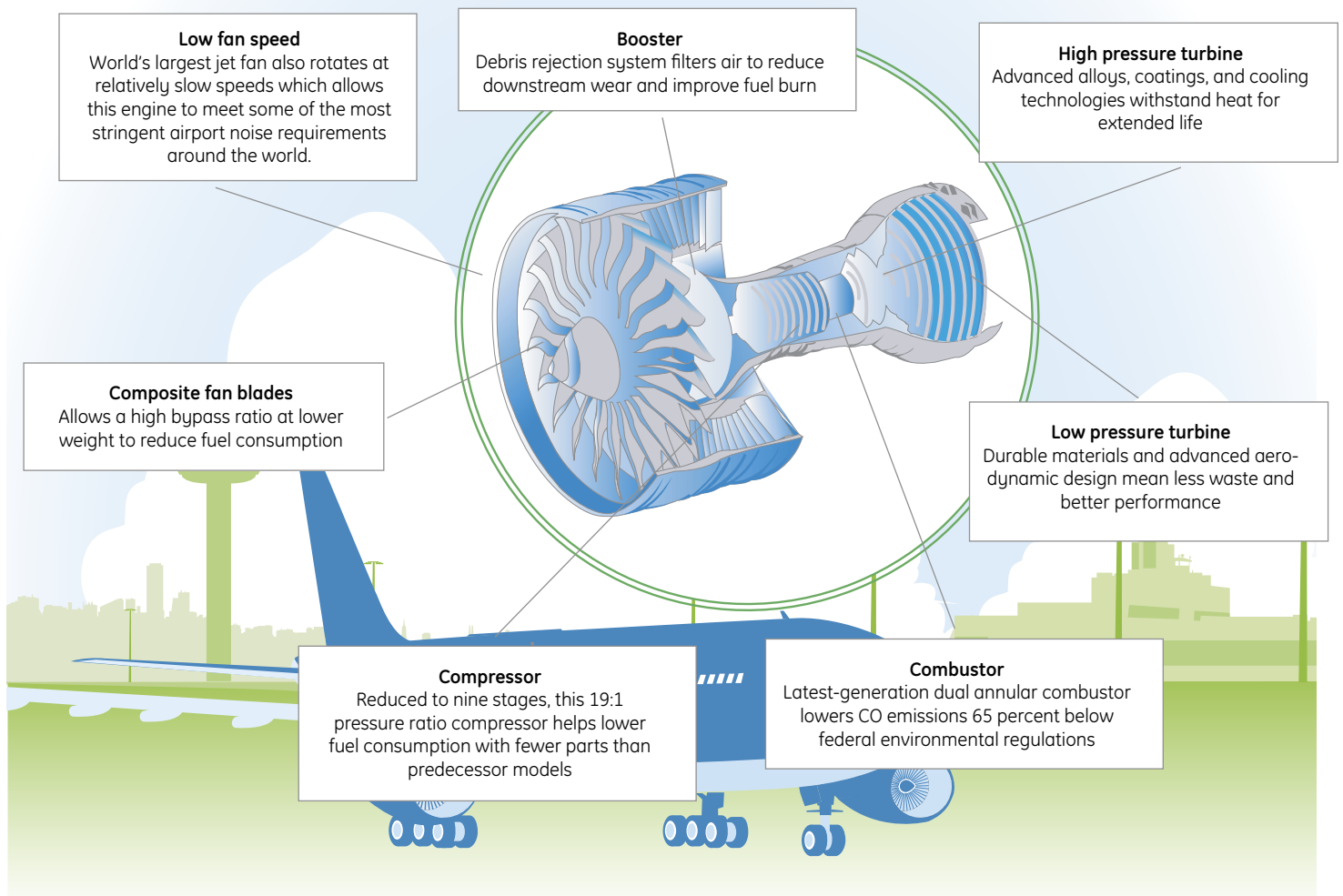
# GE90-115B aircraft engine

More and less.

Ecomagination played a major role in developing two significant areas of the GE90-115B. First, by improving the process by which air and fuel are mixed in the combustor, this engine meets the next generation of emissions requirements with room to spare. And while lowering emissions, fan blade technology has helped this engine meet some of the most stringent airport noise requirements around the world.

All this, and it's the world's most powerful jet engine. In late 2002, during certification testing, this 10.5-foot tall powerhouse shattered the previous GE90 record by achieving 127,900 lbs. of thrust.

On a trip from New York to Los Angeles, that power would allow the Boeing 777-300ER to travel at over 500 miles per hour, with an equivalent gas mileage rating of 86 miles per gallon on a per passenger basis. And it gets you there in less than six hours — now that's doing more with less.



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## More information about the GE90-115B aircraft engine

The largest in aviation, the GE90-115B engine's fan blades feature a unique shape that creates an unprecedented volume of airflow. This not only delivers tremendous thrust, but also improves fuel efficiency. But this added volume is created at a slower rotational speed, which in turn produces lower noise. On a per pound of thrust basis, this engine ranks as one of the quietest.

Emissions levels are reduced due in great part to its improved combustor. And because the engine is so efficient, it uses less fuel to create each pound of thrust compared to previous generations of aircraft engines. Less fuel burned means less carbon dioxide, a greenhouse gas. The combustor technology also emits no more than 23 percent of the hydrocarbons that will be allowed by 2008 international standards.

The GE90-115B engine is the sole powerplant behind the Boeing long-range 777 aircraft. These aircraft achieve 22 percent better fuel efficiency per seat than their closest competitor. Across the entire GE90-115B-equipped 777 fleet, that equates to an annual savings of nearly 90 million gallons of fuel.

Each year, a fleet of sixteen twin-engine aircraft powered by GE90-115B engines will emit 141,000 fewer tons of greenhouse gas emissions than if it used the competing airframe requiring four engines. That equals the carbon dioxide absorbed by 35,000 acres of forest, an area twice the size of Manhattan; or, removing nearly 25,000 cars from the road for a year.

Although it is the most powerful commercial aircraft engine ever built, the GE90-115 engine can meet some of the most stringent airport noise requirements, including Heathrow in London.



imagination at work