

FEATURES

Proboost turbocharged 3.8-litre Ford Barra

This blacked-out monster from Newcastle's Blacktrack Performance will make all the numbers thanks to a nuclear-tough package

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Photographers: Ben Hosking

Officially nicknamed 'Project Seagull' by Ford development engineers, the Barra six-cylinder certainly has dropped the dookie on many of the most popular engines in the modified car world since it first took flight 20 years ago. The big 4.0-litre twin-cam has since been fettled to make more than six times the original 321hp (240kW) output while retaining a standard cast block and cylinder head.

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 GALLERY 2

This blacked-out monster from Newcastle's Blacktrack Performance will make all the numbers thanks to a nuclear-tough package.

"The whole idea behind the engine is to have a 2000hp-capable package, but we're only going to run 1600-1800hp, as the owner wants to run laps and have it last forever," says Blacktrack owner Justin Gregory. "It is going into an FG Falcon with a TH400 and solid nine-inch rear end, which will be running radials. The owner wants to race it and have it absolutely reliable and low-maintenance; he isn't into chasing records."

MORE [!\[\]\(a870788d6ed9b8fd294b7654a8c8526b_img.jpg\) Why is the Ford Barra motor so good?](#)



that has been grout-filled. We retained the standard cylinder head porting, but we've fitted Kelford solid cams running 302 degrees duration, plus Kelford valve springs and titanium retainers. We also used upgraded rockers from a different engine that we modified to fit; guys are breaking rockers when they're getting to a certain valve lift with Barras, so this is important."

Also important is the billet 94mm Proboost power-snail hanging off the 6boost exhaust manifold. "This turbo will be efficient through to 80psi, but 45-50psi will be enough to achieve our goals," Justin says.

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 GALLERY 2

Methanol is the chosen fuel, supplied via 12 Siemens 2400cc injectors in the Plazmaman billet twin-entry fuel rail. The latter is mounted to a Plazmaman billet intake runner set topped by a Plazmaman folded steel plenum and a Bosch drive-by-wire throttlebody.

A [Haltech Nexus R5 VCU](#) controls the screaming six, as well as the rest of the car's functions. However, this advanced piece of wizardry belies the simple nature of the package as a whole, as the



 GALLERY 6


“The only key flaw in the Barra platform, at this power level, is block rigidity and crank flex,” Justin explains. “With the counterweighted Nitto crank and filled block, that is all sorted.

“We’ve been dealing with the imports for the past 15 years, but all that stuff is getting hard to source and very expensive now, so people are turning to the Barra platform more, as they make great power and they’re fairly cheap.”

MORE [!\[\]\(c694a3ff3b077d76910920a6a1593ab4_img.jpg\) Ford Barra turbo – Mill of the Month](#)





 GALLERY 1

PLATED UP

This block-off plate lives where the water pump used to reside on a stock engine. “Because the block is solid-filled, the plate is there to seal that aperture,” Justin. “The coolant only circulates through the cylinder head.”

BLACKTRACK PERFORMANCE NEWCASTLE, NSW

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