

Tech Guide

Falcon 5.4L Boss V8 Supercharger kit



Harrop Supercharger Kit – Falcon 5.4L



2002-2010 Ford 5.4L Boss XR8 (BA-FG up to 290 engine)



ENGINEERING PERFORMANCE SINCE 1955

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Harrop Supercharger Kit – Falcon 5.4L Boss V8

Harrop engineering develops and manufactures premium supercharger kits in Melbourne, Australia. Through 65 years of engineering automotive performance, Harrop Engineering has successfully manufactured and supplied Superchargers to Automotive OEMs including TRD, Lotus Cars and Ford Australia.

Overview:

Harrop TVS2300 (Front Drive Rear Inlet) Supercharger Tuner Kit for Falcon 5.4L Boss V8 engines.

Tuner kit includes the bulk of components required for installation into Falcon XR8 with 5.4L V8 Engines:

- Supercharger intake manifold
- Harrop TVS2300 FDRI Supercharger with LH inlet cover to suit 60mm Twin throttle body
- 6PK FEAD idler bracket, 6PK Supercharger drive belt
- Replacement high flow injectors – Siemens 63lb
- Plug-in wiring looms for intercooler pump, alternator relocation
- Front-mount intercooler radiator, Electric Intercooler pump, Coolant reservoir and moulded hoses
- Retains all factory ancillaries including A/C, Electric engine fan, Power Steering, etc.
- Comes with twin 60mm throttle body
- Detailed installation instructions.
- The average installation time for an experienced installer is 11-13 hours.

Items not included in kit:

- 65-0281002514, TMAP sensor
- Note, the FG had a pulley change on the water pump, this increased diameter inhibits the belt to fit and must be changed back to early series. (Suits water pump pulley diameter of 130)
- Fuel pump, required upgrade, 65-9-307-1026, DW300
- No standard in the box tune supplied, vehicle will need to be tuned.

Variants:

Harrop Part Number	Harrop Supercharger kit
BA/BF = 99-KSM17T17C6K10 FG = 99-KSM17T17C8K10	FDRI2300 Supercharger kit – Ford Boss 5.4

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Technical specifications:

- Eaton TVS2300 supercharger technology
- Integrated Supercharger Bypass system which relieves boost under light load conditions, reducing drive loss and improving fuel economy
- High density water to air intercooler system:
 - Front mount heat exchanger BA: Close pitch core matrix at 19mm thick. Overall size is 620x370mm
 - Front mount heat exchanger FG: Close pitch core matrix at 38mm thick. Overall size is 468x386mm
 - In-manifold intercoolers: Close pitch single pass cores with high density fin at 27mm thick
- Kit Includes Ø85mm Supercharger pulley – 6PK
- Minimum 98-RON (93-AKI) fuel must be used
- Kit is not recommended for standard build level **BF 302 5.4L GT**, or the **FG GT 5.4L 315** and **FG GS 5.4L 302** engines. (Engines in standard form are 11:1 compression ratio)
- Re-calibration of the ECU is required
- FG Falcons had a change to the water pump pulley diameter, change is from 130 to 140, any kits sold must have an earlier pulley fitted to ensure belt fits

Supercharger Pulley Ø	Harrop Part Number	Supercharger Belt
85mm (STD)	99-PLY11622	6PK2910
80mm	99-PLY11623	6PK2910
75mm	99-PLY11624	6PK2910
70mm	99-PLY11625	TBA

Performance:

Over a 50% gain in engine power and torque are achievable with 8.0-PSI boost while maintaining the OE RPM limit, depending on calibration and other modifications such as exhaust system and air intake.

The Harrop TVS2300 Supercharger is capable of producing over 800HP with further supporting modifications including suitable intake and throttle, supercharger drive, built engine, exhaust and custom calibration.

Note: All performance results – unless stated otherwise - are measured on Harrop Engineering’s in-house Hub Dynamometer. Results may vary depending on vehicle type, condition and performance upgrade. All dynamometers are different and cannot be compared.

BA Falcon XR8 Harrop TVS2300			
Boost	Pulley Ø mm	Wheel Hub Power kW (hp)	Wheel Hub Torque Nm (lbf-ft)
8.0 PSI*	85	350(470)	625(460)
0 (STOCK)	-	215(290)	410(302)

*Boost pressure can vary 1.0-1.5 PSI depending on ambient conditions and other modifications