



Toyota Hi-Lux D4D - Booklet

A reduction in your diesel cost by as much as 25%.

Mixing a shot of LPG with the air through the turbo improves the burn efficiency of the diesel in the combustion chamber. Your everyday diesel combustion burns approximately 75% of the diesel in the chamber; by adding a shot LPG into the combustion chamber it increases that efficiency to between 95 - 98%. With a more efficient combustion process, less diesel fuel is being used thereby saving you money.

Extended service intervals.

Cleaner oils. With the improved combustion created by eCo-shot's shot of LPG, you now don't have the excess diesel dropping into the sump and dirtying up your oil. In the case of the C12 CAT within 8 weeks the oil change went from 20,000 to 30,000 klm intervals.

Improved pulling power

With the improved combustion created by eCo-shot's shot of LPG you now have better combustion in the chambers giving you both increased horsepower and torque.

Reduced greenhouse gas emissions.

The improved combustion also means a reduction in CO₂ by as much as 10%, harmful NO_x by as much as 50% and black smoke emissions.

You are also reducing carbon emissions through the fuel you have not used. This can be as much as 2.9kg for every litre of diesel you do not burn.

eCo-shot has been available locally since March 2007 it is installed on over 2000 vehicles across Australia. The system has been sold in the US for 12 years and is well and truly tried and tested. (US brand name – Powershot)

eCo-shot has been trialling in Australia since 2001 on a 1983 Mercedes Benz truck and has proven itself with power increases and fuel savings AS MUCH AS 30%.

We have also fitted our own Hilux ute with eCo-shot in March 2007 when showing 190,000 klms. Since then it has travelled 220,000 more klms on gas.

Neither vehicle has missed a beat.

How does the eCo-shot System work?

- ✓ The eCo-shot LPG Injection System is boost pressure activated.
- ✓ It is controlled, activated and proportionate to the boost pressure of the engine.
- ✓ The eCo-shot comes on slow and steady and as the boost increases, so does the flow of gas.

- ✓ This innovative design is only activated when the vehicle ignition is on and the engine is running, a distinct safety advantage.
- ✓ The system installs under bonnet and requires no permanent modifications to the vehicle or engine.

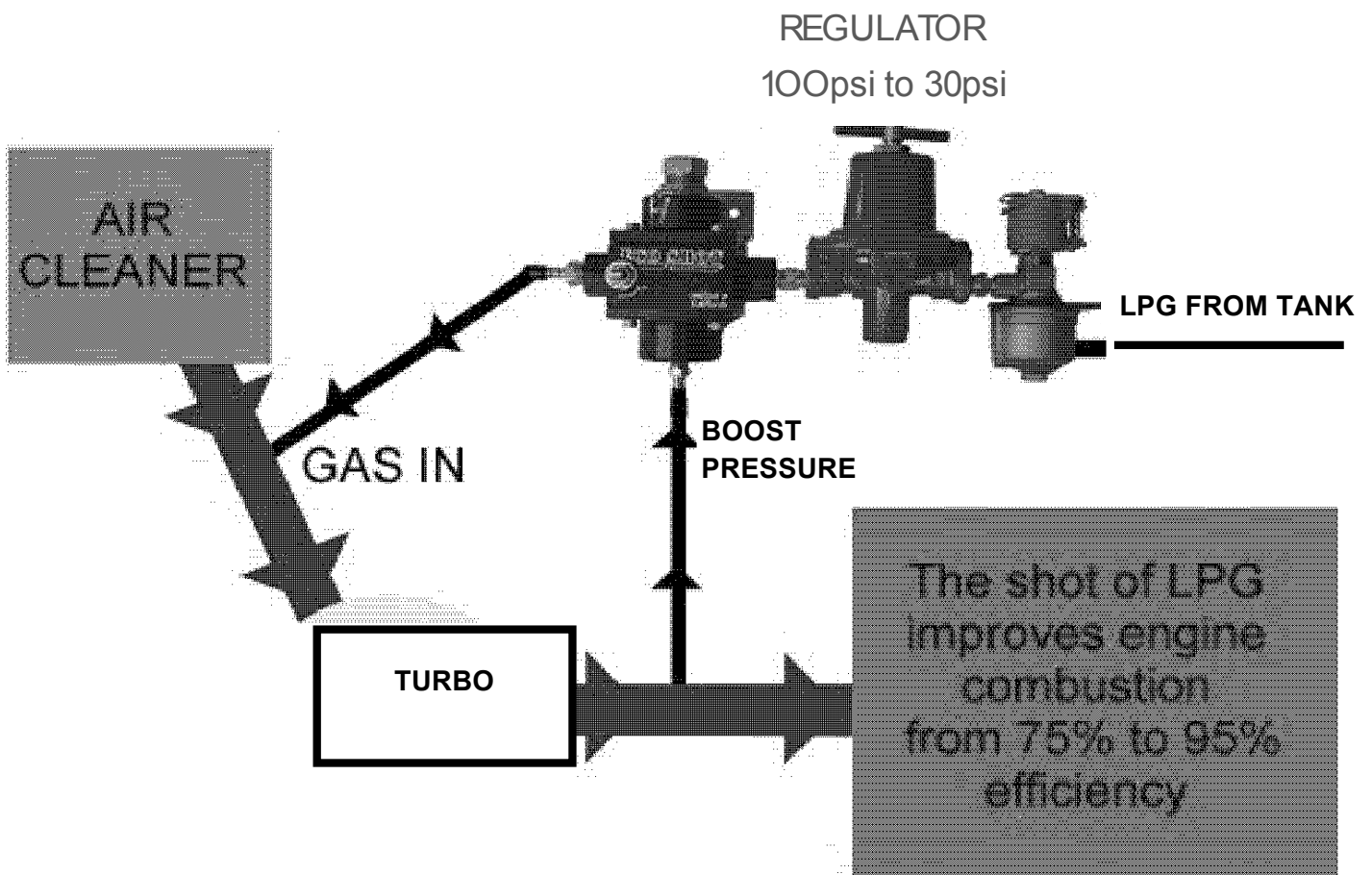
Its innovative and patented design and method of LPG delivery, is what makes this system unique to other systems on the market and has overcome many of the drawbacks encountered with earlier designed injection systems.

No boost pressure no LPG flows, it will only inject LPG when boost reaches our pre-set poundage (this will vary for each engine and usage).

No computers.

No tapping into your vehicles cooling system.

No remapping your vehicles fuel system.



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Will LPG damage my engine long term? Not from what



The eCo-shot Ute was purchased and fitted with gas in March 2007 with 190,000k's on it. It has now done another 150,000k's on gas and has not missed a beat.



The 1983 Benz has had an eCo-shot installed since 2001 and has driven over 1,000,000klms on gas. It also has not missed a beat.

The eCo-shot LPG injection system for turbo diesel owners who are looking for more power for towing, increased mileage and throttle responsiveness out of their vehicles.

The eCo-shot is an infinitely variable-stage vapour injection system. It is controlled, activated and proportionate to the boost pressure of the engine.

The eCo-shot comes on slow and steady and as the boost increases, so does the flow of gas.

more boost = more gas = more power!

The eCo-shot LPG Injection System is boost pressure activated, injecting gas in increasing amounts as the boost pressure level of the engine increases, producing power you are guaranteed to feel behind the wheel.

This innovative design is only activated when the vehicle ignition is on and the engine is running, a distinct safety advantage.

Some Fuel Facts

Our 2003 Nissan Navarra

- ✓ gets 1150 kilometres from 20 litres of LPG
- ✓ diesel only 500 kilometres from 63 litres
- ✓ **eCo-shot on now get 714 kilometres from 63 litres**
- ✓ was 7.94 kilometres per litre
- ✓ **now 11.33 kilometres per litre**
- ✓ was 12.60 litres per 100 kilometres
- ✓ **now 8.51 litres per 100 kilometres**

Landrover TD5

- ✓ from 12.5 litres per 100 kilometres.
- ✓ **now 8.11 litres per 100 kilometres.**

100 Series Landcruiser

- ✓ **an extra 2 kilometres per litre.**

Nissan Patrol

- ✓ from 15 litres per 100 kilometres.
- ✓ **now 10.5 litres per 100 kilometres.**

MAZDA BT50 (2.5 litre)

Trip of 525 kilometres with 600kg load

- ✓ **35 litres of diesel**
- ✓ **15 litres of LPG**
- ✓ **30% saving on diesel usage before eCo-shot installed**

Some DYNO results

- ✓ 2004 Holden Rodeo – 290 Nm increased to 410Nm of torque.
- ✓ 80 Series Landcruiser – 95.4 Kw increased to 116 Kw.
- ✓ One Holden Rodeo went from 349 Nm to 717 Nm.
- ✓ Nissan Navarra – 76 Kw increased to 92 Kw.

Our eCo-shot Nissan Navara



Year 2003 / Engine – ZD30 / Purchased – March 2007

Total klms when purchased = 190,000 – klms since eCo-shot installed = 155,000

Performance from a tank of diesel

Before eCo-shot: 63 litres = 500 kilometres = 7.9 klms / litre or 12.6 litres per 100 klms

eCo-shot installed: 63 litres = 700 klms = 11.11 klms per litre or 9 litres per 100 klms

LPG usage: 63 litres diesel = 12 litres LPG = 58.3 klms per litre or 1.7 litres per 100klms

Fuel Savings per 100 kilometres

Before eco-shot: cost per 100 klms = 12.6 litres @ \$1.53 = \$19.28

eCo-shot installed: cost per 100 klms = 9.0 litres @ \$1.53 = \$13.77

LPG: cost per 100 klms = 1.74 litres @ \$0.71 = \$1.24

Total running cost per 100 klms dual fuel = \$15.01

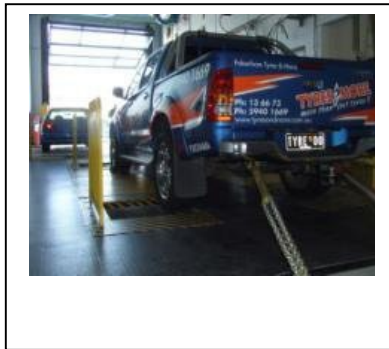
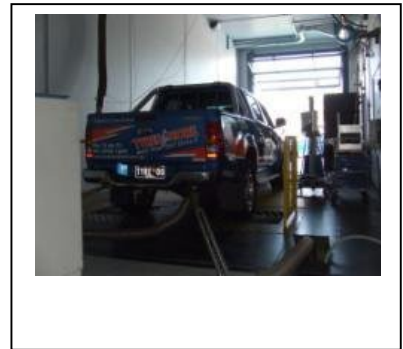
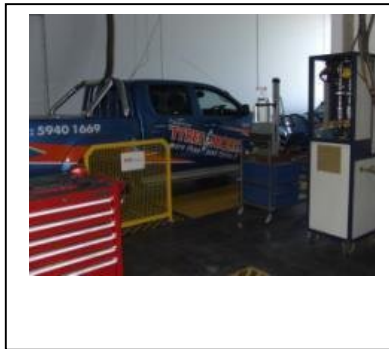
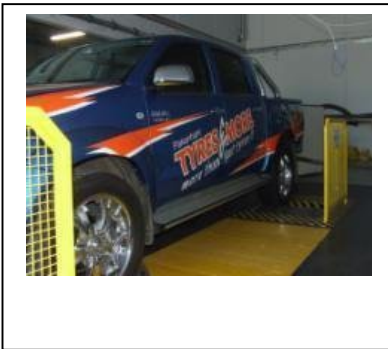
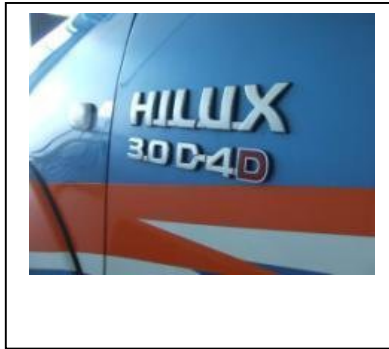
Fuel Savings over life of vehicle

345,000 klms diesel @ \$19.28 per 100 klms = \$66,516

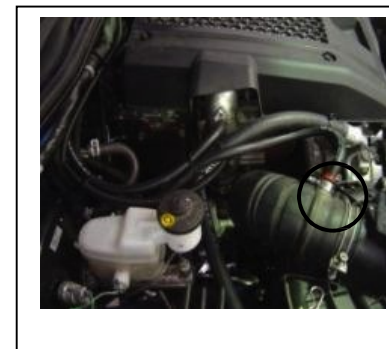
345,000 klms dual fuel @ \$15.01 per 100 klms = \$51,785

Total saving = \$14,731 Saving per 100klms = \$4.27 Weekly Saving = \$52.17

TOYOTA HILUX AT VIPAC TEST CELL



New style heat exchanger



POWER AT: WHEEL/S

ATMOSPHERIC CORRECTION APPLIED: YES

