

Lycoming O-435

O-435



A Lycoming TVO-435 from a Bell 47G

Type	Piston aircraft engine
Manufacturer	Lycoming Engines
First run	c.1942
Major applications	Bell 47
Developed from	Lycoming O-290

The **Lycoming O-435** is a six-cylinder, horizontally opposed fixed-wing aircraft and helicopter engine made by Lycoming Engines. The engine is a six-cylinder version of the four-cylinder Lycoming O-290.

Design and development

The power plant is a horizontally opposed Lycoming six-cylinder design. It is a direct-drive or geared, air-cooled, and normally aspirated engine. The cylinders have steel barrels with aluminum heads, and the valves are operated by hydraulic lifters.

The crankshaft is supported in an aluminum-alloy split case by four main bearings and one ball-thrust bearing, and lubricating oil is supplied from a 12 quart wet sump. The camshaft rides in journals that do not employ bearing inserts. The accessory housing supports two magnetos, a starter, a generator, and a dual tach drive. A spare mounting pad is included for a vacuum pump.

Variants

All engines have an additional prefix preceding the 435 to indicate the specific configuration of the engine. There are also numerous engine suffixes, denoting different accessories such as different manufacturers' carburetors, or different magnetos.

O-435-A

O-435-C

O-435-D

GO-435

GO-435-B

Applications

Aircraft

- Aero Commander 500
- AISA I-115
- Beechcraft Bonanza
- Bellanca Cruisemaster
- Boisavia Mercurey
- D'Apuzzo Senior Aero Sport
- de Havilland Canada Super Chipmunk
- Fleetwings BQ-2
- Fokker F.25
- Fokker S-11
- Helio Courier
- H-13 Sioux
- Jeffair Barracuda
- Karhumäki Karhu
- L-5 Sentinel
- LIBIS KB-11
- Miles Aerovan

- OH-23 Raven
- Piaggio P.148
- Piaggio P.149
- Pilatus P-4
- Ra-Son Warrior
- Saab 91 Safir
- UTVA Aero 3
- Vertical Hummingbird

Other

- M22 Locust - tank

Specifications (O-435-D)

General characteristics

- **Type:** Six-cylinder horizontally opposed piston engine
- **Bore:** 4.875 in (123.7 mm)
- **Stroke:** 3.875 in (98.4 mm)
- **Displacement:** 434 cu in (7.1 L)
- **Width:** 33.5 in (824 cm)
- **Height:** 43.5 in (1,105 cm)
- **Dry weight:** 433 lb (196.6 kg)

Components

- **Valve train:** Overhead valve, one inlet and one exhaust valve per cylinder
- **Fuel system:** Marvel-Schebler carburetor
- **Fuel type:** 100 octane gasoline
- **Oil system:** Pressure pump type
- **Cooling system:** Air-cooled by fan
- **Reduction gear:** Direct-drive

Performance

- **Power output:** 212 hp (158 Kw) at 3,000 rpm at sea level
- **Compression ratio:** 7.5:1