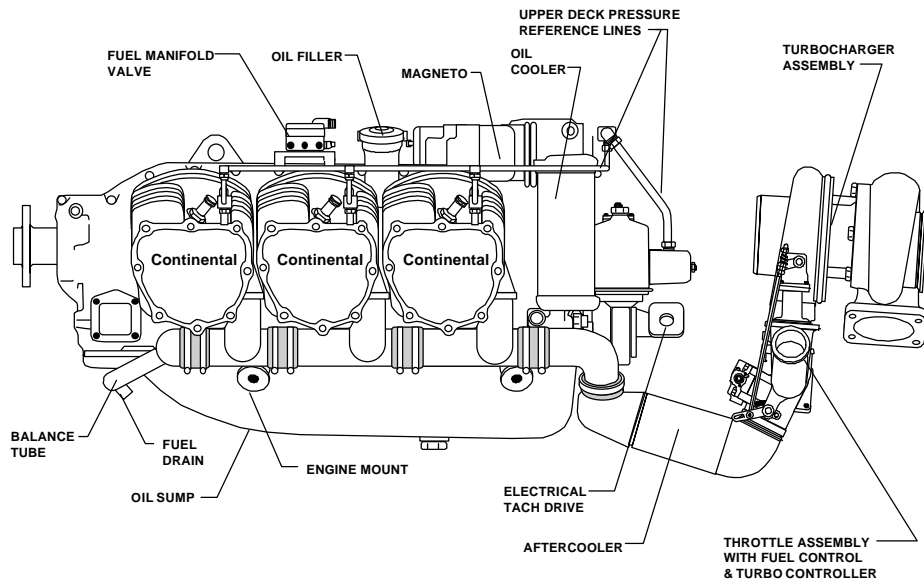


TSIO-520-N, -NB

Type Certificate E8CE



The TSIO-520-N, -NB is a six cylinder fuel injected, turbocharged engine producing 310 brake horsepower and has a crankshaft speed of 2700 RPM. The engine has horizontally opposed air cooled cylinders. The engine cylinders incorporate an overhead inclined valve design. The cylinders have updraft intake inlets and downdraft exhaust outlets mounted on the underside of the cylinder head.

The TSIO-520-N, -NB engines have a 520 cubic inch displacement achieved by using a cylinder design with a 5.25 inch diameter bore and a 4.00 inch stroke. The engine enclosure is of the Permold series crankcase design. The dry weight of the engine is 404 lbs. without accessories. The average weight of the engine with installed accessories is approximately 491 lbs.

OVERALL ENGINE DIMENSIONS INCHES	
HEIGHT	22.32
WIDTH	33.56
LENGTH	54.36

ENGINE SPECIFICATIONS TSIO-520-N & -NB

Cylinders

Arrangement Horizontally Opposed
 Number of Cylinders 6
 Compression Ratio 7.5:1
 Firing Order 1-6-3-2-5-4
 Bore (Inches) 5.25
 Stroke (Inches) 4.00
 Piston Displacement (cu. in.) 520

Brake Horsepower @ Rated Speed

Rated Maximum Continuous Operation 310 BHP @ 2700 RPM
 Recommended Cruise 240 BHP @ 2450 RPM

OPERATING LIMITS

Manifold Pressure Limit (In. Hg.) Absolute 38.0"
 Fuel Control System TCM Fuel Injection
 Fuel 100/100LL
 Oil

TEMPERATURE	AVIATION GRADE	SAE GRADE	MULTI-VISCOSITY
BELOW 40	65	30	10W-30 / 15W-50 / 20W-50
ABOVE 40	100	50	15W-50 / 20W-50 / 20W-60

Oil Pressure

Idle, Minimum, psi 10
 Normal Operation, psi 30-60
 Oil Sump Capacity (U.S. Quarts) 12
 Max. Oil Consumption (Lb./BHP/Hr. Max.)006 X % Power
 100

Oil Temperature Limits

Minimum for Take-Off 75° F
 Maximum Allowable 240° F

Cylinder Head Temperature

Recommended Max. at Cruise 420° F
 Limit 460° F

Turbine Inlet Temperature

Maximum Continuous 1650° F
 Maximum, 60 Seconds 1700° F

Ignition Timing (Compression Stroke, Breaker Opens)

Right Magneto, Degrees BTC 20°
 Left Magneto, Degrees BTC 20°

Spark Plug

TCM 634675
 Champion RHB32E



CONTINENTAL MOTORS