

Tech Guide

Holden 5L V8 Non-Intercooled Supercharger



13/01/2025

Harrop Engineering develops and manufactures premium supercharger kits in Melbourne, Australia. Through 60 years of automotive performance Engineering, Harrop Engineering have successfully manufactured and supplied Superchargers to Automotive OEM programmes including TRD, Lotus Cars and Ford Australia.

Harrop Engineering is certified to meet ISO 9001 standards of quality. OEM Quality, performance and vehicle integration are the foundation of Harrop Supercharger kits.

Overview:

Harrop TVS2300 FDFI Non-intercooled Supercharger Kit for Holden '5.0L' V8 engines with EFI heads. This is an engine hardware kit only. Ancillaries such as airbox, throttle and throttle cables/wiring, manifold fasteners, hoses, gaskets, fuel pump upgrade and some sensors are not included.

This Non-intercooled kit is a low-profile design and does fit under the stock OE Holden Bonnet on Holden VP-VS Commodores with the 5.0 Litre V8 Engine. Utilises the stock fuel pressure regulator, throttle and airbox. Cruise control will need additional modifications that are not included.

Includes:

- Supercharger intake manifold assembly, MAP sensor and Fuel-rails
- Harrop TVS2300 FDFI Supercharger with LH inlet
- 8PK FEAD idler bracket including automatic tensioner, Crank Pulley, Alternator Pulley, Water-pump Pulley and Supercharger drive belt
- Supplied with Ø90mm Supercharger pulley



ENGINEERING PERFORMANCE SINCE 1955

Tech Guide

Holden 5L V8 Non-Intercooled Supercharger



Options:

- Injectors: Bosch EV14 Long

Exclusions:

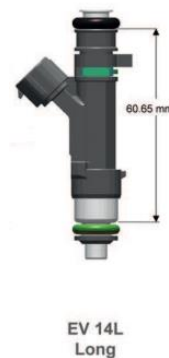
- Injectors. These can be ordered separately.
- Bolt-on components that are part of the OE engine (alternator, water-pump, distributor, thermostat and neck, coolant temp sensors, gaskets)
- Air-box/intake tube
- Fuel pump upgrade if required
- Ancillary items such as hoses and brackets that are vehicle specific

Technical specifications:

- Eaton TVS2300 supercharger technology
- Integrated Supercharger Bypass system which relieves boost under light load conditions, reducing drive loss and improving fuel economy
- Tested at 6-7 psi of boost, increased boost available with optional pulleys.
- Supercharger utilises front drive system, keeping the drive short and direct

Additional information:

- Retains all factory ancillaries including A/C, power steering, distributor, heater, thermostat, Coolant temp sensors etc.
- Crank pulley options to suit VP-VS style V-belt A/C compressor (99-PLY16702) or VT style 4PK A/C compressor (99-PLY13772).
- Not intended for use with Water-pump mounted engine fans. Replace with electric Fan and Shroud pack such as the VT Commodore unit.
- "Long" and "Short" Water-pumps can be used – a spacer is provided for short pumps.
 - Measure from the Crank Balancer face with Crank pulley removed to the water-pump pulley flange. The long Water-pump will measure approximately 71.1mm and the short pump 55.3mm.
 - Water-pump and timing cover gasket thickness will affect these dimensions.
 - Aftermarket Water-pumps and Crank balancers may have different dimensions.



Tech Guide

Holden 5L V8 Non-Intercooled Supercharger



- Early (V-belt) and late (4PK belt) Alternators can be used – Late is preferred, but early Alternators can be used with minor modifications to the supplied bracket
- Suits late (VN onwards) style electronic distributors
- Injectors: Bosch EV14 Long (60.65mm between O-ring shoulders)
- MAP sensor is 2.7 Bar and has GM LS3 plug
- LHS PCV vent needs to be modified to clear the throttle lever.

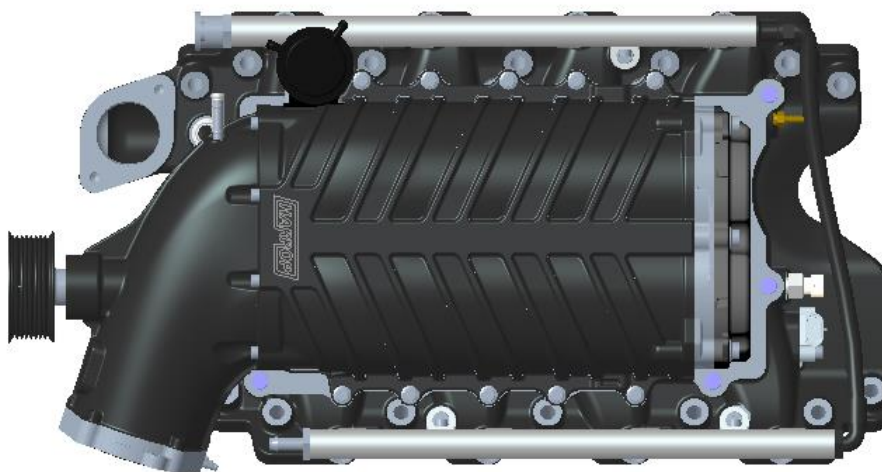
Performance:

- Baseline: 210hp(157kW) @4500 RPM 208lb-ft(282Nm) @4500 RPM
- Supercharged: 299hp(223kW) @5850 RPM, 314lb-ft(426Nm) @3500 RPM (measured at Hubs) is achievable with a 304ci engine at 6-7psi peak boost. Results will vary with engine specification and calibration.
- Re-calibration of the ECU is required

Harrop Engineering tested a 304 engine with the Harrop 2300 Supercharger Kit with the following specs:

- Harrop TVS2300 Non intercooled Supercharger Kit, 6-7 psi peak boost.
- Mild ported Holden Cast Iron heads
- Stock Holden crank, rods and pistons
- Exhaust headers
- Mild camshaft
- LS1 cable ECU conversion with 900 cc/min injectors

99-EK-A15507-HOLD5L (S/C Eng Kit FDFI2300 Holden 5.0L LH Bias)



ENGINEERING PERFORMANCE SINCE 1955

Tech Guide

Holden 5L V8 Non-Intercooled Supercharger

