



Bleeder Brake

Engine brake ideal for small engines

Jacobs® Bleeder Brake is a simplified version of a traditional compression release slab brake that provides increased performance over an exhaust brake alone. Bleeder Brake technology is an ideal solution for applications on smaller displacement engines when cost and packaging is a consideration.

Benefits

- Increases vehicle control
- Reduces wear on engine, tires, wheel-ends and service brakes
- Quiet operation for use wherever and whenever needed
- Design flexibility to work with most engines
- Low added weight
- No camshaft required for engine braking
- Use with a backpressure mechanism, such as an exhaust brake or variable geometry turbocharger (VGT), for maximum performance



Jacobs®



LEARN MORE

How a Bleeder Brake works

When the bleeder brake is turned on, a piston extends to its full stroke and stays there, holding the exhaust valve open a small, fixed distance throughout the entire four-stroke engine cycle. Since the bleeder brake only holds the exhaust valve open a fixed distance, it is designed to not put any load on the camshaft and most of the overhead components.

- Exhaust valve is held open throughout all four strokes of the engine cycle.
- The compressed air “bleeds” out through the slightly opened exhaust valve during the entire compression stroke.
- The engine pumps by pushing against the valve restriction and back pressure.
- Bleeding off compressed air prevents the return of energy to the piston, which slows the vehicle down.

BRAKE OFF

CV off



Actuator retracted

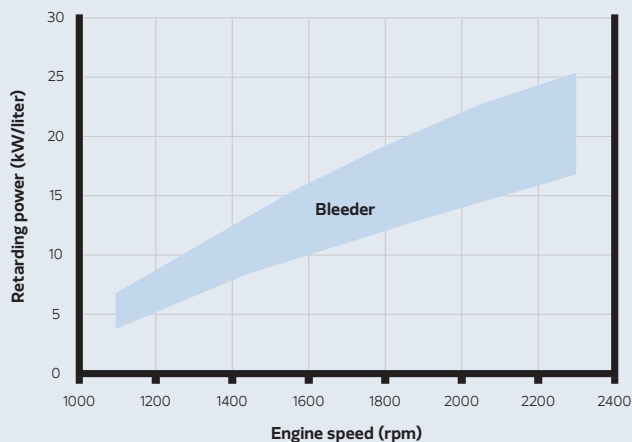
BRAKE ON

CV on



Actuator extended

Bleeder Brake performance*



Bleeder Brakes can also be used in combination with a backpressure mechanism such as an exhaust brake or variable geometry turbocharger (VGT) for maximum braking performance.

**Demonstrated engine brake performance ranges from various engine tests and simulation results.*



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